

Sterling Selling and Fulfillment Foundation



Configuration Guide

Release 9.2

Sterling Selling and Fulfillment Foundation



Configuration Guide

Release 9.2

Note

Before using this information and the product it supports, read the information in "Notices" on page 611.

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Chapter 1. Introducing Sterling Application Platform

This book concentrates on the rules and setup configurations that make up the Applications Manager. This book is intended for both Hub and Enterprise administrators using the Applications Manager to set up the IBM® Sterling Selling and Fulfillment Foundation environment. Business analysts should also use this book to plan appropriate business practices as they pertain to Sterling Selling and Fulfillment Foundation. Programmers should refer to the *Sterling Selling and Fulfillment Foundation: Customization Basics* for information about extending Sterling Selling and Fulfillment Foundation. System Integrators should refer to the *Sterling Selling and Fulfillment Foundation: Integration Guide* for information about integrating external applications with Sterling Selling and Fulfillment Foundation.

This book assumes that you have read and are familiar with the concepts and business functionality detailed in the *Sterling Selling and Fulfillment Foundation: Product Concepts Guide*.

The Applications Manager is a collection of all the rules and setup configurations necessary to implement Sterling Selling and Fulfillment Foundation, organized in such a way that configuration can be done for each business application separately. The following business applications can be configured within the Applications Manager:

- IBM Sterling Distributed Order Management
- IBM Sterling Global Inventory Visibility
- Catalog Management
- IBM Sterling Logistics Management
- IBM Sterling Supply Collaboration
- IBM Sterling Reverse Logistics
- IBM Sterling Application Platform

Business Models

There is no single business model that encompasses the environment in which all the Sterling Selling and Fulfillment Foundation applications can be used. Therefore, there is no single way to configure your Sterling Selling and Fulfillment Foundation environment.

For example, your company might be considered a multidivisional corporation, a third-party logistics company, or a marketplace business. Each of these business models require a different conceptual approach to the Sterling Selling and Fulfillment Foundation configuration.

Multidivisional Corporation

The multidivisional corporation model is a business corporation whose primary focus is managing purchase and sales activities. A typical multidivisional corporation can be a buyer, a seller, or both. It could also be a retailer, a manufacturer, or both. Whatever form the multidivisional corporation takes, it normally has multiple channels with different types of customers, such as, consumers, retailers, dealers, and original equipment manufacturers.

In the multidivisional corporation model, each division might be set up as an Enterprise in Sterling Selling and Fulfillment Foundation. This setup allows both segregation of transactions by division and global visibility at the corporate level. Each Enterprise configures their own business rules, workflow, and transaction processing.

Third-Party Logistics

Traditional third-party logistics companies provide a range of outsourced services such as warehousing, transportation, and contract manufacturing.

Large companies can gain the competitive advantage through the real-time management of their supply chains. These advantages include lower costs and improved customer service. Additionally, new sales channels such as web stores, hand-held devices, and in-store kiosks provide companies new methods of reaching their customers. All of these issues have increased the complexity of the fulfillment process.

In the third-party logistics model, each client might be set up as an Enterprise. This setup allows the third-party logistics Hub to have visibility of all transactions in the Hub environment, while the clients that are set up as Enterprises only have visibility to their own transactions. This allows the third-party logistics business to provide unique transaction processing to its clients.

Marketplace

A marketplace is an online intermediary that connects Buyers and Sellers. Marketplaces eliminate inefficiencies by aggregating offerings from many Sellers or by matching Buyers and Sellers in an exchange or auction. For Buyers, they lower purchasing costs and help them reach new Sellers. For Sellers, they lower sales costs and give them access to new customers. It is a central location, or Hub, where a trusted intermediary integrates both procedures and technology to lower the costs and enhance the effectiveness of Buyer and Seller transactions.

In the marketplace model, each market might be set up as an Enterprise. This setup allows each market to be unique with their own product or service handling.

Application Platform Configuration

Sterling Selling and Fulfillment Foundation is a collection of common components used across the application. These components are the infrastructure upon which all other business application modules in Sterling Selling and Fulfillment Foundation are built.

In the Applications Manager you can use the Application Platform configuration grouping to establish various aspects of Sterling Selling and Fulfillment Foundation for your business applications.

Participant Modeling

The Applications Manager's Participant Modeling is used to create and maintain organizations and their relationships. Once an organization has been created, it is possible to define each organization's role, the services they provide and utilize, and the business elements required to support the collaborative processes between all of the participating organizations in the Hub. For more information about Participant Modeling, see Chapter 3, "Configuring Participants," on page 25.

Process Modeling

The Process Modeling defines process type details pipelines for business document types. A process type consists of one or more pipelines with the different statuses that a specific document type, such as a Sales Order, goes through during the life cycle of that process type. For more information about the Process Modeling, see Chapter 4, “Configuring Process Models,” on page 95.

Security

Security must be set up to allow users access to the actions, views, and data within the user interface of the Application Console and the Applications Manager. A user’s access is limited to only those to which they have permission and data security rights.

Security is used to create users, user groups, and teams. For more information, see Chapter 5, “Configuring User Security,” on page 149.

System Administration

System Administration is used to configure system level information used throughout the Sterling Selling and Fulfillment Foundation infrastructure. Through system administration system purge criteria, user exit implementations, and installation-time rules can be defined. For more information, see Chapter 6, “Configuring System Administration Components,” on page 169.

Unit of Measure

Unit of Measure is used to define standard units of measure to associate with your items and locales. Sterling Selling and Fulfillment Foundation provides unit of measure classifications for dimension, volume, weight, and time. In addition to defining new units of measure, Sterling Selling and Fulfillment Foundation provides the ability to create conversion rates between different units of measure. For more information, see Chapter 7, “Configuring Units of Measure,” on page 185.

Internationalization

Internationalization provides a set of rules and common codes that can be used when implementing Sterling Selling and Fulfillment Foundation in different international locales. Internationalization can be used to define country or region codes, language codes, date and time formats, and currency conversion rates. For more information, see Chapter 8, “Configuring Internationalization Rules,” on page 199.

Presentation

Presentation is used to configure locales, menus, themes, and resources necessary for user interface extensibility. For more information, see Chapter 9, “Configuring Presentation Components,” on page 211.

Communication

Communication is used to configure business communication components that define the codes and documents used to communicate between Sterling Selling and Fulfillment Foundation and external systems as well as different business organizations within a business model. For more information, see Chapter 10, “Configuring Business Communication Components,” on page 235.

Nomenclature

Nomenclature provides components used to create a mapping of unique terms you use in your business model to a set of unique terms your trading partners use. For more information, see Chapter 11, “Configuring Nomenclature Components,” on page 239.

Queue Management

Queue Management is used to create queues for different users and types of alerts. These queues can be designed to notify specified users of alerts at configured levels and times. Queue Management is also used to define how the configured users are notified. For more information, see Chapter 12, “Configuring Alert Queues,” on page 245.

Region Definition

Region Definition provides the components that are used by the Sterling Selling and Fulfillment Foundation geography engine. The individual components, consisting of regions and region levels, can be used to create region schemas that can then be used throughout the Sterling Selling and Fulfillment Foundation business application models whenever geography is considered. For more information about Region Definition, see Chapter 13, “Configuring Region Definitions,” on page 249.

Alert Management

Alert management allows a user to create new exception types, organization exception types, queues, and exception routing rules. Exception types are maintained at the Hub level and contain information such as which queue the exception is assigned to, the default priority of the exception, and the high priority threshold. The lower the priority number, the higher the alert's priority is. The high priority threshold value is used to determine what alerts are of a high priority. Any alert with a priority number lower than that of the high priority threshold is considered high priority. There are also several PCA specific fields that can be configured here, such as Consolidation Hook, Resolution Hook, and Resolution Wizard.

When overriding an exception type for a particular organization in order to enable it to route to a different queue or be raised with a different priority, you can create a new organization exception type. On the organization exception type, you can configure complex routing rules to determine what queue the exception is placed in upon creation. The organization exception type can also be configured to send an email notification if an exception of its type is raised. These organization exception types are maintained at the organization level. You can only override an exception once for a particular organization.

For more information about alerts, see Chapter 17, “Configuring Alerts,” on page 269.

Icons Used in This Guide

The following table describes the icons used in this guide.

Table 1. Icons Used in This Guide










| Icon | Name | Description |
|---|----------------------------------|--|
|  | Create New | Click this icon to create new information or details for organizations, participants, carrier services, and so forth. As shown, you may see this icon with different backgrounds, depending on the context within which you are working. |
|  | Details | Click this icon to view or change details for organizations, participants, carrier services, and so forth. As shown, you may see this icon with different backgrounds, depending on the context within which you are working. |
|  | Delete | Click this icon to delete details for organizations, participants, carrier services, and so forth. As shown, you may see this icon with different backgrounds, depending on the context within which you are working. |
|  | Save | Click this icon to save entries you have made. The Save icon may be displayed in blue or gold. |
|  | Save As | Click this icon to save entries as a draft. |
|  | Save Draft | Click this icon to save a draft of the entries you have specified. |
|  | Search | Click this icon to search for information about organizations, participants, carrier services, and so forth. |
|  | Find Organization to Participate | Click this icon to display the pop-up window for Find Participants to Add Organization. |
|  | Details | Click this icon to display the Organization Details window for the selected participant. |

Table 1. Icons Used in This Guide (continued)

























| Icon | Name | Description |
|---|------------------------------------|---|
|  | Remove Participant | Click this icon to remove the selected participant from the organization. |
|  | Configure Calendar Defaults | Click this icon to configure calendar defaults. |
|  | Configure Effective Periods | Click this icon to create effective periods to associate with a calendar. |
|  | Apply Defaults | Click this icon to apply to defaults to calendar overrides. |
|  | Organization Hierarchy | Click this icon to display the organization hierarchy to which you can add organizations. |
|  | Remove Organization | Click this icon to remove organizations for the organization hierarchy. |
|  | Configure Monitoring Rules | Click this icon to configure monitoring rules. |
|  | Add Service to Transaction | Click this icon to add a specified service to a triggered transaction. |
|  | Configure Event Handler | Click this icon to configure the Event Handler for a specified event. |
|  | Right Arrow | Click this icon to move a user group from one list to another; for example, from Available to Subscribed. |
|  | Left Arrow | Click this icon to move a user group from one list to another; for example, from Subscribed to Available. |
|  | Grant Permission | Click this icon to grant permission to a user group to access the specified API or Service. |
|  | Revoke Permission | Click this icon to revoke permission to a user group to access the specified API or Service. |
|  | List Users | Click this icon to list users who have been granted permissions. |
|  | Import Default Filter | Click this icon to import the default filter XML. |
|  | Load XML from File | Click this icon to Load a filter input XML from a file. |

Table 1. Icons Used in This Guide (continued)

| Icon | Name | Description |
|--|-----------------------------|---|
|  | Load XML from String | Click this icon to Load a filter input XML from a string. |
|  | New Child Element | Click this icon to add a new child element to the XML tree. |
|  | New Attribute | Click this icon to add a new attribute for an element in the XML tree |
|  | Set Attribute | Click this icon to set or modify an element's attribute. |
|  | Select | Click this icon to select an attribute. |
|  | Unselect | Click this icon to unselect an attribute. |
|  | View Values | Click this icon to view a list of values of custom common code. |
|  | Zoom In | Click this icon to zoom in on your screen. |

Chapter 2. Navigating the Applications Manager

Starting the Applications Manager

About this task

To access the Applications Manager:

Procedure

1. Point your browser to `http://<hostname>:<portname>/smcfs/console/start.jsp` where,
 - `hostname` is the computer name or IP address of the computer where Sterling Selling and Fulfillment Foundation is installed.
 - `portnumber` is the listening port of the computer where Sterling Selling and Fulfillment Foundation is installed.

The browser displays the Sign In window.

2. Enter your login ID and password and choose the Sign In button. The Console Home Page is displayed.
3. From the menu bar, choose Configuration > Launch Applications Manager. The Applications Manager opens in a new window. Additionally, enterprise users who maintain an enterprise can access the Applications Manager by means of `http://<Sterling Selling and Fulfillment Foundation installation server>/smcfs/console/login.jsp`. If both the Applications Manager and the monitor in the System Management Console are opened at the same time, and if a dialogue window is opened in either application, the other stops responding to user input until that dialogue window is closed. This is due to a bug in the Java platform.

The Applications Manager Layout

The Applications Manager is a graphical user interface that can be used to configure different aspects of Sterling Selling and Fulfillment Foundation. The different configurations are defined by logical groupings called applications that can be accessed from the Applications Manager menu bar.

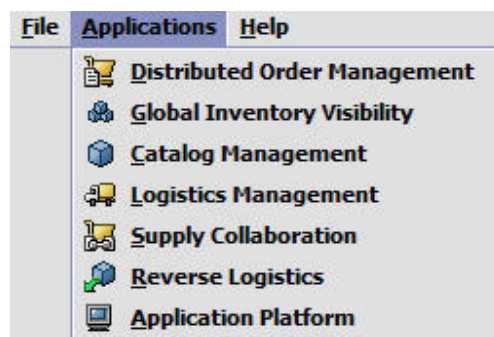


Figure 1. Applications Menu

Each application focuses on a particular aspect of Sterling Selling and Fulfillment Foundation and contains all of the rules, common codes, and settings necessary for Sterling Selling and Fulfillment Foundation to work in a real-world business setting.

The following applications can be configured in this version of Sterling Selling and Fulfillment Foundation:

- Distributed Order Management
- Global Inventory Visibility
- Catalog Management
- Logistics Management
- Supply Collaboration
- Reverse Logistics
- Application Platform

When you select the application that you want to configure, the Applications Manager displays a side panel containing all of the available configuration rules for the selected application and a work area in which these rules can be configured.

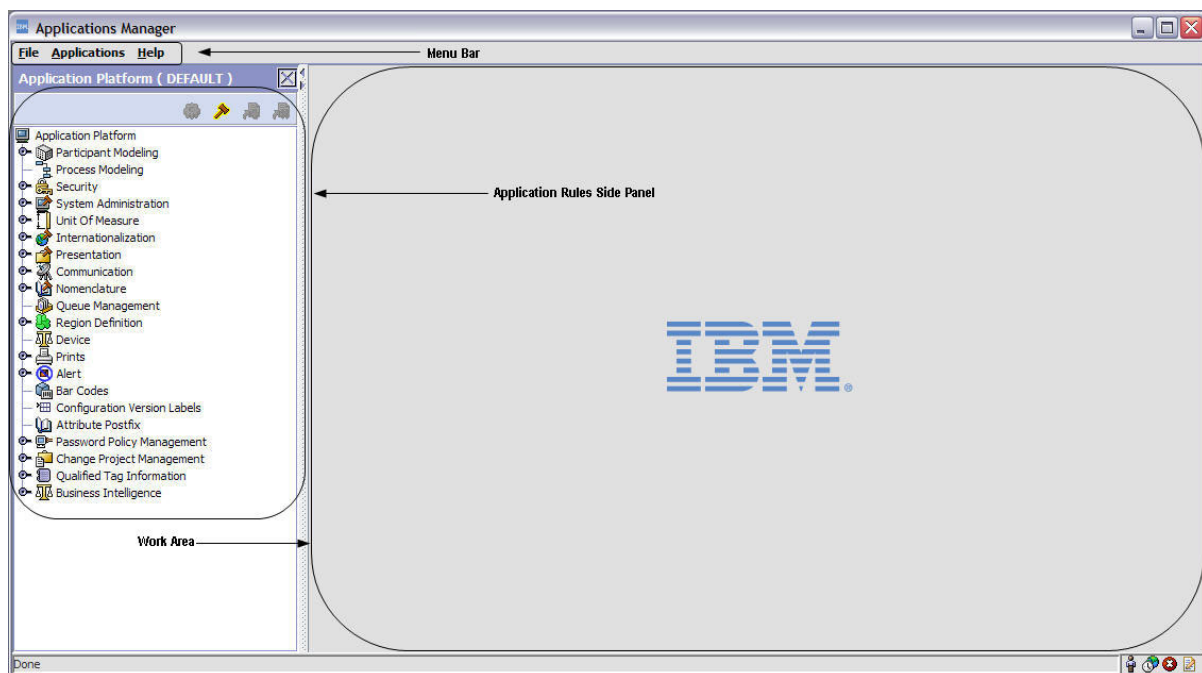


Figure 2. The Standard Applications Manager Interface

Application Rules Side Panel

The application rules side panel displays a hierarchical tree of elements specific to processes used within the application.

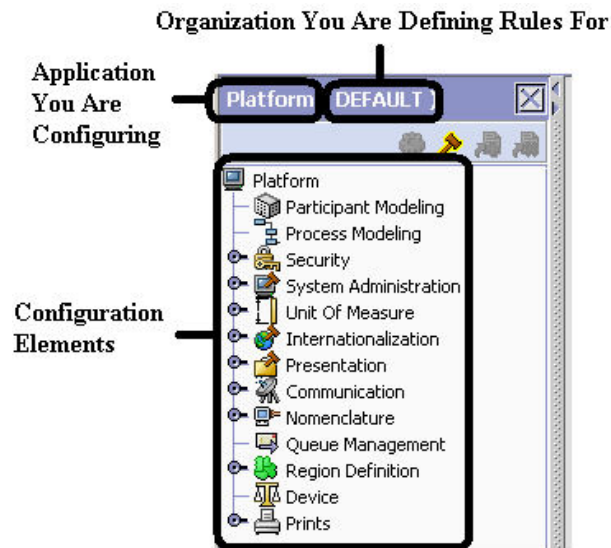


Figure 3. Example of Application Rules Side Panel

The application rules side panel also identifies the organization you are configuring rules for and what, if any, rules are inherited from another organization.

You can use the application rules side panel for accessing configuration screens, determining inheritance, and loading another organization's rules.

Accessing Configuration Screens

The main purpose of the application rules side panel is to provide an interface to access the application's individual configuration screens. To access a configuration screen, browse through the application tree and double-click on the applicable configuration element, the element's configuration screen displays in the work area.

Determining Inheritance

In Sterling Selling and Fulfillment Foundation, when an Enterprise is created it can inherit all or part of an existing Enterprise's configuration rules. This inheritance is done at the configuration group level. A configuration group is a classification of similar configuration elements. For example, all of the rules and configurations dealing with items are grouped together into one configuration group and all of the rules and configurations dealing with organizations are grouped into another.

An administrator organization is set for every organization defined within the system. Only the administrator organization can modify the rules defined for a particular organization. If a particular organization administers multiple organizations, then they can load the rules of organization that it administers within the application tree. For more information about loading another organization's rules, see "Loading Another Organization's Rules" on page 16.

Configuration groups are associated with organization levels. Organization levels determine how configuration groups are inherited and which organizations can maintain them. The organization levels defined in Sterling Selling and Fulfillment Foundation are:

- Hub Level - Configuration groups that are associated with the Hub organization

- Enterprise Level - Configuration groups that are associated with the individual Enterprise organizations within the Hub environment
- Catalog Organization - Configuration groups that are associated with the organization(s) that maintains the catalog(s) within the Hub environment
- Inventory Organization - Configuration groups that are associated with the organization(s) that maintains the inventory within the Hub environment
- Pricing Organization - Configuration groups that are associated with the organization(s) that maintains the pricing within the Hub environment
- Organization - Configuration groups that are associated with any organization within the Hub environment

The Applications Manager does not load configuration data and permissions based on Data Access Policies that are described in the *Sterling Selling and Fulfillment Foundation: Configuration Guide*.

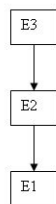
Enhanced Inheritance for Process Models

An Enterprise can inherit the configurations of the following entities from other Enterprises:

- Pipelines
- User Exits
- Services
- Actions
- Conditions
- Statuses
- Transactions
- Events

When an Enterprise inherits these entities from some other Enterprise, the current Enterprise can view the configurations that are inherited from all other Enterprises (including the Hub) in the inheritance hierarchy. In addition, the current Enterprise can view the configurations that are defined for the Hub.

For example, consider the following inheritance hierarchy:



In this hierarchy, Enterprise E1 is inheriting from Enterprise E2, which in turn is inheriting from Enterprise E3. Enterprise E1 can view the configurations that are defined for Enterprise E2 and Enterprise E3. In addition, Enterprise E1 can view the configurations that are defined for the Hub.

Organization Level Rules

The following table details the rules used to determine which organizations can maintain a configuration group as defined by the organization level. The table also describes the rules that determine how configuration groups are inherited when an organization is created.

Table 2. Organization Level Rules

| Organization Level | Organizations That Can Modify at this Level... | Inheritance Details |
|------------------------|---|--|
| Hub Level | Only the Hub organization can modify configuration groups at the Hub level. All other organizations have read-only access. | All organizations share this information. |
| Enterprise Level | Only Enterprise organizations can modify configuration groups at the Enterprise level. Any business transaction requiring Enterprise configuration is picked up from the Enterprise established by the transactional context. For example, order documents have a specific Enterprise. | An Enterprise can inherit this configuration from another Enterprise. Additionally, this configuration can be overridden at a configuration group level. |
| Catalog Organization | Organizations that are designated as catalog organizations can modify configuration groups at the catalog organization level. | None. |
| Inventory Organization | Organizations that are designated as inventory organizations can modify configuration groups at the inventory organization level. | None. |
| Pricing Organizations | Organizations that are designated as pricing organizations can modify configuration groups at the pricing organization level. | None. |
| Organization | Any organization assigned a role (Seller, Buyer, etc.) can modify configuration groups at the organization level. | None. |

You cannot inherit from an Enterprise that does not have the same inventory, capacity, and catalog organizations as the organization you are configuring.

Applications Rule Side Panel

The application rules side panel displays rules that have been inherited as grayed out.

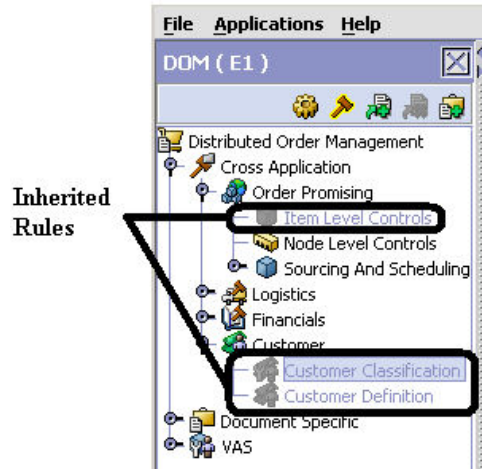


Figure 4. Inherited Rules in the Application Rules Side Panel

As stated in the table above, depending on the organization you are logged in as, you may be able to override some inherited rules. If a rule can be overridden, the Override Configuration icon becomes available in the application rule side panel when you highlight the rule.

Override Configuration Icon is Available

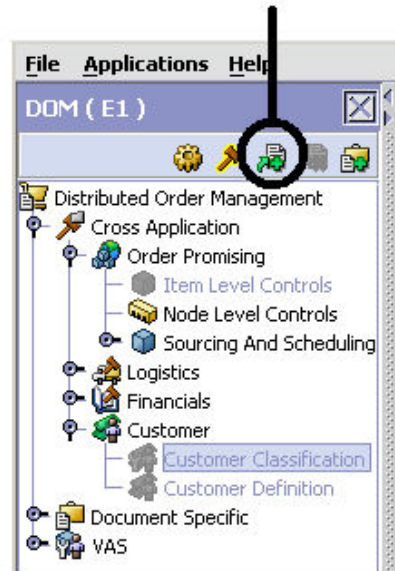


Figure 5. Override Configuration Icon

When you choose to override a rule you also override any other rules in the configuration group the rule you are overriding is associated with. When you choose the Override Configuration icon the Configuration Override Details pop-up window displays. This window provides the list of rules that are overridden.

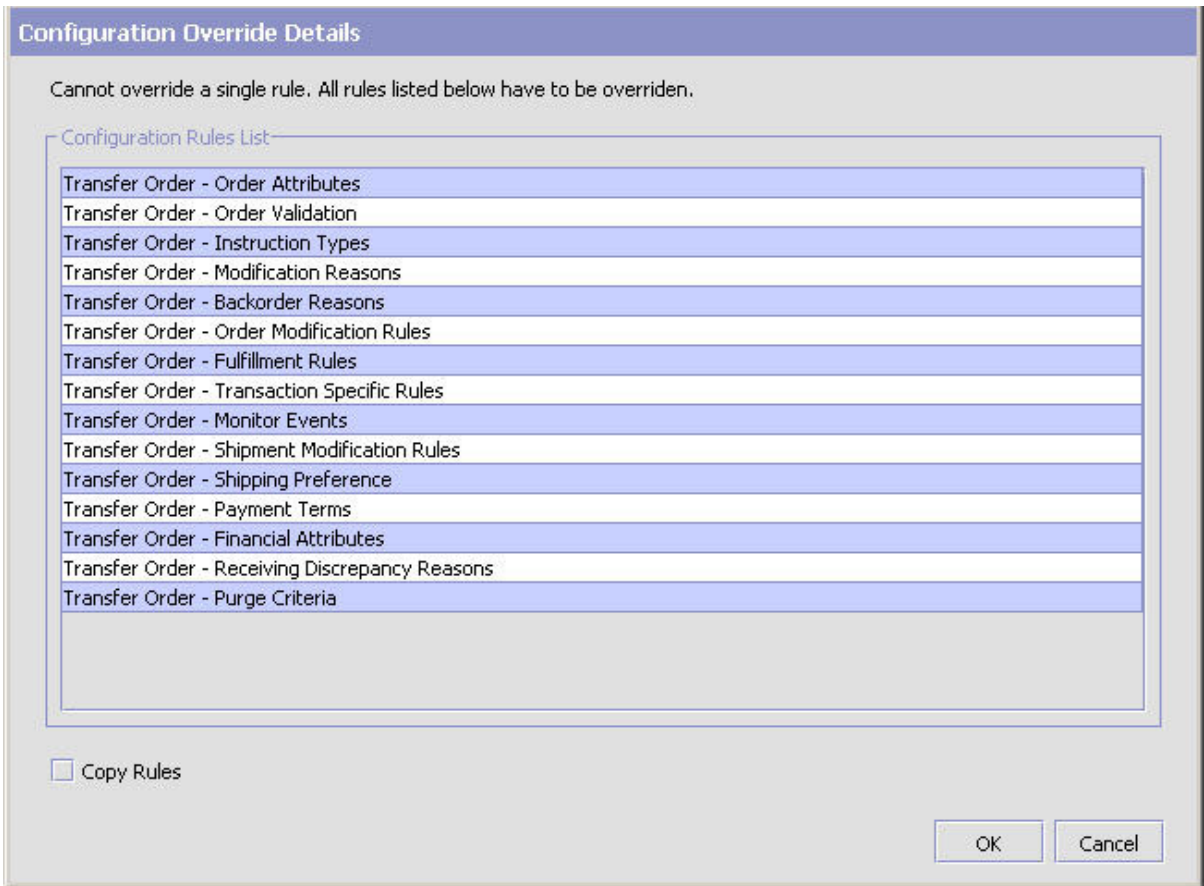


Figure 6. Example of Configuration Override Details Pop-Up Window

Overriding a Configuration Group

If you override a configuration group and then decide to "re-inherit" the original rules, you can choose the Give Back Configuration Ownership icon. This icon becomes available in the application rules side panel for rules that have been overridden.

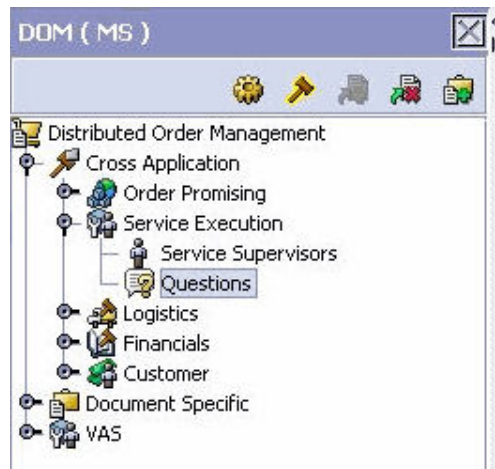


Figure 7. Give Back Configuration Ownership Icon

When you select the Give Back Configuration Ownership Icon, the Configuration Override Details pop-up window displays. This window provides the list of rules that are re-inherited.

Note: If you select the Delete Rules field on the Configuration Override Details pop-up window, you give back rule ownership to the organization you originally inherited from, but you do not retain any of the rules that you inherited from them. If you do not select this field, you give back rule ownership to the organization you originally inherited from, but you retain the rules that you inherited from them.

Loading Another Organization's Rules

About this task

An administrator organization is set for every organization defined within the system. Only the administrator organization can modify the rules defined for a particular organization. If a particular organization administers multiple organizations, then they can load the rules of organization that it administers within the application tree. See Table 2 on page 13 for the rules that determine which organizations you can administer.

The rules that are available from the tree in the application rules side panel may vary depending on the type of organization you select and the roles it has been assigned.

To load another organization's rules:

Procedure

1. From the applicable application rules side panel, choose the **Load Rules for Organization** icon. The Load Organizations for Configuration pop-up window displays.
2. From Organization, select the organization that you want to work with.
3. Choose OK. The organization's rules display in the application rules side panel.

Results

The application rules side panel displays the organization you are working with in parentheses.

Work Area

The work area is the main area in which different configuration screens appear. The main types of screens that you can see in the work area are the Search, List, Details, and Drag and Drop windows.

Search Window

A search window provides you with a means to perform a filtered search. The upper panel of a search window offers criteria applicable to the entity you are searching through which you can narrow your search. The lower panel lists the results of a search once it has been performed.

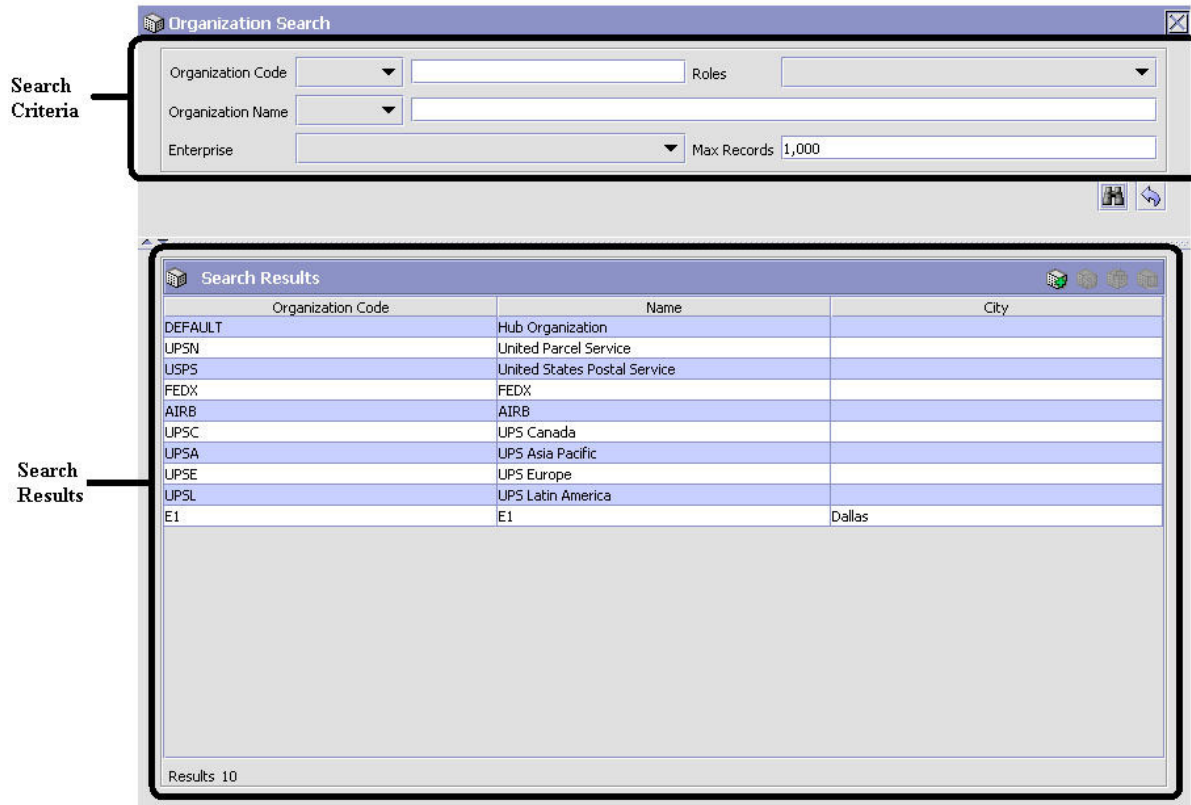


Figure 8. Search Window Example

List Window

When you choose to configure a specific rule or code that does not require a search, the Applications Manager may display a basic list window of the rules and codes that have previously been configured.

| Dimension UOMs (DEFAULT) | |
|----------------------------|-----------------|
| UOM Code | UOM Description |
| CM | Centimeter |
| FEET | Feet |
| IN | Inch |
| KM | Kilometer |
| METER | Meter |
| MILE | Mile |

Results 6 Of 6

Figure 9. List Window Example

Details Window

A details window is the main interface through which a bulk of the configuration is done. A details window can contain editable fields and tables, tabs to configure different aspects of an entity, and additional actions that can be performed on an entity.

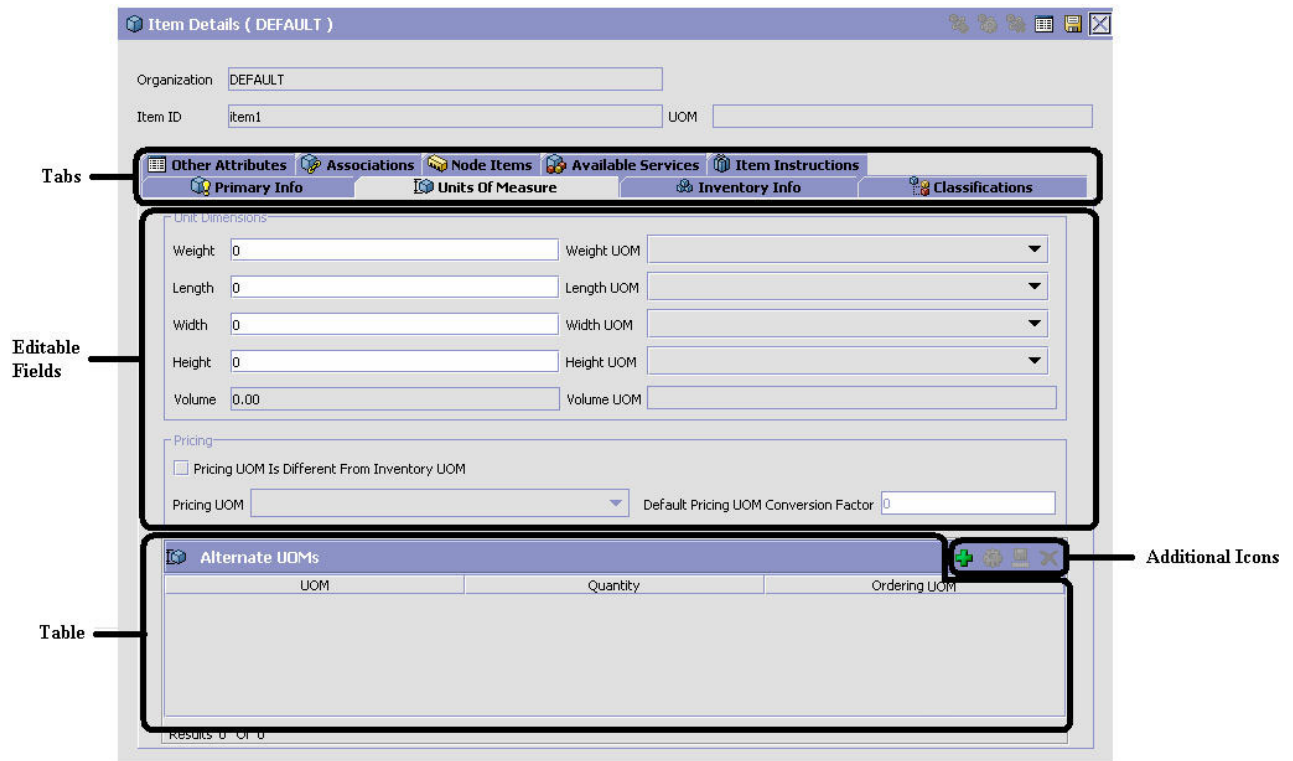


Figure 10. Details Window Example

Drag and Drop Window

You can use a graphical drag and drop window to ease the construction of pipelines, pipeline determination, event handlers, status monitoring rules, and services. A drag and drop window consists of a pallet and a graphical work area.

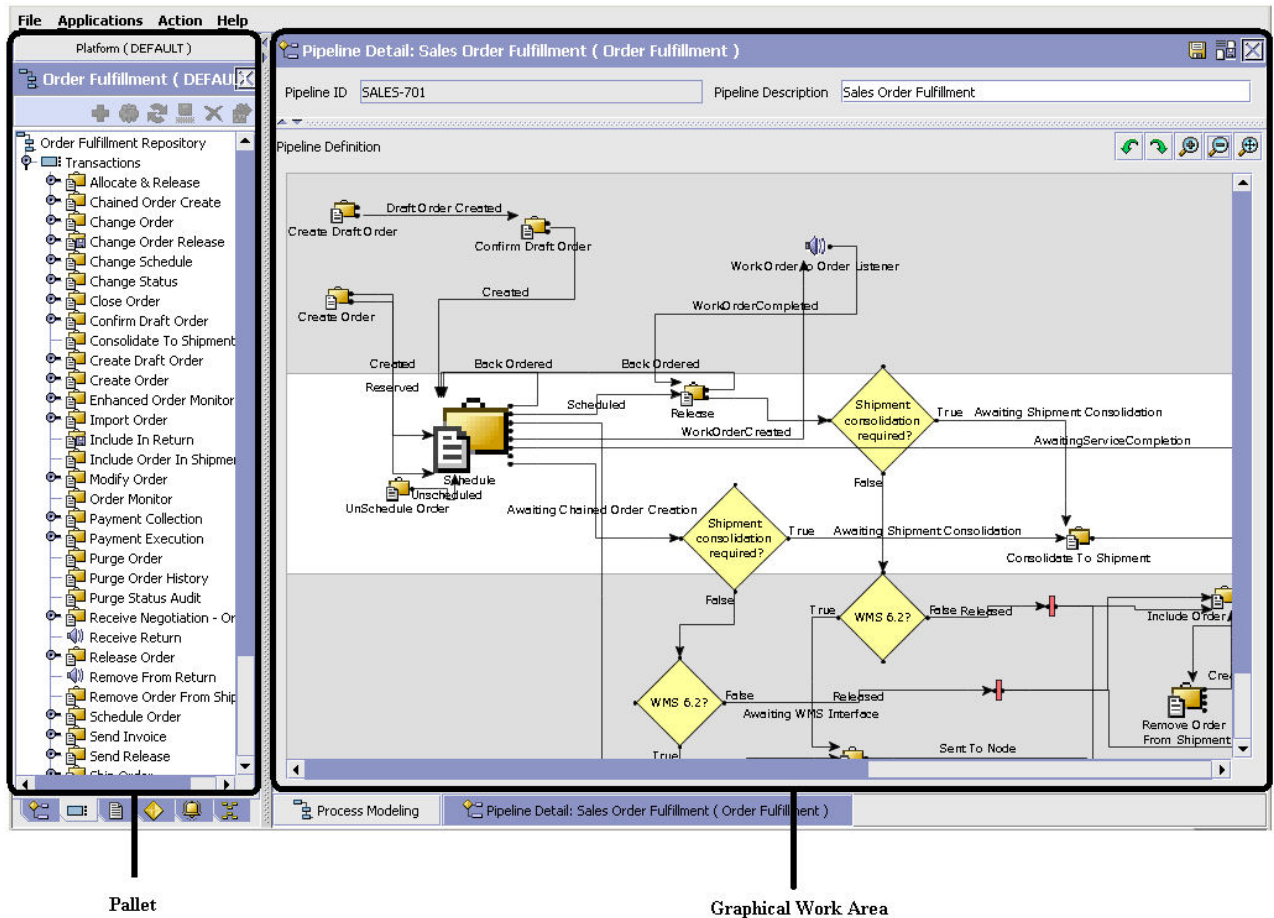


Figure 11. Drag and Drop Window Example

To begin building any of these entities, choose a component, such as a transaction, from the pallet. Drag the component into the graphical work area. The transaction is now displays as a graphical representation of itself.

To connect one component to another, you must drag the mouse from the outgoing port of a component until it forms a connecting line with the incoming port of another component. The links between components can be set up either horizontally or vertically.

To delete components or links, right-click on the component and choose Delete. Once components and links have been established you can move them around by dragging them, the links redraw themselves according to the new position. If you press and hold the CTRL key while dragging a component, the component is copied within the graphical work area.

Actions Available in the Applications Manager

Through the Applications Manager, you can use the lookup functionality, view logged in users, use lists and list filtering, troubleshoot errors, and use special characters.

Using the Applications Manager's Lookup Functionality

Throughout the Applications Manager there are many fields that have a lookup functionality to find or create additional records as they pertain to that field. For example, on the Primary Info tab of the Organization Details screen, the Locale field has a lookup functionality to create a new locale from that screen. When you choose the Create New lookup button the Locale Details information displays in a pop-up screen for you to modify.



Figure 12. Lookup Icon Example

The information that displays in a lookup field varies depending on how many records you have pertaining to that particular field. When there are 20 or less records, the lookup displays as a drop-down list with a Create New button. When there are between 21 and 75 records, the lookup displays as a drop-down list with a Search button.

When there are more than 75 records, the lookup displays as a text box with a Search button. You can type the value in the text box or search for the value using the Search button. If you enter a value, it is validated when it is saved. You should always type the value as it would appear if it was displayed as a drop-down list. For example, for a currency lookup, you should type the currency description in the text box even though the currency code is saved in the table. An error displays on save if the user has entered an invalid value.

When you use a lookup for a particular field in the Applications Manager, you should refer to the corresponding section in this guide to set up the particular information.

Viewing the Document Types Associated with an Application

In the Distributed Order Management, Supply Collaboration, Reverse Logistics, and Logistic Management configuration applications, you can view all of the document types associated with the application. Sales Order, Transfer Order, Master Order, Quote, and Purchase Order are all examples of document types.

To view an application's associated document types, open the applicable application from the menu and choose the **Create New** icon from the application rules side panel. The Associated Document Types window displays displaying a list of all of the document types associated with the application you are working in.

| Document Type | Description |
|---------------|----------------|
| 0004 | Template Order |
| 0006 | Transfer Order |
| 0001 | Sales Order |
| 0007 | Master Order |
| 0015 | Quote |

Results 5 of 5

Figure 13. Associated Document Types Window

Adding a Document Type to an Application

About this task

You can add a document type that is associated with another application to the application you are currently working in.

An added document type's associated screens may be irrelevant to the application you are associating it with.

To add a document type to an application:

Procedure

1. From the Associated Document Types window, choose the **Create New** icon. The Associated Document Type pop-up window displays.
2. From Document Type, select the document type that you want to associate with the application.
3. Select **Enable Access To This Document Through This Application's Console**.
4. Choose the **Save** icon.

Viewing the User Logged into the Applications Manager

About this task

You can view the user logged into the Applications Manager and their locale at any time. To view this information, move your mouse over the User icon and Locale icons in the bottom right-hand corner of the application to display the tool tips.

Using Lists and List Filtering

About this task

When viewing any list in the Applications Manager, it is possible to filter the contents of the list based in criteria that you define. Filtering is accomplished by right-clicking anywhere on the list's column headings and using the Table Filter Editor associated with the list.

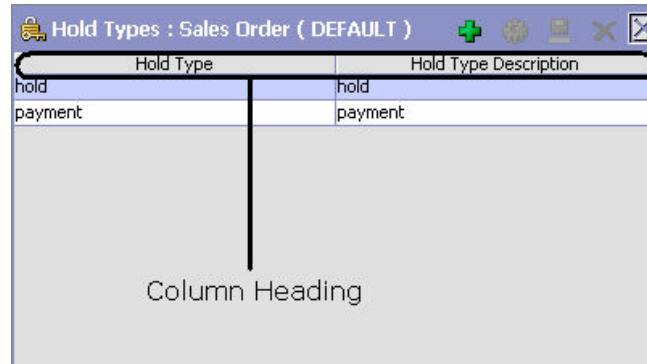


Figure 14. Column Headings in a List

Table 3. Table Filter Editor Window

| Field | Description |
|----------------------------------|---|
| Apply To Existing Records | Checking this box applies a new filter set of results that have been previously filtered instead of the whole set. |
| Max Records | Specify the maximum number of records that are to be returned from a filter. The default number is 100 |
| Dynamic Fields | Fields such as "Hold Type" and "Hold Type Description" are dynamically populated based on the list you are currently viewing. These fields can be searched using text strings combined with criteria such as Is , Starts With , or Contains . |

Search strings are case sensitive. For example, "Item" does not return the same values as "item".

Date and Time Entry

Date fields through the Applications Manager have a calendar icon that can be used to find dates as it pertains to that field. When you click on this icon, a small calendar displays. You can navigate through this calendar to determine the appropriate date. For example, on the Create Calendar window, the Default Effective To field has a calendar icon that you can use to verify the appropriate ship by date to populate the field.



Figure 15. Calendar Icon example

You can also enter time of day information throughout the Applications Manager. To do this, double click on the time field, and enter the time of day.

| Shift Name | Start Time | End Time |
|------------|----------------------|----------|
| | <input type="text"/> | |

Figure 16. Time Field example

Time should be entered in a 24 hour time format everywhere throughout the Applications Manager .

Troubleshooting Errors

About this task

You can view the description and cause of any error raised in Sterling Selling and Fulfillment Foundation, as well as the actions to troubleshoot it.

To view the Sterling Selling and Fulfillment Foundation system error descriptions:

Procedure

1. From the menu bar, choose Help > Troubleshooting. The Error Search window displays.
2. Enter the applicable search criteria and choose the **Search** icon. A list of error codes and their descriptions display.
3. Choose the **Details** icon to view the cause of the error and action to troubleshoot it.

Using Special Characters

Throughout the Applications Manager there may be instances where you need to use special characters in data entry. For information about the use of special characters in Sterling Selling and Fulfillment Foundation, see the *Sterling Selling and Fulfillment Foundation: Customization Basics*.

Chapter 3. Configuring Participants

Trading partners using Sterling Selling and Fulfillment Foundation to perform supply chain collaborative commerce are called *Participants*. Each Participant is considered an organization with a defined role.

Creating and Modifying an Organization

About this task

To create an organization:

Procedure

1. From the tree in the application rules side panel, choose Participant Modeling > Participant Setup. The Organization Search window displays in the work area.
2. Choose the **Create New** icon. The Create Organization pop-up window displays.
3. Enter information in the applicable fields. Refer to Table 4 for field value descriptions.
4. Choose the **Save** icon. The Organization Details window displays.

Table 4. Create Organization Popup

| Field | Description |
|-------------------------------|--|
| Organization Code | Enter a unique code that identifies the organization. |
| Organization Name | Enter the name of the organization. |
| DUNS Number | Enter a unique nine-digit identification sequence, which provides unique identifiers of single business entities. Sterling Selling and Fulfillment Foundation does not associate any logic with the DUNS number. |
| Account Number With Hub | If the organization is not the Hub, enter the account number that the organization has with the Hub. |
| Locale | Choose the organization's geographic location from the drop-down list. |
| Parent Organization | Choose the parent organization from the drop-down list. |
| Organization Is An Enterprise | Check this box to configure the organization as an Enterprise. Note: The Primary Enterprise drop-down list is disabled when you select this checkbox. |
| Assigned Colony Id | From the drop-down list, select the Colony ID or DEFAULT Colony ID. The DEFAULT Colony ID is installed automatically with Sterling Selling and Fulfillment Foundation. If you do not make a selection, DEFAULT is assumed. Note: This selection is available only if the Organization Is An Enterprise check box is enabled and if this organization is part of a multi-schema deployment. |

Table 4. Create Organization Popup (continued)

| Field | Description |
|------------------------------------|--|
| Primary Enterprise | <p>Select the appropriate primary enterprise from the drop-down list when the 'Organization Is An Enterprise' checkbox is not selected.</p> <p>This Primary Enterprise is the default enterprise displayed on the entry point for order console screens (for example, on search screens and create screens).</p> <p>On the Organization Details screen, when creating or modifying a node organization, the actions that appear on the Primary Info tab of the node attributes tab are the actions created for that enterprise. Whenever any enterprise level configuration is retrieved for a specific organization, the rules are always retrieved for the Primary Enterprise of that organization.</p> <p>Note: The 'Primary Enterprise must be specified.' error is thrown while saving, if neither 'Organization Is An Enterprise' checkbox nor an appropriate primary enterprise is selected from the drop-down list.</p> |
| Organization is a Fulfillment Node | <p>Check this box to indicate that the organization is a fulfillment node.</p> <p>In Node, select the node type from the drop-down list. Choose the Create New icon to create a node type. For more information about creating node types, see "Creating Node Types" on page 93.</p> |
| Organization is a Yard | <p>Check this box to indicate that the organization is a yard.</p> |
| Address | <p>Enter the address of the organization's corporate headquarters. This information is mandatory.</p> <p>Choose the Details icon to enter the address.</p> <p>Choose the Contact tab to view additional contact information.</p> <p>You can also specify Latitude and Longitude coordinates for this address.</p> <p>Latitude and Longitude need to be entered using decimal format with a range of -90 to +90 for latitude and -180 to +180 for longitude.</p> |

Note: A user cannot create a node unless the node that is being created will be automatically accessible to the user after creation.

The newly created node will be automatically accessible to the user in the following scenarios:

- The user who creates the node is an Enterprise user, and
 - no team is associated to the user
 - the user's team's ShipNode access is set to "All Nodes"
 - the user's team's ShipNode access is set to "User's Node", and the user's enterprise is the parent of the node that is being created

- the user's team's ShipNode access is set to "Nodes Accessible to Team Creator", and the user who has created the team has automatic access to the newly created node
- The user who creates the node is a Node user, the user's team's ShipNode access is set to "Nodes Accessible to Team Creator", and the user who has created the team has automatic access to the newly created node.

Any user who has access to a restricted set of nodes in the user's team configuration cannot create a ship node. Also, if the user is a Node user, and no team is associated to that user, the user cannot create a ship node.

Defining an Organization's Primary Information

About this task

An organization's primary information provides general information about the organization and the organization's corporate and contact addresses.

To set up an organization's primary information:

Procedure

1. In the Organization Details window, choose the Primary Info tab.
2. Enter information in the applicable fields. Refer to Table 5 for field value descriptions.
3. Choose the **Save** icon.

Table 5. Primary Info Tab

| Field | Description |
|---------------------|---|
| DUNS Number | Enter the unique nine-digit identification sequence, which provides unique identifiers of the business entity. |
| Primary URL | Enter the URL of the organization's Internet address, if applicable. |
| Administered By | Select the organization code of the organization that you want to administer this organization. Only the selected organization can make any changes to this organization in the Applications Manager. |
| Locale | Select the organization's geographic location. |
| Resource Identifier | Enter the Resource Identifier for the organization. |
| Parent Organization | Choose in the organization hierarchy who is the parent organization. |
| Organization Suffix | Enter the organization suffix for the organization. The organization suffix is used when creating a buyer organization for a business customer. |

Table 5. Primary Info Tab (continued)

| Field | Description |
|--------------------|--|
| Legal Entity | <p>Select this field if this organization is its own legal entity.</p> <p>A legal entity is an organization unit identified by local governments as operating units and are typically instituted for each country or region a business operates in. The organizational unit is typically self-contained and is involved in recording all relevant transactions and generating all supporting documents for financial statements.</p> <p>For example, if you are a 3PL and have configured your 3PL as a Hub organization comprised of two Enterprises, one in the United States and one in India, both the US and Indian Enterprise organizations are their own legal entities.</p> <p>Important: If you are configuring a Seller organization, be aware that the Seller organization of one legal entity cannot fulfill orders by sourcing directly from another legal entity. In this case you would need to create a procurement purchase order with the organization.</p> <p>A procurement purchase order is a type chained order that is created when the final shipping point to the customer is a node within your organization and the shipping node does not have enough stock and needs to be replenished from an external organization's node.</p> |
| Assigned Colony Id | <p>A read-only field that displays the Colony ID that was selected in the Create Organization screen. If no selection was made, DEFAULT is assumed.</p> <p>Note: This field displays only in a multi-schema deployment.</p> |
| Address | <p>The address of the organization's corporate headquarters. This information is mandatory.</p> <p>Choose the Details icon to enter an address.</p> <p>Choose the Contact tab to view additional contact information.</p> <p>You can also specify Latitude and Longitude coordinates for this address.</p> <p>Latitude and Longitude need to be entered using decimal format with a range of -90 to +90 for latitude and -180 to +180 for longitude.</p> |

Table 5. Primary Info Tab (continued)

| Field | Description |
|-----------------|--|
| Contact Address | <p>The address of the organization's main contact. This may be different than the Corporate Address. This information is mandatory.</p> <p>Choose the Details icon to enter an address.</p> <p>Choose the Contact tab to view additional contact information.</p> <p>You can also specify Latitude and Longitude coordinates for this address. If specified for a node, these coordinates are used to plot the node on the Fulfillment Network Model. For more information about the Fulfillment Network Model, see the <i>Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide</i>.</p> <p>Latitude and Longitude need to be entered using decimal format with a range of -90 to +90 for latitude and -180 to +180 for longitude.</p> |

The Organization's Roles and Participant Associations

For an organization to function as desired it must be given one or more roles. Each organization is assigned at least one role. A *role* is a well-defined set of activities that can be performed by an organization. Each organization performs at least one role. Sterling Selling and Fulfillment Foundation supports the following organization roles:

- Buyer
- Carrier
- Enterprise
- Hub
- Node
- Seller

Buyer

An organization is assigned the *Buyer* role when it purchases product from the Enterprise or other organizations set up as Sellers.

A Buyer organization can participate with multiple Enterprises, but must assign a primary Enterprise with whom it participates. When it assigns its primary Enterprise, it takes on that Enterprise's inventory and catalog consolidation rules. When it interacts with multiple Enterprises it acts within the boundaries of the individual Enterprise's business rules.

Buyers can configure relationships with Seller organizations as well as Buyer services.

Carrier

An organization is assigned the *Carrier* role when it provides delivery services between buyers, sellers, and customers. Special services, such as Next Day Air, can

be offered dependant on the Carrier. United Parcel Service, Federal Express[®], and the United States Postal Service are all examples of carrier organizations.

Carriers can configure the services they provide such as truckload, less-than truckload, and parcel services.

Enterprise

An *Enterprise* brokers business. Each organization in an organizational structure must be either an Enterprise or designate an Enterprise as its primary Enterprise.

Each Enterprise in a Hub can have many organizations that are assigned many roles.

Note: The Hub also acts as an Enterprise.

Whether or not an entity in a Hub is assigned an Enterprise role depends on the Hub's business model. For example, in the marketplace model, each market might be assigned an Enterprise role. This setup allows each market to be unique with their own product or service handling.

An Enterprise can define organizations that interact within their Enterprise. They can also set up document definitions to be available across all organizations and configure an Enterprise's carrier preferences.

An Enterprise in Sterling Selling and Fulfillment Foundation controls the flow of order and logistics documents and is considered the owner of the various business documents throughout Sterling Selling and Fulfillment Foundation.

An Enterprise defines most of the business rules and fulfillment processes for the orders. In many cases, such as a sales order, the Enterprise may be the Seller organization, and for purchase orders, the Enterprise may be the Buyer organization on the document. In other cases, if a higher level organizational unit wants to control and enforce business rules and document flow of all its subsidiaries, an Enterprise can represent this organizational unit and Seller/Buyer organization would be the subsidiary.

Hub

The *Hub* is the central organization around which all the other organizations are built is assigned the role of Hub. There is only one Hub. Typically the Hub is the entity that purchased Sterling Selling and Fulfillment Foundation. The Hub determines what kind of business model is used during configuration, for example, multi-divisional corporation, third-party logistics (3PL), or marketplace.

The Hub has the ability to configure the other organizations that interact with multiple Enterprises and assign their roles. The Hub also determines the document definitions available to all organizations and configures installation-level rules. The Hub can be assigned multiple roles, for example, Hub and Seller.

Node

A *Node* represents a physical location (for example, a manufacturing plant, small stock room, or warehouse). A node can also play the role of Buyer or Seller.

A node organization is able to see orders for which its parent organization is the buyer, seller, enterprise, ship node, or receiving node.

Node roles are specified as follows:

- A child Node belongs to a parent organization. It cannot have any child organizations.
- A Buyer or Seller Node may belong to a parent organization, but it is not required to. It may have child organizations.

Note: If the organization you are creating participates in one or more Enterprises, you must identify each Enterprise as an associated participant.

Seller

An organization is assigned the *Seller* role when it sells product to the Enterprise or other organizations set up as Buyers. Sellers can configure payment types, payment rules, and pricing for their organization.

When processing orders, a Seller organization can use the order, planned order, and purchase order process-type pipelines.

A seller organization can only see orders for which it is the buyer, seller or the enterprise.

Assigning the Organization's Roles and Participant Associations About this task

To assign the organization's roles and participant associations:

Procedure

1. In the Organization Details window, choose the Roles & Participation tab.
2. In the Roles box, select the roles that apply to this organization.
3. In the Enterprises box, choose the **Create New** icon and select the Enterprises that this organization participates with from the Participating Enterprises pop-up window.
4. Select the primary Enterprise for the organization from the Enterprises box, if applicable.

Defining Enterprise Attributes

If you chose Enterprise as a role for the organization, you can indicate the organization's that participate in the Enterprise as well as add and remove the participation with other organizations. You can also set up the Enterprise's carrier preferences.

Defining an Enterprise's Primary Information: About this task

To define an Enterprise's primary information:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Enterprise Attributes.
2. In Enterprise Name, enter the name of the Enterprise you are configuring.

3. If you want to inherit Enterprise level rules from another Enterprise, from Inherit Configuration From Enterprise, select the Enterprise whose configuration you want to inherit.

Note: If you do not specify an Enterprise to inherit from, you must configure all of the rules for the Enterprise you are creating.

4. In UCC Prefix, enter the UCC code to be used when identifying the Enterprise on a shipment container marking (SCM).
5. In Password Policy, select the password policy that you want to associate with the enterprise.

For additional information about password policies, see the *Sterling Selling and Fulfillment Foundation: Password Policy Management* .

6. If you want to suppress chained order creation even if the seller requires chained orders, select the Suppress Chained Order Creation Even If Seller Requires Chained Order check box.

Identifying Organizations that Participate in an Enterprise:

About this task

Many organizations can participate in an Enterprise, such as a Carrier organization or a Buyer organization.

To identify organizations that participate in an Enterprise:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Enterprise Attributes. The Participants list displays.
2. Choose the **Find Organization to Participate** icon. The Find Participants to Add Organization pop-up window displays.
3. Enter the applicable search criteria and choose the **Search** icon. A list of organizations displays.
4. Select the organization you want to participate in the Enterprise and choose the **Save** icon.

Modifying Organizations Associated with an Enterprise:

About this task

The Enterprise has the ability to modify an associated organization's details.

To modify an organization associated with an Enterprise:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Enterprise Attributes. The Participants list displays.
2. Select the applicable organization and choose the **Details** icon. The Organization Details window for that organization displays.
3. Refer to topics throughout "Creating and Modifying an Organization" on page 25.
4. Choose the **Save** icon.

Removing an Organization from Participation in an Enterprise:

About this task

To remove an organization from participation in an Enterprise:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Enterprise Attributes. The Participants list displays.
2. Select the applicable Organization and choose the **Remove Participant** icon.

Defining an Enterprise's Print Format Preferences:

About this task

You can establish default print format preferences for documents and labels.

To set up an Enterprise's Print Format Preferences:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Enterprise Attributes Tab.
2. Select the Print Format Preferences Tab.
3. Enter information in the applicable fields. Refer to Table 6 for field value descriptions.
4. Choose the **Save** icon.

Table 6. Enterprise Attributes Print Format Preferences Tab

| Field | Description |
|----------------------|--|
| Print Document | From the drop down, select the print document for which you want to configure preferences. |
| Default No of Copies | Enter the number of copies that should be printed. |
| Label Format | Select which label format should be used with this document type. |

Setting Up an Enterprise's Cost Factor Preferences:

About this task

You can identify the Inventory Costing Factors an Enterprise uses in its business model. If you define cost factors at the vendor level, you do not need to configure Enterprise Cost Factor Preferences.

To specify an Enterprise's Cost Factor preferences:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Enterprise role.
2. Choose the Cost Factor Preferences tab. The Cost Factor Preferences list displays.
3. Enter information in the applicable fields. Refer to Table 7 on page 34 for field value descriptions.
4. Choose the **Save** icon.

Table 7. Enterprise's Cost Factor Preference List

| Field | Description |
|---|--|
| Cost Factor Group to be Used for Standard Cost Calculations | Select the cost factor group you want to use for this enterprise's standard cost calculations from the drop-down list. |
| Cost Factor Group to be Used for Landed Cost Calculations | Select the cost factor group you want to use for this enterprise's landed cost calculations from the drop-down list. |
| Cost Factor Group to be Used for Physical Kit Cost Calculations | Select the cost factor group you want to use for this enterprise's physical kit cost calculations from the drop-down list. |

Enterprise Attributes: Defining an Enterprise's Inventory Monitoring Rules: About this task

If an item is tracked at an Enterprise's node, you can set up minimum and maximum inventory levels using inventory monitoring rules for an item. When the item reaches one of these levels, a corresponding event is raised if an action is configured. That event can then be configured to trigger an alert, if applicable.

For example, you can set a minimum quantity of 75 for a particular item. When the inventory starts to drop and reaches the minimum level of 75, you can configure the minimum action to raise the Send E-Mail action. This sends an e-mail message to notify a manager of the decreasing inventory level.)

You can add, modify, and delete inventory monitoring rules.

To add an inventory monitoring rule to an Enterprise:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Enterprise Attributes.
2. Choose the Inventory Monitor Rules tab. The Inventory Monitor Rules list displays.
3. Choose the **Create New** icon. The Inventory Monitor Rule pop-up window displays.
4. Enter information in the applicable fields. Refer to for field value descriptions.
5. Choose the **Save** icon.

Modifying an Enterprise's Inventory Monitoring Rules:

About this task

To modify an Enterprise's inventory monitoring rule:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Enterprise Attributes.
2. Choose the Inventory Monitor Rules tab. The Inventory Monitor Rules list displays.
3. Select the applicable inventory monitor rule and choose the **Details** icon. The Inventory Monitor Rule pop-up window displays.
4. Enter information in the applicable fields. Refer to for field value descriptions.

5. Choose the **Save** icon.

Deleting an Enterprise's Inventory Monitoring Rules:

About this task

To delete an Enterprise's inventory monitoring rule:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Enterprise Attributes.
2. Choose the Inventory Monitor Rules tab. The Inventory Monitor Rules list displays.
3. Select the applicable inventory monitor rule and choose the **Delete** icon.

Defining Seller Attributes

About this task

If you choose Seller as a role for the organization, you indicate if the Seller requires payment processing and chained orders as well as set its default payment rule. On the Seller Attributes tab, if you choose Payment Processing Required, then you must also select a Default Payment Rule from the drop-down list.

To define a Seller organization's attributes:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Seller Attributes.

Note: The Default Price Program drop-down list is displayed only when you use the legacy pricing service. For more information about enabling the legacy pricing service, refer to System Administration Components: Defining Installation Rules.

2. Enter information in the applicable fields.

Defining a Seller's Print Format Preferences:

About this task

You can establish default print format preferences for documents and labels.

To set up a Seller's Print Format Preferences:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Seller Attributes Tab.
2. Select the Print Format Preferences Tab.
3. Enter information in the applicable fields. Refer to Table 8 for field value descriptions.
4. Choose the **Save** icon.

Table 8. Seller Attributes Print Format Preferences Tab

| Field | Description |
|----------------|--|
| Print Document | From the drop down, select the print document for which you want to configure preferences. |

Table 8. Seller Attributes Print Format Preferences Tab (continued)

| Field | Description |
|----------------------|---|
| Default No of Copies | Enter the number of copies that should be printed. |
| Label Format | Select which label format should be used with this document type. |

**Setting Up a Seller's Cost Factor Preferences:
About this task**

You can identify the Inventory Costing Factors a Seller organization uses in its business model. If you define cost factors at the vendor level, you do not need to configure Enterprise Cost Factor Preferences.

To specify a Seller's Cost Factor preferences:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose the Seller role.
2. Choose the Cost Factor Preferences tab. The Cost Factor Preferences list displays.
3. Enter information in the applicable fields. Refer to Table 9 for field value descriptions.
4. Choose the **Save** icon.

Table 9. Seller's Cost Factor Preference List

| Field | Description |
|---|--|
| Cost Factor Group to be Used for Standard Cost Calculations | Select the cost factor group you want to use for this seller's standard cost calculations from the drop-down list. |
| Cost Factor Group to be Used for Landed Cost Calculations | Select the cost factor group you want to use for this seller's landed cost calculations from the drop-down list. |

**Seller Attributes: Defining an Enterprise's Inventory Monitoring Rules:
About this task**

If an item is tracked at an Enterprise's node, you can set up minimum and maximum inventory levels using inventory monitoring rules for an item. When the item reaches one of these levels, a corresponding event is raised if an action is configured. That event can then be configured to trigger an alert, if applicable.

For example, you can set a minimum quantity of 75 for a particular item. When the inventory starts to drop and reaches the minimum level of 75, you can configure the minimum action to raise the Send E-Mail action. This sends an e-mail message to notify a manager of the decreasing inventory level.)

You can add, modify, and delete inventory monitoring rules.

To add an inventory monitoring rule to an Enterprise:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Enterprise Attributes.
2. Choose the Inventory Monitor Rules tab. The Inventory Monitor Rules list displays.
3. Choose the **Create New** icon. The Inventory Monitor Rule pop-up window displays.
4. Enter information in the applicable fields. Refer to for field value descriptions.
5. Choose the **Save** icon.

Defining Buyer Attributes

If you chose Buyer as a role for the organization, you can indicate the Buyer requirements for inbound compliance. Inbound compliance are the conditions the buyer has established for shipping and routing.

Defining Consolidation Parameters:

About this task

To set up a Buyer's Inbound Compliance Consolidation parameters:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose the Inbound Compliance Tab.
2. Select the Consolidation Tab.
3. Enter information in the applicable fields. Refer to Table 10 for field value descriptions.
4. Choose the **Save** icon.

Table 10. Inbound Compliance Consolidation Tab

| Field | Description |
|------------------------|--|
| Appointment Required | Check this box if the buyer requires an appointment to accept deliveries. |
| Do not mix in Shipment | If any of the following are selected, separate shipments must be created for items that have different values for these attributes. For example, if Department Code is selected, items that are for different departments can not be included in the same shipment. |
| Buyer mark for Node ID | Check this box if separate shipments must be created based on the buyer mark for node id. |
| Customer PO # | Check this box if separate shipments must be created based on the Customer's Purchase Order number. |
| Department Code | Check this box if separate shipments must be created based on the department for which the item is intended. |
| Gift Flag | Check this box if separate shipments must be created if the order line is a gift item. |
| Level of Service | Check this box if separate shipments must be created based on the order's level of service. |
| Mark For | Check this box if separate shipments must be created based on the person for whom this shipment is marked for. |

Table 10. Inbound Compliance Consolidation Tab (continued)

| Field | Description |
|---|--|
| Order # | Check this box if separate shipments must be created based on the order number. |
| Order Type | Check this box if separate shipments must be created based on the buyer defined order type. |
| Transportation optimization | |
| Economic shipping parameters maintained | <p>Economic Shipping Parameters (ESP) are used in shipping consolidation. Select this field to enable the following Economic Shipping Parameters fields.</p> <p>ESP support consolidation of shipments until a weight or volume threshold is met, or until a certain time elapses. By consolidating shipments, shipping costs can be reduced</p> <p>For example, you can set that shipments should be consolidated until the shipment weight is 300 pounds, or 50 cubic feet in volume. To ensure that eventually the shipment is set, you can establish a maximum number of days to wait until the conditions are met.</p> <p>When either the weight, volume or delay shipment threshold is met, the shipment is moved to the next stage in shipping.</p> |
| Expedite shipment by not more than __ Days | <p>If shipments can be shipped earlier than their currently planned shipment date, Enter the number of days the shipment date can be moved forward.</p> <p>For example, if shipments can be shipped up to three days earlier than their current planned shipment date, enter '3'.</p> |
| Delay shipment by not more than __ Days | Enter the number of days this shipment can be delayed before it should be shipped. For example, if a value is set for weight threshold of 300 pounds, and this field has been set to 3 days, the shipment is shipped after 3 days, regardless of whether the weight threshold has been met. |
| Consolidate up to weight threshold of | Enter a weight. |
| Consolidate up to volume threshold of | Enter a volume. |
| <p>Do not mix in a load</p> <p>If any of the following attributes are unselected, a shipment can be consolidated to a load based on the attribute.</p> <p>For example, if Addr Line 1 and Name are unselected, shipments that have different first address line but the same address line 2 and 6 can be included in the same load.</p> | |
| Addr Line 1 | Uncheck this box if you want to consolidate the shipment to a load based on the same first line of address. |
| Addr Line 2 | Uncheck this box if you want to consolidate the shipment to a load based on the same second line of address. |
| Addr Line 6 | Uncheck this box if you want to consolidate the shipment to a load based on the same sixth line of address. |
| Name | Uncheck this box if you want to consolidate the shipment to a load based on the first, middle and last name. |

Defining Carrier Preferences Parameters:

About this task

To set up a Buyer's Inbound Compliance Carrier Preferences parameters:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose the Inbound Compliance Tab.
2. Select the Parcel Carrier Preferences Tab.

Results

Defining Carrier Preferences is described in “Defining a Node's Parcel Carrier Preferences” on page 60. Use those procedures to define and maintain the Carrier preferences for the Buyer.

Defining Routing Parameters: The Routing Parameters for a Buyer consist of routing guides. *Routing Guides* are a list of conditions which determine how a shipment should be routed. A routing guide has a time period for which is effective, and conditions for when it should be applied. These conditions are based on Freight Terms and Department.

Each routing guide contains a list of *routing guide lines*, each of which describe detailed conditions for selecting a Carrier. The routing guide information is based on data used by VICS (Voluntary Interindustry Commerce Standards) routing.

Setting Routing Preferences:

About this task

To set the over all routing preferences of the buyer:

Procedure

1. From the Roles & Participation Tab in the Organization Details window, choose the Inbound Compliance Tab.
2. Select the Routing Tab.
3. Set the Routing Guide value, as described in Table 11.

Table 11. Routing Guide Preferences

| Fields | Description |
|---|--|
| Region Schema For Routing | Select the applicable region schema for routing. Select the Details icon. The Region Schema Details window displays. For more information about modifying the region schema details, see “Defining Region Schemas” on page 251. |
| Routing Guide | |
| Not Maintained | Select this to use manual routing. Shipments are managed in the shipment console, and any routing guides are not consulted. |
| Maintained in Sterling Selling and Fulfillment Foundation | Select this to use the Routing Guides maintained in Sterling Selling and Fulfillment Foundation to determine how shipments should be routed. In addition to the routing guide maintained here by the enterprise, there may be a routing guide for the buyer organization. |

Table 11. Routing Guide Preferences (continued)

| Fields | Description |
|-----------------------|--|
| Maintained Externally | Select this to indicate that an external routing system is used. The routing guides maintained in Sterling Selling and Fulfillment Foundation are not consulted. Examples of external routing systems include using an integrated Transportation Management System (TMS), or implementing a User Exit which consults with the buyer organization. |

Creating a Routing Guide:

About this task

Routing Guides are a list of conditions which determine how a shipment should be routed. A routing guide has a time period for which is effective, and conditions for when it should be applied. These conditions are based on Freight Terms and Department.

Each routing guide contains a list of *routing guide lines*, each of which describe detailed conditions for selecting a carrier. The routing guide information is based on data used by VICS (Voluntary InterIndustry Commerce Standards) routing.

To create a routing guide:

Procedure

1. From the tree in the application rules side panel, choose Cross Application > Logistics > Outbound Constraints. The Outbound Constraints window displays in the work area.
2. Select the **Create New** icon on the Routing Guides list window. The Routing Guide Details window displays in the work area.
3. Enter information in the applicable fields. Refer to Table 12 for field value descriptions.
4. Choose the **Save** icon.

Table 12. Routing Guide Details Window

| Field | Description |
|--------------------------------------|--|
| Name | Enter a name for the routing guide. |
| Routing Guide # | A number for the routing guide. |
| Publish Date | When this routing guide is available within the system. |
| Supersedes Routing Guide # | Tracking information. For example, if a minor revision is made to routing guide "1234", you might create a routing guide "1234-A", and enter that it supersedes routing guide "1234". This field is for informational purposes and is not used to determine the effective routing guide. |
| Effective Date | The start date for applying the routing information in this routing guide. You can use the effective date and expiration date to apply routing guidelines for particular periods of time. |
| Expiration Date | The end date for applying the routing information in this routing guide. |
| Apply this Routing Guide when | |

Table 12. Routing Guide Details Window (continued)

| Field | Description |
|----------------------------|--|
| Freight Terms | Apply this routing guide when this condition is met. Select <i>is</i> , <i>is in</i> , or <i>is not</i> . Use: <ul style="list-style-type: none"> • <i>is</i> to specify a single Freight Term. • <i>is in</i> to specify a group of Freight Terms, one of which must be matched. • <i>is not in</i> to specify a group of Freight Terms. The routing guide is used if the Freight Term does not match one of these values. |
| Item Classification | Items can be classified. This field displays when valid item classifications have been set up for Routing Guide. |

Modifying a Routing Guide:

About this task

To modify a routing guide:

Procedure

1. From the tree in the application rules side panel, choose Cross Application > Logistics > Outbound Constraints. The Outbound Constraints window displays in the work area.
2. Select a routing guide in the Routing Guide list window, and select the **Details** icon.
3. The Routing Guide Details window displays in the work area.
4. Enter information in the applicable fields. Refer to Table 12 on page 40 for field value descriptions.
5. Choose the **Save** icon.

Deleting a Routing Guide:

About this task

To delete a routing guide:

Procedure

1. From the tree in the application rules side panel, choose Cross Application > Logistics > Outbound Constraints. The Outbound Constraints window displays in the work area.
2. Select the applicable Routing Guide and choose the **Delete** icon.

Creating a Routing Guide Line:

About this task

Routing guide lines contain the specific conditions to use when routing a shipment. A routing guide can contain multiple routing guide lines.

When routing occurs, the shipment is matched against the routing guide lines. Based on the criteria specified, a carrier and carrier service is selected.

When routing results in a change to the shipment destination, the system reroutes, with the revised destination as the factor for routing. This type of configuration is

used for consolidator nodes. While routing the second time, system looks for the routing guide entry that contains destination node, but without any other destination parameters filled out (such as address, etc.).

To create a routing guide line:

Procedure

1. From the Routing Guide Details window, select the Routing Guidelines Tab. To have access to the Routing Guidelines Tab, save the information you have entered on the Primary Info Tab.
2. A Routing Guide Line search window displays.
3. Select the **Create New** icon. A Routing Guide Line Details screen displays in the work area.
4. Enter information in the applicable fields. Refer to Table 13 for field value descriptions.
5. Choose the **Save** icon.

Table 13. Routing Guide Line Details

| Setting conditions: | |
|--|--|
| In many of the following fields, you can select is, is in, or is not in and then specify a value. Use: | |
| <ul style="list-style-type: none"> • <i>is</i> to specify that a single value must be matched • <i>is in</i> to specify a group of values, one of which must be matched. • <i>is not in</i> to specify a group of values. The routing guide line is used if none of these values match. | |
| For example to match any one of a group of states, specify State <i>is in</i> California, Washington, Oregon, Nevada. When assessing the condition, California would match, Florida would not. | |
| Field | Description |
| Ship From | |
| Node | Select the node. |
| When ship from is not node, select the following attribute(s) | Enter this option if not shipping from the node and then enter one or more of the following conditions. |
| Country/Region | Select the country or region name(s). |
| State | Enter the state name(s). |
| City | Enter the city name(s). |
| Zip Code | Enter the zip code or zip code range. |
| Ship To | |
| Node | Select the node. |
| Region | Enter the region. |
| When ship to is not node and region, select the following attribute(s) | Select this option if not shipping to a node within a specific region and then select one or more of the following conditions. |
| Country/Region | Select the country or region name(s). |
| State | Enter the state name(s). |
| City | Enter the city name(s). |
| Zip Code | Enter the zip code or zip code range. |

Table 13. Routing Guide Line Details (continued)

| | |
|---|---|
| Consolidator | Select the consolidator name(s). |
| Store# | Select the store number(s). |
| And weight is in the range: | You can match weight. For example, if you want packages that weigh between 100 and 500 pounds to be shipped using a specific carrier, you would specify From as '100' and To as '500'. |
| From | Enter the minimum value. |
| To | Enter the maximum value. |
| And volume is in the range: | You can match volume. For example, if you want packages that are between 3 and 10 cubic feet to be shipped using a specific carrier, you would specify From as '3' and To as '10'. |
| From | Enter the minimum value. |
| To | Enter the maximum value. |
| And handling units are in the range: | Number of containers. |
| From | Enter the minimum value. |
| To | Enter the maximum value. |
| And if requested carrier service code is | |
| Carrier Service Code | Select a carrier service code. |
| For more information about defining carrier services, see "Defining Carrier Services" on page 44. | |
| Then ship via: | |
| Priority | Indicates the number to give this rule a relative importance. When a shipment is compared to the routing guide lines, there may be two carrier services that could be used. This priority serves as a tie breaker. The carrier service with the lowest number is used. |
| Carrier / Service | Indicates the carrier and service code that is desired. |
| Break Bulk Node | The break bulk node that is close to the buyer. |
| Contact Specified | Indicates whether the contact details for the shipment is specified. |
| With overrides: | |
| Override Freight Terms | Select to override the shipment's Freight Term. |
| Override Ship To | To override the Ship To value, select this field, and then select one of the following. This is only used when performing routing again due to a revised ship to address. |
| Node | Select the node name. |
| Consolidator | Select the consolidator name. |
| Store# | Select the store number. |

Results

When the conditions set are assessed, the routing guide line which matches the most conditions is used. For example, imagine there are three routing guide lines:

Routing guide line A - What to do when shipping from Massachusetts

Routing guide line B - What to do when shipping from Massachusetts, and when shipping from the zip code 01810.

Routing guide line C - What to do when shipping from Massachusetts or NY.

If the shipment originates from the zip code 01810, it matches all of these routing guide lines. The actions specified in *Routing guide line B* is used, as more conditions are met (both the state and the zip code).

If the shipment originates from Massachusetts, but not from zip code 01810, then both *Routing guideline A* and *Routing guide line C* match. The priority on the guidelines are used to determine which is used, with the lowest numbered priority being selected. If *Routing guideline A* had a priority number of 3, and *Routing guideline C* had a priority number of 5, *Routing guideline A* is used.

Modifying a Routing Guide Line:

About this task

To modify a routing guide line:

Procedure

1. From the Routing Guidelines Details window, select the Routing Details Tab. A Routing Guide Line search window displays.
2. Select a routing guide line in the Routing Guide Line list window, and select the **Modify** icon. The Routing Guide Line Details window displays.
3. Enter the new information in the applicable fields. Refer to the "Routing Guide Line Details" table for field value descriptions.
4. Choose the **Save** icon.

Deleting a Routing Guide Line:

About this task

To delete a Routing Guide Line:

Procedure

1. From the Routing Guide Lines Details window, select the Routing Details Tab. A Routing Guide Line search window displays.
2. Select a routing guide line in the Routing Guide Line list window, and choose the **Delete** icon.

Defining Carrier Services: When routing occurs, the shipment is matched against the routing guidelines. Based on the criteria specified, you select a carrier service to use.

You can use the Carrier Services panel for creating, modifying, or deleting a carrier service.

Creating a Carrier Service:

About this task

To create a carrier service:

Procedure

1. From the Routing Guidelines Details window, in the Carrier Services panel, select the **Create New** icon. The Carrier Services window displays.
2. Enter information in the applicable fields. Refer to Table 14 for field value descriptions.
3. Choose the **Save** icon.

Table 14. Carrier Services

| Field | Description |
|------------------------|---|
| Priority | Enter a number to give this rule a relative importance. When a shipment is compared to the routing guide lines, there may be two carrier services that could be used. This priority serves as a tie breaker. The carrier service with the lowest number is used. |
| Carrier/Service | Select the carrier or service code that is desired. |
| Break Bulk Node | Select the break bulk node that is close to the buyer. |
| Contact Address | This is used to specify the address information for the carrier service's contact person. Click the Details icon to change the contact Address. |

Modifying a Carrier Service:

About this task

To modify a carrier service:

Procedure

1. From the Routing Guidelines Details window, in the Carrier Services panel, select a carrier service from the list in the Carrier Services list window, and select the **Details** icon. The Carrier Services window displays.
2. Enter the new information in the applicable fields. Refer to Table 14 for field value descriptions.
3. Choose the **Save** icon.

Deleting a Carrier Service:

About this task

To delete a carrier service:

Procedure

1. From the Routing Guidelines Details window, in the Carrier Services panel, select a carrier service in the Carrier Services list window and select the **Delete** icon.
2. Choose the **Save** icon.

Defining Packaging Parameters:

About this task

To set up a Buyer's Inbound Compliance Packaging parameters:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose the Inbound Compliance Tab.

2. Select the Packaging Tab.
3. Enter information in the applicable fields. Refer to Table 15 for field value descriptions.
4. Choose the **Save** icon.

Table 15. Inbound Compliance Packaging Tab

| Field | Description |
|--|--|
| Use units of measure from buyer catalog | The buyer may specify units of measure, such as the number of packages contained in a case, or the number of cases in a pallet in the buyer catalog. Select this field to ensure that shipments match these requirements. If this field is not selected, then the enterprise's units of measure are used. |
| Mandate tag information for all tag-controlled items | The buyer may mandate tag information for all tag-controlled items. Select this field to ensure that the tag information is provided whenever you ship tag-controlled items to a buyer. |
| Mandate Serial information for serialized items | The buyer can mandate vendors to provide serial information for all the serialized items shipped to them. Select this field to ensure that the serial information is provided whenever you ship serialized items to this buyer. |
| Shipping Container Marking | |
| SCM not required | Select this field if a shipping container marking is not required on a container. |
| SCM required without content | Select this field if a shipping container marking is required on a container but does not have to contain information. |
| SCM required with content | Select this field if a shipping container marking is required on a container with all applicable information filled out. |
| SCM Label Level | |
| Do not apply SCM | If you selected 'SCM not required', this field is automatically chosen. |
| Apply SCM on all cases | If you specified that shipment container markings are required, choose this field if you want to apply them on cases only. |
| Apply SCM on all shipping units (cases or pallets) | If you specified that shipment container markings are required, choose this field if you want to apply them on cases and pallets. |
| Do not mix in a case | |
| Customer PO # | Select this field if you do not want SKUs for shipments with different customer purchase order numbers to be packed into the same case. |
| Department Code | Select this field if you do not want SKUs for shipments with different department codes to be packed into the same case. |
| Item ID | Select this field if you do not want SKUs with different item IDs to be packed into the same case. |
| Mark For | Select this field if you do not want SKUs for shipments with different mark for addresses to be packed into the same case. |
| Unit Of Measure | Select this field if you do not want SKUs with different units of measure to be packed into the same case. |

Table 15. Inbound Compliance Packaging Tab (continued)

| Field | Description |
|-----------------------------|---|
| Product Class | Select this field if you do not want SKUs with different product classes to be packed into the same case. |
| Do not mix in pallet | |
| Customer PO # | Select this field if you do not want SKUs for shipments with different customer purchase order numbers to be packed onto the same pallet. |
| Department Code | Select this field if you do not want SKUs for shipments with different department codes to be packed onto the same pallet. |
| Item ID | Select this field if you do not want SKUs with different item IDs to be packed onto the same pallet. |
| Mark For | Select this field if you do not want SKUs for shipments with different mark for addresses to be packed onto the same pallet. |
| Unit Of Measure | Select this field if you do not want SKUs with different units of measure to be packed onto the same pallet. |
| Product Class | Select this field if you do not want SKUs with different product classes to be packed onto the same pallet. |

Defining Compliance Services Parameters:

About this task

Compliance service parameters describe additional services that a buyer wants performed on certain items. A few examples are customization of the items, such as placing a security tag on the item, adding promotional materials in the item's packaging, or monogramming the item with a corporate logo.

To set up a Buyer's Inbound Compliance Services parameters:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Inbound Compliance Tab.
2. Select the Compliance Services Tab.
3. To enable the use of Compliance services, select the Requires VAS Compliance box, and specify one or more compliance services that the Buyer wants to be performed on items.

Creating Compliance Services:

About this task

To create a Compliance Service:

Procedure

1. From the Compliance Services Tab, select the **Create New** icon.
2. In the Compliance Service Details popup that displays, enter information in the applicable fields. Refer to Table 16 on page 48 for field value descriptions.
3. Choose the **Save** icon.

Table 16. Compliance Services Details

| Field | Description |
|---------------------|---|
| Enterprise Code | <p>Indicates the Enterprise for which these criteria should be applied. A buyer may set up different compliance requirements interacting with different enterprises.</p> <p>The Enterprise selected determines the available service items and classifications based on their catalog organization.</p> |
| Item Classification | <p>The classification code for a group of items. For example, if a security tag is applied to jewelry worth more than \$200, you may establish an Item Classification “Expensive Jewelry”, and then classify items as being members of the “Expensive Jewelry” classification.</p> <p>When an item of expensive jewelry is ordered, the compliance service is run. The compliance service defines what compliance services should be performed on the jewelry, including adding the security tag.</p> |
| Compliance Service | <p>Identifies the compliance service. The compliance service describes a series of activities that are performed to meet the buyer's requirements. These could include adding custom logos, inserting advertisements, using seasonal promotion boxes, or many other activities which customize the item for the buyer.</p> |
| Run Quantity | <p>The number of items to be made when a compliance service is run. By grouping the production of an item that has compliance services applied to it, inventory can be created in anticipation of the buyer's need.</p> <p>The run quantity is a number that indicates how many items to batch together: the actual request for product and available inventory determine how many items should have the compliance service applied.</p> <p>For example, if the run quantity is 10, the buyer requests 8 of the item, and there's only 1 on hand, 10 items have the compliance services applied. The result is the buyer receives 8 items, 1 from current inventory, 7 that is newly created, and there are 3 newly created items now available in inventory.</p> <p>If the buyer requires more than the run quantity produces, the run quantity is used to create several runs. For example, if the buyer were to request 22 items, and only 1 item is in stock, doing a run of 10 would not satisfy the request. Doing two runs of 10 each would still not satisfy the request, but doing 3 runs would satisfy the request. Therefore, a single run of 30 is done.</p> <p>The run quantity should be set based on the anticipated buyer requirements. For example, for bulky items such as refrigerators or washing machines, the number might be low. For items that the buyer purchases in large quantities, such as T-shirts embroidered with a sports team logo, the number might be higher.</p> <p>Note: When the run quantity is not equal to an actual work order's ordered quantity, an additional inventory check is performed during scheduling.</p> |

Modifying Compliance Services:

About this task

To modify a Compliance Service:

Procedure

1. From the Inbound Compliance window, select the Compliance Services Tab.
2. Select a Compliance Service from the Compliance Services list, and select the **Details** icon. The Compliance Service Details popup window displays.
3. Enter information in the applicable fields. Refer to Table 16 on page 48 for field value descriptions.
4. Choose the **Save** icon.

Deleting Compliance Services:

About this task

To delete a Compliance Service:

Procedure

1. From the Inbound compliance window, select the Compliance Services Tab.
2. Select a Compliance Service from the Compliance Services list, and select the **Delete** icon.

Defining a Buyer's Print Format Preferences:

About this task

You can establish default print format preferences for documents and labels.

To set up a Buyer's Inbound Compliance Print Format Preferences:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose the Inbound Compliance Tab.
2. Select the Print Format Preferences Tab.
3. Enter information in the applicable fields. Refer to Table 17 for field value descriptions.
4. Choose the **Save** icon.

Table 17. Inbound Compliance Print Format Preferences Tab

| Field | Description |
|----------------------|--|
| Print Document | From the drop down, select the print document for which you want to configure preferences. |
| Default No of Copies | Enter the number of copies that should be printed. |
| Label Format | Select which label format should be used with this document type. |

Defining Carrier Attributes

If you chose Carrier as a role for the organization, you can specify the types of services a Carrier provides for truckload, less-than truckload, and parcel shipments. A carrier service is the service a Carrier provides for the delivery of an order, such as, Second Day Air.

Defining Carrier Services for Truckload Shipments:

About this task

A Truckload is the largest of the shipping modes. A truckload is normally considered a shipment of over 10,000 pounds. You can add, modify, and delete carrier services for the Truckload ship mode.

To create carrier services for truckload shipments:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Carrier Attributes.
2. Choose the TL Services tab, the Truckload Services list displays.
3. Choose the **Create New** icon. The Truckload Service Details pop-up window displays.
4. Enter information in the applicable fields. Refer to Table 18 for field value descriptions.
5. Choose the **Save** icon.

Table 18. Truckload Service Details Pop-Up Window

| Field | Description |
|------------------------------|---|
| Service | Select the appropriate service from the drop-down list. |
| Scac and Service | Enter the name of the SCAC and service. Note: This is populated when the carrier service code is chosen. You can then edit it as necessary. |
| Scac and Service Description | Enter a brief description of the carrier SCAC and service. Note: This is populated when the carrier service code is chosen. You can then edit it as necessary. |
| Electronic Code | Enter the code used by the carrier organization to identify the service. For example, UPS Next Day Air has the electronic code '01'. |
| Host Code | This field is not used in this version of Sterling Selling and Fulfillment Foundation. |
| Extended Ship Mode | If the carrier service is not TL, LTL, or parcel, select the correct shipment mode from the drop-down list. |
| Fixed Transit Days | Enter the maximum number of days that the service allows for delivery. For example, 1 Day Air would have a maximum of 1 transit day, whereas Ground may have a maximum of 5 transit days. This number is used for order line scheduling. This value is only used if the Use Advanced Transit Time Calculation flag on the Other Rules tab under Distributed Order Management > Cross Application > Logistics > Logistics Attributes is selected. For more information about this field, see the <i>Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide</i> . |

Table 18. Truckload Service Details Pop-Up Window (continued)

| Field | Description |
|--|---|
| Distance Per Day | Enter the maximum distance that the service travels each transit day. Choose the relevant UOM for the distance from the drop-down list. This number is used for order line scheduling. This value is only used if the Use Advanced Transit Time Calculation flag on the Other Rules tab under Distributed Order Management > Cross Application > Logistics > Logistics Attributes is selected. For more information about this field, see the <i>Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide</i> . |
| Allow Shipping Of Hazardous Materials | Check this box to indicate that this carrier allows the shipping of hazardous materials. |
| Ship By Air | Check this box to indicate that this carrier can ship by air. |
| Has Freezer | Check this box to indicate that this carrier can ship items that require freezer storage. |
| Restrict Shipping to Address of Type | Choose the type of address from the drop-down list where the carrier can ship. If you do not select an options, the carrier can ship to both commercial and residential addresses. |
| Package Level Integration | Choose this if this carrier service caters to package-level integration. |
| Shipment Level Integration | Choose this if this carrier service caters to shipment-level integration. |
| Supports Integration for Return Shipping Label | Check this box to indicate that this carrier service supports integration for return shipping label. |

Modifying Carrier Services for Truckload Shipments:

About this task

To modify carrier services for truckload shipments:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Carrier Attributes.
2. Choose the TL Services tab, the Truckload Services list displays.
3. Select the applicable carrier service and choose the **Details** icon. The Truckload Service Details pop-up window displays.
4. Modify information in the applicable fields. Refer to Table 18 on page 50 for field value descriptions.
5. Choose the **Save** icon.

Deleting Carrier Services for Truckload Shipments:

About this task

To delete a carrier service for truckload shipments:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Carrier Attributes.

2. Choose the TL Services tab, the Truckload Services list displays.
3. Select the applicable carrier service and choose the **Delete** icon.

**Defining Carrier Services for Less-Than Truckload Shipments:
About this task**

A shipment is normally referred to as a less-than truckload shipment when it weighs between 150 and 10,000 pounds. You can add, modify, and delete carrier services for the less-than truckload shipping mode.

To create carrier services for less-than truckload shipments:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Carrier Attributes.
2. Enter the PRO Number Length. The PRO Number Length refers to the number of digits in the PRO Number.
For more information about PRO Numbers and their generation, see “Defining a Node's LTL Carrier Preferences” on page 66.
3. Choose the LTL Services tab, the Less-Than Truckload Services list displays.
4. Choose the **Create New** icon. The Less-Than Truckload Service Details pop-up window displays.
5. Enter information in the applicable fields. Refer to Table 19 for field value descriptions.
6. Choose the **Save** icon.

Table 19. Less-Than Truckload Service Details Pop-Up Window

| Field | Description |
|------------------------------|--|
| Service | Choose the carrier service code. |
| Scac and Service | Enter the name of the SCAC and service. Note: This is populated when the carrier service code is chosen. You can then edit it as necessary. |
| Scac and Service Description | Enter a brief description of the carrier SCAC and service. Note: This is populated when the carrier service code is chosen. You can then edit it as necessary. |
| Electronic Code | Enter the code used by the carrier organization to identify the service. For example, UPS Next Day Air has the electronic code '01'. |
| Host Code | This field is not used in this version of Sterling Selling and Fulfillment Foundation. |
| Extended Ship Mode | If the carrier service is not TL, LTL, or parcel, select the correct shipment mode from the drop-down list. |

Table 19. Less-Than Truckload Service Details Pop-Up Window (continued)

| Field | Description |
|--|--|
| Fixed Transit Days | <p>Enter the maximum number of days that the service allows for delivery. For example, 1 Day Air would have a maximum of 1 transit day, whereas Ground may have a maximum of 5 transit days.</p> <p>This number is used for order line scheduling. This value is only used if the Use Advanced Transit Time Calculation flag on the Other Rules tab under Distributed Order Management > Cross Application > Logistics > Logistics Attributes is selected. For more information about this field, see the <i>Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide</i>.</p> |
| Distance Per Day | <p>Enter the maximum distance that the service travels each transit day. Choose the relevant UOM for the distance from the drop-down list.</p> <p>This number is used for order line scheduling. This value is only used if the Use Advanced Transit Time Calculation flag on the Other Rules tab under Distributed Order Management > Cross Application > Logistics > Logistics Attributes is selected. For more information about this field, see the <i>Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide</i>.</p> |
| Allow Shipping Of Hazardous Materials | Check this box to indicate that this carrier allows the shipping of hazardous materials. |
| Ship By Air | Check this box to indicated that this carrier can ship by air. |
| Has Freezer | Check this box to indicate that this carrier can ship items that require freezer storage. |
| Restrict Shipping to Address of Type | <p>Choose the type address from the drop-down list where the carrier can ship.</p> <p>If you do not select an option, the carrier can ship to both commercial and residential addresses.</p> |
| Package Level Integration | Select this option if this carrier service caters to package-level integration. |
| Shipment Level Integration | Select this option if this carrier service caters to shipment-level integration. |
| Supports Integration for Return Shipping Label | Check this box to indicate that this carrier service supports integration for return shipping label. |

Modifying Carrier Services for Less-Than Truckload Shipments:

About this task

To modify carrier services for less-than truckload shipments:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Carrier Attributes.
2. Choose the LTL Services tab. The Less-Than Truckload Services list displays.
3. Edit the PRO Number Length. The PRO Number Length refers to the number of digits in the PRO Number.

For more information about PRO Numbers and their generation, see “Defining a Node's LTL Carrier Preferences” on page 66.

4. Select the applicable carrier service and choose the **Details** icon. The Less-Than Truckload Service Details pop-up window displays.
5. Modify information in the applicable fields. Refer to Table 19 on page 52 for field value descriptions.
6. Choose the **Save** icon.

Deleting Carrier Services for Less-Than Truckload Shipments:

About this task

To delete a carrier service for less-than truckload shipments:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Carrier Attributes.
2. Choose the LTL Services tab, the Less-Than Truckload Services list displays.
3. Select the applicable carrier service and choose the **Delete** icon.

Defining Carrier Services for Parcel Shipments:

About this task

A parcel is the smallest shipping mode. A shipment is normally referred to as a parcel when it weighs under 150 pounds. You can add, modify, and delete carrier services for the parcel shipping mode.

To create carrier services for parcel shipments:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Carrier Attributes.
2. Choose the Parcel Services tab, the Parcel Services list displays.
3. Check the Support Domestic Shipping Integration box, if you want to integrate through the carrier's external systems for domestic shipments.
4. Choose the Carrier Adapter that you want to integrate with the carrier from the Carrier Adapter Implementation drop-down list.

Note: Only the Carrier Adapters supported for the selected carrier will be displayed in the drop-down list.

5. Check the Support International Shipping Integration box, if you want to integrate through the carrier's external systems for international shipments.
6. Choose the **Create New** icon. The Parcel Service Details pop-up window displays.
7. Enter information in the applicable fields. Refer to Table 20 on page 55 for field value descriptions.
8. Choose the **Save** icon.

Figure 17. Parcel Service Details Pop-Up Window

Table 20. Parcel Service Details Pop-Up Window

| Field | Description |
|---------------------------------------|---|
| Service | Choose the carrier service code. |
| Scac and Service Code | Enter the name of the SCAC and service. Note: This is populated when the carrier service code is chosen. You can then edit it as necessary. |
| SCAC and Service Description | Enter a brief description of the carrier SCAC and service. Note: This is populated when the carrier service code is chosen. You can then edit it as necessary. |
| Electronic Code | Enter the code used by the carrier organization to identify the service. For example, UPS Next Day Air has the electronic code '01'. |
| Host Code | This field is not used in this version of Sterling Selling and Fulfillment Foundation. |
| Extended Ship Mode | If the carrier service is not TL, LTL, or parcel, select the correct shipment mode from the drop-down list. |
| Fixed Transit Days | Enter the maximum number of days that the service allows for delivery. For example, 1 Day Air would have a maximum of 1 transit day, whereas Ground may have a maximum of 5 transit days. This number is used for order line scheduling. This value is only used if the Use Advanced Transit Time Calculation flag on the Other Rules tab under Distributed Order Management > Cross Application > Logistics > Logistics Attributes is selected. For more information about this field, see the <i>Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide</i> . |
| Distance Per Day | Enter the maximum distance that the service travels each transit day. Choose the relevant UOM for the distance from the drop-down list. This number is used for order line scheduling. This value is only used if the Use Advanced Transit Time Calculation flag on the Other Rules tab under Distributed Order Management > Cross Application > Logistics > Logistics Attributes is selected. For more information about this field, see the <i>Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide</i> . |
| Allow Shipping Of Hazardous Materials | Check this box to indicate that this carrier allows the shipping of hazardous materials. |
| Ship By Air | Check this box to indicate that this carrier can ship by air. |
| Has Freezer | Check this box to indicate that this carrier can ship items that require freezer storage. |
| Restrict Shipping to Address of Type | Choose the type of address from the drop-down list where the carrier can ship. If you do not select an option, the carrier can ship to both commercial and residential addresses. |
| Package Level Integration | Choose this option if this carrier service caters to package level integration. |
| Shipment Level Integration | Choose this option if this carrier service caters to shipment level integration. |

Table 20. Parcel Service Details Pop-Up Window (continued)

| Field | Description |
|--|--|
| Supports Integration for Return Shipping Label | Check this box to indicate that this carrier service supports integration for return shipping label. |

Modifying Carrier Services for Parcel Shipments:

About this task

To modify carrier services for parcel shipments:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Carrier Attributes.
2. Choose the Parcel Services tab, the Parcel Services list displays.
3. Select the applicable carrier service and choose the **Details** icon. The Parcel Service Details pop-up window displays.
4. Modify information in the applicable fields. Refer to Table 20 on page 55 for field value descriptions.
5. Choose the **Save** icon.

Deleting Carrier Services for Parcel Shipments:

About this task

To delete a carrier service for parcel shipments:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Carrier Attributes.
2. Choose the Parcel Services tab, the Parcel Services list displays.
3. Select the applicable carrier service and choose the **Delete** icon.

Defining Node Attributes

If you chose Node as a role for the organization, you can specify its primary information, sourcing, scheduling, carrier preferences, and calendars.

Defining a Node's Primary Information:

About this task

A node's primary information determines how it is identified throughout the system.

To define a node's primary information:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. Choose the Primary Info tab.
3. Enter information in the applicable fields. Refer to Table 21 on page 57 for field value descriptions.
4. Choose the **Save** icon.

Table 21. Node Primary Info Tab

| Field | Description |
|-------------------------------------|---|
| Node Type | |
| GLN | Enter the global location number. |
| Node Type | Select the node type for this node from the drop-down list. |
| Identified By Parent As | Enter the name the node's parent uses to identify it. |
| Agent Criteria Group | Select an agent criteria group from the drop-down list. |
| Export License Number | Enter the node's license number used for export shipments. |
| License Expiration Date | Enter the date the export license expires. |
| BOL Prefix | Enter the label this node uses as a prefix on the bills of lading it creates, if applicable. |
| Default Declared Value | Enter the price that is to be displayed as the default declared value in the Application Console. This price is typically used by parcel carriers for computing insurance. |
| Work Day Hours | The standard number of working hours per resource or person in a day. This is used to convert hours to days. |
| Resource Planning Enabled | Choose this to enable the planning of resources and activities. |
| Third Party Logistics Node | Choose this if the node is part of a third-party logistics business model. Chained orders are not created for nodes marked as a third-party logistics node. |
| Maintain Inventory Cost | Choose this if the node maintains its own inventory costs. When this option is selected, cost must be entered for each inventory adjustment that happens at this node. If you choose this, then inventory adjustments made for this node must be approved. Adjustments awaiting approval are called pending adjustments. The actual adjustment does not occur until the pending adjustment has been approved. |
| Execution in Node Using | |
| External Application | Choose this to have order releases interface through events. For more information about events, see "Defining Transactions" on page 110. |
| IBM Sterling Order Management | Choose this to have order releases interface through the Application Console. |
| Sterling Store Inventory Management | Choose this to have order releases interface through Sterling Store Inventory Management. |
| WMS 6.2 | Choose this to have order releases interface through a Sterling Warehouse Management System version prior to and including Release 6.2. |

Table 21. Node Primary Info Tab (continued)

| Field | Description |
|-------------------------------|---|
| Action Name | <p>If you chose External Application, select the action to associate with it. For more information about actions, see “Defining Actions” on page 138.</p> <p>Note: In the drop-down, only the Actions linked to the Primary Enterprise of this Node/Organization are available. Any actions created from this screen using the + button are linked to the Primary Enterprise of the User's Organization. As a result, they may not be available for the Node/Organization being created.</p> <p>In a multi-enterprise environment, ensure that Actions are created for the appropriate Enterprises first (when logged in as that Enterprise user). Subsequently, mapping of nodes to actions can be done when logged in either as an Enterprise user or as a Hub user.</p> |
| Dock Schedule | |
| Dock Schedules are managed by | Select the application that manages the dock schedule. |

**Defining a Node's Sourcing and Scheduling:
About this task**

Setting up a node's sourcing and scheduling enables you to define how orders are sourced from the node.

To define node sourcing and scheduling:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose the Node Attributes attributes.
2. Choose the Sourcing/Scheduling tab from the right.
3. Enter information in the applicable fields. Refer to Table 22 for field value descriptions.

Table 22. Node Sourcing/Scheduling Tab

| Field | Description |
|--|---|
| Do not schedule an order to this node more than <number of days> days before expected time of shipment | <p>Enter the maximum number of business days that a schedule for an order can be sent to a node for it to be fulfilled. This number is used when performing earliest schedule date calculations.</p> <p>This parameter is only considered if the node is pre-specified on the order line.</p> |

Table 22. Node Sourcing/Scheduling Tab (continued)

| Field | Description |
|--------------------------------|---|
| Procure To Ship Allowed | <p>Check this box if the node can accept procurement chained orders. A procurement chained order is a type of order that is created when a node has to source inventory from another node. A chained order is an order that is linked to a parent order in which the life cycle of one effects the other. There are two types of procurement chained orders: procurement transfer orders and procurement purchase orders.</p> <p>A transfer order is a type of chained order that is created when the node you are configuring needs to replenish their stock from another node within the organization to fulfill an order.</p> <p>A procurement purchase order is a type of chained order that is created when the node you are configuring needs to replenish their stock from another node that belongs to an external organization to fulfill an order.</p> <p>When setting up procurement from one node to another, you must define the billing address of each node. Billing addresses are defined in the Payment Info panel of the Organization Details screen. Also, a legal entity must be present in the organization hierarchy for the procured-from ship node.</p> |
| Requires Transfer Acceptance | <p>Check this box if you want this node to accept a procurement to confirm availability before proceeding with the order.</p> |
| Work Order Creation Is Allowed | <p>Check this box if you want to use Work Orders to support compliance services at this node. Work Orders describe the service activities to customize items based on a buyer's requests.</p> |
| Substitution Is Allowed | <p>Check this box if substitution of product items within an order is allowed.</p> |
| Use End Of Shift Time | <p>Check this box if you want the node to base shipment time by the end of the next feasible shift.</p> <p>Uncheck this box if you want the node to base shipment time by any given node parameters, such as Minimum Notification Time, and the time a shipment can actually be shipped.</p> <p>For example, a node works five days a week, with two shifts, 8AM - 4PM and 4PM - 8PM.</p> <p>The node's Minimum Notification Time is set to 2 hours.</p> <p>If an order is sent to a node on Friday at 1PM, the order is scheduled to ship on same day at 4PM if Use End Of Shift Time box is checked. The order is scheduled to ship on same day at 3PM if Use End Of Shift Time box is unchecked.</p> <p>If an order is sent to a node on Friday at 3PM, the order scheduled to ship on same day at 8PM if Use End Of Shift Time box is checked. The order is scheduled to ship on same day at 5PM if Use End Of Shift Time box is unchecked.</p> <p>Note: Use End Of Shift Time is only applicable to nodes that use a shipping calendar that has shift times defined.</p> <p>Note: Use End Of Shift Time is only applicable for product lines.</p> |

Table 22. Node Sourcing/Scheduling Tab (continued)

| Field | Description |
|---|--|
| Gift Wrap Services Allowed | Check this box to indicate that this node provides gift wrapping services. |
| Item Based Allocation Allowed | Check this box to allow item based allocation for the item. When the 'Use Item Based Allocation' rule is enabled, the item based allocation are only applicable for the items and nodes which have the Item Based Allocation Allowed attribute enabled. For more information about item-based allocation, see the <i>Sterling Selling and Fulfillment Foundation: Product Concepts Guide</i> . |
| Receiving Calendar | Select the calendar to use to determine the available shifts for receiving deliveries at the node. The calendars of the node as well as the calendars of the primary enterprise of the node display in this drop-down list. |
| Shipping Calendar | Select the calendar to use to determine the available shifts for shipping from the node. The calendars of the node as well as the calendars of the primary enterprise of the node display in this drop-down list. |
| Receipt Processing Time For Procurement (Hours) | Enter how many hours it takes the node to process receipts for procurement. |
| Receipt Processing Time for Forwarding (Hours) | Enter the time it takes the node to process receipts for forwarding in hours. |
| Receipt Processing Time for Future Inventory (Days) | Enter how many days are required to process incoming future supplies before they are available for orders. |
| Node Can Ship To | |
| Select the node types that this node can ship to. The availability of these checkboxes depends on what node types have been defined, except the Any Address checkbox which is always available. | |
| Any Address | Check this box to allow this node to ship to any address. |
| All Nodes | Select this option if this node can ship to all nodes. |
| Specific Nodes Of Type | If this node can only ship to nodes with a specific node type, select this option, and check the applicable node types available. |

Defining a Node's Parcel Carrier Preferences:

About this task

You can identify the carriers that a node uses and define how they should interact. You can add, modify, and delete carrier preferences.

To add parcel carrier preferences to a node:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. Choose the Parcel Carrier Preferences tab.
3. Choose the **Create New** icon. The Parcel Carrier Preferences Detail pop-up window displays.
4. Enter information in the applicable fields. Refer to the following table for field value descriptions.

5. Choose the **Save** icon.

Results

Modifying a Node's Parcel Carrier Preferences:

About this task

To modify a node's parcel carrier preferences:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. Choose the Parcel Carrier Preferences tab.
3. Select the applicable carrier preference and choose the **Details** icon. The Parcel Carrier Preferences Detail pop-up window displays.
4. Enter information in the applicable fields. Refer to table in "Defining a Node's Parcel Carrier Preferences" on page 60 for field value descriptions.
5. Choose the **Save** icon.

Deleting a Node's Parcel Carrier Preferences:

About this task

To delete a node's parcel carrier preferences:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. Choose the Parcel Carrier Preferences tab.
3. Select the applicable carrier preference and choose the **Delete** icon.

Parcel Carrier Preferences Detail Popup Window:

Table 23. Parcel Carrier Preferences Detail Popup Window

| Fields | Description |
|---|--|
| Carrier | Choose the carrier to set the preferences. This is a mandatory field. |
| Enterprise Code | Choose the enterprise code. |
| Shipping Account | Enter the shipping account information. |
| Bill Third Party for Outbound Shipment | Check this box to bill shipping charges to a third-party organization. |
| Bill Third Party for Return Shipment | Check this box to bill return shipping charges to a third-party organization. |
| Third Party Organization Details | |
| Organization Code | Choose the organization code of the third party organization. |
| Billing Account | Choose the billing account information of the third party organization. |
| Online Control # | Enter the online control number for the carrier preference. |
| International Shipping Integration Required | Check this box if international shipping integration is required. |
| Domestic Shipping Integration Required | Check this box if domestic shipping integration is required. |
| Allow system to automatically open a manifest | Check this box if the system should be allowed to automatically open a manifest. |

Table 23. Parcel Carrier Preferences Detail Popup Window (continued)

| Fields | Description |
|----------------------------------|--|
| Carrier Label Delivery Mechanism | |
| Print | Choose this option to print the carrier label automatically. |
| Save as Image | Choose this option to save the carrier label in PNG format. |
| Integration Carrier Adapter | |
| Carrier Adapter Implementation | Choose the Carrier Adapter that you want to integrate with the selected carrier. |

Defining a Node’s Relationships: A transfer order is a type of chained order that is created when a node that belongs to the organization you are configuring needs to replenish their stock from another node within the organization to fulfill an order. A chained order is an order that is linked to a parent order in which the lifecycle of one effects the other.

You can define a relationship between the node you are defining and another node. Within this relationship you can define a transfer schedule, including the transit time to procure items from a node, on a day-of-week basis. The schedule is used for calculating expected dates.

You can define a transfer schedule that determines when items can be shipped from one node to another, including the transit time to procure items from a node, on a day-of-week basis. The schedule is used for calculating expected dates. For more information on creating Transfer Schedules, refer to section “Defining a Transfer Schedule” on page 65.

You can create, modify, and delete relationships.

Creating a Node Relationship:

About this task

To create a node relationship:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. To create a node relationship from the node to another node, choose the Relationship To Node tab. To create a node relationship to the node from another node, choose the Relationship To Node tab.
3. Choose the **Create New** icon. The Relationship Details pop-up window displays.
4. Enter information into the applicable fields. Refer to Table 24 for field value descriptions.
5. Choose the **Save** icon.

Table 24. Relationship Details Pop-Up Window

| Field | Description |
|-------------------|---|
| Relationship Type | Select a relationship type for this relationship from the drop-down list. |

Table 24. Relationship Details Pop-Up Window (continued)

| Field | Description |
|--------------------|---|
| From Node | Select the node from which items are sent. If you select the ShipNode from a lookup, a description must be configured for the ShipNode in order to display a value in the From Node field. For the Relationship To Node tab, this option is defaulted to the node you are configuring and disabled. |
| To Node | Select the node at which transfer order items are received. If you select the ShipNode from a lookup, a description must be configured for the ShipNode in order to display a value in the To Node field. For the Relationship From Node tab, this option is defaulted to the node you are configuring and disabled. |
| Transfer Schedules | |
| Effective From | Indicates the date on which the schedule takes effect. |
| Effective To | Indicates the date on which the specified transfer schedule stops being effective. |
| Days of the Week | Indicates on which days during the transfer schedule items are eligible for items to ship. |

Modifying a Node Relationship:

About this task

To modify a node relationship:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. To modify a node relationship from the node to another node, choose the Relationship To Node tab. To modify a node relationship to the node from another node, choose the Relationship To Node tab.
3. From the table, locate the applicable relationship and choose the **Details** icon. The Relationship Details pop-up window displays.
4. Enter information into the applicable fields. Refer to Table 24 on page 63 for field value descriptions.
5. Choose the **Save** icon.

Deleting a Node Relationship:

About this task

To delete a node relationship:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. To delete a node relationship from the node to another node, choose the Relationship To Node tab. To modify a node relationship to the node from another node, choose the Relationship To Node tab.
3. From the table, locate the applicable relationship choose the **Delete** icon.

Defining a Transfer Schedule: Transfer schedules provide a means to allow or disallow a transfer during a specific period of time.

Creating a Transfer Schedule:

About this task

To create a transfer schedule:

Procedure

1. From the Relationship Details screen, choose the **Create New** icon from the Transfer Schedules panel. The Transfer Schedule window displays.
2. Enter information into the applicable fields. For field value descriptions see Table 25.
3. Click the **Save** icon.

Table 25. Transfer Schedule Window

| Field | Description |
|-----------------------|--|
| Effective From Date | Select the date on which the transfer schedule becomes effective. If this value is left empty, it is assumed that the Transfer Schedule has been effective for an infinite number of days. |
| Effective To Date | Select the date on which the transfer schedule ends. If this value is left empty, it is assumed that the Transfer Schedule remains effective indefinitely. |
| Default Transit Days | Enter the minimum number of days shipments are expected to take to reach the end location. |
| Shipped On | |
| Day Of Week | Check the box for each day of the week on which transfers are permitted. |
| Override Transit Days | Enter the number of transit days for a specific day of the week. For example, shipping on a Saturday may add one day to the number of transfer days. As a result, the new Transfer Days value would be 1 + the amount of the standard value. |
| Ship Date Overrides | |
| Ship Date | Select the date for which you would like to override shipping. For example, Tuesday, December 25, 2007, a holiday. |
| Can Ship | Select Yes to allow or No to disallow shipping on the specified day. |
| Override Transit Days | Enter the override transit days for the override dates. |

Note: If a transfer schedule exists for one day, it is assumed that a transfer schedule exists for all days.

Modifying a Transfer Schedule:

About this task

To modify a transfer schedule:

Procedure

1. From the Relationship Details screen, Transfer Schedules panel, select the Transfer Schedule you would like to modify.
2. Choose the **Details** icon.
3. Enter information into the applicable fields. For field value descriptions, see Table 25 on page 65.
4. Click the **Save** icon.

Deleting a Transfer Schedule:

About this task

To delete a transfer schedule:

Procedure

1. From the Relationship Details screen, Transfer Schedules panel, select the Transfer Schedule you would like to delete.
2. Choose the **Delete** icon.

Defining a Node's LTL Carrier Preferences:

About this task

You can define the PRO Number Generation settings for the carriers a node uses and define how they should be used.

PRO Number refers to the unique progressive or serial number assigned by the carrier to identify and track a specific shipment. This is used on freight bills, bills of lading, and waybills for invoicing and tracking purposes.

A warehouse may define the range of PRO Numbers assigned by a carrier. The PRO Number has a fixed length defined for each carrier, and may contain a prefix.

PRO Number is typically generated during routing for a load with carrier type 'LTL'. The PRO Number is regenerated automatically when the carrier/service on the load is changed.

You can add, modify, and delete LTL carrier preferences.

To add LTL carrier preferences to a node:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. Choose the LTL Carrier Preferences tab.
3. Choose the **Create New** icon. The PRO Number Generation Scheme pop-up window displays.
4. Enter information in the applicable fields. Refer to Table 26 on page 67 for field value descriptions.
5. Choose the Save icon.

Table 26. PRO Number Generation Scheme Pop-Up Window

| Field | Description |
|---|---|
| PRO Number Generation Scheme | <p>One of the following actions is initiated based on the Generation Scheme selected:</p> <ul style="list-style-type: none"> • Sterling Selling and Fulfillment Foundation generates the PRO Numbers • Sterling Selling and Fulfillment Foundation uses the PRO Numbers generated by an external system, or • Sterling Selling and Fulfillment Foundation does not generate PRO Numbers. |
| Carrier | Choose the carrier whose PRO Number Generation Scheme is being defined. |
| System Generated | Select 'System Generated' if Sterling Selling and Fulfillment Foundation should generate PRO Numbers. |
| Externally Generated | Select 'Externally Generated' if Sterling Selling and Fulfillment Foundation should use PRO Numbers generated by an external system. |
| Do Not Generate | Select 'Do Not Generate' if PRO Numbers should not be generated. |
| Set up data for System Generated scheme | This is applicable only when Sterling Selling and Fulfillment Foundation generates the PRO Numbers. |
| PRO Number Sets | When the first range of PRO Numbers is used up, Sterling Selling and Fulfillment Foundation utilizes the second range of PRO Numbers, and vice versa. |
| PRO Number Set - 1 | Defines the first range of PRO Numbers to be used by Sterling Selling and Fulfillment Foundation. |
| PRO Number Prefix | <p>Enter the PRO Number Prefix to be used in generating the first range of PRO Numbers.</p> <p>PRO Number Prefix can be alpha numeric, and is not included for computing the check digit.</p> |
| PRO Number Start | <p>Enter the PRO Number Start to be used in generating the first range of PRO Numbers.</p> <p>PRO Number Start is the starting number for the first set of PRO Numbers.</p> |
| PRO Number End | <p>Enter the PRO Number End to be used in generating the first range of PRO number.</p> <p>PRO Number End is the ending number for the first set of PRO Numbers.</p> |
| PRO Number Set - 2 | Defines the second range of PRO Numbers to be used by Sterling Selling and Fulfillment Foundation. |
| PRO Number Prefix | <p>Enter the PRO Number Prefix to be used in generating the second range of PRO Numbers.</p> <p>PRO Number Prefix can be alpha numeric, and is not included for computing the check digit.</p> |
| PRO Number Start | <p>Enter the PRO Number Start to be used in generating the second range of PRO Numbers.</p> <p>PRO Number Start is the starting number for the second set of PRO Numbers.</p> |

Table 26. PRO Number Generation Scheme Pop-Up Window (continued)

| Field | Description |
|---------------------------|---|
| PRO Number End | Enter the PRO Number End to be used in generating the second range of PRO Numbers. PRO Number End is the ending number for the second set of PRO Numbers. |
| Notification Threshold | Enter the notification threshold at which an alert is raised to the user. This gains importance in instances where the second set of PRO Numbers is not defined. The notification threshold defines the number of unassigned PRO Numbers available till the PRO Number End. This enables the warehouse to talk to the carrier and get a new range of PRO Numbers. Note: If the PRO Number End is X, and the notification threshold is set to 50, Sterling Selling and Fulfillment Foundation raises an alert to the user, when the current PRO Number (unassigned) reaches X-50. |
| Notification Service | Choose Notification Service to be used. Notification Service is the service that is invoked when Notification Threshold is reached. |
| Check Digit Determination | Defines the check digit algorithm to be used for PRO Generation. |
| Select Algorithm | Choose the relevant algorithm for check digit determination. Typical values are mod-11 and mod-10. Note: When 'mod-11' or 'mod-10' schema of check digit determination is chosen, the check digit is generated out-of-the-box by Sterling Selling and Fulfillment Foundation. For more details about Check Digit Determination Algorithm, see Setting Up a Check Digit Determination Algorithm. |

Setting Up a Check Digit Determination Algorithm:

About this task

To set up a check digit determination algorithm:

Procedure

1. In the PRO Number Generation Scheme pop-up window, choose the **Search** icon.
2. The Check Digit Algorithms Search window displays.
3. In the Check Digit Algorithms panel, choose the **Create New** icon. The Check Digit Logic Details pop-up window displays.
4. Enter information in the applicable fields. Refer Table 27 for field value descriptions.
5. Choose the **Save** icon.

Table 27. Check Digit Logic Details Popup Window

| Field | Description |
|-------------------|--|
| Check Digit Logic | Enter the check digit logic for the algorithm being created. |
| Short Description | Enter a short description for the algorithm being created. |

Table 27. Check Digit Logic Details Popup Window (continued)

| Field | Description |
|------------------|---|
| Long Description | Enter a long description for the algorithm being created. |

Creating a New Check Digit Determination Algorithm from an Existing Check Digit Determination Algorithm:

About this task

To create a new check digit determination algorithm from an existing check digit determination algorithm:

Procedure

1. In the PRO Number Generation Scheme pop-up window, choose the **Search** icon.
2. The Check Digit Algorithms Search window displays.
3. In the Search panel, enter applicable search criteria, and choose the **Search** icon.
4. The relevant search results display in the Check Digit Algorithms panel.
5. From the Check Digit Algorithms list, choose the Check Digit Algorithm to be copied from.
6. Choose the **Save** icon. The Check Digit Logic Details pop-up window displays.
7. Enter information in the applicable fields. Refer Table 27 on page 68 for field value descriptions.
8. Choose the **Save** icon.

Modifying a Check Digit Determination Algorithm:

About this task

Once a check digit determination algorithm has been created, it can be modified.

To modify a check digit determination algorithm:

Procedure

1. In the PRO Number Generation Scheme pop-up window, choose the **Search** icon..
2. The Check Digit Algorithms Search window displays.
3. In the Search panel, enter applicable search criteria, and choose the **Search** icon.
4. The relevant search results display in the Check Digit Algorithms panel.
5. From the Check Digit Algorithms list, choose the Check Digit Algorithm to be modified.
6. Choose the **Details** icon. The Check Digit Logic Details pop-up window displays.
7. Enter information in the applicable fields. Refer Table 27 on page 68 for field value descriptions.
8. Choose the **Save** icon.

Deleting a Check Digit Determination Algorithm:

About this task

To delete a check digit determination algorithm:

Procedure

1. In the PRO Number Generation Scheme pop-up window, choose the **Search** icon.
2. The Check Digit Algorithms Search window displays.
3. In the Search panel, enter applicable search criteria, and choose the **Search** icon.
4. The relevant search results display in the Check Digit Algorithms panel.
5. From the Check Digit Algorithms list, choose the Check Digit Algorithm to be deleted.
6. Choose the **Delete** icon.

Modifying a Node's LTL Carrier Preferences:

About this task

To modify a node's LTL carrier preferences:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. Choose the LTL Carrier Preferences tab.
3. Select the applicable LTL Carrier Preference and choose the **Details** icon. The PRO Number Generation Scheme pop-up window displays.
4. Enter information in the applicable fields. Refer to Table 26 on page 67 for field value descriptions.
5. Choose the **Save** icon.

Deleting a Node's LTL Carrier Preferences:

About this task

To delete a node's LTL carrier preferences:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. Choose the LTL Carrier Preferences tab.
3. Select the applicable LTL Carrier Preference and choose the **Delete** icon.

Defining a Node's Carrier Pickup Schedule:

About this task

You can define a carrier's pickup schedule at a node. You can add, modify, and delete pickup schedules. See the *Sterling Selling and Fulfillment Foundation: Product Concepts Guide* guide for more information.

To add a carrier pickup schedule to a node:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. Choose the Carrier Pickup Schedules tab.
3. Choose the **Create New** icon. The Carrier Pickup Schedule Details pop-up window displays.

4. Enter information in the applicable fields. Refer to the following table for field value descriptions.
5. Choose the **Save** icon.

Results

Table 28. Carrier Pickup Schedule Details Popup Window

| Field | Description |
|-----------------------|---|
| Carrier Service | Select the carrier service for which you are configuring a pickup schedule. |
| Effective From Date | Select the date on which the pickup schedule becomes effective. If you do not specify a start date, the system assumes that the pickup schedule has already started. |
| Effective To Date | Select the date on which the pickup schedule ends. If you do not specify an end date, the pickup schedule is in effect forever. Ensure that you specify a date range that is not already in use by another carrier pickup schedule. For example, if a carrier pickup schedule has a date range of January through June, you cannot specify a date range of May through July for a different schedule. |
| Pick Up On | |
| Day of Week | Check the box for each day of the week on which pickups are permitted. |
| Pickup Time | Enter the time of day when this carrier service picks up shipments from this node. If you do not specify a time, the carrier does not pick up on the selected day. |
| Pickup Date Overrides | |
| Override Date | Select the date for which you want to override the scheduled pickup options. |
| Can Pick Up | Select Yes to allow pick up or No to disallow pick up on the specified date. |
| Pickup Time | Enter the pickup time for the override date that you are allowing pickup. |

Modifying a Carrier Pickup Schedule:

About this task

To modify a carrier pickup schedule:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. Choose the Carrier Pickup Schedules tab.
3. Select a pickup schedule from the Carrier Pickup Schedule List and choose the **Details** icon. The Carrier Pickup Schedule Details popup window displays.
4. Enter information in the applicable field. Refer to Table 28 for field value descriptions.

5. Choose the **Save** icon.

Deleting a Carrier Pickup Schedule:

About this task

To delete a carrier pickup schedule:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Node Attributes.
2. Choose the Carrier Pickup Schedules tab.
3. Select a pickup schedule from the Carrier Pickup Schedule List and choose the **Delete** icon.

Defining a Node's Advanced Inventory Attributes

About this task

You can determine if a node's inventory is maintained within Sterling Selling and Fulfillment Foundation. You can also determine if the node you are configuring is itself an inventory node or identifies the inventory node to which it belongs.

To define a node's advanced inventory attributes:

Procedure

1. From the Roles & Participation tab in the Organization Details window, choose Advanced Attributes.
2. Enter information in the applicable fields. Refer to Table 29 for field value descriptions.
3. Choose the **Save** icon.

Table 29. Advanced Attributes, Inventory Tab

| Field | Description |
|--|---|
| Inventory Information Not Available To Sterling Selling and Fulfillment Foundation | <p>Select this option if the node uses an inventory application other than Sterling Selling and Fulfillment Foundation to track inventory.</p> <p>If this option is selected, Sterling Selling and Fulfillment Foundation never has access to the inventory picture for this node, and never attempts to do any inventory availability checks.</p> <p>Note: When this option is selected, Sterling Selling and Fulfillment Foundation still stores the inventory organization for the node with the organization selected as the inventory organization when the node was created (see the Inventory Consolidation Level rule in “System Administration Components: Defining Installation Rules” on page 173).</p> |
| Inventory Is Made Available To Sterling Selling and Fulfillment Foundation | <p>Select this if the node tracks inventory using either Sterling Selling and Fulfillment Foundation or another inventory application. The node's inventory picture can be used in Sterling Selling and Fulfillment Foundation for availability calculation, inventory tracking, and distribution.</p> <p>If you are configuring a node, this field determines if inventory is tracked or infinite at the node.</p> |

Table 29. Advanced Attributes, Inventory Tab (continued)

| Field | Description |
|--|--|
| Get External Supply Real Time | Select this field if the supply is available to Sterling Selling and Fulfillment Foundation, but comes from an external system instead of being maintained internally. The supply picture is obtained by calling the getExternalSupply user exit. Note: This checkbox is only available when the inventory information is available to Sterling Selling and Fulfillment Foundation, and the organization is a node only. |
| Capture Tag Information | |
| Only when receiving | Select this option to capture an item's tag information only when receiving inventory. |
| When performing any node operation | Select this option if you want to capture an item's tag information when performing any node operation, such as receiving, picking, putaway, or counting. |
| Only when shipping, if the buyer mandates | Select this option if you want to capture an item's tag information only when shipping inventory to a buyer who mandates it. |
| Serial Information | |
| Serial Tracked Item | |
| Capable of Serial Tracking in Inventory | Select this to track serials for serial tracked items in inventory. If this is not selected, serial tracking will be based on configuration for serialized items. |
| Serialized Item | |
| Capture Serial in Inbound | Select this to capture serial information in inbound. There are two scenarios of capturing serials: Only Return Inbound - Select this to capture only for return inbound items. All Inbound - Select this to capture serials for all inbound inventory. |
| Capture Serial in Outbound | Select this to capture the serial information when shipping. |
| Exclude Serial Capture For Transfer | Select this to exclude serial capturing for transfer orders. |
| Physical Count | |
| Allow Other Inventory Operations While Physical Count Is On | Check this box to allow other inventory operations to be performed during the physical count process. |
| Inventory Adjustment Reasons | |
| <p>You can associate inventory adjustment reasons for a ship node that performs receiving, packing, and shipping activities.</p> <p>Based on the configurations done for a ship node in Sterling Store Inventory Management, the inventory adjustment reasons drop-down list displays.</p> | |
| Receiving | Select the adjustment reason code associated with the receiving activity from the drop-down list. By default, the value of the receiving activity is RECEIPT. Note: Ensure that the reason code is not associated with an accounting bin. |

Table 29. Advanced Attributes, Inventory Tab (continued)

| Field | Description |
|--------------------------------|--|
| Packing | Select the adjustment reason code associated with the packing activity from the drop-down list. By default, the value of the packing activity is PACK. Note: Ensure that the reason code is associated with an accounting bin. |
| Shipping | Select the adjustment reason code associated with the shipping activity from the drop-down list. By default, the value of the shipping activity is SHIP. Note: Ensure that the reason code is not associated with an accounting bin. |
| OverPick For Voice Based Tasks | Select the adjustment reason code associated with the voice-based overpicking activity from the drop-down list. Note: This reason code is applicable only when voice-based picking is implemented in a warehouse. |

Defining an Organization's Advanced Inventory Attributes

About this task

You can determine if an organization's inventory is maintained within Sterling Selling and Fulfillment Foundation. You can also determine if the organization you are configuring is an inventory organization or the inventory organization it belongs to.

Note: This is an installation level configuration only. Do not attempt to reconfigure the parameters on this tab mid-implementation.

Note: When creating an organization through the save as operation, the new organization's inventory organization is the inventory organization of the source organization. If the source organization is its own inventory organization, the source organization is set as the inventory organization of the new organization.

To define an organization's advanced inventory attributes:

Procedure

1. From the **Roles & Participation** tab in the Organization Details window, choose **Advanced Attributes**.
2. Choose the **Inventory** tab.
3. Choose the Save icon.

Table 30. Inventory Tab

| Field | Description |
|--|---|
| Inventory Information Is Not Available | Select this option if the organization uses an inventory application other than Sterling Selling and Fulfillment Foundation to track supply and demand. If this option is selected, Sterling Selling and Fulfillment Foundation does not have access to the inventory picture for this organization, and do not attempt to do any inventory availability checks. Orders can still be placed using this organization as a seller, but the orders are scheduled without any inventory availability checks. |

Table 30. Inventory Tab (continued)

| Field | Description |
|--|---|
| Inventory Information Is Available | <p>Select this if the organization tracks inventory supply and demand using either Sterling Selling and Fulfillment Foundation or another inventory application. The organization's supply and demand picture can be used in Sterling Selling and Fulfillment Foundation for availability calculation, inventory tracking, and distribution.</p> <p>If you are configuring a node, this field determines if inventory is tracked or infinite at the node.</p> |
| This Organization Is An Inventory Organization | <p>Select this if you selected Inventory Is Maintained Within Sterling Selling and Fulfillment Foundation and you want to specify this organization as an inventory consolidator.</p> <p>An inventory organization:</p> <ul style="list-style-type: none"> • Provides inventory identification for a product. For example, different organizations can have different product identification IDs for the same inventory item. The inventory organization provides a mechanism to rationalize these product IDs into a single nomenclature across multiple organizations. • Establishes ownership of inventory when a single physical location is shared across multiple organizations without having to create multiple logical locations to establish the inventory ownership. • Provides inventory separation, allowing all organizations that are part of the inventory organization to have visibility to the inventory of all of the other organizations that are part of the inventory organization. |
| Get External Inventory Real Time | <p>Select this field if the inventory is available to Sterling Selling and Fulfillment Foundation, but comes from an external system instead of being maintained internally. The inventory picture is then obtained by calling the <code>getExternalInventory</code> user exit.</p> |
| Supply And Demand Kept Externally | <p>This field determines whether inventory updates are done internally or externally for an inventory organization. When you select this field, inventory supply and demand updates do not happen in the system. Instead, updates are published to an external system using the <code>EXTERNAL_DEMAND_CHANGE</code> and <code>EXTERNAL_SUPPLY_CHANGE</code> events.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Select this field only for organizations that are inventory organizations; do not select it for organizations that are defined as nodes. • Do not use any inventory APIs, such as <code>adjustInventory</code>, or run inventory agents, such as Real-time Availability Monitor or <code>syncLoadedInventory</code>, on a system when this field is selected. |

Table 30. Inventory Tab (continued)

| Field | Description |
|---|--|
| Inventory Organization Is | Select this and the applicable inventory organization if you selected Inventory Is Made Available To Sterling Selling and Fulfillment Foundation and you want to associate this organization as part of the applicable inventory organization. Important: The organization should have the same catalog organization as the inventory organization you are associating with. |
| Get External Supply Real Time | Select this field if the supply is available to Sterling Selling and Fulfillment Foundation, but comes from an external system instead of being maintained internally. The supply picture is then obtained by calling the getExternalSupply user exit. Note: This checkbox is only available when the organization has been defined only as a node. |
| Physical Count | |
| Allow Other Inventory Operations While Physical Count Is On | Check this box to allow other inventory operations to be performed during the physical count process. This checkbox is enabled only if the organization is a node. |
| Inventory Organization Relationship | |
| Inventory Organization Relationship | Choose the Create New icon to select an inventory organization from the drop-down list. It displays Consumable Inventory Organization and Organization Name. Note: This panel is visible only if This Organization Is An Inventory Organization is selected. |

Defining an Organization's Advanced Catalog Attributes

About this task

You can determine if an organization maintains its own catalog or if it is maintained by another organization.

Note: This is an installation level configuration only. Do not attempt to reconfigure the parameters on this tab mid-implementation.

Note: When creating an organization through the save as operation, the new organization's catalog organization is the catalog organization of the source organization. If the source organization is its own catalog organization, the source organization is set as the catalog organization of the new organization.

To define an organization's advanced catalog attributes:

Procedure

1. From the **Roles & Participation** tab in the Organization Details window, choose **Advanced Attributes**.
2. Choose the **Catalog** tab.
3. Enter information in the applicable fields. Refer to Table 31 on page 77 for field value descriptions.
4. Choose the **Save** icon.

Table 31. Catalog Tab

| Field | Description |
|--------------------------------------|---|
| Organization Defines Its Own Catalog | Select this field in the organization defines its own item master catalog. The item master that this organization defines can be shared with other organizations. |
| Catalog Defined By | Select this field and select the applicable catalog organization if you want to use the organization's item master catalog without having to create a separate catalog of your own. |

Defining an Organization's Advanced Capacity Attributes

About this task

You can determine if an organization maintains its own capacity or if it is maintained by another organization.

Note: This is an installation level configuration only. Do not attempt to reconfigure the parameters on this tab mid-implementation.

Note: When creating an organization through the save as operation, the new organization's capacity organization is the capacity organization of the source organization. If the source organization is its own capacity organization, the source organization is set as the capacity organization of the new organization.

To define an organization's advanced capacity attributes:

Procedure

1. From the **Roles & Participation** tab in the Organization Details window, choose **Advanced Attributes**.
2. Choose the **Catalog** tab.
3. Enter information in the applicable fields. Refer to Table 32 for field value descriptions.
4. Choose the **Save** icon.

Table 32. Capacity Tab

| Field | Description |
|--|--|
| This Organization Is A Capacity Organization | <p>Select This Organization Is A Capacity Organization if you want to specify this organization as a service capacity consolidator.</p> <p>A capacity organization:</p> <ul style="list-style-type: none"> • Provides service capacity identification for a product. • Establishes ownership of capacity when a single physical location is shared across multiple organizations without having to create multiple logical locations to establish the capacity ownership. • Provides capacity separation, allowing all organizations that are part of the capacity organization to have visibility to the capacities of all of the other organizations that are part of the same capacity organization. |

Table 32. Capacity Tab (continued)

| Field | Description |
|--------------------------|--|
| Capacity Organization Is | Select Capacity Organization Is and select the applicable capacity organization if you want to associate this organization as part of the applicable capacity organization. Important: The organization should have the same catalog organization as the capacity organization you are associating with. |
| Get Capacity Real Time | Select this field if the organization makes capacity information available to Sterling Selling and Fulfillment Foundation from an external system. When Sterling Selling and Fulfillment Foundation checks for capacity, the external system provides the capacity in response to a user exit call from Sterling Selling and Fulfillment Foundation. |

Defining an Organization's Advanced Customer Attributes

About this task

You can determine if an organization defines its own customers, or if its customers are defined by another organization.

To define an organization's advanced customer attributes:

Procedure

1. From the **Roles & Participation** tab in the Organization Details window, choose **Advanced Attributes**.
2. Choose the **Customer** tab.
3. Enter information in the applicable fields. Refer to Table 32 on page 77 for field value descriptions.
4. Choose the **Save** icon.

Defining an Organization's Advanced Pricing Attributes

About this task

You can determine if an organization maintains its own pricing or if it is maintained by another organization.

Note: This is an installation level configuration only. Do not attempt to reconfigure the parameters on this tab mid-implementation.

To define an organization's advanced pricing attributes:

Procedure

1. From the **Roles & Participation** tab in the Organization Details window, choose **Advanced Attributes**.
2. Choose the **Pricing** tab.
3. Enter information in the applicable fields. Refer to Table 31 on page 77 for field value descriptions.
4. Choose the **Save** icon.

Table 33. Pricing Tab

| Field | Description |
|--------------------------------------|--|
| Organization Defines Its Own Pricing | Select this field if the organization defines its own price lists, pricing rules, and coupons. The pricing data that this organization defines can be shared with other organizations. |
| Pricing Defined By | Select this field and select the applicable organization if you want to use that organization's price lists, pricing rules, and coupons. |

Defining an Organization's Themes

About this task

You can create and maintain a list of themes to be part of your storefront's URL and provide a brand-name, "look-and-feel" entry point for customers on the web. This tab is enabled when an organization has the roles of enterprise and seller. You can list specific themes such as seasonal or promotional displays as well as default themes that are more generic in nature.

To define an Organization's Themes:

Procedure

1. From the **Roles & Participation** tab in the **Organization** Details window, choose **Organization Themes**.
2. Enter information in the applicable fields. Refer to Table 34 for field value descriptions.
3. Choose the **Save** icon.

Table 34. Organization Theme

| Field | Description |
|---------------|---|
| Theme | Enter the name of a theme that your organization supports. This name will become part of the URL. |
| Default Theme | Enter the ID of your organization's Default Theme. This name will become part of the URL. |

Assigning a Yard's Roles and Participant Associations

About this task

If an organization is a yard, the role is selected as a Node. You cannot assign any other roles to that yard.

To assign a yard's roles and participant associations:

Procedure

1. In the Organization Details window, choose the Roles & Participation tab. The Roles box is disabled as the organization is a yard and not a fulfillment node.
2. In the Enterprises box, choose the **Create New** icon. The Participating Enterprises pop-up window is displayed. Select the enterprise that this organization participates with from the drop-down list. Choose the **Delete** icon to delete the enterprise that do not participate with the organization.

3. In Primary Enterprise, select the primary Enterprise for the organization from the drop-down list, if applicable.
4. Click the **Save** icon.

Defining Communication Protocols

Communication protocols are the means by which an organization communicates in the Hub environment. For example, if the organization you are setting up uses both an FTP site and e-mail services to send and receive documents, you would identify them along with their protocols here. You can create, modify, and delete communication protocols.

Creating a Communication Protocol About this task

To create a communication protocol:

Procedure

1. In the Organization Details window, choose the Communication tab. The Communication Protocols and Documents lists display.
2. From the Communication Protocols list, select the **Create New** icon. The Communication Protocol Details pop-up window displays.
3. Enter information in the applicable fields. Refer to Table 35 for field value descriptions.
4. Choose the **Save** icon.

Table 35. Communication Protocol Details Pop-Up Window

| Field | Description |
|-------------------|--|
| Protocol | Select the type of protocol you want to set up. For more information about protocols, see “Defining Protocol Codes” on page 235. You must choose the Save icon before entering any references. |
| References | |
| Name | Enter a reference name for the protocol. For example, IP address. |
| Value | Enter the value for the reference name. |

Modifying a Communication Protocol About this task

To modify a communication protocol:

Procedure

1. In the Organization Details window, choose the Communication tab. The Communication Protocols and Documents list displays.
2. From the Communication Protocols list, select the applicable communication protocol and choose the **Details** icon. The Communication Protocol Details pop-up window displays.
3. Modify information in the applicable fields. Refer to Table 35 for field value descriptions.
4. Choose the **Save** icon.

Deleting a Communication Protocol

About this task

To delete a communication protocol:

Procedure

1. In the Organization Details window, choose the Communication tab. The Communication Protocols and Documents lists display.
2. From the Communication Protocols list, select the applicable communication protocol and choose the **Delete** icon.

Defining Buyer Documents

If you choose Buyer as the role for the organization, you may have to define the types of Buyer documents. Buyer documents are documents used by the Buyer organization when communicating with a Seller organization.

The following are some examples of Buyer documents:

- Planned Purchase Order
- Purchase Order Download
- Invoice

You can create, modify, and delete Buyer documents.

Creating a Buyer Document:

About this task

To create a Buyer document:

Procedure

1. In the Organization Details window, choose the Communication tab. The Communication Protocols and Documents lists display.
2. From the Documents list, choose the Buyer Documents tab. The Buyer Documents list displays.
3. Choose the **Create New** icon. The Buyer Document Detail pop-up window displays.
4. Enter information in the applicable fields. Refer to Table 36 for field value descriptions.
5. Choose the **Save** icon.

Table 36. Buyer Document Detail Pop-Up Window

| Field | Description |
|----------|---|
| Document | The business document to be used in your organization. For more information about business documents, see "Defining Business Document Codes" on page 237. |
| Format | Select the format in which you want the document to appear. For example, XML or EDI. For more information about document formats, see "Defining Document Format Codes" on page 236. |
| Protocol | Select the protocol you want to use when sending or receiving the document. For example, FTP. |

Table 36. Buyer Document Detail Pop-Up Window (continued)

| Field | Description |
|---------------------|--|
| Backup Protocol | Select a backup protocol to use in case there is a problem with the primary protocol. For example, set to e-mail service in case of occasional problems with the FTP site. For more information about protocols, see “Defining Communication Protocols” on page 80. |
| Integration Service | <p>Enter the service that the Buyer prefers to use to receive this document.</p> <p>For example, you are setting up an Invoice document. The Buyer prefers to receive this document from organizations using an EDI format. A particular organization that participates with the Buyer, also uses two additional Carriers that prefer to receive the document in formats other than EDI. The Enterprise has a router configured to look for the preferred service at the point in their pipeline where the Invoice document is sent to the Buyer. They also have several services configured to enable the transfer of documents in different formats, including EDI.</p> <p>You can use this field to specify the service to transfer the necessary information into EDI format at the necessary point in the pipeline.</p> |
| Reference 1 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |
| Reference 2 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |
| Reference 3 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |
| Reference 4 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |
| Reference 5 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |

Modifying a Buyer Document:

About this task

To modify a Buyer document:

Procedure

1. In the Organization Details window, choose the Communication tab. The Communication Protocols and Documents lists display.
2. From the Documents list, choose the Buyer Documents tab. The Buyer Documents list displays.
3. Select the applicable Buyer document and choose the **Details** icon. The Buyer Document Detail pop-up window displays.
4. Modify information in the applicable fields. Refer to Table 36 on page 81 for field value descriptions.
5. Choose the **Save** icon.

Deleting a Buyer Document:

About this task

To delete a Buyer document:

Procedure

1. In the Organization Details window, choose the Communication tab. The Communication Protocols and Documents lists display.
2. From the Documents list, choose the Buyer Documents tab. The Buyer Documents list displays.
3. Select the applicable Buyer document and choose the **Delete** icon.

Setting Up Seller Documents

If you choose Seller as the role for the organization, you may have to define the types of Seller documents. Seller documents are documents used by the Seller organization when communicating with a Buyer organization.

The following are some examples of Seller documents:

- Order Confirmation
- Shipment Confirmation
- Planned Order Modification

You can create, modify, and delete Seller documents.

Creating a Seller Document:

About this task

To create a Seller document:

Procedure

1. In the Organization Details window, choose the Communication tab. The Communication Protocols and Documents lists display.
2. From the Documents list, choose the Seller Documents tab. The Seller Documents list displays.
3. Choose the **Create New** icon. The Seller Document Detail pop-up window displays.
4. Enter information in the applicable fields. Refer to Table 37 for field value descriptions.
5. Choose the **Save** icon.

Table 37. Seller Document Detail Pop-Up Window

| Field | Description |
|----------|---|
| Document | The business document to be used in your organization. For more information about business documents, see "Defining Business Document Codes" on page 237. |
| Format | Select the format in which you want the document to appear. For example, XML or EDI. For more information about document formats, see "Defining Document Format Codes" on page 236. |
| Protocol | Select the protocol you want to use when sending or receiving the document. For example, FTP. |

Table 37. Seller Document Detail Pop-Up Window (continued)

| Field | Description |
|---------------------|---|
| Backup Protocol | Select a backup protocol to use in case there is a problem with the primary protocol. For example, set to e-mail service in case of occasional problems with the FTP site. For more information about protocols, see “Defining Communication Protocols” on page 80. |
| Integration Service | <p>Enter the service that the Seller prefers to use to receive this document.</p> <p>For example, you are setting up a Purchase Order document. The Seller prefers to receive this document from organizations using an EDI format. A particular organization that participates with the Seller, also uses two additional Sellers that prefer to receive the document in formats other than EDI. This organization has a router configured to look for the preferred service at the point in their pipeline where the Purchase Order document is sent to the Seller. They also have several services configured to enable the transfer of documents in different formats, including EDI.</p> <p>You can use this field to specify the service to transfer the necessary information into EDI format at the necessary point in the pipeline.</p> |
| Reference 1 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |
| Reference 2 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |
| Reference 3 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |
| Reference 4 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |
| Reference 5 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |

Modifying a Seller Document:

About this task

To modify a Seller document:

Procedure

1. In the Organization Details window, choose the Communication tab. The Communication Protocols and Documents lists display.
2. From the Documents list, choose the Seller Documents tab. The Seller Documents list displays.
3. Select the applicable Seller document and choose the **Details** icon. The Seller Document Detail pop-up window displays.
4. Modify information in the applicable fields. Refer to Table 37 on page 83 for field value descriptions.
5. Choose the **Save** icon.

Deleting a Seller Document:

About this task

To delete a Seller document:

Procedure

1. In the Organization Details window, choose the Communication tab. The Communication Protocols and Documents lists display.
2. From the Documents list, choose the Seller Documents tab. The Seller Documents list displays.
3. Select the applicable Seller document and choose the **Delete** icon.

Setting Up Carrier Documents

If you chose Carrier as the role for the organization, you may have to define the types of Carrier documents. Carrier documents are documents used in communicating carrier shipment information with Buyer and Seller organizations.

The following are some examples of Carrier documents:

- Package Details
- Load Tender Request
- Load Tender Confirmation

You can create, modify, and delete Carrier documents.

Creating a Carrier Document:

About this task

To create a Carrier document:

Procedure

1. In the Organization Details window, choose the Communication tab. The Communication Protocols and Documents lists display.
2. From the Documents list, choose the Carrier Documents tab. The Carrier Documents list displays.
3. Choose the **Create New** icon. The Carrier Document Detail pop-up window displays.
4. Enter information in the applicable fields. Refer to Table 38 for field value descriptions.
5. Choose the **Save** icon.

Table 38. Carrier Document Detail Pop-Up Window

| Field | Description |
|----------|---|
| Document | The business document to be used in your organization. For more information about business documents, see "Defining Business Document Codes" on page 237. |
| Format | Select the format in which you want the document to appear. For example, XML or EDI. For more information about document formats, see "Defining Document Format Codes" on page 236. |
| Protocol | Select the protocol you want to use when sending or receiving the document. For example, FTP. |

Table 38. Carrier Document Detail Pop-Up Window (continued)

| Field | Description |
|---------------------|---|
| Backup Protocol | Select a backup protocol to use in case there is a problem with the primary protocol. For example, set to e-mail service in case of occasional problems with the FTP site. For more information about protocols, see “Defining Communication Protocols” on page 80. |
| Integration Service | <p>Enter the service that the Carrier prefers to use to receive this document.</p> <p>For example, you are setting up a Package Type document. The Carrier prefers to receive this document from organizations using an EDI format. A particular organization that participates with the Carrier, also uses two additional Carriers that prefer to receive the document in formats other than EDI. The Enterprise has a router configured to look for the preferred service at the point in their pipeline where the Package Type document is sent to the Carrier. They also have several services configured to enable the transfer of documents in different formats, including EDI.</p> <p>You can use this field to specify the service to transfer the necessary information into EDI format at the necessary point in the pipeline.</p> |
| Reference 1 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |
| Reference 2 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |
| Reference 3 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |
| Reference 4 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |
| Reference 5 | Enter any user-defined information. This field is disabled until you enter information and choose the Save icon. |

Modifying a Carrier Document:

About this task

To modify a Carrier document:

Procedure

1. In the Organization Details window, choose the Communication tab. The Communication Protocols and Documents lists display.
2. From the Documents list, choose the Carrier Documents tab. The Carrier Documents list displays.
3. Select the applicable Carrier document and choose the **Details** icon. The Carrier Document Detail pop-up window displays.
4. Modify information in the applicable fields. Refer to Table 38 on page 85 for field value descriptions.
5. Choose the **Save** icon.

Deleting a Carrier Document:

About this task

To delete a Carrier document:

Procedure

1. In the Organization Details window, choose the Communication tab. The Communication Protocols and Documents lists display.
2. From the Documents list, choose the Carrier Documents tab. The Carrier Documents list displays.
3. Select the applicable Carrier document and choose the **Delete** icon.

Defining an Organization's Payment Information

About this task

An organization that makes any type of monetary transactions with other organizations must have payment information set up. This information provides all parties with an account number, billing address, and tax information.

To set up an organization's payment information:

Procedure

1. In the Organization Details window, choose the Payment Info tab.
2. Enter information in the applicable fields. Refer to Table 39 for field value descriptions.
3. Choose the **Save** icon.

Table 39. Payment Info Tab

| Field | Description |
|-------------------------|--|
| Account Number With Hub | Enter the organization's account number used for monetary transactions with the Hub organization, if applicable. |
| Tax Information | |
| Tax Payer ID | Enter the organization's tax payer identification number. This number identifies the organization as a tax paying entity. |
| Authority Type | Enter the authority type given for an exemption certificate, if applicable. |
| Tax Exempt | Check this box if the organization is exempt from paying taxes. |
| Exemption Certificate | Enter the identification number of the exemption certificate. |
| Issuing Authority | Enter the authority that issued the exemption certificate. |
| Tax Jurisdiction | Enter the tax jurisdiction that the exemption certificate was issued in. |
| Billing Address | The organization's billing address. This information is mandatory. Choose the Details icon to enter an address. Choose the Contact Info tab to view additional contact information. |

Viewing an Organization's Child Organizations

About this task

You can view any child organizations an organization may have.

To view an organization's child organizations, choose the Child Organizations tab in the Organization Details window. You can create and modify organizations from this tab as described in detail in additional sections of this chapter.

Defining an Organization's Calendars

You can define an organization's working calendar. A working calendar is a span of dates for a defined period for which you can define any working shifts (for example, Day Shift, Night Shift), exception shifts (for example, extra shifts on the last day of the month for performing inventory stock), and exception days (for example, Fourth of July, New Years Day).

A node or an organization can choose its calendars as well as the calendars of its primary enterprise as its business calendar, shipping calendar, or receiving calendar.

A node or an organization can also inherit calendar definition from its primary enterprise when creating calendars. If a calendar is inherited from another calendar, the parent calendar's components such as Effective Periods, Shifts, Calendar Day Exceptions, and Exception Shifts can be used by the child calendar during runtime. This implies that the inherited calendars cannot specify their own effective periods or shifts. However, a child calendar has the ability to specify its own set of Calendar Day Exceptions and Exception Shifts. These are used in conjunction with the parent calendar's components while retrieving the day details of the child calendar during runtime.

Note: The child calendar's Calendar Day Exceptions and Exception Shifts override those of the parent calendar if they fall on the same date.

The following limitations are assumed when inheriting calendars:

- A calendar of an organization or a node can only be inherited from a calendar of the primary enterprise and from its own calendar.
- The parent calendar cannot be an inherited calendar.
- An inherited calendar is not allowed to change to a non-inherited calendar and vice-versa.
- An inherited calendar is not allowed to specify its own effective periods and standard shifts.
- If a calendar is inherited from another calendar:
 - only Calendar Day Exceptions and Exception Shifts can be defined for the inherited calendar.
 - the exception dates must fall under one of the effective periods of the parent calendar. Moreover, the start time and end time of the exception shifts must match the start time and end time of a shift within that effective period.

Setting Up an Organization's Calendar

About this task

To set up an organization's calendar:

Procedure

1. In the Organization Details window, choose the **Calendar** tab. The Calendar list displays.
2. Select the **Create New** icon. The **Create Calendar** pop-up window displays.

Table 40. Create Calendar Pop-up Window

| Field | Description |
|----------------------------------|---|
| Inherit Definition from Calendar | From the drop-down list, select the parent calendar from which you wish to inherit the calendar definition. Note: This list does not contain calendars that are inherited. Note: Once a calendar is selected from this list, the Default Effective From, Default Effective To, and Shifts for Effective Periods are disabled. |
| Calendar ID | Enter the identification for the calendar. |
| Description | Enter the description for the calendar. |
| Default Effective From | Enter the beginning date (according to the date format defined in the organization's locale) of the timeframe from which the calendar is effective. |
| Default Effective To | Enter the ending date (according to the date format defined in the organization's locale) of the timeframe to which the calendar is effective. However, because the ending date is perceived by the system as having the time 00:00:00, the ending date is not included in the date range. |
| Shift Name | Enter the name of the shift. |
| Start Time | Enter the start time of the shift. |
| End Time | Enter the end time of the shift. |

Select the days on which the shift is worked. Continue adding shifts as needed.

Note: A single calendar can have multiple effective periods.

3. Choose the **Save** icon. The Calendar Details pop-up window displays.

Defining a Calendar's Defaults About this task

You can configure the default effective dates and working shifts for a calendar.

Note: The default effective dates and working shifts cannot be defined for inherited calendars.

To configure calendar defaults:

Procedure

1. From the Calendar Details pop-up window, choose the **Configure Calendar Defaults** icon. The Default Calendar Configuration pop-up window displays.
2. From Effective Period, select the timeframe through which you want the calendar to be used.
 - Choose the **Configure Effective Periods** icon to create additional effective periods to associate with the calendar.

Note: Effective periods cannot overlap each other. Nor can they start or end in the middle of the day.

3. In Shift Name, enter the name of the shift.
4. In Start Time, enter the time the shift starts.
5. In End Time, enter the time the shift ends.

Note: You cannot configure a shift to carry over to the next day.

6. From Shift Valid For, select the days of the week the shift you are configuring is valid for.
7. Choose the **Save** icon. The shift now displays in Calendar Details pop-up window for any of the default days you have selected.

Creating an Exception for a Particular Calendar Day

About this task

You can mark a regular working day as a nonworking day or indicate if certain shifts are valid or not for a particular day. The exceptions that you indicate are only valid for that day.

For example, if the Fourth of July is a holiday for the organization, and it falls on a Friday, which is a normal working day, you can mark that particular date as a nonworking day.

As another example, if the organization has an extra shift for taking inventory on the last day of each month. You can create that shift and mark it as a valid shift for the last day of each month within your calendar's effective period.

To mark a regular working day as a nonworking day or vice versa, select the date you want from the Calendar Details pop-up window and choose the applicable exception from the Day Details frame.

To mark a default shift as valid or invalid:

Procedure

1. From the Calendar Details window, select the date you want to work with.
2. If the date is a default non-work day:
 - a. Select Working Day.
 - b. Select the shift you want to mark as valid or invalid from the Shifts table. Check Is Valid to indicate that the shift is valid for that particular date. Uncheck Is Valid to indicate that the shift is not valid for that particular date.
 - c. Choose OK, then choose the **Save** icon from the Day Details window.
3. If the date is a default work day, select Non-Working Day. This automatically unchecks the Is Valid box for all shifts on that day. Choose the **Save** icon from the Day Details window.

Note: If you choose the **Save** icon from the Calendar Details window. The date that was highlighted shows the color of an exception day, even if no changes were made to that day.

4. You can apply the defaults for the overrides by choosing the **Apply Defaults** icon. But you cannot restore the defaults for parent overrides in inherited calendars.

Viewing an Organization's Departments

About this task

You can view all departments of an organization.

To view an organization's departments, choose the Departments tab in the Organization Details window.

Creating a Department

About this task

To create a department:

Procedure

1. In the Organization Details window, choose the Departments tab. The Department List displays.
2. From the Department List, select the **Create New** icon. The Department Details pop-up window displays.
3. Enter information in the applicable fields. Refer to the Results for field value descriptions.
4. Choose the **Save** icon.

Results

| Field | Description |
|-------|-------------|
|-------|-------------|

| | |
|------------------------|--|
| Department Code | |
|------------------------|--|

A unique code to identify the department.

| | |
|------------------------|--|
| Department Name | |
|------------------------|--|

Name of the department.

| | |
|--------------------------------|--|
| Department Abbreviation | |
|--------------------------------|--|

Abbreviation of the department name.

| | |
|--------------|--|
| Queue | |
|--------------|--|

Select the default alert queue for the department to which the exceptions are routed. The list contains only those alert queues which are configured on the departments organization. For more information about creating alert queues, see, Chapter 12, "Configuring Alert Queues," on page 245.

| | |
|-----------------|--|
| Email Id | |
|-----------------|--|

Enter the email id for the department.

Department Details Pop-up Window

Modifying a Department

About this task

To modify a department:

Procedure

1. In the Organization Details window, choose the Departments tab. The Department List displays.
2. From the Department List, select the applicable department and choose the **Details** icon. The Department Details pop-up window displays.
3. Modify information in the applicable fields.

4. Choose the **Save** icon.

Deleting a Department

About this task

To delete a department:

Procedure

1. In the Organization Details window, choose the Departments tab. The Department List displays.
2. From the Department List, select the applicable department and choose the **Delete** icon.

Modifying an Organization

About this task

Once an organization has been created, you can modify it.

To modify an organization:

Procedure

1. From the tree in the application rules side panel, choose Participant Modeling > Participant Setup. The Organization Search window displays in the work area.
2. Enter the applicable search criteria and choose the **Search** icon. A list of organizations displays.
3. Select the organization and choose the **Details** icon. The Organization Details window displays.
4. Refer to the topics under “Creating and Modifying an Organization” on page 25 for further instructions.

Creating and Modifying an Organizational Hierarchy

You can organize any existing organizations in an organizational hierarchy. This hierarchy can be used to configure the relationships between related organizations. For example, if you have a multi-divisional setting with one parent Hub and several Enterprises below it, you can organize all of the existing Enterprises under the Hub in the organizational hierarchy. You can add and remove organizations from the organizational hierarchy.

Creating an Organizational Hierarchy

About this task

To create an organizational hierarchy:

Procedure

1. From the tree in the application rules side panel, choose Participant Modeling > Participant Setup. The Organization Search window displays in the work area.
2. Enter applicable search criteria and choose the **Search** icon. A list of organizations displays.
3. Select the organization you want to build an organizational hierarchy for and choose the **Organization Hierarchy** icon.

4. The Organizational Hierarchy tree displays in the left frame with the name of the organization you chose. You can now add organizations to the hierarchy.

Adding an Organization to the Organizational Hierarchy

About this task

To add organizations to the organizational hierarchy:

Procedure

1. From the tree select the organization you want to add the organization under.
2. From the Organizational Hierarchy tree, choose the **Create New** icon. The Add Organization to Hierarchy pop-up window displays.
3. Enter the applicable search criteria and choose the **Search** icon. A list of organizations displays.
4. Select the organization you want to add to the organizational hierarchy and choose the **Save** icon.

Removing an Organization from the Organizational Hierarchy

About this task

To remove an organization from the organizational hierarchy, select the organization you want to remove from the Organizational Hierarchy tree and choose the **Remove Organization** icon.

Creating Node Types

You can create node types to classify nodes. You can use node types to define node relationships, and set inventory rules.

For more information about defining inventory node type rules, see the *Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide*.

Creating a Node Type

About this task

To create a node type:

Procedure

1. In the Channel Applications Manager, perform the following:
 - a. Click the **Add** icon adjacent to Manage Supply Chain Network Model to expand the branch.
 - b. Click the Advanced Configurations link.
 - c. Select **Define Node Types**. The Node Type window displays in the work area
2. From the tree in the application rules side panel, choose Participant Modeling > Node Types. The Node Type window displays in the work area.
3. Choose the **Create New** icon. The Node Type Details pop-up window displays.
4. Enter information into the applicable fields. Refer to Table 41 on page 94 for field level descriptions.
5. Choose the **Save** icon.

Table 41. Node Type Details Pop-up Window

| Field | Description |
|-------------|--|
| Node Type | Enter a name for the node type. |
| Description | Enter a description for the node type. |

Modifying a Node Type

About this task

To modify a node type:

Procedure

1. In the Channel Applications Manager, perform the following:
 - a. Click the **Add** icon adjacent to Manage Supply Chain Network Model to expand the branch.
 - b. Click the Advanced Configurations link.
 - c. Select **Define Node Types**. The Node Type window displays in the work area
2. From the tree in the application rules side panel, choose Participant Modeling > Node Types. The Node Type window displays in the work area.
3. Select the applicable node type and choose the **Details** icon. The Node Type Details pop-up window displays.
4. Enter information into the applicable fields. Refer to Table 41 for field level descriptions.
5. Choose the Save icon.

Deleting a Node Type

About this task

To delete a node type:

Procedure

1. In the Channel Applications Manager, perform the following:
 - a. Click the **Add** icon adjacent to Manage Supply Chain Network Model to expand the branch.
 - b. Click the Advanced Configurations link.
 - c. Select **Define Node Types**. The Node Type window displays in the work area
2. From the tree in the application rules side panel, choose Participant Modeling > Node Types. The Node Type window displays in the work area.
3. Select the applicable node type and choose the **Delete** icon.

Chapter 4. Configuring Process Models

Process Modeling is the setting up of the Sterling Selling and Fulfillment Foundation business process workflow. The Sterling Selling and Fulfillment Foundation workflow consists of the entire set of business logic that defines how Sterling Selling and Fulfillment Foundation handles business documents and transactions on those documents. A **transaction** is a logical unit of work that encapsulates certain business logic. Transactions can be related to orders, inventory changes, returns, payment authorizations, or many other system events. Order Create, Inventory Monitor, and Send Release are examples of transactions.

Business process workflow consists of:

- Document types
- Repositories
- Process-type pipelines
- Transactions
- Conditions
- Events
- Statuses
- Actions
- Services

Document Type Configuration

Sterling Selling and Fulfillment Foundation uses document types to carry information through a configured business process workflow. These documents are derived from base document types. A base document type defines the business documents that Sterling Selling and Fulfillment Foundation handles, and defines a common storage structure for all derived document types.

The following base document types are defined in Sterling Selling and Fulfillment Foundation:

- General
- Order
- Load
- Count
- Container
- Wave
- Work Order
- Opportunity

Note: The available base document types are predefined and cannot be added to.

Document types are specific business documents that are derived from a base document type. For example, document types such as Sales Order and Purchase Order are derived from the Order base document type.

For detailed information about document types, see Chapter 26, “Document Types,” on page 567.

To complete a life cycle, each document type has a set of different processes that it can go through. These processes are called process types. Every base document type has a defined set of process types in Sterling Selling and Fulfillment Foundation.

Following are the process types defined in Sterling Selling and Fulfillment Foundation (for the base document types):

- Order Fulfillment
- Order Negotiation
- Outbound Shipment
- Planned Order Execution
- Planned Order Negotiation
- Reverse Logistics
- Return Shipment
- Return Receipt
- Template Order
- Purchase Order Execution
- Purchase Order Negotiation
- Inbound Shipment
- Purchase Order Receipt
- Transfer Order Execution
- Transfer Order Delivery
- Transfer Order Receipt
- Master Order Fulfillment
- Quote Fulfillment
- Load Execution
- General
- WMS Putaway
- WMS Layout Definition
- WMS Inventory
- Trailer Loading
- Task Execution
- Move Request Execution
- Manifesting
- Over Pack Build
- Count Execution
- Pack Process
- Outbound Picking
- VAS Process

Business rules such as payment collection rules and modification rules must be set up for each document type.

The Process Modeling Tree

About this task

In Sterling Selling and Fulfillment Foundation, you can view a graphical representation of each base document type and its document and process types.

To view the process modeling tree:

Procedure

1. From the tree in the application rules side panel, choose Process Modeling. The Process Modeling window displays in the work area.
2. Select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.

Defining a New Document Type

You may need to create a new document type if the rules pertaining to a key action, such as inventory updates, are affected. In this case, you can save an existing document type as a new custom document type. The new document type retains all of the process types associated with the document type you saved from. Database tables at both the document type level and the process type level are also copied to the new document type.

The following document type attributes are copied to the new document type:

- Document parameters
- Document templates
- Charge categories
- Charge names
- Common codes
- Order line types
- Purge criteria
- Business rules
- Receiving dispositions

The following process type level attributes are copied to the new document type:

- Process type rules
- Date types
- Process task types
- Statuses
- Status inventory types
- Modification types
- Modification rules
- Transactions
- Transaction pickup statuses
- Transaction drop statuses
- Events

Creating a New Document Type

About this task

To create a new document type:

Procedure

1. From the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Document Types swimlane, right-click on the applicable document type and choose Save As. The New Document Type window displays.
3. In Document Type, enter the new document type identification number.
4. In Description, enter a brief description of the document type.
5. For each process type associated with the document type you are saving as, enter the process type, the process type name, and a brief description.
6. Choose the **Save** icon. The new document type displays in the document type tree with the associated process types.

Note: An .ex extension is automatically appended to the document type and process type values you have specified.

Modifying a Document Type's Description

About this task

You can modify a document type's description.

To modify a document type's description:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Document Types swimlane, right-click on the applicable document type and choose Details. The Document Type Details window displays.
3. In Description, enter the new description.
4. Choose the **Save** icon.

Modifying a Process Type

About this task

You can define the parameters and templates that are particular to an individual process type. These definitions are applied to a document throughout its lifecycle in the process type.

To modify a process type:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Details. The Process Type Details window displays.

Note: For details about defining the Quote Fulfillment Process Type's Primary Information, see "Defining the Quote Fulfillment Process Type's Primary Information" on page 102. For details about defining the Opportunity Fulfillment Type's Primary Information, see "Defining the Opportunity Fulfillment Process Type's Primary Information" on page 103.

Defining a Process Type's Primary Information

About this task

You can define a process type's parameters for order creation, inventory, financial transactions, and other related entities. These parameters are applied to a document throughout its life cycle in the process type.

To define a process type's primary information:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Details. The Process Type Details window displays.
3. Choose the Primary Info tab.
4. Enter information in the applicable fields. Refer to Table 42 for field value descriptions.
5. Choose the **Save** icon.

Table 42. Process Type's Primary Info Tab

| Field | Description |
|---|---|
| Process Type | The process type ID. |
| Process Type Name | Enter the name of the process type. |
| Description | Enter a brief description of the process type. |
| Document Classification | Select the document type you want to use for the process type. |
| Use as a Template Order | Select this field if documents in this process type can be used as a template for another document. |
| Validate Item During Order Creation/ Modification | Select this field if you want item IDs and units of measure to be validated against the Catalog Management application (or external Catalog Management application) upon order creation or adding an order line. |
| Driver Date | |
| Requested Ship Date | Select this option if you want the fulfillment process to be driven by the order document's requested ship date. |
| Requested Delivery Date | Select this option if you want the fulfillment process to be driven by the order document's requested delivery date. |
| Order Creation Tab | |
| Use Template Order For Defaulting | <p>Select this field if you want to be able to default some attributes of an existing order into a newly created order.</p> <p>When an order is created and this field is selected, the system looks for an existing order with the same Buyer, Seller, and Enterprise organizations, as well as the document type specified in the Template Document Type field. If an existing template is found, some of the attributes may be copied into the new order.</p> <p>For more information about template orders, see the <i>Sterling Selling and Fulfillment Foundation: Distributed Order Management User Guide</i>, the <i>Sterling Selling and Fulfillment Foundation: Supply Collaboration User Guide</i>, and the <i>Sterling Selling and Fulfillment Foundation: Reverse Logistics User Guide</i>.</p> |

Table 42. Process Type's Primary Info Tab (continued)

| Field | Description |
|---|---|
| Template Document Type | If you choose Use Template Order For Defaulting, select the document type you want to use for the default template order. |
| Log Audits For Draft Order | Select this field if you want the system to log audit records when modifications are made to orders in draft status. Note: Changes to order status are audited whether or not you select this option. |
| Refund Fulfillment Order Document Type | Select the document type you want to use from refund fulfillment orders. |
| Default Delivery Method Based On Catalog | Select Default Delivery Method Based On Catalog if you want the system to default to the configured delivery method assigned to items set up as Delivery Allowed in the catalog. For more information about defining item attributes, see the <i>Catalog Management: Configuration Guide</i> . Note: This field should not be selected for any document types other than Sales Orders. |
| Suppress Audits for Change Order Status | Select this field if the CHANGE_STATUS audits have to be suppressed by the changeOrderStatus API for any change in the order status. |
| Inventory Tab | |
| Demand Type For Schedule | Select the demand type to be considered when the Schedule Order time-triggered transaction is run. Important: All the supply types that you have associated with the demand type in the Inventory Considerations table are considered for scheduling inventory to satisfy demand optimization. For more information about configuring inventory considerations, see the <i>Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide</i> . Note: The demand type should have the same supply types associated with it as the demand type of the transaction that you plan for Schedule Order to drop into for this process type. |
| Demand Type for Release | Select the demand type to be considered when the Release Order time-triggered transaction is run. Important: All the supply types that you have associated with the demand type in the Inventory Considerations table are considered for release inventory calculations. For more information about configuring inventory considerations, see the <i>Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide</i> . |
| Allow Inventory Updates For The Seller Organization | Select this field if you want the system to perform inventory updates for the Seller. |
| Allow Inventory Updates For The Buyer Organization | Select this field if you want the system to perform inventory updates for the Buyer. |
| Allow Inventory Check During Schedule And Release | Select this field if you want inventory supply and demand data stored in the system to be used for availability calculation during the schedule and release processes. |

Table 42. Process Type's Primary Info Tab (continued)

| Field | Description |
|--|---|
| Create Reservation On Order Creation | Select this field if you want to enable reservations during order creation. Note: This field is not applicable for procurement orders. |
| Procurement Placed Supply Type | Select the supply type of the supply to be considered when a procurement order is placed. |
| Financials Tab | |
| Allow Invoice Creation | Select this field to enable invoice creation for orders or shipments. |
| Allow Pro Forma Invoice Creation For Shipments | Select this field to enable Pro Forma invoice creation for shipments. For more information about Pro Forma invoicing, see the <i>Sterling Selling and Fulfillment Foundation: Product Concepts Guide</i> . Note: This flag is only applicable to shipments created from orders. This flag is ignored for shipments without orders. For more information about creating Pro Forma invoices for shipments without orders, see the <i>Sterling Selling and Fulfillment Foundation: Javadocs</i> . |
| Allow Payment Processing | Select this field to enable payment processing. For more information about payment processing, see the <i>Sterling Selling and Fulfillment Foundation: Product Concepts Guide</i> . |
| Allow Price Calculation For Draft Orders | Select this field if you want to be able to associate a price with an item during draft order creation. For more information about configuring prices, see the <i>Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide</i> or the <i>Business Center: Pricing Administration Guide</i> . Note: If both this field and Allow Price Calculation For Confirmed Orders are not selected, no price calculations are performed on orders, even if they have price lists associated with them. If both this field and Allow Price Calculation For Confirmed Orders are selected, price calculations can be performed at any point in an order's creation cycle. If only this field is selected, price calculations are only done at the time of draft order creation. |
| Allow Price Calculation For Confirmed Orders | Select this field if you want pricing to be done upon draft order confirmation and order creation. Note: If both this field and Allow Price Calculation For Draft Orders are not selected, no price calculations are performed on orders, even if they have price lists associated with them. If both this field and Allow Price Calculation For Draft Orders are selected, price calculations can be performed at any point in an order's creation cycle. If only this field is selected, price calculations are only done at any point after orders have been confirmed where it is applicable to do so (for example, after a quantity adjustment). |
| Related Entities | |
| Allow Chained Order Creation | Select this field if you want the order document to have the ability to create chained orders during scheduling. |

Table 42. Process Type's Primary Info Tab (continued)

| Field | Description |
|---|---|
| Chained Procurement Inbound Order Document Type | Select the document type you want to use for the chained order document in a procurement inbound order scenario. The procurement inbound order scenario occurs when the final shipping point to the customer is one of your nodes and the shipping node does not have enough stock and needs to be replenished from an external organization's node. |
| Consolidate New Order Releases | Select this field if you want the system to attempt to consolidate new releases into existing releases that have not been processed. |
| Chained Procurement Transfer Order Document Type | Select the document type you want to use for the chained order document in a procurement transfer order scenario. The procurement transfer order scenario occurs when the final shipping point to the customer is one of your nodes and the shipping node does not have enough stock and needs to be replenished from another node within your organization. |
| Allow Propagation Of Changes To Derived Parent | Select this field if you want changes on a derived order to be propagated to its derived parent when the appropriate listener transaction is configured. Note: If this field is not selected, a derived order's quantity can be greater than the parent order that is was derived from. |
| Create Shipments For Products Being Delivered In Addition To Work Order | If this is checked, shipments should be created for all the products, which are delivered along with the work order. Note: If the flag is unchecked, you cannot create releases since releases are not required without shipments. |

Defining the Quote Fulfillment Process Type's Primary Information

About this task

To define a quote fulfillment process type's primary information:

Procedure

1. In the Process Modeling window, select the Order tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the Quote Fulfillment process type and choose Details. The Process Type Details window displays.
3. Choose the Primary Info tab.
4. Enter information in the applicable fields. Refer to Table 43 for field value descriptions.
5. Choose the **Save** icon.

Table 43. Quote Fulfillment Process Type's Primary Info Tab

| Field | Description |
|-------------------------|---|
| Process Type | The process type ID. Enter QUOTE_FULFILLMENT. |
| Process Type Name | Enter the name of the process type, Quote Fulfillment. |
| Description | Enter a brief description of the process type. |
| Document Classification | Select the Quote document type from the drop-down list. |

Table 43. Quote Fulfillment Process Type's Primary Info Tab (continued)

| Field | Description |
|---|---|
| Validate Item During Order Creation/ Modification | Select this field if you want item IDs and units of measure to be validated against the Catalog Management application (or external Catalog Management application) upon quote creation or adding a quote line. |
| Log Audits For Draft Order | Select this field if you want the system to log audit records when modifications are made to quotes. Note: A quote is in a draft status throughout the quote fulfillment lifecycle. |
| Allow Price Calculation For Draft Orders | Select this field if you want to be able to associate a price with an item during quote creation. For more information about configuring prices, see the <i>Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide</i> or the <i>Business Center: Pricing Administration Guide</i> . |
| Default Delivery Method Based On Catalog | Select Default Delivery Method Based On Catalog if you want the system to default to the configured delivery method assigned to items set up as Delivery Allowed in the catalog. For more information about defining item attributes, see the <i>Catalog Management: Configuration Guide</i> . |

Defining the Opportunity Fulfillment Process Type's Primary Information

About this task

To define an opportunity fulfillment process type's primary information:

Procedure

1. In the Process Modeling window, select the Opportunity tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the Opportunity Fulfillment process type and choose Details. The Process Type Details window displays.
3. In the Primary Info tab, enter information in the applicable fields. Refer to Table 44 for field value descriptions.
4. Choose the **Save** icon.

Table 44. Opportunity Fulfillment Process Type's Primary Info Tab

| Field | Description |
|-------------------|--|
| Process Type | The process type ID. Enter OPPORTUNITY_FULFILLMENT. |
| Process Type Name | Enter the name of the process type, Opportunity Fulfillment. |
| Description | Enter a brief description of the Opportunity process type. |

Defining a Process Type's Templates (Fulfillment Process Types Only)

About this task

Document templates are used at various times throughout Sterling Selling and Fulfillment Foundation. The template type indicates how it is used. Typically, templates are required in scenarios in which a particular set of attributes of a given

entity need to be considered for processing. For example, when calling the `copyOrder()` API, the Copy Order template is used to indicate which order attributes should be copied.

You can determine which XML attributes and elements should be included or excluded from master template XMLs for a given fulfillment process type.

To define a process type's XML templates:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Details. The Process Type Details window displays.
3. Choose the Templates tab. The available master templates for the fulfillment process type you are working with display as tabs. These master templates are retrieved from the `YFS_BASE_DOCUMENT_TYPE` table.
4. Choose the tab of the applicable master template. The master template XML is loaded from the `YFS_BASE_DOCUMENT_TEMPLATE` table and is combined with the template XML stored for this document type in the `YFS_DOCUMENT_TEMPLATE` table. Extended attributes are also added to the master template for each element that has extended attributes. The resulting XML is shown in hierarchical format in the tree.

Note: The extended branch of the template XML is automatically generated. It is not stored in either the `YFS_DOCUMENT_TEMPLATE` or `YFS_BASE_DOCUMENT_TEMPLATE` tables.

5. Choose the **Create New** icon to include an XML attribute or element in the master template XML for this process type. Choose the **Delete** icon to exclude an XML attribute in the master template XML for this process type.

Note: If you want to exclude all of an element's attributes, you must exclude the entire element.

Note: Some attributes are mandatory and cannot be excluded from the template.

Defining Process Type Pipelines

You can define your business process workflow by creating process type pipelines. A **process type pipeline** is a series of transactions and statuses that guide document types, such as a Sales Order, through a predefined process. A pipeline consists of the different statuses a document goes through during fulfillment, negotiation, shipment, or receipt. You can also set up transactions consisting of events, actions, and conditions, as they pertain to the pipeline you are configuring.

Repositories

A repository is a logical collection of entities that define the business process workflow.

The following entities are included in a repository:

- Pipelines
- Transactions

- Statuses
- Conditions
- Actions
- Services

Sterling Selling and Fulfillment Foundation provides a base repository for each of the system-defined process types. Some of the entities within a repository are copied when creating a new document type.

When you choose Model Process from the Process Modeling tree, two frames display. The left-hand frame is the repository and the right-hand frame is the work area.

There are six available tabs at the bottom of the repository. These tabs allow you to switch between the Pipeline tree, Transaction tree, Status tree, Condition tree, Action tree, and Service tree. When you choose an entity from any of these trees, its details display in the work area frame, if applicable.

When configuring a pipeline, you can enable auto-hints to aid you in your configuration process. To activate auto-hints, right-click anywhere in the work area and choose Enable Auto Hint. When auto-hints are activated, transactions that a particular drop status can connect to are highlighted in a blue frame when you are setting up a graphical pipeline.

Defining Pipeline Determination

Pipeline determination is used to set up conditions that affect which pipeline is used during the start of the business process workflow. For example, an organization deals with sales orders that sometimes contain hazardous materials. They have two separate pipelines, one in which orders with order lines without any hazardous materials go through and one in which orders with order lines containing hazardous materials must go through for inspection before continuing through the order process. The organization uses pipeline determination to set up a condition that determines whether or not order lines contain hazardous materials and sends the order line down the correct pipeline.

When you expand the Pipeline Determination branch, the components displayed depends on what role you are logged in as. If you are logged in as a Hub role, the Hub Rule displays. If you are logged in as an Enterprise role, both the Hub Rule and My Rule components display. Double-click on the applicable node to display the pipeline determination rules.

Note: If you are logged in as an Enterprise role, the Hub Rule screen is grayed out and cannot be modified.

Drag conditions and pipelines into the work area to construct pipeline determination rules. A single pipeline or condition must be the root. Conditions cannot link back to an earlier component in the chain and a pipeline cannot be linked to twice.

Note: When configuring pipeline determination for an order document type pipeline, please note that pipeline determination is only considered when adding a line or creating an order. When changes are made to draft orders pipeline determination does not occur.

Creating a Pipeline

About this task

You can create a pipeline for the process type that you are working with.

To construct a pipeline you can drag transactions and conditions into the pipeline work area. Each transaction has a set of branches relating to each drop status. To link a transaction to another transaction you must drag the appropriate port from the first transaction to the second. You can identify what status belongs to which port by putting the arrow over the transaction's ports. You can link transactions back to themselves assuming they are allowed to pick up the status being linked back to.

Transactions can also be linked to conditions. To specify that you are extending the drop status with a condition, drag the port to the applicable condition and then to the pickup transaction. If the pickup status has the same base as the port, the link is allowed. Once the link is made, it is defaulted to the first possible pickup status.

To create a pipeline:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Pipeline tab.
4. Select Pipelines and choose the **Create New** icon. The Pipeline Detail window displays in the work area.
5. Drag and drop the applicable transactions and conditions into the work area and connect them following the rules detailed in this section.
6. Choose the **Save** icon.

Saving a Pipeline as a Draft

About this task

You can save an incomplete pipeline as a draft. This draft can be retrieved for a final save without any necessary validations. When you save and activate the pipeline, the draft pipeline is deleted from the system.

To save a service as a draft:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Pipeline Tab.
4. Configure a pipeline as per the rules detailed in this section.
5. Choose the **Save As** icon. The pipeline is saved as a draft service.

6. When you are ready to save it as a complete and functional pipeline, choose the **Save** icon.

Note: During runtime, when a status is reached that has been configured to be picked up by more than one TaskQ-based transaction in the pipeline, Sterling Selling and Fulfillment Foundation creates a TaskQ record for each of those transactions.

Note: This includes situations where the Yes and No branches of a condition both drop into the same status, but feed into different TaskQ-based transactions.

Note: When you save a pipeline as a draft, any existing draft for the pipeline is overwritten. When you save the draft as an actual pipeline, any existing pipeline with the same pipeline ID is overwritten.

Note: The Order Delivered Status can be picked up by more than one transaction. There is no implied order of processing between these transactions. Depending on which transaction is run first, this status is processed.

Modifying a Pipeline

About this task

Note: Sterling Selling and Fulfillment Foundation does not support modification of pipelines while it is processing transactions. Modify pipelines only on a quiet system, when no APIs or agents are running.

Note: If high availability is a concern, never modify pipelines directly in production. Make all the changes in your test, and then migrate the changes to your production environment using the Sterling Selling and Fulfillment Foundation Configuration Deployment Tool.

To modify a pipeline:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Pipeline tab.
4. Expand the Pipelines branch.
5. Select the applicable pipeline and choose the **Details** icon. The Pipeline Detail window displays in the work area.
6. Using the rules and concepts detailed in the Basics section of this chapter, modify the pipeline according to your business practices. For more information about how use the drag and drop window, see Section 2.2.2.4 "Drag and Drop Window".
7. Choose the **Save** icon.

Note: During runtime, when a status is reached that has been configured to be picked up by more than one TaskQ-based transaction in the pipeline, Sterling Selling and Fulfillment Foundation creates a TaskQ record for each of those

transactions. This includes situations where the Yes and No branches of a condition both drop into the same status, but feed into different TaskQ-based transactions.

Defining a Pipeline's Monitoring Rules

About this task

Using the monitoring rule components you configured while defining the process type, you can define the parameters used to monitor orders and shipments throughout their life cycle in fulfillment and shipment process type pipelines. For more information about configuring the monitoring rule components, see the *Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide*.

Note: You can only define a pipeline's monitoring rules if your organization owns the pipeline you are configuring them for.

To define a pipeline's monitoring rules:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Pipeline tab.
4. Expand the Pipelines branch.
5. Select the applicable pipeline and choose the **Configure Monitoring Rules** icon. The Monitor Rules window displays in the work area.
6. From Rule List, choose the **Create New** icon. The Rule Type pop-up window displays.
7. Select the rule type you want to define and add to the rule list. The rule details displays in the lower frame. You can select the hypertext in the rule details and define the individual parameters. Refer to Table 45 for a list of rule types and their configurable rule details.

Note: When defining the hours parameter, you can select whether the hours are based on elapsed hours or on the working hours for any calendars you may have defined.

8. Choose the **Save** icon.

Note: You can increase or decrease a monitoring rule's priority by selecting the rule and choosing the up-arrow to increase its priority and the down-arrow to decrease its priority.

Table 45. Monitoring Rule Types

| Rule Type | Rule Details (Bold and Italicized Text Indicates Configurable Parameters) |
|---|---|
| Milestone has not reached before a date | If Order/Shipment has not reached a milestone <i>n calendar hours</i> before a date type , then raise a monitor event . |
| Milestone has not reached after a date | If Order/Shipment has not reached a milestone within <i>n calendar hours</i> of a date type , then raise a monitor event . |

Table 45. Monitoring Rule Types (continued)

| Rule Type | Rule Details (Bold and Italicized Text Indicates Configurable Parameters) |
|---|--|
| Milestone has not reached after another Milestone | If Order/Shipment has not reached a milestone within <i>n calendar hours</i> of a milestone , then raise a monitor event . |
| Milestone has reached before a date | If Order/Shipment has reached a milestone <i>n calendar hours</i> before a date type , then raise a monitor event . |
| Milestone has reached after a date | If Order/Shipment has reached a milestone within <i>n calendar hours</i> of a date type , then raise a monitor event . |
| Milestone has reached after another Milestone | If Order/Shipment has reached a milestone within <i>n calendar hours</i> of a milestone , then raise a monitor event . |
| Has been in a status | If Order/Shipment has been in a status for <i>n calendar hours</i> , then raise a monitor event . |
| Before a date | For Order/Shipment <i>n calendar hours</i> before a date type , raise a monitor event . |
| After a date | For Order/Shipment <i>n calendar hours</i> after a date type , raise a monitor event . |
| After a Milestone | For Order/Shipment <i>n calendar hours</i> after a milestone , raise a monitor event . |
| Date before another date | For Order/Shipment, if a date type is more than <i>n calendar hours</i> before a date type , then raise a monitor event . |
| Date within a specified time after another date | For Order/Shipment, if a date type is within <i>n calendar hours</i> after a date type , then raise a monitor event . |
| Date not within a specified time after another date | For Order/Shipment, if a date type is not within <i>n calendar hours</i> after a date type , then raise a monitor event . |
| Date after another date | For Order/Shipment, if a date type is more than <i>n calendar hours</i> after a date type , then raise a monitor event . |
| Conditionally Milestone has not reached before a date | If Order/Shipment meets a condition and has not reached a milestone <i>n calendar hours</i> before a date type , then raise a monitor event . |
| Conditionally Milestone has not reached after a date | If Order/Shipment meets a condition and has not reached a milestone within <i>n calendar hours</i> of a date type , then raise a monitor event . |
| Conditionally Milestone has not reached after another Milestone | If Order/Shipment meets a condition and has not reached a milestone within <i>n calendar hours</i> of a milestone , then raise a monitor event . |
| Conditionally Milestone has reached before a date | If Order/Shipment meets a condition and has reached a milestone <i>n calendar hours</i> before a date type , then raise a monitor event . |
| Conditionally Milestone has reached after a date | If Order/Shipment meets a condition and has reached a milestone within <i>n calendar hours</i> of a date type , then raise a monitor event . |
| Conditionally Milestone has reached after another Milestone | If Order/Shipment meets a condition and has reached a milestone within <i>n calendar hours</i> of a milestone , then raise a monitor event . |
| Conditionally has been in a status | If Order/Shipment meets a condition and has been in a status for <i>n calendar hours</i> , then raise a monitor event . |
| Conditionally before a date | If Order/Shipment meets a condition , raise a monitor event <i>n (or more) calendar hours</i> before a date type . |

Table 45. Monitoring Rule Types (continued)

| Rule Type | Rule Details (Bold and Italicized Text Indicates Configurable Parameters) |
|---|--|
| Conditionally after a date | If Order/Shipment meets a condition , raise a monitor event <i>n calendar hours</i> after a date type . |
| Conditionally after a Milestone | If Order/Shipment meets a condition , raise a monitor event <i>n calendar hours</i> after a milestone . |
| Conditionally date before another date | If Order/Shipment meets a condition and if a date type is more than <i>n calendar hours</i> before a date type , then raise a monitor event . |
| Conditionally date after another date | If Order/Shipment meets a condition and if a date type is more than <i>n calendar hours</i> after a date type , then raise a monitor event . |
| Conditionally date within a specified time after another date | If Order/Shipment meets a condition and if a date type is within <i>n calendar hours</i> after a date type , then raise a monitor event . |
| Conditionally date not within a specified time after another date | If Order/Shipment meets a condition and if a date type is not within <i>n calendar hours</i> after a date type , then raise a monitor event . |
| Has been in Hold Type | If Order/Shipment has been in a specified Hold Type with a specified Hold Type Status for <i>n calendar hours</i> , then raise a monitor event . |
| Conditionally has been in Hold Type | If Order/Shipment meets a condition and has been in a specified Hold Type with a specified Hold Type Status for <i>n calendar hours</i> , then raise a monitor event . |
| Has been in Hold Type before a date | If Order/Shipment is in a specified Hold Type with a Hold Type Status with <i>n calendar hours</i> before a date , then raise a monitor event . |
| Conditionally has been in Hold Type before a date | If Order/Shipment meets a condition and is in a specified Hold Type with a Hold Type Status with <i>n calendar hours</i> before a date , then raise a monitor event . |

Note: Hold-based monitoring rules can monitor holds that belong to the organization owning the pipeline.

Monitoring Rule Configuration Example

According to your business practices, you need to monitor orders that have not been released 24 hours before their requested shipment date and raise alerts for such orders. Assuming that you have configured the necessary monitor rule components, including milestones, date types, and alert consolidation rules, for the process type you are working with, you can create a monitoring rule identifying these parameters.

Using the "Milestone has not reached before a date" monitoring rule type, you can configure the system to monitor when the Released milestone has not been reached 24 hours before an order's requested shipment date.

Defining Transactions

Every process type has a set of base transactions defined for it. A transaction is a logical unit of work that is necessary for performing activity within Sterling Selling and Fulfillment Foundation. Base transactions are predefined transactions that contain information about how the transaction behaves, such as how many copies

of a transaction can be kept in a process type and whether or not it can have configurable base pick and drop statuses. Base transactions can be used to create new transactions. These transactions can be changed within the limits defined in the base transaction.

In Sterling Selling and Fulfillment Foundation, APIs are used to run transactions. When an API is invoked, the transaction ID is determined based on the context the API was run. The transaction ID identifies the transaction to be run. Depending on the situation the transaction ID can be passed as an input parameter or it can be predefined for the invoking API. For more information about APIs, refer to the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Some extended transactions that are created may require custom coding to implement logic for the transaction. However, you can derive new transactions from the abstract transactions provided by Sterling Selling and Fulfillment Foundation. A transaction derived from an abstract transaction contains specific details such as, statuses and triggering mechanisms that do not require custom coding. For example, if you are configuring an order document pipeline that requires several different types of order status change transactions, you can derive multiple extended transactions from the Change Order Status abstract transaction and configure them in your pipeline without requiring custom coding.

Transactions can be classified as one or more of the following types:

- Externally-triggered
- User-triggered
- Time-triggered

Externally-Triggered Transactions

An externally-triggered transaction is performed through the Service Definition Framework (asynchronous service) which calls a corresponding API within Sterling Selling and Fulfillment Foundation to run the transaction.

You can add an asynchronous service to a transaction as a reminder that service performs some processing around this transaction and that it is triggered externally. For example, you can set up a service that puts a message in a queue, which acts as a trigger. An asynchronous service then picks up this message from the queue and does some processing. “Specifying a Transaction as Externally-Triggered” on page 114 explains how to add a service that triggers a transaction in the Externally Triggered tab.

User-Triggered Transactions

A user-triggered transaction is invoked manually through the Application Consoles, a configured alert queue, or an e-mail service.

Time-Triggered Transactions

A time-triggered transaction is invoked on scheduled intervals. In Sterling Selling and Fulfillment Foundation, a time-triggered transaction is also called an agent.

Creating an Extended Transaction

About this task

You can create new custom transactions in the process type you are working with. These transactions can then be used in pipeline creation and modification.

Note: When you are "creating" an extended transaction that is not derived from an abstract transaction, you are creating a custom transaction for which software development must be done separately before the extended transaction can be used within a pipeline.

To create an extended transaction:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Transactions tab.
4. Select the Transactions branch and choose the **Create New** icon. The Create New Transaction pop-up window displays.
5. Select 'Do not derive from an abstract transaction' to create a new transaction and associate your own logic with it.
6. Choose OK. The Transaction Detail window displays in the work area.
7. Enter information in the applicable fields. Refer to Table 46 for field value descriptions.
8. Choose the **Save** icon.

Table 46. Transaction Details Window

| Field | Description |
|----------------------|--|
| Transaction ID | Enter the transaction ID. Note: The document type and '.ex' are automatically appended to the transaction ID of transactions you create. |
| Transaction Name | Enter the transaction's name. |
| Externally Triggered | The Externally Triggered tab provides an interface to set up an externally-triggered transaction. For more information about setting up an externally-triggered transaction, see "Specifying a Transaction as Externally-Triggered" on page 114. |
| Time Triggered | The Time Triggered tab provides an interface to set up a time-triggered transaction. For more information about setting up a time-triggered transaction, see "Specifying a Transaction as Time-Triggered" on page 114. |
| User Triggered | The User Triggered tab provides an interface to set up a user-triggered transaction. For more information about setting up a user-triggered transaction, see "Specifying a Transaction as User-Triggered" on page 122. |
| Other | |

Table 46. Transaction Details Window (continued)

| Field | Description |
|---|---|
| This transaction is task based | Select this field if your transaction is triggered by a task queue. This indicates that whenever the previous transaction in the pipeline completes its functions, the system creates a task in the task queue table for this transaction. Important: If this field is selected and the transaction is not identified as a time-triggered transaction, task queue entries are not created. |
| Works Based On | Select the order level for which the transaction is used (for example, order or order release). Note: This field is disabled for inherited transactions. |
| Spawns another process? | Select this field if the transaction spawns another system process. |
| Spawning process type | If you chose 'Spawns another process?', select the process type the transaction spawns. |
| Chained Document Type | If a chained order is created from this transaction, enter the document type of the chained order that is created. For example, Sales Order or Purchase Order. |
| Derived Document Type | If a derived order is created from this transaction, enter the document type of the derived order that is created. For example, Return Order or Exchange Order. |
| This Transaction Is Derived From Abstract | Indicates if the transaction is derived from a base transaction. |
| Base Transaction Name | If the transaction is derived from a base transaction, the name of the base transaction displays. |
| This Transaction Can Be Stopped From Processing Orders That Are On Hold | Check this if you want this transaction to be hold type enabled. A hold type enabled transaction can be configured to be stopped from processing orders that are on placed on a particular hold type. This flag cannot be modified for system defined transactions, but can be set for all custom transactions that are not derived from an abstract transaction. |
| Events | An event is a specific occurrence in the business process, often creating a status change or generated alert. When an event occurs in a transaction an action is triggered. The Events tab provides an interface to set up events and event handlers. For more information about events and event handlers, see "Adding an Event to a Transaction" on page 122 and "Defining Event Handlers" on page 123. |
| Supports Transaction Dependency | Check this box if you want to support dependency for this transaction. For more information about creating transaction dependency groups and any associated rules, see the <i>Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide</i> . |
| Supports Transaction Completion | Check this box if you want to support transaction completion. For more information about configuring transaction completion for extended or custom transactions, see "Configuring a Transaction Completion" on page 125. |

Table 46. Transaction Details Window (continued)

| Field | Description |
|-----------------|--|
| Operation Level | Select the operation level for which the transaction is used. You can select either header level or line level. For information about configuring header-level or line-level operations for quote pipeline transactions, see "Configuring Header-Level and Line-Level Operations for Quote Pipeline Transactions" on page 129. |
| Pickup Statuses | The Pickup Statuses tab provides an interface to set up pickup statuses. For more information about pickup statuses, see "Adding a Pickup Status to an Extended Transaction" on page 124. |
| Drop Statuses | The Drop Statuses tab provides an interface to set up drop statuses. For more information about pickup statuses, see "Adding a Drop Status to an Extended Transaction" on page 124. |

Specifying a Transaction as Externally-Triggered: About this task

To create an externally-triggered extended transaction:

Procedure

1. From the Transaction Details window, choose the Externally Triggered tab.
2. Check 'This transaction is triggered from external systems' to indicate that this is an externally-triggered transaction.
3. From the Services Triggering This Transaction list, choose the **Create New** icon. The Service List pop-up window displays.
4. Select the services that trigger the transaction and choose the **Add Service to Transaction** icon. The services are added to the Services Triggering This Transaction list.
5. Continue to enter information in the applicable transaction fields. Refer to Table 46 on page 112 for field level descriptions.
6. Choose the **Save** icon.

Specifying a Transaction as Time-Triggered: About this task

You can set up a transaction to be triggered by the Sterling Selling and Fulfillment Foundation agents. For detailed information about time-triggered transactions, see Appendix A "Time-Triggered Transaction Reference".

Note: If you are creating a time-triggered transaction for a derived transaction, please observe that agent criteria data is not automatically populated and must be created.

To create a time-triggered extended transaction:

Procedure

1. From the Transaction Details window, choose the Time Triggered tab.
2. Check 'This transaction is time triggered' to indicate that this is a time-triggered transaction.

3. In Java Class, enter the agent class that you want to handle agent messages.
4. From the Agent Criteria table, choose the **Create New** icon. The Agent Criteria pop-up window displays.
5. Enter information in the applicable fields. Refer to Table 47 for field level descriptions.

Table 47. Time-Triggered Transaction Runtime Properties

| Control | Description |
|---------------------------|--|
| Runtime Properties | |
| Agent Server | The server on which this instance of the transaction is to be run. To add new Agent Servers, click the Add Servers button next to this field. This is a parameter used to start the agent server. For more information about this parameter, see the <i>Sterling Selling and Fulfillment Foundation: Installation Guide</i> . |
| Alert Queue Name | The name of the alert queue. |
| JMS Queue Name | The name of the JMS queue that contains messages to be processed by this transaction. |
| No. of Threads | The number of concurrent threads with which this transaction should be run. |
| Initial Context Factory | <p>The class providing an Initial Context implementation for your application server to enable remote Java clients to connect.</p> <p>Select WebSphere® MQ if you are using MQSeries® accessed through a IBM WebSphere IIOP URL. This sets the class name to: <code>com.ibm.websphere.naming.WsnInitialContextFactory</code>.</p> <p>Select File if you are using MQSeries accessed through a file URL, as with Oracle WebLogic. This sets the class name to <code>com.sun.jndi.fscontext.ReffFSContextFactory</code>.</p> <p>Select WebLogic if you are using Oracle WebLogic JMS. This sets the class name to <code>weblogic.jndi.WLInitialContextFactory</code>.</p> <p>Select Jboss if you are using JBoss JMS. This sets the class name to <code>org.jnp.interfaces.NamingContextFactory</code>.</p> <p>If you defined an initial context factory code for ActiveMQ, select the entry you created for it. For more information about setting up other JMS vendors, such as ActiveMQ, which are not included in the default set, see Section A.2 "Configuring Communication Between an Agent and a JMS Server".</p> <p>Note: You can override this value by configuring the <code>yfs.agent.override.icf</code> property in the <code><INSTALL_DIR>/properties/customer_overrides.properties</code> file. For additional information about overriding properties using the <code>customer_overrides.properties</code> file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> <p>Note: You can configure your own initial context factory settings to be used here. For more information about defining initial context factory codes, see "Defining Initial Context Factory Codes" on page 180.</p> |

Table 47. Time-Triggered Transaction Runtime Properties (continued)

| Control | Description |
|------------|--|
| QCF Lookup | <p>The name of the queue connection factory. This name corresponds with a JMS connection factory configured in the application server cluster running Sterling Selling and Fulfillment Foundation.</p> <p>Note: You can override this value by configuring the <code>yfs.agent.override.qcf</code> property in the <code><INSTALL_DIR>/properties/customer_overrides.properties</code> file.</p> <p>For additional information about overriding properties using the <code>customer_overrides.properties</code> file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |

Table 47. Time-Triggered Transaction Runtime Properties (continued)

| Control | Description |
|--------------|---|
| Provider URL | <p>The URL containing the protocol and address used to access the JMS queue.</p> <p>If you use Oracle WebLogic JMS, enter the following value: t3://<IP address and port of the WLS instance></p> <p>If you use MQSeries through a JNDI file, enter the following value: file://<pathname></p> <p>For example, if the path to the .bindings file is /home/yantra/MQ_HSmith/java/jndi, use: file:///home/yantra/MQ_HSmith/java/jndi</p> <p>If you use MQSeries through IBM WebSphere JNDI, enter the following value: corbaloc::<DNS server name or IP address>:<bootstrapport></p> <p>If you use JBoss JMS, enter the following value: jnp://<IP address and port of the JBoss instance></p> <p>Note: You can override this value by configuring the <code>yfs.agent.override.providerurl</code> property in the <code><INSTALL_DIR>/properties/customer_overrides.properties</code> file.</p> <p>The Provider URL format is: t3://<ip Address>:<port></p> <p>For additional information about overriding properties using the <code>customer_overrides.properties</code> file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> <p>For clustered JMS configurations, use a comma-separated value comprising the host/IP and port of each node in the cluster. For example:</p> <ul style="list-style-type: none"> • For Oracle WebLogic JMS: t3://<IP Address>:<port>,<IP Address>:<port> • For IBM WebSphere MQ and IBM WebSphere Default Messaging, the format is <code>corbaloc::<host>:<port>,<host>:<port></code>. For example: <code>corbaloc::10.10.46.90:2816,10.10.46.70:2817</code> • For TIBCO EMS, the format is <code>tcp://<host>:<port>,<host>:<port></code>. For example: <code>tcp://devde1104:7222,devde1191001:7222</code> • For JBoss Messaging JMS, the format is <code><host>:<port>,<host>:<port></code>. For example: <code>10.11.23.43:1200,10.11.23.42:1300</code> |

Table 47. Time-Triggered Transaction Runtime Properties (continued)

| Control | Description |
|--|---|
| Enable JMS Security | <p>Check this box if you want JMS Security to be enabled. Once selected, the JMS Security Parameters tab is enabled to configure Queue and/or JNDI based JMS security.</p> <p>Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3.</p> <p>Note: You can override this value by configuring the <code>yfs.agent.override.auth.enabled</code> property in the <code><INSTALL_DIR>/properties/customer_overrides.properties</code> file.</p> <p>For additional information about overriding properties using the <code>customer_overrides.properties</code> file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| Schedule Trigger Message | <p>Check this box to configure the agent to run the agent trigger periodically from within the Agent Server during runtime.</p> <p>When there are no messages for the agent to process, a new trigger message is sent to the agent at specified time intervals.</p> |
| Schedule Trigger Message Interval (Min) | Enter the desired time interval in minutes. |
| Service to Execute on Completion of Work | <p>Enter the service to be run upon completing the execution of the selected agent. You can select the required service by using the Search icon.</p> <p>Note: In case of agent implementations that extend <code>AbstractPurgeAgent</code> or <code>AbstractEnterpriseAgent</code>, which performs multi level GET for configured agent criteria, the completion of work service will get executed for each of the GET calls that results in execute messages. In this case, the completion of work just indicates the completion of work for that criteria or GET operation.</p> |
| Criteria Parameters | |
| Parameter Name | The name of parameter sent to the transaction. This is a parameter used to trigger the transaction, for more information about this parameter, see "Time-Triggered Transaction Reference". |
| Parameter Value | The value of the parameter sent to the transaction. For valid names and parameters, see "Time-Triggered Transaction Reference". |

Table 47. Time-Triggered Transaction Runtime Properties (continued)

| Control | Description |
|---|--|
| JMS Security Properties Tab | |
| <p>This is enabled upon selecting Enable JMS Security in the runtime properties tab. You can override the JMS security properties specified here by enabling the agent and flow authorization parameters in <code>yfs.properties</code>.</p> <p>Note: You can override the JMS security parameters (userid and password) by configuring the following parameters in the <code><INSTALL_DIR>/properties/customer_overrides.properties</code> file:</p> <pre>yfs.agent.override.auth.userid yfs.agent.override.auth.password</pre> <p>For additional information about overriding properties using the <code>customer_overrides.properties</code> file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> <p>For more information about the application server-specific security mechanisms, see Setting up the JMS Security Properties.</p> | |
| Parameter Name | Enter the name of the security parameter. |
| Parameter Value | Enter the value of the security parameter. |

6. Choose the **Save** icon.
7. Continue to enter information in the applicable transaction fields. Refer to Table 46 on page 112 for field level descriptions.
8. Choose the **Save** icon.
9. Restart the appropriate Agent Servers for the changes to take effect.

Setting up the JMS Security Properties: Based on your application server, you also need to pass the name-value pairs for user authentication.

Queue Based Security and/or JNDI Based Security:

About this task

For Oracle WebLogic, IBM WebSphere and IBM WebSphere MQ, and JBoss, specify the following name-value pairs in the parameter name and values explained in Table 47 on page 115:

- For Queue Based Security set the following parameters:
 - `sci.queuebasedsecurity.userid=<username configured in the APPLICATION_SERVER and assigned to the queue>`
 - `sci.queuebasedsecurity.password=<password for the above username as configured for the APPLICATION_SERVER>`

Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3.

Note: JBoss does not support queue based security for JMS service. Only JNDI based security is supported.

- For JNDI Based security set the following parameters:
 - `java.naming.security.principal=<user ID configured in the APPLICATION_SERVER and assigned to the JNDI>`
 - `java.naming.security.credentials=<password for the above user ID as configured for the APPLICATION_SERVER>`

Note: For more information about the authentication mechanism, setting up queues and QCF, refer to individual Application Server's documentation.

For IBM WebSphere and IBM WebSphere MQ, set up the desired forms of authentication and encryption where appropriate. Additionally, modify the Java commands as described below to suit the desired goal.

Before modifying, ensure that you have defined the following variables in your environment:

- WAS_HOME refer to the installation directory of the IBM WebSphere software
- MQ_HOME refers to the installation location of the IBM WebSphere MQ software.
- PROFILE_NAME refers to the name of the profile in which you created the server.
- To allow agents to be authenticated to IBM WebSphere JNDI, add the following definitions:
 - -Djava.ext.dirs=<CLASSPATH>, where the CLASSPATH should contain the following directories:
 - \$MQ_HOME\java\lib
 - \$WAS_HOME\AppServer\java\jre\lib\ext
 - \$WAS_HOME\AppServer\java\jre\lib
 - \$WAS_HOME\AppServer\lib
 - \$WAS_HOME\AppServer\lib\ext
 - \$WAS_HOME\AppServer\properties
 - \$WAS_HOME\AppServer\profiles\<PROFILE_NAME>\properties.
 - com.ibm.CORBA.ConfigURL should be set to the full path to the sas props file that you want to use such as -Dcom.ibm.CORBA.ConfigURL=\$WAS_HOME/AppServer/profiles/<PROFILE_NAME>/properties/sas.client.props.
The SAS props file is obtained from the IBM WebSphere installation. You need to modify this text file to contain the username and password to be used for authentication to the IBM WebSphere (corbaloc based) JNDI.

Note: For more information about how to set any of the above mentioned defines refer to IBM documentation. In specific, read the IBM WebSphere documentation to understand how to enable and configure Global security.

- To enable SSL encryption on the transmission of JMS messages to MQ, enable SSL on the channel to which your agents and services are connected. Create the QCF using the equivalent SSLCIPHERSPEC. On the java command line specify the following definitions:
 - javax.net.ssl.trustStore
 - javax.net.ssl.keyStorePassword
 - javax.net.ssl.KeyStore

Note: Refer to the IBM WebSphere MQ documentation to learn how to turn on the SSL on the server channel to which the Sterling Selling and Fulfillment Foundation agents and services connect. For more information about how to use the SSLCIPHERSPEC option while creating the QCF, see the IBM documentation.

For JBoss, before modifying, ensure that you have added following jars to the CLASSPATH:

- JBOSS_HOME refer to the installation directory of the JBoss software
- To allow agents to be authenticated to JBoss JNDI, add the following definitions:
 - -Djava.ext.dirs=<CLASSPATH>, where the CLASSPATH should contain the following directories:
 - <JBOSS_HOME>/client/jbossall-client.jar
 - <JBOSS_HOME>/server/<server-home>/jboss-aop-jdk50.deployer/jboss-aop-jdk50.jar
 - <JBOSS_HOME>/jboss-messaging-client.jar

Adding a New Server:

About this task

You can add a new server from the Agent Criteria Details screen or from the Service Definition Framework. This screen provides the options for you to terminate the server on completing the task.

For example, in a once a day wave release scenario, the orders are downloaded through an integration server, waves are created and batched, pick locations are assigned, waves are released and printed in multiple servers. This may take an hour or more to process, but once completed the servers are idle and waiting until the next day. Even though the processes are idle, they consume valuable resources like memory and CPU upon the server.

To avoid this idle time, you can configure the server to terminate automatically. To achieve this you can specify certain options in the Server Details upon creation as described in the following table.

Table 48. Server Details

| Field | Description |
|---|--|
| Server Properties Tab | |
| Server Name | Enter the name of the server. |
| Terminate Server on Idle | Select this option if you want to terminate the server when the task is completed or when idle. Once this option is selected the next two fields are enabled. |
| Startup Delay for Termination Monitor (minutes) | Enter the monitor start time. This is to ensure that the server does not terminate before it has completed one successful execution. |
| Termination Monitor Interval (minutes) | Enter the idle wait time before terminating the server. |
| Sub Service List Tab | |
| Subflow Name or Criteria ID | Lists the name of the subflow or the criteria belonging to the configured service or agent. |
| Threads | Specifies the number of threads. |

Click the **Save** icon upon entering the details.

Once the server which has been configured to terminate is started, it monitors the threads to check if they are idle. The monitor start time indicates the time the number of minutes delay before it starts. Once all the threads are idle, the server waits the configured amount of time before terminating. If a new message comes in, the time is reset and the server again starts monitoring the threads.

Specifying a Transaction as User-Triggerred: About this task

You can create a transaction that is triggered by the user.

To create a user-triggerred extended transaction:

Procedure

1. From the Transaction Details window, choose the User Triggerred tab.
2. Check 'This transaction is triggered by Users' to indicate that this a user-triggerred transaction.
3. From 'When ready, notify user using', select the service that should be triggered when a document enters this transaction's pickup status. For example, if all orders created for a particular order type need to be verified by a customer service representative when an order is created, you can create a user-triggerred transaction that invokes a service that sends an e-mail to the representative that verifies the order.

Note: You must select the applicable transaction order level from the Works Based On field on the Others tab for user notification to occur. For example, if you are configuring a transaction that is triggered by the user at the order release level, you must select Process Task Type for Order Release from the Works Based On drop-down.

4. Continue to enter information in the applicable transaction fields. Refer to Table 46 on page 112 for field value descriptions.
5. Choose the **Save** transaction.

Adding an Event to a Transaction: About this task

You can add events to transactions. These events signify occurrences in the process type's workflow and call associated actions.

To add an event to a transaction:

Procedure

1. From the Transaction Detail window, choose the Events tab.
2. Choose the **Create New** icon. The Event Details pop-up window displays.
3. Enter information in the applicable fields. Refer to Table 49 for field level descriptions.
4. Choose OK.

Table 49. Event Details Pop-Up Window

| Field | Description |
|------------|---|
| Event ID | Enter the event ID. |
| Event Name | Enter the event's name. |
| Is Active? | Select this field if the event is active for the transaction. Leave this field unselected to deactivate the event. |

Table 49. Event Details Pop-Up Window (continued)

| Field | Description |
|---|--|
| Can Enterprise Configure Event Handler? | If you are logged in as a Hub role, select this field if you want to allow Enterprise roles to be able to configure event handlers for the transaction. Note: If the transaction works across multiple enterprises or enterprise information is not available to the transaction, the default event handler is used. |
| Requires Backward Compatibility | Select this field if the event handler contains properties that require backward compatibility. If you select this field, choose the applicable version. |

Modifying an Extended Transaction's Event:

About this task

To modify a transaction's event:

Procedure

1. From the Transaction Detail window, choose the Events tab.
2. Select the applicable event and choose the **Details** icon. The Event Details pop-up window displays.
3. Modify information in the applicable fields. Refer to Table 49 on page 122 for field value descriptions.
4. Choose OK.

Deleting an Event from a Transaction:

About this task

To delete an event from a transaction:

Procedure

1. From the Transaction Detail window, choose the Events tab.
2. Select the applicable event and choose the **Delete** icon.

Defining Event Handlers:

About this task

You can define event handlers that determine the types of actions that are performed when an event in a transaction occurs. You can provide conditions that apply to the event handler.

Note: Event handlers defined for a transaction in a particular pipeline are also applicable if the same transaction is used in another pipeline.

Note: When associating a condition with an event, refer to the *Sterling Selling and Fulfillment Foundation: Javadocs* to ensure that the applicable condition variables coincide with the event's key data and data published.

To set up event handlers:

Procedure

1. From the Transaction Detail window, choose the Events tab.

2. Select the applicable event and choose the Configure Event Handler button. The Event Handler Definition work area activates.
3. Drag the applicable actions and conditions into the work area and connect them as per the rules detailed in this section.
4. Choose the **Save** icon.

Adding a Pickup Status to an Extended Transaction:

About this task

You can add a pickup statuses to extended transactions. A pickup status pulls the document from the preceding drop status and brings it into the transaction.

Note: While you cannot add pickup statuses or drop statuses to a system transaction, you can use an extended status as a pickup or drop status as long as its base status is included in the transaction's pickup or drop statuses.

To add a pickup status to a transaction:

Procedure

1. From the Transaction Detail window, choose the Pickup Statuses tab.
2. Choose the **Create New** icon. The Select Status pop-up window displays.

Note: If the transaction has been derived from an abstract transaction, the pickup statuses populating the list are determined by the pickup status filter as defined in the derived transaction's base transaction.

3. Select the pickup status you want to add to the transaction.
4. Choose OK.

Deleting a Pickup Status from a Transaction:

About this task

To delete a pickup status from a transaction:

Procedure

1. From the Transaction Detail window, choose the Pickup Statuses tab.
2. Select the applicable pickup status and choose the **Delete** icon.

Note: You cannot delete an extended transaction's pickup status if it is the transaction's only pickup status and drop statuses exist for the transaction.

Adding a Drop Status to an Extended Transaction:

About this task

You can add drop statuses to extended transactions. This status moves the document from the current transaction to the next transaction's pickup status.

Note: While you cannot add pickup statuses or drop statuses to a system transaction, you can use an extended status as a pickup or drop status as long as its base status is included in the transaction's pickup or drop statuses.

To add a drop status to a transaction:

Procedure

1. From the Transaction Detail window, choose the Drop Statuses tab.
2. Choose the **Create New** icon. The Select Status pop-up window displays.

Note: If the transaction has been derived from an abstract transaction, the drop statuses populating the list are determined by the drop status filter as defined in the derived transaction's base transaction.

3. Select the drop status you want to add to the transaction.
4. Choose OK.

Deleting a Drop Status from a Transaction: About this task

To delete a drop status from a transaction:

Procedure

1. From the Transaction Detail window, choose the Drop Statuses tab.
2. Select the applicable drop status and choose the **Delete** icon.

Configuring a Transaction Completion: You can configure the transactions to be completed based on an order line status in the order fulfillment process type. The completion criteria can be defined only for custom or extended transactions. When an order runs these transactions, it is evaluated for completion. Upon evaluation the transaction it is marked as complete or incomplete as defined in the transaction completion criteria. This configuration provides you the flexibility to set up completion dependencies for transaction-based on its drop statuses.

Note: You cannot configure transaction completion for the standard transactions provided by Sterling Selling and Fulfillment Foundation. For example, you cannot configure completion for the standard Schedule transaction.

Note: However, some of the status-based transactions such as Schedule and Release are provided with completion criteria and can be viewed by selecting the **Configure Event Handler** icon in the drop status tab.

Apart from transactions, completion criteria can also be configured for the extended listeners used in the pipeline. However, you need to configure the completion for every instance of the listener.

For more information about the concepts of transaction dependencies, see the *Sterling Selling and Fulfillment Foundation: Product Concepts Guide*. For information about configuring transaction dependencies for the order fulfillment model, see the *Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide*.

Configuring the Transaction Completion Setup: About this task

To configure the transaction completion setup:

Procedure

1. From the Transaction Detail window, choose the Drop Statuses tab.
2. Choose the **Configure Event Handler** icon to configure the transaction completion. The Transaction Completion window displays.

3. Enter information into the applicable fields. Refer to the following table for field value descriptions.
4. After entering the details choose OK.

Table 50. Transaction Completion Configuration Details

| Field | Description |
|---|--|
| Configure Transaction Completion For Order Line | Check this box if you want to configure the transaction completion based on an order line status. |
| Transaction is Marked As Complete When | |
| All Quantity Are In or Beyond the Status | Select this option if you want to configure the transaction when the order line is beyond the status specified in the drop-down. The transaction is considered incomplete if any quantity is below the status that is configured. |
| Transaction is Marked as Complete When All Quantities Are In the Following Statuses | Select the transaction completion status from the drop-down option. The drop down list all statuses defined for that organizations. Use the Search icon to select from a list of available drop statuses. |
| Transaction is Marked as Incomplete When Any Quantity Is in Any of the Following Statuses | Select the status from the drop-down for which the transaction is considered incomplete. Use the Search icon to select the status from the list of available statuses. |

Results

For deleting the chosen statuses for the completion or incompleteness of the transaction, choose the appropriate status and click the **Delete** icon.

TRANSACTION_DEPENDENCY.READY_TO_PROCESS event is triggered when the transaction is completed to notify the user that the order is ready to process the dependent transaction. This event also enables custom transactions to know that the order is ready for processing.

Note: The READY_TO_PROCESS event is triggered only when a transaction is ready for immediate processing.

You can have multiple transactions that could become ready due to the completion of one transaction. In this case, each transaction is output along with the order lines that are available.

The lines that become available due to dependency removal are published in the event.

Managing a Base Transaction's User Exits: About this task

User exits are Java interfaces which can be implemented for creating custom logic components. Once implemented, they must be configured so that the Sterling Selling and Fulfillment Foundation transactions can invoke them to perform the necessary logic at runtime.

To manage a base transaction's user exits:

Procedure

1. From the Transaction Detail window, choose the User Exits tab.
If the user exit can be implemented for a document type, the 'Can Override For Document Types' column displays 'Y'. If the user exit can be implemented for services, the 'Can Attach Service' column displays 'Y'. If the user exit is implemented, the 'User Exit Implemented' column displays 'Y'.

Note: The User Exit List may not display the complete list of user exits available for the transaction. To view the complete list of available user exits, use the User Exit Management Console.
2. Locate the applicable user exit and choose the **Details** icon. The User Exit Details window displays.
3. From the User Exit Implementation List table, choose the **Create New** icon. User Exit Implementation Details displays.
4. Enter information into the applicable fields. Refer to Table 51 for field value descriptions.

Table 51. User Exit Implementation Details Fields

| Field | Description |
|--|---|
| User Exit Implementation Details | |
| Document Type | If the user exit can be implemented for a document type, select the appropriate document type, if applicable. |
| Implement As A Service | If the user exit can be implemented to use a service and you are configuring it as such, choose Implement As A Service. |
| Implement As A Java Class | If you are configuring the user exit to be implemented as a Java class, choose Implement As A Java Class. |
| Service Name (if selected Implement as Service) | If you selected Implement As A Service, select the applicable service to configure. |
| Java Class (if selected Implement as Java Class) | If you selected Implement As A Java Class, enter the Java class as it displays in the User Exit Name field. |
| Requires Backward Compatibility | Select this field if the user exit requires backward compatibility for another release. |
| Version | If you selected Requires Backward Compatibility, select the Sterling Selling and Fulfillment Foundation version number that requires user exit backward compatibility. |
| Restrict Number Of Calls | If a call made to the external system through the User exit custom code hangs, the API thread, which invoked this user-exit, also hangs. Potentially this could block out all the execute threads in an App server. If checked, you can configure Calls Per JVM, Waiting Calls and Wait time. |
| Pool Size | Indicates total number of concurrent active calls to User Exit. |
| Maximum Queue Length | The maximum queue length for the number of user exit calls that are waiting to become active if the active count is filled up. If the queue is filled with calls waiting to be active, any new User Exit requests cause an error. |
| Wait Time (seconds) | Time for which the user exit call waits in queue. If the wait time exceeds the configured wait time, an exception is thrown. |
| User Exit Implementation Notes | Enter any additional information regarding user exit implementation. |

Creating an Extended Transaction that is Derived from an Abstract Transaction

About this task

You can create new transactions by deriving from existing system transactions in the process type you are working in. These transactions can then be used in pipeline creation and modification.

Note: When creating a transaction that is derived from an abstract transaction, completing the document field type is not mandatory, but is recommended.

To create a derived transaction:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Transactions tab.
4. Select the Transactions branch and choose the **Create New** icon. The Create New Transaction pop-up window displays.
5. Select 'Derive from this abstract transaction' and select the applicable transaction to build a derived transaction off of.
6. Choose OK. The Transaction Detail window displays in the work area.
7. Enter information in the applicable fields. Refer to Table 46 on page 112 for field value descriptions.
8. Choose the **Save** icon.
9. If you modified the Java class, restart the appropriate Agent Servers for the changes to take effect.

Creating a Status Change Listener Derived Transaction:

About this task

You can create listener transactions to keep track of the changes in a document when it is in another pipeline. For example, if you are creating an order fulfillment pipeline in which the order document is dropped into an outbound shipment pipeline with its own set of statuses for shipment, you can configure a status change listener transaction in the order fulfillment pipeline to keep track of the statuses the order document goes through in the outbound shipment pipeline.

The transaction details screen for a listener allows multiple drop statuses to be added. A validation is performed to prevent the removal of a transaction drop status record if there is a pipeline listener record for that drop status. When setting the statuses listened to in the pipeline, specify which drop status to use for each listened to status. When a child order changes status, the parent order is updated with the specific drop status for the status to which the child order has just changed.

This listener listens to all the same statuses as the previous three listeners combined and drops into whichever drop status that the previous three listeners did.

Listeners that change status on an order raise an event upon status change. Listeners raise the event for each order line that has a status change. The ON_STATUS_CHANGE event is raised for each order line using the Listener transaction.

To configure a status change listener:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Transactions tab.
4. Select the Transactions branch and choose the **Create New** icon. The Create New Transaction pop-up window displays.
5. Select 'Derive from this abstract transaction' and select the applicable listener transaction.
6. Choose OK.
7. In the repository, choose the pipeline tab and then select the pipeline you want to add the status change listener transaction to. Right-click on the pipeline and choose Details. The details of that pipeline appear in the work area.
8. Choose the transactions tab and drag your transaction into the appropriate spot in the work area.
9. Right-click on the status change listener transaction and choose Show Listener Details. The Listener Details pop-up window displays.
10. From Process Type Listening To, select the applicable process type pipeline from which you want the listener to track statuses.
11. From the Status Listening To list, select the **Create New** icon. A list of statuses that can be tracked displays.
12. Select the statuses you want the listener to track and choose **Add Service to Transaction**.
13. Choose OK.

Note: Work Order Status Listeners do not work on provided service or delivery service work orders.

Configuring Header-Level and Line-Level Operations for Quote Pipeline Transactions:

About this task

You can configure whether transactions occur at the line level or the header level of quotes. If a transaction operates at the header level, the status move on all the quote lines occurs only if all lines are permitted to move. If a transaction operates at the line level, any line status can be moved, independent of other line statuses in the quote.

To configure whether transactions occur at the line level or the header level of quotes:

Procedure

1. In the Process Modeling window, select the Order tab to view the Quote process modeling tree for the Order base document type.
2. In the Process Types swimlane, right-click on Quote Fulfillment and choose Model Process. The Repository Details window and work area display for the Quote process type.
3. Choose the Transactions tab.
4. Select the Transactions branch and choose the **Create New** icon. The Create New Transaction pop-up window displays.
5. Select 'Derive from this abstract transaction' and select the Change Order Status transaction to build a derived transaction off of.
6. Choose OK. The Transaction Detail window displays in the work area.
7. Choose the Others tab. Refer to Table 46 on page 112 for field value descriptions.
8. From the Operation Level drop-down list, select either:
 - Transaction Operation Level of Header
 - Transaction Operation Level of Line
9. Choose the **Save** icon.

Modifying a Transaction

About this task

To modify a transaction:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Transactions tab.
4. Expand the Transactions branch.
5. Select the applicable transaction and choose the **Details** icon. The Transaction Details window displays in the work area.
6. Modify information in the applicable fields. Refer to Table 46 on page 112 for field value descriptions.
7. Choose the **Save** icon.

Deleting a Transaction

About this task

To delete a transaction:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Transactions tab.
4. Expand the Transactions branch.

5. Select the applicable transaction and choose the **Delete** icon.

Note: If a transaction existing in any pipeline is deleted, it appears bright red in the graphical pipeline.

Defining Statuses

Statuses are the actual states that a document moves through in the pipeline. A transaction can contain two types of statuses, a drop status and a pickup status. A document is moved into a **drop status** when the events and conditions of a transaction have been completed. A **pickup status** takes the document from the previous drop status and moves it through the next transaction. Created and Scheduled are examples of statuses.

Sterling Selling and Fulfillment Foundation provides a default set of statuses. These statuses are used to connect transactions. Your business practices may call for use of one or more extended statuses. These statuses do not stand alone and only follow the status from which they are extended.

Creating an Extended Status

About this task

To create an extended status:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Statuses Tab.
4. Expand the Statuses branch.
5. Select the applicable status and choose the **Create New** icon. The Status Detail window displays in the work area.
6. In Status, enter the extension number. This number must be sequential with any other existing extended statuses.
7. In Status Name, enter the name of the extended status.
8. Choose the **Save** icon.

Modifying an Extended Status

About this task

To modify an extended status:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Statuses Tab.
4. Expand the Statuses branch.

5. Select the applicable extended status and choose the **Details** icon. The Status Detail window displays in the work area.
6. In Status Name, enter the name of the extended status.
7. Choose the **Save** icon.

Deleting an Extended Status

About this task

To delete an extended status:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Statuses Tab.
4. Expand the Statuses branch.
5. Select the applicable extended status and choose the **Delete** icon.

Defining Status Monitoring Rule Definitions

About this task

A status monitoring rule is used to monitor business documents that stay in a particular status for a set amount of time. When the configured time is reached the actions you define in the status monitoring rule definition work area are performed.

Note: The following instructions help you to set up status monitoring rule definition for order monitor. However, this is not supported for enhanced order monitoring.

To set up status monitoring rule definitions:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Expand the Statuses branch.
4. Choose the Statuses Tab.
5. Double click the applicable Status. The Status Details window displays in the work area.
6. Right-click in the work area and select Actions > Add Monitor Node. A monitor node displays in the work area.
7. Drag the applicable actions and conditions into the work area and connect them as per the rules detailed in this section.
8. Connect the status monitor node to the applicable actions. The hours that a document stays in the status before the action is raised displays on the connecting line. To change the time, right-click on the time, choose Change, and enter the new time.

- Note:** Do not set up more than one action for the same monitoring age.
9. Choose the **Save** icon.

Note: For the following process types, status monitoring rules cannot be added, and the Status Monitor Rule Definition tab is therefore disabled:

- Count Execution
- General
- Load Execution
- Manifesting
- Move Request Execution
- Outbound Picking
- Outbound Shipment
- Over Pack Build
- Pack Process
- Purchase Order Receipt
- Return Receipt
- Task Execution
- Trailer Loading
- Transfer Order Receipt
- VAS Process
- WMS Layout Definition
- WMS Putaway
- WMS Inventory

Defining Conditions

A **condition** matches document type attributes against decision points and routes the documents to different paths based on the specified attribute and value combinations. The document type attributes against which conditions can be created are predefined in Sterling Selling and Fulfillment Foundation. You can use these attributes in any combination or you can create conditions that run the appropriate application logic for specific circumstances.

For example, at a certain point in a Sales Order Fulfillment process-type pipeline, you set up a condition to determine if an order contains hazardous materials. When an order reaches this condition in the pipeline, it cannot move any further until the condition is met with a definitive 'yes' or 'no' value. In this example, if the order contains no hazardous materials, the value is 'no' and the order continues through the regular pipeline. If the order does contain hazardous material, the value is 'yes' and the order is sent down an alternate branch of the order pipeline that has been configured to deal with hazardous material orders.

Static Conditions

The behavior of a static condition differs between different flows (for example, SDF, Pipeline, Pipeline Determination Rule, and Event Handlers) based on the data that is available for condition evaluation.

- In SDF, the entire flow or input data is available for condition evaluation.

- In case of a Pipeline Determination Rule, only a limited set of published data (per process type) is available for condition evaluation. For the complete list of out-of-the-box process types, refer to *Sterling Selling and Fulfillment Foundation: Configuration Guide*.
- In Pipeline or Events, only a limited set of published data (per entity or event) is available for condition evaluation. For more information on Keydata of the concerned event, refer to *Sterling Selling and Fulfillment Foundation: Javadocs*.
- The Enter your own attribute configuration is applicable only for unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter. Also, this configuration has limited visibility to the contextual condition and hence it is not reusable. When there is a need for reusability across conditions, `extn_conditionbuilder.xml` should be used which forces the metadata for condition builder configurations.

Note: In a pipeline, a false node of a condition can be linked to another condition whereas a true node cannot be linked to another condition.

Dynamic Conditions

Dynamic conditions provide complete visibility into the incoming flow data and flexibility for evaluating any kind of simple or complex conditions.

Creating a Condition About this task

To create a condition:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Conditions Tab.
4. Expand the Conditions branch.
5. Choose the **Create New** icon. The Condition Details window displays in the work area.
6. Enter information in the applicable fields. Refer to Table 52 for field level descriptions.
7. Choose the **Save** icon.

Table 52. Condition Details Window

| Field | Description |
|-----------------|---|
| Condition ID | Enter the condition ID. |
| Condition Name | Enter the name of the condition. |
| Condition Group | Enter the name of the condition's group, if applicable. Condition Group allows you to group related conditions within the condition tree. |
| Static | If this is checked you must enter a condition value for the static condition. |
| Dynamic | If this is checked you must enter a Java class name that evaluates the condition at runtime. |

Table 52. Condition Details Window (continued)

| Field | Description |
|--|--|
| AdvancedXML | <p>If you are creating a new condition, this option is disabled as a new condition of the advanced XML type must be created using the Sterling Greex Editor IDE tool. For more information about creating an advanced XML condition using the Sterling Greex Editor, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This option is automatically selected whenever you modify a condition of the advanced XML type.</p> |
| Condition Value (if Static is checked) | <p>Choose the Condition Builder button to use the condition builder. Here you can use the Condition Builder to set up the condition value. You can set it up in a formulaic readout using the available symbols.</p> <p>You can enter your own attribute or an extended attribute if Static condition is checked. For more information about creating these attributes, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> |
| Class Name (if Dynamic is checked) | <p>Enter the class name that implements the following Java interface:</p> <pre>com.yantra.ycp.japi.YCPDynamicCondition</pre> <p>Note: To use extended attributes for a condition, implement the YCPDynamicConditionEx interface. For more information about implementing this interface, refer to the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i></p> |
| Condition Properties (if Dynamic is checked) | <p>Specify the custom name or value properties which are set into the condition evaluating java class file before evaluating the condition. For more information about creating custom attributes, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> |

Using the Condition Builder: You can use the condition builder to create condition values. To use the condition builder you must first select the field(s) to be analyzed when the condition is used and associate the proper value with them.

For example, you want to set up a condition to search for a specific node for order fulfillment, in this example SN1. To set up this condition value, select Ship Node from the list of available order fulfillment fields. From the drop down list select 'Is' and enter SN1 as the value and choose Add. You have now created a condition value that reads "Ship Node is 'SN1'". This indicates that when this condition is used the application checks the document to see if it is associated with SN1, if it is the document moves through the pipeline as per your configuration.

You can also check for conditions to be evaluated if they are greater than, greater than equal to, less than, less than equal to and contains based on the fields you have selected.

You can build more complex strings when creating a condition value using the condition builder. For example, you decide that along with setting up a condition value associated with SN1, you do not want the condition to include any item IDs associated with Item1. To set up this condition value, select Ship Node from the list of available order fulfillment fields. From the drop down list select 'Is' and enter SN1 as the value and choose Add. Then select the statement and choose the

open and closed parentheses buttons. After this statement is set up, select Item ID from the list of available order fulfillment rules. From the drop down list select 'Not Equal To' and enter Item1. Select the statement and choose the & button, then choose the open and closed parentheses buttons. You have now set up a statement to read "(Ship Node Is 'SN1') AND (Item ID Not Equal To 'Item1')". This statement indicates that when this condition is used, the application looks at a given document to see if it is associated with SN1 but not Item1. If this is the case the document goes along the pipeline as per your configuration.

Note: You must use parentheses when using multiple fields in a condition statement.

Note: You can only have two conditions between the bracket symbols.

You can add custom attributes by process types and during condition definition to be evaluated as part of the condition builder functionalities. For more information about implementing custom attributes and incorporating them in the condition builder, see the *Sterling Selling and Fulfillment Foundation: Extending the Condition Builder*.

Modifying a Condition

About this task

To modify a condition:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Conditions Tab.
4. Expand the Conditions branch.
5. Expand the applicable condition group branch.
6. Select the applicable condition and choose the **Details** icon. The Condition Details window displays in the work area.
7. Enter information in the applicable fields. Refer to Table 52 on page 134 the Transaction Details Window table for field level descriptions. (Refer to "Using the Condition Builder" on page 135 for information about modifying a static condition). (Refer to Table 53 for field level descriptions for an advanced XML condition).
8. Choose the **Save** icon.

Table 53. Advanced XML Condition Details Window

| Field | Description |
|-----------------|--|
| Condition ID | Enter the new identifier for the advanced XML condition (if required). |
| Condition Name | Enter the new name for the advanced XML condition (if required). |
| Condition Group | Enter the new name for the advanced XML condition's group (if required). Condition Group allows you to group related conditions within the condition tree. |

Table 53. Advanced XML Condition Details Window (continued)

| Field | Description |
|---|---|
| Advanced XML (if AdvancedXML is checked) | <p>This screen displays only when you are editing an advanced XML condition that is created using the Sterling Greex Editor IDE tool. For more information about creating an advanced XML condition using the Sterling Greex Editor, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>. This screen describes an advanced XML condition in simple English. All modifiable parameters of an advanced XML condition display as a hyperlink on the screen.</p> <p>Click on the hyperlink of the parameter whose value you want to edit. Specify the new value for the parameter in the pop-up screen. The pop-up screen displays the old value. You can also enter the new value. The new value reflects in the Advanced XML screen as well as in the Screen View screen when you click on the save button in the pop-up screen.</p> |
| Source View (if AdvancedXML is checked) | <p>This screen displays only when you are editing an advanced XML condition that is created using the Sterling Greex Editor IDE tool.</p> <p>This screen displays a specific advanced XML condition in an XML form or as defined in the advanced XML file. You cannot make changes to any parameter of the advanced XML condition.</p> |
| Condition Cases (if AdvancedXML is checked) | <p>Specify the custom cases for the decision table-based advanced XML condition. For more information about creating custom cases for a decision table-based advanced XML condition, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> |

Deleting a Condition

About this task

To delete a condition:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Conditions Tab.
4. Expand the Conditions branch.
5. Expand the applicable condition group branch.
6. Select the condition you want to delete and choose the **Delete** icon.

Viewing All Entities Affected by a Condition

About this task

You can view all of the events, pipelines, and status rules that are affected by a particular condition. This is useful when you need to modify a condition so that you can see what is impacted by your modification.

To view the entities affected by a condition:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Conditions Tab.
4. Expand the Conditions branch.
5. Expand the applicable condition group branch.
6. Select the applicable condition and choose the **Details** icon. The Condition Details window displays in the work area.
7. Choose the **Zoom In** icon. The Entities Affected by this Condition pop-up window displays. The Pipeline Entities tab provides a list of pipelines affected by the condition, Enterprises affected by determination rules containing the condition, and pipelines affected by monitoring rules containing the condition. The Others tab details all of the events, statuses, and services affected by the condition.

Defining Actions

An **action** is a process or program that is triggered by an event. These processes and programs send alert notifications, publish data, or initiate custom services.

For example, when an order is released (the event), you can set an action to send the customer an e-mail.

Creating an Action

About this task

To create an action:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Actions Tab.
4. Expand the Actions branch.
5. Choose the **Create New** icon. The Action Details window displays.
6. Enter information in the applicable fields. Refer to Table 54 on page 139 for field level descriptions.
7. Choose the **Save** icon.

Note: It is recommended that all Actions defined by you should contain the prefix "EXTN_" to avoid conflicts between factory-shipped actions and the custom defined actions.

Table 54. Action Details Window

| Field | Description |
|--|--|
| Action Code | Enter the action code. |
| Action Name | Enter the action's name. |
| Action Group | Enter the name of the action's group, if applicable. Actions belonging to the same group appear together in the Action tab in the Process Modeling tree. |
| Invoked Services | |
| Invoke following services as part of this action | <p>Select this if you want this action to invoke a configured service.</p> <p>Note: If you configure actions that invoke a service, which inserts messages into an MQ Series queue, ensure that your System Administrator includes the following .jar files in the CLASSPATH environment variable for your application server (Oracle WebLogic, IBM WebSphere, or JBoss):</p> <ul style="list-style-type: none"> • \$MQSERIES_HOME/lib/fscontext.jar • \$MQSERIES_HOME/lib/providerutil.jar • \$MQSERIES_HOME/lib/jndi.jar • \$MQSERIES_HOME/lib/com.ibm.mq.jar • \$MQSERIES_HOME/lib/com.ibm.mqbind.jar • \$MQSERIES_HOME/lib/com.ibm.mqjms.jar • \$MQSERIES_HOME/lib/jms.jar |
| Invoked Services List | Lists the services that this action invokes. When you check 'Invoke following services as part of this action' you can add additional services by choosing the Create New icon. You can remove services by selecting the applicable service and choosing the Delete icon. |
| Service Name | The name of the service. |
| Service Group Name | The name of the service group the service belongs to. |
| Others | Important: All information in this tab can be configured within the Service Definition Framework. The information in this tab is provided solely for backward compatibility purposes. From Version 5.0 onwards, these should be configured as a service. |
| Send to Alert Console | Select the check box if you want an alert notice to be sent to a particular user. |
| Queue Name | Enter the name of the queue the alert should be sent to. |
| User Name | Select the name of the user who is to receive alert notices. |
| Template | <p>Enter the Alert Console template. It can be any name followed by an ECT or XSL extension.</p> <p>If the template is within the EAR file:</p> <p>The value of the Template field specified in the action should be the same as the path to the template file as built within the EAR. The path should be relative to the root of the EAR.</p> <p>If the template is outside the EAR file:</p> <p>The value of the Template field specified in the action can be the path to the file relative to the path given in the CLASSPATH specified in the application server's startup script.</p> |

Table 54. Action Details Window (continued)

| Field | Description |
|---------------------|---|
| Send E-Mail | Select the check box if you want an e-mail message to be sent. Enter a template name in the Template field. Note: You must configure your e-mail server before you can activate this action. |
| Template | Enter the name of the e-mail template. It can be any name followed by an MLT extension (if data published is a map) or XSL extension (if data published is an XML). If the template is within the EAR file: The value of the Template field specified in the action should be the same as the path to the template file as built within the EAR. The path should be relative to the root of the EAR. If the template is outside the EAR file: The value of the Template field specified in the action can be the path to the file relative to the path given in the CLASSPATH specified in the application server's startup script. |
| Call Java Extension | Select this field if you want to call a particular Java component. |
| Class Name | Enter the Java class name. |
| Execute | Select this field if you want to call a particular executable. |
| Program | Enter the Program (executable) name. Make sure the executable exists in the system PATH. |
| Call DB Extension | Select this field if you want to call a particular stored procedure. |
| Stored Procedure | Enter the Stored Procedure name. |
| Call HTTP Extension | Select this field if you want to call a particular URL. |
| URL | Enter the URL to be called for the HTTP Extension. |
| Send Fax | This field is no longer supported. |
| Template | This field is no longer supported. |
| Call COM Extension | This field is no longer supported. |
| Prog ID | This field is no longer supported. |
| Publish Data | Select this field if you want to publish data to an external system. |
| System ID | Choose the Create New icon and enter the system ID in the System ID pop-up window. If you want to delete an existing system ID, select the system ID you want to delete and choose the Delete icon. Note: System IDs cannot be more than 20 characters. |

Note: Only actions linked to the primary enterprise of this node or organization are available in the drop-down. Any actions created from this screen using the create button are linked to the primary enterprise of the user's organization and hence may not be available for the node or organization being created. In a multi-enterprise situation please ensure that actions are created for

the appropriate enterprises first (when logged in as that enterprise user). Subsequently mapping of nodes to actions can be done logged in either as an enterprise user or as a hub user.

Modifying an Action

About this task

To modify an action:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Actions Tab.
4. Expand the Actions branch.
5. Expand the applicable action group branch.
6. Select the applicable action and choose the **Details** icon. The Action Details window displays.
7. Enter information in the applicable fields. Refer to Table 54 on page 139 for field value descriptions.
8. Choose the **Save** icon.

Deleting an Action

About this task

To delete an action:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Actions Tab.
4. Expand the Actions branch.
5. Expand the applicable action group branch.
6. Select the applicable action and choose the **Delete** icon.

Defining Service Definitions

Service definitions are a representation of the logic that regulates document workflow services. The Service Builder is a graphical interface that enables you to create a graphical representation of these *services*, in the following situations:

- Transporting data, typically between Sterling Selling and Fulfillment Foundation and external applications
- Transforming data from one format to another
- Extending the application logic when events are raised

Services can be accessed using the following mechanisms:

- `executeFlow()` API

- Resource configuration for accessing from the user interface
- Actions can be associated to invoke a service
- User-triggered transactions can be used to invoke a service to raise an alert to inform the applicable users
- Document Routers
- Monitors

Note: If you try to configure more than one action serially using the Service Definition Framework, the Applications Manager throws an error message, "A continue link must be attached to the next condition or action." To avoid this error, group these actions and replace them with one service.

Service Nodes

Service nodes contain the logic that you can use to build a service definition.

The following service nodes are available from the Service Palette:

- Transport nodes
- Component nodes
- Adapter nodes
- Connector nodes

Connector nodes are only available from the right-click menu.

Transport Nodes

Transport nodes forward messages, allowing Sterling Selling and Fulfillment Foundation to communicate with external systems. Transports (and the entire service) can be classified into the following categories:

- Synchronous - immediately forward messages
- Asynchronous - store and forward messages

You may use either type, depending on your needs. The following sections list the types of synchronous and asynchronous transport types.

You can add a transport node by dragging it from the pallet into the work area.

Synchronous services forward messages immediately. Sterling Selling and Fulfillment Foundation supports the following synchronous transport types:

- COM
- Enterprise Java Bean (EJB)
- Hypertext Transfer Protocol (HTTP)
- Web Services
- Synchronous MQSeries Message Queue
- Synchronous Oracle WebLogic Message Queue

Asynchronous services store and forward messages. They queue up messages in a database or a queuing mechanism, which allows you to reprocess exceptions, if any, at a later time. Sterling Selling and Fulfillment Foundation supports the following asynchronous transport types:

- Asynchronous MQ JMS Queue

- Asynchronous Oracle WebLogic JMS Queue
- Database
- File IO
- FTP
- Generic JMS
- MSMQ

Each transport type has the following sender and receiver aspects:

- receiver - defines how information should be received from the transport node
- sender - defines how information should be sent to the transport

Whether a transport is a sender or receiver depends on how you have connected the flow of logic to be directed.

For a complete list of available transport nodes and details of their parameters, see Chapter 24, “Transport Nodes,” on page 475.

Component Nodes

Component nodes format or translate data. Sterling Selling and Fulfillment Foundation supports the following components:

- Alert
- API
- E-Mail
- Composite Service
- Condition
- Nomenclature Runtime
- Router
- Text Translator (For detailed information about text translator file configuration, see Chapter 25, “Text Translator Reference,” on page 553.)
- XSL Translator

You can add a component node by dragging it from the pallet into the work area.

For a complete list of available component nodes and details of their parameters, see Chapter 24, “Transport Nodes,” on page 475.

Adapter Nodes

Adapter nodes allow you to implement a Sterling Selling and Fulfillment Foundation Adapter with an external system.

Sterling Selling and Fulfillment Foundation supports the Sterling GISIBM Sterling B2B Integrator.

Connector Nodes

Connector nodes allow you to link nodes together without adding any additional logic. This allows you to complete a service. The types of available connector nodes are as follows:

- Start node - All services are required to begin with a Start node. The Start node defines where to begin running the Service Definition Framework logic. When you create a new flow, the Start node is already laid out for you.
- End node - All services are required to end with an End node. The End node defines where to end that particular flow of the Service Definition Framework logic. When you create a new flow, the End node is already laid out for you.
- Pass-through node - The Pass-through node allows you connect synchronous and asynchronous components together.

You can add a connector node by right-clicking in the work area and selecting from the above connector node types.

Criteria of a Complete Service Flow

The following conditions must be met in order to save a service:

- Start node - Required. One maximum.
- Transport node - Optional. Zero or many.
- Component node - Required. One or many.
- Adapter Node - Optional. Zero or many.
- End Node - Required. One or many.
- All nodes must be connected together.
- All required properties on all nodes and links must have values specified.

Creating a Service

About this task

To create a service:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Service Definitions Tab and select the parent node of the current Service Definition tree.
4. Choose the Process Type Services node and choose the **Create New** icon. The Create New Service Properties dialog box displays.
5. Enter information in the applicable fields. Refer to Table 55 for field value descriptions.
6. Choose OK. The Service Details Window displays.

Note: It is recommended that all Services defined by you should contain the prefix "EXTN_" to avoid conflicts between factory-shipped services and the custom defined services.

Table 55. Create New Service Window

| Property | Description |
|--------------|-------------------------|
| Service Name | Enter the service name. |

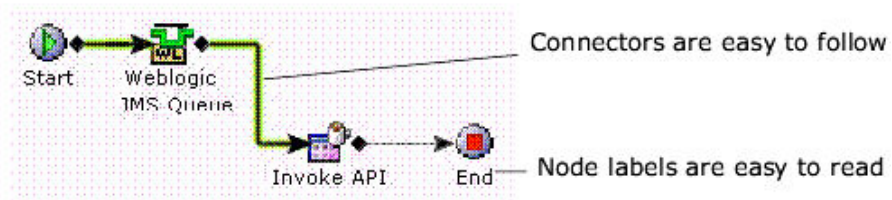
Table 55. Create New Service Window (continued)

| Property | Description |
|---|--|
| Service Group Name | Enter the service group the new service should be categorized in. As long as the service group is populated with services, it cannot be deleted. When you delete all services within a group, the group container is automatically deleted. |
| This Service Provides Real-time Responses | Select this if the service returns a response to the caller when invoked. This option is only available for services that are invoked synchronously, whether from within Sterling Selling and Fulfillment Foundation or externally. Note: When this property is selected, asynchronous transports cannot be added to the service. |
| Is Print Service | Select this service to print labels. |
| Is Data Loading Service | Select this service to load data. |
| This Service Is Invoked by an External System or from within Sterling Selling and Fulfillment Foundation. | |
| In an Asynchronous Mode | Select this option when the service must start by retrieving a message from an asynchronous transport source. The service starts from a queue or database. The definition of the service does not need detail how the message arrives at asynchronous source such as queue or database. When this option is selected the first node after the start node must be an asynchronous transport node. |
| In a Synchronous Mode | Select this option when the service is invoked from Sterling Selling and Fulfillment Foundation or through an API synchronously. |

Linking Service Definition Nodes:

About this task

Before linking nodes together, lay them out on the work area so that the logic flows from left to right and from top to bottom. Place your nodes so that the link coming from a source node are on the bottom or right side, and comes into the top or left side of the target node. See the following example.



To link nodes together:

Procedure

1. On the first node, click the small black diamond to its right.
2. Drag a link to the next node.

Results

It doesn't matter what order you use for linking nodes, but it makes more sense to create the links in the order in which the logic flows.

Note: If you delete a transport link, you also delete any properties you have defined. You can avoid this by linking your nodes together before defining the properties.

If you try to link nodes together that cannot be linked, the status bar informs you that this task that cannot be completed.

Defining a Node's Properties:

About this task

You can configure the individual node properties. For a complete list of the available service nodes and their properties, see Chapter 24, "Transport Nodes," on page 475.

To configure node properties:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Services Tab and select the parent node of the current Service Definition tree.
4. Choose the Process Type Services node.
5. Locate the applicable service and choose the **Details** icon. The Service Details Window displays.
6. In the work area, choose the applicable node, its properties panel displays in the bottom frame.
7. Edit the properties as indicated for the node in Chapter 24, "Transport Nodes," on page 475.

Saving a Service as a Draft

About this task

You can save an incomplete service as a draft. This draft can be retrieved for a final save without any necessary validations.

To save a service as a draft:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Services Tab and select the parent node of the current Service Definition tree.

4. Configure a service as per the rules detailed in this section.
5. Choose the **Save Draft** icon. The service is saved as a draft service.
6. When you are ready to save it as a complete and functional service, choose the **Save** icon.

Note: When you save a service as a draft, any existing drafts for the service are overwritten. When you save the draft as an actual service, any existing services are overwritten.

Saving a Service as Another Service

About this task

You can save an existing service as another service.

Note: When you save a service containing a Sub Service Name as another service, that Sub Service Name is copied over with an appended digit to differentiate it from the original Sub Service Name. For example, if you save a service named Service1 containing a Sub Service Name R1 as another service named Service2, the original Sub Service Name is copied over as R1_0.

To save a service as another service:

Procedure

1. In the Process Modeling window, select the Order, Load, or General tab to view the corresponding process modeling tree for that base document type.
2. In the Process Types swimlane, right-click on the applicable process type and choose Model Process. The Repository Details window and work area display for the corresponding process type.
3. Choose the Services Tab and select the parent node of the current Service Definition tree.
4. Select the existing service you want to save as a new service.
5. Choose the **Save As** icon. The Save Service As pop-up window displays.
6. In Service Name, enter the name of the new service.
7. Choose the **Save** icon.

Chapter 5. Configuring User Security

Security must be set up to allow users access to the actions and views provided by the organization to which they belong. A user is limited to access only those to which they have permission.

The Applications Manager's **Security Management** is used to create users, user groups, and teams. Once these have been created, permissions can be assigned.

Defining Users

A **user** is a single person assigned with a certain task, such as, Hub Administrator or Customer Service Representative, depending on what role they play in the organization. Each user is associated with one organization.

Creating a User

About this task

To create a user:

Procedure

1. From the tree in the application rules side panel, choose Security > Users. The User Search window displays in the work area.
2. Choose the **Create New** icon. The User Details window displays.
3. Choose the Primary Info tab.
4. Enter information in the applicable fields. Refer to Table 56 for field value descriptions.

Table 56. User Details Window

| Field | Description |
|-----------------|--|
| User ID | Enter the user ID that the user uses to access the system. |
| Password | Enter the password the user uses to access the system. |
| Department Code | Select the code of the department to associate with the user. |
| User Name | Enter the user's name. |
| Locale | Select the locale the user is located in. Note: A user who is configured for the Eastern Time Zone but logs in while physically in the Pacific Time Zone, sees locale specific information as if he or she was in the Eastern Time Zone. |
| Menu Group | Select the menu group representing the menu options you want users to see when they log into the Application Console. |

Table 56. User Details Window (continued)

| Field | Description |
|--------------------------|---|
| Theme | <p>Enter the available theme as you want it to appear for the user. The theme determines how the color scheme of the Console and Applications Manager displays to the user.</p> <p>The available themes are:</p> <ul style="list-style-type: none"> • Earth • Jade • Sapphire <p>Note: You can extend the system to include as many themes as you want.</p> |
| Password Policy | <p>Select the password policy that you want to associate with the user.</p> <p>For additional information about password policies, see the <i>Sterling Selling and Fulfillment Foundation: Password Policy Management</i> .</p> |
| Team | <p>Select the team to which you want to assign the user. For more information about teams, see “Defining Teams” on page 158.</p> <p>Notes:</p> <ul style="list-style-type: none"> • The list contains all the teams configured for the organization to which the user belongs and the parent organization, if applicable. • Clearing of the database cache is required to take into effect the changes made to this configuration. |
| Active | Check this if the user is currently active in the organization. Inactive users cannot log in. |
| Is Supervisor | Check this if the user is a personnel supervisor. |
| Max Customer Assignments | Enter the maximum number of customers that this user can be assigned to manage. |
| Contact Address | <p>The user's contact address.</p> <p>Choose the Details icon to enter an address.</p> <p>Choose the Contact tab to view additional contact information.</p> |
| Billing Address | <p>The user's billing address.</p> <p>Choose the Details icon to enter an address.</p> <p>Choose the Contact tab to view additional contact information.</p> |
| Group Subscriptions | |
| Available | <p>A list of the available user groups.</p> <p>To subscribe a user to a user group, select the applicable user group and choose the Right Arrow icon.</p> |
| Subscribed | <p>A list of the user groups to which the user is subscribed.</p> <p>To remove a user from a user group, select the applicable user group and choose the Left Arrow icon.</p> |

5. If you want to subscribe the user to an alert queue or remove the user from an alert queue, choose the Queue Subscription tab.
6. To subscribe a user to an alert queue, select the applicable queue from Available and choose the **Right Arrow** icon. To remove a user from a queue select the applicable queue from Subscribed and choose the **Left Arrow** icon.
7. Choose the **Save** icon.

Modifying a User

About this task

To modify a user:

Procedure

1. From the menu bar, choose Applications > Application Platform. The Application Platform tree displays in the side panel.
2. From the Application Platform tree, choose Security > Users. The User Search window displays in the work area.
3. Enter applicable search criteria and choose the **Search** icon. A list of users displays.
4. Select the applicable user and choose the **Details** icon.
5. Modify information in the applicable fields. Refer to Table 56 on page 149 for field value descriptions.
6. Choose the **Save** icon.

Setting Up Printer Preferences for a User

About this task

User Printer Preferences configures printers that are associated with a specific user. This preference is used to determine the printer to use when a user prints a document.

For example, receiving office associates all its users to the HP LaserJet 5P located in the office.

The association of a printer to a station overrides the group preference of the specified user. The station is a static location where devices may be directly attached to a station.

It is recommended that User Printer Preferences be configured at the group level for easier administration.

To set up printer preferences for a user:

Procedure

1. From the menu bar, choose Applications > Application Platform. The Application Platform tree displays in the side panel.
2. From the tree in the application rules side panel, choose Security > Users. The User Search window displays.
3. In the User Search window, enter applicable search criteria.
4. Choose the **Search** icon. The list of users displays in the Search Results panel of the User Search window.

5. In the Search Results panel of the User Search window, choose the User whose Printer Preferences are to be set up.
6. Choose the **Details** icon. The User Details window displays.
7. In the User Details window, choose the Printer Preferences tab. The Printer Preferences tab window displays.
8. Enter the information in the applicable fields. Refer Table 57 for field value descriptions.
9. Choose the **Save** icon.

Results

For more information about Setting Up a User (Creating, Modifying, or Deleting a User), see “Defining Users” on page 149.

Table 57. Printer Preferences Tab Window

| Field | Description |
|----------------------------|---|
| Printer Association | |
| Printer ID | From the drop down, select the printer ID to be associated with the user. |

Deleting a User

About this task

To delete a user:

Procedure

1. From the tree in the application rules side panel, choose Security > Users. The User Search window displays in the work area.
2. Enter applicable search criteria and choose the **Search** icon. A list of users displays.
3. Select the applicable user and choose the **Delete** icon.

Defining User Groups

User groups are a collection of users who perform a similar task. For example, a group of customer service representatives might be put in a Customer Service Representative user group. Users can belong to multiple user groups to which permissions are assigned. A user who belongs to multiple user groups retains the least restrictive set of permissions defined by the groups they belong to. For example, if a user belongs to a user group that permits the user to use the Application Console, and this user also belongs to a user group that permits the user to access only the Console and Applications Manager, the user has access to both applications.

Each organization has its own user groups. User groups can only contain users for the same organization that the user was created for, except in the case of a user group created by the Hub organization, which can contain users of any organization.

Creating a User Group

About this task

To create a user group:

Procedure

1. From the tree in the application rules side panel, choose Security > Groups. The Groups window displays in the work area.
2. Choose the **Create New** icon. The Group Details window displays.
3. Enter information in the applicable fields. Refer to Table 58 for field value descriptions.
4. Choose the **Save** icon.

Table 58. Group Details Window

| Field | Description |
|-------------------|--|
| Group ID | Enter the user group ID. |
| Group Name | Enter the user group's name. |
| Group Description | Enter a description about the user group. |
| Group Type | From the drop-down list, select a group type that you want to associate with the user group. You can select either: <ul style="list-style-type: none">• INTERNAL - Indicates that the users belonging to this user group are internal users.• EXTERNAL - Indicates that the users belonging to this user group are Web channel users. |

Modifying a User Group

About this task

To modify a user group:

Procedure

1. From the tree in the application rules side panel, choose Security > Groups. The Groups window displays in the work area.
2. Select the applicable user group and choose the **Details** icon. The Group Details window displays.
3. Modify information in the applicable fields. Refer to Table 58 for field value descriptions.
4. Choose the **Save** icon.

Administering User Group Permissions

About this task

You can administer the permissions that a user group has throughout the Console and Applications Manager applications. You can allow or disallow permissions for an entire module or on a screen-by-screen or function-by-function basis. These permissions apply to all of the users in the user group.

Note: The user administering the permissions is only able to administer permissions for those action and views that he or she has rights to administer. Therefore, it is suggested that each organization have one single user who administers permissions for his or her own organization.

To set up user group permissions:

Procedure

1. From the Group Details window, choose the Permissions tab.
2. Locate the module that you want to add and/or revoke permissions for and choose the Permission button. The Permissions tree for the corresponding module displays.
3. If you want to allow permissions for an entire module, highlight the module you want to allow permissions for and choose the Grant All icon. To disallow permissions for an entire module, highlight the module and choose the Revoke All icon.

You can also view the list of users who have permission to access the entity by performing a right-click and choosing the **Zoom In** icon.

Note: If you want to revoke permissions to a particular menu for a given user group, you need to revoke all of the permissions for screens that can be selected under the menu option for which you are revoking permissions. For example, if you uncheck the System Management Console and all of its associated screens and functions, users do not see the System Management Console menu option in the Application Console.

4. If you want to allow permissions on a screen-by-screen or function-by-function basis, expand the application that you want to allow permissions for and highlight the screens that you want to allow and choose the Grant icon. To disallow permissions on a screen-by-screen or function-by-function basis, highlight the screens and choose the Revoke icon.

Note: The permissions tree displays the pricing screens and functions for both the new and old pricing functionalities. If you are using the new pricing functionality, permissions should be assigned to the new pricing functions. If you are using the old pricing functionality, permissions should be assigned to the old pricing screens. For more information about enabling the old and new pricing functionality, see “System Administration Components: Defining Installation Rules” on page 173.

5. If you are configuring permissions for a group that has access to the Application Console, choose the Cross Application Permission button and expand the Application > Sterling Selling and Fulfillment Foundation Console > Override branch and enable any of the following permissions as needed:
 - The Display Decrypted Primary Payment Attributes permission determines whether sensitive payment information such as credit card name, credit card expiration date, customer account number or primary payment reference is displayed or masked in the Application Console.

If Sterling Selling and Fulfillment Foundation is configured to encrypt primary payment attributes, and the Display Decrypted Primary Payment Attributes permission is granted, the Application Console determines whether to call the `getDecryptedString` API to decrypt and display sensitive payment information.

For more information about enabling database encryption for primary payment attributes, see “System Administration Components: Defining Installation Rules” on page 173.

Note: Encryption and decryption of credit card numbers and stored value card numbers has been deprecated. IBM recommends that credit card numbers and stored value card numbers should not be encrypted. Instead,

they should be tokenized and stored securely in an external vault system. As a result, credit card numbers and stored value card numbers cannot be viewed in the Application Console.

- To grant the Application Console the ability to make modifications to documents that are normally not allowed based on the status modification rules you have configured (reference), grant the Override Modification Rules permission. For example, you may not allow regular users to modify the instructions of a released sales order. However, specific users should be able to add instructions on exception conditions. When this permission is granted, the user is able to make the appropriate overriding modifications in the order console.

Note: To indicate that a particular field can be only be modified through this user group permission, the Sterling Selling and Fulfillment Foundation Console displays this field as editable, with a blue background.

- To grant the Application Console the ability to view the stack trace error messages, grant the Display Error Details permission.
6. Choose the **Save** icon after configuring the permissions.

Note: If you are configuring permissions for a group that has access to the Application Console, choose the Cross Application Permission button and expand the Application > Sterling Selling and Fulfillment Foundation Console > Override branch. Select Display Sensitive Payment Information if you want the users in this group to be able to see sensitive payment information, such as credit card name, credit card expiration date, customer account number, or primary payment reference in the Application Console. Select Override Modification Rules if you want the permissions that you have configured for this group to override any modification rules that you have configured. Otherwise, leave this box unchecked and the configured modification rules are always applied.

Setting Inner Panels as Read-Only

About this task

Sterling Selling and Fulfillment Foundation enables you to mark inner panels as read-only. This ensures that a specified user group cannot modify or update any of the data visible to them. When an inner panel is marked as read-only, all the controls and its values in the page are visible but are disabled.

There are two ways to make an inner panel read-only:

- Set the read-only attribute for the resource in the RESOURCE_PERMISSION.xml file.

If the inner panel needs to be marked as read-only for an user, update the RESOURCE_PERMISSION_CONSOLE.xml file in the factory setup with the READ-ONLY attribute.

The following example shows the RESOURCE-PERMISSION.xml file with changes:

```
<ResourcePermission ActivateFlag="Y" Createprogid="SYSTEM"
Createuserid="SYSTEM" Modifyprogid="SYSTEM" Modifyuserid="SYSTEM"
ResourceKey="YEMS012" ResourcePermissionKey="SYS_YEMS012"
UsergroupKey="SYSTEM" READ-ONLY-FLAG="True"/>
```

In this example, the database table YFS-RESOURCE-PERMISSION will be updated for the user SYSTEM and resource YEMS012.

- Use the Applications Manager to apply security permissions and mark an inner panel as read-only.
 1. Log in to the Applications Manager. Select **Applications > Application Platform > Security > Groups**.
 2. Select a Group or create new Group. Click **Permission** next to the application you want to manage.

All of the entities for the application open in tree form. You can double click an entity to see its views and inner panels.
 3. Right-click the selected inner panel to set or unset the inner panel as read-only.

Setting Up Permissions for Interoperability Servlet

About this task

Sterling Selling and Fulfillment Foundation enables you to set up permissions for access to Interoperability Servlet. This ensures that a specified user group has permissions to access the Interoperability Servlet.

To set up security permissions for Interoperability Servlet using the Applications Manager:

Procedure

1. Log in to the Applications Manager. Select **Applications > Application Platform > Security > Groups**.
2. Select a Group or create new Group. Click **Permission** next to the application you want to manage.

All of the entities for the application open in tree form. You can double click an entity to set Interoperability Servlet permissions for its elements.
3. Right-click the Access to Interoperability Servlet to grant permissions.

Setting Up Permissions for APIs

About this task

Sterling Selling and Fulfillment Foundation enables you to set up permissions for access to APIs for the authorization check. You must define access to API resources to control what can be accessed by users when calling an API.

To set up security permissions for APIs using the Applications Manager:

Procedure

1. Log in to the Applications Manager. Select **Applications > Application Platform > Security > Groups**.
2. Select a Group or create new Group. Click **Permission** next to the API Security. The API Permissions pop-up window displays.

You can double click on APIs or Services branch. All of the APIs and Services for the Sterling Selling and Fulfillment Foundation open in tree form.
3. Right-click the individual API or Service to grant permissions.
4. At the upper right of the API Permissions screen, click the **Grant Permission** icon or the **Revoke Permission** icon to grant or revoke permission to the user for that API or Service. By default, permission is revoked for all APIs or Services. Click the **List Users** icon to list all of the users who have been granted permission for an API or Service.

- When you are finished granting and revoking permissions, save the permission record by clicking the **Save** icon.

Viewing the Users Subscribed to a User Group

About this task

You can view all of the users that are subscribed to the user group. The list can be viewed by choosing the User Subscriptions tab from the Group Details window. You can also add or delete a user from the group subscription.

Setting Up Printer Preferences for a User Group

About this task

User Printer Preferences configures printers that are associated with a group of users. This preference is used to determine the printer to use when a user prints a document.

For example, receiving office associates all its users to the HP LaserJet 5P located in the office.

The association of a printer to a station overrides the group preference of the specified user. The station is a static location where devices may be directly attached to a station.

It is recommended that User Printer Preferences be configured at the group level for easier administration.

Procedure

- From the menu bar, choose Applications > Application Platform. The Application Platform tree displays in the side panel.
- From the tree in the application rules side panel, choose Security > Groups. The Groups window displays with a list of groups.
- In the Groups window, choose the Group whose Printer Preferences are to be set up.
- Choose the **Details** icon. The Group Details window displays.
- In the Group Details window, choose the Printer Preferences tab. The Printer Preferences tab window displays.
- Enter the information in the applicable fields. Refer Table 59 for field value descriptions.
- Choose the **Save** icon.

Results

For more information about Setting Up a Group (Creating, Modifying, or Deleting a Group), “Defining User Groups” on page 152.

Table 59. Printer Preferences Tab Window

| Field | Description |
|----------------------------|--|
| Printer Association | |
| Printer ID | From the drop down, select the printer ID to be associated with the group. |

Note: The printer at the packing station is associated to the station and not to the packing group or the individual packer. This is also recommended for warehouses that have only a single pack station.

Deleting a User Group

About this task

To delete a user group:

Procedure

1. From the tree in the application rules side panel, choose Security > Groups. The Groups window displays in the work area.
2. Select the applicable user group and choose the **Delete** icon.

Defining Teams

A **Team** is a collection of users who have common data access requirements. Teams can have access to specific document types, Enterprises, ship nodes, and customers. Teams can be assigned to specific customers.

Note: Enterprises and nodes assigned to a team must belong to the same colony to which the owner (or creator) organization of the team belongs.

Creating a team is an optional process. If a user is not associated with a team, that user is considered to have the least restrictive access, or default access to customer orders and information. By defining a team, you can further restrict the access to any Enterprises, document types, or participating ship nodes that are a subset of the default access list. For more information about teams and how you can use them in Sterling Selling and Fulfillment Foundation, see the *Sterling Selling and Fulfillment Foundation: Product Concepts Guide*.

Note: Clearing of the database cache is required to take into effect the changes made to this configuration.

Creating a Team

About this task

To create a team:

Procedure

1. From the tree in the application rules side panel, choose Security > Teams. The Teams window displays in the work area.
2. Choose the **Create New** icon. The Team Details window displays.
3. Enter information in the applicable fields. Refer to Table 60 for field value descriptions.
4. Choose the **Save** icon.

Table 60. Team Details Window

| Field | Description |
|---------|----------------------|
| Team ID | Enter the team name. |

Table 60. Team Details Window (continued)

| Field | Description |
|--|---|
| Parent Team ID | Select the name of the team that is the parent team for this team. If this team is part of a multilevel hierarchical team structure, this must be the name of a team that is in the next higher level within the structure. |
| Description | Enter a brief description of the user team. |
| Enterprise Access | |
| Default Enterprise Access | Select Default Enterprise Access to restrict users who belong to this team to be able to only view the Enterprises belonging to the default Enterprise access list. |
| Inherited Enterprise Access | Select Inherited Enterprise Access to restrict users who belong to this team to be able to only view the Enterprises based on the access configuration for the parent team. |
| Restrict Access To A Specific List Of Enterprises | <p>Select Restrict Access To A Specific List Of Enterprises if you want to create a list of Enterprises that users associated to the team can view.</p> <p>Choose the Create New icon from the Accessible Enterprises table and search for the applicable Enterprises in the Organization Search pop-up window. Choose the Create New icon to add an Enterprise.</p> <p>Choose the Delete icon to remove an Enterprise from the Accessible Enterprises list.</p> <p>Note: The restricted list always includes the primary Enterprise of the organization you are configuring the team for.</p> |
| Document Type Access | |
| Default Document Type Access | Select Default Document Type Access to allow this team to only be able to view the document types belonging to the default access list. The default access list is based on the document types associated with a particular business application. |
| Inherited Document Type Access | Select Inherited Document Type Access to restrict users who belong to this team to be able to only view the document types based on the access configuration for the parent team. |
| Restrict Access To A Specific List Of Document Types | <p>Select Restrict List To A Specific List Of Document Types if you want to specifically determine the document types the team has access to.</p> <p>When you select this option select the business application whose associated document types you want to set access rights to from Applications.</p> <p>Then select if you want to allow Access To All Document Types For This Application or Restrict Access To A Specific List Of Document Types. If you select the latter, the Accessible Document Types table displays displaying all of the accessible document types available for the business application. Select the Accessible check boxes for the applicable document types.</p> <p>Note: At least one document type must be included in a data security group for each business application.</p> |
| Ship Node Access | |

Table 60. Team Details Window (continued)

| Field | Description |
|-----------------------------------|--|
| All Nodes | Select this radio button to allow the team to access all the ship nodes. Note: This radio button is not available for an organization whose role is Node. |
| User's Node | If the user is a node user, selecting this radio button enables the team to access the node to which the node user belong. If the user is an enterprise user, selecting this radio button allows the team to access all the nodes whose parent organization is the user's enterprise, an enterprise that is hierarchically lower than the user's enterprise, or both. |
| Restrict Access To Specific Nodes | Select this radio button to restrict the team's access to only specific nodes, and save the setting. On saving, the Create New icon is displayed in the Accessible ShipNode panel. Click the Create New icon, and search for the nodes from the ShipNode Search dialog box. Note: The ShipNode Search dialog box displays only those nodes that are accessible to the administrator creating the team. Select the node and click the Create New icon to make this node accessible to the team. The selected node will be displayed in the Accessible ShipNode panel. To remove a node from the Accessible ShipNode panel, select the node and click the Delete icon. A confirmation dialog box is displayed. Select OK to confirm the deletion of the node. |
| Nodes Accessible To Team Creator | Select this radio button to allow the team to access all the nodes that are accessible to the creator of the team. Notes: <ul style="list-style-type: none"> • If the creator of the team is a HUB user (Organization = DEFAULT), the team can access all the ship nodes. • If the creator's access to certain nodes changes, the team's access to those nodes will also change automatically. Also, the team's access to the nodes ceases when the creator is deleted from the Applications Manager. |

Modifying a Team

About this task

To modify a team:

Procedure

1. From the tree in the application rules side panel, choose Security > Teams. The Teams window displays in the work area.
2. Select the applicable team and choose the **Details** icon. The Team Details window displays.
3. Make revisions to the applicable fields. Refer to Table 60 on page 158 for field value descriptions.
4. Choose the **Save** icon.

Deleting a Team

About this task

To delete a team:

Procedure

1. From the tree in the application rules side panel, choose Security > Teams. The Teams window displays in the work area.
2. Select the applicable team and choose the **Delete** icon.

Defining Data Access Policies

About this task

Because all applications have different filtering requirements for data access security, Sterling Selling and Fulfillment Foundation offers a variety of data access policies that you can apply.

You can define data access policies for Enterprise, Buyer, Seller, and Node users so that you can control access to data contained in specific document types, enterprises, and ship nodes. Data access policies apply to the following access modes:

- Enterprise User Access
- Buyer User Access
- Seller User Access
- Node User Access

You can define these access policies as follows:

Procedure

1. From the tree in the application rules side panel, choose Security > Data Access Policy Rules. This window displays in the work area.
2. Choose among the Enterprise, Buyer, Seller, and Node User Access tabs displayed.

Results

The following sections describe how to configure these access modes. For more information about how the Data Access Policies can be used, see the *Sterling Selling and Fulfillment Foundation: Product Concepts Guide* .

Enterprise User Access

About this task

You can configure access for an Enterprise user, such as an internal storefront administrator, in the Data Access Policy Enterprise User screen.

Procedure

1. Choose the Enterprise User tab.
2. Enter information in the applicable fields. Refer to Table 61 on page 162 for field value descriptions.

Table 61. Enterprise User Access Policy Rules

| Field | Description |
|--|---|
| Enterprise Access | |
| Users Have Access To Their Enterprise Only | Users can have access to data belonging to only their enterprise. |
| Users Have Access To All Enterprises Assigned To Their Team | Users can have data access to all enterprises assigned to their team. |
| Customer Access | |
| Users Have Access To All Customers | Users can have access to all customers in the hierarchy. |
| Users Have Access To Selected Customers According To Team Configuration | Users can have access to a customer only as defined by rules for customer hierarchy access. |
| Customer Hierarchy Access | |
| Users Have Access To Customers And Their Child Customers | Users can have access to customers and the child customers. |
| Users Have Access To Their Customers | Users can have access to customers who are directly assigned. (This requires manual user-to-customer assignment to be configured in the team definition.) |
| Supervisor Access | |
| Supervisors Have Access To Customers Assigned To Their Team | Supervisors can have access to all the customers that their team has access to. |
| Supervisors Have Access To Customers Assigned To Their Team And Child Team | Supervisors can have access to all the customers assigned to their team and all child teams. |

Buyer User Access

You can configure access for a buyer user, such as a customer buyer, in the Data Access Policy Buyer User tab. Refer to Table 62 for field value descriptions.

Table 62. Buyer User Access Policy Rules

| Field | Description |
|--|---|
| Customer Access | |
| Default Customer Access | |
| Users Have Access To Data For Their Customer Organization Only | Buyers can have access to data only for their customer organization. |
| Users Have Access To Data For Their Customer Organization And Child Customer Organizations | Buyers have access to data for their customer organization and child customer organizations. |
| Users Have Access To Their Data And Data For Subordinate Users | Buyers can have access to their own data and the data of subordinate users. |
| Customer Access Exceptions | |
| Users Assigned To The Following Groups Have Expanded Access | Select whether buyers can have expanded data access based on their subscription to a group. Choose the Details icon to display Group Subscriptions. |

Table 62. Buyer User Access Policy Rules (continued)

| Field | Description |
|---|---|
| Group Subscriptions | |
| Available | A list of the available user groups. To subscribe a user to a user group, select the applicable user group and choose the Right Arrow icon. |
| Subscribed | A list of the user groups to which the user is subscribed. To remove a user from a user group, select the applicable user group and choose the Left Arrow icon. |
| Users Have Access To Data For Their Customer Organization Only | Buyers can have access to data only for their customer organization. |
| Users Have Access To Data For Their Customer Organization And Child Customer Organizations | Buyers can have access to data only for their customer organization and child organizations. |
| Assigned Customer Access | |
| Users Have No Assigned Customer Organizations | Users do not have any assigned customer organizations. |
| Users Have Access To Data Based On Their Assigned Customer Organizations | Users can access data for assigned customers, as specified in the Assigned Customer Hierarchy Access box. |
| Assigned Customer Hierarchy Access | |
| Users Have Access To Data For Their Assigned Customer Organization | Users can access data for their assigned customers only. |
| Users Have Access To Data For Their Assigned Customer Organization and Child Customer Organizations | Users can access data for their assigned customers and child customer organizations. |
| Anonymous User Access | |
| Users Assigned To The Following Groups Have Anonymous Access | Select whether users can have anonymous data access based on their subscription to a group. Choose the Details icon to display Group Subscriptions. |
| Available | A list of the available user groups. To subscribe a user to a user group, select the applicable user group and choose the Right Arrow icon. |
| Subscribed | A list of the user groups to which the user is subscribed. To remove a user from a user group, select the applicable user group and choose the Left Arrow icon. |

Seller User Access

For seller users, the following access rules exist. They are not configurable at this time. Refer to Table 63 for field value descriptions.

Table 63. Seller User Access Policy Rules

| Field | Description |
|--|---|
| Seller Access | |
| Users Have Access To Their Organization Only | Sellers can have access only to their organization. |

Node User Access

You can configure node user access in the Data Access Policy Node User tab. Refer to Table 64 for field value descriptions.

Table 64. Node User Access Policy Rules

| Field | Description |
|---|--|
| Node Access | |
| Users Have Access To Their Node Only | Users have access only to their node. |
| Users Have Access To Nodes Assigned To Their Team | Users can have access to any nodes assigned to their team. |

Configuring API Security

You must define access to API resources to control what can be accessed by users when calling an API.

When calling an API, you must pass through the following two levels of security:

- Authentication with a user ID, a certificate or both. The login API is called before any other API is called.
- Authorization, which verifies which resources you can access.

For more information about API security, refer to the *Sterling Selling and Fulfillment Foundation: Customizing APIs*.

Note: If you're running Sterling Selling and Fulfillment Foundation components as Web services with API security enabled, you must expose the Login API as a Web service. Refer to the *Sterling Selling and Fulfillment Foundation Installation Guide* for details about exposing APIs when preparing to build Web services. Additionally, you must call the Login API, capture the security token that is generated at login, and then set the token as the "tokenId" in YFSEnvironment. For details about the YFSEnvironment interface, see the *Sterling Selling and Fulfillment Foundation Javadocs*.

Viewing API Security Resources

About this task

To view the list of existing API Security Resources:

Procedure

1. From the tree in the application rules side panel, choose Security > API Security. The API Security Editor window displays.
2. Expand the APIs or Services branch in Sterling Selling and Fulfillment Foundation
3. Select an API or Service. By default, Full Access option is available for an API or Service. Click the **List Users** icon to list all of the users who have been granted permission for an API or Service.

Creating an API Security Resource

About this task

To create an API Security Resource:

Procedure

1. From the tree in the application rules side panel, choose Security > API Security. The API Security Editor window displays.
2. Expand the APIs or Services branch.
3. Select an API for which you want to create new API Security Resource and click the **Create New** icon. The Create Api Security Resource window displays.
4. In Resource ID, enter the unique identifier for the API resource.
5. In Description, enter a brief description of the API resource.
6. In Resource Sequence, enter order in which this API resource needs to be invoked. The output of one API resource may be used as input to another.
7. Choose the **Save** icon.

Modifying an API Security Resource:

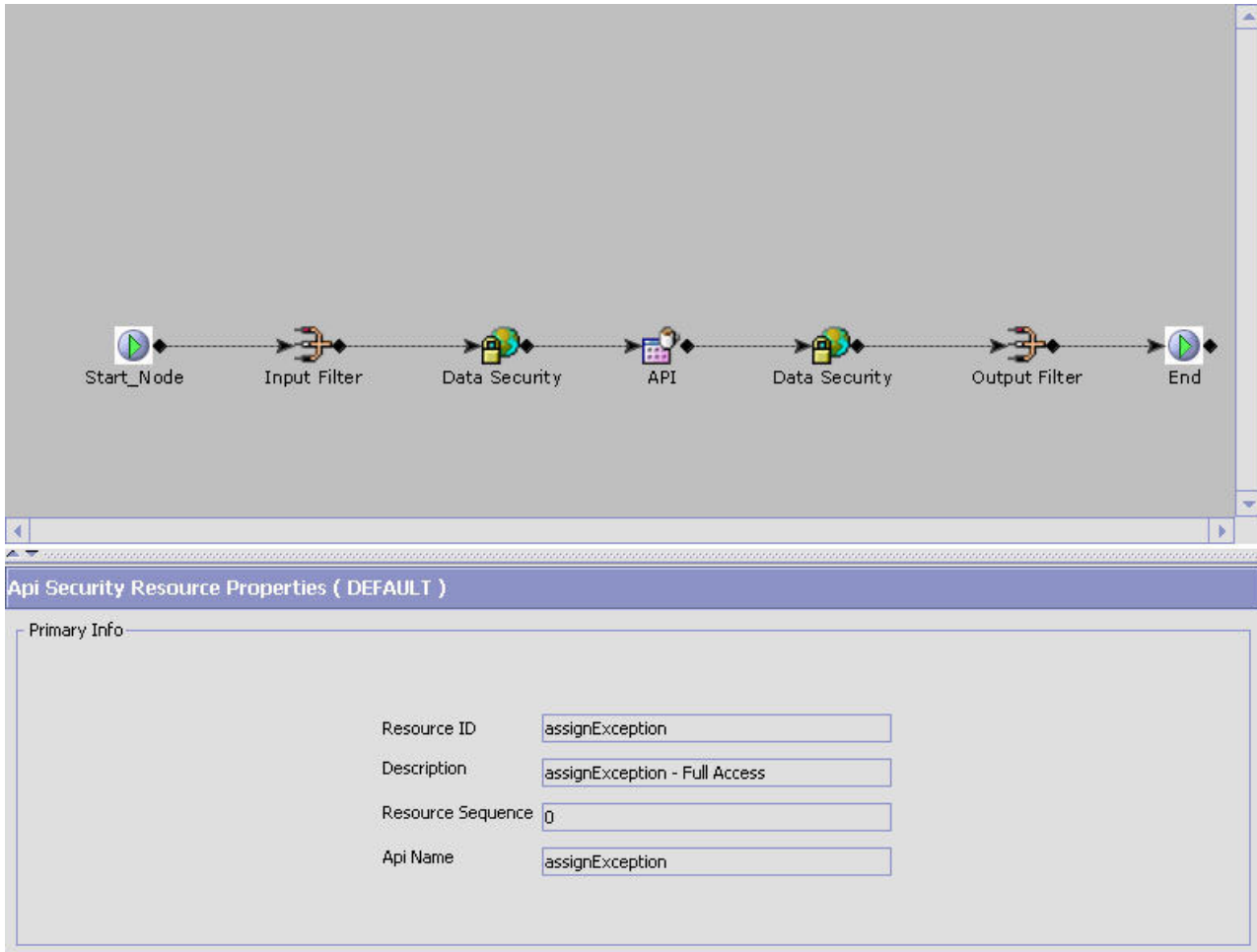
About this task

Once an API Security Resource has been defined, it can be modified.

To modify an API Security Resource:

Procedure

1. From the tree in the application rules side panel, choose Security > API Security. The API Security Editor window displays.
2. Expand the APIs or Services branch in Sterling Selling and Fulfillment Foundation
3. Select the individual API or Service branch which you want to modify and choose the **Details** icon. The API Security Resource Details window and API Security Resource Properties window displays.



4. The API Security Resource Details window displays the various components associated by default with each API Security Resource. If none of the components is selected in the API Security Resource Details window, the API Security Resource Properties window will display the read only information relates to the selected API Security Resource.
5. Once you select a particular component, the details of that component will appear in the lower property window.
6. You can configure the following components associated with an API Security Resource:

Note: When you select Start or End component, the property window This property screen will simply display the default input apisecurity file and output apisecurity file respectively in a text area for quick reference. It cannot be edited, but you can copy the text.

Input Filter

About this task

The Input Filter component provides a mean to edit the API filter input XML.

Click the **Import Default Filter** icon to import the default api filter input XML. Click the **Load XML from File** icon to load the api filter input XML from a file. Click the **Load XML from String** icon to load the api filter input XML from string.

To manipulate the Input Filter XML element structure, select the node and click the **New Child Element** icon to add a new child element in the XML tree, and click the **New Attribute** icon to add a new attribute for an element in the XML tree.

Select the appropriate attribute of an element whose value you want to set or modify and click the Set Attribute element.

If you want to delete an element or attribute from the XML tree, select the appropriate element or attribute and click the **Delete** icon.

If you don't want an attribute to be processed during API call. select the appropriate attribute and click the **Unselect** icon and if you want to change the status of an attribute from Unselect to Select, click the **Select** icon.

Data Security

About this task

The Data Security component allows you to define a list of XPath expressions that identify organizations to validate. Click the **Create New** icon to add a new XPath expression.

Note: Same configuration will be used for both input as well as output API security.

API

About this task

The API component is used for the API name. It is non-editable.

Output Filter

About this task

The Output Filter component is similar to the Input Filter component except it provides a mean to edit the API filter output XML.

Chapter 6. Configuring System Administration Components

You can configure system level information including system level purge criteria, user exit implementations, and installation rules.

System Administration Components: Defining Purge Criteria

You can define purge criteria rules for data purges not related to specific document types. Purges are the process by which old data is removed from the system database. Purges minimize the number of unused database records to increase search efficiency and reduce the size of the required physical disk.

Table 65 lists the system purge rules provided with the Sterling Selling and Fulfillment Foundation.

Table 65. System-Defined Purge Rules

| Rule | Description | Retention Days |
|-------------------|---|----------------|
| CAPACITYPRG | Purges capacity data. | 30 |
| EXPORTTBLPRG | Purges data from export tables that are used for publishing data to external systems. This is a Hub level purge. | 30 |
| IMPORTTBLPRG | Purges data from the import tables. This is a Hub level purge. | 30 |
| INBOXPRG | Purges the Alert Console messages from the user's inbox. This is a Hub level purge. | 30 |
| INVENTORYPRG | Purges inventory information. The inventory purge does not take retention days into account when purging. All records with relevant tables with a quantity of 0 are purged. | 30 |
| MANIFESTPRG | Purges manifest information. | 30 |
| PERSONINFOHISTPRG | Purges historical customer information. | 30 |
| PERSONINFOPRG | Purges customer information and moves it to a history table. | 30 |
| PRICELISTPRG | Purges price lists. | 30 |
| REPROCESSPRG | Purges any reprocessed information. This is a Hub level purge. | 30 |
| STATTBLPRG | Purges statistical information. This is a Hub level purge. | 30 |
| USERACTAUDITPRG | Purges all user activity audit data from the system. | 30 |
| USERACTIVITYPRG | Purges all user activity data. | 30 |

Modifying a System Purge Criteria Rule About this task

To modify a purge criteria rule:

Procedure

1. From the tree in the application rules side panel, choose System Administration > Purge Criteria. The Purge Criteria List window displays in the work area.
2. Select the applicable purge criteria rule that and choose the **Details** icon. The Purge Criteria Details pop-up window displays.
3. Enter information in the applicable fields. Refer to Table 66 for field value descriptions.
4. Choose the **Save** icon.

Table 66. Purge Criteria Details Pop-Up Window

| Field | Description |
|-------------------|---|
| Purge Code | Identifies a purge program. This is a system defined code. |
| Description | Describes the type of purge. |
| Rollback Segment | Defines the rollback segment that should be explicitly used for the purge transaction qualified by the purge code. This is useful when there are huge logical data sets that have to be purged. This is optional and used for order related purges. |
| Retention Days | Enter the number of days of data to be retained in the database (going backwards from the time the program runs). Make sure that your table size takes into account the number of retention days entered here. The inventory purge does not take retention days into account when purging. |
| Write to Log File | Select this field if you want to log system messages for the status of the purge. The log can be backed up and used as a journal at a later date. |
| Log File Name | Enter a log file name. The log file is created in the directory specified in the <code>yfs.purge.path</code> property. If this is not passed, it defaults to the value specified in the <code>yfs.properties</code> file. If a variable is introduced, then the <code>yfs.purge.path</code> is ignored. To modify this property, add an entry for it in the <code><INSTALL_DIR>/properties/customer_overrides.properties</code> file. For additional information about overriding properties using the <code>customer_overrides.properties</code> file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . For more information about using variables for the log file directory, see the <i>Sterling Selling and Fulfillment Foundation: Extending Transactions</i> . For information about file name limitations related to internationalization, see the <i>Sterling Selling and Fulfillment Foundation: Localization Guide</i> . |

System Administration Components: Defining User Exit Implementations

User exits are created to enable business logic extensions to the Sterling Selling and Fulfillment Foundation transactions. Within the Sterling Selling and Fulfillment Foundation transactions, code exists to invoke user exits so that you may plugin custom logic. Since these are predefined by Sterling Selling and Fulfillment Foundation, you cannot add or delete user exits. However, you can configure appropriate implementations for a user exit.

User exits are Java interfaces which can be implemented for creating custom logic components. Once implemented, they must be configured so that the Sterling Selling and Fulfillment Foundation transactions can invoke them to perform the necessary logic at runtime. This chapter explains how to configure user exit implementations within Sterling Selling and Fulfillment Foundation.

Note: If you do not require the Sterling Selling and Fulfillment Foundation transaction extension, you do not need to implement user exits. If a user exit is not configured, Sterling Selling and Fulfillment Foundation runs its default business logic. User exits are not relevant when writing custom transactions.

User Exits and Document Types

Document types are a mechanism through which you can manage various business documents and their life cycle. For more information, see “Document Type Configuration” on page 95. Sometimes you need different implementations for a user exit depending on the document type. For example, the YFSRecalculateHeaderTaxUE user exit allows you to compute order header taxes using custom logic. If you want your tax computation logic to differ for Sales Order, Purchase Order, Return, and so forth, you can provide different implementations for the same user exit at the document type level. Notice that not all user exits are document type dependent.

User Exits and Services

User exits that take XML input and return XML output are service enabled. This means that for these user exits, instead of writing Java implementations, you can simply attach a service built through the service builder. At runtime, instead of invoking the Java class, the Sterling Selling and Fulfillment Foundation transactions invoke the configured service. This allows a mechanism to build user exit logic in a more declarative fashion than programmatic.

Guidelines for Usage of User Exits

The following guidelines have to be kept in mind when you are using User Exits within the Sterling Selling and Fulfillment Foundation API:

- User Exits are structured to return specific information and their usage must be restricted to such purposes.

Inheritance

You can configure inheritance for resources such as user exits (and their events) and templates at the Enterprise level. For example, instead of defining a whole new set of resource configurations, Enterprise "B" may choose to inherit the resource configuration from Enterprise "A".

You can configure inheritance at the Enterprise level for:

. User Exits

. Templates

Inheritance for User Exits

You can inherit user exit implementations at the Enterprise level.

If a user exit implementation exists for the Enterprise, the system returns that user exit implementation. But if the user exit implementation is not defined for that Enterprise, the system checks to see if it inherits configuration from some other enterprise and uses the inheritance hierarchy to search for the correct user exit implementation. If no user exit implementation is found, the Hub's implementation of the user exit for that Enterprise is used.

Inheritance for Events

You can inherit event implementations at the Enterprise level.

Inheritance for Templates

You can inherit the user exit and event templates at the Enterprise level by specifying the resource identifier for an Enterprise. If the resource identifier is not specified, it is obtained through the inheritance hierarchy.

Defining a User Exit

About this task

To configure user exit implementations:

Procedure

1. From the tree in the application rules side panel, choose System Administration > User Exit Management. The User Exit List window displays in the work area. If the user exit can be implemented for a document type, the 'Can Override For Document Types' column displays 'Y'. If the user exit can be implemented for services, the 'Can Attach Service' column displays 'Y'. If the user exit is implemented, the 'User Exit Implemented' column displays 'Y'. If the User Exit can be overridden by an Enterprise, the 'Can Override for Enterprise' column displays 'Y'.

2. Locate the applicable user exit and choose the **Details** icon. The User Exit Details window displays.

The following three fields at the top of the screen are informational and read-only:

- This User Exit can be overridden for Document Types
- This User Exit can be overridden for an Enterprise
- This User Exit Can Be Designed As a Service

These fields reflect the options selected on the previous screen. The Inherited User Exit Implementation panel is also informational and read-only. This panel displays the list of user exits that are inherited by the current Enterprise from other Enterprises in its hierarchy. For example, consider three Enterprises, E1, E2, and E3, that have the following hierarchical relationship:

- Enterprise E1 inherits configurations from Enterprise E2.
- Enterprise E2 inherits configurations from the Enterprise E3.

Because of this hierarchy, Enterprise E1 can view and override all the configurations that are defined for Enterprise E2 and E3. Enterprise E1 can also view the configurations defined at the Hub level.

You can add values to the table in the User Exit Implementation List panel.

3. To add values to the User Exit Implementation List table, choose the **Create New** icon in the User Exit Implementation panel. The User Exit Implementation

Details displays. Enter information into the applicable fields. Refer to Table 67 for field value descriptions.

Table 67. User Exit Implementation Details Fields

| Field | Description |
|--|---|
| User Exit Implementation Details | |
| Document Type | If the user exit can be implemented for a document type, select the appropriate document type, if applicable. |
| Implement As a Service | If the user exit can be implemented to use a service and you are configuring it as such, choose Implement As a Service. |
| Implement As a Java Class | If you are configuring the user exit to be implemented as a Java class, choose Implement As a Java Class. |
| Service Name (if selected Implement as Service) | If you selected Implement As a Service, select the applicable service to configure. Important: Only services defined to return a real-time response can be selected. For more information about services, see “Defining Service Definitions” on page 141. |
| Java Class (if selected Implement as Java Class) | If you selected Implement As a Java Class, enter the Java class as it displays in the User Exit Name field. |
| Requires Backward Compatibility | Select this field if the user exit requires backward compatibility for another release. |
| Version | If you selected Requires Backward Compatibility, select the Sterling Selling and Fulfillment Foundation version number that requires user exit backward compatibility. |
| Pool Size | Indicates total number of concurrent active calls to User Exit. |
| Maximum Queue Length | The maximum queue length for the number of user exit calls that wait to become active if the active count is filled up. If the queue is filled with calls waiting to be active, any new User Exit requests cause an error. |
| Wait Time (seconds) | Time for which the user exit call waits in queue. If the wait time exceeds the configured wait time, an exception is thrown. |
| User Exit Implementation Notes | Enter any additional information regarding user exit implementation. |

System Administration Components: Defining Installation Rules

About this task

You can set up rules that need to be defined when the Hub installs the application.

To set up installation rules:

Procedure

1. From the tree in the application rules side panel, choose System Administration > Installation Rules. The Installation Rules window displays in the work area.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.

- b. Select Configure Installation Rules.
3. The Installation Rules window displays in the work area. Enter information in the applicable fields. Refer to Table 7–16 for field value descriptions.
4. Choose the **Save** icon.

Note: The encryption rules for credit cards and stored value cards are deprecated.

Table 68. Installation Rules Window

| Field | Description |
|---|---|
| Installation | |
| Bar Codes Generated on Server | If checked, the system automatically generates bar codes for all items in the Hub environment. |
| Encrypt Primary Payment Attributes for the following Payment Type Groups Note: IBM recommends that payment information entering the system is already tokenized instead of being encrypted by the following rules. | |
| Credit Card | If checked, Sterling Selling and Fulfillment Foundation encrypts the credit card number in the database. Note: This field is deprecated. IBM provides an application, the IBM Sterling Sensitive Data Capture Server, that captures and tokenizes credit card numbers and store value card numbers. Review the <i>Sterling Selling and Fulfillment Foundation: Secure Deployment Guide</i> to understand how to meet the PCI DSS and PA-DSS requirements. |
| Additionally Encrypt Credit Card Name And Credit Card Expiration Date | Note: The Credit Card field is deprecated. IBM recommends that credit card numbers are tokenized and stored securely in an external vault system. If checked, only the Sterling Selling and Fulfillment FoundationUsers with the appropriate permissions can view decrypted credit card numbers. For more information about configuring permissions, see “Administering User Group Permissions” on page 153. Note: Credit Card must be checked first. |
| Stored Value Card | Note: This field is deprecated. IBM recommends that stored value card numbers are tokenized and stored securely in an external vault system. If checked, Sterling Selling and Fulfillment Foundation automatically encrypts the SVC number, and payment reference 1 in the database. Only users with the appropriate permissions can view the decrypted SVC number and payment reference 1. For more information about configuring permissions, see “Administering User Group Permissions” on page 153. |
| Customer Account | If checked, Sterling Selling and Fulfillment Foundation automatically encrypts the customer account number and payment reference 1 in the database. Only users with the appropriate permissions can view the decrypted customer account number and payment reference 1. For more information about configuring permissions, see “Administering User Group Permissions” on page 153. |

Table 68. Installation Rules Window (continued)

| Field | Description |
|--------------------------------------|---|
| Other | If checked, Sterling Selling and Fulfillment Foundation automatically encrypts the payment reference 1 in the database. Only users with the appropriate permissions can view the decrypted payment reference 1. For more information about configuring permissions, see “Administering User Group Permissions” on page 153. |
| Inventory Consolidation Level | |
| Hub | Select the Hub option if you want product item IDs to remain unique across all organizations. Important: When an organization is created and this option is selected, the inventory organization is set to the default Hub organization. This can be changed in the Organization Details screen for the newly created organization. For more information about creating a new organization, see “Creating and Modifying an Organization” on page 25. |
| Enterprise | Select the Enterprise option to allow product item IDs to repeat across enterprises but still be distinguished within the inventory model. Also select the Enterprise option if you want to add this Enterprise organization to a colony different from the DEFAULT colony. Important: When creating an Enterprise organization and this option is selected, the inventory organization is defaulted to the Enterprise organization you are creating. This can be changed in the Organization Details screen for the newly created organization. For more information about creating a new organization, see “Creating and Modifying an Organization” on page 25. Note: If you choose Enterprise, an organization or Enterprise code must be specified when performing an inventory adjustment in the Consoles. |
| Capacity Consolidation Level | |
| Hub | Select the Hub option if you want service item IDs to remain unique across all organizations. Important: When an organization is created and this option is selected, the inventory organization is set to the default Hub organization. This can be changed in the Organization Details screen for the newly created organization. For more information about creating a new organization, see “Creating and Modifying an Organization” on page 25. |
| Enterprise | Select the Enterprise option to allow service item IDs to repeat across enterprises but still be distinguished within the inventory model. Also select the Enterprise option if you want to add this Enterprise organization to a colony different from the DEFAULT colony. Important: When creating an Enterprise organization and this option is selected, the inventory organization is defaulted to the Enterprise organization you are creating. This can be changed in the Organization Details screen for the newly created organization. For more information about creating a new organization, see “Creating and Modifying an Organization” on page 25. |

Table 68. Installation Rules Window (continued)

| Field | Description |
|---|---|
| Catalog Model | |
| Maintained by Hub | Select the Maintained by Hub option if you want the Hub to set up the a catalog for all of the participants. Important: When an organization is created and this option is selected, the catalog organization is set to the default Hub organization. This can be changed in the Organization Details screen for the newly created organization. For more information about creating a new organization, see “Creating and Modifying an Organization” on page 25. |
| Maintained by Enterprise | Select the Maintained by Enterprise option if you want the individual Enterprises to set up the catalog for all of the participants involved with them. Important: When an organization is created and this option is selected, the catalog organization is defaulted to the organization's primary Enterprise. This can be changed in the Organization Details screen for the newly created organization. For more information about creating a new organization, see “Creating and Modifying an Organization” on page 25. |
| Maintained by Participant | Select the Maintained by Participant option if you want each individual participant to maintain their own catalog. Important: When an organization is created and this option is selected, the catalog organization is defaulted to the organization itself. This can be changed in the Organization Details screen for the newly created organization. For more information about creating a new organization, see “Creating and Modifying an Organization” on page 25. |
| Communication | |
| E-mail Server Name | Enter the name of the Hub's e-mail server. |
| E-mail Protocol | Enter the Hub's e-mail protocol. |
| E-mail Server IP Address | Enter the Hub's e-mail server IP address. |
| E-mail Server Listener Port | Enter the Hub's e-mail server listener port. |
| Item Based Allocation | |
| Item Based Allocation Agent Execution Interval (hr) | This rule is used to indicate the interval during which the Item Based Allocation agent should not reprocess the triggers that were processed earlier in the YFS_IBA_TRIGGER table. |
| Backward Compatibility | |

Table 68. Installation Rules Window (continued)

| Field | Description |
|---|---|
| Use Deprecated Order Hold Functionality | <p>Check this if you want to use the deprecated order hold functionality instead of the enhanced order hold functionality.</p> <p>For more information about the enhanced order hold functionality, see the <i>Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide</i>.</p> <p>In the deprecated mode, the order hold functionality works as follows.</p> <p>Putting an order on hold freezes the order at its current status in the sales order fulfillment pipeline. You can place an order on hold for any reason. For example, you may want to perform a security check on a particular Buyer, therefore you place the order on hold until you clear the necessary information.</p> <p>The following transactions are not processed when an order is put on hold:</p> <ul style="list-style-type: none"> • Plan Order Complete • Allocate & Release • Chained Order Create • Derived Order Create • Schedule Order • Release Order • Send Release <p>Note: Held orders are not picked up for scheduling. Note: If a shipment is created from an order and the order is then put on hold, the order is still confirmed during shipment confirmation.</p> |
| Enable Logical Kit Functionality | <p>Check this box if you want to enable logical kit functionality. By default this box is not checked as bundles is an enhanced feature of the logical kit.</p> |
| Is Procurement of Substitutes Allowed | <p>Check this box if you want to enable the procurement of substitutes.</p> <p>An order gets scheduled and not backordered, if inventory for the substitutes can be procured.</p> |
| Create Chained Orders Synchronously | <p>Check this box to create procurement and drop ship orders synchronously when scheduling.</p> <p>If this rule is enabled, chained orders are created only if the expected ship date on the child order is within the Advanced Notification Time of the child orders shipnode.</p> |

Table 68. Installation Rules Window (continued)

| Field | Description |
|--|--|
| <p>Allow Automatic Service Item Group Change on Work Order</p> | <p>Check this box to allow automatic changes in the Service Item Group when the Provided Service line is added or removed from the work order or when the Service Item Group of a work order is changed from one type of service to the other. For example, from a Provided Service to a Delivery Service.</p> <p>When this box is unchecked, changes cannot be made to the Service Item Group. For example, if the box is unchecked and the Provided Service is removed from a work order that contains the Provided Service, the Delivery Service, and the Product Item, the work order itself is cancelled. Also, when the Provided Service is added to a work order that contains the Delivery Service and the Product Item, a "VAS00002: Invalid Service Item Group Code" error is thrown.</p> <p>Note: Existing users who wish to upgrade from an older version of Yantra 7x or Sterling Supply Chain Applications to the current version of Sterling Selling and Fulfillment Foundation, but wish to retain the previous functionality, should not check this box.</p> |
| <p>Use Receiving Node's Calendar When Applying Receipt Processing Time</p> | <p>This rule specifies whether the receipt processing time for future inventory and ATP Rule Processing time uses the node's receiving calendar. If no, then system days are added. If yes, then the node's receiving calendar days are added.</p> |
| <p>Enable Extended Item Validation</p> | <p>Check this box to extend item validations on orders to include the following:</p> <ul style="list-style-type: none"> • Effective date • Minimum and maximum quantity • Item status • Customer entitlements • IsSoldSeparately flag <p>Note: Item validation must be enabled before you extend validations.</p> |
| <p>Use Deprecated Pricing Functionality</p> | <p>Check this box to enable the deprecated pricing functionality used prior to Release 9.1 of Sterling Selling and Fulfillment Foundation.</p> <p>By default, the deprecated pricing functionality is in effect after upgrade to Release 9.1. If you uncheck this box after upgrade to enable the pricing functionality for Release 9.1, be sure to define your pricing configuration rules in the Applications Manager and convert your price lists as described in the <i>Business Center: Pricing Administration Guide</i>.</p> |
| <p>Use Deprecated Data Access Policy Functionality</p> | <p>Check this box to enable deprecated data access policies used prior to Release 9.1 across the entire application.</p> <p>To enable the deprecated data access policies for specific APIs, see the <code>yfs.properties_ext_ysc.in</code> property.</p> <p>Note: The application must be restarted to take into effect the unchecking of this configuration. Clearing of the database cache is required to take into effect the checking of this configuration. However, it is recommended to restart the application for better performance.</p> |

Table 68. Installation Rules Window (continued)

| Field | Description |
|---|---|
| Default User's Enterprise from Customer Organization | Check this box if you want the enterprise code of the user to default to the organization code of the customer when you are creating a customer with a customer contact. |
| Ship Advice Number Generation | |
| Use Numeric Ship Advice Number | Select this option to use generated numeric values as ship advice numbers. |
| Maximum Length Of Ship Advice Number | Indicate the maximum length of generated numeric ship advice numbers. Upon reaching the maximum value, the generation sequence is reset. The default value is 9, the maximum length allowable. Note: Due to this constraint, ship advice numbers are not guaranteed to be unique. |
| Inventory Tag | |
| Summarize and Maintain Total Supply and Demand Values For Tag Controlled Item | Check this checkbox to summarize and maintain total supply and demand values for tag controlled items. This updates the tag descriptors and total supply and demand fields of inventory tags for tag-controlled items during inventory updates. |
| Display User ID | |
| Allow the Display User ID to be used across all enterprises | Check this checkbox if you want each User ID to be usable globally across all the enterprises in your deployment. Do not check this box if you want each User ID to be unique within each enterprise. |

Creating an Agent Criteria Group

About this task

To create an agent criteria group:

Procedure

1. From the menu bar, choose Applications > Application Platform. The Application Platform tree displays in the side panel.
2. From the Application Platform tree, choose System Administration > Agent Criteria Groups. The Agent Criteria Group window displays in the work area.
3. Choose the **Create New** icon. The Agent Criteria Group Details pop-up window displays.
4. In Agent Criteria Group, enter the agent criteria group name.
5. In Short Description, enter the name of the agent criteria group.
6. In Long Description, enter a brief description of the agent criteria group.
7. Choose the **Save** icon.

Modifying an Agent Criteria Group

About this task

To modify an agent criteria group:

Procedure

1. From the menu bar, choose Applications > Application Platform. The Application Platform tree displays in the side panel.
2. From the Application Platform tree, choose System Administration > Agent Criteria Groups. The Agent Criteria Group window displays in the work area.
3. Select the Agent Criteria Group you want to modify and choose the **Details** icon. The Agent Criteria Group Details pop-up window displays.
4. In Short Description, modify the name of the agent criteria group as needed.
5. In Long Description, modify the brief description of the agent criteria group as needed.
6. Choose the **Save** icon.

Deleting an Agent Criteria Group

About this task

To delete an agent criteria group:

Procedure

1. From the menu bar, choose Applications > Application Platform. The Application Platform tree displays in the side panel.
2. From the Application Platform tree, choose System Administration > Agent Criteria Groups. The Agent Criteria Group window displays in the work area.
3. Select the agent criteria group you want to delete and choose the **Delete** icon.

Defining Initial Context Factory Codes

You can configure additional initial context factory codes to be used to define the class providing an InitialContext implementation for your application server to enable remote Java clients to connect. These codes appear in the Initial Context Factory drop-down field used when configuring time-triggered transactions and services.

The default initial context factory codes and their class names are:

- WebSphere MQ— `com.ibm.websphere.naming.WsnInitialContextFactory`
- File—`com.sun.jndi.fscontext.RefFSContextFactory`
- WebLogic—`weblogic.jndi.WLInitialContextFactory`
- JBoss—`org.jnp.interfaces.NamingContextFactory`
- TIBCO—`com.tibco.tibcojms.naming.TibjmsInitialContextFactory`

Creating an Initial Context Factory Code

About this task

To create an initial context factory code:

Procedure

1. From the tree in the application rules side panel, choose Nomenclature > Initial Context Factory Codes. The Initial Context Factory Codes window displays in the work area.
2. Choose the **Create New** icon. The Initial Context Factory Details pop-up window displays.
3. In Initial Context Factory, enter the class name to be associated with the code.

Note: The class name must be unique or an error is thrown.

4. In Short Description, enter the name of the initial context factory code as you want it to appear in the drop-down menus.
5. In Long Description, enter a brief description of the initial context factory code.
6. Choose the **Save** icon.

Modifying an Initial Context Factory Code

About this task

To modify an initial context factory code:

Procedure

1. From the tree in the application rules side panel, choose Nomenclature > Initial Context Factory Codes. The Initial Context Factory Codes window displays in the work area.
2. Select the code you want to modify and choose the **Details** icon. The Initial Context Factory Details pop-up window displays.
3. In Short Description, enter the name of the initial context factory code as you want it to appear in the drop-down menus.
4. In Long Description, enter a brief description of the initial context factory code.
5. Choose the **Save** icon.

Deleting an Initial Context Factory Code

About this task

To delete an initial context factory code:

Procedure

1. From the tree in the application rules side panel, choose Nomenclature > Initial Context Factory Codes. The Initial Context Factory Codes window displays in the work area.
2. Select the code you want to delete and choose the **Delete** icon.

Defining Health Monitor Rules

About this task

You can set up rules that need to be defined for monitoring the health of your Sterling Selling and Fulfillment Foundation.

To set up health monitor rules:

Procedure

1. From the Application Platform tree, choose System Administration > Health Monitor Rules. The Health Monitor Rules window displays in the work area.
2. Enter information in the applicable fields. Refer to Table 7–16 for field value descriptions. For more information about the health monitor agent or monitor thresholds, see the *Sterling Selling and Fulfillment Foundation: System Management and Administration Guide*.
3. Choose the **Save** icon.

Table 69. Health Monitor Rules Window

| Field | Description |
|---|--|
| Invoke Service | |
| When Agent/Integration Server Terminates Unexpectedly | Select a service to run when an agent or integration server terminates unexpectedly. |
| When Monitoring Threshold Reached or Exceeded | Select a service to run when a monitoring threshold for API response time, application server response time, agent pending tasks, or JMS queue number of messages is reach or exceeded for three consecutive health monitor persist intervals. |
| When Application Server Goes Down | Select a service to run whenever an application server goes down. |

Viewing the List of Configured Servers

About this task

You can view a list of configured servers for agents and services in the Agent Server List screen. To view the list of servers:

Procedure

1. From the Application Platform tree in the application rules side panel, choose System Administration > Configured Servers. The Agent Server List window displays in the work area.

Table 70. Agent Server List

| Field | Description |
|------------------------------|---|
| Server Name | The name of the agent server. |
| Server Type | The type of the server. For example, Agent and Service are valid server types. |
| Terminate | This option specifies whether the server is terminated when the task is completed. |
| Monitor Start Time (seconds) | Specifies the monitor start time. This is to ensure that the server does not terminate even before it has completed one successful execution. |
| Wait Time (seconds) | Specifies the idle wait time before terminating the server. |

Note: A server can be deleted only if there are no services or agents configured to use it.

2. The list of services or agents configured for this server can be viewed by selecting the **Details** icon. Refer to "List of Sub Flows or Criteria ID Configured for Server" to view the services or agent configured on the Server.
3. The factory default agents provided in Sterling Selling and Fulfillment Foundation do not have the "Terminate" option configured by default.

List of Sub Flows or Criteria ID Configured for Server

You can view the list of sub flows or criteria IDs configured for a server in the Flow List For Server screen. For more information about the field details, see "Adding a New Server" in Chapter 4, "Configuring Process Models," on page 95.

Defining IBM Sterling Configurator Properties

About this task

You must set up a location for the files that are generated by the Sterling Configurator when a model item is defined. Additionally, you must define a location for the property files that are used by the Sterling Configurator.

To set up the Sterling Configurator:

Procedure

1. From the Application Platform tree, choose System Administration > Sterling Configurator. The Sterling Configurator window displays in the work area.
2. Enter information in the applicable fields. Refer to Table 71 for field value descriptions.
3. Choose the **Save** icon.

Table 71. Sterling Configurator Window

| Field | Description |
|----------------------------|---|
| Model Repository | Specify a location for the model repository. The model repository stores the compiled XML files that are generated when a model item is compiled using the IBM Sterling Configurator Visual Modeler. You can specify a local or network location. |
| Location of property files | Specify a location for the property files that are used by the Sterling Configurator. |
| Rule Location | Specify a location for the Java files that are generated when a model item is translated using the Sterling Configurator. These files define the Sterling Configurator rules for the model item. |

Defining Application Version

You can configure application version and code to be used to define the Qualifier Version Compatibility for your application. These application codes and versions appear in the Application Code drop-down field used when configuring qualifier version compatibility.

Creating an Application Version

About this task

To create an application version:

Procedure

1. From the tree in the application rules side panel, choose System Administration > Application Version. The Application Version window displays in the work area.
2. Choose the **Create New** icon. The Application Version Details pop-up window displays.
3. In Application Code, enter the code associated with the application as you want it to appear in the drop-down menus. This is a mandatory field.

4. In Application Version, enter the application version as you want it to appear in the drop-down menus. This is a mandatory field.
5. In Application Version Description, enter a brief description of the application version.
6. Choose the **Save** icon.

Modifying an Application Version

About this task

To modify an application version:

Procedure

1. From the tree in the application rules side panel, choose System Administration > Application Version. The Application Version window displays in the work area.
2. Select the code you want to modify and choose the **Details** icon. The Application Version Details pop-up window displays.
3. In Application Version Description, enter a brief description of the application version.
4. Choose the **Save** icon.

Deleting an Application Version

About this task

To delete an application version:

Procedure

1. From the tree in the application rules side panel, choose System Administration > Application Version. The Application Version window displays in the work area.
2. Select the application code you want to delete and choose the **Delete** icon.

Chapter 7. Configuring Units of Measure

Defining units of measure enables you to set up standard units of measure to associate with your items and locales. Defining units of measure ensures that each user sees the data in a familiar format.

Creating a Unit of Measure for Quantity

About this task

To create a unit of measure for quantity:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Quantity.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Quantity UOMs.
3. The Quantity UOMs window displays in the work area. Choose the **Create New** icon. The Unit of Measure Details window displays.
4. In UOM Code, enter the unit of measure.
5. In UOM Description, enter a brief description of the unit of measure.
6. Choose the **Save** icon.

Modifying a Unit of Measure for Quantity

About this task

To modify a unit of measure for quantity:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Quantity.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Quantity UOMs.
3. The Quantity UOMs window displays in the work area. Select the applicable unit of measure and choose the **Details** icon. The Unit of Measure Details window displays.
4. In UOM Description, enter a brief description of the unit of measure.
5. Choose the **Save** icon.

Creating a Unit of Measure Conversion Rate for Quantity

About this task

To create a unit of measure conversion for quantity:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Quantity. The Quantity UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Choose the **Create New** icon. The UOM Conversion Details window displays.
4. From Conversion To, select the unit of measure you want to convert to with the conversion rate.
5. In Conversion Rate, enter the conversion rate between Conversion From to Conversion To.
6. Choose the **Save** icon.

Modifying a Unit of Measure Conversion Rate for Quantity

About this task

To modify a unit of measure conversion for quantity:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Quantity. The Quantity UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Select the applicable conversion rate and choose the **Details** icon. The UOM Conversion Details window displays.
4. In Conversion Rate, enter the conversion rate between Conversion From to Conversion To.
5. Choose the **Save** icon.

Deleting a Unit of Measure Conversion Rate for Quantity

About this task

To delete a unit of measure conversion for quantity:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Quantity. The Quantity UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Select the applicable conversion rate and choose the **Delete** icon.

Deleting a Unit of Measure for Quantity

About this task

To delete a unit of measure for quantity:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Quantity.
2. In the Channel Applications Manager, perform the following steps:

- a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Quantity UOMs.
 3. The Quantity UOMs window displays in the work area. Select the applicable unit of measure and choose the **Delete** icon.
-

Creating a Unit of Measure for Service Quantity

About this task

To create a unit of measure for service quantity:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Service Quantity.
 2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Service Quantity UOMs
 3. The Service Quantity UOMs window displays in the work area. Choose the **Create New** icon. The Unit of Measure Details window displays.
 4. In UOM Code, enter the unit of measure.
 5. In UOM Description, enter a brief description of the unit of measure.
 6. Choose the **Save** icon.
-

Modifying a Unit of Measure for Service Quantity

About this task

To modify a unit of measure for service quantity:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Service Quantity.
 2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Service Quantity UOMs
 3. The Service Quantity UOMs window displays in the work area. Select the applicable unit of measure and choose the **Details** icon. The Unit of Measure Details window displays.
 4. In UOM Description, enter a brief description of the unit of measure.
 5. Choose the **Save** icon.
-

Creating a Unit of Measure Conversion Rate for Service Quantity

About this task

To create a unit of measure conversion for service quantity:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Service Quantity. The Service Quantity UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Choose the **Create New** icon. The UOM Conversion Details window displays.
4. From Conversion To, select the unit of measure you want to convert to with the conversion rate.
5. In Conversion Rate, enter the conversion rate between Conversion From to Conversion To.
6. Choose the **Save** icon.

Modifying a Unit of Measure Conversion Rate for Service Quantity

About this task

To modify a unit of measure conversion for service quantity:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Service Quantity. The Service Quantity UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Select the applicable conversion rate and choose the **Details** icon. The UOM Conversion Details window displays.
4. In Conversion Rate, enter the conversion rate between Conversion From to Conversion To.
5. Choose the **Save** icon.

Deleting a Unit of Measure Conversion Rate for Service Quantity

About this task

To delete a unit of measure conversion for service quantity:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Service Quantity. The Service Quantity UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Delete** icon. The UOM Details window displays.
3. Select the applicable conversion rate and choose the **Delete** icon.

Deleting a Unit of Measure for Service Quantity

About this task

To delete a unit of measure for service quantity:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Service Quantity.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Service Quantity UOMs
3. The Service Quantity UOMs window displays in the work area. Select the applicable unit of measure and choose the **Delete** icon.

Creating a Unit of Measure for Dimension

About this task

To create a unit of measure for dimension:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Dimension.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Dimension UOMs.
3. The Dimension UOMs window displays in the work area. Choose the **Create New** icon. The Unit of Measure Details window displays.
4. In UOM Code, enter the unit of measure.
5. In UOM Description, enter a brief description of the unit of measure.
6. From Volume UOM Code, select the volume unit of measure that corresponds to the volume measurement for this dimension. For example, choose cubic inches if the dimension unit of measure is inches.
7. Choose the **Save** icon.

Modifying a Unit of Measure for Dimension

About this task

To modify a unit of measure for dimension:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Dimension.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Dimension UOMs.
3. The Dimension UOMs window displays in the work area. Select the applicable unit of measure and choose the **Details** icon. The Unit of Measure Details window displays.
4. In UOM Description, enter a brief description of the unit of measure.
5. Choose the **Save** icon.

Creating a Unit of Measure Conversion Rate for Dimension

About this task

To create a unit of measure conversion for dimension:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Dimension. The Dimension UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Choose the **Create New** icon. The UOM Conversion Details window displays.
4. From Conversion To, select the unit of measure you want to convert to with the conversion rate.
5. In Conversion Rate, enter the conversion rate between Conversion From to Conversion To.
6. Choose the **Save** icon.

Modifying a Unit of Measure Conversion Rate for Dimension

About this task

To modify a unit of measure conversion for dimension:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Dimension. The Dimension UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Select the applicable conversion rate and choose the **Details** icon. The UOM Conversion Details window displays.
4. In Conversion Rate, enter the conversion rate between Conversion From to Conversion To.
5. Choose the **Save** icon.

Deleting a Unit of Measure Conversion Rate for Dimension

About this task

To delete a unit of measure conversion for dimension:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Dimension. The Dimension UOMs window displays in the work area.
2. Select the applicable unit of measure and choose **Details** icon. The UOM Details window displays.
3. Select the applicable conversion rate and choose the **Delete** icon.

Deleting a Unit of Measure for Dimension

About this task

To delete a unit of measure for dimension:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Dimension.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Dimension UOMs.
3. The Dimension UOMs window displays in the work area. Select the applicable unit of measure and choose the **Delete** icon.

Creating a Unit of Measure for Volume

About this task

To create a unit of measure for volume:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Volume.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Volume UOMs.
3. The Volume UOMs window displays in the work area. Choose the **Create New** icon. The Unit of Measure Details window displays.
4. In UOM Code, enter the unit of measure.
5. In UOM Description, enter a brief description of the unit of measure.
6. Choose the **Save** icon.

Modifying a Unit of Measure for Volume

About this task

To modify a unit of measure for volume:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Volume.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Volume UOMs.
3. The Volume UOMs window displays in the work area. Select the applicable unit of measure to modify and choose the **Details** icon. The Unit of Measure Details window displays.

4. In UOM Description, enter a brief description of the unit of measure.
5. Choose the **Save** icon.

Creating a Unit of Measure Conversion Rate for Volume

About this task

To create a unit of measure conversion for volume:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Volume. The Volume UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Choose the **Create New** icon. The UOM Conversion Details window displays.
4. From Conversion To, select the unit of measure you want to convert to with the conversion rate.
5. In Conversion Rate, enter the conversion rate between Conversion From to Conversion To.
6. Choose the **Save** icon.

Modifying a Unit of Measure Conversion Rate for Volume

About this task

To modify a unit of measure conversion for volume:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Volume. The Volume UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Select the applicable conversion rate and choose the **Details** icon. The UOM Conversion Details window displays.
4. In Conversion Rate, enter the conversion rate between Conversion From to Conversion To.
5. Choose the **Save** icon.

Deleting a Unit of Measure Conversion Rate for Volume

About this task

To delete a unit of measure conversion for volume:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Volume. The Volume UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Select the applicable conversion rate and choose the **Delete** icon.

Deleting a Unit of Measure for Volume

About this task

To delete a unit of measure for volume:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Volume.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Volume UOMs.
3. The Volume UOMs window displays in the work area. Select the applicable unit of measure and choose the **Delete** icon.

Creating a Unit of Measure for Weight

About this task

To create a unit of measure for weight:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Weight. The Weight UOMs window displays in the work area.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Weight UOMs.
3. The Weight UOMs window displays in the work area. Choose the **Create New** icon. The Unit of Measure Details window displays.
4. In UOM Code, enter the unit of measure.
5. In UOM Description, enter a brief description of the unit of measure.
6. Choose the **Save** icon.

Modifying a Unit of Measure for Weight

About this task

To modify a unit of measure for weight:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Weight. The Weight UOMs window displays in the work area.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Weight UOMs.
3. The Weight UOMs window displays in the work area. Select the applicable unit of measure and choose the **Details** icon. The Unit of Measure Details window displays.

4. In UOM Description, enter a brief description of the unit of measure.
5. Choose the **Save** icon.

Creating a Unit of Measure Conversion Rate for Weight

About this task

To create a unit of measure conversion for weight:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Weight. The Weight UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Choose the **Create New** icon. The UOM Conversion Details window displays.
4. From Conversion To, select the unit of measure you want to convert to with the conversion rate.
5. In Conversion Rate, enter the conversion rate between Conversion From to Conversion To.
6. Choose the **Save** icon.

Modifying a Unit of Measure Conversion Rate for Weight

About this task

To modify a unit of measure conversion for weight:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Weight. The Weight UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Select the applicable conversion rate and choose the **Details** icon. The UOM Conversion Details window displays.
4. In Conversion Rate, enter the conversion rate between Conversion From to Conversion To.
5. Choose the **Save** icon.

Deleting a Unit of Measure Conversion Rate for Weight

About this task

To delete a unit of measure conversion for weight:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Weight. The Weight UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Select the applicable conversion rate and choose the **Delete** icon.

Deleting a Unit of Measure for Weight

About this task

To delete a unit of measure for weight:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Weight. The Weight UOMs window displays in the work area.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Weight UOMs.
3. The Weight UOMs window displays in the work area. Select the applicable unit of measure and choose the **Delete** icon.

Creating a Unit of Measure for Time

About this task

To create a unit of measure for time:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Time.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Time UOMs.
3. The Time UOMs window displays in the work area. Choose the **Create New** icon. The Unit of Measure Details window displays.
4. In UOM Code, enter the unit of measure.
5. In UOM Description, enter a brief description of the unit of measure.
6. Choose the **Save** icon.

Modifying a Unit of Measure for Time

About this task

To modify a unit of measure for time:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Time.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Time UOMs.
3. The Time UOMs window displays in the work area. Select the applicable unit of measure and choose the **Details** icon. The Unit of Measure Details window displays.

4. In UOM Description, enter a brief description of the unit of measure.
5. Choose the **Save** icon.

Creating a Unit of Measure Conversion Rate for Time

About this task

To create a unit of measure conversion for time:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Time. The Time UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Choose the **Details** icon. The UOM Conversion Details window displays.
4. From Conversion To, select the unit of measure you want to convert to with the conversion rate.
5. In Conversion Rate, enter the conversion rate between Conversion From to Conversion To.
6. Choose the **Save** icon.

Modifying a Unit of Measure Conversion Rate for Time

About this task

To modify a unit of measure conversion for time:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Time. The Time UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Details window displays.
3. Select the applicable conversion rate and choose the **Details** icon. The UOM Conversion Details window displays.
4. In Conversion Rate, enter the conversion rate between Conversion From to Conversion To.
5. Choose the **Save** icon.

Deleting a Unit of Measure Conversion Rate for Time

About this task

To delete a unit of measure conversion for time:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Time. The Time UOMs window displays in the work area.
2. Select the applicable unit of measure and choose the **Details** icon. The UOM Conversion Details window displays.
3. Select the applicable conversion rate and choose the **Delete** icon.

Deleting a Unit of Measure for Time

About this task

To delete a unit of measure for time:

Procedure

1. From the tree in the application rules side panel, choose Unit of Measure > Time.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Time UOMs.
3. The Time UOMs window displays in the work area. Select the applicable unit of measure and choose the **Delete** icon.

Chapter 8. Configuring Internationalization Rules

Internationalization rules are used to set up rules and common codes associated with making Sterling Selling and Fulfillment Foundation functional for international use.

Defining Country or Region Codes

You can use the Countries branch to set up the following common codes:

- Country or region codes. This common code identifies the country or region that the locale is located in. The following are examples of country or region codes:
 - US (United States)
 - FR (France)
 - GB (United Kingdom)
- Short zip code regex. This common code converts long zip codes to a simplified format. The short zip code format is used by the best region schema matching mechanism for features such as reports, sourcing, and resource pools. T

Creating a Country or Region Code Definition

About this task

To create a country or region code definition:

Procedure

1. From the tree in the application rules side panel, choose Internationalization -> Countries.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Countries or Regions.
3. The Country/Region Codes window displays in the work area. Choose the **Create New** icon. The Country/Region Details pop-up window displays.
4. In Country/Region, enter a two character country or region code definition.

Note: The country or region code should be in accordance with the International Standard Organization (ISO) specifications (the two character code in the ISO 3166-1 document).

5. In Short Description, enter a brief description of the country or region code definition.
6. In Long Description, enter a more detailed description of the country or region code definition.
7. In Short Zip Code RegEx, enter the regular expression for short zip codes for this country or region. If you specify a grouping for the regular expression, Sterling Selling and Fulfillment Foundation matches the zip code with the regular expression in the first parenthesis to define a short zip code. However, if no grouping is specified, Sterling Selling and Fulfillment Foundation uses the first characters that match the entire regular expression. For example, if the zip code has five characters, Sterling Selling and Fulfillment Foundation matches

the first five characters to the regular expression. See the Javadocs for the `java.util.regex.Pattern` class for more information about regular expressions.

Note: If you enter a regular expression with too many characters that require escaping, you may receive a database error. Sterling Selling and Fulfillment Foundation recommends using an alternative to the POSIX character classes, which can exceed database limits due to their long length.

8. Choose the **Save** icon.

Modifying a Country or Region Code Definition

About this task

To modify a country or region code definition:

Procedure

1. From the tree in the application rules side panel, choose Internationalization -> Countries.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Countries or Regions.
3. The Country/Region Codes window displays in the work area. Select the applicable country or region code definition and choose the **Details** icon. The Country/Region Details pop-up window displays.
4. In Short Description, enter a brief description of the country or region code definition.
5. In Long Description, enter a more detailed description of the country or region code definition.
6. In Short Zip Code RegEx, enter the regular expression for short zip codes for this country or region. If you specify a grouping for the regular expression, Sterling Selling and Fulfillment Foundation matches the zip code with the regular expression in the first parenthesis to define a short zip code. However, if no grouping is specified, Sterling Selling and Fulfillment Foundation uses the first characters that match the entire regular expression. For example, if the zip code has five characters, Sterling Selling and Fulfillment Foundation matches the first five characters to the regular expression. See the Javadocs for the `java.util.regex.Pattern` class for more information about regular expressions.

Note: If you enter a regular expression with too many characters that require escaping, you may receive a database error. Sterling Selling and Fulfillment Foundation recommends using an alternative to the POSIX character classes, which can exceed database limits due to their long length.

7. Choose the **Save** icon.

Deleting a Country or Region Code Definition

About this task

To delete a country or region code definition:

Procedure

1. From the tree in the application rules side panel, choose Internationalization -> Countries.

2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Countries or Regions.
3. The Country/Region Codes window displays in the work area. Select the applicable country or region code definition and choose the **Delete** icon.

Defining Language Codes

You can set up common codes for language definitions used when setting up locales. This common code identifies the language used in the locale. You can create, modify, and delete language definitions.

Following is the Sterling Selling and Fulfillment Foundation default language definition:

- EN (English)

Creating a Language Definition

About this task

To create a language definition:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Languages.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Languages.
3. The Language Codes window displays in the work area. Choose the **Create New** icon. The Language Definition Details pop-up window displays.
4. In Language Definition, enter a two character language definition

Note: The language definition should be in accordance with the International Standard Organization (ISO) specifications (the two character code from the ISO 639 document).

5. In Short Description, enter a brief description of the language definition.
6. In Long Description, enter a more detailed description of the language definition.
7. Choose the **Save** icon.

Modifying a Language Definition

About this task

To modify a language definition:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Languages.
2. In the Channel Applications Manager, perform the following steps:

- a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Languages.
3. The Language Codes window displays in the work area. Select the applicable language definition and choose the **Details** icon. The Language Definition Details pop-up window displays.
4. In Short Description, enter a brief description of the language definition.
5. In Long Description, enter a more detailed description of the language definition.
6. Choose the **Save** icon.

Deleting a Language Definition

About this task

To delete a language definition:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Languages.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Languages.
3. The Language Codes window displays in the work area. Select the applicable language definition and choose the **Delete** icon.

Defining Date Formats

You can set up common code formats for date formats used when setting up locales. This common code format identifies how dates are entered at a locale. You can create, modify, and delete date formats.

The following are examples of date formats:

- MM/dd/yyyy
- dd/MM/yyyy

Creating a Date Format

About this task

To create a date format:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Date Formats.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Date Formats.
3. The Date Formats window displays in the work area. Choose the **Create New** icon. The Date Format Details pop-up window displays.

4. In Date Format, enter the date format using 'M' to stand for month, 'd' to stand for day, and 'y' to stand for year.
5. In Short Description, enter a brief description of the date format.
6. In Long Description, enter a more detailed description of the date format.
7. Choose the **Save** icon.

Modifying a Date Format

About this task

To modify a date format:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Date Formats.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Date Formats.
3. The Date Formats window displays in the work area. Select the applicable date format and choose the **Details** icon. The Date Format Details pop-up window displays.
4. In Short Description, enter a brief description of the date format.
5. In Long Description, enter a more detailed description of the date format.
6. Choose the **Save** icon.

Deleting a Date Format

About this task

To delete a date format:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Date Formats.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Date Formats.
3. The Date Formats window displays in the work area. Select the applicable date format and choose the **Delete** icon.

Defining Time Formats

You can set up common code formats for time formats used when setting up locales. This common code format identifies how times are entered at a locale. You can create, modify, and delete time formats.

Note: Sterling Selling and Fulfillment Foundation uses Java time/date conventions. For example, if you enter hh for hour you are indicating you want to use a 12 hour clock. If you enter HH for hour you are indicating you want to use a 24 hour clock. However, the application only supports the 24 hour clock.

Creating a Time Format

About this task

To create a time format:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Time Formats.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Time Formats.
3. The Time Formats window displays in the work area. Choose the **Create New** icon. The Time Format Details pop-up window displays.
4. In Time Format, enter the date format using 'H' to stand for hour, 'm' to stand for minute, and 's' to stand for second.
5. In Short Description, enter a brief description of the time format.
6. In Long Description, enter a more detailed description of the time format.
7. Choose the **Save** icon.

Modifying a Time Format

About this task

To modify a time format:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Time Formats.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Time Formats.
3. The Time Formats window displays in the work area. Select the applicable time format and choose the **Details** icon. The Time Format Details pop-up window displays.
4. In Short Description, enter a brief description of the time format.
5. In Long Description, enter a more detailed description of the time format.
6. Choose the **Save** icon.

Deleting a Time Format

About this task

To delete a time format:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Time Formats.
2. In the Channel Applications Manager, perform the following steps:

- a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Time Formats.
3. The Time Formats window displays in the work area. Select the applicable time format and choose the **Delete** icon.

Defining Date/Time Formats

You can set up common code formats for date/time formats used when setting up locales. This common code format identifies how dates with time are entered at a locale. You can create, modify, and delete date/time formats.

Note: Sterling Selling and Fulfillment Foundation uses Java time/date conventions. For example, if you enter hh for hour you are indicating you want to use a 12 hour clock. If you enter HH for hour you are indicating you want to use a 24 hour clock. However, the application only supports the 24 hour clock.

Creating a Date/Time Format

About this task

To create a date/time format:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Date Time Formats.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Date Time Formats.
3. The Time Formats window displays in the work area. Choose the **Create New** icon. The Date/Time Format Details pop-up window displays.
4. In Date/Time Format, enter the date/time format using 'M' to stand for month, 'd' to stand for day, 'y' to stand for year, 'h' to stand for hour, 'm' to stand for minute, and 's' to stand for second.
5. In Short Description, enter a brief description of the date/time format.
6. In Long Description, enter a more detailed description of the date/time format.
7. Choose the **Save** icon.

Modifying a Date/Time Format

About this task

To modify a date/time format:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Date Time Formats.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Date Time Formats.

3. The Time Formats window displays in the work area. Select the applicable date/time format and choose the **Details** icon. The Date/Time Format Details pop-up window displays.
4. In Short Description, enter a brief description of the date/time format.
5. In Long Description, enter a more detailed description of the date/time format.
6. Choose the **Save** icon.

Deleting a Date/Time Format

About this task

To delete a date/time format:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Date Time Formats.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Date Time Formats.
3. The Time Formats window displays in the work area. Select the applicable date/time format and choose the **Delete** icon.

Defining Currency Definitions

Currency Definitions define each currency's symbols and indicate Euro currency membership and expiration date, if applicable. You can also set rules for an order's currency conversion and euro conversion.

The Euro currency is part of the plan to convert all of the European nations to one defined currency. The following countries use the euro as their currency as of August 2003:

- Austria
- Belgium
- Finland
- France
- Germany
- Ireland
- Italy
- Luxembourg
- The Netherlands
- Portugal
- Spain

Creating a Currency Definition

About this task

To create currency definitions:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Currency Definitions.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Currencies.
3. The Currency Definition window displays in the work area. Choose the **Create New** icon. The Currency Details pop-up window displays.
4. Enter information in the applicable fields. Refer to the following table for field value descriptions.
5. Choose the **Save** icon.

Table 72. Currency Details Pop-Up Window

| Field | Description |
|-----------------|--|
| Currency | Enter the name of the currency. |
| Description | Enter a brief description of the currency. |
| Prefix Symbol | Enter the symbol that precedes the currency amount (if applicable). |
| Postfix Symbol | Enter the symbol that follows the currency amount (if applicable). |
| Euro Member | Select the check box if the currency is a Euro Member Currency. |
| Expiration Date | If Euro Member is selected, enter the date that the currency is set to expire. For example, if you are creating a currency definition for one of the original 11 Euro Members, enter `01/01/2002`. |

Modifying a Currency Definition

About this task

To modify currency definitions:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Currency Definitions.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Currencies.
3. The Currency Definition window displays in the work area. Select the applicable currency definition and choose the **Details** icon. The Currency Details pop-up window displays.
4. Enter information in the applicable fields.
5. Choose the **Save** icon

Deleting a Currency Definition

About this task

To delete currency definitions:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Currency Definitions.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Currencies.
3. The Currency Definition window displays in the work area. Select the applicable currency definition and choose the **Delete** icon.

Defining the Default Reporting Conversion Rate and Euro Currency Code

About this task

To define the default reporting conversion rate and euro currency code:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Currency Definitions. The Currency Definition window displays in the work area.
2. Check Default Reporting Conversion Rate to default the reporting conversion rate on the order at the time it is created.
3. From Euro Currency Code, select the currency to represent the euro currency in conversions, if applicable.

Defining Currency Conversions

Currency Conversion enables you to set up exchange rates from one currency to another.

Exchange rates are used to translate between currencies used by organizations as defined by their locale. The exchange rate is stored as part of the order document type when it is created. The stored exchange rate can be reassessed, based on fluctuating currency markets or any time the price of an order changes, such as when you cancel a line, add quantity, or add a charge.

Creating a Currency Conversion

About this task

To create a currency conversion:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Currency Conversions.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.

- b. Select Define Currency Conversions.
3. The Currency Conversion window displays in the work area. Choose the **Create New** icon. The Currency Conversion Details window displays.
4. Enter information in the applicable fields. Refer to Table 7–18 for field value descriptions.
5. Choose the **Save** icon.

Table 73. Currency Conversion Details

| Field | Description |
|---------------------------|---|
| Base Currency | Select the currency you want to convert to and from. |
| Effective From | Enter the beginning day on which the exchange rate is valid. |
| Effective To | Enter the last day on which the exchange rate is valid. |
| Other Currency | Select a currency to use for conversion with the base currency. |
| Conversion Rate From Base | Enter the conversion rate from the Base Currency to the Other Currency. |
| Conversion Rate To Base | Enter the conversion rate from the Other Currency to the Base Currency. |

Modifying a Currency Conversion

About this task

To modify a currency conversion:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Currency Conversions.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Currency Conversions.
3. The Currency Conversion window displays in the work area. Select the applicable currency conversion and choose the **Details** icon. The Currency Conversion Details window displays.
4. Enter information in the applicable fields. Refer to Table 7–18 for field value descriptions.
5. Choose the **Save** icon.

Deleting a Currency Conversion

About this task

To delete a currency conversion:

Procedure

1. From the tree in the application rules side panel, choose Internationalization > Currency Conversions.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.

- b. Select Define Currency Conversions.
3. The Currency Conversion window displays in the work area. Select the applicable currency conversion and choose the **Delete** icon.

Chapter 9. Configuring Presentation Components

The Presentation Framework provides an interface that enables you to customize the graphical user interface.

Defining Locales

You can set up locales and associate them with multiple organizations and users within the Hub. Locales are only established by the Hub. A **locale** defines a set of standards that enable people within a geographic area to communicate and conduct business transactions in an unambiguous way. For example, the locale defines the unique time zone, language, date/time format, currency, and units of measurement for a specific geographical area.

Locale standards enable international organizations to interact globally and ensure that UOM, currency conversions, and time zones calculations are taken into consideration during a transaction. For example, the following locale definitions for organizations in San Francisco and Tokyo enable them to transact business with each other:

Figure 18. San Francisco, United States

- Locale - California
- Country/Region - United States
- Language - English
- Date/Time - DD/MM/YYYY; HH:MM:SS
- Time Zone - GMT-8:00
- Currency - Dollar
- Unit of Measure - Inch/Pound

Figure 19. Tokyo, Japan

- Locale - Tokyo
- Country/Region - Japan
- Language - Japanese
- Date/Time - DD/MM/YYYY; HH:MM:SS
- Time Zone - GMT+9:00
- Currency - Yen
- Unit of Measure - Meter/Kilogram

Creating a Locale

About this task

To create a locale:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Locales.
2. In the Channel Applications Manager, perform the following steps:

- a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Locales.
3. The Locale window displays in the work area. Choose **Create New** icon. The Locale Details window displays.
 4. Enter information in the applicable fields. Refer to Table 74 for assistance.
 5. Choose the **Save** icon.

Table 74. Locale Details Window

| Field | Description |
|---------------------------|---|
| Locale Code | Enter the name of the locale as you want it to appear throughout Sterling Selling and Fulfillment Foundation. Cannot contain spaces. The recommended syntax is to join the entries for Country/Region and Language with an underscore. For example, use fr_CA to represent <i>Canadian French</i> . |
| Locale Description | Enter a brief description of the locale. |
| Country/Region | Select the country or region. Using the two-character uppercase ISO-3166 code is recommended. For example, enter CA for <i>Canada</i> . |
| Time Zone | Select the time zone of the locale. |
| Variant | Enter the locale variant. |
| Language | Select the language spoken in the locale. Using the two-character lowercase ISO-639 code is recommended. For example, enter fr for <i>French</i> . |
| Currency | Select the currency used in the locale. |
| Dimension UOM | Select the unit of measure the locale uses for dimension. |
| Volume UOM | Select the unit of measure the locale uses for volume. |
| Weight UOM | Select the unit of measure the locale uses for weight. |
| Date and Time Formats | |
| Date Time Format | Select the date/time format used in the locale. |
| Date Format | Select the date format used in the locale. |
| Month Display Date Format | Select the date format that should be used when a month displays. |
| Day Display Date Format | Select the date format that should be used when a day of week displays. |
| Time Format | Select the time format used in the locale. |
| Hour/Minute Time Format | Select the time format that should be used when a time consisting of an hour and minutes displays. |
| Date/Hour/Minute Format | Select the date/time format that should be used when a that should be used when a date and time (consisting of an hour and minutes) displays. |
| Client Time Format | Select the time format used in the locale. It also supports AM/PM time format. Note: This field is applicable only for Rich Client Platform applications. |
| Client Date Time Format | Select the date/time format used in the locale. It also supports AM/PM time format. Note: This field is applicable only for Rich Client Platform applications. |

Modifying a Locale

About this task

To modify a locale:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Locales.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Locales.
3. The Locale window displays in the work area. Select the applicable locale and choose the **Details** icon. The Locale Details window displays.
4. Enter information in the applicable fields. Refer to Table 74 on page 212 for assistance.
5. Choose the **Save** icon.

Deleting a Locale

About this task

To delete a locale:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Locales.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select Define Locales.
3. The Locale window displays in the work area. Select the applicable locale and choose the **Delete** icon.

Defining Menus

You can define the menu (and screen structure) a user sees. Menu configuration contains the standard Sterling Selling and Fulfillment Foundation resources as well as the ones that you define when configuring resources.

All menus are grouped into a menu group. The default menu group contains the standard menu configuration of the Application Console.

No other applications can be added.

This default group is linked to the default Administrator user. When creating your own users, you can reuse this menu group or create a completely new menu group. Your own custom menus may contain different menu items.

Saving a Menu Group as a New Menu Grouping

About this task

You can save an existing menu group as a new customizable menu group.

To save a menu group as a new menu grouping:

Procedure

1. From the tree in the application rules side panel, choose **Presentation > Menu**. The Menu Hierarchy window displays in the work area.
2. Select the applicable menu group and choose the **Details** icon. The **Menu Group Details** pop-up window displays.
3. In **Menu Group**, enter the menu group name using the resource key used in the resource bundle.
4. In **Description**, enter the name of the menu group as you want it to appear in the menu hierarchy interface.
5. Choose the **Save** icon.

Modifying Application Menu Details

About this task

You can modify the name of the application menu as it displays in the menu hierarchy.

To modify the Application Menu details:

Procedure

1. From the tree in the application rules side panel, choose **Presentation > Menu**. The Menu Hierarchy window displays in the work area.
2. Expand the applicable menu group branch.
3. Select the applicable application menu and choose the **Details** icon. The Application Menu Details pop-up window displays.
4. In **Description**, enter the name of the application menu as you want it to appear in the menu hierarchy interface.
5. Choose the **Save** icon.

Defining Menu Items

The menu hierarchy contains a list of all possible menu items you can provide to a user. You can create, modify, and delete menu items.

Creating a Menu Item

About this task

To create a menu item:

Procedure

1. From the tree in the application rules side panel, choose **Presentation > Menu**. The Menu Hierarchy window displays in the work area.
2. Expand the applicable menu group branch.
3. Expand the applicable application menu.
4. Choose the **Create New** icon. The Menu Item Details pop-up window displays.

5. Enter information in the applicable fields. Refer to the Menu Item Details Pop-Up Window table for field value descriptions.
6. Choose the **Save** icon.

Table 75. Menu Item Details Pop-Up Window

| Control | Description |
|---------------|--|
| Menu ID | Enter a value identifier for this menu option. |
| Description | Enter a value to correlate with the on-screen literals stored in the resource bundles. |
| Icon | <p>Enter a relative path to any images associated with the menu item. The image is picked up from an image .jar file, so specify these images as follows:</p> <ul style="list-style-type: none"> • The default icons are located in the <INSTALL_DIR>/jar/<install_dir_name>/<version>/scfoundationiconsbe.jar file. Inside the .jar file, many of the icons are located in the <INSTALL_DIR>/repository/eardata/smcfs/war/console/icons directory. <p>The image is shown before the text in the UI.</p> |
| Menu Sequence | Enter the menu sequence of the menu item. The sequence number is used to order the way menus appear at one level. By changing the menu sequence, you can switch the order. |
| Resource ID | <p>Enter the resource ID of the menu item.</p> <p>When a menu is tagged to an entity's resource ID in by default it means that when the user clicks on that menu on the screen it takes you to the first Search view available under that entity in the Resource Hierarchy tree.</p> <p>The resource ID contains details about the screen that needs to be invoked when the menu item is selected. The results on the search window for this field shows all resources that are either detail view resources or entity resources.</p> <p>Note: If a resource of type Detail View is selected, the detail view is invoked when the menu is selected.</p> <p>If a resource of type entity is selected, the default search view of that entity is invoked.</p> |

Modifying a Menu Item

About this task

To modify a menu item:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Menu. The Menu Hierarchy window displays in the work area.
2. Expand the applicable menu group branch.
3. Expand the applicable application menu.
4. Select the applicable menu item and choose the **Details** icon. The Menu Item Details pop-up window displays.
5. Enter information in the applicable fields. Refer to Table 75 for field value descriptions.
6. Choose the **Save** icon.

Deleting a Menu Item

About this task

To delete a menu item:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Menu. The Menu Hierarchy window displays in the work area.
2. Expand the applicable menu group branch.
3. Expand the applicable application menu.
4. Select the applicable menu item and choose the **Delete** icon.

Defining Resources

A resource is a self-contained unit that controls the display of on-screen information and the execution of program logic associated with the display. For example, screens and APIs are types of resources.

Sterling Selling and Fulfillment Foundation Resources

All Sterling Selling and Fulfillment Foundation resources have a set of primary properties (common to all resource types) and a set of unique properties (specific to a particular type of resource). Common primary properties are characteristics all resources have in common. For example, all resources have a Resource ID. These resources are used to define screens within the Application Console.

Note: To create new resources from the Applications Manager application, you must set the `yfs.enable.resource.addition` property to true in the `<INSTALL_DIR>/properties/customer_overrides.properties` file.

For information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

For an explanation of all primary resource information, refer to the following table.

In addition to primary information, each type of resource has unique characteristics. For information about each resource type, see the list of tables within this chapter.

Table 76. Primary Information of the Resource Details

| Field | Description |
|-------------|---|
| Resource ID | <p>Unique identifier for each resource. Each type of resource has its own Resource ID syntax convention:</p> <ul style="list-style-type: none"> • API - <Parent Resource ID>AP<one up sequence number>. For example, the Order Console uses the getOrderList() API, whose Resource ID is <i>orderAP2</i>. • Detail View - Y<two-character module code> D<sequence number>. For example the Order Management has a detail view Resource ID <i>YOMD010</i>. • Entity- Free form. For example, <i>Order</i>. • Icon - <Parent Resource ID>C<two-digit sequence number>. For example, <i>YOMD010D1C02</i>. • Inner Panel - <Parent Resource ID>I<two-digit sequence number>. For example, <i>YOMD010I101</i>. • Link - <Parent Resource ID>L<two-digit sequence number>. For example, <i>YOML010</i>. • List View - Y<two-character module code> L<sequence number>. For example, <i>YOML010</i>. • Action - <Parent Resource ID>A<two-digit sequence number>. For example, <i>YOMD010I02A01</i>. • Related Entity - <Parent Entity ID>S<sequence number>. For example, <i>OrderS01</i>. • Search View - Y<two-character module code>S<sequence number>. For example, <i>YOMS010</i>. • RCP Resource - <three-character pca code>RCP<sequence number>. For example, <i>YCDRCP0122</i>. |
| Description | <p>Literal value displayed as a label on the target screen and within the Resource Hierarchy tree. This value is stored within the resource bundle.</p> |
| URL | <p>For Sterling Selling and Fulfillment Foundation enter the uniform resource locator of the resource.</p> <p>For the Rich Client Platform applications, enter the ID of the action that the resource is associated to. This ID is the action id of the class that invokes the screen, which is defined in the <code>plugin.xml</code> file. For more information about how to create actions, see the <i>Sterling Selling and Fulfillment Foundation: Customizing the Rich Client Platform Interface</i> .</p> |

Table 76. Primary Information of the Resource Details (continued)

| Field | Description |
|-------------------|--|
| Resource Type | <p>Sets of characteristics that define a set of features on the user interface. For the Application Consoles resources, see the following:</p> <ul style="list-style-type: none"> • Application Consoles Entity • Application Consoles Related Entity • Application Consoles Search View • Application Consoles Detail View • Application Consoles List View • Application Consoles API • Application Consoles Inner Panel • Application Consoles Action • Application Consoles Link • Application Consoles Icon <p>For the Sterling Selling and Fulfillment Foundation Rich Client Platform application resources, see the following:</p> <ul style="list-style-type: none"> • Rich Client Platform Action • Rich Client Platform Task |
| Resource Sequence | <p>The order in which screen-related literals and logic display or executed. Resource sequencing is valid only in the context of sibling resources.</p> <ul style="list-style-type: none"> • Related Entity - Order in which the entity's popup shows up in the search panel. • Search View - Order in which search views are listed in the search view popup menu. • Detail View - Order in which detail views are listed in the detail view popup menu. • List View - Order in which the list views are listed in the list view popup menu. • API - Order in which APIs are invoked. The sequencing is particularly important in the case of APIs, since the output of one API may be used as input to another. • Action - Order in which actions display in the UI. • Icon - Order in which icon links to other views display in the UI. • RCP Action or Task - Order in which the menu displays in a Sterling Selling and Fulfillment Foundation Rich Client Platform application. |

Application Consoles Entity

The Application Consoles Entity Resource Details dialog box enables you set the Document Type of an entity. An entity is an associated group of UI displays and program logic that pertain to a specific business entity, such as an order entity.

You can view the list of JSPs used by the resource and its corresponding sub-resources and the list of users with permissions to access the resource by performing a right-click on the entity and selecting JSP List or User List or by choosing the **Zoom In** icon from the menu panel.

Each entity has a default search view, list view, and detail view. A default view is determined by the sequencing of these views within the Resource Hierarchy tree.

For example, if the Order entity has four search views, the default search view is determined as the one with the lowest resource sequence number among the four search views.

Under each entity resource, you can configure one detail API and one list API. The detail API configured is automatically called when a user navigates to the detail view of that entity. The list API is called when a user navigates to the list view of that entity.

You can prevent this default API from being called for a specific view by selecting the Ignore Default API parameter in the resource configuration screen.

Note: While you *can* create any number of API Resources under an Entity, you should create *only one list* and *one detail API*.

Table 77. Entity Resource Dialog Box

| Control | Description |
|---------------|--|
| Document Type | <p>When specified, this is passed as input to any APIs configured within this entity (including all sub-resources).</p> <p>Document Type is passed at the root node with the DocumentType attribute name. This is also used to pick up literals from the resource bundle when the <code>resourceBundle</code> taglib is used in all the JSPs configured for this entity (and all sub-resources). Specifically, the application looks for an entry with <code><DocumentType>_<ResourceKey></code>. If that is not found, the entry for <code><ResourceKey></code> is picked up.</p> |

Application Consoles Related Entity

The Application Consoles Related Entity Resource Details dialog box enables you to specify which entities appear as options on the drop-down menu of an entity on a search view.

Table 78. Console Related Entity Resource Dialog Box

| Control | Description |
|----------------|---|
| Related Entity | <p>The Resource ID of the related entity. Related Entities show up in search screens as other entities by which you can search. For example, when you choose Order from Menu, a search screen displays. In the drop-down menu on the top left corner of the search screen, you can see Order Lines and Order Releases. These are configured as related entities of Order entity.</p> <p>After you choose Order Line, your current entity becomes Order Line. Now, the drop-down menu shows Order and Order Releases as related entities, because they are explicitly defined as related entities for the entity Order Line.</p> |

Permissions cannot be maintained for Related Entity resources. This means that all users are able to see the Related Entities in the entity drop-down of a search view.

Application Consoles Search View

The Console's Search View Resource Details dialog box enables you to specify details that enable you to customize a search view.

Table 79. Search View Resource Dialog Box

| Control | Description |
|----------------------------|--|
| Java Server Page | <p>The JSP file name with full path relative to the <INSTALL_DIR>/extensions/global/webpages directory.</p> <p>Your custom resources typically points to a file within the /extensions directory. For example, if you are changing the alert search by order search view, specify the <INSTALL_DIR>/extensions/global/webpages/em/alerts/search/alert_search_byorder.jsp file.</p> <p>As you populate the /extensions directory with custom JSP files, mimic the structure of the directory containing the standard JSP files.</p> |
| Output Name Space | Namespace of the XML bindings of the search criteria input fields on the search JSP. The inputs that have this namespace are sent to the List API of the entity. |
| Height | N/A |
| Width | N/A |
| Ignore Default API | N/A |
| Hide Maximum Records Field | Choose this to prevent the Max Records field from displaying. |
| View Group ID | Within a specific search view of an entity, you can switch to any other detail view having the same View Group ID as the current search view. |
| Input | N/A |
| Template | N/A |

Application Consoles Detail View

The Application Consoles Detail View Resource Details dialog box enables you to customize a detail view.

Table 80. Detail View Resource Dialog Box

| Control | Description |
|-----------------------|--|
| Java Server Page | <p>In the case of detail views, this field is used as the JSP for the anchor page. Typically, this JSP is used to simply include other inner panels and lay them out in the manner desired.</p> <p>If this field is not filled in, and the detail view has multiple inner panels, they are laid out one below the other, stretching all the way across horizontally.</p> <p>Specify the full path relative to the <INSTALL_DIR>/extensions/global/webpages directory. Your custom resources typically points to a file within the /extensions directory. For example, if you are changing the anchor page of the alert detail view, your JSP might be /extensions/global/webpages/em/alerts/detail/alert_detail_anchor.jsp.</p> <p>As you populate the /extensions directory with custom JSP files, mimic the structure of the directory containing the standard JSPs.</p> |
| Output Name Space | N/A |
| Height | When this view displays in a pop-up screen, this is the height of the popup window. |
| Width | When this view displays in a popup screen, this is the width of the popup window. |
| Ignore Default API | <p>When this option is set, any detail API that might be configured for the current entity is not invoked when the current detail view displays.</p> <p>Typically, an entity has a standard detail API and several views that need different parts of the same detail API output. So, typically, you can simply define a detail API at the entity level and expect that the default detail API is called whenever a detail view for that entity is shown. However, some of the views of that entity may be special and may require a different API to be called. In such cases, this field can be checked and the alternate API can be configured for any one of the inner panels of the special detail view.</p> |
| Hide Navigation Panel | When this option is set, the Next and Previous navigation buttons do not show up on this detail view. |
| Hide Title Bar | When this option is set, the entire title bar does not show up for this detail view. |
| View Group ID | Within a specific detail view of an entity, you can switch to any other detail view having the same View Group ID as the current detail view. |
| Input | N/A |
| Template | N/A |
| Redirector View | When this is set the detail view is used only to redirect to another detail view. The JSP for this view should not contain any HTML intended for display. It should only contain conditional JSP statements that eventually call the goToDetailView JSP method to navigate to the final view. |

Application Consoles List View

The Application Consoles List View Resource Details dialog box enables you to customize a list view.

Table 81. List View Resource Dialog Box

| Control | Description |
|---|--|
| Java Server Page | <p>The JSP file name with full path relative to the <INSTALL_DIR>/extensions/global/webpages directory. Your custom resources typically point to a file within the /extensions directory. For example, if you are changing the alert list verbose view, specify the /extensions/global/webpages/em/alerts/list/alerts_list_verbose.jsp file.</p> <p>As you populate the /extensions directory with custom JSP files, mimic the structure of the directory containing the standard JSP files.</p> |
| Output Name Space | N/A |
| Height | N/A |
| Width | N/A |
| Ignore Default API checkbox | <p>When this option is set, any list API that might be configured for the current entity is not invoked when the current list view displays.</p> <p>Note: Also, when this option is set, you must handle the search panel collapse functionality as well as the total number of records displayed on the UI in your custom JSP. For example, you can handle the logic for fetching the number of records returned by an external API call in your custom JSP by writing the following lines of code:</p> <pre> <% int numberOfRecords = /* logic to find out the number of records returned by an external API call.*/ if (numberOfRecords > 0){ %> <script type="text/javascript"> slideSearchPanelView(); yfcOverrideResultSetCount(numberOfRecords); </script> <% } %> </pre> |
| Supports Direct List to Detail Navigations When One Record Returned | When this is set and the related search results in one record, the list screen is bypassed and the details display. |
| View Group ID | Within a specific list view of an entity, you can switch to any other detail view having the same View Group ID as the current list view. |
| Input | N/A |
| Template | When the default List API is invoked for a view, this is the output template that is passed to the API. |

Application Consoles API

The Application Consoles API Resource Details dialog box enables you to specify whether or not to call an API and how that API is called.

Permissions cannot be maintained for API resources. An API resource can call a Sterling Selling and Fulfillment Foundation standard API or invoke a service that has been configured.

Note: Although you can create any number of API resources under an Entity, you *should* create **only one list** and **one detail API**.

Table 82. API Resource Dialog Box

| Control | Description |
|---------------------------------|--|
| Invoke a Service | Specifies that a service is invoked in the UI for this resource. |
| Service Name | Applies only to services. Enabled through the Invoke a Service radio button. Provides a drop-down list of available services that have been previously configured in the Services of the Applications Manager. |
| Templates | Applies only to services. Enabled through the Invoke a Service radio button. Provides a way for you to add, modify, and delete a list of templates. You can enter an API Name and a Template for each row in the table. This way you can enter templates for all APIs that are called within the service. Important: note that one service should not execute the same API twice because you cannot configure multiple template elements for the same API. |
| Invoke an API | Specifies that a Sterling Selling and Fulfillment Foundation standard API is invoked in the UI for this resource. When checked, it enables the API Name drop-down list and API Template. |
| API Name | Applies only to APIs. Enabled through the Invoke an API radio button. Provides a drop-down list of standard or extended APIs available through the Service Definition Framework. If the API you select is backward compatible, the Requires Backward Compatibility checkbox is enabled. |
| Requires Backward Compatibility | Applies only to APIs that can be invoked in backward compatibility mode. Enables you to specify if the API should run in backward compatibility mode. When checked, Version must also be supplied. |
| Version | Applies only to APIs running in backward compatibility mode. Provides a drop-down list of the versions for which an API is backward compatible. |
| Input Namespace | Namespace corresponding to the text box that passes input to a Save API. Applies only to a detail view, as they may have several text boxes that are bound to different XML namespaces. However, only one of the text boxes can pass input to the API. |

Table 82. API Resource Dialog Box (continued)

| Control | Description |
|----------------------------|---|
| Output Namespace | <p>The output of the API is saved in this namespace. Namespace is optional, but if it is not specified, it is defaulted to the root node name of the XML under consideration. Therefore, while referring to the output of the API, even if namespace is not specified here, it can be assumed to be the same as the root node name of the output.</p> <p>A namespace is a tag that can be used to identify a specific XML. The Presentation Framework enables you to call multiple APIs and store the outputs in different namespaces. In your JSP or in the input to an API, you can refer to values from any namespace that is available at that point.</p> |
| Ignore Exception | <p>If this API throws an exception then it is not displayed to the user. This option is <i>not</i> available for API resources that are created directly under an Entity resource.</p> |
| Skip Automatic Execution | <p>When this option is checked, the API is not called automatically when the view displays. You can then call this API within the JSP using the callAPI taglib. This option is not available for API resources that are created directly under an Entity resource.</p> |
| Call In Rollback-Only Mode | <p>Check this box if you want to call this API in rollback-only mode to roll back the changes made in the database.</p> <p>By default, this checkbox is disabled for all Sterling Selling and Fulfillment Foundation APIs.</p> <p>Note: However, in order to execute this rollback-only operation, a custom action needs to be created. For information about creating custom actions in a screen, refer to the <i>Sterling Selling and Fulfillment Foundation: Customizing Console JSP Interface for End-User</i> .</p> |
| API Type | <p>Specify the type of view from which the API may be invoked. This option is only available for API resources that are created directly under an Entity resource. Such resource types are:</p> <ul style="list-style-type: none"> • List - invokes the API from a list view • Detail - invokes the API from a detail view |
| Input | <p>Provide an XML structure that can be used to pass specific input to the API. You can specify dynamic attributes here.</p> |
| Template | <p>Provide a template XML here. This template XML is passed to the API through the YFSEnvironment class.</p> <p>Although YFSEnvironment class supports passing a complete XML or simply an XML file name, you can only provide a complete XML in this field.</p> |

Application Consoles Inner Panel

The Application Consoles Inner Panel Resource Type dialog box enables you to customize inner panels. Inner panels are the UI components that make up detail views.

Table 83. Inner Panel Resource Dialog Box

| Control | Description |
|--------------------|--|
| Java Server Page | <p>The JSP file name with full path relative to the <INSTALL_DIR>/extensions/global/webpages directory. Your custom resources typically point to a file within the /extensions directory. For example, if you are changing the person info inner panel, specify the /extensions/global/webpages/pm/personinfo/detail/personinfo_detail_anchor.jsp file.</p> <p>As you populate the /extensions directory with custom JSP files, mimic the structure of the directory containing the standard JSPs.</p> |
| Override Entity ID | For future use. |
| Entity Key Name | For future use. |
| Template | When the default Detail API is invoked for a view, all the templates specified for each inner panel for the view are merged to form the output template that is passed to the API. |

Note: Inner panels can be marked as read-only; see “Setting Inner Panels as Read-Only” on page 155 for more information.

Application Consoles Action

The Application Consoles Action Resource Details dialog box enables you to customize details of an action that can be used in the Application Console.

Table 84. Action Resource Dialog Box

| Control | Description |
|------------------|--|
| Java Server Page | When an action is executed in the user interface, this JSP is called. This can be used to do server-side processing, such as calling multiple APIs. |
| JavaScript | <p>The JavaScript function specified here is executed through the eval() function. The function body needs to be present in extensions/global/webpages/extn.js. This JS file is included in the container.jsp file and is therefore available in all JSPs.</p> <p>Note: The container.jsp file is one of the Presentation Framework JSPs. This JSP defines the basic structure of all screens and includes other JSPs, as defined against inner panels, search views, list views and detail views.</p> |
| View ID | <p>When a View ID is specified for an Action, the view opens in a modal dialog when user clicks on the action.</p> <p>However, if an API is also configured for the Action, the behavior is as follows: The API is called first, and after the API is called, the current window itself is updated with the view configured here.</p> <p>When a JavaScript is also configured, that's what is called before view or API is called. If the JavaScript returns false, none of the other actions are invoked.</p> <p>If the Action is configured for a list view, the specified View ID opens up in the same browser window, and not in a separate popup.</p> |

Table 84. Action Resource Dialog Box (continued)

| Control | Description |
|--------------------------|--|
| View Group ID | View group that is navigated to when you choose this action. |
| Input Name Space | Namespace of the XML that is passed as input to this API if this action calls an API. It is assumed that this namespace exists. |
| Binding | You can specify an XML Binding here. If the XML attribute returns true or greater than 0 or Y, the action is enabled and the user cannot click on the action. Since it considers all other values disabled. |
| Selection Key Name | This is the name or the ID attribute of the checkboxes in the inner panel that needs to be checked before this action is clicked up. For example, in an order list screen, only if some orders are selected, you can view the details. Clicking the View Details action without selecting any order results in a client-side error message. This happens because for the View Details action, the resource has been configured to have a selection key name, which is the ID of the checkboxes in the order_list_concise.jsp file. If this field is not specified, it means that the action is not dependent upon any checkbox being checked. |
| Input Key Name | If the action being configured requires the user to select records from a list using check boxes within the list, specify the name or ID of the check box object within the JSP here to ensure that the key the check box is associated to is passed as input to the target of this view. For example, the order detail screen contains a service requests inner panel that displays all of the service requests for that order. The cancel action defined on the inner panel requires the user to select one or more service requests (using the check box that displays in the first column of the list). The name of this check box inside the JSP is chkEntityKeyPS. Therefore, to ensure the selected keys are appropriately passed to the API that is called for the cancel action, the Input Key Name of the cancel action is set to chkEntityKeyPS. |
| Popup | N/A |
| Close Window On Complete | When this is specified, the current window closes after the current action is performed. For example, use this control for the Save action on a popup window that should close automatically after Save is performed. |

Application Consoles Link

The Application Consoles Link Resource Details dialog box enables you to specify the details of a hyperlink used within an inner panel.

Links are not permission controlled. This means that any Links you modify does not show up on the Permission tree of the User Group Applications Manager.

Table 85. Link Resource Dialog Box

| Control | Description |
|---------|---|
| View ID | The View ID to open when the link is clicked. |

Table 85. Link Resource Dialog Box (continued)

| Control | Description |
|---------------|--|
| View Group ID | View group that is navigated to when you choose this link. |

Application Consoles Icon

The Application Consoles Icon Resource Details dialog box enables you to specify the details of an icon that displays on the upper left section of the inner panel title. These icons are referred to as *view* icons.

Table 86. Icon Resource Dialog Box

| Control | Description |
|-------------------------|---|
| JavaScript | The JavaScript function specified here is executed through the <code>eval()</code> function. The function body needs to be present in the <code>/extensions/global/webpages/scripts/extn.js</code> file. This JS file is included in the <code>container.jsp</code> file and is therefore available in all JSPs. Note: The <code>container.jsp</code> file is one of the Presentation Framework JSP files. This JSP file defines the basic structure of all screens and includes other JSPs, as defined against inner panels, search views, list views and detail views. |
| View ID | The View ID to open when this icon is clicked. |
| View Group ID | View group that is navigated to when you choose this icon. |
| Enabled Binding | You can specify an XML Binding here. If the XML attribute returns true or greater than 0 or Y, the action is enabled and the user cannot click on the action. Since it considers all other values disabled. |
| Display Binding | You can specify an XML Binding here. If the XML attribute returns true or greater than 0 or Y, the action is enabled and the user cannot click on the action. Since it considers all other values disabled. |
| Image | Relative path of the image file. For a Application Console menu item, specify the <code>com/smcfs/ycp/ui/icons/configmenu.gif</code> file. |
| Tooltip | You can specify an XML Binding here. When the screen displays, the XML pointed to by the binding is evaluated. If the XML attribute returns a numeric value other than zero (0), this number displays in parenthesis next to the resource description in the tooltip of this icon. |
| Alternate Image Binding | You can specify an XML Binding here. This field is used to display a different icon on the console inner panel based on the value of this binding. If the XML attribute returns a value of "Y", "true", or a number greater than 0, then the alternative icon is used. |
| Alternate Image | Relative path of the alternate image file. |

Rich Client Platform Action

In the Sterling Selling and Fulfillment Foundation Rich Client Platform, actions are defined as resources. The Rich Client Platform actions enables you to specify the ID of the action which is called when a menu item is invoked. The Rich Client Platform Action resources are permission controlled.

- **ActionID**—The identifier of the action that gets invoked when you click on a menu item.

The URL field in the resource configuration should point to the Rich Client Platform ActionID. For more information about URL field, see Table 76 on page 217.

The Rich Client Platform Action resource types can be linked to Menu items within Rich Client Platform. To configure the Rich Client Platform Action resource type with menu items, see “Defining Menus” on page 213.

For more information about Rich Client Platform Actions, refer to the *Sterling Selling and Fulfillment Foundation: Customizing the Rich Client Platform Interface* .

Rich Client Platform Task

Each Rich Client Platform Task resource type is associated with a resource identifier. The Rich Client Platform Task resource types are permission controllable. The user can view only those Rich Client Platform tasks for which the user has permissions. The Rich Client Platform Task resources types are the logical representation of related tasks within the Rich Client Platform. The Rich Client Platform task contains a set of actions. When you create the related tasks, you must specify the identifier of the resource that you want to associate with the related task. Based on the permissions assigned for the resource, the related tasks view displays to the user.

The URL field in the resource configuration should point to the Rich Client Platform ActionID. For the URL field description, see Table 76 on page 217.

For more information about Related Tasks and Rich Client Platform Actions, see the *Sterling Selling and Fulfillment Foundation: Customizing the Rich Client Platform Interface* .

Defining Themes

You can define the labels that identify themes used in Sterling Selling and Fulfillment Foundation. All themes used by Sterling Selling and Fulfillment Foundation are defined centrally through CSS and XML files. Themes contain the standard Sterling Selling and Fulfillment Foundation themes as well as the ones that you define.

Creating a Theme

About this task

To create a theme:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Themes. The Themes window displays in the work area.
2. Choose the **Create New** icon. The Theme Details pop-up window displays.

3. In Theme, enter the name of the XML or CSS files, for example, if the theme file is called malachite.xml, enter 'malachite'. Refer to the *Sterling Selling and Fulfillment Foundation: Localization Guide* for naming conventions regarding localization.
4. In Short Description, enter a brief description of the theme.
5. In Long Description, enter a more detailed description of the theme.
6. Choose the **Save** icon.

Modifying a Theme

About this task

To modify a theme:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Themes. The Themes window displays in the work area.
2. Select the applicable theme and choose the **Details** icon. The Theme Details pop-up window displays.
3. In Short Description, enter a brief description of the theme.
4. In Long Description, enter a more detailed description of the theme.
5. Choose the **Save** icon.

Deleting a Theme

About this task

To delete a theme:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Themes. The Themes window displays in the work area.
2. Select the applicable theme and choose the **Delete** icon.

Defining Custom Common Code Types

Common codes are values that enable a user to choose from a list of options rather than having to enter the data manually. They can be made available to the user from drop-down lists in extended Sterling Selling and Fulfillment Foundation console screens. For example, if an item is backordered, the user can choose a reason, such as No Stock, from a list. The list of reasons is a list of common codes.

By default, the fields on the standard interface have lists of common codes to which you can add your own common codes.

When adding fields to the user interface, you can provide drop-down lists of custom common codes by adding combo boxes. These common code values can be retrieved within an extended screen using the `getCommonCodeList()` API.

Note: If an enterprise inherits its configuration from another enterprise, custom common codes are inherited from the parent enterprise and cannot be modified by the child enterprise. To enable an enterprise to maintain its own common codes, do not configure the enterprise as a child enterprise.

Creating a Custom Common Code Type

About this task

To create a custom common code type:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Custom Common Code Types. The Custom Common Code Types window displays in the work area.
2. Choose the **Create New** icon. The Code Type Details pop-up window displays.
3. In Code Type, enter the name of the custom common code type.

Note: Value of the new common code type Maximum length is 15 characters. This value is automatically appended with .ex extension so that it does not conflict with the Sterling Selling and Fulfillment Foundation-defined common codes. This value must be passed to the `getCommonCodeList()` API.

4. In Short Description, enter a brief description of the theme.
5. In Long Description, enter a more detailed description of the theme.
6. In Maximum Code Value Length, enter the maximum length of a code value for this custom common code type. When users create code values for this common code type, they can enter values that have a maximum length of the value specified here.
7. Choose the **Save** icon.

Modifying a Custom Common Code Type

About this task

To modify a custom common code type:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Custom Common Code Types. The Custom Common Code Types window displays in the work area.
2. Select the applicable custom common code type and choose the **Details** icon. The Code Type Details pop-up window displays.
3. In Short Description, enter a brief description of the code type.
4. In Long Description, enter a more detailed description of the code type.
5. Choose the **Save** icon.

Deleting a Custom Common Code Type

About this task

To delete a custom common code type:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Custom Common Code Types. The Custom Common Code Types window displays in the work area.
2. Select the applicable common code type and choose the **Delete** icon.

Defining Custom Common Code Values

Adding Values to a Custom Common Code

About this task

To add values to a custom common code:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Custom Common Codes. The Custom Common Code Types window displays in the work area.
2. Select the applicable custom common code and choose the **View Values** icon. The **Common Code Values** pop-up window displays.
3. Choose the **Create New** icon. The **Common Code Details** pop-up window displays.
4. In the Common Code Field, enter the code value.
5. In Short Description, enter a brief description of the code value.
6. In Long Description, enter a more detailed description of the code value.
7. Choose the **Save** icon.

Modifying a Custom Common Code's Values

About this task

To modify a custom common code value:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Custom Common Codes. The Custom Common Code Types window displays in the work area.
2. Select the applicable custom common code and choose the **View Values** icon.. The Common Codes pop-up window displays.
3. Locate the applicable code value and choose the **Details** icon. The common code's Details pop-up window displays.
4. In Short Description, enter a brief description of the code value.
5. In Long Description, enter a more detailed description of the code value.
6. Choose the **Save** icon.

Deleting a Custom Common Code's Values

About this task

To delete a custom common code value:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Custom Common Codes. The Custom Common Code Types window displays in the work area.
2. Select the applicable custom common code and choose the **View Values** icon. The Common Codes pop-up window displays.

3. Locate the applicable code value and choose the **Delete** icon.

Defining Custom Error Codes

You can define custom error codes and the descriptions to be used along with the default error codes provided by Sterling Selling and Fulfillment Foundation. For example, you can use these custom error codes when the user exit to validate passwords returns validation failure reasons. Moreover, the custom error codes are localizable through existing mechanisms.

All the error codes must start with EXTN, if not an exception is thrown when you save the custom error code.

Searching for a Customer Error Code

About this task

To search for a customer error code:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Custom Error Codes. The Custom Error Code Search window displays in the work area.
2. Enter the applicable error code and description for which you want to search.
3. Choose the **Search** icon and a list of custom error codes displays.

Adding a Custom Error Code

About this task

To add values to a custom error code:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Custom Error Codes. The Custom Error Codes List window displays in the work area.
2. Choose the **Create New** icon. The Custom Error Code Details pop-up window displays.
3. In the Error Code Field, enter the code value.
4. In Error Message, enter the message to be displayed for this code value.
5. In Cause, enter the cause for the error to be raised.
6. In Action, enter the action to be taken when the error is raised.
7. Choose the **Save** icon.

Modifying a Custom Error Code

About this task

To modify a custom error code value:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Custom Error Codes. The Custom Error Code search window displays in the work area.
2. Choose the **Search** icon and a list of custom error codes displays.
3. Select the applicable custom error code from the list and choose the **Details** icon. The Error Codes pop-up window displays.

4. In Error Message, modify the message displayed for this code value.
5. In Cause, modify the cause for the error to be raised.
6. In Action, modify the action be taken when the error is raised.
7. Choose the **Save** icon.

Deleting a Custom Error Code

About this task

To delete a custom error code value:

Procedure

1. From the tree in the application rules side panel, choose Presentation > Custom Error Codes. The Custom Error Code search window displays in the work area.
2. Choose the **Search** icon and a list of custom error codes display.
3. Select the code value you want to delete and choose the **Delete** icon.

Chapter 10. Configuring Business Communication Components

You can configure business communication components to define the codes and documents used to communicate between Sterling Selling and Fulfillment Foundation and external systems as well as different business organizations within your business model.

Defining Protocol Codes

You can use **Protocol Code Setup** to set up codes to identify the different protocols organizations used to communicate with each other.

The following are examples of different protocols:

- FTP
- E-Mail
- Fax

Creating a Protocol Code

About this task

To create a protocol code:

Procedure

1. From the tree in the application rules side panel, choose **Communication > Protocols**. The Protocol List window displays in the work area.
2. Choose the **Create New** icon. The Protocol Details pop-up window displays.
3. In Protocol Name, enter the name of the protocol.
4. In Description, enter a brief description of the protocol.
5. Choose the **Save** icon.

Modifying a Protocol Code

About this task

To modify a protocol code:

Procedure

1. From the tree in the application rules side panel, choose **Communication > Protocols**. The Protocol List window displays in the work area.
2. Select the applicable protocol and choose the **Details** icon. The Protocol Details pop-up window displays.
3. In Description, enter a brief description of the protocol.
4. Choose the **Save** icon.

Deleting a Protocol Code

About this task

To delete a protocol code:

Procedure

1. From the tree in the application rules side panel, choose Communication > Protocols. The Protocol List window displays in the work area.
2. Select the applicable protocol and choose the **Delete** icon.

Defining Document Format Codes

You can use **Document Format Code Setup** to set up codes to identify the different document formats organizations use to communicate with each other.

The following are examples of different document formats:

- EDI
- XML
- Flat-file

Creating a Document Format Code

About this task

To create a document format code:

Procedure

1. From the tree in the application rules side panel, choose Communication > Document Formats. The Document Format List window displays in the work area.
2. Choose the **Create New** icon. The Document Format Details pop-up window displays.
3. In Format ID, enter the name of the document format.
4. In Description, enter a brief description of the document format.
5. Choose the **Save** icon.

Modifying a Document Format Code

About this task

To modify a document format code:

Procedure

1. From the tree in the application rules side panel, choose Communication > Document Formats. The Document Format List window displays in the work area.
2. Select the applicable document format and choose the **Details** icon. The Document Format Details pop-up window displays.
3. In Description, enter a brief description of the document format.
4. Choose the **Save** icon.

Deleting a Document Format Code

About this task

To delete a document format code:

Procedure

1. From the tree in the application rules side panel, choose Communication > Document Formats. The Document Format List window displays in the work area.
2. Select the applicable document format and choose the **Delete** icon.

Defining Business Document Codes

You can use **Business Document Code Setup** to set up codes to identify the different documents organizations use to communicate with each other.

The following are examples of different document formats:

- Purchase Order (PO)
- Advanced Shipment Notice (ASN)
- Invoice

Creating a Business Document Code

About this task

To create a business document code:

Procedure

1. From the tree in the application rules side panel, choose Communication > Business Document. The Business Document List window displays in the work area.
2. Choose the **Create New** icon from the top portion of the screen. The Business Document Details pop-up window displays.
3. In Document ID, enter the ID of the business document.
4. In Document Name, enter the name of the business document.
5. In Description, enter a brief description of the document format.
6. Choose the **Save** icon.

Modifying a Business Document Code

About this task

To modify a business document code:

Procedure

1. From the tree in the application rules side panel, choose Communication > Business Document. The Business Document List window displays in the work area.
2. Select the applicable business document and choose the **Details** icon. The Business Document Details pop-up window displays.
3. In Document Name, enter the name of the business document.
4. In Description, enter a brief description of the document format.
5. Choose the **Save** icon.

Deleting a Business Document Code

About this task

To delete a business document code:

Procedure

1. From the tree in the application rules side panel, choose Communication > Business Document. The Business Document List window displays in the work area.
2. Select the applicable document format and choose the **Delete** icon.

Classifying an Existing Business Document

About this task

You can classify any existing business documents to be identified as a Buyer, Seller, or Carrier Document. For example, an advanced shipment notice is a document sent to carriers to alert them that an order has been made and a shipment of a certain set of items is necessary. You would identify this document as a carrier document.

To classify an existing business document as a Buyer, Seller, or Carrier document:

Procedure

1. From the tree in the application rules side panel, choose Communication > Business Document. The Business Document List window displays in the work area.
2. Choose the either the Seller Documents tab, Buyer Documents tab, or Carrier Documents tab dependant on which role you want to associate the business document with.
3. Choose the **Create New** icon. The Role Document Details pop-up window displays.
4. From Document ID, select the business document you want to associate with the role.
5. In Document Name, enter the name of the business document.
6. In Description, enter a brief description of the document format.
7. Choose the **Save** icon.

Chapter 11. Configuring Nomenclature Components

The Nomenclature Runtime components provide a mapping tool that allows you to configure unique terms you use to match unique terms your trading partners use.

When trading partners or external systems exchange information with Sterling Selling and Fulfillment Foundation, they may identify entity values differently than Sterling Selling and Fulfillment Foundation and each other. For example, a carrier code may be called UPS in Sterling Selling and Fulfillment Foundation and UnitedParcelService by a trading partner or external system.

The Nomenclature Transformation Engine enables you to define these entities, its values, and the mappings between interacting systems or trading partners. Then, when data is exchanged between Sterling Selling and Fulfillment Foundation and an external system or trading partner, the Nomenclature Transformation Engine automatically applies the mapping rules specified.

Using the United Parcel Service example above, when data is sent from Sterling Selling and Fulfillment Foundation to the external system or trading partner, the Nomenclature Transformation Engine transforms the carrier code literal UPS to UnitedParcelService and back again.

Defining Nomenclature Codes

About this task

Nomenclature Codes allows you to create, modify, and delete attribute codes that can be used to define entities in Nomenclature Definition.

To create a nomenclature code:

Procedure

1. From the menu bar, choose Applications > Application Platform. The Application Platform tree displays in the side panel.
2. From the Application Platform tree, choose Nomenclature > Nomenclature Codes. The Nomenclature Codes window displays in the work area.
3. Choose the **Create New** icon. The Nomenclature Code Details pop-up window displays.
4. In Nomenclature Code, enter the name of the attribute code.
5. In Short Description, enter a brief description of the nomenclature code.
6. In Long Description, enter a detailed description of the nomenclature code.
7. Choose the **Save** icon.

Defining Nomenclature Definitions

About this task

Nomenclature Definition allows for entities requiring transformation to be created. These entities are identified for each System and Participant (Enterprise, Buyer,

Seller, Carrier). Entities definitions are created for a combination of one or more attribute codes. The attribute codes that make an entity are common across all participating systems and participants.

To create a nomenclature definition:

Procedure

1. From the tree in the application rules side panel, choose Nomenclature > Nomenclature Definition. The Nomenclature Definition Search window displays in the work area.
2. Choose the **Create New** icon. The Nomenclature definition details pop-up window displays. Enter information, using the following table.
3. Choose the **Save** icon.

Table 87. Nomenclature Definition Menu

| Property | Description |
|-------------------|---|
| System Name | Enter a unique System Name for each system you are defining this entity for. This is a required parameter. The System Name STERLING is reserved. |
| Organization Code | Select a participant for Organization Code. Select the DEFAULT organization from the drop down list if the definition applies across participants. This is a required parameter. The Organization code uniquely identifies the Trading partner or the external system. |
| Code Description | Enter a unique description for the entity being created. |
| View Values | Defaults to view values. Check this if you do not want to see a list of valid values for a System and Participant. Valid values for the entity are not displayed when mapping if this is not checked. |
| Code Name 1-4 | Select up to four attribute codes that can be grouped together to define the entity. A minimum of one attribute must be selected. Additional attributes may be added to the list through Nomenclature Code Maintenance. The list is displayed from the YFS_COMMON_CODE table for CODE_TYPE='XREF_CODE'. |
| Code Value API | Check on the code value API box and enter a class name, which retrieves the list of values for the code. |
| Class Name | Enter the class name used to get values from the external system. The system has predefined classes for certain attribute codes, which retrieve data for the System Name STERLING (the Sterling Selling and Fulfillment Foundation-defined code values). Using a class to get a list of valid value for an attribute code is not mandatory. The code values can be created and mapped directly when mapping entities. |

Creating Mappings Between Nomenclature Definitions

About this task

To create mapping between nomenclature definitions:

Procedure

1. From the tree in the application rules side panel, choose Nomenclature > Nomenclature Definition. The Nomenclature Definition Search window displays in the work area.
2. Select the two Entities that you want to map and choose the Mapping button. The Nomenclature Mapping panel displays.

The Nomenclature Mapping panel has the list of valid values for the entities selected. The from/to Entity to be mapped can be changed by changing the System Name, Organization Code, or the Entity description.

Note: The list is not displayed if the View Values option is not checked when creating the Entity Definition.

3. Choose the **Create New** icon. The new entity defined is added to the list of entities in the search results.
4. Enter values for each attribute and choose the **Save** icon.
5. To create a mapping between the two entities, select a row from the list of values displayed in the from/to system and choose the Create Mapping button.

Defining Nomenclature Configuration

About this task

Nomenclature Configuration allows you to define the rules to be applied and the entities that need to be transformed when data is exchanged between Sterling Selling and Fulfillment Foundation and external systems or trading partners. The configuration is captured for each document exchanged.

To create a unique configuration between two systems:

Procedure

1. From the tree in the application rules side panel, choose Nomenclature > Nomenclature Configuration. The Nomenclature Configuration Search window displays in the work area.
2. Choose the **Create New** icon. The Create Nomenclature Configuration pop-up window displays.
3. Enter information in the applicable fields. Refer to the following table for field level descriptions.

Table 88. Nomenclature Configuration

| Property | Description |
|-------------------|---|
| XML Name | Enter a unique name for the document being exchanged between two systems or participants. |
| From System | Enter the system name from which document is originating. |
| To System | Enter the system name to which the document is delivered to |
| From Organization | Enter the organization from which the document is originating. |

Table 88. Nomenclature Configuration (continued)

| Property | Description |
|-----------------|--|
| To Organization | Enter the organization to which the document is delivered to |

4. Choose the **Save** icon. The Configuration Details window displays.
5. Choose the **Create New** icon. The Configuration Detail pop-up window displays capturing all the fields in the document that need to be transformed.
6. Enter information in the applicable fields. Refer to the following table for field level descriptions.

Table 89. Nomenclature Configuration Details

| Property | Description |
|---------------------------|--|
| XML Name | The unique name by which the document exchanged is identified. |
| Attribute Location | Enter the full XML path of the element under which the attributes that need transformation are present. If this is a repeating node in the XML document, the transformation is applied to all the nodes. For example, if the publishShipAdvice output XML is being sent to a warehouse management system for fulfillment and the carrier code needs to be transformed, the attribute location should be entered as ShipmentAdvices/ ShipmentAdvice. |
| Attribute 1-4 | Enter the XML attribute name(s) that need to be transformed when the document is being published. For example, if the publishShipAdvice output XML is being sent to a warehouse management system for fulfillment and the carrier code needs to be transformed, the attribute should be entered as Scac in the document location ShipmentAdvices > ShipmentAdvice. |
| New Attribute 1-4 | For each attribute being transformed, either the existing value can be replaced in the document or a new attribute can be inserted in the XML in the same level. Enter the new XML attribute name to be inserted when the transformation occurs. For example, the publishShipAdvice output XML is being sent to a warehouse management system for fulfillment and the carrier code needs to be transformed in the location ShipmentAdvices > ShipmentAdvice in the document for the SCAC attribute. This is specified as WhseCarrier and a new attribute is inserted in the location ShipmentAdvices > ShipmentAdvice called WhseCarrier. This XML attribute carries the new transformed value and the old attribute and value are left intact. |
| Mapping Type | Select Nomenclature if the values are retrieved from the mapping specified in the Nomenclature transformation Engine. Select Constant if the value is always transformed to a Constant value. |
| Abort Processing on Error | If this is selected and the Mapping Type is set to nomenclature, if mapping is not found a 'No Default' is set and processing stops. |

Table 89. Nomenclature Configuration Details (continued)

| Property | Description |
|--------------------|---|
| Nomenclature | Specifies the entity definition to use for the system participant to determine the transformed values. Select the from/to code descriptions to use. |
| Use Default Values | If this is selected, enter the default values to apply when mapping is not found. |
| Constant 1-4 | If you selected Constant, enter the constant value for XML attribute transformation. |

Chapter 12. Configuring Alert Queues

Queue Management is used to define rules and methods pertaining to user alert notifications.

Alerts

An **alert** is a message directed to a user or an alert queue about a transaction that needs manual intervention. An alert can come in different formats including e-mail, faxes, and so on.

Alerts are sent to different queues depending on the notification definitions you have configured.

Alert Queues

Alert queues are set up to distribute alerts to users. You determine which users receive different alert types by assigning them to queues. You can also set up alert priorities and actions raised when certain conditions are met for the alert.

Creating an Alert Queue

About this task

To create an alert queue:

Procedure

1. From the tree in the application rules side panel, choose Queue Management. The Queue Search window displays in the work area.
2. Choose the **Create New** icon. The Queue Details window displays.
3. Enter information in the applicable fields. Refer to the following table for field value descriptions.

Table 90. Queue Details Window

| Field | Description |
|-------------------|---|
| Queue ID | Enter a unique identifier for the queue. |
| Queue Name | Enter the name of the queue. |
| Queue Description | Enter a brief description of the queue. |
| Queue Group | Enter the group this queue is a part of. |
| Queue Priority | Enter a numerical priority for the queue with 1 being the highest and 0 being no priority. This is used to identify a queue's importance in the business environment. |
| Audit Queue | Select Audit Queue if you want to audit the alerts coming into the queue and how they are resolved. |

Note: The Exception Monitor has to be running in the background for the above configuration to work.

Defining How Unresolved Alerts are Handled Based on Size

About this task

You can configure unresolved alerts to be escalated to a different queue after a specified number of unresolved alerts has been exceeded.

To set up a size-based escalation:

Procedure

1. In the Queue Details window, choose the Size Based Escalation tab.
2. Enter information in the applicable fields. Refer to the following table for field value descriptions.

Table 91. Size Based Escalation Tab

| Field | Description |
|---|---|
| Escalate If Number of Unresolved Alerts Exceeds | Enter the maximum number of unresolved alerts that can be logged in this queue before an action is raised. |
| Raise Action | Select an action to be taken when the number of unresolved alerts in this queue is greater or equal to the specified maximum. |
| Re-Alert After (in hours) | Enter the number of elapsed hours before a re-alert is generated. |

Defining How Unassigned Alerts are Handled Based on Time

About this task

You can configure alerts that have not been assigned to a user to be escalated to another queue, raise an action after a given amount of time passes, or both.

To set up a time-based escalation for unassigned alerts:

Procedure

1. In the Queue Details window, choose the Unassigned Alerts tab.
2. Enter information in the applicable fields. Refer to the following table for field value descriptions.

Table 92. Unassigned Alerts Tab

| Field | Description |
|---------------------------------|--|
| Escalate Alert After (in hours) | Enter the maximum number of hours after which an unassigned alert is moved to another queue. |
| Move Alert To Different Queue | Select the name of the queue where unassigned alerts should be moved, typically a higher priority queue. |
| Raise Action | Select the action to be raised, if applicable. |
| Re-Alert After (in hours) | Enter the number of elapsed hours before a re-alert is generated. |

Defining How Unresolved Alerts are Handled Based on Time

About this task

You can configure unresolved alerts to be escalated to another queue, raise an action after a given amount of time passes, or both.

Note: You cannot resolve unassigned alerts.

To set up a time-based escalation for unresolved alerts:

Procedure

1. In the Queue Details window, choose the Unresolved Alerts tab.
2. Enter information in the applicable fields. Refer to the following table for field value descriptions.

Table 93. Unresolved Alerts Tab

| Field | Description |
|---------------------------------|--|
| Escalate Alert After (in hours) | Enter the maximum number of hours an alert can remain unresolved in this queue. |
| Move Alert To Different Queue | Select the name of the queue where unresolved alerts should be moved, typically a higher priority queue. |
| Raise Action | Select the action to be raised, if applicable. |
| Re-Alert After (in hours) | Enter the number of elapsed hours before a re-alert is generated. |

Viewing an Alert Queue's User List

About this task

You can view the users that are subscribed to an alert queue and modify their subscription details. For more information about users, see “Defining Users” on page 149.

To view and modify users subscribed to a queue:

Procedure

1. In the Queue Details window, choose the User List tab. The User Detail list displays.
2. Select the applicable user and choose the **Details** icon. The User Detail window displays. For more information about how to modify a user, see “Creating a User” on page 149.
3. To remove a user from the queue choose the **Delete** icon.

Modifying an Alert Queue

About this task

Once an alert queue has been defined, it can be modified.

To modify an alert queue:

Procedure

1. From the tree in the application rules side panel, choose Queue Management. The Queue Search window displays in the work area.
2. Enter applicable search criteria and choose the **Search** icon. The Queue list displays.
3. Select the applicable queue and choose the **Details** icon. The Queue Details window displays.
4. Refer to the topics under “Creating an Alert Queue” on page 245 for assistance.

Deleting an Alert Queue

About this task

To delete an alert queue:

Procedure

1. From the tree in the application rules side panel, choose Queue Management. The Queue Search window displays in the work area.
2. Enter applicable search criteria and choose the **Search** icon. The Queue list displays.
3. Select the applicable queue and choose the **Delete** icon.

Chapter 13. Configuring Region Definitions

Region definitions allows you to configure the components that are used by the Sterling Selling and Fulfillment Foundation geography engines. The individual components consisting of regions and region levels can be used to create region schemas that can then be used throughout Sterling Selling and Fulfillment Foundation business application models whenever geography is considered (for example, when determining the regions a delivery service delivers to).

Defining Region Levels

A region level classifies regions into distinct categories. You can define region levels such as Country or Region, State, County, City, and so on, based on the levels at which you want to aggregate your regions, and define the address field a region level corresponds to. Region levels also allow users to create a region hierarchy.

Creating a Region Level

About this task

To create a region level:

Procedure

1. From the tree in the application rules side panel, choose Region Definition > Region Levels. The Region Levels window displays in the work area.
2. Choose the **Create New** icon. The Region Level Details window displays.
3. Enter information in the applicable fields. Refer to the following table for field value descriptions.
4. Choose the **Save** icon.

Table 94. Region Level Details Window

| Field | Description |
|---|--|
| Region Level Name | Enter the name of the region level. |
| Description | Enter a brief description of the region level. |
| This Region Level Corresponds To | Select the corresponding address field for this region level from the drop-down list. For more information about region matching, see "Defining Region Match Preferences" on page 250. |
| This Region Level Can Be Defined By A Set Of Postal Codes | Select This Region Level Can Be Defined By A Set Of Postal Codes if you want to indicate that regions associated with this region level can define a postal code range. This is used to default the Postal Codes Define This Region field when defining a region for this region level only. |
| Valid Child Region Levels | If this region has any child region levels that have already been defined, select the applicable region levels from the Available table and choose the right-arrow button. |

Note: We recommend creating region levels from the lowest region level to the highest. For example, you create a region level called Town. Then you create a

region level called County. Since Town was created earlier you can move it under County at the same time you are creating the County region level.

Note: If you had created County first, you would have had to close it, then create Town, then close Town and reopen County to add Town beneath it.

Modifying a Region Level

About this task

To modify a region level:

Procedure

1. From the tree in the application rules side panel, choose Region Definition > Region Levels. The Region Levels window displays in the work area.
2. Select the applicable region level and choose the **Details** icon. The Region Level Details window displays.
3. Enter information in the applicable fields. Refer to Table 94 on page 249 for field value descriptions.
4. Choose the **Save** icon.

Deleting a Region Level

About this task

To delete a region level:

Procedure

1. From the tree in the application rules side panel, choose Region Definition > Region Levels. The Region Levels window displays in the work area.
2. Select the applicable region level and choose the **Delete** icon.

Defining Region Match Preferences

Region match preferences allow you to specify the level at which addresses should be matched to regions, for each country or region. For more information about region matching, see the *Sterling Selling and Fulfillment Foundation: Product Concepts Guide*.

Setting a Region Match Preference

About this task

To set a region match preference:

Procedure

1. From the tree in the application rules side panel, choose Region Definition > Region Match Preferences.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Manage Supply Chain Network Model to expand the branch.
 - b. Click the Advanced Configurations link.
 - c. Select Region Match Preferences.

3. The Region Match Preferences window displays in the work area. Enter information in the applicable fields. Refer to the following table for field value descriptions.
4. Choose the **Save** icon.

Table 95. Region Match Preferences

| Field | Description |
|-----------------|---|
| Country/Region | Select the country or region code from the drop-down list. |
| Find Regions By | Select the address field to match regions to for the specified country or region. |

Deleting a Region Match Preference

About this task

To delete a region match preference

Procedure

1. From the tree in the application rules side panel, choose Region Definition > Region Match Preferences.
2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Manage Supply Chain Network Model to expand the branch.
 - b. Click the Advanced Configurations link.
 - c. Select Region Match Preferences.
3. The Region Match Preferences window displays in the work area. Select the applicable region match preference and choose the **Delete** icon.

Defining Region Schemas

A region schema is the complete hierarchical set of regions that define a given geography. A region is configured as a specific territory. For example, you can create a region for a complete state, city, or town.

You can create a region hierarchy by defining certain regions as a parent region of a smaller region.

Creating a Region Schema

About this task

To create a region schema:

Note: Region schemas should be created from the top down. For example, if your region schema consists of country, state, and city regions, you need to create the country region first, then states, followed by cities.

Procedure

1. From the tree in the application rules side panel, choose Region Definition > Region Schemas. The Region Schemas window displays in the work area.
2. Choose the **Create New** icon. The Region Schema Details window displays.
3. Enter information in the applicable fields. Refer to the following table for field value descriptions.

4. Choose the **Save** icon.

Table 96. Region Schema Details Window

| Field | Description |
|--------------------|--|
| Region Schema Name | Enter the name of the region schema. |
| Country/Region | Select the country or region in which the region schema is located (can be the whole country or region, a territory in the country or region, and so forth). This field is optional and is only used for defaulting a country or region when entering postal code ranges when defining an individual region. |
| Description | Enter a brief description of the region schema. |
| Regions | A graphical representation of the region hierarchy. |

Creating a Region

About this task

To create a region:

Procedure

1. In the Region Schema Details window, highlight a region in the region hierarchy under which you want to add a new region and choose the **Create New** icon. The Region Details window displays.
2. Enter information in the applicable fields. Refer to the following table for field value descriptions.
3. Choose the **Save** icon.

Table 97. Region Details Window

| Field | Description |
|---------------------------------|--|
| Level | Select the region's level. For more information about region levels, see "Defining Region Levels" on page 249. |
| Region Name | Enter the name of the region. If a region level has been selected that maps to the Country/Region field, this field provides a drop-down of available country or region codes to select from. |
| Postal Codes Define This Region | Check this box if you want to define this region by one or more postal codes. Checking this box enables the Postal Code Ranges table. If the region level you have selected for this region does not have the "This Region Level Can Be Defined By A Set Of Postal Codes" option checked, then this checkbox is disabled. For more information of defining region levels, see "Defining Region Levels" on page 249. |
| Postal Code Ranges | If you selected Postal Codes Define This Region, enter the postal code range of the region you are configuring and select the country or region in which the postal codes are defined for. |

Modifying a Region

About this task

To modify a region:

Procedure

1. In the Region Schema Details window, select the applicable region from the region hierarchy and choose the **Details** icon. The Region Details window displays.
2. Enter information in the applicable fields. Refer to Table 97 on page 252 for field value descriptions.
3. Choose the **Save** icon.

Deleting a Region

About this task

To delete a region, select the applicable region in the Region Details window and choose the **Delete** icon.

Note: All child regions are also deleted.

Modifying a Region Schema

About this task

To modify a region schema:

Procedure

1. From the tree in the application rules side panel, choose Region Definition > Region Schemas. The Region Schemas window displays in the work area.
2. Select the applicable region schema and choose the **Details** icon. The Region Schema Details window displays.
3. Enter information in the applicable fields. Refer to Table 96 on page 252 for field value descriptions.
4. Choose the **Save** icon.

Deleting a Region Schema

About this task

To delete a region schema:

Procedure

1. From the tree in the application rules side panel, choose Region Definition > Region Schemas. The Region Schemas window displays in the work area.
2. Select the applicable region schema and choose the **Delete** icon.

Chapter 14. Configuring Devices

A warehouse consists of a number of hand-held and stationary devices. These devices have their unique definitions and sometimes are associated specifically to stations or equipment. Examples of devices include printer, RF scanner and weighing scale.

Each individual group of devices is represented as a device type and subtype combination. A device and its unique communication requirements are represented when each device is configured.

Defining a Device Type

All devices are associated with a Device Type in Sterling Selling and Fulfillment Foundation. An individual unit is defined as a sub type for a device type.

For example, device types include RF scanners, printers, and weighing scale.

Creating a Device Type

About this task

To create a device type:

Procedure

1. From the tree in the application rules side panel, choose Device. The Device Setup window displays.
2. In the Device Setup window, choose the **Create New** icon. The Device Type pop-up window displays.
3. Enter information in the applicable fields. Refer to the following table for field value descriptions.
4. Choose the **Save** icon.

Table 98. Device Type Pop-up Window

| Field | Description |
|-------------|---|
| Device Type | Enter a name for the device type. For example, device type may be weighing scale or printer. |
| Description | Enter a brief description for the device type. |

Modifying a Device Type

About this task

Once a Device Type has been created, it can be modified.

To modify a device type:

Procedure

1. From the tree in the application rules side panel, choose Device.
2. The Device Setup window displays with the list of Device Types.

3. Select the Device Type to be modified. Choose the **Details** icon.
4. The Device Type pop-up window displays.
5. Enter information in the applicable fields. Refer Table 98 on page 255 for field value descriptions.
6. Choose the **Save** icon.

Deleting a Device Type

About this task

To delete a device type:

Procedure

1. From the tree in the application rules side panel, choose Devices.
2. The Device Setup window displays with the list of Device Types.
3. Select the Device Type to be deleted. Choose the **Delete** icon.

Defining a Device Sub Type

A Device Sub Type categorizes a device type.

For example, a device type of Printers is further categorized or sub-typed into HP LaserJet 5P, Eltron, Unimark, and Zebra 170. Each individual subtype allows for device configuration and its respective parameters.

Other examples include sub types of hand-held scanner models and equipment mounted models used under a device type of RF Scanners.

Creating a Device Sub Type

About this task

To create a device sub type:

Procedure

1. From the tree in the application rules side panel, choose Device. The Device Setup window displays.
2. In the Device Setup window, select Device Type whose Device Sub Type is to be created.
3. Choose the **Create New** icon. The Device Sub Type pop-up window displays.
4. Enter information in the applicable fields. Refer to the following table for field value descriptions.
5. Choose the **Save** icon.

Table 99. Device Sub Type Pop-up Window

| Field | Description |
|-----------------|---|
| Device Type | Device Type indicates the device type for which the device sub type is being created. This is populated by the system, based on the selection of device type in the Device Setup window. |
| Device Sub Type | Enter a name for the device sub type. |
| Description | Enter a brief description for the device sub type. |

Table 99. Device Sub Type Pop-up Window (continued)

| Field | Description |
|--|---|
| Printer Type Document Association | |
| This panel is available when the value of the Device Type is set to "Printer." | |
| Printer Type Document Association | Select which print documents you would like to associate with the selected printer. |

Note: If you are configuring a new Device Sub Type for printing the FedEx Carrier Label, ensure that you map the value of the new Device Sub Type in the YCS Mapping table. For more information about the YCS Mapping table, see the *Parcel Carrier: Adapter Guide*.

Modifying a Device Sub Type

About this task

Once a Device Sub Type has been created, it can be modified.

To modify a device sub type:

Procedure

1. From the tree in the application rules side panel, choose Device. The Device Setup window displays.
2. In the Device Setup window, select the Device Type whose Device Sub Type is to be modified. The list of Device Sub Type is now displayed.
3. Select the Device Sub Type to be modified. Choose the **Details** icon.
4. The Device Sub Type pop-up window displays.
5. Enter information in the applicable fields. Refer Table 99 on page 256 for field value descriptions.
6. Choose the **Save** icon.

Deleting a Device Sub Type

About this task

To delete a device sub type:

Procedure

1. From the tree in the application rules side panel, choose Device. The Device Setup window displays.
2. In the Device Setup window, select the Device Type whose Device Sub Type is to be deleted. The list of Device Sub Type is now displayed.
3. Select the Device Sub Type to be deleted.
4. Choose the **Delete** icon.

Defining a Device

A device represents an actual device existing on the network, or directly connected to a station or equipment. All instances of a device type and subtype combination require to be defined as devices.

For example, a warehouse that has five HP LaserJet 5P printers and four Zebra R140 printers has all the nine printers configured as devices.

Creating a Device Overview

Sterling Selling and Fulfillment Foundation supplies a list of standard device type, sub type and individual devices that is supported. The definition of a new device type, sub type and resultant device requires the creation of the appropriate attributes that define the communication with the device.

The list of attributes that control communication to a printer are:

- DropDirectory - The directory where the print files are 'dropped' by the Sterling Selling and Fulfillment Foundation Server. The Loftware Print Server keeps polling this directory to pick up print requests.

When mentioning the directory structure you can use the full path name or replace the path name with a variable. For more information about including this variable, see the *Sterling Selling and Fulfillment Foundation: Extending the Condition Builder*.

Note: The DropDirectory attribute appears in the Applications Manager only if the `yfs.ftware.tcpip.sockets` property is set to N in the `<INSTALL_DIR>/properties/customer_overrides.properties` file.

Note: For information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

- PrinterAlias - The printer alias as configured in the Loftware printer setup.

Note: While setting up a Printer device in Sterling Selling and Fulfillment Foundation, ensure that the Printer Alias is exactly the same as specified in the Loftware printer setup.

Note: In instances where a network printer is used, ensure that the Printer Alias on Sterling Selling and Fulfillment Foundation does NOT contain the prefix "\\\". However, Loftware may require the printer to be defined by prefixing "\\\".

- PrinterServerHostName - The host name for the Loftware Print Server. While IP Address may be sufficient, the use of host name is recommended for ease of maintenance.
- PrintServerPort - The port on which Loftware Print Server listens for print requests. By default, the print server port for Loftware Print Server is 2723.

Note: The PrinterServerHostName and PrintServerPort attributes appear in the Applications Manager only if the `yfs.ftware.tcpip.sockets` property is set to Y in the `<INSTALL_DIR>/properties/customer_overrides.properties` file.

Note: For information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

The list of attributes that control communication to a weighing scale are:

- ClassName
- PortId
- BaudRate
- DataBits

- StopBits
- Parity
- FlowIn
- FlowOut

Note: The ClassName for the Mettler Toledo Weighing Scale is com.yantra.ycp.ui.io.YCPToledoPSImpl. For specifications pertaining to the other attributes, see the weighing scale user manual.

Creating a Device

About this task

To create a device:

Procedure

1. From the tree in the application rules side panel, choose Device. The Device Setup window displays.
2. In the Device Setup window, select the relevant Device Type and Device Sub Type whose Device is to be created.
3. Choose the **Create New** icon. The Device pop-up window displays.
4. Enter information in the applicable fields. Refer Table 99 on page 256 for field value descriptions.
5. Choose the **Save** icon.

Table 100. Device Pop-up Window

| Field | Description |
|-------------------|--|
| Device Type | Device Type indicates the device type for which the device is being created. This is populated by the system, based on the selection of device type in the Device Setup window. |
| Device Sub Type | Device Sub Type indicates the device sub type for which the device is being created. This is populated by the system, based on the selection of device sub type in the Device Setup window. |
| Device ID | Enter the name for the device. This identifies the device throughout the system. |
| Device Attributes | This indicates the additional attributes of the device. For more information about setting up a device attribute, refer to "Setting Up a Device Attribute". |

Setting Up a Device Attribute

About this task

Device attributes define the method of communication with the appropriate device. An HP LaserJet printer has a different parameter list in comparison to a weighing scale. Each individual brand of printer also has its own unique set of parameters and values.

For example, a weighing scale connected through a serial port has specific device attributes including stop bits, parity.

To set up a device attribute:

Procedure

1. In Device Attributes panel of the Device pop-up window, choose the **Create New** icon.
2. The Criteria Parameter Details pop-up window displays.
3. Enter information in the applicable fields. Refer Table 101 for field value descriptions.
4. Choose the **Save** icon.

Table 101. Criteria Parameter Details Pop-up Window

| Field | Description |
|-----------------|---|
| Parameter Name | Enter the parameter name for the device attribute. |
| Parameter Value | Enter the parameter value for the device attribute. |

Overview of Creating a New Device from a Device

Sterling Selling and Fulfillment Foundation supplies a list of standard device type, sub type and individual devices that is supported. The definition of a new device type, sub type and resultant device requires the creation of the appropriate attributes that define the communication with the device.

The list of attributes that control communication to a printer are:

- DropDirectory - The directory where the print files are 'dropped' by the Sterling Selling and Fulfillment Foundation Server. The Software Print Server keeps polling this directory to pick up print requests.

When mentioning the directory structure you can use the full path name or replace the path name with a variable. For more information about including this variable, see the *Sterling Selling and Fulfillment Foundation: Extending the Condition Builder* .

Note: The DropDirectory attribute appears in the Applications Manager only if the `yfs.software.tcpip.sockets` property is set to N in the `<INSTALL_DIR>/properties/customer_overrides.properties` file.

Note: For information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

- PrinterAlias - The printer alias as configured in the Software printer setup.

Note: While setting up a Printer device in Sterling Selling and Fulfillment Foundation, ensure that the Printer Alias is exactly the same as specified in the Software printer setup.

Note: In instances where a network printer is used, ensure that the Printer Alias on Sterling Selling and Fulfillment Foundation does NOT contain the prefix "\\\". However, Software may require the printer to be defined by prefixing "\\\".

- PrinterServerHostName - The host name for the Software Print Server. While IP Address may be sufficient, the use of host name is recommended for ease of maintenance.

- `PrintServerPort` - The port on which Software Print Server listens for print requests. By default, the print server port for Software Print Server is 2723.

Note: The `PrinterServerHostName` and `PrintServerPort` attributes appear in the Applications Manager only if the `yfs.loftware.tcpip.sockets` property is set to `Y` in the `<INSTALL_DIR>/properties/customer_overrides.properties` file.

Note: For information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

The list of attributes that control communication to a weighing scale are:

- `ClassName`
- `PortId`
- `BaudRate`
- `DataBits`
- `StopBits`
- `Parity`
- `FlowIn`
- `FlowOut`

For more information about creation of the appropriate attributes, see “Setting Up a Device Attribute” on page 259.

Note: The `ClassName` for the Mettler Toledo Weighing Scale is `com.yantra.ycp.ui.io.YCPToledoPSImpl`. For specifications pertaining to the other attributes, see the weighing scale user manual.

Creating a New Device from a Device

About this task

To create a new device from a device:

Procedure

1. From the tree in the application rules side panel, choose `Device`. The `Device Setup` window displays.
2. In the `Device Setup` window, select the relevant `Device Type` and `Device Sub Type` whose `Device` is to be copied.
3. The list of `Devices` displays. Select the `Device` to be copied to create a new device.
4. Choose the **Save As** icon. The `Device pop-up` window displays.
5. Enter information in the applicable fields. Refer to Table 99 on page 256 for field value descriptions.
6. Choose the **Save** icon.

Modifying a Device

About this task

Once a `Device` has been created, it can be modified.

To modify a device:

Procedure

1. From the tree in the application rules side panel, choose Device. The Device Setup window displays.
2. In the Device Setup window, select the relevant Device Type and Device Sub Type whose Device is to be modified.
3. The list of Devices displays. Select the Device to be modified.
4. Choose the **Details** icon. The Device pop-up window displays.
5. Enter information in the applicable fields. Refer to Table 99 on page 256 for field value descriptions.
6. Choose the **Save** icon.

Deleting a Device

About this task

To delete a device:

Procedure

1. From the tree in the application rules side panel, choose Device. The Device Setup window displays.
2. In the Device Setup window, select the relevant Device Type and Device Sub Type whose Device is to be deleted.
3. The list of Devices displays. Select the Device to be deleted.
4. Choose the **Delete** icon.

Chapter 15. Configuring Prints

The operation of a warehouse requires numerous documents, be it labels or reports, to be printed daily. The printing of the documents is either initiated by the occurrence of specific events or is requested ad-hoc by a user.

For example, carrier labels being printed at a manifest station after carton is scanned or a truck manifest (MBOL) being requested when a trailer loading is complete and truck is ready to close.

Documents are printed either individually or in a set or group. A document set consists of multiple documents that are related to individual activity that is performed.

Examples of documents printed in a warehouse include packing lists, BOL, carrier labels, SKU labels, and UCC128 SCM labels.

Sterling Selling and Fulfillment Foundation provides standard documents that include:

- Batch Sheet for picking
- Packing Slip
- VICS Bill Of Lading (BOL)
- UCC-128 compliant 4x6 Shipping Labels including WALMART® compliance
- UPS Standard carrier labels

Sterling Selling and Fulfillment Foundation provides standard documents that include:

A specific document has a label format and device sub type associated to it.

The association of a print document to the device sub type (for example, packing slips on HP LaserJet printers) is done through setting up a device sub type. For more information about setting up a device sub type, see “Defining a Device Sub Type” on page 256.

The association of a document to a label format and name is done here.

Defining Print Documents

A document is assigned a name and a corresponding label format here. Sterling Selling and Fulfillment Foundation provides a standard list of documents for the prints supported.

For example, VICS BOL is associated with the VICS BOL label format.

Print documents and label formats created are at the HUB level.

Creating a Print Document About this task

To create a print document:

Procedure

1. From the tree in the application rules side panel, choose Prints > Print Documents. The Print Documents window displays with Sterling Selling and Fulfillment Foundation default print documents.
2. Enter information in the applicable fields. Refer to the following table for field value descriptions.
3. Choose the **Save** icon.

Table 102. Print Documents Window

| Field | Description |
|----------------------|---|
| Print Document | Enter name of the document to be printed. |
| Document Description | Enter a brief description of the print document. |
| Save Directory | Enter the directory path where the print document is saved. This is used for documents that are pregenerated but printed on demand at a later time. Typical example is a packing list that is pregenerated, but printed when last carton is scanned. If you are using variables instead of the full path names ensure that the variable is set in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| Default Label Format | Choose the default label format for printing. This indicates the default label format for this document across all organizations. Label format is the name of the label design file (.LWL) created using Software Label Manager™. |

Modifying a Print Document

About this task

Once a Print Document has been created, it can be modified.

To modify a print document:

Procedure

1. From the tree in the application rules side panel, choose Prints > Print Documents. The Print Documents window displays with a list of print documents.
2. Enter information in the applicable fields. Refer Table 102 for field value descriptions.
3. Choose the **Save** icon.

Do not modify the standard print documents provided by the Sterling Selling and Fulfillment Foundation.

Deleting a Print Document

About this task

To delete a print document:

Procedure

1. From the tree in the application rules side panel, choose **Prints > Print Documents**. The Print Documents window displays with a list of print documents.
2. Choose the Print Document to be deleted.
3. Choose the **Delete** icon.
4. Do not delete the standard print documents provided by the Sterling Selling and Fulfillment Foundation.

Defining Label Formats

Label formats corresponding to the documents are defined here. This allows association of a label format to the Loftware™ label format and the mapping XML file.

The Loftware™ label format associated here is created using Loftware™ tools. The mapping XML file is created using the Sterling Selling and Fulfillment Foundation-supplied toolkit. The field binding between the fields in the label and the field in the standard XML published are specified in the mapping XML.

See the *Sterling Selling and Fulfillment Foundation: Installation Guide* for further information about installing and configuring Loftware Label Manager™.

Sterling Selling and Fulfillment Foundation provides standard label formats and mapping files for all standard documents supported. A print is executed through a service flow defined in the Service Definition Framework (SDF). Sterling Selling and Fulfillment Foundation provides data flow for the standard documents provided.

Creating a Label Format

About this task

To create a label format:

Procedure

1. From the tree in the application rules side panel, choose **Prints > Label Formats**. The Label Formats window displays with the Sterling Selling and Fulfillment Foundation default label formats.
2. In the Label Formats window, choose the **Create New** icon. The Label Details pop-up window displays.
3. Enter information in the applicable fields. Refer to the following table for field value descriptions.
4. Choose the **Save** icon.

Table 103. Label Details Pop-up Window

| Field | Description |
|-------------------|---|
| Label Format Name | Enter the name of the label format for this label. Label format is the name of the .lwl (Label Design) file created using Loftware Label Manager™. |

Table 103. Label Details Pop-up Window (continued)

| Field | Description |
|------------------------|--|
| Label Format File Name | <p>Enter the name of the Loftware™ designed '.LWL' file for this label.</p> <p>For custom labels, enter the file name as extn/ followed by '.lwl' file.</p> |
| Mapping XML File Name | <p>Enter the file name for the mapping XML for this label.</p> <p>Mapping XML contains the binding or association between the events published XML and the field names used in the label definition.</p> <p>For custom labels, enter the file name as extn/ followed by '.lwl' file.</p> |

Modifying a Label Format

About this task

Once a Label Format has been created, it can be modified.

To modify a label format:

Procedure

1. From the tree in the application rules side panel, choose Prints > Label Formats. The Label Formats window displays with a list of label formats.
2. Select the Label Format you want to modify and choose the **Details** icon.
3. Enter information in the applicable fields. Refer Table 103 on page 265 for field value descriptions.
4. Choose the **Save** icon.
Do not to modify the standard label formats provided by the Sterling Selling and Fulfillment Foundation.

Deleting a Label Format

About this task

To delete a label format:

Procedure

1. From the tree in the application rules side panel, choose Prints > Label Formats. The Label Formats window displays with a list of label formats.
2. Choose the Label Format to be deleted.
3. Choose the **Delete** icon.
Do not to delete the standard label formats provided by the Sterling Selling and Fulfillment Foundation.

Chapter 16. Managing Password Policies

Sterling Selling and Fulfillment Foundation provides an in-built and flexible password management policy for controlling password use and behavior. A password policy is a set of rules to define, control, and manage user passwords. A set of default rules is provided; however, you can configure your own rules for the password policy.

For detailed information about managing password policies, see the *Sterling Selling and Fulfillment Foundation: Password Policy Management* .

Chapter 17. Configuring Alerts

An alert is a message directed to a user or an alert queue about a transaction that needs manual intervention. An alert can come in different formats including e-mail, faxes, and so on.

When configuring alerts, you can create exceptions to classify them in one or more types. When creating exception types, you can assign priority and high priority number to the exception types. You can also specify whether or not the consolidation for an exception type is required. You can configure consolidation for an exception type by specifying the consolidation window and consolidation User Exit (UE) implementation. You can configure the context sensitive resolution screen for an exception type by specifying the resolution form and resolution UE implementation. In addition, you can define some additional configurations for an exception type by specifying the configuration form and list form.

You have to associate an exception type to an application such as PCA or a role such as BUYER and SELLER. You can configure one or more exception types for an organization. You can also create routing rules for an organization level exception type and use a particular routing logic for routing these exception types to a specific alert queue.

Creating an Exception Type

About this task

To create an exception type:

Procedure

1. From the tree in the application rules side panel, choose Alerts > Exception Type. The Alert Type window displays in the work area.
2. Choose the **Create New** icon. The Exception Type Details window displays.
3. Enter information in the applicable fields. Refer to the following table for field value descriptions.
4. Choose the **Save** icon.

Table 104. Exception Type Details Pop-Up Window

| Field | Description |
|----------------------------|---|
| Exception Type | Enter name for the new exception type to be created. This is a mandatory field. |
| Exception Type Description | Enter a brief description of the exception type. This is a mandatory field. |
| Priority | Enter the priority for the exception type. |
| High Priority Number | Enter the threshold number for the high priority exceptions of this type. |
| Expiration Days | Enter the number of days after which the exception type should expire. |
| Followup Hours | Enter the number of hours in which the exception type should be followed up. |

Table 104. Exception Type Details Pop-Up Window (continued)

| Field | Description |
|------------------------|--|
| Queue | Select the name of the alert queue to which the exception type is routed. For more information about creating alert queues, see Chapter 12, "Configuring Alert Queues," on page 245. |
| Owner Role | Select the role to which the organization belongs from the drop-down list. |
| Configurable | Check this box if you want to define additional configurations for the exception type. |
| Consolidation Hook | Enter the name of the class which provides the implementation for the consolidation of the exception type. |
| Resolution Hook | Enter the name of the class which provides the implementation for the resolution of the exception type. |
| Consolidation Required | Check this box if you want to consolidate the exceptions of this type. |
| Consolidation Window | Enter the information about the window that is to be used for consolidating exceptions of this type. The valid values are: HOUR, DAY, and FOREVER. |
| Configuration Form | Enter the information about the form that is to be used to capture the additional configuration for the exception type. |
| Resolution Form | Enter the information about the form to be launched to resolve this type of exception. |
| List Form | Enter the information about the form to list the exceptions for the exception type. |

Modifying an Exception Type

About this task

Once an exception type has been created, it can be modified.

To modify an exception type:

Procedure

1. From the tree in the application rules side panel, choose Alert > Exception Type.
2. The Alert Type window displays with the list of Alert Types.
3. Select the Alert Type to be modified. Choose the **Details** icon.
4. Enter information in the applicable fields. Refer Table 104 on page 269 for field value descriptions.
5. Choose the **Save** icon.

Deleting an Exception Type

About this task

To delete an exception type:

Procedure

1. From the tree in the application rules side panel, choose Alert > Exception Type.
2. The Alert Type window displays with the list of Alert Types.
3. Select the Alert Type to be deleted. Choose the **Delete** icon.

Defining Exception Type Role

You can specify a list of exception types for an application, such as PCA, and a role, such as BUYER or SELLER, that the application supports.

Creating an Exception Type Role

About this task

To create an exception type role:

Procedure

1. From the tree in the application rules side panel, choose Alerts > Exception Type Role. The Exception Type Role window displays in the work area.
2. Choose the **Create New** icon. The Exception Type Role Details window displays.
3. Enter information in the applicable fields. Refer to the following table for field value descriptions.
4. Choose the **Save** icon.

Table 105. Exception Type Role Details Pop-Up Window

| Field | Description |
|------------------|--|
| Application Code | Select the code of the application. This is a mandatory field. |
| Role | Select the role. For example: BUYER, NODE, and so forth. |
| Exception Type | Select the exception type that you want to associate with an application and role. |

Modifying an Exception Type Role

About this task

Once an exception type role has been created, it can be modified.

To modify an exception type role:

Procedure

1. From the tree in the application rules side panel, choose Alert > Exception Type Role.
2. The Exception Type Role window displays with the list of Exception Type roles.
3. Select the Exception Type role to be modified. Choose the **Details** icon.
4. Enter information in the applicable fields. Refer Table 105 for field value descriptions.
5. Choose the **Save** icon.

Deleting an Exception Type Role

About this task

To delete an exception type role:

Procedure

1. From the tree in the application rules side panel, choose Alert > Exception Type Role.
2. The Exception Type Role window displays with the list of Exception Type roles.
3. Select the Exception Type role to be deleted. Choose the **Delete** icon.

Defining Organization Exception Type Configuration

Organization Exception Type Configuration allows you to activate or override additional parameters for an exception type at an organization level. These attributes are used by the alert routing service builder component. You can also create multiple routing rules for an organization level exception type. The routing rules indicate the type of routing. When creating a routing rule, you can specify the routing logic that you want to use for routing the organization level exception types to a particular queue.

Creating an Exception Type for an Organization

About this task

To create an exception type for an organization:

Procedure

1. From the tree in the application rules side panel, choose Alerts > Organization Exception Type Configuration. The Exception Type for Organization window displays in the work area.
2. Choose the **Create New** icon. The Exception Type for Organization Details window displays.
3. Enter information in the applicable fields. Refer to the following table for field value descriptions.
4. Choose the **Save** icon.

Table 106. Exception Type for Organization Details Pop-Up Window

| Field | Description |
|----------------|--|
| Exception Type | Select the exception type that you want to associate with an organization. |
| Priority | Enter the priority for exceptions of this type. |
| Active | Check this box if you want to activate exception of this type for an organization. |

Modifying an Exception Type for an Organization

About this task

Once an exception type for an organization has been created, it can be modified.

To modify exception type for an organization:

Procedure

1. From the tree in the application rules side panel, choose Alert > Organization Exception Type Configuration.
2. The Organization Exception Type Configuration window displays with the list of Exception Type configured for an organization.
3. Select the Exception Type to be modified. Choose the **Details** icon.
4. Enter information in the applicable fields. Refer Table 106 on page 272 for field value descriptions.
5. Choose the **Save** icon.

Creating an Exception Routing Rule

About this task

To create an exception routing rule for an organization level exception type:

Procedure

1. From the tree in the application rules side panel, choose Alert > Organization Exception Type Configuration. The Organization Exception Type for Organization window displays in the work area.
2. Select the applicable exception type and choose the **Details** icon. The Exception Type for Organization Details window displays.
3. Choose the **Create New** icon. The Exception Routing Rule Details window displays.
4. Enter information in the applicable fields. Refer to the following table for field value descriptions.
5. Choose the **Save** icon.

Table 107. Exception Routing Rule Details Pop-Up Window

| Field | Description |
|----------------------------|--|
| Exception Routing Sequence | Enter the exception routing sequence number. |
| Routing Type | Select the appropriate type of routing rule. The valid value are: <ul style="list-style-type: none">• Use Department's Queue—Select this routing rule if you want to create the exception in the default queue of the department.• Use Specified Queue—Select this routing rule if you want to create the exception in the specified queue.• Use Interface to obtain Queue—Select this routing rule if you want to configure a java class for determining the queue in which the exception should be created.• Route to Role—If you select this type of routing rule, the SDF component picks up the seller or buyer organizations. If routing configuration exists for the organization the same rules are applied.• Route to Custom Role—If you select this type of routing rule, the SDF component picks up the custom organization. If routing configuration exists for the organization the same rules are applied.• Route to Exception Types Queue—If you select this routing rule, an exception is created in the default queue configured for the exception type. |

Table 107. Exception Routing Rule Details Pop-Up Window (continued)

| Field | Description |
|----------------|---|
| Queue | Select the name of the alert queue to which the exceptions of this type are routed. For more information about creating alert queues, see Chapter 12, "Configuring Alert Queues," on page 245. |
| Java Class | If you have specified the routing type as "Use Interface to Obtain Queue", specify the java class which implements the interface. |
| Routing Role | Select the routing role. For example, BUYER, SELLER, and so forth. |
| Custom Role | Enter the custom role. |
| Email Required | Check this box if you want to specify the e-mail id for this exception routing rule. |
| Email Template | Enter the template for the e-mails. |
| Email Id | Enter the e-mail id for one of the following routing rules: <ul style="list-style-type: none"> • Use Departments Queue • Use Specified Queue • Use Interface to Obtain Queue |

Modifying an Exception Routing Rule

About this task

To modify an exception routing rule:

Procedure

1. From the tree in the application rules side panel, choose Alert > Organization Exception Type Configuration. The Organization Exception Type for Organization window displays in the work area.
2. Select the applicable exception type and choose the **Details** icon. The Exception Type for Organization Details window displays.
3. Select the applicable exception routing rule and choose the **Details** icon. The Exception Routing Rule Details window displays.
4. Enter information in the applicable fields. Refer Table 107 on page 273 for field value descriptions.
5. Choose the **Save** icon.

Deleting an Exception Routing Rule

About this task

To delete an exception routing rule:

Procedure

1. From the tree in the application rules side panel, choose Alert > Organization Exception Type Configuration. The Organization Exception Type for Organization window displays in the work area.
2. Select the applicable exception type and choose the **Details** icon. The Exception Type for Organization Details window displays.
3. Select the applicable exception routing rule and choose the **Delete** icon.

Deleting an Exception Type for an Organization

About this task

To delete an exception type for an organization:

Procedure

1. From the tree in the application rules side panel, choose Alert > Organization Exception Type Configuration.
2. The Organization Exception Type Configuration window displays with the list of Exception Type configured for an organization.
3. Select the exception type to be deleted. Choose the **Delete** icon.

Chapter 18. Configuring Data Version Labels

Configuration data is an integral part of all implementations. Often, there is a need to track changes to an implementation's configuration. Furthermore, if the changes in configuration data are found to be inadequate, there is no easy way of rolling back changes to their original states.

In an offsite and onsite implementation model, master configuration data is maintained onsite, which is where the production environment is hosted. When a patch must be applied to the production environment, offsite test developers must write instructions regarding any configuration data changes for the patch and pass it to the onsite configuration manager; that is, certain values of business rules need to be changed. The onsite configuration manager has to replicate the configuration changes onto the production environment.

To make it easier to track versions of configuration data, or sets of changes to configuration data, Sterling Selling and Fulfillment Foundation includes the Configuration Data Versioning Tool, which is part of the Configuration Deployment Tool (CDT). It enables you to capture changes from a source database, compare and deploy them onto a target database (this can be the same or a different database).

The config table must have AuditRequired set to Y and the table name must exist in config_db.xml

Note: To enable this functionality the configuration table must have AuditRequired flag set to Y. By default, most of the configuration tables have AuditRequired flag set to Y.

You can create version labels in the Applications Manager to represent timestamps in a time line when changes occur in configuration data. The system can then identify any changes in the configuration data between timestamps of version labels based on the audit information in the system.

The Configuration Versioning Tool allows you to select different version labels from a source database and compare the data and apply them to a target database. You can see the details of each difference and detect conflicts. Once all conflicts are resolved, you can deploy the changes. For more information about this tool, see the *Sterling Selling and Fulfillment Foundation: Configuration Deployment Tool Guide*.

Creating Configuration Data Version Labels

About this task

Before you can use the comparison tools, you must create version labels for the databases using the Applications Manager.

To create Configuration Version Labels:

Procedure

1. In the Applications Manager, perform the following steps:
 - a. Select Application Platform.

b. Select **Configuration Version Labels**.

The Configuration Version Labels screen is displayed on the right-hand panel. You can filter existing version labels based on Version Label ID and version label timestamps, and manage version labels based on the filter results.

2. In the Channel Applications Manager, perform the following steps:
 - a. Click the **Expand** icon adjacent to Configure Initial System Setup to expand the branch.
 - b. Select **Configure Data Version Labels**.

The Configuration Version Labels screen is displayed on the right-hand panel. You can filter existing version labels based on Version Label ID and version label timestamps, and manage version labels based on the filter results.
3. To create or modify a new label, click the **Create New** icon and enter a version label ID and description of the label.
4. Click the **Save** icon.

Table 108. Label Details Pop-up Window

| Field | Description |
|------------------|---|
| Version Label ID | Enter the name of the identifier for this label. |
| Description | Enter a description for this label. |
| Time | The current timestamp displays by default for this label. |

Modifying Configuration Data Version Labels

About this task

Once a Configuration Version Label has been created, it can be modified.

To modify a configuration version label:

Procedure

1. In the Applications Manager, select Application Platform.
2. Select **Configuration Version Labels**.

The Configuration Version Labels screen is displayed on the right-hand panel.
3. Select the Version Label ID you want to modify and choose the **Details** icon.
4. Enter information in the applicable fields. Refer “Creating Configuration Data Version Labels” on page 277 for field value descriptions.
5. Choose the **Save** icon.

Deleting Configuration Data Version Labels

About this task

To delete configuration version label:

Procedure

1. In the Applications Manager, select Application Platform.
2. Select **Configuration Version Labels**.

The Configuration Version Labels screen is displayed on the right-hand panel.
3. Select the Version Label ID you want to delete.
4. Choose the **Delete** icon.

Chapter 19. Configuring Qualified Tag Information

Qualified Tag Information branch is used to define Qualified Tag and Qualified Tag Types pertaining to rules and common codes.

QUALIFIED TAG

You can configure Qualified Tag to associate a rule or a common code to a particular Sterling Selling and Fulfillment Foundation version. You can define different rules and common codes based on the Qualified Tag. You can then associate a Qualified Tag to a particular Sterling Selling and Fulfillment Foundation.

QUALIFIED TAG TYPE

Qualified Tag Type is used to configure the class that will validate the Qualified Tags against a particular Sterling Selling and Fulfillment Foundation version. You can associate a particular Qualified Tag Type with one or more Qualified Tags.

Note: If you configure two Qualifier Tags, Q1 and Q2, with Q1 being valid for Sterling Selling and Fulfillment Foundation versions V1 and V2, and Q2 being valid for Sterling Selling and Fulfillment Foundation versions V2 and V3, and you call the `getRuleDetails` API and pass V2 as the Sterling Selling and Fulfillment Foundation version, the system randomly returns one of the rule values.

Creating a Qualified Tag Type

About this task

To create a Qualified Tag type:

Procedure

1. From the tree in the application rules side panel, choose Qualified Tag Information > Qualified Tag Type. The Qualified Tag Type window displays in the work area.
2. Choose the **Create New** icon. The Qualified Tag Type Details window displays.
3. Enter information in the applicable fields. Refer to the following table for field value descriptions.
4. Choose the **Save** icon.

Table 109. Qualified Tag Type Details Pop-Up Window

| Field | Description |
|--------------------------------|--|
| Qualified Tag Type | Enter name for the new Qualified Tag Type to be created. This is a mandatory field. |
| Qualified Tag Type Description | Enter a brief description of the Qualified Tag Type. |
| Qualified Tag Validator Class | Enter the Qualified Tag class name that validates the whether or not a Qualified Tag Id is valid for a particular application code and application version. Note: If left blank, default implementation of the Qualified Tag Validator class will be used to validate the Qualified Tag. |

Modifying a Qualified Tag Type

About this task

Once a Qualified Tag Type has been created, it can be modified.

To modify an Qualified Tag Type:

Procedure

1. From the tree in the application rules side panel, choose Qualified Tag Information > Qualified Tag Type.
2. The Qualified Tag Type window displays with the list of Qualified Tag Types.
3. Select the Qualified Tag Type to be modified. Choose the **Details** icon.
4. Enter information in the applicable fields. Refer Table 109 on page 279 for field value descriptions.
5. Choose the **Save** icon.

Deleting a Qualified Tag Type

About this task

To delete an Qualified Tag Type:

Procedure

1. From the tree in the application rules side panel, choose Qualified Tag Information > Qualified Tag Type.
2. The Qualified Tag Type window displays with the list of Qualified Tag Types.
3. Select the Qualified Tag Type to be deleted. Choose the **Delete** icon.

Defining Qualified Tags

You can specify a list of Qualified Tags for rule and common code for a particular Sterling Selling and Fulfillment Foundation. You can associate one or more Qualified Tags with a particular Qualified Tag Type.

Creating a Qualified Tag

About this task

To create a Qualified Tag:

Procedure

1. From the tree in the application rules side panel, choose Qualified Tag Information > Qualified Tag. The Qualified Tag window displays in the work area.
2. Choose the **Create New** icon. The Qualified Tag Details window displays.
3. Enter information in the applicable fields. Refer to the following table for field value descriptions.
4. Choose the **Save** icon.

Table 110. Qualified Tag Details Pop-Up Window

| Field | Description |
|---------------------------|--|
| Qualified Tag ID | Enter the Qualified Tag ID. This is a mandatory field. |
| Qualified Tag Description | Enter a description about the Qualified Tag. |
| Qualified Tag Type | Select the Qualified Tag Type that you want to associate with the Qualified Tag Id. This is a mandatory field. |

Modifying a Qualified Tag

About this task

Once a Qualified Tag has been created, it can be modified.

To modify a Qualified Tag:

Procedure

1. From the tree in the application rules side panel, choose Qualified Tag Information > Qualified Tag.
2. The Qualified Tag window displays with the list of Qualified Tags.
3. Select the Qualified Tag to be modified. Choose the **Details** icon.
4. Enter information in the applicable fields. Refer Table 110 for field value descriptions.
5. Choose the **Save** icon.

Deleting a Qualified Tag

About this task

To delete a Qualified Tag:

Procedure

1. From the tree in the application rules side panel, choose Qualified Tag Information > Qualified Tag.
2. The Qualified Tag window displays with the list of Qualified Tags.
3. Select the Qualified Tag to be deleted. Choose the **Delete** icon.

Configuring Qualified Tag Version Compatibility

About this task

To configure Qualified Tag version compatibility:

Procedure

1. From the tree in the application rules side panel, choose Qualified Tag Information > Qualified Tag Version Compatibility. The Qualified Tag Version Compatibility window displays in the work area.
2. Choose the **Create New** icon. The Qualified Tag Version Compatibility Details window displays.
3. Enter information in the applicable fields. Refer to the following table for field value descriptions.
4. Choose the **Save** icon.

Table 111. Qualified Tag Version Compatibility Details Pop-Up Window

| Field | Description |
|---------------------------|---|
| Application Code | Select the Sterling Selling and Fulfillment Foundation code. This is a mandatory field. |
| Qualified Tag ID | Select the Qualified Tag ID. This is a mandatory field. |
| Minimum Version Supported | Select the minimum Sterling Selling and Fulfillment Foundation version which supports the Qualified Tag identifier. Note: This is a mandatory field, if you have not specified the Maximum Version Supported. |
| Maximum Version Supported | Select the maximum Sterling Selling and Fulfillment Foundation version which supports the Qualified Tag identifier. Note: This is a mandatory field, if you have not specified the Minimum Version Supported. |
| Support Level | Enter the level of support for the Sterling Selling and Fulfillment Foundation version which is below the supported minimum version. |

Modifying Qualified Tag Version Compatibility

About this task

Once the Qualified Tag version compatibility has been configured, it can be modified.

To modify Qualified Tag version compatibility:

Procedure

1. From the tree in the application rules side panel, choose Qualified Tag Information > Qualified Tag Version Compatibility.
2. The Qualified Tag Version Compatibility window displays with the Qualified Tag Version Compatibility list containing Application Code, Qualified Tag Id, Minimum Version Supported, Maximum Version Supported, and Support Level fields.
3. Select the Qualified Tag Version Compatibility list item to be modified. Choose the **Details** icon.
4. Enter information in the applicable fields. Refer Table 111 for field value descriptions.
5. Choose the **Save** icon.

Deleting Qualified Tag Version Compatibility

About this task

To delete a Qualified Tag version compatibility:

Procedure

1. From the tree in the application rules side panel, choose Qualified Tag Information > Qualified Tag Version Compatibility.

2. The Qualified Tag Version Compatibility window displays with the Qualified Tag Version Compatibility list containing Application Code, Qualified Tag Id, Minimum Version Supported, Maximum Version Supported, and Support Level fields.
3. Select the Qualified Tag Version Compatibility list item to be deleted. Choose the **Delete** icon.

Chapter 20. Configuring Attribute Postfix Rules

Defining common codes for attribute postfixes enables you to set up postfixes to associate with attributes. Defining postfixes ensures that each customer sees attribute data in a familiar format. For example, you can define "dollars" as the postfix for the price attribute.

Creating an Attribute Postfix Definition

About this task

To create an attribute postfix definition:

Procedure

1. From the tree in the application rules side panel, choose Attribute Postfix. The Attribute Postfix window displays in the work area.
2. Choose the **Create New** icon. The Attribute Postfix Details pop-up window displays.
3. In Attribute Postfix, enter an attribute postfix definition.
4. In Short Description, enter a brief description of the attribute postfix.
5. In Long Description, enter a more detailed description of the attribute postfix.
6. Choose the **Save** icon.

Modifying an Attribute Postfix Definition

About this task

To modify an attribute postfix definition:

Procedure

1. From the tree in the application rules side panel, choose Attribute Postfix. The Attribute Postfix window displays in the work area.
2. Select the applicable attribute postfix definition and choose the **Details** icon. The Attribute Postfix Details pop-up window displays.
3. In Short Description, enter a brief description of the attribute postfix definition.
4. In Long Description, enter a more detailed description of the attribute postfix definition.
5. Choose the **Save** icon.

Deleting an Attribute Postfix Definition

About this task

To delete an attribute postfix definition:

Procedure

1. From the tree in the application rules side panel, choose Attribute Postfix. The Attribute Postfix window displays in the work area.
2. Select the applicable attribute postfix definition and choose the **Delete** icon.

Chapter 21. Configuring Analytics

You can use Analytics to associate preexisting region schemas with Data Warehouse Analytics. This association enables reporting on the best region matching mechanism for features such as sourcing and resource pools. In analytics, the region schema determines the level of granularity that is used in Data Warehouse reports. For more information about configuring region schemas, see the Chapter 13, “Configuring Region Definitions,” on page 249.

Note: When associating a region schema with analytics, do not specify a schema that includes 9-digit zip codes. Otherwise, system performance is effected.

Defining Analytics Region Usage

About this task

Use the Analytics branch to define a region schema for analytics.

To define analytics region usage:

Procedure

1. From the tree in the application rules side panel, choose Analytics > Region Usage For Analytics. The Region Usage For Analytics window displays.
2. From Schema for Analytics, select the region schema you want to use for Data Warehouse Reports.
3. Choose the **Save** icon.

Chapter 22. Time-Triggered Transaction Reference

Time-Triggered Transaction Reference

Sterling Selling and Fulfillment Foundation provides a collection of time-triggered transactions, which are utilities that perform a variety of individual functions, automatically and at specific time intervals.

Time-triggered transactions perform repetitive actions on a scheduled basis, typically performing database updates, raising events, or calling APIs. One type of transaction, monitors, are designed to watch for processes or circumstances that are out of bounds and then raise alerts. Often, but not always, they retrieve tasks from the task queue or work from the pipeline.

Some transactions enable you to collect statistical data regarding the application's health. This data is collected periodically, using the value specified for the `yantra.statistics.persist.interval` attribute in the `yfs.properties` file. By default, statistics collection set to on. To override this property, add an entry in the `<INSTALL_DIR>/properties/customer_overrides.properties` file. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

For more information about statistics persistence, see the *Sterling Selling and Fulfillment Foundation: Performance Management Guide*. For more information about the specific statistics parameters used, see the applicable time-triggered transactions.

The time-triggered transactions described in this chapter are unique transactions, that may or may not be document type specific. For document specific transactions, the nomenclature helps define which unique transaction it is based on: a transaction ID is in the format `Unique_Transaction_ID.Document_Type_Code`. For example, the transaction ID for Purge Return is `PURGE.0003`, indicating that it is based on the unique transaction `PURGE`, for document type `0003`, which is Return Order. Therefore, in order to be able to configure Purge Return, you should look for the `PURGE` transaction ID in this chapter, which is Order Purge.

Sterling Selling and Fulfillment Foundation provides the following types of time-triggered transactions:

- Business Process Time-Triggered Transactions - responsible for processing
- Time-Triggered Purge Transactions - clear out data that may be discarded after having been processed
- Task Queue Syncher Time-Triggered Transactions - update the task queue repository with the latest list of open tasks to be performed by each transaction, based on the latest pipeline configuration
- Monitors - watch and send alerts for processing delays and exceptions

Sterling Selling and Fulfillment Foundation tracks the following statistics for each time-triggered transaction:

- `ExecuteMessageCreated` - The number of jobs added to the JMS queue in a given time interval.
- `ExecuteMessageSuccess` - The number of jobs that were run successfully in a given time interval.

- `ExecuteMessageError` - The number of jobs that failed to run in a given time interval.
- `GetJobsProcessed` - The number of `GetJob` messages that were processed in a given time interval.

Note: Some of the statistics collected and tracked in Release 9.1 for time-triggered transactions, monitors, and integration and application servers may change with the next release of Sterling Selling and Fulfillment Foundation.

Running Time-Triggered Transactions

All time-triggered transactions are threadable. This means that you can run multiple instances of a transaction within a single process. For more information about running time-triggered transactions, see the *Sterling Selling and Fulfillment Foundation: Installation Guide*. For more information about fine-tuning system performance while running them concurrently, see the *Sterling Selling and Fulfillment Foundation: Performance Management Guide*.

Steps to Complete Before Scheduling Time-Triggered Transactions

About this task

Before running and scheduling a time-triggered transaction, ensure that you have completed the following:

Procedure

1. Configure a JMS Connection Factory to correlate with the QCF name configured for the time-triggered transaction. The Sterling Selling and Fulfillment Foundation factory defaults include the `AGENT_QCF` as the JMS Connection Factory. For more information about configuring JMS, see the documentation for your specific application server.
2. Configure JMS Server Destinations to correlate with the group or individual name of the time-triggered transaction. The Sterling Selling and Fulfillment Foundation factory defaults include the `DefaultAgentQueue` as the server destination.
Do not put a dot (.) in the name of a JMS Server Destination, for example, 'A.0001'. If you do, Sterling Selling and Fulfillment Foundation is unable to communicate with it.
3. Using the Applications Manager, configure each time-triggered transaction required for your business process as described in the section entitled "Defining Transactions" in the *Sterling Selling and Fulfillment Foundation: Configuration Guide*. Each set of time-triggered transaction criteria parameters must ensure the appropriate association of a JMS Agent Server.

Configuring Communication Between an Agent and a JMS Server

About this task

Setting up communication between an agent (time-triggered transaction) and a remote JMS server requires that you do some prerequisite setup on your JMS system, then do some configuration within the application, which consists of the following procedures:

- If an initial context factory code for your JMS system is not provided with the application, you must create one. See “Create an Initial Context Factory Code” for the list of codes that are provided.
- Defining the transaction details – the time-triggered transaction, or agent, must be edited to include connection information for your JMS system and the initial context factory you create. See “Define the Transaction Information” on page 292.

For more information about time-triggered transactions and how they fit into the larger picture of application business process modeling, see the *Configuring Process Models* chapter. Also see the *Configuring Alert Queues* chapter for additional information about queues and agents.

Prerequisites

About this task

Before starting, complete these tasks for your JMS Server. See your JMS Server documentation for more information about performing these tasks.

Procedure

1. Configure the JMS Queue Connection Factory (QCF) and queues on your JMS server.
2. Configure the JNDI representation of the queues on your JMS server.
Ensure that you have the following information available from these tasks:
 - JNDI name for each queue
 - JNDI QCF lookup
 - JMS location - the provider URL for the JMS server

Results

Once you have completed the preceding tasks, complete the next two procedures in the order shown. These are both done in the application.

Create an Initial Context Factory Code

About this task

Using an Initial Context Factory (ICF) class enables remote Java clients to connect to your application. This class is provided by the application vendor. The application uses ICF codes to identify these when setting up agents. Initial context factory codes are predefined in the application for the following JMS vendors:

- IBM WebSphere MQ (for MQSeries accessed through a IBM WebSphere Internet Inter-ORB Protocol URL)
- File (for MQSeries accessed through a file URL, as with Oracle WebLogic)
- Oracle WebLogic (for WebLogic JMS)
- JBoss (for JBoss JMS)

If you are using a JMS server that is **not** in the preceding list (for example, ActiveMQ), you must create an initial context factory code for it in the application:

Procedure

1. Open the Applications Manager. From the tree in the application rules side panel, choose System Administration > Initial Context Factory Codes. The Initial Context Factory Codes window displays in the work area.
2. Select the + icon to create a new initial context factory code. The Initial Context Factory window is displayed.
3. In the Initial Context Factory field, enter the name of the class provided by your JMS vendor. For example, for ActiveMQ, the class name is `org.apache.activemq.jndi.ActiveMQInitialContextFactory`.
4. In the Short Description field, enter a descriptive name, up to 40 characters. Make note of this name, because you will use it in the next procedure (see "Define the Transaction Information"). For ActiveMQ, enter **ActiveMQ**.
5. In the Long Description field, enter a more detailed description for the initial context factory, up to 100 characters.
6. Save the new initial context factory code and close the window.

Results

For more information about ICFs, see *Creating an Initial Context Factory Code*.

Define the Transaction Information

About this task

For the JMS server to communicate with the application, there must be a time-triggered transaction configured with the JMS server and ICF information.

Procedure

1. Open the Applications Manager. From the tree in the application rules side panel, double-click Process Modeling. The Process Modeling window displays in the work area.
2. Select the desired tab, then Base Document Type, then double-click Process Type.
3. Double-click the transaction that corresponds to the agent to be run.
4. Select the Time Triggered tab.
5. Create or select an existing Agent Criteria Definition to edit.
6. The Agent Criteria Details screen is displayed. Select the Runtime Properties tab.
7. Select an existing Agent Server from the list or create your own (recommended).
8. Select an existing Alert Queue from the list or create your own.
9. In the JMS Queue Name field, enter the JNDI name for the queue that you created. See "Prerequisites" on page 291.
10. Enter the desired number of threads the agent should run (recommended not to exceed 5 threads - if more than 5 are needed, start another agent in its own JVM).
11. Select the Initial Context Factory code you created. See "Create an Initial Context Factory Code" on page 291.
12. In the QCF Lookup field, enter the JNDI QCF lookup for the queue that you created (this is the Queue Connection Factory created for the applicable JMS Server). See "Prerequisites" on page 291.

13. Enter the Provider URL. This is the location where the JMS system resides, and is JMS vendor specific.
14. Select whether the agent should trigger itself (recommended) and at what interval (in minutes) or use an external trigger (triggeragent.sh in the `<install_dir>/install/bin` directory).
15. See Setting up the JMS Security Properties for information about setting the JMS Security option.
16. Leave the Criteria Parameters tab values at the default values.
17. Save the Agent Criteria Details and close the window.
18. Launch the agent in its own JVM by executing the `startagentserver.sh/cmd` script in the `<install_dir>/install/bin` directory.

Results

For additional information about defining transactions and about this procedure, see the sections *Defining Transactions* and *Specifying a Transaction as Time-Triggered* in the *Sterling Selling and Fulfillment Foundation: Configuration Guide*.

Business Process Time-Triggered Transactions

All Business Process Time-Triggered Transactions have a `CollectPendingJobs` criteria parameter. If this parameter is set to `N`, the agent does not collect information about the pending jobs pertaining to this monitor. This pending job information is used for monitoring the monitor in the System Management Console.

By default, `CollectPendingJobs` is set to `Y`. It can be helpful to set it to `N` if one particular time-triggered transaction is performing a significant amount of `getPendingJobs` queries, and the overhead cost is too high.

Asynchronous Request Processor

This transaction completes any API request or service request in offline mode. It picks up the API messages or service messages from the `YFS_ASYNC_REQ` table and invokes the corresponding API or service. The messages can be inserted into the `YFS_ASYNC_REQ` table using the `createAsyncRequest` API.

Attributes

Following are the attributes for this time-triggered transaction:

Table 112. Asynchronous Request Processor Attributes

| Attribute | Value |
|----------------------|---------------------|
| Base Transaction ID | ASYNC_REQ_PROCESSOR |
| Base Process Type | General |
| Abstract Transaction | No |

Criteria Parameters

Following are the criteria parameters for this transaction:

Table 113. Asynchronous Request Processor Parameters

| Parameter | Description |
|-------------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Lead Days | Number of days before the present date the agent will purge the records. If left blank or specified as 0 (zero), it defaults to 30. |
| Maximum Error Count | Maximum number of times the record is processed if an exception is thrown. Once the number of unsuccessful attempts equals this number, that record is not processed further by the agent. If left blank or specified as 0 (zero), it defaults to 20. |
| Reprocess Interval In Minutes | Time in minutes after which the transaction will be reprocessed - after it has been processed and has thrown an exception. |
| ColonyID | Required in a multischema deployment where the YFS_ASYNC_REQ table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None

Pending Job Count

None

Events Raised

The following events are raised by this time-triggered transaction:

Table 114. Events Raised by the Asynchronous Request Processor

| Transaction/Event | Key Data | Data Published* | Template Support? |
|--|----------|---|-------------------|
| HAS_EXCEPTIONS | None | YCP_ASYNC_REQ_PROCESSOR.HAS_EXCEPTIONS.html | Yes |
| *These files are located in the following directory: <INSTALL_DIR>/xapidocs/api_javadocs/XSD/HTML | | | |

Case Insensitive Data Loader

The Case Insensitive Data Loader agent migrates data from columns marked CaseInsensitiveSearch to shadow columns. The agent uses the transaction criteria to identify the records that need to be updated and then converts the original

column values to lowercase values in the shadow columns. For more information about enabling case insensitive searches, refer to the *Sterling Selling and Fulfillment Foundation: Extending the Database*.

The Case Insensitive Data Loader agent is required for updating the existing data. Once the shadow columns have been created, the Case Insensitive Data Loader agent only needs to be run once for each table or table type. The shadow columns are then populated in real-time by the application.

Attributes

The following are the attributes for this time-triggered transaction:

Table 115. Case Insensitive Data Loader Attributes

| Attribute | Value |
|----------------------|-------------|
| Base Transaction ID | DATA_LOADER |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 116. Case Insensitive Data Loader Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. <ul style="list-style-type: none"> If left blank or the number specified is less than 10000, it defaults to 5000. If the number specified is greater than 10000, then that value is used. |
| CollectPendingJobs | If this parameter is set to "N", the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| TableType | Required in a multischema deployment when a table may exist in multiple schemas. Valid Values: CONFIGURATION, TRANSACTION, MASTER. If set to CONFIGURATION, the agent runs for the records associated with tables that have TableType as CONFIGURATION. If set to TRANSACTION, the agent runs for the records associated with tables that have TableType as TRANSACTION. |
| Table Name | Required. The table name for the records to be migrated to shadow columns. |

Table 116. Case Insensitive Data Loader Criteria Parameters (continued)

| Parameter | Description |
|-----------|--|
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Pending Job Count

None.

Events Raised

None.

Change Data Export Agent

The Change Data Export Agent is used to export the database changes into XML files, which are then zipped and placed in a specified folder. The agent runs for a specific enterprise, however, if an enterprise code is not provided, the agent runs on all the enterprises of the colony. The zipped XML file is placed in a specified folder from where it is picked up by the Change Data Import agent for publishing the changes on the target environment.

Attributes

Table 117. Change Data Export Agent Attributes

| Attribute | Value |
|---------------------|--------------------|
| Base Transaction ID | CHANGE_DATA_EXPORT |
| Base Process Type | General |

Criteria Parameters

Table 118. Change Data Export Agent Criteria Parameters

| Parameter Name | Description |
|-----------------------------|--|
| Action | Required. This parameter triggers the transaction. The default value is "Get". |
| Number of Records To Buffer | The number of records to retrieve and process by the agent is set in this attribute. The default value is "50". |
| Enterprise Code | The enterprise for which the agent is run. If it is not specified, the agent is run on all the enterprises of the colony. |
| Change Project ID | The change project for which the agent is run. If it is not specified, the agent is run for all the change projects of the colony that are in "Approved" status. |
| Service To Invoke | The Service that is invoked by the agent. The default value is "ChangeDataPublisher", which writes changes to an XML file. |

Table 118. Change Data Export Agent Criteria Parameters (continued)

| Parameter Name | Description |
|---------------------------|--|
| Export Directory | The folder path where the XML files are written and zipped. |
| Zip Retry Interval | The time interval for which the agent should wait before zipping the XML files of a default project if all the files could not be exported. Set the value to "0" if files need not be zipped or if asynchronous service is used. |
| Locking Entities Per File | Number of unique combination of entity keys that are used for locking an entity. |

Events Raised

Table 119. Events Raised by Change Data Export Agent

| Transaction/Event | Key Data | Data Published | Template Support |
|-------------------|----------|----------------------------------|------------------|
| PUBLISHED | None | YSC_CHANGE_DATA_EXPORT.PUBLISHED | No.xml* |

*These files are located in the following directory <INSTALL_DIR>\SC-Platform\documentation\devXML

Statistics Tracked

None

Pending Job Count

None

Change Data Import Agent

The Change Data Import Agent is used to import the files exported by the Change Data Export Agent. The agent picks up the zipped XML files placed in a specified folder in the agent criteria, extracts the files, and applies the changes to the database.

Note: If an entity is directly modified in the target environment, the changes are overridden by the source database updates for the same entity, when the change data import agent is run.

Attributes

Table 120. Change Data Import Agent Attributes

| Attribute | Value |
|---------------------|--------------------|
| Base Transaction ID | CHANGE_DATA_IMPORT |
| Base Process Type | General |

Criteria Parameters

Table 121. Change Data Import Agent Parameters

| Parameter Name | Description |
|-----------------------------|---|
| Action | Required. This parameter triggers the transaction. The default value is "Get". |
| Number of Records To Buffer | The number of records to retrieve and process by the agent is set in this attribute. The default value is "5000". |
| Import Directory | The import folder where the zipped XML files are stored for the agent to process. |

Events Raised

Table 122. Events Raised by Change Data Import Agent

| Transaction/Event | Key Data | Date Published | Template Support |
|-------------------|----------|--|------------------|
| ON_SUCCESS | None | YSC_CHANGE_DATA_IMPORT.ON_SUCCESS.xml* | No |
| ON_FAILURE | None | YSC_CHANGE_DATA_IMPORT.ON_FAILURE.xml* | No |

*These files are located in the following directory <INSTALL_DIR>\SC-Platform\documentation\devXML

Statistics Tracked

None

Pending Job Count

None

Change Load Status

This transaction is equivalent to the `changeLoadStatus()` API. For detailed information about this transaction, see the *Sterling Selling and Fulfillment Foundation: Javadocs*.

To be configured as part of your load processing pipeline, this transaction can be used whenever an automatic change in the status of a load is required. This automatic change could represent exporting load information to load planning software or transmission to the load's carrier.

This transaction should be configured to work from the task queue.

Attributes

The following are the attributes for this time-triggered transaction:

Table 123. Change Load Status Attributes

| Attribute | Value |
|----------------------|--------------------|
| Base Transaction ID | CHANGE_LOAD_STATUS |
| Base Document Type | Load |
| Base Process Type | Load Execution |
| Abstract Transaction | Yes |
| APIs Called | changeLoadStatus() |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 124. Change Load Status Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 125. Change Load Status Statistics

| Statistic Name | Description |
|-----------------|---|
| NumLoadsChanged | Number of loads whose status was changed. |

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (\leq) the CurrentDate value in the YFS_Task_Q table.

Events Raised

This transaction raises events as specified under the changeLoadStatus() API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Change Shipment Status

This transaction is equivalent to the changeShipmentStatus() API. For detailed information about this transaction, see the *Sterling Selling and Fulfillment Foundation: Javadocs*.

To be configured as part of your shipment processing pipeline, this transaction can be used whenever an automatic change in the status of a shipment is required. For example, this automatic change could represent exporting shipment information to a warehouse management system or to transmit an Advance Shipping Notice to the buyer.

This transaction should be configured to work from the task queue.

Attributes

The following are the attributes for this time-triggered transaction:

Table 126. Change Shipment Status Attributes

| Attribute | Value |
|----------------------|------------------------|
| Base Transaction ID | CHANGE_SHIPMENT_STATUS |
| Base Document Type | Order |
| Base Process Type | Order Delivery |
| Abstract Transaction | Yes |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 127. Change Shipment Status Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 128. Create Chained Order Statistics

| Statistic Name | Description |
|---------------------|---|
| NumShipmentsChanged | Number of shipments whose status was changed. |

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (\leq) the current date value in the YFS_Task_Q table.

Events Raised

This transaction raises events as specified under the `changeShipmentStatus()` API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Close Delivery Plan

To boost system performance, this transaction serves as a temporary purge until the Delivery Plan Purge deletes delivery plan-related data (see “Delivery Plan Purge” on page 372).

This transaction picks all delivery plans that do not have any of their loads or shipments still open and marks the `deliveryplan_closed_flag='Y'`. This flag indicates no further operations are possible on the plan.

This transaction corresponds to the base transaction close delivery plan (`CLOSE_DELIVERY_PLAN`) in the load pipeline.

Any enterprise using the Console must schedule purge jobs.

Attributes

The following are the attributes for this time-triggered transaction:

Table 129. Close Delivery Plan Attributes

| Attribute | Value |
|----------------------|---------------------|
| Base Transaction ID | CLOSE_DELIVERY_PLAN |
| Base Document Type | Load |
| Base Process Type | Load Execution |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 130. Close Delivery Plan Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 131. Close Delivery Plan Statistics

| Statistic Name | Description |
|------------------------|----------------------------------|
| NumDeliveryPlansClosed | Number of delivery plans closed. |

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (\leq) the current date value in the YFS_Task_Q table.

Events Raised

The following events are raised by this time-triggered transaction:

Table 132. Events Raised by Close Delivery Plan Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|-------------------|-----------------------|--|-------------------|
| ON_SUCCESS | delivery_plan_dbd.txt | YDM_CLOSE_DELIVERY_PLAN.ON_SUCCESS.xml | Yes |

However, note that the template name would read `<TransactionId>.ON_SUCCESS.xml`.

Close Load

To boost system performance, this transaction serves as a temporary purge until the Load Purge deletes load-related data (see “Load Purge” on page 386).

This transaction corresponds to the base transaction Close Load (CLOSE_LOAD) in the load pipeline.

If you use the Load processing pipeline, you must schedule this transaction. Only closed loads are picked up by the purge transaction. Therefore, it is required that this transaction be made part of the pipeline and scheduled to run at the end of the day.

This transaction should be made part of the pipeline. In addition, it should be configured to work from the task queue.

Attributes

The following are the attributes for this time-triggered transaction:

Table 133. Close Load Attributes

| Attribute | Value |
|----------------------|----------------|
| Base Transaction ID | CLOSE_LOAD |
| Base Document Type | Load |
| Base Process Type | Load Execution |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 134. Close Load Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 135. Close Load Statistics

| Statistic Name | Description |
|----------------|-------------------------|
| NumLoadsClosed | Number of loads closed. |

Pending Job Count

For this transaction the pending job count is the number of open delivery plans, which are not associated to any open loads and open shipments.

Events Raised

The following events are raised by this time-triggered transaction:

Table 136. Events Raised by the Close Load Transaction

| Transaction/Event | Data Published | Template Support? |
|-------------------|------------------------------------|-------------------|
| ON_SUCCESS | YDM_CLOSE_LOAD_PLAN.ON_SUCCESS.xml | Yes |

However, note that the template name would read <TransactionId>.ON_SUCCESS.xml.

Close Manifest

This time-triggered transaction sets the manifest's MANIFEST_CLOSED_FLAG flag to 'Y' and updates the manifest status to CLOSED. This time-triggered transaction confirms all the shipments that are pending confirmation, and closes the manifest.

Note: If the Close Manifest Agent is triggered without any criteria, it closes all the candidate manifests across all ShipNodes.

The `yfs.closemanifest.online` property in the `yfs.properties_ysc_ext.in` file is used to set this time-triggered transaction to work in online or offline mode.

- **Online mode:** In the online mode, the close manifest transaction runs as usual, confirming all shipments in the manifest and then closing the manifest.
- **Offline mode:** In the offline mode, the close manifest transaction triggers an agent and changes the manifest status to 'Closure Requested'. When the agent runs, it confirms either each shipment of the manifest, or closes the manifest, in an execution call.

The mode of operation (online or offline) is decided on the basis of the value specified for the `yfs.closemanifest.online` property in the `yfs.properties_ysc_ext.in` file. To override this property, add an entry for it in the `<INSTALL_DIR>/properties/customer_overrides.properties` file. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

The default out-of-the-box shipped property causes the Close Manifest transaction to run in online mode.

In instances where the Close Manifest transaction is run in offline mode, ensure that all Agent Criteria defined for the transaction are configured properly.

Attributes

The following are the attributes for this time-triggered transaction:

Table 137. Close Manifest Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | CLOSE_MANIFEST |
| Base Document Type | General |
| Base Process Type | Manifesting |
| Abstract Transaction | No |
| APIs Called | confirmShipment() |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 138. Close Manifest Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| AgentCriteriaGroup | Optional. Used to classify nodes. This value can be accepted by Sterling Selling and Fulfillment Foundation time-triggered transactions that only perform their tasks on the nodes with a matching node transactional velocity value. Valid values are: LOW, HIGH, and any additional values defined by the Hub from Application Platform > System Administration > Agent Criteria Groups. |

Table 138. Close Manifest Criteria Parameters (continued)

| Parameter | Description |
|-----------|---|
| ShipNode | Optional. Ship node for which the Close Manifest needs to be run. If not passed, then all ship nodes are monitored. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following are statistics are tracked for this transaction:

Table 139. Close Manifest Statistics

| Statistic Name | Description |
|-----------------------|--------------------------------|
| NumShipmentsConfirmed | Number of shipments confirmed. |
| NumManifestsClosed | Number of manifests closed. |
| NumManifestsErrored | Number of manifests errored. |
| NumShipmentsErrored | Number of shipments errored. |

Pending Job Count

For this transaction the pending job count is the sum of open manifests and shipments belonging to manifests (with MANIFEST_STATUS='1200').

Events Raised

The following events are raised by this time-triggered transaction:

Table 140. Events Raised by the Close Manifest Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|-------------------|------------------|---------------------------------------|-------------------|
| ON_SUCCESS | manifest_dbd.txt | YDM_CLOSE_MANIFEST .ON_SUCCESS.xml | Yes |

Close Order

This time-triggered transaction sets the order's ORDER_CLOSED flag to 'Y' and raises the ON_SUCCESS event. These actions are only performed when the entire ORDER_QTY for all the order lines reaches the configured pickup status. If an order has ORDER_CLOSED set to 'Y', it is not picked up for monitoring.

The Close Order agent must be configured along with the Purge transaction in the pipeline.

Many of this transaction's elements and attributes are template-driven. Refer to the XML for element level details.

The Close Order agent must be run before running the Monitor agent in order to avoid alerts getting raised for cancelled orders.

Attributes

The following are the attributes for this time-triggered transaction:

Table 141. Close Order Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | CLOSE_ORDER |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 142. Close Order Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 143. Close Order Statistics

| Statistic Name | Description |
|--------------------|-----------------------------|
| NumOrdersProcessed | Number of orders processed. |
| NumOrdersClosed | Number of orders closed. |

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (\leq) the current date value in the YFS_Task_Q table, if tasks on hold are not ready to be processed.

Events Raised

The following events are raised by this time-triggered transaction:

Table 144. Events Raised by the Close Order Transaction

| Transaction/Event | Data Published | Template Support? |
|-------------------|--------------------------------|-------------------|
| ON_SUCCESS | YFS_CLOSE_ORDER.ON_SUCCESS.xml | Yes |

Close Receipts

This time-triggered transaction closes receipts using the receiving rule specified.

Attributes

The following are the attributes for this time-triggered transaction:

Table 145. Close Receipts Attributes

| Attribute | Value |
|----------------------|---|
| Base Transaction ID | RECEIPT_COMPLETE |
| Base Document Type | Order |
| Base Process Type | Receipt (Purchase Order Receipt, Return Receipt, Transfer Order Receipt, Receipt) |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 146. Close Receipts Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Enterprise for which the Close Receipts needs to be run. If not passed, then all enterprises are monitored. |
| Node | Node for which the Close Receipts needs to be run. Note: Both Node and AgentCriteriaGroup cannot be blank. You must specify a value for the Node parameter, the AgentCriteriaGroup parameter, or both parameters. |
| AgentCriteriaGroup | Used to classify nodes. This value can be accepted by Sterling Selling and Fulfillment Foundation time-triggered transactions that only perform their tasks on the nodes with a matching node transactional velocity value. Valid values are: LOW, HIGH, and any additional values defined by the Hub from Application Platform > System Administration > Agent Criteria Groups. |

Table 146. Close Receipts Criteria Parameters (continued)

| Parameter | Description |
|-----------|--|
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 147. Close Receipts Statistics

| Statistic Name | Description |
|-------------------|----------------------------|
| NumReceiptsClosed | Number of receipts closed. |

Pending Job Count

For this transaction the pending job count is the number of Receipts that can be closed (with OPEN_RECEIPT_FLAG='Y').

Events Raised

The following events are raised by this time-triggered transaction:

Table 148. Events Raised by the Close Receipts Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|-------------------|-----------------|---|-------------------|
| ON_SUCCESS | receipt_dbd.txt | YFS_RECEIPT_COMPLETE .ON_SUCCESS.xml | Yes |

Close Shipment

To boost system performance, this transaction serves as a temporary purge until the Shipment Purge deletes all shipment-related data (see “Shipment Purge” on page 423).

This transaction picks all shipments eligible to be closed, based on the pipeline configuration for pickup for transaction CLOSE_SHIPMENT, and marks the shipment_closed_flag='Y'. This flag indicates no further operations are possible on the shipment. There is no status change involved. This transaction can be configured in the pipeline so that it picks up either Shipped or Delivered status.

This transaction corresponds to the base transaction close shipment (CLOSE_SHIPMENT) in the shipment pipeline.

This transaction should be made part of the pipeline. In addition, it should be configured to work from the task queue.

Attributes

The following are the attributes for this time-triggered transaction:

Table 149. Close Shipment Attributes

| Attribute | Value |
|----------------------|----------------|
| Base Transaction ID | CLOSE_SHIPMENT |
| Base Document Type | Order |
| Base Process Type | Order Delivery |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 150. Close Shipment Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following are statistics are tracked for this transaction:

Table 151. Close Shipment Statistics

| Statistic Name | Description |
|--------------------|-----------------------------|
| NumShipmentsClosed | Number of shipments closed. |

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (<=) the current date value in the YFS_Task_Q table.

Events Raised

The following events are raised by this time-triggered transaction:

Table 152. Events Raised by the Close Shipment Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|-------------------|------------------|---------------------------------------|-------------------|
| ON_SUCCESS | shipment_dbd.txt | YDM_CLOSE_SHIPMENT. ON_SUCCESS.xml | Yes |

Collect Shipment Statistics

Collect Shipment Statistics is a time-triggered transaction which can be invoked to process the shipments, and generate information required for the Daily Shipment Report.

Attributes

The following are the attributes for this time-triggered transaction:

Table 153. Collect Shipment Statistics Attributes

| Attribute | Value |
|----------------------|-----------------------------|
| Transaction Name | Collect Shipment Statistics |
| Transaction ID | COLLECT_STATISTICS |
| Base Document Type | Order |
| Base Process Type | Order Delivery |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 154. Collect Shipment Statistics Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Node | Required. The ship node for which records are being processed. |
| AgentCriteriaGroup | Optional. Used to classify nodes. This value can be accepted by Sterling Selling and Fulfillment Foundation time-triggered transactions that only perform their tasks on the nodes with a matching node transactional velocity value. Valid values are: LOW, HIGH, and any additional values defined by the Hub from Application Platform > System Administration > Agent Criteria Groups. |

Table 154. Collect Shipment Statistics Criteria Parameters (continued)

| Parameter | Description |
|-----------|--|
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 155. Statistics for Collect Shipment Statistics

| Statistic Name | Description |
|----------------------------|---|
| NumDaysStatisticsCollected | Number of days for which shipment statistics have been collected. |

Pending Job Count

For this transaction the pending job count is the number of days for which shipment statistics needs to be collected. The number of days is calculated as the difference (in days) between the current date and the last date when shipment statistics was collected.

Events Raised

The following events are raised by this time-triggered transaction:

Table 156. Events Raised by the Collect Shipment Statistics Transaction

| Transaction/Event | Data Published | Template Support? |
|-------------------|---------------------------------------|-------------------|
| ON_SUCCESS | YDM_COLLECT_STATISTICS.ON_SUCCESS.xml | No |

Consolidate Additional Inventory

The Consolidate Additional Inventory time-triggered transaction consolidates supply and demand from the YFS_INVENTORY_SUPPLY_ADDNL and YFS_INVENTORY_DEMAND_ADDNL tables. Consolidation is performed by summing up the quantities of additional supply and demand in the YFS_INVENTORY_SUPPLY and YFS_INVENTORY_DEMAND tables.

If no matching supply or demand is found, a new supply or demand is created with the sum quantity of the changes in the YFS_INVENTORY_SUPPLY_ADDNL and YFS_INVENTORY_DEMAND_ADDNL tables. After the changes are applied, the records in the YFS_INVENTORY_SUPPLY_ADDNL and YFS_INVENTORY_DEMAND_ADDNL tables that were used in the consolidation process, are deleted.

Attributes

The following are the attributes for this time-triggered transaction:

Table 157. Consolidate Additional Inventory Attributes

| Attribute | Value |
|----------------------|-----------------------|
| Base Transaction ID | CONSOLIDATE_ADDNL_INV |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the parameters for this transaction:

Table 158. Consolidate Additional Inventory Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of inventory item records (whose additional supplies and demands are consolidated) to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multischema deployment where the YFS_INVENTORY_SUPPLY_ADDNL and YFS_INVENTORY_DEMAND_ADDNL tables may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 159. Consolidate Additional Inventory Statistics

| Statistic Name | Description |
|-----------------------------------|---|
| NumInventorySupplyAddnlsProcessed | Number of additional inventory supply records processed in the consolidation. |
| NumInventoryDemandAddnlsProcessed | Number of additional inventory demand records processed in the consolidation. |
| NumInventoryDemandDtlsProcessed | Number of inventory demand details records processed in the consolidation. |

Pending Job Count

For this transaction the pending job count is the number of distinct inventory items in the YFS_INVENTORY_SUPPLY_ADDNL and YFS_INVENTORY_DEMAND_ADDNL tables, multiplied by two.

Events Raised

None.

Consolidate To Shipment

This is a task queue based transaction in the order pipeline that corresponds to base transaction CONSOLIDATE_TO_SHIPMENT. This transaction finds a shipment into which a given order release can be included. If it finds an existing shipment, it calls `changeShipment()` API. Otherwise, it calls the `createShipment()` API.

To find the existing shipments it matches ShipNode, ShipTo Address, SellerOrganizationCode, Carrier, DocumentType and so forth, of the Order Release with that of existing shipments.

This transaction is applicable only to the shipments in one of the following Statuses:

- Shipment Created
- ESP Check Required
- On ESP Hold
- Released from ESP Hold
- Released For Routing
- Awaiting Routing
- Shipment Routing
- Sent To Node

To successfully consolidate an Order Release to an existing shipment, the Add Line and related modification types on shipment in its current status should be allowed.

This transaction is a part of the Order Fulfillment pipeline. In addition, it should be configured to work from the task queue.

Order releases with GIFT_FLAG set to Y are never consolidated with any other release.

For more information, see the details provided under the `createShipment()`, `changeShipment()`, `releaseOrder()`, and `consolidateToShipment()` APIs in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Attributes

The following are the attributes for this time-triggered transaction:

Table 160. Consolidate to Shipment Attributes

| Attribute | Value |
|----------------------|---|
| Base Transaction ID | CONSOLIDATE_TO_SHIPMENT |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | No |
| APIs Called | <code>createShipment()</code> and <code>changeShipment()</code> |

Table 160. Consolidate to Shipment Attributes (continued)

| Attribute | Value |
|------------|--|
| User Exits | <ul style="list-style-type: none"> • It calls beforeConsolidateToShipment in com.yantra.ydm.japi.ue. • YDMBeforeConsolidateToShipment for each release before it begins processing. • After it finds the shipments, it calls determineShipmentToConsolidateWith in com.yantra.ydm.japi.ue. <p style="text-align: center;">YDMDetermineShipmentToConsolidateWith.</p> <p>For more information, see the <i>Sterling Selling and Fulfillment Foundation: Javadocs</i>.</p> |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 161. Consolidate to Shipment Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 162. Consolidate to Shipment Statistics

| Statistic Name | Description |
|------------------------------|--|
| NumOrderReleasesConsolidated | Number of order releases consolidated. |

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (<=) the current date value in the YFS_Task_Q table.

Events Raised

The following events are raised by this time-triggered transaction:

Table 163. Events Raised by the Consolidate to Shipment Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|-------------------|------------------|--|-------------------|
| ON_SUCCESS | shipment_dbd.txt | YDM_CONSOLIDATE_TO_SHIPMENT.ON_SUCCESS.xml | Yes |

This transaction also raises events as specified under the `createShipment()` and `changeShipment()` APIs in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

However, note that the template name would read `<TransactionId>.ON_SUCCESS.xml`.

Create Catalog Index

The Create Catalog Index transaction builds the Apache Lucene index file that is used by catalog search. This index file enhances search performance by storing denormalized item data that has been extracted from the Sterling Selling and Fulfillment Foundation database or from an external source.

The Create Catalog Index transaction can be configured to perform the following tasks:

- Run either a scheduled index build or user-initiated index build
- Build either a full or incremental index file
- Activate the index file

The Index Building Process

The Create Catalog Index transaction provides an agent for index building. Index building is a multithread process in which the index building agent extracts item and item-related information from the active selling catalog in the Sterling Selling and Fulfillment Foundation database. If the corresponding XML configuration file has been extended, the agent may extract this information from an external source.

The agent writes this information to multiple files, which identify the item data that should be included in the final index. After the agent finishes writing the files, it merges them into the final index file.

The multithread process provides the advantage of parallel processing. Large amounts of database data are segmented and processed simultaneously, which is faster and more scalable than sequentially processing one long file.

When writing information to multiple files, the index building agent performs the following tasks for each item before looping to the next item:

- Queries the Sterling Selling and Fulfillment Foundation database or an external source for data about the item.
- Uses information from the XML configuration file and extension file to determine the data that be retrieved from the query.

- Retrieves relevant data from the Sterling Selling and Fulfillment Foundation database.
- Creates a Lucene document for the item.

After the transaction creates a Lucene document for each item, the transaction writes the documents to the index file based on the organization and the organization's locales.

Configuration Options for Accessing Catalog Index Files

You can configure catalog index builds in one of the following two ways, depending on your business requirements:

- Build the index on a shared, central disk that is accessible from all servers.
 - Advantages:
 - Centralized control of shared index
 - No file transfer issues because the index is not copied across multiple servers
 - Limitation:
 - Shared disk could become a single point of failure (if no redundancy is involved)
 - Volume of reads and writes from shared disk might slow performance, depending on the setup
- Build and push a copy of the index to multiple servers via file transfer. Automate this file transfer process to occur on completion of an index build, but do not automatically activate the index. When all servers have acknowledged the completion of the file transfer, call the `manageSearchIndexTrigger` API to activate the index.
 - Advantage:
 - No central point of failure
 - Limitation:
 - Possible overhead to building and pushing index files across servers

If you choose this method of building the index in one location and reading it from another, refer to the *Sterling Selling and Fulfillment Foundation: Properties Guide* for information about enabling different properties for individual processes.

For more information about building and searching catalog indexes, see the *Sterling Selling and Fulfillment Foundation: Catalog Management Concepts Guide*.

Attributes

The following table displays the attributes for the Create Catalog Index transaction.

Table 164. Create Catalog Index Attributes

| Attribute | Value |
|----------------------|----------------------|
| Base Transaction ID | Create_Catalog_Index |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |

Table 164. Create Catalog Index Attributes (continued)

| Attribute | Value |
|-------------------|--|
| User Exits Called | YCMParseAssetUE YCMGetAdditionalCatalogIndexInformationUE |

Criteria Parameters

The following table displays the criteria parameters for the Create Catalog Index transaction.

Table 165. Create Catalog Index Criteria Parameters

| Parameter | Description |
|---------------------------|--|
| Organization Code | Required. The organization code of the catalog organization or subcatalog organization that maintains the search index. |
| Number of Messages | Required. Number of messages to use when building the index file. Sterling Selling and Fulfillment Foundation processes only one message per thread. For example, if Number of Messages is set to 10 and Threads is set to 3, Sterling Selling and Fulfillment Foundation processes only 3 messages at a time. For more information about fine-tuning system performance, see the <i>Sterling Selling and Fulfillment Foundation: Performance Management Guide</i> . |
| Incremental Build | Y or N. Y to rebuild the existing index file. If you specify Y, Sterling Selling and Fulfillment Foundation rebuilds the index based on the last successful index build. The MaxModifyTS column in the YFS_ITEM table determines whether or not an item's attributes have changed. If any external attributes of an item have changed, update the MaxModifyTS column by calling the manageItem API on the item. N to build a full index file. This parameter is ignored for user-initiated index builds. However, if scheduled builds are configured, ensure that you specify whether you want a full or incremental index build. |
| Category Domain | Optional. The catalog from which the index is built. The active selling catalog of the catalog organization or subcatalog organization is the default. If scheduled builds are configured, ensure that you specify a catalog. |
| Auto Activate | Y or N. Optional. Y to activate the index after building the index file. The default is N. |

Table 165. Create Catalog Index Criteria Parameters (continued)

| Parameter | Description |
|---|---|
| Auto Insert Search Index Trigger | <p>Y or N. Optional.</p> <p>Y to enable scheduled builds of the catalog index file. The agent refers to information stored in the YFS_SEARCH_INDEX_TRIGGER table to determine when to run the scheduled index build. Specify the type of index build, whether full or incremental, in the agent criteria.</p> <p>N to enable user-initiated builds of the catalog index file. The agent continuously queries the YFS_SEARCH_INDEX_TRIGGER table to determine whether an index build is indicated. If a user starts an index build from the IBM Sterling Business Center, the status setting in the table changes to Scheduled, triggering the agent to build the index. The user specifies the type of index build, whether full or incremental, from the Sterling Business Center.</p> <p>After a scheduled or user-initiated build runs, the user can activate the index from the Sterling Business Center. Alternatively, the agent can be configured to automatically activate the index.</p> <p>To allow both scheduled and user-initiated index builds, configure the transaction to include two instances of the agent. Configure one instance to trigger user-initiated builds and the second instance to trigger scheduled index builds.</p> |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following table shows the statistics for the Create Catalog Index transaction.

Table 166. Create Catalog Index Statistics

| Statistic Name | Description |
|---------------------------|--|
| SearchIndicesBuilt | Number of search indices that have been built. |

Pending Job Count

None.

Events Raised

The following events are raised by this time-triggered transaction:

Table 167. Events Raised by the Create Catalog Index Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|-------------------|---------------|------------------------------------|-------------------|
| ON_SUCCESS | Not Published | CATALOG_INDEX_BUILD.ON_SUCCESS.xml | Yes |

Create Chained Order

This transaction creates one or more chained orders from an order whose `OrderHeaderKey` is stored in the task queue object. Chainable lines of the order can also be added to existing chained orders, instead of creating new chained orders with these lines. The existing chained orders must be identified by the `determineChainedOrderForConsolidation` user exit. If the user exit is not implemented, or if the user exit returns a blank document, one or more new chained orders are created.

For more information about the creation of chained orders, see the information provided under the `createChainedOrder()` API and the `YFSDetermineChainedOrderForConsolidation` user exit in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

This transaction should be invoked after order scheduling.

Attributes

The following are the attributes for this time-triggered transaction:

Table 168. Create Chained Order Attributes

| Attribute | Value |
|----------------------|-----------------------------------|
| Base Transaction ID | CHAINED_ORDER_CREATE |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | Yes |
| APIs Called | <code>createChainedOrder()</code> |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 169. Create Chained Order Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to <code>Get</code> , the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 170. Create Chained Order Statistics

| Statistic Name | Description |
|--------------------|--|
| NumOrdersProcessed | Number of orders processed for creating chained order. |
| NumOrdersCreated | Number of chained orders created. |

If there are 2 orders being processed and the first order creates a chained order, the DetermineChainedOrderForConsolidation user exit causes the lines of the 2nd order to be added to the first order. The number of chained orders created is counted as 2.

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (\leq) the current date value in the YFS_Task_Q table.

Events Raised

This transaction raises events as specified under the createChainedOrder() API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Create Derived Order

This transaction creates one or more derived orders from an order whose OrderHeaderKey is stored in the task queue object. For existing derived orders, you can add derivable lines or create new derived orders with these lines. The existing derived orders must be identified by the determineDerivedOrderForConsolidation user exit. If the user exit is not implemented or if the user exit returns a null document, new derived orders are created. For more information about the creation of derived orders, see the details provided under the createDerivedOrder() API and YFSDetermineDerivedOrderForConsolidation user exit in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Attributes

The following are the attributes for this time-triggered transaction:

Table 171. Create Derived Order Attributes

| Attribute | Value |
|----------------------|----------------------|
| Base Transaction ID | DERIVED_ORDER_CREATE |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | Yes |
| APIs Called | createDerivedOrder() |

The TransactionKey posted in the task queue object must be an instance of the Abstract Transaction DERIVED_ORDER_CREATE for the ProcessType associated with the Order. Otherwise, an exception is thrown.

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 172. Create Derived Order Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 173. Create Derived Order Statistics

| Statistic Name | Description |
|--------------------|-----------------------------------|
| NumOrdersProcessed | Number of orders processed. |
| NumOrdersCreated | Number of derived orders created. |

If there are 2 orders being processed and the first order creates a derived order, the DetermineChainedOrderForConsolidation user exit causes the lines of the 2nd order to be added to the first order. The number of derived orders created is counted as 2.

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (<=) the current date value in the YFS_Task_Q table.

Events Raised

This transaction raises events as specified under the createDerivedOrder() API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Create Order Invoice

This transaction creates one or more invoices from an order whose OrderHeaderKey is stored in a task queue object. The createOrderInvoice() API is called for the OrderHeaderKey.

Configure this transaction in the pipeline only after all processing that can impact quantity or price has been completed. Post invoice creation, the line quantity cannot be reduced below the invoiced quantity.

Both the Create Order Invoice and Create Shipment Invoice transactions can create invoices for an Order. When configuring your pipeline, ensure that only *one* of these two transactions is configured to create invoices for a particular order line. For more information, see “Create Shipment Invoice” on page 323.

Attributes

The following are the attributes for this time-triggered transaction:

Table 174. Create Order Invoice Attributes

| Attribute | Value |
|----------------------|----------------------|
| Base Transaction ID | CREATE_ORDER_INVOICE |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | Yes |
| APIs Called | createOrderInvoice() |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 175. Create Order Invoice Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 176. Create Order Invoice Statistics

| Statistic Name | Description |
|-------------------------|-----------------------------------|
| NumOrderInvoicesCreated | Number of order invoices created. |

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (<=) the current date value in the YFS_Task_Q table.

Events Raised

This transaction raises events as specified under the `createOrderInvoice()` API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Create Shipment Invoice

Invoicing is mandatory if an order requires payment processing. Invoicing occurs if the following conditions are met:

- Invoicing is enabled at the document parameter level.
- The Seller requires payment processing.

This transaction creates one or more invoices for the shipment whose `ShipmentKey` is stored in the task queue object. The `createShipmentInvoice()` API is called for the `ShipmentHeaderKey`.

This transaction should be configured in the shipment pipeline only after the shipment has reached a shipped status.

Both the Create Order Invoice and Create Shipment Invoice can create invoices for an order. When configuring your pipeline, ensure that only *one* of these two transactions is configured to create invoices for a particular order line. See “Create Order Invoice” on page 321.

Attributes

The following are the attributes for this time-triggered transaction:

Table 177. Create Shipment Invoice Attributes

| Attribute | Value |
|----------------------|--------------------------------------|
| Base Transaction ID | CREATE_SHIPMENT_INVOICE |
| Base Document Type | Order |
| Base Process Type | Order Delivery |
| Abstract Transaction | Yes |
| APIs Called | <code>createShipmentInvoice()</code> |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 178. Create Shipment Invoice Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 179. Create Shipment Invoice Statistics

| Statistic Name | Description |
|----------------------------|--------------------------------------|
| NumShipmentInvoicesCreated | Number of shipment invoices created. |

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (\leq) the current date value in the YFS_Task_Q table.

Events Raised

This transaction raises events as specified under the createShipmentInvoice() API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

ESP Evaluator

The ESP Evaluator time-triggered transaction verifies whether a shipment meets certain economic shipping parameters (ESP). ESP can be configured either for buyer or enterprise, with the freight terms on the shipment determining which one is used.

If the configuration is defined to hold shipment for ESP, the shipment when created is held for ESP (with status *On ESP Hold*). This task queue based time-triggered transaction evaluates the shipment for ESP, and passes it on to the next step in the shipment pipeline if the criteria (weight and volume limits, plus maximum days of hold up) are met. The shipment status is now set to *Released from ESP hold*, and routing processing begins.

Attributes

The following are the attributes for this time-triggered transaction:

Table 180. ESP Evaluator Attributes

| Attribute | Value |
|----------------------|--------------------------------|
| Base Transaction ID | ESP_EVALUATOR.0001 |
| Base Document Type | Order |
| Base Process Type | Outbound Shipment |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | getNodeMinimumNotificationTime |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 181. ESP Evaluator Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| EnterpriseCode | Optional. Enterprise for which the ESP Evaluator needs to be run. If not passed, then all enterprises are monitored. |
| Number of Records to Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| Node | Required. The ship node for which records are being processed. |
| AgentCriteriaGroup | Optional. Used to classify nodes. This value can be accepted by Sterling Selling and Fulfillment Foundation time-triggered transactions that only perform their tasks on the nodes with a matching node transactional velocity value. Valid values are: LOW, HIGH, and any additional values defined by the Hub from Application Platform > System Administration > Agent Criteria Groups. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (\leq) the current date value in the YFS_Task_Q table.

Events Raised

The following events are raised by this time-triggered transaction:

Table 182. Events Raised by ESP Evaluator Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|-------------------|------------------|------------------------------|-------------------|
| ON_SUCCESS | shipment_dbd.txt | ESP_EVALUATOR.ON_SUCCESS.xml | Yes |

Item Based Allocation

The Item Based Allocation transaction allocates unpromised and promised demands of existing orders to more suitable supplies based upon inventory items and nodes which have been triggered for the Item Based Allocation process in the YFS_IBA_TRIGGER table.

The Item Based Allocation agent obtains and processes all Item Based Allocation triggers from the YFS_IBA_TRIGGER table that meet the following conditions:

- IBA_RUN_REQUIRED = "Y"
- LAST_IBA_PROCESSED_TS was 'x' hours before current time, where 'x' is from the 'Item Based Allocation Agent Execution Interval (in hours)' rule in the Installation rules. For more information about installation rules, refer to the topic "System Administration Components: Defining Installation Rules" in the *Sterling Selling and Fulfillment Foundation: Configuration Guide*. This rule is used to indicate the interval that the Item Based Allocation agent should not reprocess the triggers in the YFS_IBA_TRIGGER table, which were processed earlier. This prevents the IBA agent from over-processing the item and node combination in the given time interval to avoid any high loads on the system.
- PROCESSING_BY_AGENT="N" or PROCESS_OVER_BY_TS is before the current timestamp. The PROCESSING_BY_AGENT field is used to prevent the picking up of the IBA trigger which is being processed by another instance of the agent.

If InventoryOrganizationCode is specified in the agent criteria, only the IBA trigger with inventory items of that inventory organization is retrieved.

For each triggered item and node combination, the agent finds all of the applicable order lines or order line reservations that contain the item and node and tries to move their unpromised and promised demands to more suitable available supplies based on user-configured IBA selection rules or FIFO (First-In-First-Out) IBA selection rules.

Sterling Selling and Fulfillment Foundation creates new positive order line reservations with the matched supply's first ship date and negative order line reservations for the existing demand ship date. Once all orders are processed, they are placed on hold to be rescheduled if changes are detected in the order line reservations.

The following configuration is required for the Item Based Allocation process:

- The Use Item Based Allocation rule needs to be enabled.
- Item and node need to have Item Based Allocation Allowed enabled.
- A hold type is required to be set up for the change order line reservations modification type so that the order can be placed on hold for rescheduling. For more information, refer to the *Sterling Selling and Fulfillment Foundation: Javadocs*.

The 'When a line is backordered, backorder against the highest priority ship node' rule should be checked in order to reallocate backordered demand. For more information, see the Fulfillment Rules section in the *Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide*.

Before processing the Item Based Allocation logic, the Item Based Allocation agent updates the following fields on the Item Based Allocation trigger:

- PROCESSING_BY_AGENT = "Y". This indicates that an instance of the agent is currently processing this trigger.

- PROCESS_OVER_BY_TS = current time + 1 hr. This indicates the expected time that the agent should finish with processing this IBA trigger. One hour is the fixed window and cannot be changed. Sterling Selling and Fulfillment Foundation treats the PROCESSING_BY_AGENT flag as "N" regardless of the actual value when current timestamp is after this timestamp.
- IBA_RUN_REQUIRED = "N". This resets the IBA_RUN_REQUIRED flag back to "N".

Obtaining a List of Demands Based on Applicable Order Release Statuses and Order Line Reservations to be Allocated

A list of demands is derived from applicable order release statuses and order line reservations, which have the item and node in the IBA trigger. The following types of demands are retrieved:

- Demands of chained orders
- Demands of orders with chained order already created
- Demands of orders with procurement node but chained order creation is not yet created
- Demands of orders without procurement node
- Demands from order line reservations

The demand quantity is derived based on the order release status quantity with the status from the Status Inventory Type configuration that has a demand type, which considers the supply type with 'Use Consider Demand Type for Item Based Allocation' enabled. For more information, refer to the *Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide*.

Obtaining a List of Available Supplies for Allocation

Sterling Selling and Fulfillment Foundation obtains the available supply based on the availability of the item at the node by ignoring unpromised and promised demands. If the inventory organization maintains its inventory externally, the external availability can be read by the YFSGetExternalInventoryUE user exit. Only the availability of supplies that consider the 'Demand Type Look for Availability during Item Based Allocation' are used in the allocation logic. For more information, refer to the *Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide*.

Allocated demands should be matched with the same supplies as "Demand to look for during release".

Matching Demands Against Supplies in FIFO (First-In-First-Out) Order

Sterling Selling and Fulfillment Foundation sorts the list of available supplies in the order of the first shippable date (ETA), and matches the obtained list of demands using the top-down logic (unlike the normal matching logic for obtaining availability, where matches are based on the closest ETA). Demands are allocated in the following orders:

- Demands of chained orders - first based on user-configured sequencing rules, and then in ascending order of order creation date. (These types of demands are matched based on the closest ETA to avoid any changes in the chained orders).

- Demands of orders with a chained order already created - first based on user-configured sequencing rules, then in ascending order of product availability date. (These types of demands are matched based on the closest ETA to avoid any changes in the orders).
- Demands of orders for which procurement node and chained order creation is imminent (within the advanced notification time window) - first based on user-configured sequencing rules, then in order of order creation date.
- Demands of orders without a procurement node and within the release window (advanced notification time window) - first based on user-configured sequencing rules, then in order of order creation date.
- Demands from order line reservations on the order lines in the order of requested reservation date, and leftover demands (outside of the advanced notification time window) of orders with or without a procurement node, first based on user-configured sequencing rules and then in the order of order creation date.
- Demands from inventory reservations in the order of ship date.

Notice that different types of demands are given different priorities based on their significance. The demands of chained orders or orders related to chained orders are treated with a higher priority than the demands of normal orders. Furthermore, the demands with a ship date within the advanced notification time window also have a higher priority than the demands with a date outside of the advanced notification time window.

Updating Order Reservations for the Matched Demands

After matching the available supply and demand in user-configured sequencing and then in FIFO order, the system builds up a list of order line reservation changes and inventory demand changes (corresponding to the order line reservation changes) and summarize them to optimize the number of order reservation updates and inventory updates. Negative order line reservations are added for the matched demands. Positive order reservations are added for the matched demands with the product availability date set to the matched supplies' first ship date.

After the Item Based Allocation agent completes its tasks for an Item Based Allocation trigger, it updates the fields of the trigger with the following values:

- IBA_REQUIRED = "N"
- LAST_IBA_PROCESSED_TS = current timestamp.
- PROCESS_OVER_BY_TS = current timestamp.
- PROCESSING_BY_AGENT = "N"

The Item Based Allocation agent should be used in conjunction with the rescheduling process as the rescheduling process reschedules the affected orders by utilizing the order line reservations created by the Item Based Allocation process.

Attributes

The following are the attributes for this time-triggered transaction:

Table 183. Item Based Allocation Attributes

| Attribute | Value |
|---------------------|-----------------------|
| Base Transaction ID | ITEM_BASED_ALLOCATION |

Table 183. Item Based Allocation Attributes (continued)

| Attribute | Value |
|----------------------|--|
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | changeOrder – for updating the order line reservations created as part of the Item Based Allocation process. |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 184. Item Based Allocation Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| InventoryOrganization Code | The inventory organization code of the inventory items which are processed by the Item Based Allocation agent. If provided, only the IBA triggers with the inventory item that belongs to this inventory organization are processed. |
| ColonyID | Required in a multischema deployment where the YFS_IBA_TRIGGER table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 185. Item Based Allocation Statistics

| Statistic Name | Description |
|-----------------------------|--|
| NumOrdersProcessed | Number of orders processed by the Item Based Allocation agent. |
| NumOrdersRequiredReschedule | Number of orders required rescheduling as the result of Item Based Allocation process. |

Pending Job Count

None.

Events Raised

This transaction raises events as specified under the changeOrder API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Mark Load as Trailer Loaded

This is a time-triggered transaction which works on “Load pipeline”.

This time-triggered transaction gets records from the Task Q. This transaction is used to mark the load as trailer loaded when all containers for the load are on the trailer.

Attributes

The following are the attributes for this time-triggered transaction:

Table 186. Mark Load As Trailer Loaded Attributes

| Attribute | Value |
|----------------------|------------------------|
| Base Transaction ID | MARK_AS_TRAILER_LOADED |
| Base Document Type | Load |
| Base Process Type | Load Execution |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 187. Mark Load As Trailer Loaded Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ReprocessInterval | Optional. Reprocess Interval is the time taken to reprocess the load. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 188. Mark Load As Trailer Loaded Statistics

| Statistic Name | Description |
|-----------------|----------------------------------|
| NumLoadsChanged | Number of trailer loads changed. |

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (<=) the current date value in the YFS_Task_Q table.

Events Raised

None.

Match Inventory

Match Inventory processes all pending records in the YFS_INVENTORY_SHIPMENT table. Pending records have a smaller number in POSTED_QUANTITY than in QUANTITY.

Each pending record is matched against the receipt records in YFS_INVENTORY_RECEIPT table by applying the inventory cost determination logic. The unit cost at which the sales and receipt data are matched is also posted in YFS_INVENTORY_MATCH table.

Use this transaction if any of the configured ship nodes maintain inventory cost.

Attributes

The following are the attributes for this time-triggered transaction:

Table 189. Match Inventory Attributes

| Attribute | Value |
|----------------------|-----------------|
| Base Transaction ID | INVENTORY_MATCH |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 190. Match Inventory Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| InventoryOrganizationCode | Optional. Valid inventory owner organization. Organization to process in this run. If not passed, all inventory organizations are processed. |
| CutOffDate | Optional. If passed, records are matched up to this date. Defaults to all unmatched records in Database. |
| ColonyID | Required in a multischema deployment where the YFS_INVENTORY_SHIPMENT, YFS_INVENTORY_RECEIPT, and the YFS_INVENTORY_MATCH tables may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 191. Match Inventory Statistics

| Statistic Name | Description |
|--------------------------------|--|
| NumInventoryShipmentsProcessed | Number of inventory shipments processed. |
| NumInventoryMatchesInserted | Number of inventory matches inserted. |

Pending Job Count

For this transaction the pending job count is the number of distinct inventory items that exist in the YFS_INVENTORY_SHIPMENT table where the QUANTITY value is not equal to the POSTED_QUANTITY value.

Events Raised

None.

Payment Collection

This transaction requests credit validation for orders that are pending authorization or charging.

Use this transaction for creating authorization and charge requests.

This transaction works in combination with the Payment Execution transaction. Although this transaction can run independent of that transaction, authorization and collection occurs *only* after the Payment Execution dependencies are met. For more details, see “Payment Execution” on page 334.

Attributes

The following are the attributes for this time-triggered transaction:

Table 192. Payment Collection Attributes for Sales Orders

| Attribute | Value |
|----------------------|---------------------|
| Base Transaction ID | PAYMENT_COLLECTION |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | No |
| APIs Called | requestCollection() |

Table 193. Payment Collection Attributes for Return Orders

| Attribute | Value |
|----------------------|-------------------------|
| Base Transaction ID | PAYMENT_COLLECTION.0003 |
| Base Document Type | Order |
| Base Process Type | Reverse Logistics |
| Abstract Transaction | No |
| APIs Called | requestCollection() |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 194. Payment Collection Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. The enterprise for which the transaction needs to be run. If left blank, orders for all enterprises are processed. If specified, only orders for that enterprise are processed. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |
| HoldTypeOnRollback | If the HoldTypeOnRollback criteria is populated and the requestCollection agent throws an exception, for example, from the getFundsAvailable user exit, HoldTypeOnRollback will be used to put the order on hold. If using the old order hold functionality, this will be used as the hold reason. If the hold type does not exist, an exception is thrown. If the HoldTypeOnRollback criteria is not populated, the order will not be put on hold if an exception is thrown. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 195. Payment Collection Statistics

| Statistic Name | Description |
|-----------------------------|---|
| NumOrdersProcessed | Number of orders processed. |
| NumChargeReqsCreated | Number of charge requests created. |
| NumAuthorizationReqsCreated | Number of authorization requests created. |

Pending Job Count

For this transaction the pending job count is the number of orders in the appropriate payment statuses with the value of the AUTHORIZATION_EXPIRATION_DATE is less than or equal to (<=) the current date. The appropriate payment statuses for such orders are:

- AWAIT_PAY_INFO
- AWAIT_AUTH
- REQUESTED_AUTH
- REQUEST_CHARGE
- AUTHORIZED, INVOICED
- PAID
- RELEASE_HOLD
- FAILED_AUTH

- FAILED_CHARGE
- VERIFY
- FAILED

Events Raised

The following events are raised by this time-triggered transaction:

Table 196. Events Raised by the Payment Collection Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|--------------------------------|---|--|-------------------|
| INCOMPLETE_PAYMENT_INFORMATION | modifyOrder_dbd.txt | YFS_PAYMENT_COLLECTON.INCOMPLETE_PAYMENT_INFORMATION.xml | Yes |
| PAYMENT_STATUS | YFS_PAYMENT_COLLECTION.PAYMENT_STATUS_dtd.txt | YFS_PAYMENT_COLLECTION.PAYMENT_STATUS.xml | Yes |
| REQUEST_PAYMENT_STATUS | | YFS_PAYMENT_COLLECTION.REQUEST_PAYMENT_STATUS.xml | Yes |
| ON_LIABILITY_TRANSFER | modifyOrder_dbd.txt | YFS_PAYMENT_COLLECTION.ON_LIABILITY_TRANSFER.xml | Yes |
| ON_INVOICE_COLLECTION | order_dbd/txt | YFS_CREATE_ORDER_INVOICE.ON_INVOICE_COLLECTION.xml | Yes |

Payment Execution

This transaction processes all requests that are pending authorization and charging.

Note: If the charge transaction request has an open authorization reversal, the charges are not collected.

Use this time-triggered transaction for processing all authorization and charge requests.

This transaction requires interfacing with a product that provides financial services.

Attributes

The following are the attributes for this time-triggered transaction:

Table 197. Payment Execution Attributes for Sales Orders

| Attribute | Value |
|---------------------|-------------------|
| Base Transaction ID | PAYMENT_EXECUTION |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |

Table 197. Payment Execution Attributes for Sales Orders (continued)

| Attribute | Value |
|----------------------|--|
| Abstract Transaction | No |
| APIs Called | executeCollection() |
| User Exits Called | collectionCreditCard, collectionOthers, collectionCustomerAcct |

Table 198. Payment Execution Attributes for Return Orders

| Attribute | Value |
|----------------------|--|
| Base Transaction ID | PAYMENT_EXECUTION.0003 |
| Base Document Type | Order |
| Base Process Type | Reverse Logistics |
| Abstract Transaction | No |
| APIs Called | executeCollection() |
| User Exits Called | collectionCreditCard, collectionOthers, collectionCustomerAcct |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 199. Payment Execution Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ChargeType | Type of credit card process. Valid values are: <ul style="list-style-type: none"> AUTHORIZATION - Validates the credit card account CHARGE - Applies the charge to the credit card |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 200. Payment Execution Statistics

| Statistic Name | Description |
|-------------------------------------|--|
| NumAuthTransProcessed | Number of authorization transaction processed. |
| NumAuthTransSuccessfullyProcessed | Number of successful returns from user exit for authorization transaction processed. |
| NumChargeTransProcessed | Number of charge transaction processed. |
| NumChargeTransSuccessfullyProcessed | Number of successful returns from user exit for charge transaction processed. |

Table 200. Payment Execution Statistics (continued)

| Statistic Name | Description |
|-------------------------------|---|
| NumCollectionValidations | Number of successful returns from the invoked validate collection user exits. |
| NumCreditCardCollections | Number of credit card collections. |
| NumCustomerAccountCollections | Number of successful returns from the customer account collection user exits. |
| NumOtherCollections | Number of successful returns from the other collection user exits. |

Pending Job Count

For this transaction the pending job count is the number of open charge and authorization transactions.

Events Raised

The following events are raised by this time-triggered transaction:

Table 201. Events Raised by Payment Execution Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|-------------------|------------------------|---|-------------------|
| CHARGE_FAILED | modifyOrder dbd.txt | PAYMENT_EXECUTION_ CHARGE_FAILED_dbd.txt | No |

This transaction raises events as specified under the executeCollection() API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Post Inventory Match

This transaction processes all open records in YFS_INVENTORY_MATCH table and posts the records to a financial system. An open record in the YFS_INVENTORY_MATCH table has the status of 01. After posting, the status is changed to 02.

Use this transaction if any of the configured ship nodes maintain inventory cost.

Attributes

The following are the attributes for this time-triggered transaction:

Table 202. Post Inventory Match Attributes

| Attribute | Value |
|----------------------|----------------------|
| Base Transaction ID | POST_INVENTORY_MATCH |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 203. Post Inventory Match Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multischema deployment where the YFS_INVENTORY_MATCH table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 204. Post Inventory Match Statistics

| Statistic Name | Description |
|-------------------------|---|
| NumInventoryMatchPosted | Number of inventory match records posted. |

Pending Job Count

For this transaction the pending job count is the number of inventory matches with an open status.

Events Raised

The following events are raised by this time-triggered transaction:

Table 205. Events Raised by the Post Inventory Match Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|----------------------|------------------------------|-----------------------------------|-------------------|
| POST_INVENTORY_MATCH | POST_INVENTORY_MATCH_dbd.txt | YFS_postInventoryMatch_output.xml | No |

Process Order Hold Type

You can create a time-triggered transaction, derived from the PROCESS_ORDER_HOLD_TYPE abstract transaction. It can be configured as the processing transaction for one or more hold types. If an order is associated with a hold type that has a transaction configured as the processing transaction, a record is created in the YFS_TASK_Q table for processing that transaction.

When the processing transaction is triggered, it checks the hold types that it can process based on the hold type configuration. If no hold types can be processed, the YFS_TASK_Q record is deleted. If some hold types can be processed, the processOrderHoldType user exit is invoked with the list of hold types to be processed. The processOrderHoldType user exit returns the list of hold types that can be removed from the order.

The transaction then modifies the order and updates the order hold type list based on the output returned by the processOrderHoldType user exit. If now no hold types can be processed, the YFS_TASK_Q record is deleted. If some hold types can still be processed, YFS_TASK_Q is updated with the next available date.

You can also call the processOrderHoldType user exit to add new hold types or change the status of a hold type that is already applied to an order. For more information about the processOrderHoldType user exit, see the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Attributes

The following are the attributes for this time-triggered transaction:

Table 206. Process Order Hold Type Attributes

| Attribute | Value |
|----------------------|-------------------------|
| Base Transaction ID | PROCESS_ORDER_HOLD_TYPE |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | Yes |
| APIs Called | changeOrder |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 207. Process Order Hold Type Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where the YFS_TASK_Q table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Pending Job Count

None

Events Raised

The following events are raised by this time-triggered transaction:

Table 208. Events Raised by Process Order Hold Type Transaction

| Transaction/Event | Raised when... | Key Data | Data Published | Template Support? |
|---------------------------------------|---------------------------------------|---------------------|---|-------------------|
| ON_SUCCESS | On success | modifyOrder_dbd.txt | YFS_ORDER_CHANGE.ON_SUCCESS.xml | Yes * |
| ON_HOLD_TYPE_STATUS_CHANGE | The status of a hold type is changed. | modifyOrder_dbd.txt | YFS_ON_HOLD_TYPE_STATUS_CHANGE.xml | Yes |
| ON_ORDER_LINE_HOLD_TYPE_STATUS_CHANGE | The status of a hold type is changed. | modifyOrder_dbd.txt | YFS_ON_ORDER_LINE_HOLD_TYPE_STATUS_CHANGE.xml | Yes |

* **Note:** Some of the elements and attributes are not template-driven. Refer to the xml for element level details.

Process Work Order Hold Type

This time-triggered transaction is identical to the Process Order Hold Type transaction, but it is used for work orders instead.

Attributes

The following are the attributes for this time-triggered transaction:

Table 209. Process Work Order Hold Type Attributes

| Attribute | Value |
|----------------------|----------------------------|
| Base Transaction ID | PROCESS_WO_ORDER_HOLD_TYPE |
| Base Document Type | Work Order |
| Base Process Type | VAS Process |
| Abstract Transaction | Yes |
| APIs Called | modifyWorkOrder |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 210. Process Work Order Hold Type Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |

Table 210. Process Work Order Hold Type Parameters (continued)

| Parameter | Description |
|--------------------------|--|
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Pending Job Count

None

Events Raised

The following events are raised by this time-triggered transaction:

Table 211. Events Raised by Process Work Order Hold Type Transaction

| Transaction/Event | Raised when... | Key Data | Data Published | Template Support? |
|---|---|------------------------|--|-------------------|
| ON_SUCCESS | On success | workOrder_ dbd.txt | VAS_MODIFY_ WORK_ORDER .ON_SUCCESS. xml | Yes * |
| ON_HOLD_TYPE_ STATUS_ CHANGE | The status of a hold type is changed. | workOrder_ dbd.txt | VAS_ON_HOLD_ _TYPE_STATUS _CHANGE.xml | Yes |
| * Note: Some of the elements and attributes are not template driven. Refer to the xml for elements level details. | | | | |

Publish Negotiation Results

This transaction publishes the negotiated terms to the order.

Use this transaction in environments where an order must go through a negotiation phase.

This transaction needs to be run after negotiation is completed.

Attributes

The following are the attributes for this time-triggered transaction:

Table 212. Publish Negotiation Results Attributes

| Attribute | Value |
|---------------------|-------------------------|
| Base Transaction ID | PUBLISH_ORD_NEGOTIATION |
| Base Document Type | Order |
| Base Process Type | Order Negotiation |

Table 212. Publish Negotiation Results Attributes (continued)

| Attribute | Value |
|----------------------|-------|
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 213. Publish Negotiation Results Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 214. Publish Negotiation Results Statistics

| Statistic Name | Description |
|--------------------------|-----------------------------------|
| NumNegotiationsProcessed | Number of negotiations processed. |
| NumNegotiationsPublished | Number of negotiations published. |

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (\leq) the current date value in the YFS_Task_Q table.

Events Raised

The following events are raised by this time-triggered transaction:

Table 215. Events Raised by Publish Negotiation Results Transaction

| Base Transaction | Raised when... | Key Data | Data Published | Template Support? |
|--|----------------|-------------------------|--|-------------------|
| PUBLISH_ORD _NEGOTIATION/ ON_SUCCESS | On success | Negotiation_dbd .txt | YCP_get Negotiation Details_output. xml | Yes * |

Table 215. Events Raised by Publish Negotiation Results Transaction (continued)

| Base Transaction | Raised when... | Key Data | Data Published | Template Support? |
|--|---|---|---|-------------------|
| RECEIVE_ORD _NEGOTIATION/ ON_SUCCESS | On success, when DocumentType is 0001, EntityType is ORDER. | Number of concurrent time-triggered transactions running. | receiveOrder Negotiation_dbd. txt | No |
| * Note: Template used for this event is the same template used by the getNegotiationDetails() API to form the output XML. | | | | |

Release

This transaction releases orders to specific ship nodes, making sure that the scheduled ship nodes have enough inventory to process the order.

This transaction should be invoked after the scheduling process.

For more details, see the information provided under the releaseOrder() API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

If you run the combined 'Schedule and Release' agent, do not also run the individual Schedule or the individual Release agents.

Attributes

The following are the attributes for this time-triggered transaction:

Table 216. Release Attributes

| Attribute | Value |
|---------------------|-------------------|
| Base Transaction ID | RELEASE |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| APIs Called | releaseOrder() |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 217. Release Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| IgnoreReleaseDate | Optional. Determines whether the schedule process should ignore line release date criteria. Valid values are: <ul style="list-style-type: none"> Y - Releases line quantities regardless of release date criteria N - Default value. Releases line quantities only after release date criteria have been met. |

Table 217. Release Criteria Parameters (continued)

| Parameter | Description |
|--------------------------|--|
| CheckInventory | Optional. Determine whether inventory should be checked. Valid values are: <ul style="list-style-type: none"> • Y - Default value. Inventory needs to be checked. • N - Inventory does not need to be checked. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 218. Release Criteria Statistics

| Statistic Name | Description |
|-------------------------------------|--|
| NumFutureDateFailures | Number of orders did not attempt to release because of future date failures. |
| NumOrdersAttempted | Number of orders attempted to release. |
| NumOrdersCannotBeProcessed Failures | Number of orders did not attempt to release because of cannot be processed failures. |
| NumOrdersProcessed | Number of orders processed. |
| NumOrdersReleased | Number of orders released. |
| NumOrdersBackordered | Number of orders backordered. |
| NumOrderLinesReleased | Number of order lines released. |
| NumOrderLinesBackordered | Number of order lines backordered. |
| NumReleasesCreated | Number of order releases created. |
| NumOrdersCannotBeProcessed Failures | Number of orders that were not released due to process failure. |

If the release process results in splitting of an order line, NumOrderLinesReleased, NumOrderLinesBackordered, and NumOfReleasesCreated may result in more than one count.

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (\leq) the current date value in the YFS_Task_Q table, if tasks on hold are not ready to be processed.

Events Raised

This transaction raises events as specified under the releaseOrder() API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Route Shipment

This time-triggered transaction is used to route shipments and belongs to the Outbound Shipment pipeline. It assigns the Carrier and Carrier Service codes for the shipment based on the Routing Guide configured.

The Route Shipment transaction either includes shipments in an existing load or creates a new load and includes the shipments in it.

Shipments can be consolidated to a load, only if the following conditions are met:

- Expected Ship Date - The expected ship date of the shipments must be less than or equal to the must ship before date of the load.
- Expected Load Departure Date - The expected load departure date must be less than or equal to the must ship before date of the shipments in the load.

The must ship before date is a date computed for the load, based on all shipments present in the load. For example, if a load has three shipments with their must ship before dates as 12.22.2005, 12.12.2005, and 12.19.2005 respectively, then the must ship before date of the load is computed as 12.12.2005, as it is the earliest of the three dates.

Attributes

The following are the attributes for this time-triggered transaction:

Table 219. Route Shipment

| Attribute | Value |
|----------------------|--|
| Base Transaction ID | ROUTE_SHIPMENT.0001 |
| Base Document Type | Order |
| Base Process Type | ORDER_DELIVERY |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | com.yantra.ydm.japi.ue.YDMOverrideDetermineRoutingUE com.yantra.ydm.japi.ue.YDMBeforeDetermineRoutingUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 220. Route Shipment Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where YFS_SHIPMENT table may exist in multiple schemas. Runs the agent for the colony. |

Table 220. Route Shipment Criteria Parameters (continued)

| Parameter | Description |
|--------------------|---|
| CollectPendingJobs | If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 221. Route Shipment Statistics

| Statistic Name | Description |
|----------------|-----------------------------|
| NumRouted | Number of shipments routed. |

Pending Job Count

For this transaction the pending job count is the number of records representing the unheld orders that are available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (<=) the current date value in the YFS_Task_Q table.

Events Raised

The following events are raised by this time-triggered transaction:

Table 222. Events Raised by the Route Shipment Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|-------------------|------------------|-----------------------------------|-------------------|
| ON_SUCCESS | shipment_dbd.txt | YDM_ROUTE_SHIPMENT.ON_SUCCESS.xml | Yes |
| ON_FAILURE | shipment_dbd.txt | YDM_ROUTE_SHIPMENT.ON_FAILURE.xml | Yes |

However, note that the template name would read <TransactionId>.ON_SUCCESS.xml.

Schedule

This transaction schedules orders to specific ship nodes making sure that the scheduled ship nodes have enough inventory to process the order.

Run this transaction after order creation.

Do not run the individual Schedule or Release agents when running the combined "Schedule and Release" agent.

Attributes

The following are the attributes for this time-triggered transaction:

Table 223. Schedule Attributes

| Attribute | Value |
|---------------------|-------------------|
| Base Transaction ID | SCHEDULE |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| APIs Called | scheduleOrder() |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 224. Schedule Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| MaximumRecords | Determines the maximum number of possible solutions that the Schedule Agent can find. This parameter may improve the best solution found, but it also impacts the performance of this agent. If left blank or specified as 0 (zero), it defaults to 5. |
| OptimizationType | Optional. Determines the optimization rules to apply to the scheduling process. Valid values are: <ul style="list-style-type: none"> • 01 - Optimize on date (Default) • 02 - Optimize on ship node priority • 03 - Optimize on number of shipments |
| OrderFilter | Optional. Determines the types of orders to filter. Possible values are: <ul style="list-style-type: none"> • A - All orders (Default) • B - Backorders only • N - New orders only |
| ScheduleAndRelease | Optional. Notify the schedule process to release all releasable line quantities. Valid values are: <ul style="list-style-type: none"> • Y - Releases successfully scheduled line quantities. • N - Default value. Only schedules line quantities. Enabling this parameter does not validate hold types configured for the release transaction. |
| IgnoreReleaseDate | Optional. Determines whether the schedule process should ignore line release date criteria. Valid values are: <ul style="list-style-type: none"> • Y - Releases line quantities regardless of release date criteria. • N - Releases lines quantities only after release date criteria have been met. Default. |

Table 224. Schedule Criteria Parameters (continued)

| Parameter | Description |
|--------------------------|---|
| Next Task Queue Interval | Not used. This agent updates a failed task so that it is suspended for the back order retry interval setup in the appropriately scheduled rule. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 225. Schedule Statistics

| Statistic Name | Description |
|-------------------------------------|--|
| NumFutureDateFailures | <p>Number of orders that Sterling Selling and Fulfillment Foundation did not attempt to schedule because of future date failures.</p> <p>Failures can be caused by any of the following:</p> <ul style="list-style-type: none"> • If the OrderFilter is “B” (Backorders Only) and there are no backordered or unscheduled lines. • If the OrderFilter is “N” (New orders Only) and there are some backordered or unscheduled lines. • If order has order lines within only backordered or unscheduled status and the status modify timestamp is after the current time - the back order wait period specified in the scheduling rule. |
| NumOrdersAttempted | Number of orders attempted to schedule. This statistic does not include the values for NumFutureDateFailures and NumOrdersCannotBeProcessedFailures statistics. |
| NumOrderLinesReleased | Number of order lines that have been released. |
| NumOrdersCannotBeProcessed Failures | <p>Number of orders that Sterling Selling and Fulfillment Foundation did not attempt to schedule because of cannot be processed failures.</p> <p>Failures can be caused by any of the following:</p> <ul style="list-style-type: none"> • The result of the YFSCheckOrderBeforeProcessingUE user exit returns as false. • The Order has the HoldFlag attribute set to ‘Y’. • The Order has the SaleVoided attribute set to ‘Y’. • The Order does not have PaymentStatus as AUTHORIZED, INVOICED, PAID, nor NOT_APPLICABLE. |
| NumOrdersCreated | Number of orders created. This also includes the number of procurement orders created. |
| NumOrderLinesCreated | Number of order lines created. |
| NumOrdersProcessed | Number of orders processed. |

Table 225. Schedule Statistics (continued)

| Statistic Name | Description |
|-----------------------------------|---|
| NumOrdersScheduled | Number of orders that have at least one line that was scheduled. This includes scheduled lines in any status except BACKORDER. |
| NumOrdersProcOrdersCreated | Number of procurement orders created. |
| NumWorkOrdersCreated | Number of work orders created. |
| NumOrdersBackordered | Number of orders backordered. |
| NumOrderLinesScheduled | Number of order lines scheduled. |
| NumOrderLinesBackordered | Number of order lines backordered. |
| NumReleasesCreated | Number of order releases created. |

Pending Job Count

For this transaction the pending job count is the number of records representing the unheld orders that are available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (<=) the current date value in the YFS_Task_Q table, if tasks on hold are not ready to be processed.

Events Raised

This transaction raises events as specified under the scheduleOrder() API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Providing Oracle Hints

You can provide Oracle Hints to increase the performance of the scheduleOrder agent. The two hints that can be provided for each criteria ID of the scheduleOrder agent are the Outer Hint and the Inner Hint. The Outer Hint is always used for the YFS_TASK_Q table. The Inner Hint is used for the YFS_ORDER_HEADER table only if the earlier hold functionality is used; otherwise, the Inner Hint is used for the YFS_ORDER_RELEASE_STATUS table.

Insert the following entries in the yfs.properties file in order to enable Oracle Hints:

1. Edit the <INSTALL_DIR>/properties/yfs.properties file.
2. Insert yfs.<agent_criteria_id>.getjobs.hint.outer=/*+ parallel(YFS_TASK_Q 8) full(yfs_task_q) */
Insert yfs.<agent_criteria_id>.getjobs.hint.inner=/*+ NL_SJ */

Send Invoice

This transaction publishes invoice data that can be directed to an external accounts receivable system.

In environments that require an interface with accounts receivable systems, this transaction needs to be scheduled. This transaction raises an event for an invoice based on the following configuration at the following times in the order lifecycle:

- Publish invoice at shipment creation - This implies that your accounts payable system takes care of payment collection. Invoices can be published as soon as they are created.
- Publish invoice after payment collection - This implies that the Console take care of the payment collection. When payment is in the AT_COLLECT status and the payment is not from an external system, an invoice is published only if the entire payment amount is collected. If the payment is in the AT_CREATE status or the payment is from an external system, the invoice is published unconditionally.

Many of this transaction's elements and attributes are template driven. Refer to the XML for element level details.

Attributes

The following are the attributes for this time-triggered transaction:

Table 226. Send Invoice Attributes

| Attribute | Value |
|----------------------|--------------------------|
| Base Transaction ID | SEND_INVOICE |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | No |
| APIs Called | getOrderInvoiceDetails() |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 227. Send Invoice Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 228. Send Invoice Statistics

| Statistic Name | Description |
|-----------------|--------------------------|
| NumInvoicesSent | Number of invoices sent. |

Pending Job Count

For this transaction the pending job count is the number of order invoices in created ("00") status.

Events Raised

The following events are raised by this time-triggered transaction:

Table 229. Events Raised by the Send Invoice Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|------------------------|---|---------------------------------------|-------------------|
| PUBLISH_INVOICE_DETAIL | modifyOrder_dbd.txt and sendInvoice_dbd.txt | YFS_getOrderInvoiceDetails_output.xml | Yes |

Additional events may be raised by the `getOrderInvoiceDetails()` API. For detailed information about the events, see the details provided under this API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Send Item Changes

In integrated environments, this transaction publishes item data changes that are directed to an external system.

When item changes occur in Sterling Selling and Fulfillment Foundation, they need to be communicated to the external system.

The business process may require the synchronization of items all at once in a batch. For example, at the end of each business day, the `sendItemChanges` agent can be configured to synchronize items based on the synchronization logic. This transaction retrieves all items that are not logical kit or dynamic physical kit items and whose `SyncTS` is null or `MaxModifyTS` is greater than the `SyncTS`.

The `MaxModifyTS` of an item is updated with the current timestamp whenever an item is modified. The transaction then retrieves detailed information about those items and raises the `ON_SUCCESS` event. This event should be configured to invoke the Send Item Changes action.

For more information about how this integration is implemented, see the *Sterling Selling and Fulfillment Foundation: Integration Guide*.

Attributes

The following are the attributes for this time-triggered transaction:

Table 230. Send Item Changes Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | SEND_ITEM_CHANGES |
| Base Document Type | None |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 231. Send Item Changes Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Organization Code | Optional. The organization from which items are synchronized. This field is blank by default. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Pending Job Count

For this transaction the pending job count is the number of items requiring synchronization. This is determined for product items that are not logical kit or dynamic physical kit items and whose SyncTS is null or MaxModifyTS is greater than the SyncTS.

Events Raised

The following events are raised by this time-triggered transaction:

Table 232. Events Raised by the Send Item Changes Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|-------------------|----------|--------------------------------------|-------------------|
| ON_SUCCESS | None | YCM_SEND_ITEM_CHANGES_ON_SUCCESS.XML | Yes |

Send Customer Changes

In integrated environments, this transaction publishes customer data changes that are directed to an external system.

When customer changes occur in Sterling Selling and Fulfillment Foundation, they need to be communicated to the external system.

The business process may require the synchronization of customers all at once in a batch. For example, at the end of each business day, the sendItemChanges agent can be configured to synchronize items based on the synchronization logic. This transaction retrieves all customers that are consumers, have a user ID present, and are required to synchronize. This transaction can also be used to complete the initial synchronization of users between the two systems. For example, if an

external system is already in place, and Sterling Selling and Fulfillment Foundation is then added, the SendCustomerChanges agent synchronizes the users from the external system.

The sendCustomerChanges agent also serves as a backup mechanism. If a customer synchronization event fails, the agent automatically retries the synchronization after a specified amount of time.

The MaxModifyTS of an customer is updated with the current timestamp whenever an customer is modified, whenever syncTS is less than MaxModifyTS, or when syncTS is null. The transaction then retrieves detailed information about those customers and raises the ON_SUCCESS event. This event should be configured to invoke the Send Customer Changes action.

For more information about how this integration is implemented, see the *Sterling Selling and Fulfillment Foundation: Integration Guide*.

Attributes

The following are the attributes for this time-triggered transaction:

Table 233. Send Customer Changes Attributes

| Attribute | Value |
|----------------------|-----------------------|
| Base Transaction ID | SEND_CUSTOMER_CHANGES |
| Base Document Type | None |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 234. Send Customer Changes Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Organization Code | Optional. The organization from which customers are synchronized. This field is blank by default. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Pending Job Count

For this transaction the pending job count is the number of customers requiring synchronization. This is determined for customers that are consumers, have a user

ID present, and are required to synchronize.

Events Raised

The following events are raised by this time-triggered transaction:

Table 235. Events Raised by the Send Customer Changes Transaction

| Transaction/Event | Key Data | Data Published | Template Support? |
|----------------------------------|----------|--|-------------------|
| SEND_CUSTOMER_CHANGES.ON_SUCCESS | None | YSC_SEND_CUSTOMER_CHANGES.ON_SUCCESS.XML | Yes |

Send Order

This transaction tries to raise the ON_SUCCESS event for an order whose OrderHeaderKey is stored in the task queue object. The event is raised only if all of the order lines of the order reach particular status(es) completely. That is, the entire ORDERED_QTY of each line must be in the particular status(es). In addition to raising the event, the line statuses are also changed to the drop statuses, corresponding to the pickup statuses. The SendOrder transaction, derived from the abstract transaction SEND_ORDER, should have the event, pickup, and drop statuses configured. For more information, see the details provided under the sendOrder() API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

If an order needs to be communicated to a third party, use this transaction.

The TransactionKey posted in the task object must be an instance of the Abstract Transaction SEND_ORDER for the ProcessType associated with the Order. Otherwise, an exception is thrown.

Attributes

The following are the attributes for this time-triggered transaction:

Table 236. Send Order Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | SEND_ORDER |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | Yes |
| APIs Called | sendOrder() |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 237. Send Order Criteria Parameters

| Parameter | Description |
|-----------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |

Table 237. Send Order Criteria Parameters (continued)

| Parameter | Description |
|-----------------------------|--|
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (<=) the current date value in the YFS_Task_Q table.

Events Raised

This transaction raises events as specified under the sendOrder() API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Send Release

The Send Release Agent dispatches releases to ship nodes.

Attributes

The following are the attributes for this time-triggered transaction:

Table 238. Send Release Attributes

| Attribute | Value |
|----------------------|--|
| Transaction Name | Send Release |
| Transaction ID | SHIP_ADVICE |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | No |
| APIs Called | com.yantra.yfs.agent.YFSWMSShipAdviceAgent |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 239. Send Release Criteria Parameters

| Parameter | Description |
|-----------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |

Table 239. Send Release Criteria Parameters (continued)

| Parameter | Description |
|-----------------------------|--|
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 240. Send Release Statistics

| Statistic Name | Description |
|----------------------|-------------------------------------|
| NumReleasesProcessed | Number of order releases processed. |
| NumReleasesSent | Number of order releases sent. |

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (\leq) the current date value in the YFS_Task_Q table.

Events Raised

The following events are raised by this time-triggered transaction:

Table 241. Events Raised by the Send Release Transaction

| Transaction/Event | Data Published |
|---------------------|----------------------------------|
| PUBLISH_SHIP_ADVICE | YFS_publishShipAdvice_output.xml |

Start Order Negotiation

This transaction creates the negotiations for orders that are configured to go through the negotiation process.

Use this transaction in environments where an Order needs to go through a Negotiation phase before it is released.

Attributes

The following are the attributes for this time-triggered transaction:

Table 242. Start Order Negotiation Attributes

| Attribute | Value |
|---------------------|-----------------------|
| Base Transaction ID | START_ORD_NEGOTIATION |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |

Table 242. Start Order Negotiation Attributes (continued)

| Attribute | Value |
|----------------------|---|
| Abstract Transaction | No |
| APIs Called | createNegotiation() |
| User Exits Called | YCPBeforeCreateNegotiationUE, YCPGetNegotiationNoUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 243. Start Order Negotiation Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| Node | Required. The ship node for which records are being processed. |
| ColonyID | Required in a multischema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 244. Start Order Negotiation Statistics

| Statistic Name | Description |
|------------------------|---------------------------------|
| NumOrdersProcessed | Number of orders processed. |
| NumNegotiationsCreated | Number of negotiations created. |

Pending Job Count

For this transaction the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (<=) the current date value in the YFS_Task_Q table.

Events Raised

This transaction raises events as specified under the createNegotiation() API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Synchronize Colony Map

The Colony Map Synchronizer agent inserts or updates colony mappings of organizations and users in the PLT_COLONY_MAP table. When you run the agent

for the first time, it populates this table, which is a necessary step in upgrading to multischema mode after installing or upgrading Sterling Selling and Fulfillment Foundation.

For more information about upgrading to multischema mode, see the *Sterling Selling and Fulfillment Foundation: Multi-Tenant Enterprise Guide*.

Attributes

The following are attributes for this time-triggered transaction:

Table 245. Colony Map Synchronizer Attributes

| Attribute | Value |
|----------------------|-----------------|
| Base Transaction ID | COLONY_MAP_SYNC |
| Base Process Type | General |
| Abstract Transaction | No |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 246. Colony Map Synchronizer Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records to Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | The colony to be synchronized. Initially, you must run the agent on the DEFAULT colony provided by the Sterling Selling and Fulfillment Foundation installation so that it populates the PLT_COLONY_MAP table. After this, you can run the agent on another ColonyID. |
| InsertDefaultMappings | If set to Y, users for which the colony cannot be determined will be mapped to the colony for which the Colony Map Synchronizer agent is run. |

Statistics Tracked

None.

Pending Job Count

None.

Events Raised

None.

Tables Purged

None.

Update Best Match Region

The Update Best Match Region transaction manages the YFS_REGION_BEST_MATCH table, which is used by Data Warehouse Analytics to report best match region data. The best match region is defined by the following five address attributes in person info records:

- ADDRESS_LINE6
- CITY
- STATE
- SHORT_ZIP_CODE
- COUNTRY

Note: COUNTRY refers to Country/Region.

The agent for the Update Best Match Region transaction runs in two modes that allow you to set up and update the YFS_REGION_BEST_MATCH table.

Attributes

The following are the attributes for this time-triggered transaction:

Table 247. Update Best Match Region Attributes

| Attribute | Value |
|----------------------|--------------------------|
| Base Transaction ID | UPDATE_BEST_MATCH_REGION |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YSCGetShortZipCode UE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 248. Update Best Match Region Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If UpdateOnly = N, only distinct records are returned per agent call. If left blank, it defaults to 1000. |

Table 248. Update Best Match Region Criteria Parameters (continued)

| Parameter | Description |
|--------------------------------|---|
| TableType | <p>Required in a multischema deployment when YFS_Person_Info table may exist in multiple schemas.</p> <p>Valid Values: CONFIGURATION, TRANSACTION, MASTER.</p> <p>If set to CONFIGURATION, the agent runs for the YFS_Person_Info records associated with tables that have TableType as CONFIGURATION; for example, YFS_Organization, YFS_Ship_Node, and so forth.</p> <p>If set to TRANSACTION, the agent runs for the YFS_Person_Info records associated with tables that have TableType as TRANSACTION; for example, YFS_Order_Header, YFS_Shipment, and so forth.</p> <p>Note that the agent would run for all TableTypes that exist in the same schema as the one passed. For example, if set to TRANSACTION, the agent would also run for YFS_Person_Info records associated with tables that have TableType as MASTER, since they reside in the same schema.</p> |
| ColonyID | <p>Required in a multi schema deployment where the YFS_PERSON_INFO table may exist in multiple schemas. Runs the agent for the colony.</p> |
| UpdateOnly | <p>Mode in which to run. Valid values are:</p> <ul style="list-style-type: none"> • N - Default value. Adds records from the YFS_PERSON_INFO table to the YFS_REGION_BEST_MATCH table and populates the region key in the YFS_BEST_MATCH table. To perform the initial setup of Best Match Region for Analytics, set UpdateOnly to N. • Y - Update mode. Updates region keys based on addresses in YFS_REGION_BEST_MATCH. After performing the initial setup of Best Match Region for Analytics, set this value to Y to specify update mode. |
| LastPersonInfoKey | <p>Optional. If UpdateOnly is set to N, LastPersonInfoKey determines the first person info record to populate. If no key is specified, the value defaults to Null.</p> |
| LastRegionBest MatchKey | <p>Optional. If UpdateOnly is set to Y, LastRegionBestMatchKey determines the first region best match key to update. If no key is specified, the value defaults to Null.</p> |

Statistics Tracked

None.

Pending Job Count

None.

Events Raised

None.

Tables Purged

None.

PopulateOwnershipTransferSummary

This method updates the YFS_OWNERSHIP_TRANSFER_SUMMARY table.

This transaction updates the YFS_OWNERSHIP_TRANSFER_SUMMARY table by checking the records in YFS_INV_OWN_TRANSFER_RCD table.

It also updates the IS_STATISTICS_UPDATED to 'Y' in YFS_INV_OWN_TRANSFER_RCD table after the record has been used by the transaction.

Attributes

Following are the attributes for this time-triggered transaction:

Table 249. YFSPopulateOwnershipTransfer Attributes

| Attribute | Value |
|----------------------|-------------------------|
| Base Transaction ID | POPULATE_OWN_TRANS_SUMM |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

Following are the criteria parameters for this transaction:

Table 250. YFSPopulateOwnershipTransfer Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, which is the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multi schema deployment where the YFS_OWNERSHIP_TRANSFER_SUMMARY and YFS_INV_OWN_TRANSFER_RCD tables may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None

Pending Job Count

None

Events Raised

None

YSCRecycleEntityAttributeAgent

The YSCRecycleEntityAttributeAgent fetches all the "INACTIVE" attributes for a given entity and document type, of an enterprise, and marks them as "DELETED". The values in the corresponding columns mapped to "INACTIVE" attributes in the hang off tables as well as the history table of the hang off tables are also cleaned up. The agent queries the EntityDomain table for all the supported entities and document types, and retrieves the INACTIVE custom attributes for these domains. A message is created for each domain and for each message, the agent updates the entity for columns listed in the message. The agent uses the criteria information, NumberOfRecordsToBuffer, to determine the number of records to be updated per the message in the hang-off tables. The corresponding YFS_Attribute records are also deleted from the database for all the DELETED custom attributes.

Attributes

Table 251. YSCRecycleEntityAttributeAgent Attributes

| Attribute | Value |
|---------------------|--------------------------|
| Base Transaction ID | RECYCLE_ENTITY_ATTRIBUTE |
| Base Process Type | General |

Criteria Parameters

Table 252. YSCRecycleEntityAttributeAgent Criteria Parameters

| Parameter Name | Description |
|-----------------------------|--|
| Action | Required. This parameter triggers the transaction. The default value is set to "Get". |
| Number of Records To Buffer | The number of records to retrieve and process by the agent is set in this attribute. Default value is "0". |
| Enterprise Code | The enterprise for which the recycle agent is run. |
| CollectPendingJobs | By default, this is set to "N". It cannot be modified. |

Events Raised

None.

Statistics Tracked

None.

Pending Job Count

None

Time-Triggered Purge Transactions

There are several transactions that you can use to purge your database tables at specific time intervals.

Purge transactions determine when a table should be purged by determining the current date and subtracting the retention days specified by the purge. If the timestamp on the table is less than or equal to (current day - retention days) the table is purged.

In some cases, a purge may look at another field other than the table's timestamp. These are pointed out in the documentation.

When an entity is being purged, the related or dependent information that is present in other tables should be taken into consideration for purging along with it. For example, if a sales order with live shipments is being purged, any cross reference to that order is not accurate in the Order Shipment Console. As another example, agents such as Purge Order and Purge Order History also purge the records from extension tables, such as `yfs_order_header_extension` and `yfs_order_line_extension`, as well as their associated histories.

Some of the statistics collected and tracked in Release 9.1 for time-triggered transactions, monitors, and integration and application servers may change with the next release of Sterling Selling and Fulfillment Foundation.

All Time-Triggered Purge Transactions have a `CollectPendingJobs` criteria parameter. If this parameter is set to `N`, the agent does not collect information on the pending jobs for that time-triggered transaction. This pending job information is used for monitoring the monitor in the System Management Console.

By default, `CollectPendingJobs` is set to `Y`. It can be helpful to set it to `N` if one particular time-triggered transaction is performing a significant amount of `getPendingJobs` queries, and the overhead cost is too high.

Purge Strategy

The following recommendations should be taken into consideration when planning a purge strategy for each purge transaction:

- Test purges by setting `Live` to 'N'.
- Turn on logging to test what is purged.
- Set up purge traces in the System Management Console and analyze the information.

Configuring Purge Transaction Log Files

About this task

You can configure purges to write log files to a directory you specify. Each time you run a particular purge, new data is appended to this file. If no file exists, one is created.

To specify a purge log file directory:

Procedure

1. Configure the `yfs.purge.path` property in the `<INSTALL_DIR>/properties/customer_overrides.properties` file. For example, on UNIX you might specify the log files to be written to the `/app/yfs/logs/purges` directory.

For additional information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

- Run the <INSTALL_DIR>/bin/setupfiles.sh script on UNIX, or the <INSTALL_DIR>/bin/setupfiles.cmd script on Windows.

Available Purges

This section contains details of all purge transactions in alphabetical order.

Access Token Purge

This purge removes access tokens from the system. If all of the following conditions are met, the PLT_ACCESS_TOKEN table is picked up for purge:

- The access token is expired or is in inactive state.
- The last modified date is earlier than or equal to the current date minus the purge criteria's retention days.

Attributes

The following are the attributes for this time-triggered transaction:

Table 253. Access Token Purge Attributes

| Attribute | Value |
|----------------------|--------------|
| Base Transaction ID | ACCESSTOKPRG |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 254. Access Token Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| CollectPendingJobs | If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the . |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 255. Access Token Purge Statistics

| Statistic Name | Description |
|----------------------|--|
| NumAccessTokenPurged | Number of access token records purged. |

Pending Job Count

For this transaction the pending job count is the number of records that can be purged from the PLT_ACCESS_TOKEN table.

Events Raised

None.

Tables Purged

PLT_ACCESS_TOKEN

Capacity Purge

This purge removes capacity data from the system. This reduces the load on frequently accessed tables.

Any enterprise using the Console must schedule purge transactions.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, a capacity data gets picked up for purge:

- All resource pool standard capacity periods with effective to date earlier than or equal to the current date minus the purge criteria's retention days.
- All resource pool overridden capacity with the capacity date earlier than or equal to the current date minus the purge criteria's retention days.
- All resource pool capacity consumption with consumption date less than or equal to the current date minus the purge criteria's retention days.
- All resource pool capacity consumption details where appointment date is earlier than the system date minus the purge criteria's retention days (or ManualReservationPurgeLeadDays for manually created reservations).
- All resource pool capacity consumption details where expiration date has passed and reservation Id is not blank.

Attributes

The following are the attributes for this time-triggered transaction:

Table 256. Capacity Purge Attributes

| Attribute | Value |
|----------------------|-------------|
| Base Transaction ID | CAPACITYPRG |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |

Table 256. Capacity Purge Attributes (continued)

| Attribute | Value |
|-------------------|------------------|
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 257. Capacity Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 258. Capacity Purge Statistics

| Statistic Name | Description |
|-------------------------------|---|
| NumStdCapacityPeriodsPurged | Number of standard capacity periods purged. |
| NumCapacityOverridesPurged | Number of capacity overrides purged. |
| NumCapacityConsumptionsPurged | Number of capacity consumptions purged. |

Pending Job Count

For this transaction the pending job count is the total number of records that can be purged from the YFS_RES_POOL_STD_CAPCTY_PERD, YFS_RES_POOL_CAPCTY_OVERRIDE, YFS_RES_POOL_CONSMPTN_DTLS and YFS_RES_POOL_CAPCTY_CONSMPTN tables.

Events Raised

None.

Tables Purged

The YFS_RES_POOL_STD_CAPCTY_PERD table is purged when $EFFECTIVE_TO_DATE \leq (CurrentDate - LeadDays)$

The YFS_RES_POOL_CAPCTY_OVERRIDE table is purged when $CAPACITY_DATE \leq (CurrentDate - LeadDays)$

The YFS_RES_POOL_CAPCTY_CONSMPTN table is purged when $CONSUMPTION_DATE \leq (CurrentDate - LeadDays)$, or if a manual reservation is taken, when $CONSUMPTION_DATE \leq (CurrentDate - Manual\ Reservation\ Retention\ Days)$. When this table is purged, YFS_RES_POOL_CONSMPTN_DTLS is also purged.

The YFS_RES_POOL_CONSMPTN_DTLS table is purged when $RESERVATION_EXPIRATION_DATE \leq (CurrentDate - LeadDays)$

Draft Order History Purge

This purge deletes data from history tables after a specified interval, which in turn, reduces the load on frequently accessed tables.

You can use purge codes' pseudo-logic to analyze the purges. If the following condition is met, a draft order is picked up for history purge:

- The last modified date of the draft order exceeds the retention day period.

All the enterprise using the Console must schedule purge transactions.

For more information about Additional Purge Criteria Based on Line Type, see the *Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide*.

Note: The draft order must be purged and moved to the history tables before you purge the draft order history tables. See “Draft Order Purge” on page 369.

Sterling Selling and Fulfillment Foundation does not provide a transaction for draft order history purges. If you are defining a transaction that purges draft order history tables, refer to the following Criteria Parameters section for information about the transaction criteria.

If you do not want to define your own transaction to purge draft order history tables, you can use the Order Purge transaction and specify DRAFTORDERHISTPRG for the PurgeCode. To configure the Order Purge transaction for draft order history table purges, refer to “Order Purge” on page 397 for more information.

Criteria Parameters

The following are the criteria parameters for defining a draft order history transaction:

Table 259. Draft Order History Purge Criteria Parameters

| Parameter | Description |
|-----------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |

Table 259. Draft Order History Purge Criteria Parameters (continued)

| Parameter | Description |
|------------------------------------|--|
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Required. Enterprise for which the Draft Order History Purge has to be run. If not passed, all the enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> • Y - Default value. Removes qualifying records from the history tables that are listed in Tables Purged. • N - Test mode. Determines the rows that are removed without actually removing them. |
| PurgeCode | Required. Set to DRAFTORDERHISTPRG. Used for internal calculations, such as determining retention days. Corresponds to the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Events Raised

None.

Tables Purged

YFS_ANSWER_SET_TRAN_H

YFS_ANSWER_TRAN_H

YFS_CHARGE_TRAN_DIST_H

YFS_CHARGE_TRANSACTION_H

YFS_CREDIT_CARD_TRANSACTION_H

YFS_ENTITY_ADDRESS_H

YFS_HEADER_CHARGES_H

YFS_INSTRUCTION_DETAIL_H

YFS_INVOICE_COLLECTION_H

YFS_LINE_CHARGES_H

YFS_NOTES_H

YFS_ORDER_AUDIT_DETAIL_H

YFS_ORDER_AUDIT_H

YFS_ORDER_AUDIT_LEVEL_H
YFS_ORDER_DATE_H
YFS_ORDER_HEADER_H
YFS_ORDER_HEADER_H_EXTENSION
YFS_ORDER_HOLD_TYPE_H
YFS_ORDER_HOLD_TYPE_LOG_H
YFS_ORDER_INVOICE_DETAIL_H
YFS_ORDER_INVOICE_H
YFS_ORDER_KIT_LINE_H
YFS_ORDER_KIT_LINE_SCHEDULE_H
YFS_ORDER_LINE_H
YFS_ORDER_LINE_H_EXTENSION
YFS_ORDER_LINE_OPTION_H
YFS_ORDER_LINE_REQ_TAG_H
YFS_ORDER_LINE_SCHEDULE_H
YFS_ORDER_PROD_SER_ASSOC_H
YFS_ORDER_RELEASE_H
YFS_ORDER_RELEASE_STATUS_H
YFS_ORDER_SER_PROD_ITEM_H
YFS_PAYMENT_H
YFS_PROMOTION_AWARD_H
YFS_PROMOTION_H
YFS_RECEIVING_DISCREPANCY_DTL_H
YFS_RECEIVING_DISCREPANCY_H
YFS_REFERENCE_TABLE_H
YFS_TAX_BREAKUP_H

Draft Order Purge

This purge archives data into history tables after a specified interval, which in turn, reduces the load on frequently accessed tables. For information about purging draft orders from history tables, see “Draft Order History Purge” on page 366.

Sterling Selling and Fulfillment Foundation does not provide a transaction for draft order purges. If you are defining a transaction that purges draft orders, refer to the following Criteria Parameters section for details about the transaction criteria.

If you do not want to define your own transaction to purge draft orders, you can use the Order Purge transaction and specify DRAFTORDERPRG for the PurgeCode. To configure the Order Purge transaction for draft order purges, refer to “Order Purge” on page 397 for more information.

All the enterprise using the Console must schedule purge transactions.

Draft orders are picked up by the agent for validation when the following conditions are met:

- Draft order flag is set to Y.
- Modifyts is set for the retention date.

After the draft orders are picked up, each draft order is validated for purging based on the following conditions:

- No eligible order release status records (records with a status larger than zero) exist for the order.
- All the open child orders (derived, chained, return, exchange, or refund fulfillment) for the order are already purged.

If a draft order meets the set of conditions for validation listed earlier, the agent continues to verify the draft orders against the following criteria:

- Contains the Draft Created (1000) status, and all the extended Draft Created statuses.
- Does not have an order release status record that does not meet the retention days.
- The order's last modification should be before the lead time (in days) setup.
- In the case when an exchange order is part of a return order, the exchange order should be purged from history tables before the return order is purged.
- In the case of an order line reservation, the draft order cannot be purged.
- If the Draft Order Payment Processing flag is set to N, the draft orders are purged.
- If the Draft Order Payment Processing flag is set to Y and a charge exists on a draft order, the draft order is not purged. However, authorizations are not considered when validating draft orders for purge.
- For order lines, except service order lines:
 - If the Seller inventory update is required, the Status Inventory Type has the Update Seller Supply option turned on, and the Seller Supply Type is Onhand, or blank. (The Seller Supply Type can also be a custom seller supply type, with the Onhand Supply check box enabled.)
 - If the Seller Demand Type is blank.
 - If the Buyer inventory update is required, and the Buyer Supply Type is Onhand, or blank.

Criteria Parameters

The following are the criteria parameters for defining a draft order purge transaction:

Table 260. Draft Order Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies (in hours) how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| EnterpriseCode | Required. Enterprise for which the Draft Order Purge has to be run. If not passed, all the enterprises are monitored. When the EnterpriseCode is blank, the purge criteria configured for the DEFAULT enterprise is used, and not the purge criteria configured for the draft order's enterprise. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged, to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Set to DRAFTORDERPRG. Used for internal calculations, such as determining retention days. Corresponds to the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Events Raised

None.

Tables Purged

YFS_ACTIVITY_DEMAND

YFS_ANSWER_SET_TRAN

YFS_ANSWER_TRAN

YFS_CHARGE_TRANSACTION

YFS_CHARGE_TRAN_DIST

YFS_CREDIT_CARD_TRANSACTION

YFS_ENTITY_ADDRESS
YFS_HEADER_CHARGES
YFS_INSTRUCTION_DETAIL
YFS_INVOICE_COLLECTION
YFS_LINE_CHARGES
YFS_MONITOR_ALERT
YFS_NOTES
YFS_ORDER_AUDIT
YFS_ORDER_AUDIT_DETAIL
YFS_ORDER_AUDIT_LEVEL
YFS_ORDER_HEADER
YFS_ORDER_HEADER_EXTENSION
YFS_ORDER_HOLD_TYPE
YFS_ORDER_HOLD_TYPE_LOG
YFS_ORDER_INVOICE
YFS_ORDER_INVOICE_DETAIL
YFS_ORDER_KIT_LINE
YFS_ORDER_KIT_LINE_SCHEDULE
YFS_ORDER_LINE
YFS_ORDER_LINE_EXTENSION
YFS_ORDER_LINE_OPTION
YFS_ORDER_LINE_REQ_TAG
YFS_ORDER_LINE_RESERVATION
YFS_ORDER_LINE_SCHEDULE
YFS_ORDER_LINE_SRC_CNTRL
YFS_ORDER_PROD_SER_ASSOC
YFS_ORDER_RELEASE
YFS_ORDER_RELEASE_STATUS

YFS_ORDER_SER_PROD_ITEM

YFS_ORDER_DATE

YFS_PAYMENT

YFS_PMNT_TRANS_ERROR

YFS_PROMOTION

YFS_PROMOTION_AWARD

YFS_RECEIVING_DISCREPANCY

YFS_RECEIVING_DISCREPANCY_DTL

YFS_REFERENCE_TABLE

YFS_TAX_BREAKUP

Delivery Plan Purge

This purge deletes delivery plans after they have completed their typical life cycle. All the loads and shipments that are associated with the delivery plans should have been purged before running this purge agent.

It purges all the delivery plans that have been marked as 'Closed' for a period greater than the retention days specified in the criteria parameters and those that do not have any shipments or loads. The order should have been moved to history before the lead time (in days) setup.

Any enterprise using the Console must schedule purge transactions.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, a delivery plan is picked up for purge:

- The delivery plan should be in the "Closed" status.
- The delivery plan should not be associated with any load or shipment.
- All orders associated with the delivery plan should be purged.
- The last modification performed on the delivery plan should fall before the lead time (in days) setup.

Attributes

The following are the attributes for this time-triggered transaction:

Table 261. Delivery Plan Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | DELIVERYPLANPRG |
| Base Document Type | Load |
| Base Process Type | Load Execution |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 262. Delivery Plan Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Delivery Plan Purge needs to be run. If not passed, then all enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| BatchDelete | Required. The method by which all records are deleted from the table. Valid values are: <ul style="list-style-type: none">• Y - Default value. Records are deleted in batches.• N - Records are deleted one by one. |
| ColonyID | Required in a multi schema deployment where the YFS_DELIVERY_PLAN table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 263. Delivery Plan Purge Statistics

| Statistic Name | Description |
|------------------------|----------------------------------|
| NumDeliveryPlansPurged | Number of delivery plans purged. |

Pending Job Count

For this transaction the pending job count is the number of records that can be purged from the YFS_DELIVERY_PLAN table.

7 Events Raised

None.

Tables Purged

YFS_DELIVERY_PLAN

Export Table Purge

This purge removes export table data from the system. This reduces the load on frequently accessed tables.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, the YFS_EXPORT table is picked up for purge:

- YFS_EXPORT records should be marked as processed (Status = 10).
- The last modified time should fall before the lead time (in days) setup.
This purge reads only the rules defined by the hub. Enterprise overridden rules are not considered. This purge should be single threaded when you run it in batch delete mode(BatchDelete=Y).

Any enterprise using the Application Console must schedule purge transactions.

Attributes

The following are the attributes for this time-triggered transaction:

Table 264. Export Table Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | EXPORTTBLPRG |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 265. Export Table Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| BatchDelete | Required. The method by which all records are deleted from the table. Valid values are: <ul style="list-style-type: none">• Y - Records are deleted in batches.• N - Default value. Records are deleted one by one. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |

Table 265. Export Table Purge Criteria Parameters (continued)

| Parameter | Description |
|--------------------|---|
| CollectPendingJobs | If this parameter is set to "N", the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| ColonyID | Required in a multi schema deployment where the YFS_EXPORT table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 266. Export Table Purge Statistics

| Statistic Name | Description |
|------------------|---------------------------|
| NumExportsPurged | Number of exports purged. |

Pending Job Count

For this transaction the pending job count is the number of records that can be purged from the YFS_Export table.

Events Raised

None.

Tables Purged

YFS_EXPORT

Import Table Purge

This purge removes import table data from the system. This reduces the load on frequently accessed tables.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, the YFS_IMPORT table is picked up for purge:

- YFS_IMPORT records should be marked as processed (Status = "10").
- The "last modified time" should fall before the lead time (in days) setup. This purge reads only the rules defined by the hub. Enterprise overridden rules are not considered. This purge should be single threaded when you run it in batch delete mode(BatchDelete=Y).

Any enterprise using the Console must schedule purge transactions.

Attributes

The following are the attributes for this time-triggered transaction:

Table 267. Import Table Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | IMPORTTBLPRG |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 268. Import Table Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> • Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. • N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| BatchDelete | Required. The method by which all records are deleted from the table. Valid values are: <ul style="list-style-type: none"> • Y - Records are deleted in batches. • N - Default value. Records are deleted one by one. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| CollectPendingJobs | If this parameter is set to "N", the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| ColonyID | Required in a multi schema deployment where the YFS_IMPORT table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 269. Import Table Purge Statistics

| Statistic Name | Description |
|------------------|---------------------------------|
| NumImportsPurged | Number of import tables purged. |

Pending Job Count

For this transaction the pending job count is the number of records that can be purged from the YFS_Import table.

Events Raised

None.

Tables Purged

YFS_IMPORT

Inventory Audit Purge

This purge removes inventory audit data from the system. This reduces the load on frequently accessed tables.

Any enterprise using the Console must schedule purge transactions.

All inventory audits of the provided organization with modify timestamp earlier than the current date minus the purge criteria's retention days can be configured to be picked up by the Inventory Audit Purge.

You can use purge codes pseudo-logic to analyze purges. If the following condition is met, an inventory audit record is picked up for purge:

- The inventory audit record's last modification is earlier than the current timestamp minus the retention days.
Number of threads for this purge's agent criteria details must be set to 1. For more information about agent criteria, see the *Sterling Selling and Fulfillment Foundation: Configuration Guide*.

The following are the attributes for this time-triggered transaction:

Table 270. Inventory Audit Purge Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | INVENTORYAUDITPRG |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 271. Inventory Audit Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. The inventory organization for which the Inventory Audit Purge needs to be run. If not passed, then all enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Table Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 272. Inventory Audit Statistics

| Statistic Name | Description |
|--------------------------|------------------------------------|
| NumInventoryAuditsPurged | Number of inventory audits purged. |

Pending Job Count

For this transaction the pending job count is the number of records that can be purged from the YFS_Inventory_Audit table.

Events Raised

None.

Table Purged

YFS_INVENTORY_AUDIT

Inventory Purge

This purge removes inventory data from the system. This reduces the load on frequently accessed tables. This purge does not take retention days into account when purging.

You can use purge codes pseudo-logic to analyze purges.

For YFS_INVENTORY_SUPPLY, if the following conditions are met, an inventory supply is picked up for purge:

- Supply record has the same availability type as the node. For example, TRACK or INFINITE.
- Supply record has 0 quantity.
- Supply record does not contain the supply type “INFO”.

For YFS_INVENTORY_DEMAND, if the following conditions are met, an inventory demand is picked up for purge:

- Demand record has 0 quantity or lesser.
- Demand record does not have demand details as well as matching demand record in YFS_INVENTORY_DEMAND_ADDNL tables.

For YFS_INVENTORY_TAG, it is purged if the INVENTORY_TAG_KEY is not used by any of the existing supply and demand.

For YFS_INVENTORY_RESERVATION, an inventory reservation is picked up for purge if it meets the following conditions:

- Inventory reservation record has 0 quantity or ship date is earlier than the system date minus the purge criteria's retention days.

For YFS_INVENTORY_NODE_CONTROL, it is purged if the INV_PIC_INCORRECT_TILL_DATE is earlier than the current time stamp minus the purge criteria's retention days.

For YFS_IBA_TRIGGER, it is purged if IBA_REQUIRED = 'N', IBA_RUN_REQUIRED = 'N', and LAST_IBA_PROCESSED_TS is earlier than the current time stamp minus the purge criteria's retention days.

Any enterprise using the Console must schedule purge transactions.

Attributes

The following are the attributes for this time-triggered transaction:

Table 273. Inventory Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | INVENTORYPRG |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 274. Inventory Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | The inventory organization for which the Inventory Purge needs to be run. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 275. Inventory Purge Statistics

| Statistic Name | Description |
|---------------------------------------|--|
| NumInventoryDemandsPurged | Number of inventory demands purged. |
| NumInventoryNodeControlsPurged | Number of inventory node controls purged. |
| NumInventoryReservationsPurged | Number of inventory reservations purged. |
| NumInventoryTagsPurged | Number of inventory tags purged. |
| NumItemBasedAllocationTriggers Purged | Number of item based allocation triggers purged. |

Pending Job Count

For this transaction, the pending job count is the total number of records that can be purged from the YFS_Inventory_Supply, YFS_Inventory_Demand, YFS_Inventory_Tag, YFS_Inventory_Reservation, YFS_IBA_Trigger, and YFS_Inventory_Node_Control tables.

Events Raised

None.

Tables Purged

YFS_IBA_TRIGGER

YFS_INVENTORY_DEMAND

YFS_INVENTORY_TAG

YFS_INVENTORY_RESERVATION

YFS_INVENTORY_SUPPLY

YFS_INVENTORY_NODE_CONTROL

Inventory Supply Temp Purge

The Inventory Supply Temp purge agent cleans up the contents in the temporary inventory tables generated by the process of synchronizing the Sterling Selling and Fulfillment Foundation inventory picture with the actual inventory picture at the nodes.

The node inventory picture is stored during the loading process into the YFS_INVENTORY_SUPPLY_TEMP table. Once the synchronization phase is complete and the YFS_INVENTORY_SUPPLY table has been updated, the YFS_INVENTORY_SUPPLY_TEMP table needs to be purged, which is done through this agent.

For more information about configuring the synchronization with node inventory, see the *Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide*.

The Inventory Supply Temp purge agent is used to purge all records in the YFS_INVENTORY_SUPPLY_TEMP table whose modify timestamp is less than current time minus the purge criteria's retention days for a group of YantraMessageGroupID.

Attributes

The following are the attributes for this time-triggered transaction:

Table 276. Inventory Supply Temp Purge Attributes

| Attribute | Value |
|----------------------|---------------|
| Base Transaction ID | SUPPLYTEMPPRG |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 277. Inventory Supply Temp Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| EnterpriseCode | Optional. The inventory organization for which the Inventory Supply Temp Purge needs to be run. If not passed, then all enterprises are monitored. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where the YFS_INVENTORY_SUPPLY_TEMP table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 278. Inventory Supply Temp Purge Statistics

| Statistic Name | Description |
|-------------------------------|--|
| NumInventorySupplyTempsPurged | Number of entries in the YFS_INVENTORY_SUPPLY_TEMP table purged. |

Pending Job Count

Number of unique YantraMessageGroupIDs from YFS_INVENTORY_SUPPLY_TEMP table whose maximum modify timestamp is less than current timestamp minus purge criteria's lead day.

Events Raised

None.

Tables Purged

YFS_INVENTORY_SUPPLY_TEMP

Item Audit Purge

This purge removes the YFS_AUDIT table data from the system, which reduces the load on frequently accessed tables. It purges records in the YFS_AUDIT and the YFS_AUDIT_HEADER tables that meet the following conditions:

- YFS_AUDIT records that have 'modifyts' greater than the retention days specified and the records have the table name as 'YFS_ITEM'.
- The last modified time is before the lead time (in days) setup.

When the enterprise modifies records in the YFS_ITEM table through the Applications Manager, the YFS_ITEM is audited and the audit records are inserted in the YFS_AUDIT table. In order to clean up the audit records, this purge transaction can be used.

Any enterprise using the Console must schedule purge transactions accordingly.

Attributes

The following are the attributes for this time-triggered transaction:

Table 279. Item Audit Purge Attributes

| Attribute | Value |
|----------------------|----------------------|
| Base Transaction ID | YFS_ITEM_AUDIT_PURGE |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 280. Item Audit Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, the value defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), this value defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Production mode. Deletes records from the regular tables.• N - Test mode. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where the YFS_AUDIT and YFS_AUDIT_HEADER tables may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 281. Item Audit Purge Statistics

| Statistic Name | Description |
|----------------------------|--------------------------------------|
| NumItemAuditRecords Purged | Number of item audit records purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_AUDIT table that match the criteria values.

Events Raised

None.

Tables Purged

YFS_AUDIT, YFS_AUDIT_HEADER

Load History Purge

This purge deletes the load data from history tables after it completes its typical lifecycle. This reduces the load on frequently accessed tables.

Any enterprise using the Console must schedule purge transactions.

You can use purge codes pseudo-logic to analyze purges. If the last modification made to the load is before the lead time (in days) is met, a load is picked up for purge.

Before you run this transaction, ensure to purge loads and move them to history tables. For more information about purging loads, see “Load Purge” on page 386.

Attributes

The following are the attributes for this time-triggered transaction:

Table 282. Load History Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | LOADHISTPRG |
| Base Document Type | Load |
| Base Process Type | Load Execution |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 283. Load History Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Load Purge needs to be run. If not passed, all enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| Purge Code | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 284. Load History Purge Statistics

| Statistic Name | Description |
|---------------------------------|---|
| NumLoadHistoriesPurged | Number of load histories purged. |
| NumLoadShipment HistoriesPurged | Number of load shipment histories purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_Load_H table.

Events Raised

None.

Tables Purged

YFS_LOAD_H

YFS_LOAD_STOP_H

YFS_LOAD_SHIPMENT_CHARGE_H

YFS_LOAD_STATUS_AUDIT_H

YFS_SHIPMENT_CONTAINER_H

YFS_CONTAINER_ACTIVITY_H

YFS_LOADED_CONTAINER_H

YFS_LOAD_SHIPMENT_H

YFS_ADDITIONAL_DATE_H

YFS_LOAD_HOLD_TYPE_H

YFS_LOAD_HOLD_TYPE_LOG_H

Load Purge

This purge removes load data from the system. It picks up all loads that have been marked as 'Closed' and purges them. Empty Loads (for example, loads with no shipments) are not considered for purge. As a part of this purge, the associated child tables are also purged.

This is not a pipeline transaction. It also does not work from the task queue.

Any enterprise using the Console must schedule purge transactions.

You can use purge codes pseudo-logic to analyze purges. If the following condition is met, a load is picked up for purge:

- The Load's last modification should fall before the lead time (in days) setup.

Attributes

The following are the attributes for this time-triggered transaction:

Table 285. Load Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | LOADPRG |
| Base Document Type | Load |
| Base Process Type | Load Execution |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 286. Load Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |

Table 286. Load Purge Criteria Parameters (continued)

| Parameter | Description |
|----------------|--|
| EnterpriseCode | Optional. Enterprise for which the Load Purge needs to be run. If not passed, then all enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> • Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. • N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 287. Load Purge Statistics

| Statistic Name | Description |
|------------------------|----------------------------------|
| NumLoadShipmentsPurged | Number of load shipments purged. |
| NumLoadsPurged | Number of loads purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_Load table.

Events Raised

None.

Tables Purged

YFS_ADDITIONAL_DATE

YFS_LOAD

YFS_LOAD_HOLD_TYPE

YFS_LOAD_HOLD_TYPE_LOG

YFS_LOAD_STOP

YFS_LOAD_SHIPMENT

YFS_LOAD_SHIPMENT_CHARGES (charges that pertain to this load)

YFS_LOAD_STATUS_AUDIT

YFS_LOADED_CONTAINER

YFS_SHIPMENT_CONTAINER

YFS_CONTAINER_ACTIVITY

Negotiation History Purge

This purge deletes negotiation history data from the system. This reduces the load on frequently accessed tables. It purges data from the order negotiation history tables.

You can use purge codes pseudo-logic to analyze purges. If the following condition is met, a negotiation is picked up for history purge:

- The last modified date of the negotiation exceeds the retention day period.

Any enterprise using the Console must schedule purge transactions.

Attributes

The following are the attributes for this time-triggered transaction:

Table 288. Negotiation History Purge Attributes

| Attribute | Value |
|----------------------|--------------------|
| Base Transaction ID | NEGOTIATIONHISTPRG |
| Base Document Type | Order |
| Base Process Type | Order Negotiation |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 289. Negotiation History Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Negotiation History Purge needs to be run. If not passed, then all enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |

Table 289. Negotiation History Purge Criteria Parameters (continued)

| Parameter | Description |
|-----------|---|
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 290. Negotiation History Purge Statistics

| Statistic Name | Description |
|-------------------------------|---|
| NumNegotiationHistoriesPurged | Number of negotiation histories purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_Negotiation_Hdr_H table.

Events Raised

None.

Tables Purged

YFS_AUDIT

YFS_NEGOTIATION_HDR_H

YFS_NEGOTIATION_LINE_H

YFS_RESPONSE_H

YFS_RESPONSE_HDR_H

YFS_RESPONSE_LINE_H

YFS_RESPONSE_LINE_DTL_H

Negotiation Purge

This purge archives data into history tables after it completes its typical lifecycle. This reduces the load on frequently accessed tables. It works from the task queue (YFS_TASK_Q) table.

You can use purge codes pseudo-logic to analyze purges. If the following condition is met, a negotiation is picked up for purge:

- The last modification performed on the negotiation falls before the lead time (in days) setup.
- The negotiation is in pickable status.

Any enterprise using the Console must schedule purge transactions.

Attributes

The following are the attributes for this time-triggered transaction:

Table 291. Negotiation Purge Attributes

| Attribute | Value |
|----------------------|-----------------------|
| Base Transaction ID | ORD_NEGOTIATION_PURGE |
| Base Document Type | Order |
| Base Process Type | Order Negotiation |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 292. Negotiation Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Negotiation Purge needs to be run. If not passed, then all enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 293. Negotiation Purge Statistics

| Statistic Name | Description |
|----------------------------|--------------------------------------|
| NumOrderNegotiationsPurged | Number of order negotiations purged. |

Pending Job Count

For this transaction, the pending job count is the number of records available to be processed by the transaction with the `AVAILABLE_DATE` value less than or equal to (`<=`) the current date value in the `YFS_Task_Q` table.

Events Raised

None

Tables Purged

YFS_AUDIT

YFS_NEGOTIATION_HDR

YFS_NEGOTIATION_LINE

YFS_RESPONSE

YFS_RESPONSE_HDR

YFS_RESPONSE_LINE

YFS_RESPONSE_LINE_DTL

Opportunity History Purge

This transaction deletes tasks previously archived by the Opportunity Purge. See “Opportunity Purge” on page 393.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, an opportunity that is previously purged by the opportunity purge agent is picked up for history purge:

- The last modified date of the opportunity should exceed the retention day period.
- The quote history is purged.

Attributes

The following are the attributes for this time-triggered transaction:

Table 294. Opportunity History Purge Attributes

| Attribute | Value |
|----------------------|-------------------------|
| Base Transaction ID | OPPORTUNITYHISTPRG |
| Base Document Type | Opportunity |
| Base Process Type | Opportunity Fulfillment |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 295. Opportunity History Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| Live | Optional. Mode in which to run. Defaults to N. <ul style="list-style-type: none">• Y - Default value. Removes qualifying records from the history tables listed under Tables Purged.• N- Test mode. Determines the rows that are removed without actually removing them. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Opportunity History Purge needs to be run. If not passed, then all enterprises are monitored. When the EnterpriseCode is blank, the purge criteria configured for the DEFAULT enterprise is used; not the purge criteria configured for the opportunity's enterprise. |
| CollectPendingJobs | If this parameter is set to "N", the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 296. Opportunity History Purge Statistics

| Statistic Name | Description |
|------------------------------|---|
| NumOpportunityHistory Purged | Number of opportunity histories purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_OPPORTUNITY_H table.

Events Raised

None.

Tables Purged

YFS_OPPORTUNITY_H

YFS_OPPORTUNITY_H_EXTENSION

Opportunity Purge

This time-triggered transaction purges all the opportunities for a period greater than the retention days specified in the Opportunity Purge criteria, and those which are either in the status of cancelled or completed.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, an opportunity is picked up for purge:

- The last modified date of the opportunity should exceed the retention day period.
- The quote associated with the opportunity should be purged.
- The opportunity should be in pickable status by the purge transaction.

Attributes

The following are the attributes for this time-triggered transaction:

Table 297. Opportunity Purge Attributes

| Attribute | Value |
|----------------------|-------------------------|
| Base Transaction ID | OPPORTUNITYPRG |
| Base Document Type | Opportunity |
| Base Process Type | Opportunity Fulfillment |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 298. Opportunity Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| Live | Optional. Mode in which to run. Defaults to Y. <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |

Table 298. Opportunity Purge Criteria Parameters (continued)

| Parameter | Description |
|--------------------|---|
| EnterpriseCode | Optional. Enterprise for which the Opportunity Purge needs to be run. If not passed, then all enterprises are monitored. When the EnterpriseCode is blank, the purge criteria configured for the DEFAULT enterprise is used; not the purge criteria configured for the opportunity's enterprise. |
| CollectPendingJobs | If this parameter is set to "N", the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 299. Opportunity Purge Statistics

| Statistic Name | Description |
|----------------------|---------------------------------|
| NumOpportunityPurged | Number of opportunities purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_OPPORTUNITY table.

Events Raised

None.

Tables Purged

YFS_OPPORTUNITY

YFS_OPPORTUNITY_EXTENSION

Order History Purge

This purge deletes data from history tables after it completes its typical lifecycle. This reduces the load on frequently accessed tables.

The order should have been purged and moved into the history tables before you can run this transaction. For more information about this, see "Order Purge" on page 397.

You can use purge codes pseudo-logic to analyze purges. If the following condition is met, an order is picked up for history purge:

- The last modified date of the order exceeds the retention day period.

Any enterprise using the Console must schedule purge transactions.

For more information about Additional Purge Criteria Based on Line Type, see the *Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide*.

Attributes

The following are the attributes for this time-triggered transaction:

Table 300. Order History Purge Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | ORDERHISTPRG |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 301. Order History Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Order History Purge needs to be run. If not passed, then all enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> Y - Default value. Removes qualifying records from the history tables listed under Tables Purged. N - Test mode. Determines the rows that are removed without actually removing them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 302. Order History Purge Statistics

| Statistic Name | Description |
|-------------------------|-----------------------------------|
| NumOrderHistoriesPurged | Number of order histories purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_Order_HEADER_H table.

Events Raised

None.

Tables Purged

YFS_ANSWER_SET_TRAN_H
YFS_ANSWER_TRAN_H
YFS_CHARGE_TRAN_DIST_H
YFS_CHARGE_TRAN_REQUEST_H
YFS_CHARGE_TRAN_RQ_MAP_H
YFS_CHARGE_TRANSACTION_H
YFS_CREDIT_CARD_TRANSACTION_H
YFS_ENTITY_ADDRESS_H
YFS_HEADER_CHARGES_H
YFS_INSTRUCTION_DETAIL_H
YFS_INVOICE_COLLECTION_H
YFS_LINE_CHARGES_H
YFS_NOTES_H
YFS_ORDER_AUDIT_DETAIL_H
YFS_ORDER_AUDIT_H
YFS_ORDER_AUDIT_LEVEL_H
YFS_ORDER_DATE_H
YFS_ORDER_HEADER_H
YFS_ORDER_HEADER_H_EXTENSION
YFS_ORDER_HOLD_TYPE_H
YFS_ORDER_HOLD_TYPE_LOG_H
YFS_ORDER_INVOICE_DETAIL_H
YFS_ORDER_INVOICE_H

YFS_ORDER_KIT_LINE_H
YFS_ORDER_KIT_LINE_SCHEDULE_H
YFS_ORDER_LINE_H
YFS_ORDER_LINE_H_EXTENSION
YFS_ORDER_LINE_OPTION_H
YFS_ORDER_LINE_REQ_TAG_H
YFS_ORDER_LINE_SCHEDULE_H
YFS_ORDER_PROD_SER_ASSOC_H
YFS_ORDER_RELEASE_H
YFS_ORDER_RELEASE_STATUS_H
YFS_ORDER_SER_PROD_ITEM_H
YFS_PAYMENT_H
YFS_PROMOTION_AWARD_H
YFS_PROMOTION_H
YFS_RECEIVING_DISCREPANCY_DTL_H
YFS_RECEIVING_DISCREPANCY_H
YFS_REFERENCE_TABLE_H
YFS_TAX_BREAKUP_H
YIC_BOM_HEADER_H
YIC_BOM_LINE_H
YIC_BOM_MESSAGE_H
YIC_BOM_PROP_H

Order Purge

This purge archives data into history tables after it completes its typical lifecycle. To purge orders from history tables, see “Order History Purge” on page 394. This reduces the load on frequently accessed tables. It works on a task queue. It picks up the orders from YFS_TASK_Q table that are available for the transaction PURGE.

If purge criteria are not met, AVAILABLE_DATE is calculated based on the modify time stamp of the order in YFS_ORDER_HEADER table as well as the YFS_TASK_Q table, whichever is maximum. To this value, retention days is added to the new AVAILABLE_DATE.

This transaction depends on all lines of an order being in a status pickable by the Purge transaction.

The following statuses are available for configuration to be picked up by Order Purge:

- Draft Created (1000) and all extended Draft Created Statuses.
- Created (1100) and all extended Created statuses. These statuses are available only for document types Sales Order, Purchase Order and Transfer Order.
- Released (3200) and all extended Released statuses.
- Shipped (3700) and all extended Shipped statuses.
- Completed (3700) and all extended Completed statuses. These statuses are available only for the document type Master Order.
- Received (3900) and all extended Received statuses.
- Cancelled (9000) and all extended Cancelled statuses.
- Shorted (9020) and all extended Shorted statuses.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, an order is picked up for purge:

- All open child orders (derived, chained, return, exchange, procurement, or refund fulfillment) for the order must already be purged.
- No pending transfer-out charges to another order exceeding the transfer-ins.
- No pending adjustment invoices.

An order is purged immediately if it meets the above three criteria and is completely cancelled with payment collection complete.

For the purge agent to pick up a cancelled order, the payment status of the order must be one of the following:

- Paid
- Not Applicable

If an order does not meet any of the above criteria, continue checking for the criteria given below:

- No order release status record that does not meet the retention days.
- It should be in the correct status for purge. For example,
 - All service requests for the order should have Shipped or extended Shipped status.
 - The payment status for the order should be Paid or Not Applicable.
 - It must not have any unpurged negotiations.
- For all order lines other than service request lines:
 - If the Seller inventory update is required, the Status Inventory Type has the "Update Seller Supply" option turned on, and the Seller Supply Type is "Onhand", or blank. (The Seller Supply Type can also be a custom seller supply type with the "Onhand Supply" checkbox enabled.)
 - If the Seller Demand Type is blank.
 - If the Buyer inventory update is required and the Buyer Supply Type is "Onhand", or blank.
- The order's last modification should fall before the lead time (in days) setup.
- Any enterprise using the Console must schedule purge transactions.
- The order must not have a undelivered service line.

- In the case of an exchange order for processing a return order, the exchange order should be purged from history before the return order can be purged.

With no change to status inventory type, a in Shipped (3700) status or its extended status is purged if the Buyer is not passed.

An order in Shipped status or extended Shipped status in the default pipeline is not purged if the Buyer passed on the is tracking inventory. This prevents the purging of the order relating to the pending supply for the Buyer tracking inventory.

To purge such orders, the status inventory type for the Shipped or extended Shipped status should be configured such that the Buyer Supply Type is ONHAND for the status inventory type.

When the purge agent is run, the draft order without lines are purged to the order history table. Once the purge history agent is run, the draft orders without lines gets deleted permanently.

Attributes

The following are the attributes for this time-triggered transaction:

Table 303. Order Purge Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | PURGE |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 304. Order Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| EnterpriseCode | Optional. Enterprise for which the Order Purge needs to be run. If not passed, then all enterprises are monitored. When the EnterpriseCode is blank, the purge criteria configured for the DEFAULT enterprise is used; not the purge criteria configured for the order's enterprise. |

Table 304. Order Purge Criteria Parameters (continued)

| Parameter | Description |
|----------------------------|---|
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> • Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. • N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. You can set this parameter to the following values: <ul style="list-style-type: none"> • DRAFTORDERHISTPRG to purge draft order information from the order history tables. • DRAFTORDERNOLINEHISTPRG to purge draft orders without order lines from the order history tables. • DRAFTORDERNOLINEPRG to purge draft orders that have no order lines. • DRAFTORDERPRG to purge draft order information and archive it in the order history tables. PurgeCode cannot be set to the value ORDER_RELEASE_STATUS_PURGE. |
| AdditionalPurgeCode | Optional. To purge order release status records, set this parameter to ORDER_RELEASE_STATUS_PURGE. <p>For more information, see “Order Release Status Purge” on page 402.</p> |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 305. Order Purge Statistics

| Statistic Name | Description |
|---------------------------|----------------------------|
| NumOrdersProcessed | Number of order processed. |
| NumOrdersPurged | Number of orders purged. |

Pending Job Count

For this transaction, the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (<=) the current date value in the YFS_Task_Q table.

Events Raised

None.

Tables Purged

YFS_ACTIVITY_DEMAND
YFS_ANSWER_SET_TRAN
YFS_ANSWER_TRAN
YFS_CHARGE_TRANSACTION
YFS_CHARGE_TRAN_DIST
YFS_CHARGE_TRAN_REQUEST
YFS_CHARGE_TRAN_RQ_MAP
YFS_CREDIT_CARD_TRANSACTION
YFS_ENTITY_ADDRESS
YFS_HEADER_CHARGES
YFS_INSTRUCTION_DETAIL
YFS_INVOICE_COLLECTION
YFS_LINE_CHARGES
YFS_MONITOR_ALERT
YFS_NOTES
YFS_ORDER_AUDIT
YFS_ORDER_AUDIT_DETAIL
YFS_ORDER_AUDIT_LEVEL
YFS_ORDER_HEADER
YFS_ORDER_HEADER_EXTENSION
YFS_ORDER_HOLD_TYPE
YFS_ORDER_HOLD_TYPE_LOG
YFS_ORDER_INVOICE
YFS_ORDER_INVOICE_DETAIL
YFS_ORDER_KIT_LINE
YFS_ORDER_KIT_LINE_SCHEDULE
YFS_ORDER_LINE

YFS_ORDER_LINE_EXTENSION
YFS_ORDER_LINE_OPTION
YFS_ORDER_LINE_REQ_TAG
YFS_ORDER_LINE_RESERVATION
YFS_ORDER_LINE_SCHEDULE
YFS_ORDER_LINE_SRC_CNTRL
YFS_ORDER_PROD_SER_ASSOC
YFS_ORDER_RELEASE
YFS_ORDER_RELEASE_STATUS
YFS_ORDER_SER_PROD_ITEM
YFS_ORDER_DATE
YFS_PAYMENT
YFS_PMNT_TRANS_ERROR
YFS_PROMOTION
YFS_PROMOTION_AWARD
YFS_RECEIVING_DISCREPANCY
YFS_RECEIVING_DISCREPANCY_DTL
YFS_REFERENCE_TABLE
YFS_TAX_BREAKUP
YIC_BOM_HEADER
YIC_BOM_LINE
YIC_BOM_MESSAGE
YIC_BOM_PROP

Order Release Status Purge

The Order Release Status Purge agent extends the Order Purge agent's capabilities by purging order release status records before the Order Purge agent completely purges data to history tables.

If an order meets the criteria for purging, the order release status records with quantities of 0 are deleted from the YFS_ORDER_RELEASE_STATUS table and are not put into the history table.

When the Order Release Status Purge agent has completed, the task queue's AVAILABLE_DATE is reset to the date specified by the purge criteria for Order Purge. This enables the Order Purge agent to pick up and process an order as necessary. Order Purge will continue to purge order release status records as usual.

If the following conditions are met, the Order Purge agent purges order release status records:

- All conditions for Order Purge have been met. See “Order Purge” on page 397 for information about conditions for Order Purge.
- Order release records have 0 quantity.
- AdditionalPurgeCode in the Order Purge criteria is set to ORDER_RELEASE_STATUS_PURGE.
- The order has been modified within the Order Purge lead days AdditionalPurgeCode.

Criteria Parameters

The following are the criteria parameters for Order Release Status Purge:

Table 306. Order Release Status Purge Criteria Parameters

| Parameter | Description |
|------------------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Next Task Queue Interval | Optional. Specifies in hours how long a failed task should be suspended before it is considered for reprocessing. Defaults to 5 hours. |
| EnterpriseCode | Optional. Enterprise for which the Order Purge needs to be run. If not passed, then all enterprises are monitored. When the EnterpriseCode is blank, the purge criteria configured for the DEFAULT enterprise is used; not the purge criteria configured for the order's enterprise. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> • Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. • N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. To extend the Order Purge agent to purge order release status records, set to ORDERPRG. Used for internal calculations, such as determining retention days. You must also set AdditionalPurgeCode. |
| AdditionalPurgeCode | Required. To purge order release status records, set this parameter to ORDER_RELEASE_STATUS_PURGE. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Pending Job Count

The pending job count is the number of records available to be processed by Order Purge with the AVAILABLE_DATE value less than or equal to (<=) the current date value in the YFS_Task_Q table.

Events Raised

None.

Tables Purged

YFS_ORDER_RELEASE_STATUS

Order Status Audit Purge

This purge removes order status audit data from the system. This reduces the load on frequently accessed tables.

You can use purge codes pseudo-logic to analyze purges. If the following condition is met, an order status audit is picked up for history purge:

- The last modified time falls before the lead time (in days) setup.

Any enterprise using the Console must schedule purge transactions.

This transaction needs to be run after negotiation is completed.

Attributes

The following are the attributes for this time-triggered transaction:

Table 307. Order Status Audit Purge Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | STATUSAUDITPRG |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 308. Order Status Audit Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |

Table 308. Order Status Audit Purge Criteria Parameters (continued)

| Parameter | Description |
|-----------------------|--|
| EnterpriseCode | Optional. Enterprise for which the Order Status Audit Purge needs to be run. If not passed, then all enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> • Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. • N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where the YFS_STATUS_AUDIT Table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 309. Order Status Audit Purge Statistics

| Statistic Name | Description |
|------------------------------|---------------------------------|
| NumStatusAuditsPurged | Number of status audits purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_Status_Audit table.

Events Raised

None.

Tables Purged

YFS_STATUS_AUDIT

Organization Audit Purge

This purge removes the YFS_AUDIT table data from the system, which reduces the load on frequently accessed tables. It purges records in the YFS_AUDIT and the YFS_AUDIT_HEADER tables that meet the following conditions:

- The YFS_AUDIT records that have 'modifyts' greater than the retention days specified and the records have the table name as 'YFS_ORGANIZATION'.
- The last modified time is before the lead time (in days) setup.

When the enterprise modifies records in the YFS_ORGANIZATION table through the Applications Manager, the YFS_ORGANIZATION is audited and the audit records are inserted in the YFS_AUDIT table. In order to clean up the audit records, this purge transaction can be used.

Any enterprise using the Console must schedule purge transactions.

Attributes

The following are the attributes for this time-triggered transaction:

Table 310. Organization Audit Purge Attributes

| Attribute | Value |
|----------------------|------------------------------|
| Base Transaction ID | YFS_ORGANIZATION_AUDIT_PURGE |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 311. Organization Audit Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, the value defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), this value defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> • Y - Default value. Production mode. Deletes records from the regular tables. • N - Test mode. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds to the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where the YFS_AUDIT and YFS_AUDIT_HEADER tables may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 312. Organization Audit Purge Statistics

| Statistic Name | Description |
|------------------------------------|--|
| NumOrganizationAudit RecordsPurged | Number of organization audit records purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_AUDIT table that match the criteria values.

Events Raised

None.

Tables Purged

YFS_AUDIT

YFS_AUDIT_HEADER

Person Info Purge

This purge gets a list of dates with the person info record count and sorts them by date in ascending order. Then, based on the specified number of records to buffer and the modify timestamp, it purges the applicable records and places them in the YFS_PERSON_INFO_H table.

Attributes

The following are the attributes for this time-triggered transaction:

Table 313. PersonInfo Purge Attributes

| Attribute | Value |
|----------------------|---------------|
| Base Transaction ID | PERSONINFOPRG |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 314. PersonInfo Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. <ul style="list-style-type: none">• If left blank or the number specified is less than 10000, it defaults to 10000.• If the number specified is greater than 10000, then that value is used. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |

Table 314. PersonInfo Purge Criteria Parameters (continued)

| Parameter | Description |
|---------------------------|--|
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| CollectPendingJobs | If this parameter is set to "N", the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| EnterpriseCode | Optional. Enterprise for which the PersonInfo Purge needs to be run. If not passed, then all enterprises are monitored. |
| TableType | <p>Required in a multi schema deployment when YFS_Person_Info table may exist in multiple schemas.</p> <p>Valid Values: CONFIGURATION, TRANSACTION, MASTER.</p> <p>If set to CONFIGURATION, purge runs for the YFS_Person_Info records associated with tables that have TableType as CONFIGURATION; for example, YFS_Organization, YFS_Ship_Node, and so forth.</p> <p>If set to TRANSACTION, purge runs for the YFS_Person_Info records associated with tables that have TableType as TRANSACTION; for example, YFS_Order_Header, YFS_Shipment, and so forth.</p> <p>Note that purge would run for all TableTypes that exist in the same schema as the one passed. For example, if set to TRANSACTION, purge would also run for YFS_Person_Info records associated with tables that have TableType as MASTER, since they reside in the same schema.</p> |
| ColonyID | Required in a multi schema deployment where the YFS_PERSON_INFO table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

If it is left blank or any number less than 10,000 is specified, then it defaults to 10,000. But if any number > 10,000 is specified, then that value would be used.

Table 315. PersonInfo Purge Statistics

| Statistic Name | Description |
|----------------------------|---------------------------------------|
| NumPersonInfoPurged | Number of person info records purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_PERSON_INFO table.

Events Raised

None.

Tables Purged

YFS_PERSON_INFO

Person Info History Purge

This purge deletes records from the YFS_PERSON_INFO_H table based on the purge criteria.

Attributes

The following are the attributes for this time-triggered transaction:

Table 316. PersonInfo History Purge Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | PERSONINFOHISTPRG |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 317. PersonInfo History Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. <ul style="list-style-type: none">• If left blank or the number specified is less than 10000, it defaults to 10000.• If the number specified is greater than 10000, then that value is used. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| CollectPendingJobs | If this parameter is set to "N", the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| EnterpriseCode | Optional. Enterprise for which the PersonInfo Purge needs to be run. If not passed, then all enterprises are monitored. |

Table 317. PersonInfo History Purge Criteria Parameters (continued)

| Parameter | Description |
|------------------|--|
| TableType | <p>Required in a multi schema deployment when YFS_Person_Info table may exist in multiple schemas.</p> <p>Valid Values: CONFIGURATION, TRANSACTION, MASTER.</p> <p>If set to CONFIGURATION, purge runs for the YFS_Person_Info records associated with tables that have TableType as CONFIGURATION; for example, YFS_Organization, YFS_Ship_Node, and so forth.</p> <p>If set to TRANSACTION, purge runs for the YFS_Person_Info records associated with tables that have TableType as TRANSACTION; for example, YFS_Order_Header, YFS_Shipment, and so forth.</p> <p>Note that purge would run for all TableTypes that exist in the same schema as the one passed. For example, if set to TRANSACTION, purge would also run for YFS_Person_Info records associated with tables that have TableType as MASTER, since they reside in the same schema.</p> |
| ColonyID | <p>Required in a multi schema deployment where the YFS_PERSON_INFO_H table may exist in multiple schemas. Runs the agent for the colony.</p> |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 318. PersonInfo History Purge Statistics

| Statistic Name | Description |
|---|---|
| NumPersonInfoHistoryRecords Purged | Number of person info history records purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_PERSON_INFO_H table.

Events Raised

None.

Tables Purged

YFS_PERSON_INFO_H

Picklist Purge

This purge picks up all picklists that have been existing for a period greater than the retention days specified in the criteria parameters and those that do not have any shipments.

Any enterprise using the Console must schedule purge transactions.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, a picklist is picked up for purge:

- The picklist should exist for more than the specified retention period.
- The picklist should not be associated with any shipment.

All shipments associated with the picklists should have been purged before running this purge agent.

Attributes

The following are the attributes for this time-triggered transaction:

Table 319. Picklist Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | PICKLISTPRG |
| Base Document Type | Order |
| Base Process Type | Order Delivery |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 320. Picklist Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> • Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. • N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where the YFS_PICK_LIST table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 321. Picklist Purge Statistics

| Statistic Name | Description |
|--------------------|-----------------------------|
| NumPickListsPurged | Number of picklists purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_PICK_LIST table.

Events Raised

None.

Tables Purged

YFS_PICK_LIST

Price List Purge

This purge removes price list data from the system. This reduces the load on frequently accessed tables.

Any enterprise using the Console must schedule purge transactions.

You can use purge codes pseudo-logic to analyze purges. If the following condition is met, a price list is picked up for purge:

- The price list has valid date less than the current date minus the purge criteria's retention days.

Attributes

The following are the attributes for this time-triggered transaction:

Table 322. Price List Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | PRICELISTPRG |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 323. Price List Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 324. Price List Purge Statistics

| Statistic Name | Description |
|--------------------|------------------------------|
| NumPriceSetsPurged | Number of price sets purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_Price_Set table.

Events Raised

None.

Tables Purged

YFS_PRICE_SET table with VALID_TILL_DATE less than or equal to (CurrentDate - LeadDays)

YFS_PRICE_PROGRAM_DEFN

YFS_ITEM_PRICE_SET

YFS_ITEM_PRICE_SET_DTL

Purge Catalog Mass Audits

This purge removes old audit records from the YFS_CATALOG_MASS_AUDIT table. This table contains data about changes to the catalog due to assignment of attributes and attribute values to categories and items. It also contains information about inherited attributes and attribute values. The purge transaction finds mass audit records that have not been modified in a specified number of days and removes those records from the database.

Attributes

The following are the attributes for this time-triggered transaction:

Table 325. Purge Catalog Mass Audits Attributes

| Attribute | Value |
|----------------------|--------------------------|
| Base Transaction ID | CATALOG_MASS_AUDIT_PURGE |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 326. Purge Catalog Mass Audits Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where the YFS_CATALOG_MASS_AUDIT table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 327. Purge Catalog Mass Audits Statistics

| Statistic Name | Description |
|----------------------------|--------------------------------------|
| NumCatalogMassAuditsPurged | Number of mass audit records purged. |

Pending Job Count

For this transaction the pending job count is the total number of records that can be purged from the YFS_CATALOG_MASS_AUDIT table.

Events Raised

None.

Tables Purged

The YFS_CATALOG_MASS_AUDIT table is purged when $\text{MODIFYTS} < (\text{CurrentDate} - \text{LeadDays})$

Receipt History Purge

This transaction deletes receipts previously archived by the Receipt Purge. See “Receipt Purge” on page 417.

Any enterprise using the Console must schedule purge transactions.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, a receipt that is previously purged by the receipt purge agent is picked up for history purge:

- The last modified date of the receipt should exceed the retention day period.
- The shipment associated with the receipt should be purged from the history table.

To purge a receipt history, ensure that the Receipts are closed and Shipments are purged.

Attributes

The following are the attributes for this time-triggered transaction:

Table 328. Receipt History Purge Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | RECEIPHISTPRG |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 329. Receipt History Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Receipt History Purge needs to be run. If not passed, then all enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Removes qualifying records from the history tables listed under Tables Purged.• N- Test mode. Determines the rows that are removed without actually removing them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 330. Receipt History Purge Statistics

| Statistic Name | Description |
|-------------------------------|--|
| NumReceiptLineHistoriesPurged | Number of receipt line histories purged. |
| NumReceiptHistoriesPurged | Number of receipt histories purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_Receipt_Header_H table.

Events Raised

None.

Tables Purged

YFS_RECEIPT_HEADER_H

YFS_RECEIPT_LINE_H

YFS_RECEIPT_STATUS_AUDIT_H

YFS_INSTRUCTION_DETAIL_H

Receipt Purge

This purge removes receipt data from the system. This reduces the load on frequently accessed tables. This transaction picks up all receipts that are not open and not pending inspection and archives them into their history tables. See "Receipt History Purge" on page 415. It also archives and purges the receipt's child tables.

This is a pipeline transaction and works from a task queue.

Any enterprise using the Console must schedule purge transactions.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, a receipt is picked up for purge:

- The last modified date of the receipt should exceed the retention day period.
- The shipment associated with the receipt should be purged.
- The receipt should be in pickable status for the purge transaction.
- The value of the OpenReceiptFlag field should be set to "N".
- The receipt should not have pending inspections.
- There is no inventory in the warehouse for the receipt.

To purge a receipt, ensure that the receipts are closed and Shipments are purged.

Attributes

The following are the attributes for this time-triggered transaction:

Table 331. Receipt Purge Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | RECEIPTPRG |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 332. Receipt Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Receipt Purge needs to be run. If not passed, then all enterprises are monitored. |

Table 332. Receipt Purge Criteria Parameters (continued)

| Parameter | Description |
|-----------|--|
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> • Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. • N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 333. Receipt Purge Statistics

| Statistic Name | Description |
|-----------------------|---------------------------------|
| NumReceiptLinesPurged | Number of Receipt Lines purged. |
| NumReceiptsPurged | Number of receipts purged. |

Pending Job Count

For this transaction, the pending job count is the number of records available to be processed by the transaction with the AVAILABLE_DATE value less than or equal to (<=) the current date value in the YFS_Task_Q table.

Events Raised

None.

Tables Purged

YFS_RECEIPT_HEADER

YFS_RECEIPT_LINE

YFS_RECEIPT_STATUS_AUDIT

YFS_INSTRUCTION_DETAIL

Reprocess Error Purge

This purge deletes reprocess errors from the system. This reduces the load on frequently accessed tables.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, a YFS_REPROCESS_ERROR table is picked up for purge:

- YFS_REPROCESS_ERROR records with State = Fixed or Ignored is processed.
- The last modified time is earlier than the lead time (in days) setup.

This purge reads only the rules defined by the hub. Enterprise overridden rules are not considered.

Any enterprise using the Console must schedule purge transactions.

Attributes

The following are the attributes for this time-triggered transaction:

Table 334. Reprocess Error Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | REPROCESSPRG |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 335. Reprocess Error Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where the YFS_REPROCESS_ERROR table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 336. Reprocess Error Purge Statistics

| Statistic Name | Description |
|--------------------------|------------------------------------|
| NumReprocessErrorsPurged | Number of reprocess errors purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_REPROCESS_ERROR table.

Events Raised

None.

Tables Purged

YFS_REPROCESS_ERROR

Reservation Purge

This purge deletes expired inventory reservations from the system. This reduces the load on frequently accessed tables as well as free up demands that are consumed by expired reservations.

You can use purge codes pseudo-logic to analyze purges. If the following condition is met, all records in the YFS_INVENTORY_RESERVATION tables are picked up for purge:

- EXPIRATION_DATE is earlier than the current date or quantity is less than or equal to 0

Any enterprise using the Console must schedule purge transactions.

Attributes

The following are the attributes for this time-triggered transaction:

Table 337. Reservation Purge Attributes

| Attribute | Value |
|----------------------|----------------|
| Base Transaction ID | RESERVATIONPRG |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 338. Reservation Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |

Table 338. Reservation Purge Criteria Parameters (continued)

| Parameter | Description |
|------------------|--|
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> • Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. • N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where the YFS_INVENTORY_RESERVATION table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 339. Reservation Purge Statistics

| Statistic Name | Description |
|-----------------------|--------------------------------|
| NumReservationsPurged | Number of reservations purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_INVENTORY_RESERVATION table.

Events Raised

None.

Tables Purged

YFS_INVENTORY_RESERVATION

Shipment History Purge

This transaction deletes shipments previously archived by the Shipment Purge. See “Shipment Purge” on page 423.

Any enterprise using the Console must schedule purge transactions.

You can use purge codes pseudo-logic to analyze purges. If the following condition is met, all records archived in the history table are picked up for purge:

- The last modification performed on the shipment falls before the lead time (in days) setup.

Orders related to the shipments should have been purged by order purge. Shipments should have been closed by the Close Shipment transaction. See “Close Shipment” on page 308.

Attributes

The following are the attributes for this time-triggered transaction:

Table 340. Shipment History Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | SHIPMENTHISTPRG |
| Base Document Type | Order |
| Base Process Type | Order Delivery |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 341. Shipment History Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Shipment History Purge needs to be run. If not passed, then all enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Removes qualifying records from the history tables listed under Tables Purged.• N- Test mode. Determines the rows that are removed without actually removing them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 342. Shipment History Purge Statistics

| Statistic Name | Description |
|--------------------------------|---|
| NumShipmentHistoriesPurged | Number of shipment histories purged. |
| NumShipmentLineHistoriesPurged | Number of shipment line histories purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_Shipment_H table.

Events Raised

None.

Tables Purged

YFS_ADDITIONAL_ATTRIBUTE_H

YFS_ADDITIONAL_DATE_H

YFS_AUDIT

YFS_CONTAINER_DETAILS_H

YFS_CONTAINER_STS_AUDIT_H

YFS_INSTRUCTION_DETAIL_H

YFS_SHIPMENT_CONTAINER_H

YFS_SHIPMENT_H

YFS_SHIPMENT_LINE_H

YFS_SHIPMENT_LINE_REQ_TAG_H

YFS_SHIPMENT_STATUS_AUDIT_H

YFS_SHIPMENT_TAG_SERIAL_H

YFS_CONTAINER_ACTIVITY_H

Shipment Purge

This purge removes shipment data from the system. This reduces the load on frequently accessed tables. This transaction picks up all shipments that have been marked as 'Closed' and archives them into their history tables. See "Shipment History Purge" on page 421. It also archives and purges the shipment's child tables.

This is not a pipeline transaction. It also does not work from the task queue.

Any enterprise using the Console must schedule purge transactions.

Orders related to the shipments should have been purged by order purge. Shipments should have been closed by the Close Shipment transaction. For more information, see "Close Shipment" on page 308.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, a shipment is picked up for purge:

- The last modification performed on the shipment should fall before the lead time (in days) setup.
- The value of the ShipmentClosedFlag field should be set to "Y".
- The order record should already be purged for all shipment lines.

Attributes

The following are the attributes for this time-triggered transaction:

Table 343. Shipment Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | SHIPMENTPRG |
| Base Document Type | Order |
| Base Process Type | Order Delivery |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 344. Shipment Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Number of Days To Execute | Optional. Maximum number of days before the lead days the agent will look for shipment records to purge. |
| EnterpriseCode | Optional. Enterprise for which the Shipment Purge needs to be run. If not passed, then all enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 345. Shipment Purge Statistics

| Statistic Name | Description |
|------------------------|----------------------------------|
| NumShipmentsPurged | Number of Shipments purged. |
| NumShipmentLinesPurged | Number of Shipment Lines purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_Shipment table.

Events Raised

None.

Tables Purged

YFS_ADDITIONAL_ATTRIBUTES

YFS_ADDITIONAL_DATE

YFS_AUDIT

YFS_CONTAINER_DETAILS

YFS_LOAD_SHIPMENT_CHARGE

YFS_MONITOR_ALERT

YFS_SHIPMENT_CONTAINER

YFS_SHIPMENT_STATUS_AUDIT

YFS_SHIPMENT

YFS_INSTRUCTION_DETAIL

YFS_SHIPMENT_MONITOR_ALERT

YFS_HEADER_CHARGES

YFS_LINE_CHARGES

YFS_TAX_BREAKUP

YFS_SHIPMENT_HOLD_TYPE

YFS_SHIPMENT_HOLD_TYPE_LOG

YFS_SHIPMENT_TAG_SERIALS

YFS_SHIPMENT_LINE

YFS_SHIPMENT_LINE_REQ_TAG

YFS_ACTIVITY_DEMAND

YFS_CONTAINER_STS_AUDIT

YFS_CONTAINER_ACTIVITY

Shipment Statistics Purge

This transaction deletes the shipment statistics from the table older than the specified retention days.

This agent should be used whenever shipment statistics records need to be removed, such as after application server restart.

You can use purge codes pseudo-logic to analyze purges. If the following condition is met, the shipment statistics are picked up for purge:

- The last modification performed on the shipment statistics should fall before the lead time (in days) setup.

Attributes

The following are the attributes for this time-triggered transaction:

Table 346. Shipment Statistics Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | PRG_SHIP_STATS |
| Base Document Type | Order |
| Base Process Type | Order Delivery |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 347. Shipment Statistics Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Shipment Statistics Purge needs to be run. If not passed, then all enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where the YFS_SHIPMENT_STATISTICS table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Parameters

The following are the statistics parameters for this transaction:

Table 348. Shipment Statistics Purge Statistics

| Parameter | Description |
|------------------------------------|---------------------------------------|
| NumShipmentStatisticsPurged | Number of shipment statistics purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_SHIPMENT_STATISTICS table.

Events Raised

None.

Tables Purged

YFS_SHIPMENT_STATISTICS

User Activity Purge

This purge deletes the user activity data from the system. It purges all records older than the specified retention days, and those records which have a logged out status. This purge must be single threaded when you run it in batch delete mode (BatchDelete=Y).

The following limitation is assumed when purging records:

This purge do not purge any record if the Application server goes down abruptly because the audit records of users connected to the application server at the time when the server went down cannot be updated. As a result, the last activity time or the logout time is not populated. The purge does not know whether the user has logged out or still logged in. Therefore, you need to manually delete these records.

The following are the attributes for this time-triggered transaction:

Table 349. User Activity Purge Attributes

| Attribute | Value |
|----------------------------|-----------------|
| Base Transaction ID | USERACTIVITYPRG |
| Base Document Type | None |
| Base Process Type | None |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 350. User Activity Purge Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| CollectPendingJobs | If this parameter is set to "N", the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| Number of Records To Buffer | Required. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 100. |
| BatchDelete | Required. The method by which all records are deleted from the table. Valid values are: <ul style="list-style-type: none">• Y - Default value. Records are deleted in batches.• N - Records are deleted one by one. |
| ColonyID | Required in a multi schema deployment where the YFS_USER_ACTIVITY table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 351. Statistics Purge Statistics

| Statistic Name | Description |
|---------------------|-----------------------------|
| NumStatisticsPurged | Number of statistics purged |

Pending Job Count

None.

Events Raised

None.

Tables Purged

YFS_USER_ACTIVITY

User Activity Audit Purge

This purge removes user activity audit data from the system. It purges all records older than the specified retention days. It purges only those records which have a logged out status (records with a Login_Type of 'T' or 'N'). This purge should be single threaded when you run it in batch delete mode(BatchDelete=Y).

The following limitation is assumed when purging records:

- This purge does not purge any records if the Application server goes down abruptly because the audit records of users connected to application servers at the time the server went down cannot be updated. As a result, the last activity time or the logout time does not get populated and the purge does not know whether the user was logged out or was still logged in. These records have to be deleted manually.

The following are the attributes for this time-triggered transaction:

Table 352. User Activity Audit Purge Attributes

| Attribute | Value |
|---------------------|-----------------|
| Base Transaction ID | USERACTAUDPURGE |
| Base Document Type | None |
| Base Process Type | None |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 353. User Activity Audit Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| CollectPendingJobs | If this parameter is set to "N", the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| Number of Records To Buffer | Required. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 100. |

Table 353. User Activity Audit Purge Criteria Parameters (continued)

| Parameter | Description |
|-------------|---|
| BatchDelete | Required. The method by which all records are deleted from the table. Valid values are: <ul style="list-style-type: none"> • Y - Default value. Records are deleted in batches. • N - Records are deleted one by one. |
| ColonyID | Required in a multi schema deployment where the YFS_USER_ACT_AUDIT table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 354. Statistics Purge Statistics

| Statistic Name | Description |
|---------------------|-----------------------------|
| NumStatisticsPurged | Number of statistics purged |

Pending Job Count

None.

Events Raised

None.

Tables Purged

YFS_USR_ACT_AUDIT

Work Order History Purge

This transaction deletes tasks previously archived by the Work Order Purge. See “Work Order Purge” on page 432.

You can use purge codes pseudo-logic to analyze purges. If the last modified date of the work order exceeds the retention day period, a work order that is previously purged by the work order purge agent is picked up for history purge.

Attributes

The following are the attributes for this time-triggered transaction:

Table 355. Work Order History Purge Attributes

| Attribute | Value |
|----------------------|--------------------------|
| Base Transaction ID | WORK_ORDER_HISTORY_PURGE |
| Base Document Type | Work Order |
| Base Process Type | VAS |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 356. Work Order History Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| Live | Optional. Mode in which to run. Defaults to N. <ul style="list-style-type: none">• Y - Default value. Removes qualifying records from the history tables listed under Tables Purged.• N- Test mode. Determines the rows that are removed without actually removing them. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Node | Optional. Node for which the Work Order History Purge needs to be run. If not passed, then all nodes are monitored. |
| AgentCriteriaGroup | Optional. Used to classify nodes. This value can be accepted by Sterling Selling and Fulfillment Foundation time-triggered transactions that only perform their tasks on the nodes with a matching node transactional velocity value. Valid values are: LOW, HIGH, and any additional values defined by the Hub from Application Platform > System Administration > Agent Criteria Groups. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 357. Work Order History Purge Statistics

| Statistic Name | Description |
|-----------------------------|--|
| NumWorkOrderHistoriesPurged | Number of work order histories purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_WORK_ORDER_H table.

Events Raised

None.

Tables Purged

YFS_AUDIT

YFS_WO_APPT_USER_H

YFS_WORK_ORDER_H

YFS_WORK_ORDER_APPT_H

YFS_WORK_ORDER_ACTIVITY_H

YFS_WORK_ORDER_ACTY_DTL_H

YFS_WORK_ORDER_AUDT_DTL_H

YFS_WORK_ORDER_COMPONENT_H

YFS_WORK_ORDER_COMP_TAG_H

YFS_WORK_ORDER_HOLD_TYPE_H

YFS_WORK_ORDER_HOLD_TYPE_LOG_H

YFS_WORK_ORDER_PROD_DEL_H

YFS_WORK_ORDER_SERVICE_LINE_H

YFS_WORK_ORDER_STS_AUDIT_H

YFS_WORK_ORDER_TAG_H

Work Order Purge

This time-triggered transaction purges all the work orders for a period greater than the retention days specified in the Work Order Purge criteria and those, which are either in the status of cancelled or completed.

You can use purge codes pseudo-logic to analyze purges. If the following conditions are met, a work order is picked up for purge:

- The last modified date of the work order should exceed the retention day period.
- The order associated with the work order should be purged.
- The work order should be in pickable status by the purge transaction.

Attributes

The following are the attributes for this time-triggered transaction:

Table 358. Work Order Purge Attributes

| Attribute | Value |
|---------------------|------------------|
| Base Transaction ID | WORK_ORDER_PURGE |
| Base Document Type | Work Order |
| Base Process Type | VAS |

Table 358. Work Order Purge Attributes (continued)

| Attribute | Value |
|----------------------|------------------|
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 359. Work Order Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| Live | Optional. Mode in which to run. Defaults to Y. <ul style="list-style-type: none"> • Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. • N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Node | Optional. Node for which the Work Order Purge needs to be run. If not passed, then all nodes are monitored. |
| AgentCriteriaGroup | Optional. Used to classify nodes. This value can be accepted by Sterling Selling and Fulfillment Foundation time-triggered transactions that only perform their tasks on the nodes with a matching node transactional velocity value. Valid values are: LOW, HIGH, and any additional values defined by the Hub from Application Platform > System Administration > Agent Criteria Groups. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 360. Work Order Purge Statistics

| Statistic Name | Description |
|---------------------|-------------------------------|
| NumWorkOrdersPurged | Number of work orders purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_WORK_ORDER table.

Events Raised

None.

Tables Purged

YFS_AUDIT

YFS_WO_APPT_USER

YFS_WORK_ORDER

YFS_WORK_ORDER_ACTIVITY

YFS_WORK_ORDER_ACTY_DTL

YFS_WORK_ORDER_HOLD_TYPE

YFS_WORK_ORDER_HOLD_TYPE_LOG

YFS_WORK_ORDER_APPT

YFS_WORK_ORDER_AUDT_DTL

YFS_WORK_ORDER_COMPONENT

YFS_WORK_ORDER_COMP_TAG

YFS_WORK_ORDER_PROD_DEL

YFS_WORK_ORDER_SERVICE_LINE

YFS_WORK_ORDER_STS_AUDIT

YFS_WORK_ORDER_TAG

YFS Audit Purge

This purge removes the YFS_AUDIT table data from the system, which reduces the load on frequently accessed tables. It purges records in the YFS_AUDIT and the YFS_AUDIT_HEADER tables that meet the following conditions:

- YFS_AUDIT records that have 'modifyts' greater than the retention days specified and the value of table name matches in the YFS_AUDIT table.
- The last modified time is before the lead time (in days) setup.

The way you configure the YFS Audit Purge may have some effect on the functioning of the Configuration Data Versioning Tool. For more information about configuration of the Data Versioning Tool, see the *Sterling Selling and Fulfillment Foundation: Configuration Deployment Tool Guide*.

When the enterprise extends the entities and sets the extended entities attribute AuditTable="Y", the extended tables are audited and the audit records are inserted in the YFS_AUDIT table. In order to clean up the audit records, this purge transaction can be used.

Any enterprise using the Console must schedule purge transactions.

Attributes

The following are the attributes for this time-triggered transaction:

Table 361. YFS Audit Purge Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | YFS_AUDIT_PURGE |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | YFSBeforePurgeUE |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 362. YFS Audit Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, this value defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), this value defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none"> Y - Default value. Production mode. Deletes records from the regular tables. N - Test mode. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| Table Name | Required. The table name for which the audit records need to be purged. |
| TableType | Required in a multischema deployment when YFS_AUDIT table may exist in multiple schemas. Valid Values: CONFIGURATION, TRANSACTION, MASTER. If set to CONFIGURATION, the agent runs for the YFS_AUDIT records associated with tables that have TableType as CONFIGURATION; for example, YFS_Organization, YFS_Ship_Node, and so forth. If set to TRANSACTION, the agent runs for the YFS_AUDIT records associated with tables that have TableType as TRANSACTION; for example, YFS_Order_Header, YFS_Shipment, and so forth. Note that the agent would run for all TableTypes that exist in the same schema as the one passed. For example, if set to TRANSACTION, the agent would also run for YFS_AUDIT records associated with tables that have TableType as MASTER, since they reside in the same schema. |

Table 362. YFS Audit Purge Criteria Parameters (continued)

| Parameter | Description |
|-----------|---|
| ColonyID | Required in a multi schema deployment where the YFS_AUDIT and YFS_AUDIT_HEADER tables may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 363. YFS Audit Purge Statistics

| Statistic Name | Description |
|-----------------------|---------------------------------|
| NumAuditRecordsPurged | Number of audit records purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the YFS_AUDIT table that match the criteria values.

Events Raised

None.

Tables Purged

YFS_AUDIT, YFS_AUDIT_HEADER

YFSInventoryOwnershipAudit Purge

This transaction purges all the records from YFS_INV_OWN_TRANSFER_RCD prior to the lead days specified in criteria parameters.

Attributes

Following are the attributes for this time-triggered transaction:

Table 364. YFSInventoryOwnership Purge Attributes

| Attribute | Value |
|----------------------|--------------------------|
| Base Transaction ID | PURGE_INV_TRANSFR_RECORD |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

Following are the criteria parameters for this transaction:

Table 365. YFSInventoryOwnership Purge Criteria Parameters

| Parameter | Description |
|------------------------------------|---|
| Action | Required. Triggers the transaction. If left blank, this value defaults to Get, which is the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), this value defaults to 5000. |
| EnterpriseCode | Optional. The inventory organization for which the YFSInventoryOwnership Audit Purge needs to run. If not passed, all the enterprises are monitored. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Production mode. Deletes records from the regular tables.• N - Test mode. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds to the PurgeCode used in the Business Rules Purge Criteria. |
| Lead Days | Number of days before the present date, the agent will purge the records. |
| ColonyID | Required in a multi schema deployment where the YFS_INV_OWN_TRANSFER_RCD table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Pending Job Count

None.

Tables Purged

YFS_INV_OWN_TRANSFER_RCD

Password Reset Request Purge

This purge deletes password reset request data from the system.

You can use purge codes pseudo-logic to analyze purges.

Any enterprise using the Console must schedule purge transactions.

Attributes

The following are the attributes for this time-triggered transaction:

Table 366. Password Reset Request Purge Attributes

| Attribute | Value |
|----------------------|---------|
| Base Transaction ID | None |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 367. Password Reset Request Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where the PLT_PWD_REQ table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 368. Password Reset Request Purge Statistics

| Statistic Name | Description |
|--------------------------|-------------------------------------|
| NumPasswordRequestPurged | Number of password requests purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the PLT_PWD_REQ table.

Events Raised

None.

Tables Purged

PLT_PWD_REQ

User Login Failure Purge

This purge deletes data on number of failed login attempts of users from the system.

You can use purge codes pseudo-logic to analyze purges.

Any enterprise using the Console must schedule purge transactions.

Attributes

The following are the attributes for this time-triggered transaction:

Table 369. User Login Failure Purge Attributes

| Attribute | Value |
|----------------------|---------|
| Base Transaction ID | None |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 370. User Login Failure Purge Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| Live | Optional. Mode in which to run. Valid values are: <ul style="list-style-type: none">• Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables.• N - Test mode. Determines the rows that are moved to history tables without actually moving them. |
| PurgeCode | Required. Cannot be modified. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in Business Rules Purge Criteria. |
| ColonyID | Required in a multi schema deployment where the PLT_USER_LOGIN_FAILED table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 371. User Login Failure Purge Statistics

| Statistic Name | Description |
|------------------------|---|
| NumUserLoginFailPurged | Number of failed login attempts purged. |

Pending Job Count

For this transaction, the pending job count is the number of records that can be purged from the PLT_USER_LOGIN_FAILED table.

Events Raised

None.

Tables Purged

PLT_USER_LOGIN_FAILED

Task Queue Syncher Time-Triggered Transactions

Many transactions use the task queue as their work repository. The workflow manager automatically creates tasks for transactions to handle the next processing step, as configured in your pipeline.

In some situations, the task queue repository may become out of date. For example, when reconfiguring the processing pipeline while the pipeline is active, the queue may go out of synch with the new pipeline configuration.

Alerts that indicate a halt in the lifecycle of a business document may indicate an outdated task queue repository.

The task queue syncher transactions are designed to update the task queue repository with the latest list of open tasks to be performed by each transaction, based on the latest pipeline configuration.

Some of the statistics collected and tracked in Release 9.1 for time-triggered transactions, monitors, and integration and application servers may change with the next release.

Load Execution Task Queue Syncher

This transaction synchronizes the task queue for the load execution process type.

You can use the following pseudo-logic to analyze this time-triggered transaction. If the following conditions are met, a task queue for the load execution process type is synchronized:

- LOAD_CLOSED_FLAG of Load should not be 'Y'.
- Load should be in a status that is pickable by a transaction in the pipeline.

- There should not be any Task Q record for the load, transaction combination in the Task Q table. In this case, the system inserts one Task Q record for this load, transaction combination with the current database time as the available date.

Attributes

The following are the attributes for this time-triggered transaction:

Table 372. Load Execution Task Queue Syncher Attributes

| Attribute | Value |
|----------------------|-----------------------|
| Base Transaction ID | TASK_QUEUE_SYNCER_L_D |
| Base Document Type | Load |
| Base Process Type | Load Execution |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 373. Load Execution Task Queue Syncher Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 374. Load Execution Task Queue Syncher Statistics

| Statistic Name | Description |
|-----------------|--------------------------|
| NumTasksCreated | Number of tasks created. |

Pending Job Count

None.

Events Raised

None.

Order Delivery Task Queue Syncher

This transaction synchronizes the order delivery process type.

Attributes

The following are the attributes for this time-triggered transaction:

Table 375. Order Delivery Task Queue Syncher Attributes

| Attribute | Value |
|----------------------|-----------------------|
| Base Transaction ID | TASK_QUEUE_SYNCER_O_D |
| Base Document Type | Order |
| Base Process Type | Order Delivery |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 376. Order Delivery Task Queue Syncher Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 377. Order Delivery Task Queue Syncher Statistics

| Statistic Name | Description |
|-----------------|--------------------------|
| NumTasksCreated | Number of tasks created. |

Pending Job Count

None.

Events Raised

None.

Order Fulfillment Task Queue Syncher

This transaction synchronizes the order fulfillment process type.

Attributes

The following are the attributes for this time-triggered transaction:

Table 378. Order Fulfillment Task Queue Syncher Attributes

| Attribute | Value |
|----------------------|-----------------------|
| Base Transaction ID | TASK_QUEUE_SYNCER_O_F |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 379. Order Fulfillment Task Queue Syncher Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 380. Order Fulfillment Task Queue Syncher Statistics

| Statistic Name | Description |
|-----------------|--------------------------|
| NumTasksCreated | Number of tasks created. |

Pending Job Count

None.

Events Raised

None.

Order Negotiation Task Queue Syncher

This transaction synchronizes the order negotiation process type.

Attributes

The following are the attributes for this time-triggered transaction:

Table 381. Order Negotiation Task Queue Syncher Attributes

| Attribute | Value |
|----------------------|-----------------------|
| Base Transaction ID | TASK_QUEUE_SYNCER_O_N |
| Base Document Type | Order |
| Base Process Type | Order Negotiation |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 382. Order Negotiation Task Queue Syncher Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 383. Order Negotiation Task Queue Syncher Statistics

| Statistic Name | Description |
|-----------------|--------------------------|
| NumTasksCreated | Number of tasks created. |

Pending Job Count

None.

Events Raised

None.

Quote Fulfillment Task Queue Syncher

This transaction synchronizes the quote fulfillment process type.

Attributes

The following are the attributes for this time-triggered transaction:

Table 384. Quote Fulfillment Task Queue Syncher Attributes

| Attribute | Value |
|----------------------|-----------------------|
| Base Transaction ID | TASK_QUEUE_SYNCER_Q_F |
| Base Document Type | Order |
| Base Process Type | Quote Fulfillment |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 385. Quote Fulfillment Task Queue Syncher Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 386. Quote Fulfillment Task Queue Syncher Statistics

| Statistic Name | Description |
|-----------------|--------------------------|
| NumTasksCreated | Number of tasks created. |

Pending Job Count

None.

Events Raised

None.

Monitors

Monitors are transactions that watch for processes or circumstances that are out of bounds and then raise alerts.

Some of the statistics collected and tracked in Release 9.1 for time-triggered transactions, monitors, and integration and application servers may change with the next release of Sterling Selling and Fulfillment Foundation.

All Monitors have a CollectPendingJobs criteria parameter. If this parameter is set to N, the agent does not collect information on the pending jobs for that monitor. This pending job information is used for monitoring the monitor in the System Management Console. By default, CollectPendingJobs is set to Y. It can be helpful to set it to N if one monitor is performing a significant amount of getPendingJobs queries and the overhead cost is too high.

Availability Monitor

This time-triggered transaction monitors inventory availability. The Availability Monitor raises global alerts when the available inventory falls below the configured quantities on the current day, on subsequent days within the ATP time frame, and on subsequent days outside of the ATP time frame. The quantities for the days outside of the ATP time frame are determined by the maximum monitoring days. Unlike the schedule and release transactions, the Availability Monitor calculates the actual availability beyond the ATP horizon and does not assume infinite inventory.

Attributes

The following are the attributes for this time-triggered transaction:

Table 387. Availability Monitor Attributes

| Attribute | Value |
|----------------------|-------------|
| Base Transaction ID | ATP_MONITOR |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this monitor:

Table 388. Availability Monitor Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| MonitorOption | Optional. Specifies how to monitor inventory. Valid values are: <ul style="list-style-type: none"> • 1 - current inventory • 0 - inventory within and outside of the ATP time frame. This is the default value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| InventoryOrganizationCode | Optional. Valid owner inventory organization. Organization to process in this run. If not passed, all inventory organizations are processed. |

Table 388. Availability Monitor Criteria Parameters (continued)

| Parameter | Description |
|--------------------|---|
| CollectPendingJobs | If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| Status | The negotiation status you are monitoring. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Pending Job Count

None.

Events Raised

No events are raised. Individual actions associated with the monitoring rule are run.

Data published to the actions is AVAILABILITY_MONITOR_dbd.txt.

Exception Monitor

This time-triggered transaction monitors exceptions in your system as noted below. It monitors the exceptions logged in the system and escalates these exceptions:

- If an exception has not been assigned to a user by a certain time
- If an exception has not been resolved by a certain time
- If the active size of the queue is more than a certain maximum size

In order to prevent re-alerts on exceptions during every run of the Exception Monitor, specify a re-alert interval through Alert Management in the Applications Manager. This attribute is associated with a queue and can be configured for each queue.

Attributes

The following are the attributes for this time-triggered transaction:

Table 389. Exception Monitor Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | EXCEPTION_MONITOR |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this monitor:

Table 390. Exception Monitor Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| QueueID | Optional. Defines the Alert Queue into which exceptions from this monitor are stored. |
| OrganizationCode | Optional. Organization to process in this run. If not passed, all inventory organizations are processed. |
| CollectPendingJobs | If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| QueueGroup | Optional. Defines the set of Queues for which the exceptions will be monitored. If both QueueId and QueueGroup are supplied, QueueId is ignored. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 391. Exception Monitor Statistics

| Statistic Name | Description |
|----------------------------|--|
| NumInboxProcessed | Number of alerts processed. |
| NumExceededQueueSizeAlerts | Number of actions raised when the number of unresolved alerts exceeds the queue's maximum active size. |
| NumUnResolvedAlerts | Number of actions raised when the unresolved alert time of an alert exceeds the queue's resolution time. |
| NumUnAssignedAlerts | Number of actions raised when the unassigned alert time of an alert exceeds the queue's assignment time. |

Pending Job Count

None.

Events Raised

No events are raised. Individual actions associated with the monitoring rule are run.

Inventory Monitor

This time-triggered transaction monitors inventory availability at ship node level. It raises alerts at the ship node level when the available inventory exceeds or drops below the configured quantities.

This monitor uses the OPEN_ORDER demand type to calculate available inventory at a given node. All supplies assigned to a supply type that is considered by the OPEN_ORDER demand type are considered. For more information about configuring inventory supply and demand considerations, refer to the *Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide*.

Attributes

The following are the attributes for this time-triggered transaction:

Table 392. Inventory Monitor Attributes

| Attribute | Value |
|----------------------|---------------------|
| Base Transaction ID | INVENTORY_MONITOR |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | checkAvailability() |

Criteria Parameters

The following are the criteria parameters for this monitor:

Table 393. Inventory Monitor Criteria Parameters

| Parameter | Description |
|-----------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| InventoryOrganizationCode | Optional. Valid inventory owner organization. Organization to process in this run. If not passed, all inventory organizations are processed. |
| CollectPendingJobs | If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| AllowedOverriddenCriteria | <p>If this parameter is set to Y, the overriding value for the agent criteria parameters can be provided in the command line in the following format when triggering the agent:</p> <pre><AgentCriteriaAttribute> <OverriddenValue></pre> <p>For more information about passing these attributes, see the <i>Sterling Selling and Fulfillment Foundation: Installation Guide</i></p> |

Table 393. Inventory Monitor Criteria Parameters (continued)

| Parameter | Description |
|-----------|---|
| ShipNodes | Optional. Comma-separated list of valid ship nodes that should be processed in this run. If not passed, all the ship nodes are processed. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

None.

Pending Job Count

None.

Events Raised

No events are raised. Individual actions associated with the monitoring rule are run.

Data published to the actions is <INSTALL_DIR>/xapidocs/api_javadocs/dbd/INVENTORY_MONITOR_dbd.txt.

Negotiation Monitor

This time-triggered transaction alerts the Enterprise when a negotiation remains in a particular status for a specific amount of time. This also monitors the negotiation expiration date. This time-triggered transaction invokes the actions configured against the negotiation statuses. Configure status Expired (2000) to monitor negotiation expiration date.

Use this monitor in environments where Order or order release has to go through a negotiation phase and you want to monitor the negotiation.

Attributes

The following are the attributes for this time-triggered transaction:

Table 394. Negotiation Monitor Attributes

| Attribute | Value |
|----------------------|-------------------------|
| Base Transaction ID | ORD_NEGOTIATION_MONITOR |
| Base Document Type | Order |
| Base Process Type | Order Negotiation |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this monitor:

Table 395. Negotiation Monitor Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Negotiation Monitor needs to be run. If not passed, then all enterprises are monitored. |
| CollectPendingJobs | If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| Status | The negotiation status you are monitoring. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 396. Negotiation Monitor Statistics

| Statistic Name | Description |
|-------------------------------|--|
| NumNegotiationsProcessed | Number of negotiations processed. |
| NumNegotiationsRequiringAlert | Number of negotiations which have at least one alert raised. |

Pending Job Count

None.

Events Raised

This invokes the actions configured against the negotiation statuses.

Key Data - Not Applicable.

Data Published - YCP_getNegotiationDetails_output.xml

Enhanced Order Monitor

The enhanced order monitor enables you to monitor the following situations:

- Milestone x has not been reached y hours before a given date type.
- Milestone x has not been reached within y hours of a given date type.
- Milestone x has not been reached within y hours of milestone z.
- Milestone x has been reached y hours before a given date type.
- Milestone x has been reached within y hours of a given date type.
- Milestone x has been reached within y hours after milestone z.

- The order has been in status x for y hours.
- Date type x is y hours before date type z.
- Date type x is y hours after date type z.
- The order has been in hold type x for y hours.
- The order has been in hold type x for y hours before date type z.

The order monitor can be configured to monitor the following system date types for and Purchase Order document types:

- Actual Order Date - Read from the ORDER_DATE column of the YFS_ORDER_HEADER table.
- Actual Next Iteration Date - Read from the NEXT_ITER_DATE column of the YFS_ORDER_HEADER table.
- Requested Ship Date - If there is an order release, read from the REQ_SHIP_DATE column of the YFS_ORDER_RELEASE table. Otherwise, read from the REQ_SHIP_DATE of the YFS_ORDER_LINE table.
- Expected Ship Date - Read from the EXPECTED_SHIPMENT_DATE column of the YFS_ORDER_LINE_SCHEDULE table. If it is null, uses the same logic as Requested Ship Date.
- Actual Ship Date - If the date is before 01/01/2500, read from the EXPECTED_SHIPMENT_DATE column of the YFS_ORDER_LINE_SCHEDULE table. If the date is on or after 01/01/2500, this date type is returned as null.
- Requested Delivery Date - If there is a release, read from the REQ_DELIVERY_DATE column of the YFS_ORDER_RELEASE table.
- Expected Delivery Date - Read from the EXPECTED_DELIVERY_DATE column of the YFS_ORDER_LINE_SCHEDULE table. If it is null, uses the same logic as Requested Delivery Date.
- Actual Delivery Date - If the date is before 01/01/2500, read from the EXPECTED_DELIVERY_DATE column of the YFS_ORDER_LINE_SCHEDULE table. If the date is on or after 01/01/2500, this date type is returned as null. For Order Fulfillment, Planned Order Execution, Reverse Logistics, and Purchase Order Execution pipelines, the system defined dates such as Shipment and Delivery are stored without a time component. Therefore when you configure a rule using these dates, all time computations are carried out assuming they are always 12:00:00 AM.

For more information about milestones, date types, and monitoring rules, refer to the *Sterling Selling and Fulfillment Foundation: Supply Collaboration Configuration Guide*, the *Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide*, and the *Sterling Selling and Fulfillment Foundation: Reverse Logistics Configuration Guide*.

If you run the Enhanced Order Monitor, you must configure and run the Close Order time-triggered transaction in all applicable pipelines. For more information about the Close Order time-triggered transaction, see “Close Order” on page 305.

The same relog interval is used for all document types.

Attributes

The following are the attributes for this time-triggered transaction:

Table 397. Enhanced Order Monitor Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | ORDER_MONITOR_EX |
| Base Document Type | Order |
| Base Process Type | Order Fulfillment |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this monitor:

Table 398. Enhanced Order Monitor Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Order Monitor needs to be run. If not passed, then all enterprises are monitored. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this monitor:

Table 399. Enhanced Order Monitor Statistics

| Statistic Name | Description |
|--------------------|-----------------------------|
| NumOrdersProcessed | Number of orders processed. |
| NumAlertsRaised | Number of alerts raised. |

Pending Job Count

For this transaction the pending job count is the number of open orders with the value of NEXT_ALERT_TS less than or equal to (\leq) the current date.

Events Raised

The Enhance Order Monitor transaction raises the ON_AUTO_CANCEL event, but does not cancel the order. A service on this event should be configured to cancel the order.

Table 400. Events Raised by the Enhanced Order Monitor Transaction

| Transaction/Event | Key Data | Data Published* | Template Support? |
|--|-----------------------|--|-------------------|
| ON_AUTO_CANCEL | ORDER_MONITOR_dbd.txt | YFS_ORDER_MONITOR_EX.ON_AUTO_CANCEL.html | Yes |
| <p>* These files are located in the following directory: <INSTALL_DIR>/xapidocs/api_javadocs/XSD/HTML</p> | | | |

Monitor Rule's Condition Template

If a monitor rule contains a condition, the <INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/ORDER_MONITOR_EX_CONDITION.xml template file is used to obtain both the order details and the evaluating monitor rule details. See the provided <INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/ORDER_MONITOR_EX_CONDITION.xml.sample file for more details.

If the <INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/ORDER_MONITOR_EX_CONDITION.xml template file does not exist, the MonitorConsolidation->Order element of the default monitor template, the <INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/ORDER_MONITOR_EX.xml file, is used.

If the default monitor template is used, the MonitorConsolidation->Order->OrderStatuses-> OrderStatus-> MonitorRule element is ignored and is not passed into the condition.

Enhanced Quote Monitor

The enhanced quote monitor enables you to monitor the following situations:

- Milestone x has not been reached y hours before a given date type.
- Milestone x has not been reached within y hours of a given date type.
- Milestone x has not been reached within y hours of milestone z.
- Milestone x has been reached y hours before a given date type.
- Milestone x has been reached within y hours of a given date type.
- Milestone x has been reached within y hours after milestone z.
- The order has been in status x for y hours.
- Date type x is y hours before date type z.
- Date type x is y hours after date type z.

The quote monitor can be configured to monitor the following system date types:

- Actual Expiration Date - Read from the EXPIRATION_DATE column of the YFS_ORDER_HEADER table.

For more information about milestones, date types, and monitoring rules, refer to the *Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide*.

If you run the Enhanced Quote Monitor, you must configure and run the Close Order time-triggered transaction in all applicable pipelines. For more information about the Close Order time-triggered transaction, see “Close Order” on page 305.

The same relog interval is used for all document types.

Attributes

The following are the attributes for this time-triggered transaction:

Table 401. Enhanced Quote Monitor Attributes

| Attribute | Value |
|----------------------|-----------------------|
| Transaction ID | ORDER_MONITOR_EX.0015 |
| Document Type | Quote |
| Process Type | Quote Fulfillment |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this monitor:

Table 402. Enhanced Quote Monitor Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Quote Monitor needs to be run. If not passed, then all enterprises are monitored. |
| CollectPendingJobs | If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this monitor:

Table 403. Enhanced Quote Monitor Statistics

| Statistic Name | Description |
|--------------------|-----------------------------|
| NumOrdersProcessed | Number of quotes processed. |
| NumAlertsRaised | Number of alerts raised. |

Pending Job Count

For this transaction the pending job count is the number of open orders with the value of NEXT_ALERT_TS less than or equal to (\leq) the current date.

Events Raised

No events are raised. Individual actions associated with the monitoring rule are run.

The data published is ORDER_MONITOR_EX.0015.xml.

Monitor Rule's Condition Template

If a monitor rule contains a condition, the <INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/ORDER_MONITOR_EX_CONDITION.xml template file is used to obtain both the order details and the evaluating monitor rule details. See the provided <INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/ORDER_MONITOR_EX_CONDITION.xml.sample file for more details.

If the <INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/ORDER_MONITOR_EX_CONDITION.xml template file does not exist, the MonitorConsolidation->Order element of the default monitor template, the <INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/ORDER_MONITOR_EX.xml file, is used.

If the default monitor template is used, the MonitorConsolidation->Order->OrderStatuses->OrderStatus->MonitorRule element is ignored and is not passed into the condition.

Enhanced Return Monitor

The enhanced return monitor allows you to monitor the following situations:

- Milestone x has not been reached y hours before a given date type.
- Milestone x has not been reached within y hours of a given date type.
- Milestone x has not been reached within y hours of milestone z.
- Milestone x has been reached y hours before a given date type.
- Milestone x has been reached within y hours of a given date type.
- Milestone x has been reached within y hours after milestone z.
- The order has been in status x for y hours.
- Date type x is y hours before date type z.
- Date type x is y hours after date type z.

The enhanced return monitor can be configured to monitor the following system date types:

- Actual Order Date - Read from the ORDER_DATE column of the YFS_ORDER_HEADER table
- Requested Ship Date - If there is an order release, read from the REQ_SHIP_DATE column of the YFS_ORDER_RELEASE table. Otherwise, read from the REQ_SHIP_DATE of the YFS_ORDER_LINE table.
- Expected Ship Date - Read from the EXPECTED_SHIPMENT_DATE column of the YFS_ORDER_LINE_SCHEDULE table. If it is null, uses the same logic as Requested Ship Date.
- Actual Ship Date - If the date is before 01/01/2500, read from the EXPECTED_SHIPMENT_DATE column of the YFS_ORDER_LINE_SCHEDULE table. If the date is on or after 01/01/2500, this date type is returned as null.

- Requested Delivery Date - If there is a release, read from the REQ_DELIVERY_DATE column of the YFS_ORDER_RELEASE table. Otherwise, read from the REQ_DELIVERY_DATE of the YFS_ORDER_LINE table.
- Expected Delivery Date - Read from the EXPECTED_DELIVERY_DATE column of the YFS_ORDER_LINE_SCHEDULE table. If it is null, uses the same logic as Requested Delivery Date.
- Actual Delivery Date - If the date is before 01/01/2500, read from the EXPECTED_DELIVERY_DATE column of the YFS_ORDER_LINE_SCHEDULE table. If the date is on or after 01/01/2500, this date type is returned as null. For Order Fulfillment, Planned Order Execution, Reverse Logistics, and Purchase Order Execution pipelines, the system defined dates such as Shipment and Delivery are stored without a time component. Therefore when you configure a rule using these dates, all time computations are carried out assuming they are always 12:00:00 AM.

For more information about milestones, date types, and monitoring rules, refer to the *Sterling Selling and Fulfillment Foundation: Supply Collaboration Configuration Guide*, the *Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide*, and the *Sterling Selling and Fulfillment Foundation: Reverse Logistics Configuration Guide*.

If you run the Enhanced Return Monitor, you must configure and run the Close Order time-triggered transaction in all applicable pipelines. For more information about the Close Order time-triggered transaction, see “Close Order” on page 305.

The same relog interval is used for all document types.

Attributes

The following are the attributes for this time-triggered transaction:

Table 404. Enhanced Order Monitor Attributes

| Attribute | Value |
|----------------------|-------------------|
| Base Transaction ID | RETURN_MONITOR_EX |
| Base Document Type | Return Order |
| Base Process Type | Reverse Logistics |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this monitor:

Table 405. Enhanced Order Monitor Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Order Monitor needs to be run. If not passed, then all enterprises are monitored. |

Table 405. Enhanced Order Monitor Criteria Parameters (continued)

| Parameter | Description |
|--------------------|---|
| FromStatus | Optional. Statuses to monitor that are greater than or equal to the passed status. |
| ToStatus | Optional. Statuses to monitor that are less than or equal to the passed status. |
| CollectPendingJobs | If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this monitor:

Table 406. Enhanced Order Monitor Statistics

| Statistic Name | Description |
|--------------------|-----------------------------|
| NumOrdersProcessed | Number of orders processed. |
| NumAlertsRaised | Number of alerts raised. |

Pending Job Count

For this transaction the pending job count is the number of open orders with the value of NEXT_ALERT_TS less than or equal to (\leq) the current date.

Events Raised

No events are raised. Individual actions associated with the monitoring rule are run.

The data published is RETURN_MONITOR_EX.xml.

Monitor Rule's Condition Template

If a monitor rule contains a condition, the `<INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/ORDER_MONITOR_EX_CONDITION.xml` template file is used to obtain both the order details and the evaluating monitor rule details. See the provided `<INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/ORDER_MONITOR_EX_CONDITION.xml.sample` file for more details.

If the `<INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/ORDER_MONITOR_EX_CONDITION.xml` template file does not exist, the `MonitorConsolidation->Order` element of the default monitor template, the `<INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/ORDER_MONITOR_EX.xml` file, is used.

If the default monitor template is used, the `MonitorConsolidation->Order->OrderStatuses->OrderStatus->MonitorRule` element is ignored and is not passed into the condition.

Real-time Availability Monitor

The Real-time Availability Monitor time-triggered transaction monitors the inventory availability of inventory items. It can be configured to raise the `REALTIME_AVAILABILITY_CHANGE` event when the inventory level for a given item changes between the thresholds defined in the Applications Manager in the Global Inventory Visibility module.

It can be run in three modes:

- Activity Based: Raises the event in real time every time an item goes above or below one of the thresholds.
- Quick Sync: Re-sends the most recently published inventory availability information.
- Full Sync: Monitors all of the items regardless of activity and publishes the inventory information for all of the items.

In all cases, the percentage of future inventory availability is used for considering inventory availability at retrieval time. For more information about future inventory availability, see the *Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide*.

Demand of type `OPEN_ORDER` is used in getting the inventory availability picture. If sourcing is maintained, the Real-time Availability Monitor can either monitor the total availability across nodes or the availability at individual nodes. Inventory items without an Availability Monitor rule, or with a rule that is disabled, are unable to be processed by this time-triggered transaction.

If item information is not available on the system, such as when inventory between databases is not in sync, default inventory monitor rules can be configured so that monitoring will proceed. Setting these default inventory monitor rules also ensures that inventory activity will be recorded when the system is running in activity-based mode.

When monitoring the total availability across nodes, the Real-time Availability Monitor monitors all nodes in the default distribution group of the inventory organization.

When monitoring the availability at individual nodes, the Real-time Availability Monitor monitors all nodes in a specified distribution group. For more information about configuring distribution groups and node-level inventory monitoring, see the *Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide*.

If configured, the Real-time Availability Monitor also considers the onhand and future inventory availability safety factor during monitoring. For more information about the inventory availability safety factors and the `findInventory()` API, see the *Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide* and the *Sterling Selling and Fulfillment Foundation: Javadocs*.

When the onhand quantity is greater than the configured low threshold, the `REALTIME_ONHAND` alert type is raised, and the alert level is based on the onhand quantity.

When the onhand quantity falls below the configured low threshold, the `REALTIME_FUTURE_MAX` alert type is raised, and the alert level is based on the total

future supply (FutureAvailableQuantity) with FirstFutureAvailableDate set to the date on which the first future supply is available, and FutureAvailableDate set to the date on which the maximum future supply is available.

When the Real-time Availability Monitor is run in activity based mode, changing one of the thresholds of an inventory item does not cause the agent to monitor it unless there is a change in activity. For example, if item I with available quantity 700 is being monitored with a low threshold of 600, and the low threshold is then changed to 1000, no event is published unless there is change in I's activity. In order to ensure that in such a scenario I is not left unmonitored, call the createInventoryActivity API when changing a monitoring rule for an item.

Computing and Publishing the Maximum Ship Dates for Available Quantities

If enabled, the Real-Time Availability Monitor computes and publishes a matrix of maximum ship dates for available quantities, which includes the following information:

- Available Quantity - Refers to the number of items that are available for shipping on the maximum ship date.
- Maximum Ship Date - Refers to the time and date when available quantities are shipped by.
- Effective Until Date - Refers to the last time and date that an order can be placed if it is to be shipped by the maximum ship date.

The matrix is published to the REALTIME_AVAILABILITY_CHANGE event and stored in XML format in the AVAILABILITY_INFO field of the YFS_INVENTORY_ALERTS table. The monitorItemAvailability() API can be used to update the matrix. For more information about the monitorItemAvailability() API, refer to the *Sterling Selling and Fulfillment Foundation: Javadocs*.

For information about using the Real-Time Availability Monitor to calculate and publish a matrix of maximum ship dates for available quantities, refer to the chapter on Configuring Inventory Rules in the *Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide*.

Computing the Maximum Ship Date

The maximum ship date is equal to the maximum expected ship date across all the nodes being considered. For information about calculating the expected ship date, refer to the *Sterling Selling and Fulfillment Foundation: Product Concepts Guide*. Additionally, the following options can be configured as part of the maximum ship date:

- Maximum Ship Date Time
- Number of Days To Offset the Maximum Ship Date

Maximum Ship Date Time - If you specify a time for the maximum ship date, the Real-Time Availability Monitor calculates the maximum ship date, as described earlier, and then applies the following logic:

- If the time specified for the maximum ship date occurs later in the day than the calculated ship date, the Real-Time Availability Monitor resets the maximum ship date to the specified time. For example, if the Real-Time Availability

Monitor calculates the maximum ship date to be 10 a.m. on July 21 and Maximum Ship Date Time is set to 11 a.m., the maximum ship date is recalculated to be 11 a.m. on July 21.

- If the time specified for the maximum ship date occurs earlier in the day than the calculated ship date, the maximum ship date is incremented by one day and reset to the specified time. For example, if the maximum ship date is calculated to be 11 a.m. on July 21 and Maximum Ship Date Time is set to 10 a.m., the Real-Time Availability Monitor recalculates the maximum ship date to be 10 a.m. on July 22.

Number of Days To Offset the Maximum Ship Date - You can specify a number of days to offset the maximum ship date. The Real-Time Availability Monitor calculates the maximum ship date, including the maximum ship date time, and then increments the maximum ship date by the number of days specified by the offset number. For example, if the Real-Time Availability Monitor has calculated a maximum ship date to be 11 a.m. on July 19 and Number of Days to Offset the Maximum Ship Date is set to 1, the maximum ship date is recalculated to be 11 a.m. on July 20.

Calculating the Effective Until Date

The Real-Time Availability Monitor calculates the effective until date by subtracting the node's minimum notification time from the maximum ship date and then adjusting for the preceding notification time on the node's notification schedule. The effective until date is only valid while supplies are available at the node.

For example, if an available quantity has a maximum ship date of 4 p.m. on July 19 and the shipping node has the following notification schedule, the effective until date is calculated to be 3 p.m. on July 18:

- 24-hour minimum notification time
- 3 p.m. and 5 p.m. notification times

In this example, the effective until date is calculated by first subtracting the 24-hour minimum notification time from the 4 p.m., July 19 maximum ship date and then adjusting for the 3 p.m. notification time. If an order is not placed before 3 p.m. on July 18, the July 19 maximum ship date is no longer available because the node must be notified at least 24 hours before shipping the items, by 4 p.m. on July 19. Also, if a different order reduces available quantities at the node before the order is placed at 3 p.m. on July 19, the maximum ship date cannot be met and the effective until date becomes invalid.

Additionally, offset days are not considered when calculating the effective until date. Thus, if the maximum ship date in the earlier example is updated to 4 p.m. July 20 by setting Number of Days to Offset Maximum Ship Date to 1, the effective until date is updated to 3 p.m., July 19.

Example 1: Computing Maximum Ship Dates for Available Quantities

Node 1 has the following supply picture:

- 24-hour minimum notification time
- Notification times are 3 p.m. and 5 p.m. daily
- Work Days are 24 hours-a-day, 7 days-a-week

Node 2 has the following supply picture:

- 48-hour minimum notification time
- Notification times are 2 p.m. and 5 p.m. daily
- Work Days are 24 hours-a-day, 7 days-a-week

The following table shows the availability matrix for Node 1 and Node 2, where the following conditions are true:

- Current date is July 19
- Estimated time of arrival (ETA) equals the date that the quantity is expected to be available at the node
- Maximum Ship Date Time is set to 4 p.m.
- Number of Days to Offset the Maximum Ship Date is set to 0

Table 407. Example: Availability Matrix of Maximum Ship Dates for Available Quantities

| ETA | Quantity | Maximum Ship Date | Effective Until Date |
|-----------|----------|-------------------|----------------------|
| Node 1 | | | |
| 7/19/2010 | 80 | 4 p.m., July 20 | 3 p.m., July 19 |
| 7/22/2010 | 10 | 4 p.m. July 22 | 3 p.m., July 21 |
| Node 2 | | | |
| 7/19/2010 | 100 | 4 p.m., July 21 | 2 p.m., July 19 |
| 7/22/2010 | 20 | 4 p.m., July 22 | 2 p.m., July 20 |

In this example, July 19 is the ETA for a quantity of 80 items at Node 1 and 100 items at Node 2. The matrix shows a 4 p.m., July 20 maximum ship date for the 80 available items from Node 1 and a 4 p.m., July 21 maximum ship date for the 100 available items from Node 2. For Node 1, the maximum ship date is calculated by adding the 24-hour minimum notification time to the 3 p.m. notification time on July 19, and then adjusting for the 4 p.m. maximum ship date time. The effective until date is calculated by subtracting the 24-hour minimum notification time from the maximum ship date and then adjusting for the 3 p.m. notification time. For Node 2, the maximum ship date and effective until date are calculated similarly, with the exception that Node 2 has a 48-hour minimum notification time and a 2 p.m. notification time.

Additionally, the example shows July 22 as the ETA for a quantity of 10 items at Node 1 and 20 items at Node 2. The maximum ship date is 4 p.m., July 22 for the 10 items at Node 1 and 4 p.m., July 22 for the 20 items at Node 2. If the difference between the current date and the ETA is greater than the node's minimum notification time, the ETA date is used for the maximum ship date. In this example, the difference between the current date, July 19, and the ETA date, July 22, is greater than the minimum notification times at both nodes. Thus, the maximum ship date is set to the maximum ship date time on the ETA date at the nodes, which is 4 p.m., July 22 at Node 1 and 4 p.m., July 22 at Node 2.

Example 2: Computing the Maximum Ship Date at Nodes With Non-Working Days

The following table displays the availability matrix for Node 1 and Node 2 when the supply picture and conditions from Example 1 are applied. However, in this scenario, July 19 and July 20 are nonworking days.

Table 408. Example: Availability Matrix for Nodes with Non-Working Days

| ETA | Quantity | Maximum Ship Date | Effective Until Date |
|-----------|----------|-------------------|----------------------|
| Node 1 | | | |
| 7/19/2010 | 80 | 4 p.m., July 22 | 3 p.m., July 21 |
| Node 2 | | | |
| 7/19/2010 | 100 | 4 p.m., July 23 | 2 p.m., July 21 |

In the example, Node 1 has an available quantity of 80 on July 19 and a minimum notification time of 24 hours. Because July 19 and July 20 are nonworking days at Node 1, the 80 items are not considered available until July 21. In this case, the maximum ship date is calculated by adding the 24-hour minimum notification time to July 21 and adjusted for the 4 p.m. maximum ship date time. For Node 2, the maximum ship date is calculated similarly, with the exception of a 48-hour minimum notification time.

Example 3: Offsetting the Maximum Ship Date

The following table displays the availability matrix for Node 1 and Node 2 when the supply picture and conditions from Example 2 are applied. However, in this scenario, Number of Days To Offset the Maximum Ship Date is set to 1.

Table 409. Example: Availability Matrix When Offsetting the Maximum Ship Date

| ETA | Quantity | Maximum Ship Date | Effective Until Date |
|-----------|----------|-------------------|----------------------|
| Node 1 | | | |
| 7/19/2010 | 80 | 4 p.m., July 23 | 3 p.m., July 22 |
| Node 2 | | | |
| 7/19/2010 | 100 | 4 p.m., July 24 | 2 p.m., July 22 |

In the example, the maximum ship dates for Nodes 1 and 2 are calculated similarly to Example 2. However, the maximum ship dates are incremented by 1 because Number of Days to Offset the Maximum Ship Date is set to 1. In this example, the effective until date is set to 3 p.m., July 22 for Node 1 and 2 p.m., July 22 for Node 2 because the offset days are not considered when calculating the effective until date.

Attributes

The following are the attributes for this time-triggered transaction:

Table 410. Real-time Availability Monitor Attributes

| Attribute | Value |
|----------------------|----------------------|
| Base Transaction ID | REALTIME_ATP_MONITOR |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | FindInventory |

Criteria Parameters

The following are the criteria parameters for this monitor:

Table 411. Real-time Availability Monitor Criteria Parameters

| Parameter | Description |
|------------------------------------|---|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| InventoryOrganizationCode | Inventory organization code to use when MonitorOption is passed as 3. The inventory organization has to be an enterprise. If this is not passed, the monitor runs for all inventory organizations. |
| MonitorOption | 1 - Activity Based (Monitor based on distinct inventory items in YFS_INVENTORY_ACTIVITY table). 2 – Quick Sync (Re-raise event to publish information from the YFS_INVENTORY_ALERTS table). 3 – Full Sync (Monitor based on all inventory items maintained by the inventory organization provided. If no InventoryOrganizationCode is provided, all inventory item is monitored). If not provided, default value is 1. |
| ItemStatuses | List of valid statuses of items to be processed. Statuses must be separated by a , for example 3000,2000. This is only used when MonitorOption is passed as 2 or 3. If provided, only items with the matching statuses is monitored. |
| FromAlertTimestamp | This is only used when MonitorOption is passed as 2. If provided, the agent raises the REALTIME_AVAILABILITY_CHANGE event to republish inventory availability information which was published between the time that the agent started and FromAlertTimestamp. If not provided, all inventory availability information published before the time that the agent started is republished. |
| AllowedOverriddenCriteria | If set to Y, the overridden value for the agent criteria parameters can be provided at the command line while triggering the agent in the following format: <AgentCriteriaAttribute> <OverriddenValue> For more information about passing these attributes, see the <i>Sterling Selling and Fulfillment Foundation: Installation Guide</i> . |

Table 411. Real-time Availability Monitor Criteria Parameters (continued)

| Parameter | Description |
|---|--|
| FromLastNumberOfHours | This is only used when MonitorOption is passed as 2 to calculate the FromAlertTimestamp parameter, if necessary. If the FromAlertTimestamp parameter is not provided, it is calculated as current timestamp minus FromLastNumberOfHours. |
| CollectPendingJobs | If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| RaiseEventsOnAllAvailability Changes | When set to Y, REALTIME_AVAILABILITY_CHANGE event is raised on all availability changes regardless of whether availability exceeds or falls below specified thresholds. This is only used when MonitorOption is passed as 1. Valid values: Y or N. Default value: N. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Note: Distribution Rule Id is used for internal purposes and should be left blank.

Statistics Tracked

None.

Pending Job Count

None.

Events Raised

The following events are raised by this time-triggered transaction:

Table 412. Events Raised by the Realtime Availability Monitor Transaction

| Transaction/Event | Key Data | Data Published* | Template Support? |
|-------------------------------------|----------|--|-------------------|
| REALTIME_AVAILABILITY_CHANGE | None | YFS_REALTIME_ATP_MONITOR. REALTIME_AVAILABILITY_CHANGE.html | Yes |

* These files are located in the following directory:
<INSTALL_DIR>\xapidocs/api_javadocs/XSD/HTML

Although described as 'real time', availability changes may not be triggered immediately as inventory changes occur if the agent has a backlog of messages to process. Furthermore, this monitor exists as a time-triggered transaction, and thus monitors availability of inventory items only when the monitor is triggered based on the configured runtime properties.

Shipment Monitor

This time-triggered transaction reports the states of a shipment, based on rules in the YFS_MONITOR_RULE table. This transaction enables you to monitor the following situations:

- If the Shipment has been in a status for more than a specified amount of time.
- If a specified date that is associated with the shipment is:
 - n hours before another specified date
 - n hours after another specified date
 - n hours not before another specified date
 - n hours not after another specified date
- If the Shipment has been in a hold type for a specified amount of time.
- If the Shipment has been in a hold type for n hours before a specified date.

Monitoring rules can be configured for shipment's origin and destination points.

Monitoring rules cannot be configured for a shipment's intermediate pickup and drop off points. A shipment has intermediate pickup or drop off only if it has multiple pickup or drop off points. For example, a shipment has more than one loads carrying it. The shipment status on first load deposit, second load deposit, and so forth cannot be monitored. Once the last load deposits the shipment at its destination, then the shipment status can be marked and monitored.

This is not a pipeline transaction. It also does not work from the task queue.

For more information about milestones, date types, and monitoring rules, see the *Sterling Selling and Fulfillment Foundation: Supply Collaboration Configuration Guide*, the *Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide*, and the *Sterling Selling and Fulfillment Foundation: Reverse Logistics Configuration Guide*.

Attributes

The following are the attributes for this time-triggered transaction:

Table 413. Shipment Monitor Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | SHIPMENT_MONITOR |
| Base Document Type | Order |
| Base Process Type | Order Delivery |
| Abstract Transaction | No |
| APIs Called | None |

Criteria Parameters

The following are the criteria parameters for this monitor:

Table 414. Shipment Monitor Criteria Parameters

| Parameter | Description |
|-----------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |

Table 414. Shipment Monitor Criteria Parameters (continued)

| Parameter | Description |
|-----------------------------|---|
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Shipment Monitor needs to be run. If not passed, then all enterprises are monitored. |
| CollectPendingJobs | If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 415. Shipment Monitor Statistics

| Statistic Name | Description |
|-----------------------|--------------------------------|
| NumShipmentsMonitored | Number of shipments monitored. |

Pending Job Count

For this transaction the pending job count is the number of open shipments with the value of NEXT_ALERT_TS less than or equal to (<=) the current date.

Events Raised

This invokes the actions configured against shipment statuses.

Key Data - Not Applicable.

Data Published - SHIPMENT_MONITOR.xml

Monitor Rule's Condition Template

If a monitor rule contains a condition, the <INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/SHIPMENT_MONITOR_CONDITION.xml template file is used to obtain the shipment details and the evaluating monitor rule details. See the provided <INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/SHIPMENT_MONITOR_CONDITION.xml.sample file for more details.

If the <INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/SHIPMENT_MONITOR_CONDITION.xml template file does not exist, the MonitorConsolidation->Shipment element of the default monitor template, the <INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/SHIPMENT_MONITOR.xml file, is used.

If the default monitor template is used, the MonitorConsolidation->Shipment->MonitorRule element is ignored and is not passed into the condition.

Work Order Monitor

This time-triggered transaction alerts the enterprise when a work order remains in a particular state or hold type for a specific amount of time.

Use this monitor to track how long work orders stay in a particular state or hold type.

Attributes

The following are the attributes for this time-triggered transaction:

Table 416. Work Order Monitor Attributes

| Attribute | Value |
|----------------------|--------------------|
| Base Transaction ID | WORK_ORDER_MONITOR |
| Base Document Type | Work Order |
| Base Process Type | VAS Process |
| Abstract Transaction | No |

Criteria Parameters

The following are the criteria parameters for this monitor:

Table 417. Work Order Monitor Criteria Parameters

| Parameter | Description |
|-----------------------------|---|
| Action | Required. Triggers the transaction. If left blank it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| EnterpriseCode | Optional. Enterprise for which the Work Order Monitor needs to be run. If not passed, then all enterprises are monitored. |
| Node | Optional. Node for which the Work Order Monitor needs to be run. If not passed, then all nodes are monitored. |
| CollectPendingJobs | If this parameter is set to N, the agent does not collect information on the pending jobs for this monitor. This pending job information is used for monitoring the monitor in the System Management Console. |
| ColonyID | Required in a multi schema deployment where a table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 418. Work Order Monitor Statistics

| Statistic Name | Description |
|------------------------|----------------------------------|
| NumWorkOrdersMonitored | Number of work orders monitored. |

Pending Job Count

For this transaction the pending job count is the number of Work Orders that are monitored, where NEXT_ALERT_TS less than or equal to (\leq) current date.

Events Raised

No events are raised. Individual actions associated with the monitoring rule are run. Data published to the actions is workOrder_dbd.txt.

Monitor Rule's Condition Template

If a monitor rule contains a condition, the `<INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/monitor/WORK_ORDER_MONITOR_CONDITION.xml` template file is used to obtain the work order details and the evaluating monitor rule details. See the provided `<INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/WORK_ORDER_MONITOR_CONDITION.xml.sample` file for more details.

If the `<INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/WORK_ORDER_MONITOR_CONDITION.xml` template file does not exist, the MonitorConsolidation->WorkOrder element of the default monitor template, the `<INSTALL_DIR>/repository/xapi/template/source/smcfs/monitor/WORK_ORDER_MONITOR.xml` file, is used.

If the default monitor template is used, the MonitorConsolidation-> WorkOrder-> MonitorRule element is ignored and is not passed into the condition.

Chapter 23. Inventory and Capacity Change Transaction Reference

The Inventory Change Transaction

The Inventory Change transaction is used for setting up events that involve inventory changes.

Invoked By

- The `adjustInventory()` API
- Any other API that is capable of doing a status change

Attributes

The following are the attributes for this transaction:

Table 419. Inventory Change Attributes

| Attribute | Value |
|----------------------|------------------|
| Base Transaction ID | INVENTORY_CHANGE |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |

Events Raised

This transaction raises the following events:

- SUPPLY_CHANGE

This event is raised for every inventory supply change within Sterling Selling and Fulfillment Foundation. It publishes detailed information about the changed supply.

Key Data: `INSTALL_DIR/xapidocs/api_javadocs/dbd/INVENTORY_CHANGE_SUPPLY_CHANGE_dbd.txt`
Data Published: `INSTALL_DIR/xapidocs/api_javadocs/XSD/HTML/INV_INVENTORY_CHANGE_SUPPLY_CHANGE.html`

- DEMAND_CHANGE

This event is raised for every inventory demand change within Sterling Selling and Fulfillment Foundation. It publishes detailed information about the changed demand. Order information is published when the inventory organization is set to create demand details.

Key Data: `INSTALL_DIR/xapidocs/api_javadocs/dbd/INVENTORY_CHANGE_DEMAND_CHANGE_dbd.txt`
Data Published: `INSTALL_DIR/xapidocs/api_javadocs/XSD/HTML/INV_INVENTORY_CHANGE_DEMAND_CHANGE.html`

- EXTERNAL_SUPPLY_CHANGE

This event is raised for every supply change for externally maintained inventories within Sterling Selling and Fulfillment Foundation.

Key Data: INSTALL_DIR/xapidocs/api_javadocs/dbd/
INVENTORY_CHANGE_EXTERNAL_SUPPLY_CHANGE_dbd.txt
Data Published: INSTALL_DIR/xapidocs/api_javadocs/XSD/HTML/
INV_INVENTORY_CHANGE_EXTERNAL_SUPPLY_CHANGE.html

- EXTERNAL_DEMAND_CHANGE

This event is raised for every demand change for each organization that does not maintain its inventory within Sterling Selling and Fulfillment Foundation.

Key Data:

INSTALL_DIR/xapidocs/api_javadocs/dbd/
INVENTORY_CHANGE_EXTERNAL_DEMAND_CHANGE_dbd.txt Data
Published: INSTALL_DIR/xapidocs/api_javadocs/XSD/HTML\
INV_INVENTORY_CHANGE_EXTERNAL_DEMAND_CHANGE.html

- INVENTORY_CHANGE

This event is raised only when we adjust Inventory with ONHAND_SUPPLY supply type. For example, when Inventory changes from HELD to ONHAND supply. It publishes detailed information of the changed supply. Key Data:

INSTALL_DIR/xapidocs/api_javadocs/dbd/
INVENTORY_CHANGE_INVENTORY_CHANGE_dbd.txt Data Published:
INSTALL_DIR/xapidocs/api_javadocs/dbd/
INVENTORY_CHANGE_INVENTORY_CHANGE_dbd.txt

- ON_INV_OWNERSHIP_TRNSFR

This event is raised each time a transfer of inventory ownership happens. It publishes the information about the transfer of inventory ownership. Key Data:

INSTALL_DIR/xapidocs/api_javadocs/dbd/
INVENTORY_CHANGE_INVENTORY_TRANSFER_dbd.txt Data Published -
INSTALL_DIR/xapidocs/api_javadocs/XSD/HTML/
INV_INVENTORY_CHANGE.ON_INV_OWNERSHIP_TRANSFER.html

Note: When defining one of the following events:

- SUPPLY_CHANGE
- DEMAND_CHANGE
- EXTERNAL_SUPPLY_CHANGE
- EXTERNAL_DEMAND_CHANGE

You should not call the changeOrder API as a result of these events. Doing so could cause the API to raise the event that called it, create an infinite cycle.

The Capacity Change Transaction

The Capacity Change transaction is used for setting up events that involve capacity changes

Invoked By

- The createResourcePool() API
- The changeresourcePool() API
- The overrideResourcePoolCapacity() API
- The manageCapacityReservation() API
- The cancelReservation() API
- The reserveItemInventory() API
- Any other API that is capable of allocating capacity against external resource pool

Attributes

The following are the attributes for this transaction:

Table 420. Capacity Change Attributes

| Attribute | Value |
|----------------------|-----------------|
| Base Transaction ID | CAPACITY_CHANGE |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | None |

Events Raised

This transaction raises the following events:

- ON_CAPACITY_ADJUSTMENT

This event is raised for every standard capacity adjustment when the `createResourcePool()` API or `changeResourcePool()` APIs are invoked. It publishes detailed information about the standard capacity adjustments.

Key Data: `INSTALL_DIR/xapidocs/api_javadocs/dbd/CAPACITY_CHANGE_ON_CAPACITY_ADJUSTMENT_dbd.txt`

Data Published: `INSTALL_DIR/xapidocs/api_javadocs/XSD/HTML/INV_CAPACITY_CHANGE.ON_CAPACITY_ADJUSTMENT.xml`

- ON_OVERRIDE_CAPACITY

This event is raised for every adjustment of overridden capacity when the `overrideResourcePoolCapacity()` API is invoked. It publishes detailed information about the changes in the overridden capacity.

Key Data: `INSTALL_DIR/xapidocs/api_javadocs/dbd/CAPACITY_CHANGE_ON_OVERRIDE_CAPACITY_dbd.txt`

Data Published: `INSTALL_DIR/xapidocs/api_javadocs/XSD/HTML/INV_CAPACITY_CHANGE.ON_OVERRIDE_CAPACITY.xml`

- EXTERNAL_CAPACITY_CHANGE

This event is raised when capacity consumptions are changed. This event is raised when the `cancelReservation()` API or `reserveItemInventory()` API or any other API that is capable of changing external capacity is invoked. It publishes detailed information about the changed capacity of external resource pools.

Key Data: `INSTALL_DIR/xapidocs/api_javadocs/dtd/YFS_CAPACITY_CHANGE.EXTERNAL_CAPACITY_CHANGE_dtd.txt`

Data Published: `INSTALL_DIR/xapidocs/api_javadocs/XSD/HTML/YFS_CAPACITY_CHANGE.EXTERNAL_CAPACITY_CHANGE.xml`

Note: When defining the `EXTERNAL_CAPACITY_CHANGE` event, you should not call the `changeOrder` API as a result of this event. Doing so could cause the API to raise the event that called it, creating an infinite cycle.

- CAPACITY_CHANGE.ON_STD_CAPACITY_FILLED

This event is raised when consumption exceeds standard capacity defined for the day. This event is raised when the `manageCapacityReservation()` API is invoked.

Key Data: INSTALL_DIR/xapidocs/api_javadocs/dtd/
INV_CAPACITY_CHANGE.ON_STD_CAPACITY_FILLED_dtd.txt
Data Published:INSTALL_DIR/xapidocs/api_javadocs/XML/
INV_CAPACITY_CHANGE.ON_STD_CAPACITY_FILLED.xml

- CAPACITY_CHANGE.ON_STD_CAPACITY_FREED

This event is raised when consumption is freed and standard capacity becomes available for the day. This event is raised when the `manageCapacityReservation()` API is invoked.

Key Data: INSTALL_DIR/xapidocs/api_javadocs/dtd/
INV_CAPACITY_CHANGE.ON_STD_CAPACITY_FREED_dtd.txt
Data Published:INSTALL_DIR/xapidocs/api_javadocs/XML/
INV_CAPACITY_CHANGE.ON_STD_CAPACITY_FREED.xml

Chapter 24. Transport Nodes

Transport nodes determine how data should be transferred from one location to another. To define their configuration properties, click the links connection going into or out of the transport node. The link going *into* a transport node is a sender link and the link going *out* is a receiver link.

Exception Handling

Asynchronous receiver links can be configured to handle exceptions, as described in “Receiver Link Exception Handling” on page 532 “Receiver Link Exception Handling” on page 532. The asynchronous receiver links that can be configured for exception handling are the following:

- Database Receiver
- File I/O Receiver
- FTP Receiver
- Oracle WebLogic, MQSeries, and TIBCO JMS Receiver
- MSMQ Receiver

Database

The database node defines an asynchronous transport using a database table. The database transport node can have sender and receiver links, the links capture the respective properties.

Do not use the database node when scaling. Instead, use a JMS Queue node.

Database Sender Configuration Properties

The following are the properties of the links connecting this node:

Table 421. Database Sender Configuration Properties

| Property | Description |
|--------------------|---|
| Runtime Tab | |
| Table Name | Select the table you want the message to be written to. Valid values are YFS_IMPORT and YFS_EXPORT. |

Table 421. Database Sender Configuration Properties (continued)

| Property | Description |
|-----------------------|---|
| Rollback on Exception | <p>Select this check box if you want the message to be committed to the database only after the service is completed.</p> <p>Uncheck this check box if you want the message to be committed to the database immediately.</p> <p>For example, if the ON_SUCCESS event of any standard Sterling Selling and Fulfillment Foundation API is attached to a service, in which the message is transactionally written to the database, the message is committed to the database only upon successful completion of the ON_SUCCESS event. The message is then rolled back from the queue if there is any error in the ON_SUCCESS event after the message is staged. However, in non-transactional mode, the message remains in the database, once it is staged and is not rolled back.</p> |
| Header Tab | |
| | <p>The Header Name and Header Value allow the sender to differentiate between messages in the table. See the Selector field in the "Database Receiver Configuration Properties" table.</p> <p>In addition to the Header Name/Value, EOF messages get appended with MessageType=EOF in the USER_REFERENCE column. If you are using USER_REFERENCE as the selector, you need to modify the Selector criteria to include MessageType=EOF as well.</p> <p>Note: The header name must be unique. Two headers cannot have the same header name.</p> <p>Choose the Create New icon to add a new header name and value.</p> <p>Choose the Details icon to modify an existing header name and value.</p> <p>Choose the Delete icon to delete an existing header name and value.</p> <p>Important: Do not enter any spaces in the Header Name.</p> |

Table 421. Database Sender Configuration Properties (continued)

| Property | Description |
|--------------|--|
| Header Value | <p>Saved in the USER_REFERENCE column of the YFS_EXPORT and YFS_IMPORT tables as a name value pair. A maximum limit of these name/value pairs stored is 2048 bytes, beyond which the references are truncated.</p> <p>Each Header Name/Value pair specified is appended in the USER_REFERENCE column of the YFS_IMPORT/YFS_EXPORT table as <i>Name1=Value1 Name2=Value2</i></p> <p>These references can be used to identify the key data stored in the MESSAGE field of the YFS_IMPORT/YFS_EXPORT table when querying.</p> <p>This can be set to dynamically extract from the message using the following syntax <code>xml://<full path of the element from root node>/@<attribute name></code>.</p> <p>For example, to get the sales order number from the publish ship advice output XML: set the value as <code>xml:// ShipmentAdvices/ShipmentAdvice/@SalesOrderNo</code> results in the USER_REFERENCE field to be populated with <code>NAME1=<value of attribute SalesOrderNo in the XML></code></p> <p>Important: Do not enter any spaces in the Header Value.</p> |

Database Receiver Configuration Properties

The following are the properties of the links connecting this node:

Table 422. Database Receiver Configuration Properties

| Property | Description |
|--------------------|--|
| Runtime Tab | |
| Sub Service Name | Enter a unique identifier for each asynchronous receiver. |
| Initial Threads | <p>Enter the number of threads that can process messages simultaneously. This value must be a minimum of 1. Based on your throughput requirements, you can increase the number of threads.</p> <p>The number of threads set in the configuration can be increased for a Sub Service Name dynamically from the System Management Console. For more information about the System Management Console, see the <i>Sterling Selling and Fulfillment Foundation: User Guide</i>.</p> |

Table 422. Database Receiver Configuration Properties (continued)

| Property | Description |
|-----------------------------------|---|
| Selector | <p>Enter the message to be processed, using the Header Name and Header values from the "Database Sender Configuration Properties" table, implemented as an SQL where clause in the of form USER_REFERENCE='<name>=value'</p> <p>In addition to the Header Name/Value, EOF messages get appended with MessageType=EOF in the USER_REFERENCE column. If you are using USER_REFERENCE as the selector, you need to modify the Selector criteria to include MessageType=EOF as well. Note: When specifying a selector, use only single quotes. Note: If you configure two services to read from the same table (and select the same records), the results may be unpredictable. For a database, the columns that can be used are FLOW_NAME, SUB_FLOW_NAME, USER_REFERENCE, from the YFS_EXPORT/IMPORT table.</p> |
| Table Name | <p>Select the table you want the message to be read from. Valid values are YFS_IMPORT and YFS_EXPORT.</p> <p>Must match the table specified in the receiver link.</p> |
| Polling Frequency (seconds) | <p>Enter the frequency in seconds to poll for messages from the database table. Defaults to 600 seconds (10 minutes).</p> <p>A separate thread manages all exceptions resolved from the exception console and polls the database every 60 seconds (1 minute). The frequency of polling for exception processing cannot be modified.</p> |
| Service to Execute on EOF Message | <p>Required if the message contains an End Of File (EOF) message ID.</p> <p>Choose the Search icon to select the service to be invoked when an EOF message is received. Once the EOF message is received, the framework waits for a few minutes (configurable in the customer_overrides.properties file) before executing this service. For more information see, "Enabling EOF Messages in the Application Platform Framework" on page 487. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| Root Node Name of EOF Message | <p>This need to be specified only if the message contains an EOF message ID.</p> <p>Enter your custom root node name for the EOF message.</p> <p>By default the EOF message has a root node name as "EOF". For more information see, "Enabling EOF Messages in the Application Platform Framework" on page 487</p> |
| Server Tab | |
| Server Name | <p>Required. Name of the integration server instance which actually executes the service.</p> <p>For more information about creating a new server, see Adding a New Server.</p> |

Table 422. Database Receiver Configuration Properties (continued)

| Property | Description |
|----------------|--|
| Exception Tabs | See Table 457 on page 533 for the receiver link exception handling properties. |

Connection Properties

The following are the Database node's connection properties:

Table 423. Database Connection Properties

| Connection | Node Connection Rules |
|--|--|
| Can be the first node after the start node | Yes, for services invoked both in a synchronous or asynchronous mode |
| Can be placed before | <ul style="list-style-type: none"> Any component node Any transport node (except for FTP, JMS, or File I/O); use a Pass-through node to connect them |
| Can be placed after | <ul style="list-style-type: none"> Start node Any synchronous transport node. Any other component node Any asynchronous transport node (except for FTP, JMS, or File I/O); use a Pass-through node to connect them |
| Passes data unchanged | Transport nodes do not modify data |

DCS 6.2 Database

The Distribution Center System (DCS) 6.2 database node defines an asynchronous transport using a DCS 6.2 database table. The DCS 6.2 database transport node enables you to define services or interfaces to read from or write to the DCS 6.2 tables that are comprised of positional data. The interface tables in the DCS 6.2 database are INFC_UPLD_TAB_1 and INFC_DNLD_TAB_1. Multiple records in these interface tables constitute a transaction.

You can define defaults which can be applied on these interface tables. Hence, if DCS 6.2 needed some specific attributes to be set in the data and that data is not available in the external system, interface defaulting mechanisms can be used to set them up. For more information about using the defaulting component refer to "Defaulting Component" on page 546.

The DCS 6.2 database component reads unprocessed interface table (INFC_DNLD_TAB_1) records for an interface type and node. If any of the components following the DCS 6.2 database component in the service definition framework throws an exception, the interface records for that transaction are marked as error. Processing of these error records is based on a system property that is passed to a server JVM running the inbound interface.

Note: If a text translator component converts the list of interface records into an XML, an XSL transformation must be applied on the output of the text translator to conform the XML to the input required by the API.

DDCS 6.2 Database Sender Configuration Properties

The following are the properties of the links connecting this node:

Table 424. DCS 6.2 Database Sender Configuration Properties

| Property | Description |
|-----------------------|---|
| Interface Type | Enter the interface type. The records of this interface type are processed. |
| Table Type | Select either UPLD or DNLD for the upload or download interface tables. The interface table names are derived from this and the value entered in the Node field. The default value for the sender is UPLD. |
| Node | Enter the ship node associated with the service. |
| Table Name | This field is not editable. The table name is automatically entered once the Table Type is selected and is appended with the entered ship node. The table name is YFS_INFC_UPLD_TAB1_Node1 for UPLD and YFS_INFC_DNLD_TAB1_Node1 for DNLD table types with the ship node as Node1. |
| Remote Host ID | Enter the remote host ID in the database. |
| Rollback on Exception | Check this box if you want to rollback the database write if the parent transaction fails. Uncheck this check box if you want the message to be committed to the database immediately. For example, if the ON_SUCCESS event of any standard Sterling Selling and Fulfillment Foundation API is attached to a service in which the message is transactionally written to the database, the message is committed to the database only upon successful completion of the ON_SUCCESS event. The message is then rolled back from the database if there is any error in the ON_SUCCESS event after the message is staged. However, in non-transactional mode, the message remains in the database, once it is staged and is not rolled back. |

DCS 6.2 Database Receiver Configuration Properties

The following are the properties of the links connecting this node:

Table 425. DCS 6.2 Database Receiver Configuration Properties

| Property | Description |
|--------------------|---|
| Runtime Tab | |
| Sub Service Name | Enter a unique identifier for each asynchronous receiver. |
| Node | Enter the ship node associated with the service. |
| Selector | Optional. This field can be used for selecting a specific remote host ID. Note: When specifying a selector, use only single quotes. |

Table 425. DCS 6.2 Database Receiver Configuration Properties (continued)

| Property | Description |
|-----------------------------|---|
| Table Type | Select either UPLD or DNLD for the upload or download interface tables. The interface table names are derived from this and the value entered in the Node field. The default value for the receiver is DNLD. |
| Table Name | This field is not editable. The table name is automatically entered once the Table Type is selected and is appended with the entered ship node. The table name is YFS_INFC_UPLD_TAB1_Node1 for UPLD and YFS_INFC_DNLD_TAB1_Node1 for DNLD table types with the ship node as Node1. |
| Interface Type | The interface type in which the records are processed. |
| Polling Frequency (seconds) | Enter the frequency in seconds to poll for messages from the database table. Defaults to 600 seconds (10 minutes). |
| Server Tab | |
| Server Name | Required. Name of the integration server instance which actually executes the service. For more information about creating a new server, see "Adding a New Server". |
| Exception Tabs | See Table 457 on page 533 for the receiver link exception handling properties. |

Connection Properties

The following are the DCS 6.2 Database node's connection properties:

Table 426. DCS 6.2 Database Connection Properties

| Connection | Node Connection Rules |
|--|--|
| Can be the first node after the start node | Yes, for services invoked both in synchronous or asynchronous mode. |
| Can be placed before | <ul style="list-style-type: none"> • Text Translator component node • End node |
| Can be placed after | <ul style="list-style-type: none"> • Start node • Text Translator component node |
| Passes data unchanged | Transport nodes do not modify data |

Component Object Model (COM)

The Component Object Model (COM) transport Node defines the synchronous COM call being made to the configured COM component.

Note: Make sure the <INSTALL_DIR>/bin directory is in your system path.

Configuration Properties

The following are the properties of this node:

Table 427. COM Sender Configuration Properties

| Property | Description |
|------------|---|
| Program ID | <p>Enter the COM component's program ID to be invoked. The program ID can be found in the registry by running the regedit utility and looking up the DLL to be invoked.</p> <p>The custom COM component should implement an execute method, the method signature should be as follows:</p> <pre>[id(1), helpstring("method execute")] HRESULT execute([in]BSTR sData, [out]VARIANT *outData, [out, retval] long *RetVal);</pre> |

Connection Properties

The following are the COM node's connection properties:

Table 428. COM Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none">• Any transport node except FTP or File I/O• Any other component node |
| Can be placed after | <ul style="list-style-type: none">• Start node• Any synchronous transport node• Any other component node• Any asynchronous transport node (except for FTP or File I/O); use a Pass-through node to connect them. |
| Passes data unchanged | No. The data returned by the COM component is passed to the next service component. |

Enterprise Java Beans (EJB)

The Enterprise Java Beans (EJB) Transport node defines the way messages are sent synchronously using the EJB protocol. The EJB transport node has sender-related properties.

The EJB node is needed only to call other, non- Sterling Selling and Fulfillment FoundationEJBs.

Configuration Properties

The following are the properties of this node:

Table 429. EJB Sender Configuration Properties

| Property | Description |
|-------------------------|---|
| Provider URL | Enter the provider URL for the JNDI lookup of the EJB home. <ul style="list-style-type: none"> For Oracle WebLogic, set to t3://<DNS Server Name or IP Address>:<port>. |
| EJB Home Name | Enter the class name implementing the EJB home interface. This is used by the client to find, create, or remove EJB objects. |
| JNDI Name | Enter the name used to lookup the EJB home interface. |
| Initial Context Factory | The class name of the initial context factory. This is the class used for resolution of names for naming and directory operations. |
| Method Name | Enter the method to be invoked. This method must have a standard signature: Document outdoc = method(Document indoc) |
| Authenticate | If selected, security-related authentications can be defined for the security principal and security credential. The Security Principal and Credentials are required for the JNDI lookup. |
| Security Principal | If you selected Authenticate, enter the user name for the Access control list of the EJB container. |
| Security Credential | If you selected Authenticate, enter the password for the Access control list of the EJB container. |

Connection Properties

The following are the EJB node's connection properties:

Table 430. EJB Connection Properties

| Connection | Node Connection Rules |
|--|--|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none"> Any transport node except FTP or File I/O Any other component node |
| Can be placed after | <ul style="list-style-type: none"> Start node Any synchronous transport node Any other component node Any asynchronous transport node (except for FTP or File I/O); use a Pass-through node to connect them. |
| Data may be changed | Data may be changed depending on what method is called by the transport node. |

File Input/Output (File I/O)

The File Input/Output transport node defines how messages are exchanged asynchronously using flat files. Files can be created or processed using this flow component. It allows you to configure how to create or process files asynchronously.

File I/O Sender Configuration Properties

The following are the properties of links connecting this node:

Table 431. File I/O Sender Connection Properties

| Property | Description |
|---------------------------|---|
| Working Directory | Enter the directory into which the incoming files are placed before processing begins. Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| Completion Directory | Enter the directory into which a file is moved after it has been successfully processed or after it exceeds the sizes specified by Max Output File Size or Max Transactions Per File. Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| File Prefix | Enter the name to prefix to each file name. Used to differentiate output files from different services. |
| File Suffix | Enter the name to append to each file name. Used to differentiate output files from different services. |
| Max Output File Size (MB) | Enter the maximum size (in MB) that can be reached before closing the current file and opening a new one. Starts writing to a new file when the minimum of Max Out File Size and Max Transactions Per File is exceeded. |
| Max Transactions Per File | Enter the maximum number of messages to write to a file before closing the current file and opening a new one. Starts writing to a new file when the minimum of Max Out File Size and Max Transactions Per File is exceeded. |
| EncodingType | Enter the character encoding of the input file. Takes JVM-supported values such as UTF-8, UTF-16, ISO-8859. Defaults to the Sterling Application Platform default for the JVM unless otherwise specified. |

Table 431. File I/O Sender Connection Properties (continued)

| Property | Description |
|-----------------------------|--|
| Max Time to Rollover (mins) | Enter the maximum time (in minutes) the output file remains open. |
| Disable Root Element | <p>If you check this box, based on the value of the Max Transactions Per File property, the XMLELEMENT root element is deleted from the XML file.</p> <ul style="list-style-type: none"> • If the value of the Max Transactions Per File property is equal to 1, the XMLELEMENT root element is deleted from the XML file. • If the value of the Max Transactions Per File property is greater than 1, the XMLELEMENT root element is not deleted from the XML file. |

File I/O Receiver Configuration Properties

The following are the properties of this node:

Table 432. File I/O Receiver Configuration Properties

| Property | Description |
|-----------------------------|---|
| Runtime Tab | |
| Sub Service Name | Enter a unique identifier for each asynchronous receiver within a service definition. Note: When configuring a sub-flow, do not enter a Sub Service Name beginning with "YIF". |
| Includes Pattern | Enter the comma separated list of files to process together. For example, to specify all files with the posCreateOrder.* name, use *.*\posCreateOrder.*. If not specified, processes all files in the incoming directory in the order specified by the File Processing Sequence. |
| Encoding Type | Enter the character encoding of the input file. Takes JVM-supported values such as UTF-8, ASCII, ANSI. Defaults to the Sterling Application Platform default for the JVM, unless otherwise specified. |
| File Processing Sequence | Enter the order in which to processes files from the Incoming Directory. Values are: LastModifiedTime (date) and ByName (name). Defaults to Last Modified Time. |
| Maximum Errors Per File | Enter the number of logged errors before the Receiver to terminates processing the file. If set to 0, it defaults to 1. If not specified, defaults to 10. |
| Polling Frequency (seconds) | Enter the time (in seconds) to poll the source directory for unprocessed files. Defaults to 600 seconds. |
| Create EOF Message | Select this field if you want to create EOF message. If checked the framework creates an EOF message at the end of each file processed and pass to the next service component. For more information about creating EOF messages, see "Enabling EOF Messages in the Application Platform Framework" on page 487. |

Table 432. File I/O Receiver Configuration Properties (continued)

| Property | Description |
|------------------------|---|
| Do Not Fragment | <p>If you check this box, the output XML file is not fragmented into 'n' number of separate files. For example, for a load, if you create two different load lines, the output XML file contains the "Load" root element and two "LoadList" child elements.</p> <p>If you do not check this box, the root element is deleted from the output XML file and a separate XML file is created for each of the child elements.</p> |
| File Tab | |
| Incoming Directory | <p>Enter the directory in which to look for input files.</p> <p>Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| Completion Directory | <p>Enter the directory into which the processed files are archived after they have been processed.</p> <p>Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about modifying properties and the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Installation Guide</i>.</p> |
| Working Directory | <p>Enter the directory into which the files from the incoming directory are moved before processing begins.</p> <p>Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| Error Directory | <p>Enter the directory into which any errors in the file being processed are created. A new error file is created for each file processed.</p> <p>Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| Error File Suffix | <p>Enter the name to append to error files. The error file records errors that occur while processing the input file. Defaults to .err.</p> |
| Completion File Suffix | <p>Required if the Completion Directory is specified. Defaults to .done.</p> |

Table 432. File I/O Receiver Configuration Properties (continued)

| Property | Description |
|-----------------------|--|
| Server Tab | |
| Server Name | Enter the name of the integration server instance which actually executes the service. For more information about creating a new server, see "Adding a New Server". |
| Exception Tabs | See Table 457 on page 533 for the receiver link exception handling properties. |

Connection Properties

The following are the File I/O node's connection properties:

Table 433. File I/O Connection Properties

| Connection | Node Connection Rules |
|--|--|
| Can be the first node after the start node | Only for services invoked asynchronously |
| Can be placed before | <ul style="list-style-type: none"> • FTP transport node • Text Translator component node • End node |
| Can be placed after | <ul style="list-style-type: none"> • Start node • FTP transport node • Text Translator component node |
| Passes data unchanged | Transport nodes do not modify data |

Enabling EOF Messages in the Application Platform Framework

The create of EOF messages is divided into two parts:

- Modifying file input/output processing
- Modifying the JMS queue and database receiver to handle EOF messages

Modifying File Input/Output Processing

The File I/O receiver stamps the outgoing XML messages with a unique message group identification, `YantraMessageGroupID` before it is sent to the next component in the service definition framework. Once the end of the file is reached, an EOF message is created with the same message group ID. This EOF message is useful if special processing needs to be done at the end of each file.

Rules for creating EOF messages:

If you are using the Sterling Selling and Fulfillment Foundation File IO adapter component, the same unique message group ID is added and the message header is appended to each message by default.

The following are the rules for creating EOF messages when using a third party component and integrating with Sterling Selling and Fulfillment Foundation:

- The EOF message must be of the format:


```
<EOF YantraMessageGroupId="Mandatory" />
```
- The XML root node name must be EOF and the YantraMessageGroupId is a required attribute. This attribute is essential in identifying all messages that belong to a group.
- When Sterling Selling and Fulfillment Foundation is writing the EOF messages to a JMS queue or a Database, then a message header with MessageType="EOF" is created by the framework.

Note: If you are using a third party component for writing EOF messages into JMS queues or Database, then you should make sure that the EOF message has a header of MessageType="EOF".

Example scenario for creating EOF messages

The steps involved in creating EOF messages and processing the messages in a JMS queue or a database is explained in detail with a sample XML file as an input to the File I/O adapter.

The following figure shows the service framework with a File IO component.



1. The input file can be a delimited file, text file or an XML file. In this example we consider an XML file.

```
<Items Attr1="Value1" Attr2="Value2" Attr3="Value3" >
  <Item ItemId="Item1" />
  <Item ItemId="Item2" />
  <Item ItemId="Item3" />
</Items>
```

Figure 20. Sample Input File from File I/O Node

2. The parsed input XML file of each child node is then passed into the JMS queue or a Database as a separate message.
3. The framework then appends all the input XML files root node attributes to each of the message put in the queue.

Note: If the input XML's root node does not contain a YantraMessageGroupId, the framework generates a unique ID and append to each message put into the queue.

If the input files are non-XML files then the root node attributes does not get included in the EOF node. It would contain the attributes given below:

```
<EOF YantraMessageGroupId="file1.txt.001" FileName=""
  FileSize="" LastModifiedTime="" />
```

4. The EOF element contains the attributes in the root element of the input XML file along with the file name, file size (in bytes) and the last modified time of the file.

Modifying the JMS Queue and Database Receiver to Handle EOF Messages

The messages received at the queue or the database is explained with the example as described in Figure 21.



Figure 21. Output Messages created in the JMS queue or Database

```

1. <Item YantraMessageGroupID="file1.txt.001"
ItemID="Item1" Attr1="Value1" Attr2="Value2" Attr3="Value3"/>
/>
2. <Item YantraMessageGroupID="file1.txt.001"
ItemID="Item2" Attr1="Value1" Attr2="Value2" Attr3="Value3"
/>
/>
<Item YantraMessageGroupID="file1.txt.001"
ItemID="Item3" Attr1="Value1" Attr2="Value2" Attr3="Value3"
/>
/>
4. <EOF YantraMessageGroupID="file1.txt.001" ItemID="Item4"
Attr1="Value1" Attr2="Value2" Attr3="Value3" FileName=""
FileSize="" LastModifiedTime="" />

```

1. Once the EOF is reached the messages received by the JMS queue or Database the framework checks whether the EOF has the same message group ID.
2. You must configure the JMS queue or Database receiver component to enable a service to be invoked when the EOF message is received. If a service is not invoked then an exception is thrown.
3. The framework is set wait for a certain amount of time which can be configured in the <INSTALL_DIR>/properties/customer_overrides.properties file, before calling the service.

For additional information about overriding properties using the customer_overrides.properties file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

In general, the XML file passed to the service must have a root node name as EOF. However, you can specify a custom root node name instead of EOF. This node name is specified in the JMS queue or Database receiver properties.

For example, when you customize the root node name as Root Node Name Of EOF Message: NewRootNode and Service to execute on EOF Message: NewService, add the XML attributes that must be included in the input to the NewService with the with the MessageType value as "EOF" as follows:

```
<EOF YantraMessageGroupID='123' />
```

The input to the NewService would be constructed as <NewRootNode YantraMessageGroupID='123' />

Error Handling by Integration Server:

When an EOF file message reaches the integration server it is checked for any reprocessable messages for this service with the same YantraMessageGroupID. If there are any pending error messages to be reprocessed, then the EOF messages are marked as reprocessable. This error messages are then inserted into the YFS_REPROCESS_TABLE.

File Transfer Protocol (FTP)

The FTP node allows for sending and receiving files. Files residing in a local directory are sent to a remote directory on an FTP server. Files residing in a remote directory are received from an FTP server and stored in a local directory.

Note: Ensure that all source and destination directories and files have read/write permissions for the remote user specified and for the user running the Integration Server.

Note: The FTP server is not multi-threaded.

FTP Sender Configuration Properties

The following are the properties of this node:

Table 434. FTP Sender Configuration Properties

| Attribute | Description |
|----------------------------|---|
| Runtime Tab | |
| Sub Service Name | Enter a unique identifier for each asynchronous receiver within a service definition. |
| Server Address | Enter the IP address of the remote FTP server. |
| Port | Enter the port number of the remote FTP server. Default is port 21. |
| User ID | Enter the login ID to use on the FTP server. |
| Polling Frequency | Enter the time in seconds to poll the source directory for unprocessed files. |
| Includes Pattern | Enter the regular expression pattern of the files to retrieve. If not specified all files in the working directory are included. The following are examples of regular Perl expressions that can be used: <ul style="list-style-type: none">• *.*.txt - All text files.• temp.*.txt - All text files containing the pattern of 'temp'. |
| Password | Enter the password to use on the FTP server |
| Binary Transfer | Select this option to transfer data that contains non-ascii characters. |
| ASCII Transfer | Select this option to transfer text files. |
| Compress File | Select this field to compress and deliver a compressed file to the remote FTP server. |
| Local Zip Completion Dir | If Compress File is selected, enter the directory in which the compressed file is to be stored. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| Source File Parameters Tab | |

Table 434. FTP Sender Configuration Properties (continued)

| Attribute | Description |
|---------------------------------|---|
| Working Directory | <p>Enter the directory on the FTP server from which files are transferred.</p> <p>Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| Completion Directory | <p>Enter the remote completion directory files are to be moved to after they are successfully transferred from the remote staging directory.</p> <p>Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| File Separator | <p>Enter the file separator used on the FTP server. The file separator is the folder delimiter specified by the FTP server's settings. This is most commonly represented as a forward slash ('/'). This field is mandatory.</p> |
| Completion Suffix | <p>Enter the suffix to append the file when the file from the remote working directory is moved into the remote completion directory.</p> |
| Destination File Properties Tab | |
| Working Directory | <p>Enter the directory in which the files received are transferred to.</p> <p>Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| Completion Directory | <p>Enter the local completion directory files are to be moved to after they are successfully transferred from the remote working directory.</p> <p>Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| File Separator | <p>Enter the file separator used on the FTP server. This field is mandatory.</p> |
| Completion Suffix | <p>Enter the suffix to append the file when the file from the local working directory is moved into the local completion directory.</p> |
| Server Tab | |

Table 434. FTP Sender Configuration Properties (continued)

| Attribute | Description |
|----------------|---|
| Server Name | Enter the name of the server which actually executes the service. For more information about creating a new server, see "Adding a New Server". |
| Exception Tabs | See Table 457 on page 533 for the receiver link exception handling properties. |

Note: Do not configure multiple instances of file receivers or senders trying to FTP the same file. This can lead to file data loss.

FTP Receiver Configuration Properties

The following are the properties of this node:

Table 435. FTP Receiver Configuration Properties

| Attribute | Description |
|-----------------------------------|---|
| Runtime Tab | |
| Sub Service Name | Enter a unique identifier for each asynchronous receiver within a service definition. |
| Server Address | Enter the IP address or host name of the remote FTP server. |
| Port | Enter the port number of the remote FTP server. Defaults to port 21. |
| User ID | Enter the login ID to use on the FTP server. |
| Polling Frequency | Enter the time in seconds to poll the source directory for unprocessed files. |
| Includes Pattern | Enter the regular expression pattern of the files to retrieve. If not specified all files are included in the working directory. The following are examples of regular Perl expressions that can be used: <ul style="list-style-type: none"> • *.*.txt - All text files. • temp.*.txt - All text files containing the pattern of 'temp'. |
| Password | Enter the password to use on the FTP server. |
| Binary Transfer | Select this option to transfer data that contains non-ascii characters. |
| ASCII Transfer | Select this option to transfer text files. |
| Decompress File | Select this field if the file being received is compressed. |
| Source File Parameters Tab | |
| Working Directory | Enter the directory on the FTP server from which files are to be transferred. Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |

Table 435. FTP Receiver Configuration Properties (continued)

| Attribute | Description |
|--|---|
| Completion Directory | Enter the completion directory. After successfully transferred from the remote staging directory, the file is moved on the server into the completion directory. Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| File Separator | Enter the file separator used on the FTP server. The file separator is the folder delimiter specified by the FTP server's settings. This is most commonly represented as a forward slash ('/'). This field is mandatory. |
| Completion Suffix | Enter the suffix to append the file when the file from the remote working directory is moved into the remote completion directory. |
| Destination File Properties Tab | |
| Working Directory | Enter the directory in which the files received are transferred to. Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| Completion Directory | Enter the completion directory. After a file is transferred successfully from the remote working directory, it is subsequently moved to the local completion directory. Note: Ensure the directory has the appropriate read/write permissions and that the full path name has been specified. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| File Separator | Enter the file separator used on the FTP server. This field is mandatory. |
| Completion Suffix | Optional. The suffix to append the file when the file from the local working directory is moved into the local completion directory. |
| Server Tab | |
| Server Name | Enter the name of the server which actually executes the service. For more information about creating a new server, see "Adding a New Server". |
| Exception Tabs | See Table 457 on page 533 for the receiver link exception handling properties. |

Note: Do not configure multiple instances of file receivers or senders trying to FTP the same file. This can lead to file data loss.

Connection Properties

The following are the FTP node's connection properties:

Table 436. FTP Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked asynchronously |
| Can be placed before | <ul style="list-style-type: none"> • File I/O transport node • End node • Pass-through cannot follow FTP |
| Can be placed after | <ul style="list-style-type: none"> • Start node, only for asynchronously invoked services • File I/O transport node. • Pass-through cannot precede FTP |
| Passes data unchanged | Transport nodes do not modify data |

Hypertext Transport Protocol (HTTP)

The HTTP transport node defines the way synchronous messages are sent using the HTTP post method. The HTTP transport node has sender-related properties.

Configuration Properties

The following are the properties of this node:

Table 437. HTTP Configuration Properties

| Property | Description |
|--------------------|---|
| URL | Enter the URL to which the message is to be posted. |
| HTTP Post Variable | Enter the variable name to which the HTTP post data is to be assigned. |
| Is Secure | If this field is selected, the message is encrypted when being posted to the URL specified. |
| Key Store Type | If Is Secure is checked, set this value to JKS (Java Key Store). |
| Key Store | If Is Secure is selected, enter the key store for storing client side digital certificates. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| Key Store Passwd | If Is Secure is selected, enter the password to access the key store. |

Table 437. HTTP Configuration Properties (continued)

| Property | Description |
|--------------------|---|
| Trust Store | If Is Secure is selected, enter the trust store for storing server side digital certificates. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| Trust Store Passwd | If Is Secure is selected, enter the password to access the trust store. |

Note: Making a secure HTTP call requires modifying the <JAVA_HOME>/jre/lib/security/java.security file. Comment the following line from the file:

```
security.provider.2=com.sun.rsa.jca.Provider
```

Commenting the property enables the runtime loading of the security.provider variable set later in the code. If you do not want to change the common Java Security file, refer to BEA documentation about using the weblogic.policy file and modify it accordingly. Use the weblogic.policy file with the necessary changes as suggested on the BEA web site at: http://download.oracle.com/docs/cd/E13222_01/wls/docs81/index.html#1091743

You can enable the Java Security Manager to use the Oracle webLogic.policy security policy file by adding these parameters to the Oracle WebLogic startup script:

```
java -Djava.security.manager -Djava.security.policy=<WLS_HOME>/lib/weblogic.policy:wConnection Properties
```

The following are the HTTP node's connection properties:

Table 438. HTTP Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none"> Any transport node except for FTP or File I/O Any other component node |
| Can be placed after | <ul style="list-style-type: none"> Start node Any synchronous transport node Any other component node Any asynchronous transport node (except for FTP or File I/O); use a Pass-through node to connect them |
| Passes data unchanged | Transport nodes do not modify data |

WebService

This WebService transport node allows the Service Definition Framework to make outbound webservice calls. For more information about WebServices and how to create the smcfs.ear, see the *Sterling Selling and Fulfillment Foundation: Installation Guide*.

Note: Webservice SDF component is deprecated and will be removed in the future version. It is recommended that you do not use the WebServices SDF component to invoke WebServices. Instead, create a custom API to invoke WebServices.

Note: WebServices cannot be used to call APIs in backward compatibility mode. Also, outbound WebService calls using the Service Builder do not support HTTPS protocol.

Configuration Properties

The following are the properties of this node:

- Configurable depending on your app server:
 - Oracle WebLogic
 - IBM Websphere
 - JBoss

For IBM WebSphere,

Pass `-D websphere-java2wsdl-style=<rpc|document>` in the ear command line

For JBoss,

Pass `-D jboss-java2wsdl-style=<rpc|document>` in the ear command line.

For Oracle WebLogic, use document literal.

For JBoss based on variable

Build Ear.sh documentation where it talks about style of coding

Oracle WebLogic and IBM Websphere are supported and parameterizable and the other supported for document literal.

Table 439. WebServices Configuration Properties

| Property | Description |
|--|--|
| General Tab | |
| URL | Enter the URL to which the message is to be posted. For example, <code>http://localhost:7001/smcfselj/servics</code> |
| Target Object URN | Enter the web service's resource name. For example, <code>yantrawebsevice</code> |
| Are Sterling Selling and Fulfillment Foundation Webservice | Check this box to indicate that this service is calling a Sterling Selling and Fulfillment Foundation Webservice. If you check this box, the parameter name defaults to <code>apiString</code> and the Parameter Name text box on this tab is disabled. |
| Parameter Name | Enter the name of the document parameter. |
| Encoding Style URI | Enter the name of the encoding you want to use. For example, <code>http://schemas.xmlsoap.org/soap/encoding/</code> |
| Method Name | Enter the name of the method you want to invoke. |
| Is Secure | If this field is selected, the message is encrypted when being posted to the URL specified. |

Table 439. WebServices Configuration Properties (continued)

| Property | Description |
|----------------------|---|
| Trust Store | If Is Secure is selected, enter the trust store for storing server side digital certificates. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| Trust Store Passwd | If Is Secure is selected, enter the password to access the trust store. |
| Key Store Type | If Is Secure is checked, set this value to JKS (Java Key Store). |
| Key Store | If Is Secure is selected, enter the key store for storing client side digital certificates. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| Key Store Passwd | If Is Secure is selected, enter the password to access the key store. |
| SOAPActionURI | Enter the URI used by this attribute to invoke the required outbound web service. For example, http://tempuri.org/PricingEngineGold/Service1/PricingEngineFunc can be a valid input URI. |
| Arguments Tab | |
| Argument Name | The name of the parameter to be passed to the Webservice method. |
| Argument Value | The value of the parameter to be passed to the Webservice method. |

Connection Properties

The following are the WebServices node's connection properties:

Table 440. WebServices Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none"> Any transport node except for FTP or File I/O Any other component node |
| Can be placed after | <ul style="list-style-type: none"> Start node Any synchronous transport node Any other component node Any asynchronous transport node (except for FTP or File I/O); use a Pass-through node to connect them |
| Passes data unchanged | Transport nodes do not modify data |

Synchronous Oracle WebLogic and MQSeries

The synchronous MQSeries and Oracle WebLogic transport nodes allow request and response operations using JMS queues. If the response is not received within a defined period, an exception is thrown.

Identification of appropriate response messages is done with a header field named MESSAGEID. When the request message is put into the queue, the MESSAGEID header is set to a unique value based on the current time and a counter. The response headers must have this same message ID for it to be picked up and processes correctly.

Note: In the case of MQSeries queues, when there are more threads running than messages available for pickup, the following message may appear in the adapter window:

```
2002.02.25 09:25:53 MQJMS2002E failed to get message from MQ queue
```

Note: If you are running on IBM AIX® and using MQSeries, include the following environment variable in the application server launch script, integration adapter script, and all agent server scripts:

```
LDR_CNTRL=MAXDATA=0x30000000  
export LDR_CNTRL
```

Configuration Properties

The following are the properties of this node:

Table 441. Synchronous WebLogic JMSQueue and MQSeries Properties

| Property | Description |
|--------------------|---|
| Runtime Tab | |
| Provider URL | <p>Enter the provider URL of the JMS implementation used. This is the URL to use for JNDI lookups.</p> <ul style="list-style-type: none">• For MQSeries using Oracle WebLogic, set the property (for file system context) to <code>file:[drive:]/<pathname></code> and ensure that the directory exists in your environment.• For Oracle WebLogic JMS, set to <code>t3://<DNS Server Name or IP Address>:<port></code>. <p>For clustered JMS configurations, use a comma-separated value comprising the host/IP and port of each node in the cluster. For example:</p> <ul style="list-style-type: none">• For IBM WebSphere MQ and IBM WebSphere Default Messaging, the format is <code>corbaloc::<host>:<port>,<host>:<port></code>. For example: <code>corbaloc::10.10.46.90:2816,<host>:<port></code>.• For Oracle WebLogic JMS, the format is <code>t3://<DNS Server Name or IP Address>:<port>,<DNS Server Name or IP Address>:<port></code>. |

Table 441. Synchronous WebLogic JMSQueue and MQSeries Properties (continued)

| Property | Description |
|-------------------------|---|
| Initial Context Factory | <p>The class name of the initial context factory. This is the starting point for the resolution of names for naming and directory operations.</p> <p>Select WebSphere MQ if you are using MQSeries accessed through a IBM WebSphere IOP URL. This sets the class name to <code>com.ibm.websphere.naming.WsnInitialContextFactory</code>.</p> <p>Select File if you are using MQSeries accessed through a file URL, as with Oracle WebLogic. This sets the class name to <code>com.sun.jndi.fscontext.RefFSContextFactory</code>.</p> <p>Select WebLogic if you are using Oracle WebLogic JMS. This sets the class name to <code>weblogic.jndi.WLInitialContextFactory</code>.</p> |
| QCF Lookup | <p>Enter the queue connection factory name. This is used to retrieve the queue connection factory from JNDI. A client uses a queue connection factory to create queue connections with a JMS provider. Enter any unique identifier for the QCF lookup. This name must be the same as that configured in the Oracle WebLogic console or MQSeries.</p> |
| Needs Compression | <p>Select this option if the message needs to be compressed.</p> |
| Enable JMS Security | <p>Check this box if you want JMS Security to be enabled. Once selected, the JMS Security Properties tab is enabled to configure Queue and/or JNDI based JMS security.</p> <p>Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3.</p> <p>Note: If JMS security is enabled, the JMS session pooling should be disabled. You can disable JMS session pooling by setting the <code>yfs.jms.session.disable.pooling</code> property to 'Y' in the <code><INSTALL_DIR>/properties/customer_overrides.properties</code> file. For additional information about overriding properties using the <code>customer_overrides.properties</code> file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| Response Tab | |
| Queue Name | <p>Enter the name of the queue in which the response message is received.</p> |
| Selector | <p>Enter selectors based on the message headers. When specifying a selector, use only single quotes. For example, specifying the selector <code>APINAME='createOrder'</code> selects all messages with a header name='APINAME' and value='createOrder'.</p> |
| Time Out (seconds) | <p>Enter the time interval (in seconds) after which the requests time out.</p> |
| Request Tab | |
| Queue Name | <p>Enter the name of the queue to which the request message is sent.</p> |

Table 441. Synchronous WebLogic JMSQueue and MQSeries Properties (continued)

| Property | Description |
|---|---|
| Header Name | <p>The name of the message header. For example, APINAME. Note: The header name must be unique. Two headers cannot have the same header name.</p> <p>Choose the Create New icon to add a new header name and value.</p> <p>Choose the Details icon to modify an existing header name and value.</p> <p>Choose the Delete icon to delete an existing header name and value.</p> |
| Header Value | <p>The value associated with the Header Name. These name-value pairs are stored as message headers and can be queried by using message selectors.</p> <p>This can be set to a static value. For example, 'createOrder' results in the message having a header APINAME=createOrder'</p> <p>It can also be set to be dynamically extracted from the message using the syntax <code>xml://<full path of the element from root>/@<attribute name></code>, which results in the message with a header APINAME='<value of attribute name in the XML>'</p> |
| Reconnect Tab | |
| Retry Interval (milliseconds) | <p>In the event that the connection to the JMS server has been lost, enter the amount of time between each attempt to re-establish contact with the JMS server. This parameter is used in conjunction with the Number of Retries parameter. The default value is 0, implying no delay time between retry attempts.</p> |
| Number of Retries | <p>In the event that the connection to the JMS server has been lost, enter the number of attempts to re-establish contact with the JMS server before throwing an exception. This parameter is used in conjunction with the Retry Interval parameter. The default value is 0, implying no retries if the connection is lost and an exception is thrown immediately.</p> |
| JMS Security Properties Tab | |
| <p>This is enabled upon selecting Enable JMS Security in the runtime properties tab. Note: You can override the JMS security properties specified here by defining the agent and flow authorization parameters in the <code><INSTALL_DIR>/properties/customer_overrides.properties</code> file. For additional information about overriding properties using the <code>customer_overrides.properties</code> file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> | |
| Queue based security | <p>Check this box, if you want to provide Queue based security for JMS service. Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3.</p> |
| JNDI based security | <p>Check this box, if you want to provide JNDI based security for JMS service.</p> |
| JMS Security Parameters | |
| <p>For more information about application server-specific JMS security parameters, see "Setting up the JMS Security Properties" section.</p> | |

Table 441. Synchronous WebLogic JMSQueue and MQSeries Properties (continued)

| Property | Description |
|-----------------|--|
| Parameter Name | Enter the name of the Oracle security parameter. |
| Parameter Value | Enter the value of the security parameter. |

Note: The JMS session objects can be pooled based on the service being executed. Hence, whenever the JMS sender requires a session object, the Sterling Application Platform framework tries to get a free session object from the pool. If there are no free sessions available, a new session object is created to send the message and then added to the pool. Any session object that is idle for a certain configurable period of time is closed by the framework. The `yfs.jms.session.reaptime` property in the `yfs.properties` file is used to set the JMS session reaptime. To modify this property, add an entry for it in the `<INSTALL_DIR>/properties/customer_overrides.properties` file. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

Connection Properties

The following are the synchronous Oracle WebLogic JMSQueue and MQSeries nodes' connection properties:

Table 442. Synchronous WebLogic JMSQueue and MQSeries Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none"> Any transport node except for FTP or File I/O Any other component node |
| Can be placed after | <ul style="list-style-type: none"> Start node Any synchronous transport node Any other component node Any asynchronous transport node (except for FTP or File I/O); use Pass-through node to connect. |
| Passes data unchanged | Transport nodes do not modify data |

Oracle WebLogic, MQSeries, and TIBCO JMS Queue

This component provides a common interface to invoke messaging services on WebLogic, MQSeries, and TIBCO JMS queues. You can specify the required configuration properties in this component for enabling your JMS queues.

Note: In the case of MQSeries queues, when there are more threads running than messages available for pickup, the following message may appear in the adapter window:

```
2002.02.25 09:25:53 MQJMS2002E failed to get message from MQ queue
```

Note: If you are running on IBM AIX and using MQSeries, include the following environment variable in the application server launch script, integration adapter script, and all agent server scripts:

```
LDR_CNTRL=MAXDATA=0x30000000
export LDR_CNTRL
```

Oracle WebLogic, MQSeries, and TIBCO JMS Queue Sender

The JMS sender caches a single connection starting with the primary queue. When the message sending fails, the JMS sender retries to send the message a configurable number of times with a configurable delay between each attempt as defined in the Reconnect Tab of the following table. An exception is thrown if the retries are exhausted and there is no backup queue.

If a backup queue is setup, a connection is made to the backup queue. The backup queue becomes the current queue for the next message sending attempt. The sender can be configured to reconnect to the primary queue. If the primary queue is found to be working then a switch is made so that the primary queue becomes the current queue.

Configuration Properties

The following are the configuration properties of these nodes:

Table 443. WebLogic, MQSeries, and TIBCO JMS Sender Configuration Properties

| Property | Description |
|--|--|
| Runtime Tab | |
| You need to use the settings in this tab for the primary JMS server. | |
| Queue Name | Enter the name of the queue to which the message is sent. |
| Time To Live | Enter the time period after which the messages are to be deleted from the queue. A value of zero causes the message to never be deleted from the queue. If this is set to a non-zero value, messages in the queue that are not consumed for the specified time interval are automatically deleted from the queue by the provider. |

Table 443. WebLogic, MQSeries, and TIBCO JMS Sender Configuration Properties (continued)

| Property | Description |
|-------------------------|---|
| Provider URL | <p>Enter the provider URL of the JMS implementation used. This is the URL to use for JNDI lookups.</p> <ul style="list-style-type: none"> • For MQSeries using Oracle WebLogic, set the property (for file system context) to <code>file:[drive:]/<pathname></code> and ensure that the directory exists in your environment. • For Oracle WebLogic JMS, set to <code>t3://<DNS Server Name or IP Address>:<port></code> • For TIBCO JMS, set to <code>tcp://<DNS Server Name or IP Address>:<port></code> <p>For clustered JMS configurations, use a comma-separated value comprising the host/IP and port of each node in the cluster. For example:</p> <ul style="list-style-type: none"> • For IBM WebSphere MQ and IBM WebSphere Default Messaging, the format is <code>corbaloc::<host>:<port>,<host>:<port></code>. For example: <code>corbaloc::10.10.46.90:2816,:10.10.46.70:2817</code> • For Oracle WebLogic JMS, the format is <code>t3://<DNS Server Name or IP Address>:<port>,<DNS Server Name or IP Address>:<port></code>. • For TIBCO EMS, the format is <code>tcp://<host>:<port>,<host>:<port></code>. For example: <code>tcp://devdel104:7222,devdel191001:7222</code> |
| Initial Context Factory | <p>The class name of the initial context factory. This is the starting point for the resolution of names for naming and directory operations.</p> <p>Select WebSphere MQ if you are using MQSeries accessed through a IBM WebSphere IIOP URL. This sets the class name to <code>com.ibm.websphere.naming.WsnInitialContextFactory</code>.</p> <p>Select File if you are using MQSeries accessed through a file URL, as with Oracle WebLogic. This sets the class name to <code>com.sun.jndi.fscontext.RefFSContextFactory</code>.</p> <p>Select WebLogic if you are using Oracle WebLogic JMS. This sets the class name to <code>weblogic.jndi.WLInitialContextFactory</code>.</p> <p>Select TIBCO if you are using TIBCO JMS. This sets the class name to <code>com.tibco.tibjms.naming.TibjmsInitialContextFactory</code>.</p> |
| QCF Lookup | <p>Enter the queue connection factory name. This is used to retrieve the queue connection factory from JNDI. A client uses a queue connection factory to create queue connections with a JMS provider. Enter any unique identifier for the QCF lookup. This name must be the same as that configured in the Oracle WebLogic console, MQSeries, or TIBCO.</p> |
| Delivery Mode | <p>Indicate if the messages are to be Persistent or Non-Persistent when dropped into the queue.</p> |
| Needs compression | <p>Optional. Check this box if the message needs to be compressed before dropping into the queue.</p> |

Table 443. WebLogic, MQSeries, and TIBCO JMS Sender Configuration Properties (continued)

| Property | Description |
|--|--|
| Commit of this message depends on parent transaction | <p>Check this box if you want the message to be committed to the queue only after the service is completed.</p> <p>Uncheck this box if you want the message to be committed to the queue immediately.</p> <p>For example, if the ON_SUCCESS event of any standard Sterling Selling and Fulfillment Foundation API is attached to a service in which the message is transactionally written to the queue, the message is committed to the queue only upon successful completion of the ON_SUCCESS event. The message is then rolled back from the queue if there is any error in the ON_SUCCESS event after the message is staged. However, in non-transactional mode, the message remains in the queue once it is staged and is not rolled back.</p> <p>Note: If you check this box, the system synchronizes the JMS commit along with the DB commit. However, it is not a two-phase commit. Therefore, it may cause some errors, thus resulting in duplicate messages.</p> |
| Enable JMS Security | <p>Check this box if you want JMS Security to be enabled. Once selected, the JMS Security Properties tab is enabled to configure Queue and/or JNDI based JMS security.</p> <p>Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3.</p> <p>Note: If JMS security is enabled, the JMS session pooling should be disabled. You can disable JMS session pooling by setting the yfs.jms.session.disable.pooling property to 'Y' in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| Header Tab | |
| Header Name | <p>The name of the message header. For example, APINAME.</p> <p>Note: The header name must be unique. Two headers cannot have the same header name.</p> <p>Choose the Create New icon to add a new header name and value.</p> <p>Choose the Details icon to modify an existing header name and value.</p> <p>Choose the Delete icon to delete an existing header name and value.</p> |

Table 443. WebLogic, MQSeries, and TIBCO JMS Sender Configuration Properties (continued)

| Property | Description |
|--|---|
| Header Value | <p>The value associated with the Header Name. These name-value pairs are stored as message headers and can be queried by using message selectors.</p> <p>This can be set to a static value. For example, 'createOrder' results in the message having a header APINAME='createOrder'</p> <p>It can also be set to be dynamically extracted from the message using the syntax <code>xml://<full path of the element from root>/@<attribute name></code>, which results in the message with a header APINAME='<value of attribute name in the XML>'.</p> |
| <p>Reconnect Tab</p> <p>You need to use the settings in this tab are for the backup JMS server.</p> | |
| Retry Interval (milliseconds) | <p>In the event that the connection to the primary JMS server is lost, enter the amount of time between attempts to re-establish contact with the primary JMS server. This parameter is used in conjunction with the Number of Retries parameter. The default value is 0 which means no delay time between retry attempts.</p> |
| Number of Retries | <p>In the event that the connection to the primary JMS server is lost, enter the number of attempts to re-establish contact with the primary JMS server before failing over to the backup JMS server, if enabled, or throwing an exception. This parameter is used in conjunction with the Retry Interval parameter. The default value is 0 which means there are no retries if the connection is lost and either failover occurs, if enabled, or an exception is thrown immediately.</p> |
| Use backup JMS Queue | <p>Check this box if you want to enable a backup JMS queue.</p> <p>Only upon selecting this checkbox, other controls in this tab are enabled.</p> |

Table 443. WebLogic, MQSeries, and TIBCO JMS Sender Configuration Properties (continued)

| Property | Description |
|-------------------------|---|
| Provider URL | <p>Enter the backup JMS server provider URL of the JMS implementation used. This is the URL to use for JNDI lookups.</p> <ul style="list-style-type: none"> • For MQSeries using a file URL, set the property (for file system context) to <code>file:[drive:]/<pathname></code> and ensure that the directory exists in your environment. • For Oracle WebLogic JMS, set to <code>t3://<DNS Server Name or IP Address>:<port></code> • For IBM WebSphere JMS, set to <code>corbaloc::<DNS Server Name or IP Address>:<bootstrapport></code> • For TIBCO JMS, set to <code>tcp://<DNS Server Name or IP Address>:<port></code> <p>For clustered JMS configurations, use a comma-separated value comprising the host/IP and port of each node in the cluster. For example:</p> <ul style="list-style-type: none"> • For Oracle WebLogic JMS, the format is <code>t3://<DNS Server Name or IP Address>:<port>,<DNS Server Name or IP Address>:<port></code> • For IBM WebSphere MQ and IBM WebSphere Default Messaging, the format is <code>corbaloc::<host>:<port>,<host>:<port></code>. For example: <code>corbaloc::10.10.46.90:2816,:10.10.46.70:2817</code> • For TIBCO EMS, the format is <code>tcp://<host>:<port>,<host>:<port></code>. For example: <code>tcp://devdel104:7222,devdel191001:7222</code> |
| Initial Context Factory | <p>The class name of the initial context factory for the backup JMS server. This is the starting point for the resolution of names for naming and directory operations.</p> <ul style="list-style-type: none"> • Select WebSphere MQ if you are using MQSeries accessed through a IBM WebSphere IIOP URL. This sets the class name to <code>com.ibm.websphere.naming.WsnInitialContextFactory</code>. • Select File if you are using MQSeries accessed through a file URL, as with Oracle WebLogic. This sets the class name to <code>com.sun.jndi.fscontext.RefFSContextFactory</code>. • Select Oracle WebLogic if you are using Oracle WebLogic JMS. This sets the class name to <code>weblogic.jndi.WLInitialContextFactory</code>. • Select TIBCO if you are using TIBCO JMS. This sets the class name to <code>com.tibco.tibjms.naming.TibjmsInitialContextFactory</code>. |
| Queue Name | <p>Enter the name of the backup queue to which the message is sent.</p> |
| QCF Lookup | <p>Enter the back JMS server's queue connection factory name. This is used to retrieve the queue connection factory from JNDI. A client uses a queue connection factory to create queue connections with a JMS provider. Enter any unique identifier for the QCF lookup. This name must be the same as that configured in the Oracle WebLogic console, MQSeries, or TIBCO.</p> |

Table 443. WebLogic, MQSeries, and TIBCO JMS Sender Configuration Properties (continued)

| Property | Description |
|--|--|
| Reconnect To Primary JMS Queue | Check this box if you want to reconnect to the primary JMS queue after a failover to the backup JMS queue server has occurred. Once this checkbox is selected, enter the wait time before it reconnects. |
| Time Before Reconnect (seconds) | Enter the maximum amount of time between attempts to re-establish contact with the primary JMS server after a failover to the backup JMS server. If contact is re-established with the primary JMS server, it reverts back to using the primary JMS server. If contact with the primary JMS server cannot be established, it continues to use the backup JMS server. The default value is 600 seconds. |
| JMS Security Properties Tab | |
| This is enabled upon selecting Enable JMS Security in the runtime tab. Note: You can override the JMS security properties specified here by defining the agent and flow authorization parameters in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . | |
| Queue based security | Check this box, if you want to provide Queue based security for JMS service. Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3. |
| JNDI based security | Check this box, if you want to provide JNDI based security for JMS service. |
| JMS Security Parameters | |
| For more information about application server-specific JMS security parameters, see "Setting up the JMS Security Properties" section. | |
| Parameter Name | Enter the name of the security parameter |
| Parameter Value | Enter the value of the security parameter. |

Note: The JMS session objects can be pooled based on the service being executed. Hence, whenever the JMS sender requires a session object, the Sterling Application Platform framework tries to get a free session object from the pool. If there are no free sessions available, a new session object is created to send the message and then added to the pool. Any session object that is idle for a certain configurable period of time is closed by the framework.

Note: The `yfs.jms.session.reaptime` property in the `yfs.properties` file is used to set the JMS session reaptime. To modify this property, add an entry for it in the `<INSTALL_DIR>/properties/customer_overrides.properties` file. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

Oracle WebLogic, MQSeries, and TIBCO JMS Receiver

The JMS receiver does not have a backup queue, therefore two different services must be configured. One to listen on the primary queue and one to listen on the

backup queue. When an exception occurs, the receiver retries using an exponential back off mechanism with a configurable maximum wait limit between retries.

For example, if 600 seconds is the maximum wait time, it first waits for 1 second, then 2 seconds, 4, 8, 16 and so on exponentially until it reaches 600 seconds, after which it retries every 600 seconds. So there is no bound on the total wait time.

Since the JMS receivers operate independently of each other with respect to the primary and backup queues, the order of messages across these queues is not supported.

Configuration Properties

The following are the configuration properties of this node:

Table 444. WebLogic, MQSeries, and TIBCO JMS Receiver Configuration Properties

| Property | Description |
|--------------------|---|
| Runtime Tab | |
| Sub Service Name | Enter a unique identifier for each asynchronous receiver within a service definition. |
| Queue Name | Enter the name of the queue to which the message is sent. |
| Provider URL | <p>Enter the provider URL of the JMS implementation used. This is the URL to use for JNDI lookups.</p> <ul style="list-style-type: none"> For MQSeries using Oracle WebLogic, set the property (for file system context) to <code>file:[drive:]/<pathname></code> and ensure that the directory exists in your environment. For Oracle WebLogic JMS, set to <code>t3://<DNS Server Name or IP Address>:<port></code> For TIBCO JMS, set to <code>tcp://<DNS Server Name or IP Address>:<port></code> <p>For clustered JMS configurations, use a comma-separated value comprising the host/IP and port of each node in the cluster. For example:</p> <ul style="list-style-type: none"> For IBM WebSphere MQ and IBM WebSphere Default Messaging, the format is <code>corbaloc::<host>:<port>,<host>:<port></code>. For example: <code>corbaloc::10.10.46.90:2816,:10.10.46.70:2817</code> For Oracle WebLogic JMS, the format is <code>t3://<DNS Server Name or IP Address>:<port>,<DNS Server Name or IP Address>:<port></code>. For TIBCO EMS, the format is <code>tcp://<host>:<port>,<host>:<port></code>. For example: <code>tcp://devde1104:7222,devde1191001:7222</code> |

Table 444. WebLogic, MQSeries, and TIBCO JMS Receiver Configuration Properties (continued)

| Property | Description |
|-------------------------|--|
| Initial Context Factory | <p>The class name of the initial context factory. This is the starting point for the resolution of names for naming and directory operations.</p> <p>Select WebSphere MQ if you are using MQSeries accessed through a IBM WebSphere IIOP URL. This sets the class name to <code>com.ibm.websphere.naming.WsnInitialContextFactory</code>.</p> <p>Select File if you are using MQSeries accessed through a file URL, as with Oracle WebLogic. This sets the class name to <code>com.sun.jndi.fscontext.RefFSContextFactory</code>.</p> <p>Select Oracle WebLogic if you are using Oracle WebLogic JMS. This sets the class name to <code>weblogic.jndi.WLInitialContextFactory</code>.</p> <p>Select TIBCO if you are using TIBCO JMS. This sets the class name to <code>com.tibco.tibjms.naming.TibjmsInitialContextFactory</code>.</p> |
| QCF Lookup | <p>Enter the queue connection factory name. This is used to retrieve the queue connection factory from JNDI. A client uses a queue connection factory to create queue connections with a JMS provider. Enter any unique identifier for the QCF lookup. This name must be the same as that configured in the Oracle WebLogic console, MQSeries, or TIBCO.</p> |
| Receiving Mode | <p>Indicates whether the messages are received in a transactional mode or non-transactional mode.</p> <ul style="list-style-type: none"> • If you set this to non-transactional mode, the messages are removed from the queue as soon as it is read. • If you set this to transactional mode, the messages are removed from the queue when they are functionally processed and if an exception is thrown when processing it. <p>Note: If the <code>IsReprocessable</code> flag is checked and an exception occurs when processing the message, then before deleting these messages, ensure that they are added to the <code>YFS_REPROCESS_ERROR</code> or <code>YFS_INBOX</code> table. However, if the "service suspend" exception occurs when adding these deleted messages to a table, the messages are maintained in the queue.</p> |
| Initial Threads | <p>Enter the number of threads that can process messages simultaneously. Based on your throughput, you can increase the number of threads to enhance performance using the System Management Console. For more information about using the System Management Console, see the <i>Sterling Selling and Fulfillment Foundation: System Management and Administration Guide</i>.</p> <p>You can also start multiple instances of the Service Definition Framework for a specific integration adapter for a specific server. For more information about the integration adapter, see the <i>Sterling Selling and Fulfillment Foundation: Performance Management Guide</i>.</p> |

Table 444. WebLogic, MQSeries, and TIBCO JMS Receiver Configuration Properties (continued)

| Property | Description |
|--|--|
| Selector | Enter selectors based on the message headers. These selectors must be in the form Header Name='Header Value'. When specifying a selector, use only single quotes. For example, using the selector APINAME='createOrder' selects all messages with a header name='APINAME' and value='createOrder'. |
| Service to Execute on EOF Message | Required if the message contains an EOF message ID. Choose the Details icon to select the service to be invoked when an EOF message is received. Once the EOF message is received, the framework waits for a few minutes (configurable in the <INSTALL_DIR>/properties/customer_overrides.properties file) before executing this service. For more information see, "Enabling EOF Messages in the Application Platform Framework" on page 487. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| Root Node Name of EOF Message | If the message contains an EOF message ID, enter your custom root node name for the EOF message. By default the end of file message has a root node of "EOF". For more information see, "Enabling EOF Messages in the Application Platform Framework" on page 487. |
| Enable JMS Security | Check this box if you want JMS Security to be enabled. Once selected, the JMS Security Properties tab is enabled to configure Queue and/or JNDI based JMS security. Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3. |
| Server Tab | |
| Server Name | Select the name of the server which actually executes the service. For more information about creating a new server, see "Adding a New Server". |
| Needs Decompression | Select this field to indicate that the incoming message is compressed and needs to be decompressed. |
| Exception Tabs | See Table 457 on page 533 for the receiver link exception handling properties. |
| Reconnect Tab | |
| Maximum Time Between Retries (minutes) | Enter the maximum time between reconnection attempts. The default value is 10 minutes. |
| JMS Security Properties Tab | |
| This is enabled upon selecting Enable JMS Security in the runtime tab. Note: You can override the JMS security properties specified here by defining the agent and flow authorization parameters in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . | |

Table 444. WebLogic, MQSeries, and TIBCO JMS Receiver Configuration Properties (continued)

| Property | Description |
|---|--|
| Queue based security | Check this box, if you want to provide Queue based security for JMS service. Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3. |
| JNDI based security | Check this box, if you want to provide JNDI based security for JMS service. |
| JMS Security Parameters | |
| For more information about application server-specific JMS security parameters, see "Setting up the JMS Security Properties" section. | |
| Parameter Name | Enter the name of the security parameter. |
| Parameter Value | Enter the value of the security parameter. |

Connection Properties

The following are the WLJMS and MQJMS nodes' connection properties:

Table 445. WebLogic JMS and MQSeries JMS Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Yes, for services invoked both in a synchronous or asynchronous mode |
| Can be placed before | <ul style="list-style-type: none"> Any component node Any transport node (except for FTP or File I/O); use a Pass-through node to connect them |
| Can be placed after | <ul style="list-style-type: none"> Start node Any synchronous transport node Any other component node Any asynchronous transport node (except for FTP or File I/O); use a Pass-through node to connect them |
| Passes data unchanged | Transport nodes do not modify data |

IBM WebSphere Default Messaging JMS Queue

This component provides a common interface to invoke messaging services on IBM WebSphere Default Messaging JMS queues. You can specify the required configuration properties by using the MQSeries component node.

IBM WebSphere Default Messaging JMS Queue Sender

The JMS sender caches a single connection starting with the primary queue. When the message sending fails, the JMS sender retries to send the message a configurable number of times with a configurable delay between each attempt as defined in the Reconnect Tab of the following table. An exception is thrown if the retries are exhausted and there is no backup queue.

If a backup queue is setup, a connection is made to the backup queue. The backup queue becomes the current queue for the next message sending attempt. The sender can be configured to reconnect to the primary queue. If the primary queue is found to be working then a switch is made so that the primary queue becomes the current queue.

Configuration Properties

The following are the configuration properties of these nodes:

Table 446. WebSphere Default Messaging JMS Queue Sender Configuration Properties

| Property | Description |
|--|---|
| Runtime Tab | |
| You need to use the settings in this tab for the primary JMS server. | |
| Queue Name | Enter the name of the queue to which the message is sent. |
| Time To Live (seconds) | Enter the time period after which the messages are to be deleted from the queue. A value of zero causes the message to never be deleted from the queue. If this is set to a non-zero value, messages in the queue that are not consumed for the specified time interval are automatically deleted from the queue by the provider. |
| Provider URL | Enter the provider URL of the JMS implementation used. This is the URL to use for JNDI lookups. <ul style="list-style-type: none"> For IBM WebSphere Default Messaging JMS Queue, set to <code>corbaloc::<DNS Server Name or IP Address>:<bootstrapport></code>. For clustered JMS configurations, use a comma-separated value comprising the host/IP and port of each node in the cluster. For example, for IBM WebSphere Default Messaging JMS Queue, set to <code>corbaloc::<DNS Server Name or IP Address>:<bootstrapport>,<DNS Server Name or IP Address>:<bootstrapport></code> . |
| Initial Context Factory | The class name of the initial context factory. This is the starting point for the resolution of names for naming and directory operations. Select WebSphere MQ if you are using IBM WebSphere Default Messaging JMS Queue. This sets the class name to <code>com.ibm.websphere.naming.WsnInitialContextFactory</code> . |
| QCF Lookup | Enter the queue connection factory name. This is used to retrieve the queue connection factory from JNDI. A client uses a queue connection factory to create queue connections with a JMS provider. Enter any unique identifier for the QCF lookup. This name must be the same as that configured in the IBM WebSphere administration console. |
| Persistent | Select this option if you want the messages to be persistent when dropped into the queue. |
| Non Persistent | Select this option if you want the messages to be not persistent when dropped into the queue. |
| Needs compression | Optional. Check this box if the message needs to be compressed before dropping into the queue. |

Table 446. WebSphere Default Messaging JMS Queue Sender Configuration Properties (continued)

| Property | Description |
|---|--|
| Commit of this message depends on parent transaction | <p>Check this box if you want the message to be committed to the queue only after the service is completed.</p> <p>Uncheck this box if you want the message to be committed to the queue immediately.</p> <p>For example, if the ON_SUCCESS event of any standard Sterling Selling and Fulfillment Foundation API is attached to a service in which the message is transactionally written to the queue, the message is committed to the queue only upon successful completion of the ON_SUCCESS event. The message is then rolled back from the queue if there is any error in the ON_SUCCESS event after the message is staged. However, in non-transactional mode, the message remains in the queue once it is staged and is not rolled back.</p> <p>Note: If you check this box, the system synchronizes the JMS commit along with the DB commit. However, it is not a two-phase commit. Therefore, it may cause some errors, thus resulting in duplicate messages.</p> |
| Enable JMS Security | <p>Check this box if you want JMS Security to be enabled. Once selected, the JMS Security Properties tab is enabled to configure Queue and/or JNDI based JMS security.</p> <p>Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3.</p> |
| Header Tab | |
| Header Name | <p>The name of the message header. For example, APINAME.</p> <p>Note: The header name must be unique. Two headers cannot have the same header name.</p> <p>Choose the Create New icon to add a new header name and value.</p> <p>Choose the Details icon to modify an existing header name and value.</p> <p>Choose the Delete icon to delete an existing header name and value.</p> |
| Header Value | <p>The value associated with the Header Name. These name-value pairs are stored as message headers and can be queried by using message selectors.</p> <p>This can be set to a static value. For example, 'createOrder' results in the message having a header APINAME='createOrder'</p> <p>It can also be set to be dynamically extracted from the message using the syntax <code>xml://<full path of the element from root>/@<attribute name></code>, which results in the message with a header APINAME='<value of attribute name in the XML>'</p> |
| Reconnect Tab | |
| You need to use the settings in this tab for the backup JMS server. | |

Table 446. WebSphere Default Messaging JMS Queue Sender Configuration Properties (continued)

| Property | Description |
|--------------------------------|---|
| Retry Interval (milliseconds) | In the event that the connection to the primary JMS server is lost, enter the amount of time between attempts to re-establish contact with the primary JMS server. This parameter is used in conjunction with the Number of Retries parameter. The default value is 0 which means no delay time between retry attempts. |
| Number of Retries | In the event that the connection to the primary JMS server is lost, enter the number of attempts to re-establish contact with the primary JMS server before failing over to the backup JMS server, if enabled, or throwing an exception. This parameter is used in conjunction with the Retry Interval parameter. The default value is 0 which means there are no retries if the connection is lost and either failover occurs, if enabled, or an exception is thrown immediately. |
| Use backup JMS Queue | Check this box if you want to enable a backup JMS queue. Only upon selecting this checkbox, other controls in this tab are enabled. |
| Provider URL | Enter the backup JMS server provider URL of the JMS implementation used. This is the URL to use for JNDI lookups. <ul style="list-style-type: none"> For IBM WebSphere Default Messaging JMS Queue, set to <code>corbaloc::<DNS Server Name or IP Address>:<bootstrapport></code> <p>For clustered JMS configurations, use a comma-separated value comprising the host/IP and port of each node in the cluster. For example, for IBM WebSphere Default Messaging JMS Queue, set to <code>corbaloc::<DNS Server Name or IP Address>:<bootstrapport>,<DNS Server Name or IP Address>:<bootstrapport></code>.</p> |
| Initial Context Factory | The class name of the initial context factory. This is the starting point for the resolution of names for naming and directory operations. Select WebSphere MQ if you are using IBM WebSphere Default Messaging JMS Queue. This sets the class name to <ul style="list-style-type: none"> <code>com.ibm.websphere.naming.WsnInitialContextFactory</code>. |
| Queue Name | Enter the name of the backup queue to which the message is sent. |
| QCF Lookup | Enter the back JMS server's queue connection factory name. This is used to retrieve the queue connection factory from JNDI. A client uses a queue connection factory to create queue connections with a JMS provider. Enter any unique identifier for the QCF lookup. This name must be the same as that configured in the IBM WebSphere administration console. |
| Reconnect To Primary JMS Queue | Check this box if you want to reconnect to the primary JMS queue after a failover to the backup JMS queue server has occurred. Once this checkbox is selected, enter the wait time before it reconnects. |

Table 446. WebSphere Default Messaging JMS Queue Sender Configuration Properties (continued)

| Property | Description |
|--|--|
| Time Before Reconnect (seconds) | Enter the maximum amount of time between attempts to re-establish contact with the primary JMS server after a failover to the backup JMS server. If contact is re-established with the primary JMS server, it reverts back to using the primary JMS server. If contact with the primary JMS server cannot be established, it continues to use the backup JMS server. The default value is 600 seconds. |
| JMS Security Properties Tab | |
| This is enabled upon selecting Enable JMS Security in the runtime tab. Note: You can override the JMS security properties specified here by defining the agent and flow authorization parameters in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> | |
| Queue based security | Check this box, if you want to provide Queue based security for JMS service. Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3. |
| JNDI based security | Check this box, if you want to provide JNDI based security for JMS service. |
| JMS Security Parameters | |
| For more information about application server-specific JMS security parameters, see "Setting up the JMS Security Properties" section. | |
| Parameter Name | Enter the name of the security parameter. |
| Parameter Value | Enter the value of the security parameter. |

Note: The JMS session objects can be pooled based on the service being executed. Hence, whenever the JMS sender requires a session object, the Sterling Application Platform framework tries to get a free session object from the pool. If there are no free sessions available, a new session object is created to send the message and then added to the pool. Any session object that is idle for a certain configurable period of time is closed by the framework. The `yfs.jms.session.reaptime` property in the `yfs.properties` file is used to set the JMS session reaptime. To modify this property, add an entry for it in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*

IBM WebSphere Default Messaging JMS Queue Receiver

The JMS receiver does not have a backup queue, therefore two different services must be configured. One to listen on the primary queue and one to listen on the backup queue. When an exception occurs, the receiver retries using an exponential back off mechanism with a configurable maximum wait limit between retries.

For example, if 600 seconds is the maximum wait time, it first waits for 1 second, then 2 seconds, 4, 8, 16 and so on exponentially until it reaches 600 seconds, after which it retries every 600 seconds. So there is no bound on the total wait time.

Since the JMS receivers operate independently of each other with respect to the primary and backup queues, the order of messages across these queues is not supported.

Configuration Properties

The following are the configuration properties of this node:

Table 447. WebSphere Default Messaging JMS Queue Receiver Configuration Properties

| Property | Description |
|-------------------------|---|
| Runtime Tab | |
| Sub Service Name | Enter the name of the queue to which the message is sent. |
| Queue Name | Enter the name of the queue to which the message is sent. |
| Provider URL | <p>Enter the JMS server provider URL of the JMS implementation used. This is the URL to use for JNDI lookups.</p> <ul style="list-style-type: none"> For IBM WebSphere Default Messaging JMS Queue, set to <code>corbaloc::<DNS Server Name or IP Address>:<bootstrap></code> <p>For clustered JMS configurations, use a comma-separated value comprising the host/IP and port of each node in the cluster. For example, for IBM WebSphere Default Messaging JMS Queue, set to <code>corbaloc::<DNS Server Name or IP Address>:<bootstrap>,<DNS Server Name or IP Address>:<bootstrap></code>.</p> |
| Initial Context Factory | <p>The class name of the initial context factory. This is the starting point for the resolution of names for naming and directory operations.</p> <p>Select WebSphere MQ if you are using IBM WebSphere Default Messaging JMS Queue. This sets the class name to <code>com.ibm.websphere.naming.WsnInitialContextFactory</code>.</p> |
| QCF Lookup | Enter the back JMS server's queue connection factory name. This is used to retrieve the queue connection factory from JNDI. A client uses a queue connection factory to create queue connections with a JMS provider. Enter any unique identifier for the QCF lookup. This name must be the same as that configured in the IBM WebSphere administration console. |

Table 447. WebSphere Default Messaging JMS Queue Receiver Configuration Properties (continued)

| Property | Description |
|-----------------------------------|---|
| Receiving Mode | <p>Indicates whether the messages are received in a transactional mode or non-transactional mode.</p> <ul style="list-style-type: none"> • If you set this to non-transactional mode, the messages are removed from the queue as soon as it is read. • If you set this to transactional mode, the messages are removed from the queue when they are functionally processed and if an exception is thrown when processing it. <p>Note: If the IsReprocessable flag is checked and an exception occurs when processing the message, then before deleting these messages, ensure that they are added to the YFS_REPROCESS_ERROR or YFS_INBOX table. However, if the "service suspend" exception occurs when adding these deleted messages to a table, the messages are maintained in the queue.</p> |
| Initial Threads | <p>Enter the number of threads that can process messages simultaneously. Based on your throughput, you can increase the number of threads to enhance performance using the System Management Console. For more information about using the System Management Console, see the <i>Sterling Selling and Fulfillment Foundation: System Management and Administration Guide</i>.</p> <p>You can also start multiple instances of the Service Definition Framework for a specific integration adapter for a specific server. For more information about the integration adapter, see the <i>Sterling Selling and Fulfillment Foundation: Performance Management Guide</i>.</p> |
| Selector | <p>Enter selectors based on the message headers. These selectors must be in the form Header Name='Header Value'. When specifying a selector, use only single quotes. For example, using the selector APINAME='createOrder' selects all messages with a header name='APINAME' and value='createOrder'.</p> |
| Service to Execute on EOF Message | <p>Required if the message contains an EOF message ID.</p> <p>Choose the Search icon to select the service to be invoked when an EOF message is received. Once the EOF message is received, the framework waits for a few minutes (configurable in the <INSTALL_DIR>/properties/customer_overrides.properties file) before executing this service. For more information see, "Enabling EOF Messages in the Application Platform Framework" on page 487. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| Root Node Name of EOF Message | <p>If the message contains an EOF message ID, enter your custom root node name for the EOF message.</p> <p>By default the end of file message has a root node of "EOF". For more information see, "Enabling EOF Messages in the Application Platform Framework" on page 487.</p> |

Table 447. WebSphere Default Messaging JMS Queue Receiver Configuration Properties (continued)

| Property | Description |
|--|---|
| Enable JMS Security | Check this box if you want JMS Security to be enabled. Once selected, the JMS Security Properties tab is enabled to configure Queue and/or JNDI based JMS security. Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3. |
| Server Tab | |
| Server Name | Select the name of the server which actually executes the service. For more information about creating a new server, see "Adding a New Server". |
| Needs Decompression | Select this field to indicate that the incoming message is compressed and needs to be decompressed. |
| Exception Tabs | See Table 457 on page 533 for the receiver link exception handling properties. |
| Reconnect Tab | |
| Maximum Time Between Retries (milliseconds) | Enter the maximum time between reconnection attempts. |
| JMS Security Properties Tab | |
| This is enabled upon selecting Enable JMS Security in the runtime tab. Note: You can override the JMS security properties specified here by defining the agent and flow authorization parameters in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . | |
| Queue based security | Check this box, if you want to provide Queue based security for JMS service. Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3. |
| JNDI based security | Check this box, if you want to provide JNDI based security for JMS service. |
| JMS Security Parameters | |
| For more information about application server-specific JMS security parameters, see "Setting up the JMS Security Properties" section. | |
| Parameter Name | Enter the name of the security parameter. |
| Parameter Value | Enter the value of the security parameter. |

Connection Properties

The following are the WLJMS and MQJMS nodes' connection properties:

Table 448. WebSphere Default Messaging JMS Queue Connection Properties

| Connection | Node Connection Rules |
|--|--|
| Can be the first node after the start node | Yes, for services invoked both in a synchronous or asynchronous mode |
| Can be placed before | <ul style="list-style-type: none">• Any component node• Any transport node (except for FTP or File I/O); use a Pass-through node to connect them |
| Can be placed after | <ul style="list-style-type: none">• Start node• Any synchronous transport node• Any other component node• Any asynchronous transport node (except for FTP or File I/O); use a Pass-through node to connect them |
| Passes data unchanged | Transport nodes do not modify data |

JBoss Default Messaging JMS Queue

This component provides a common interface to invoke messaging services on the JBoss Default Messaging JMS queues. You can specify the configuration properties by using the Generic JMS component node.

JBoss Default Messaging JMS Queue Sender

The JMS sender caches a single connection starting with the primary queue. If the message is not sent, the JMS sender retries to send the message a configurable number of times with a configurable delay between each attempt as defined for the Reconnect property in the following table. An exception is thrown if the configured number of retries are exhausted and there is no backup queue.

If a backup queue is set up, a connection is made to the backup queue. The backup queue becomes the current queue for the next attempt to send a message. The sender can be configured to reconnect to the primary queue. If the primary queue is working, a switch is made so that the primary queue becomes the current queue.

Configuration Properties

The following are the configuration properties of these nodes:

Table 449. JBoss Default Messaging JMS Queue Sender Configuration Properties

| Property | Description |
|--|---|
| Runtime Tab | |
| Use the settings in this tab for the primary JMS queue server. | |
| Queue Name | Enter the name of the queue to which the message is sent. |

Table 449. JBoss Default Messaging JMS Queue Sender Configuration Properties (continued)

| Property | Description |
|---------------------------|---|
| Time To Live (seconds) | <p>Enter the time period after which you want the messages to be deleted from the queue.</p> <ul style="list-style-type: none"> If you enter a zero value, the messages are not deleted from the queue. If you enter a non-zero value, the messages that are not consumed for the specified time interval are automatically deleted from the queue by the provider. <p>Note: If you do not enter any value, the system considers a zero value.</p> |
| Provider URL | <p>Enter the provider URL of the JMS implementation to use for JNDI lookups.</p> <p>For the JBoss Default Messaging JMS Queue, enter the URL as: <code>jnp::<DNS Server Name or IP Address>:<bootstrapport></code>.</p> <p>For clustered JMS configurations, use a comma-separated value comprising the host/IP and port of each node in the cluster. For example, for the JBoss Default Messaging JMS Queue, enter the URL as: <code><DNS Server Name or IP Address>:<bootstrapport>,<DNS Server Name or IP Address>:<bootstrapport></code>; for example, <code>10.11.23.40:1100,10.11.23.41:1200</code></p> |
| Initial Context Factory | <p>The class name of the initial context factory. This is the starting point for the resolution of names for naming and directory operations.</p> <p>Select Jboss if you are using the JBoss Default Messaging JMS Queue. This sets the class name to <code>org.jnp.interfaces.NamingContextFactory</code></p> |
| QCF Lookup | <p>Enter the queue connection factory name. This is used to retrieve the queue connection factory from JNDI. A client uses a queue connection factory to create queue connections with a JMS provider. Enter any unique identifier for the QCF lookup. This name must be the same as the one configured in the JBoss administration console.</p> |
| Delivery Mode | <p>This is not used for JBoss Messaging. Persistence is set for each queue. Do not allow the application to override the persistence.</p> |
| Needs compression | <p>Optional. Check this box if the message needs to be compressed before dropping it into the queue.</p> |

Table 449. JBoss Default Messaging JMS Queue Sender Configuration Properties (continued)

| Property | Description |
|---|---|
| Commit of this message depends on parent transaction | <p>Check this box if you want the message to be committed to the queue only after the service is completed.</p> <p>Uncheck this box if you want the message to be committed to the queue immediately.</p> <p>For example, if the ON_SUCCESS event of any standard Sterling Selling and Fulfillment Foundation API is attached to a service in which the message is transactionally written to the queue, the message is committed to the queue only upon successful completion of the ON_SUCCESS event. The message is later rolled back from the queue if an error is encountered in the ON_SUCCESS event after the message is staged. However, in the non-transactional mode, the message remains in the queue once it is staged and not rolled back.</p> <p>Note: If you check this box, the system synchronizes the JMS commit along with the DB commit. However, it is not a two-phase commit. Therefore, it may cause some errors, thus resulting in duplicate messages.</p> |
| Enable JMS Security | Check this box if you want to enable the JMS Security. If you check this box, the JMS Security Properties tab is enabled for you to configure Queue and/or JNDI based JMS security. |
| Header Tab | |
| Header Name | <p>The name of the message header. For example, APINAME.</p> <p>Note: The header name must be unique. Two headers cannot have the same header name.</p> <p>Choose the Create New icon to add a new header name and value.</p> <p>Choose the Details icon to modify an existing header name and value.</p> <p>Choose the Delete icon to delete an existing header name and value.</p> |
| Header Value | <p>The value associated with the Header Name. These name-value pairs are stored as message headers and can be queried by using message selectors.</p> <p>This can be set to a static value. For example, 'createOrder' results in the message having a header APINAME='createOrder'.</p> <p>This can also be set to be dynamically extracted from the message using the syntax, xml://<full path of the element from root>/@<attribute name>, which results in the message with a header APINAME='<value of attribute name in the XML>'.</p> |
| Reconnect Tab | |
| Use the settings in this tab for the backup JMS queue server. | |

Table 449. JBoss Default Messaging JMS Queue Sender Configuration Properties (continued)

| Property | Description |
|---------------------------------|--|
| Retry Interval (milliseconds) | In the event that the connection to the primary JMS queue server is lost, enter the time required to reestablish contact with the primary JMS queue server. This parameter is used in conjunction with the Number of Retries parameter. The default value is 0 (zero), which means no time delay between retry attempts. |
| Number of Retries | In the event that the connection to the primary JMS queue server is lost, enter the number of attempts to reestablish contact with the primary JMS queue server before failing over to the backup JMS queue server, if enabled, or an exception is thrown. This parameter is used in conjunction with the Retry Interval parameter. The default value is 0 (zero), which means there are no retries if the connection is lost and failover occurs, if enabled, or an exception is thrown. |
| Use backup JMS Queue | Check this box if you want to enable a backup JMS queue. When you check this box, other controls in this tab are enabled. |
| Provider URL | Enter the backup JMS queue server provider URL of the JMS implementation used. This is the URL to use for JNDI lookups. For the JBoss Default Messaging JMS Queue, enter the URL as: <code>jnp::<DNS Server Name or IP Address>:<bootstrapport></code> . For clustered JMS configurations, use a comma-separated value comprising the host/IP and port of each node in the cluster. For example, for the JBoss Default Messaging JMS Queue, enter the URL as: <code><DNS Server Name or IP Address>:<bootstrapport>,<DNS Server Name or IP Address>:<bootstrapport></code> ; for example, <code>10.11.23.40:1100,10.11.23.41:1200</code> |
| Initial Context Factory | The class name of the initial context factory. This is the starting point for the resolution of names for naming and directory operations. Select Jboss if you are using the JBoss Default Messaging JMS Queue. This sets the class name to <code>org.jnp.interfaces.NamingContextFactory</code> |
| Queue Name | Enter the name of the backup queue to which the message is sent. |
| QCF Lookup | Enter the backup queue of the JMS server connection factory name. This is used to retrieve the queue connection factory from JNDI. A client uses a queue connection factory to create queue connections with a JMS provider. Enter any unique identifier for the QCF lookup. This name must be the same as the one configured in the JBoss administration console. |
| Reconnect To Primary JMS Queue | Check this box if you want to reconnect to the primary JMS queue after a failover to the backup JMS queue has occurred. Once this box is selected, enter the wait time before it reconnects. |
| Time Before Reconnect (seconds) | Enter the maximum time required to reestablish contact with the primary JMS queue server after a failover to the backup JMS queue server. If a contact is reestablished, the primary JMS queue server is used. Otherwise, the backup JMS queue server is used. The default value is 600 seconds. |

Table 449. JBoss Default Messaging JMS Queue Sender Configuration Properties (continued)

| Property | Description |
|--|---|
| JMS Security Properties Tab | |
| This tab is enabled when you select Enable JMS Security option in the runtime tab. Note: You can override the JMS security properties specified here by defining the agent and flow authorization parameters in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . | |
| Queue based security | Check this box, if you want to provide Queue based security for JMS service. |
| JNDI based security | Check this box, if you want to provide JNDI based security for JMS service. Note: This checkbox is not applicable for JBoss as it does not support JNDI based JMS security. |
| JMS Security Parameters | |
| For more information about application server-specific JMS security parameters, see "Setting up the JMS Security Properties" section. | |
| Parameter Name | Enter the name of the security parameter. |
| Parameter Value | Enter the value of the security parameter. |

Note: The JMS session objects can be pooled based on the service being executed. Hence, whenever the JMS sender requires a session object, the Sterling Application Platform framework tries to get a free session object from the pool. If there are no free sessions available, a new session object is created to send the message and then added to the pool. Any session object that is idle for a certain configurable period of time is closed by the framework. The `yfs.jms.session.reaptime` property in the `yfs.properties` file is used to set the JMS session reaptime. To modify this property, add an entry for it in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*

JBoss Default Messaging JMS Queue Receiver

The JMS receiver does not have a backup queue. Therefore, you must configure two different services; one to listen on the primary queue and the other to listen on the backup queue. When an exception occurs, the receiver retries to use an exponential back off mechanism with a configurable maximum wait limit between retries.

For example, if 600 seconds is the maximum wait time, the receiver first waits for 1 second, then 2 seconds, 4, 8, 16, and so forth until it reaches 600 seconds, after which, the receiver retries every 600 seconds. Therefore, there is no boundary on the total wait time.

As JMS receivers operate independently of each other with respect to the primary and backup queues, the order of messages across these queues is not supported.

Configuration Properties

The following are the configuration properties of this node:

Table 450. JBoss Default Messaging JMS Queue Receiver Configuration Properties

| Property | Description |
|-------------------------|---|
| Runtime Tab | |
| Sub Service Name | Enter the name of the queue to which the message is sent. |
| Queue Name | Enter the name of the queue to which the message is sent. |
| Provider URL | <p>Enter the JMS queue server provider URL of the JMS implementation to use for JNDI lookups.</p> <p>For the JBoss Default Messaging JMS Queue, enter the URL as: <code>jnp::<DNS Server Name or IP Address>:<bootstrapport></code>.</p> <p>For clustered JMS configurations, use a comma-separated value comprising the host/IP and port of each node in the cluster. For example, for the JBoss Default Messaging JMS Queue, enter the URL as: <code><DNS Server Name or IP Address>:<bootstrapport>,<DNS Server Name or IP Address>:<bootstrapport></code>; for example, <code>10.11.23.40:1100,10.11.23.41:1200</code></p> |
| Initial Context Factory | <p>The class name of the initial context factory. This is the starting point for the resolution of names for naming and directory operations.</p> <p>Select Jboss, if you are using JBoss Default Messaging JMS Queue. This sets the class name to <code>org.jnp.interfaces.NamingContextFactory</code></p> |
| QCF Lookup | Enter the backup queue of the JMS queue server connection factory name. This is used to retrieve the queue connection factory from JNDI. A client uses a queue connection factory to create queue connections with a JMS provider. Enter any unique identifier for the QCF lookup. This name must be the same as the one configured in the JBoss administration console. |
| Receiving Mode | <p>Indicates whether the messages are received in transactional mode or non-transactional mode.</p> <ul style="list-style-type: none"> • If you set this to non-transactional mode, the messages are removed from the queue as soon as they are read. • If you set this to transactional mode, the messages are removed from the queue when they are functionally processed or if an exception is thrown when processing it. <p>Note: If the <code>IsReprocessable</code> flag is checked and an exception occurs when processing the message, before deleting the message, ensure that it is added to the <code>YFS_REPROCESS_ERROR</code> or <code>YFS_INBOX</code> table. However, if the "service suspend" exception occurs when adding deleted messages to a table, the messages are maintained in the queue.</p> |

Table 450. JBoss Default Messaging JMS Queue Receiver Configuration Properties (continued)

| Property | Description |
|---|---|
| Initial Threads | <p>Enter the number of threads that can process messages simultaneously. Based on your throughput, you can increase the number of threads to enhance performance using the System Management Console. For more information about using the System Management Console, see the <i>Sterling Selling and Fulfillment Foundation: System Management and Administration Guide</i>.</p> <p>You can also start multiple instances of the Service Definition Framework for a specific integration adapter and a server. For more information about the integration adapter, see the <i>Sterling Selling and Fulfillment Foundation: Performance Management Guide</i>.</p> |
| Selector | <p>Enter selectors based on the message headers. These selectors must be in the form Header Name='Header Value'. When specifying a selector, use only single quotes. For example, using the selector APINAME='createOrder' selects all messages with the header name='APINAME' and the value='createOrder'.</p> |
| Service to Execute on EOF Message | <p>Required if the message contains an EOF message ID.</p> <p>Click the Search icon to select the service to invoke when an EOF message is received. Once the EOF message is received, the framework waits for a few minutes (configurable in the <INSTALL_DIR>/properties/customer_overrides.properties file) before executing this service. For more information about EOF messages, see “Enabling EOF Messages in the Application Platform Framework” on page 487. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> |
| Root Node Name of EOF Message | <p>If the message contains an EOF message ID, enter your custom root node name for the EOF message.</p> <p>By default the EOF message has a root node of "EOF". For more information about EOF messages, see “Enabling EOF Messages in the Application Platform Framework” on page 487.</p> |
| Enable JMS Security | <p>Check this box if you want to enable JMS Security. When this box is selected, the JMS Security Properties tab is enabled for you to configure Queue and/or JNDI based JMS security.</p> |
| Server Tab | |
| Server Name | <p>Select the name of the server that executes the service.</p> <p>For more information about creating a new server, see "Adding a New Server".</p> |
| Needs Decompression | <p>Check this box to indicate that the incoming message is compressed and needs to be decompressed.</p> |
| Exception Tabs | <p>See Table 457 on page 533 for the receiver link exception handling properties.</p> |
| Reconnect Tab | |
| Maximum Time Between Retries (milliseconds) | <p>Enter the maximum time required between reconnection attempts.</p> |

Table 450. JBoss Default Messaging JMS Queue Receiver Configuration Properties (continued)

| Property | Description |
|---|---|
| JMS Security Properties Tab | |
| This tab is enabled only when you check the Enable JMS Security box provided in the runtime tab. | |
| Note: You can override the JMS security properties specified here by defining the agent and flow authorization parameters in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . | |
| Queue based security | Check this box, if you want to provide Queue based security for JMS service. |
| JNDI based security | Check this box, if you want to provide JNDI based security for JMS service. Note: This checkbox is not applicable for JBoss as it does not support JNDI based JMS security. |
| JMS Security Parameters | |
| For more information about application server-specific JMS security parameters, see "Setting up the JMS Security Properties" section. | |
| Parameter Name | Enter the name of the security parameter. |
| Parameter Value | Enter the value of the security parameter. |

Connection Properties

The following are the Generic JMS queue node connection properties:

Table 451. JBoss Default Messaging JMS Queue Connection Properties

| Connection | Node Connection Rules |
|--|--|
| Can be the first node after the start node | Yes, for services invoked both in a synchronous or asynchronous mode. |
| Can be placed before | <ul style="list-style-type: none"> Any component node Any transport node (except for FTP or File I/O). Use a pass-through node to connect them. |
| Can be placed after | <ul style="list-style-type: none"> Start node Any synchronous transport node Any other component node Any asynchronous transport node (except for FTP or File I/O). Use a pass-through node to connect them. |
| Passes data unchanged | Transport nodes do not modify data. |

Synchronous IBM WebSphere Default Messaging

The synchronous IBM WebSphere Default Messaging transport nodes allow request and response operations using JMS queues. If the response is not received within a defined period, an exception is thrown.

Identification of appropriate response messages is done with a header field named MESSAGEID. When the request message is put into the queue, the MESSAGEID header is set to a unique value based on the current time and a counter. The response headers must have this same message ID in order for it to be picked up and processed correctly.

Configuration Properties

The following are the properties of this node:

Table 452. Synchronous WAS Default Messaging Properties

| Property | Description |
|-------------------------|--|
| Runtime Tab | |
| Provider URL | <p>Enter the provider URL of the JMS implementation used. URL to use for JNDI lookups using the IBM WebSphere Default Messaging JMS queue:</p> <p>corbaloc::<DNS Server Name or IP Address>:<bootstrapport></p> <p>For clustered JMS configurations, use a comma-separated value comprising the host/IP and port of each node in the cluster. For example, for IBM WebSphere Default Messaging JMS, enter the URL as: corbaloc::<DNS Server Name or IP Address>:<bootstrapport>,<DNS Server Name or IP Address>:<bootstrapport>.</p> |
| Initial Context Factory | <p>The class name of the initial context factory. This is the starting point for the resolution of names for naming and directory operations.</p> <p>Select synchronous WebSphere MQ if you are using MQSeries accessed through a IBM WebSphere corbaloc URL. This sets the class name to IBM corbaloc::<DNS Server Name or IP Address>:<bootstrapport></p> |
| QCF Lookup | <p>Enter the queue connection factory name. This is used to retrieve the queue connection factory from JNDI. A client uses a queue connection factory to create queue connections with a JMS provider. Enter unique identifier for the QCF lookup. This name must be the same as that configured in the WAS administration console.</p> |
| Needs Compression | <p>Select this option if the message needs to be compressed.</p> |
| Enable JMS Security | <p>Check this box if you want JMS Security to be enabled. Once checked, the JMS Security Properties tab is enabled to configure Queue and/or JNDI based JMS security.</p> <p>Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3.</p> |
| Request Tab | |
| Queue Name | <p>Enter the name of the queue to which the request message is sent.</p> |

Table 452. Synchronous WAS Default Messaging Properties (continued)

| Property | Description |
|-------------------------------|--|
| Header Name | <p>The name of the message header. For example, APINAME. Note: The header name must be unique. Two headers cannot have the same header name.</p> <p>Choose the Create New icon to add a new header name and value.</p> <p>Choose the Details icon to modify an existing header name and value.</p> <p>Choose the Delete icon to delete an existing header name and value.</p> |
| Header Value | <p>The value associated with the Header Name. These name-value pairs are stored as message headers and can be queried by using message selectors.</p> <p>This can be set to a static value. For example, 'createOrder' results in the message having a header APINAME=createOrder'.</p> <p>It can also be set to be dynamically extracted from the message using the syntax, xml://<full path of the element from root>/@<attribute name>, which results in the message with a header APINAME=<value of attribute name in the XML>'.</p> |
| Response Tab | |
| Queue Name | Enter the name of the queue in which the response message is received. |
| Selector | Enter the selectors based on the message headers. When specifying a selector, use only single quotation marks. For example, specifying the selector APINAME='createOrder' selects all messages with a header name='APINAME' and value='createOrder'. |
| Time Out (seconds) | This is a mandatory parameter. Enter the time interval (in seconds) after which the request times out. |
| Reconnect Tab | |
| Retry Interval (milliseconds) | In the event that the connection to the JMS server is been lost, enter the amount of time between each attempt to re-establish contact with the JMS server. This parameter is used in conjunction with the Number of Retries parameter. The default value is zero, implying no delay time between retry attempts. |
| Number of Retries | In the event that the connection to the JMS server is been lost, enter the number of attempts to re-establish contact with the JMS server before throwing an exception. This parameter is used in conjunction with the Retry Interval parameter. The default value is zero, implying no retries if the connection is lost and an exception is thrown immediately. |

Table 452. Synchronous WAS Default Messaging Properties (continued)

| Property | Description |
|---|--|
| JMS Security Properties Tab | |
| <p>This is enabled when you select Enable JMS Security in the Runtime Tab.</p> <p>Note: Oracle WebLogic 10.3 only supports JNDI based JMS security. If queue based security is enabled, it is altogether bypassed. Therefore, you must configure JNDI based JMS security if using Oracle WebLogic 10.3.</p> <p>Note: You can override the JMS security properties specified here by defining the agent and flow authorization parameters in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i>.</p> | |
| Queue based security | Check this box, if you want to provide Queue based security for JMS service. |
| JNDI based security | Check this box, if you want to provide JNDI based security for JMS service. |
| <p>JMS Security Parameters.</p> <p>For more information about application server-specific JMS security parameters, see "Setting up the JMS Security Properties".</p> | |
| Parameter Name | Enter the name of the security parameter. |
| Parameter Value | Enter the value of the security parameter. |

Note: The JMS session objects can be pooled based on the service being executed. Hence, whenever the JMS sender requires a session object, the Sterling Application Platform framework tries to get a free session object from the pool. If there are no free sessions available, a new session object is created to send the message and then added to the pool. Any session object that is idle for a certain configurable period of time is closed by the framework. The `yfs.jms.session.reaptime` property in the `yfs.properties` file is used to set the JMS session reaptime. To modify this property, add an entry for it in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

Note:

Connection Properties

The following are the synchronous MQSeries nodes' connection properties:

Table 453. Synchronous WAS Default Messaging Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none"> • Any transport node except for FTP or File I/O • Any other component node |

Table 453. Synchronous WAS Default Messaging Properties (continued)

| Connection | Node Connection Rules |
|-----------------------|---|
| Can be placed after | <ul style="list-style-type: none"> • Start node • Any synchronous transport node • Any other component node • Any asynchronous transport node (except for FTP or File I/O); use Pass-through node to connect. |
| Passes data unchanged | Transport nodes do not modify data. |

Microsoft Message Queue (MSMQ)

The Microsoft Message Queue (MSMQ) transport node allows the Service Definition Framework to read or write messages to an MSMQ queue. MSMQ has the ability to use both local or remote queues. If a message is sent to a remote queue that cannot be found, an error is not generated. Instead, MSMQ creates a local queue of the same name. If the remote queue becomes available at a later time, the messages in the local queue are then transferred to the remote queue.

Note: MSMQ must be installed on the same system the integration adapter is running on.

MSMQ Sender Configuration Properties

The following are the properties of this node:

Table 454. MSMQ Sender Configuration Properties

| Property | Description |
|---------------------------|---|
| Queue Name | <p>Enter the name of the queue to which the message is to be sent using the following format:</p> <p><machineName>/private\$/<QueueName></p> <p>Sterling Selling and Fulfillment Foundation does not support Queue Lookup through the Active Directory.</p> |
| Time To Live | <p>Enter the time period after which the messages are to be deleted from the queue. A value of 0 causes the message to never be deleted from the queue.</p> <p>If this is set to a non-zero value, messages in the queue which are not consumed for the specified time interval are automatically deleted from the queue by the provider.</p> |
| Persistent/Non Persistent | Select if the messages are to be Persistent or Non-Persistent when dropped into the queue. |

Table 454. MSMQ Sender Configuration Properties (continued)

| Property | Description |
|---------------------------------|---|
| Transactional/Non Transactional | <p>Select Transactional if you want the message to be committed to the queue only after the service is completed.</p> <p>Select Non Transactional if you want the message to be committed to the queue immediately.</p> <p>For example, if the ON_SUCCESS event of any standard Sterling Selling and Fulfillment Foundation API is attached to a service, in which the message is transactionally written to the queue, the message is committed to the queue only upon successful completion of the ON_SUCCESS event. The message is then rolled back from the queue if there is any error in the ON_SUCCESS event after the message is staged. However, in non-transactional mode, the message remains in the queue, once it is staged and is not rolled back.</p> <p>Note: If you plan to use transactional mode of messaging, create the queue in MSMQ as transactional queue.</p> |
| String Message | <p>Select this field if you want to set the PROPID_M_BODY_TYPE to VT_BSTR</p> <p>De-select this field if you want to set the PROPID_M_BODY_TYPE to VT_EMPTY.</p> |

Note: The JMS session objects can be pooled based on the service being executed. Hence, whenever the JMS sender requires a session object, the Sterling Application Platform framework tries to get a free session object from the pool. If there are no free sessions available, a new session object is created to send the message and then added to the pool. Any session object that is idle for a certain configurable period of time is closed by the framework. The `yfs.jms.session.reaptime` property in the `yfs.properties` file is used to set the JMS session reaptime. To modify this property, add an entry for it in the `<INSTALL_DIR>/properties/customer_overrides.properties` file. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

MSMQ Receiver Configuration Properties

The following are the properties of this node:

Table 455. MSMQ Receiver Properties

| Property | Description |
|--------------------|--|
| Runtime Tab | |
| Runtime ID | Enter a unique identifier for each asynchronous receiver within a service definition. |
| Queue Name | <p>Enter the name of the queue to which the message is to be sent using the following format:</p> <p><code><machineName>/private\$/<QueueName></code></p> <p>Sterling Selling and Fulfillment Foundation does not support Queue Lookup through the Active Directory.</p> |
| Max Threads | The maximum number of threads for this process. |

Table 455. MSMQ Receiver Properties (continued)

| Property | Description |
|---------------------------------|--|
| Transactional/Non Transactional | Select if the messages are to be received in a Transactional or Non Transactional Mode. Note: If you plan to use transactional mode of messaging, create the queue in MSMQ as a transactional queue. |
| Server Tab | |
| Server Name | Select the name of the server which actually executes the service. For more information about creating a new server, see "Adding a New Server". |
| Exception Tabs | See Table 457 on page 533 for the receiver link exception handling properties. |

Connection Properties

The following are the MSMQ node's connection properties:

Table 456. MSMQ Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Yes, for services invoked both in a synchronous or asynchronous mode |
| Can be placed before | <ul style="list-style-type: none"> Any component node Any transport node (except for FTP or File I/O); use a Pass-through node to connect them |
| Can be placed after | <ul style="list-style-type: none"> Start node Any synchronous transport node Any other component node Any asynchronous transport node (except for FTP or File I/O); use a Pass-through node to connect them |
| Passes data unchanged | Transport nodes do not modify data |

Note: Make sure the <INSTALL_DIR>/bin directory and the directory containing the jvm.dll are in your system PATH.

Receiver Link Exception Handling

For each asynchronous receiver node, enter exception parameters. Exception handling can be configured for the following nodes:

- Database Receiver
- DCS 6.2 Database Receiver
- File I/O Receiver
- FTP Receiver
- Oracle WebLogic, MQSeries, and TIBCO JMS Receiver
- MSMQ Receiver

Configuration Properties

The following are the exception properties of the asynchronous receiver nodes:

Table 457. Receiver Link Exception Handling Properties

| Property | Description |
|---------------------------------|--|
| Alert Type | Enter the type of Alert being raised when an exception occurs. For example, you can enter the text OrderCreate. This displays in the Alert console and can be used to filter particular type of alerts. |
| Alert Queue Name | Select the name of the alert queue to which the exceptions are sent. |
| Suspend API | Select this field if a suspendable exception is returned by an extended API, the message is retained in the queue and the execution restarts after the Suspend Wait Time interval. For details regarding the exception to be thrown, see the YIFRestartableAPI interface in the <i>Sterling Selling and Fulfillment Foundation: Javadocs</i> . |
| Suspend Wait Time | Enter the time to wait before attempting to reprocess the message. |
| Is Reprocessible | Select this field if the message received from an asynchronous source (like a message queue or database) and the error XML must be saved in the exception console when an exception occurs. Messages marked as Reprocessible can be corrected in the Exception Console and submitted for reprocessing. For more information about the Exception Console, see the <i>Sterling Selling and Fulfillment Foundation: User Guide</i> Note: There will only be one reprocess-timer thread per integration server. The reprocess-timer thread will run with a sleep delay of ONE minute and will process 50 reprocessible records at a time. |
| Check for Prior Exception | Select this field to check for prior exceptions before the execution of the service. Choosing this option implies that prior to executing the service, a check is made to see if any related errors exist for the message. This check must be implemented externally through the YIFErrorSequenceUE user exit. Note: This option is applicable only when all the related services are associated to the same server. |
| Exception Group | Enter a group of related services where exceptions are linked. For example, two services for receiving modifications on an order from external systems. Note: This option is applicable only when all the related services are associated to the same server. |
| Prior Errors User Exit | Enter the class name that implements YIFErrorSequenceUE user exit for checking prior related errors for the message. |
| Exception References Tab | |
| Exception Reference Name | Enter the name of the exception reference. Saved in the ERROR_REFERENCE column of the YFS_REPROCESS_ERROR table to indicate as Name=Value. For example, NAME1. |

Table 457. Receiver Link Exception Handling Properties (continued)

| Property | Description |
|---------------------------|---|
| Exception Reference Value | <p>Enter the associated Exception Reference value. These name value/pairs are stored in the ERROR_REFERENCE field in the YFS_REPROCES_ERROR table for querying purposes.</p> <p>Can be set to be static. For example, entering '1234' results in the ERROR_REFERENCE field to be populated with NAME1=1234.</p> <p>Can also be set for dynamically extraction from the message using the following syntax <code>xml://<full path of the element from root>/@<attribute name></code>.</p> <p>For example, to get the sales order number from the createOrder input XML, use <code>xml://Order/@OrderNo</code>. This results in the ERROR_REFERENCE field to be populated with NAME1=<value of attribute OrderNo in the XML>.</p> |

Component Nodes

Component nodes determine how data should be transformed from one format to another. Define their configuration properties by clicking the node and editing the properties.

Alert

This component allows Alerts to be registered in the Alert console. This is same as invoking alerts from an Action in releases prior to 5.0. You can also consolidate the alerts by grouping the attributes in the YFS_INBOX table.

Configuration Properties

The following are the properties of this node:

Table 458. Alert Configuration Properties

| Property | Description |
|--------------------|---|
| General Tab | |
| Alert Queue Name | Select the name of the queue alerts should be sent to. |
| User ID | Select the user ID to which the alert is assigned. |
| Alert Type | Enter the type of the alert. The type that is assigned here displays as the Alert Type in the Alert Console and can be used to filter alerts. The type entered is user defined. |
| Priority | Enter the priority of the exception raised. |
| Description | Enter a brief description of the alert raised. |

Table 458. Alert Configuration Properties (continued)

| Property | Description |
|-----------------------------|---|
| Template Name | <p>Enter the XSL Template Name.</p> <p>The output of the XSL and the incoming XML document merge displays in the description field on the Alert Console. For example, to display OrderNo, the sample XSL is <INSTALL_DIR>/repository/xapi/template/merged/exception_console/sample_exception_console.xsl</p> <p>When the type of incoming XML is TYPE_JAVA_MAP, to display the OrderNo, the sample XSL is <INSTALL_DIR>/repository/xapi/template/merged/exception_console/sample_keymap_exception_console.xsl.</p> <p>This XSL is called by the raiseEvent API. For more information about the incoming XML data types, see the <i>Sterling Selling and Fulfillment Foundation: Javadocs</i>.</p> |
| List Template | Enter the XSL list template. The output of the XSL and the incoming XML document merge displays on the Alert List and Home Page. |
| Resolve By (Hrs) | Enter the number of hours the alert should be resolved by. The hours can be specified in decimals also, for example 5.5 or 20. |
| Expiration Days | Specify the number of expiration days for the alert after which this exception may be automatically closed. A value of zero means the exception does not expire. |
| System Arguments Tab | |
| Argument Name | Predefined elements available to a particular process repository. The following attributes are optional and can be specified as static or dynamic values. xml:/<ElementName>/@<AttributeName> |
| Argument Value | Static or dynamic values that are specified in the following format: xml:/<ElementName>/@<AttributeName> |
| User Arguments Tab | |
| Reference Name | Enter additional name/value data that can be used to add information to the alert. |
| Reference Value | Enter the reference value. This is a static or dynamic values that are specified in the following format: xml:/<ElementName>/@<AttributeName> |
| Reference Type | Enter the reference type. Valid values are: TEXT, URL |
| Consolidation Tab | |
| Consolidation Required | <p>Check this box if you wish to consolidate the alerts. A consolidation count is kept to increment similar alerts that follow the same template attributes.</p> <p>If it is not selected, then the count always remains 1.</p> |

Table 458. Alert Configuration Properties (continued)

| Property | Description |
|------------------------|---|
| Consolidation Template | <p>Select either Default or Custom for consolidating the alerts. The default chosen option is Default.</p> <p>If Custom is chosen, then the attributes for the consolidation template appear below. These attributes are from the YFS_INBOX table and the corresponding XML file can be found in <INSTALL_DIR>/repository/xapi/template/merged/resource/exceptionConsolidation.xml. You can select any of the attributes by right clicking the attribute and including it for consolidation.</p> <p>If you have extended the columns in YFS_INBOX table, then those attributes appear under the Extn element.</p> |
| Consolidate Dates By | <p>Specify whether the consolidation is done daily or hourly. By default the option is set to Day.</p> <p>Choosing this option is useful only if you include any time attributes such as Date in the consolidation template.</p> |
| Routing Tab | |
| Routing Required | <p>Check this box, if you want to route the alert based on the routing rules. For more information about defining routing rules, see Section 16.3.3 "Creating an Exception Routing Rule".</p> |
| Routing Organization | <p>Enter the XML path of the organization that owns the alert routing rules.</p> <p>By default, this field is disabled.</p> |
| Attribute Name | <p>Displays the predefined routing attributes applicable for an alert. You can specify the following predefined routing attributes:</p> <ul style="list-style-type: none"> • BUYER • SELLER • ENTERPRISE • NODE • DEPARTMENT CODE <p>Note: You can also enter your own custom routing attributes.</p> |
| Attribute XPath | <p>Enter the XML path of the routing attribute.</p> |

Connection Properties

The following are the alert node's connection properties:

Table 459. Alert Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none"> • Any transport node except for FTP or File I/O • Any other component node |

Table 459. Alert Connection Properties (continued)

| Connection | Node Connection Rules |
|-----------------------|---|
| Can be placed after | <ul style="list-style-type: none"> • Start node • Any transport node except for FTP or File I/O • Any other component node |
| Passes data unchanged | Yes |

Application Programming Interface (API)

The API component is used to invoke the Sterling Selling and Fulfillment Foundation System APIs or any user-written Java class.

To configure extended database APIs for custom and hang-off entities, refer to the *Sterling Selling and Fulfillment Foundation: Extending the Database*.

Configuration Properties

The following are the properties of this node:

Table 460. API Configuration Properties

| Property | Description |
|--|--|
| General Tab | |
| Standard Sterling Selling and Fulfillment Foundation API | Select this option if a standard Sterling Selling and Fulfillment Foundation API is to be invoked. If selected, a Standard Sterling Selling and Fulfillment Foundation API Name drop down list displays. For each API, the Class Name and Method Name are provided and cannot be edited. |
| Extended API | Select this option if a custom java code is to be invoked. |
| Extended Database API | Select this option if the service invokes a custom or hang-off API. If selected, a custom API Name drop-down list displays. For each API, the Class Name and Method Name are provided and cannot be edited. Note: If you want to lock a record in a custom table, pass the <code>SelectMethod</code> attribute as part of the input XML to the custom entity API. The <code>SelectMethod</code> attribute can take the following values: WAIT, NO_WAIT, and NONE. For more information about locking records in Extended APIs, refer to the <i>Sterling Selling and Fulfillment Foundation: Customizing APIs</i> |
| API Name | Select or enter the API to be called. Note: This field is for integration purposes only. |
| Class Name | Specifies the class to be called. |
| Method Name | Specifies the method to be called. |
| Requires Backward Compatibility | Select this field to indicate that input data coming through the API is from a previous version (only applicable to Sterling Selling and Fulfillment Foundation system APIs). |

Table 460. API Configuration Properties (continued)

| Property | Description |
|----------------------|---|
| Version | If you chose Requires Backward Compatibility, select the Sterling Selling and Fulfillment Foundation version the API is to behave as. Only the applicable versions for the individual API display. |
| Arguments Tab | |
| Argument Name | You can pass name/value pairs to the API by entering the values in the Arguments Tab. In order for custom APIs to access custom values, the API should implement the interface <code>com.yantra.interop.japi.YIFCustomApi</code> . If entered, these name/value pairs are passed to the CustomApi as a Properties object. |
| Argument Value | Enter the argument value. |
| Template Tab | |
| | When the Sterling Selling and Fulfillment Foundation System APIs are invoked, you can specify an output template to be used by the API. You can specify the template in the configuration properties of the Service Definition, the Resource Definition in the Resource Hierarchy tree, or both. However, if the template has been specified at both definition levels, the template specified in the Service Definition is used. |
| XML Template | Select this radio button to construct the XML to be used for the API output. Enter the template root element name and click OK. You can then construct the XML. |
| File Name | Select this radio button to enter the filename of the XML file to be used as the API output template. This file should also exist in your CLASSPATH. |
| Facts Tab | |
| | A Fact is an attribute that is used by an API or an agent in Sterling Selling and Fulfillment Foundation Based on the fact name and fact value entered, the corresponding colony is determined. |
| Fact Name | Enter the fact name of the XML attribute. |
| Fact Value | Enter the fact value of the XML attribute. |

Connection Properties

The following are the API node's connection properties:

Table 461. API Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none"> • Any transport node except FTP or File I/O • Any other component node |

Table 461. API Connection Properties (continued)

| Connection | Node Connection Rules |
|-----------------------|---|
| Can be placed after | <ul style="list-style-type: none"> • Start node • Any transport node except FTP or File I/O • Any other component node |
| Passes data unchanged | Yes |

Composite Service

The Composite Service node allows users to specify multiple services that must be executed as part of a single service. However, services that can be invoked synchronously can only be a part of the Composite Service node.

If the Composite Service node contain multiple services, it passes the same input to all the services. As it is not possible to determine the service that returned the output, the Composite Service node returns input as output.

The function of the Composite service node is to pass the same input to multiple services, and not return any output.

Note: If a transaction fails after executing a service in a composite component which drops the message into Oracle WebLogic JMS, MQ JMS, DB or FILE I/O. The message in the asynchronous medium cannot be rolled back.

Note: Never configure a composite service to call its parent service if not it leads to an infinite loop.

Table 462. Composite Service Configuration Properties

| Property | Description |
|--------------|--|
| Service Name | Select services to be invoked by this service. |

After you add a service, you can view and edit its properties. On the list of services, double-click the name of the Composite service you want to view or edit. It opens in a new window.

Connection Properties

The following are the Composite Service node's connection properties:

Table 463. Composite Service Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none"> • Any transport node except for FTP or File I/O • Any other component node |
| Can be placed after | <ul style="list-style-type: none"> • Start node • Any transport node except for FTP or File I/O • Any other component node |
| Passes data unchanged | Yes |

Condition

This node is invoked synchronously. Conditions allow you to build branching logic within the service.

Note: Do not place a Condition node very close to other objects (nodes or connectors), otherwise the outbound connector points may not become active.

Configuration Properties

The following are the properties of this node:

Table 464. Condition Configuration Properties

| Property | Description |
|----------------|---|
| Condition Name | Select a condition from a list of pre-configured condition names or you can create a new Condition. |

Connection Properties

The Condition node requires two outgoing connections, one for true circumstances and one to false. When you create the outgoing links, *first* link to the node that processes the true condition and *then* link to the node that processes the false condition.

The following are the Condition node's connection properties:

Table 465. Condition Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none">• Any transport node except for FTP or File I/O• Any other component node |
| Can be placed after | <ul style="list-style-type: none">• Start node• Any transport node except for FTP or File I/O• Any other component node |
| Passes data unchanged | Yes |

E-Mail

The E-Mail component type wraps the SMTP protocol. It can be invoked synchronously or asynchronously. The configuration allows you to specify either the addresses (From, To, and so forth) from the XML should be dynamically retrieved or sent to a static address.

Note: If the e-mail being sent contains HTML content, the XSL that is transforming the input XML to the HTML format should have a comment such as the following example:

```
<xsl:comment>CONTENT_TYPE=text/
html</xsl:comment>, so the transformed HTML has a comment:
<!--CONTENT_TYPE=text/html-->
```

The framework uses this information to set the content_type to text/html, if this comment is not present the content_type is set to text/plain.

Configuration Properties

The following are the properties of this node:

Table 466. E-Mail Configuration Properties

| Property | Description |
|-----------------------------|---|
| E-mail Server | Enter the name or IP address of the mail server. |
| E-mail Server Listener Port | Enter the port number of the mail server. |
| Subject | Enter what you want to appear in the subject line of the e-mail. If you specify XML in the format of <code>xml://<ElementName>/@<AttributeName></code> , it is replaced dynamically with the value from the input XML data. For example, the text "Thank you for your online Order <code>xml://Order/@OrderNo</code> " is a combination of static and dynamic text that results as "Thank you for your online Order MyOrder005". |
| Body Template | XSL file that contains formatting to apply to the body of the message. Sterling Selling and Fulfillment Foundation supplies the <code><INSTALL_DIR>/repository/xapi/template/merged/email/orders_mail.xsl</code> file. |
| From | Can be static or dynamic with the XML path specified as <code>xml://<ElementName>/@<AttributeName></code> . Use semi-colons as a delimiter between addresses. |
| To | Required. Can be static or dynamic with the XML path specified as <code>xml://<ElementName>/@<AttributeName></code> . Use semi-colons as a delimiter between addresses. |
| CC | Can be static or dynamic with the XML path specified as <code>xml://<ElementName>/@<AttributeName></code> . Use semi-colons as a delimiter between addresses. |
| BCC | Can be static or dynamic with the XML path specified as <code>xml://<ElementName>/@<AttributeName></code> . Use semi-colons as a delimiter between addresses. |

Connection Properties

These are the connection properties of this node:

Table 467. E-Mail Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none"> Any transport node except for FTP or File I/O Any other component node |

Table 467. E-Mail Connection Properties (continued)

| Connection | Node Connection Rules |
|-----------------------|---|
| Can be placed after | <ul style="list-style-type: none"> • Start node • Any transport node except for FTP or File I/O • Any other component node |
| Passes data unchanged | Yes |

Note: The SMTP connection objects can be pooled based on the service being executed. Hence whenever the SMTP sender require a connection object the Sterling Application Platform framework tries to get a free connection object from the pool. If the connection objects in the pool are occupied or if the pool is empty, then a new connection object is created to send the message and then added to the pool. Any connection object idle for a certain configurable period of time and can be closed by the framework. For information about setting the properties for connection reaptime, check the `yfs.properties` file in `<INSTALL_DIR>/properties` directory.

The `yfs.smtp.session.reaptime` property in the `yfs.properties` file is used to set the JMS session reaptime. To modify this property, add an entry for it in the `<INSTALL_DIR>/properties/customer_overrides.properties` file. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

Nomenclature Runtime Component

The Nomenclature Runtime component provides a mapping tool that allows you to configure unique terms you use to match unique terms your trading partners use.

Configuration Properties

The following are the properties of this node:

Table 468. Nomenclature Runtime Properties

| Property | Description |
|-----------------------|---|
| Nomenclature XML Name | Defines the source to destination mapping for documents needing transformation. |

Nomenclature Runtime

For configuring the runtime properties:

Table 469. Nomenclature Runtime Configuration Properties

| Property | Description |
|----------|---|
| XML Name | Select XML name created through nomenclature configuration. For more information about nomenclature configuration, see Section 10.4, "Defining Nomenclature Configuration". |

Connection Properties

The following are the Nomenclature Runtime connection properties of this node:

Table 470. Nomenclature Runtime Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none">• Any transport node except for FTP or File I/O• Any other component node |
| Can be placed after | <ul style="list-style-type: none">• Start node• Any transport node except for FTP or File I/O• Any other component node |
| Passes data unchanged | No |

Router

Allows business documents to be routed based on participant preferences. Participants can be configured with different services to enable business documents to be delivered to them. In the scenario modeling, data published to trading partners is marked through a Router.

Router extracts the organization code from the data published during run time and extracts relevant organization preferences for document delivery and executes the service specified for the Participant.

Configuration Properties

The following are the properties of this node:

Table 471. Router Configuration Properties

| Property | Description |
|-----------------------------------|--|
| Document Name | Select the document being routed to the Participant. For example, Purchase Order. |
| Route XML Data To Following Roles | |
| Trading Partner Role | Select the participant's role. For example, BUYER or SELLER |
| XML Attribute | Enter the XML path where the participant's organization code is located. For example, xml://Order/@OrganizationCode. Participant preferences are appended to the document before executing the specified service. |

Connection Properties

The following are the Router node's connection properties:

Table 472. Router Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none">• Any transport node except FTP or File I/O• Any other component node |
| Can be placed after | <ul style="list-style-type: none">• Start node• Any transport node except FTP or File I/O• Any other component node |
| Passes data unchanged | Yes |

Text Translator

The Text Translator converts flat files to and from XML format, enabling flat-file applications to integrate with Sterling Selling and Fulfillment Foundation. For detailed information about Text Translator file configuration, see "Time-Triggered Transaction Reference".

Configuration Properties

The following are the properties of this node:

Table 473. Text Translator Configuration Properties

| Property | Description |
|--------------------|---|
| Input Data Format | Select the format in which data is input. Options are: <ul style="list-style-type: none">• Text - Flat text files• XML - Structured text files |
| Output Data Format | Enter the format of the output data, automatically determined by the choices for Input Data Format combined with Input Text Format or Output Text Format. |
| Input Text Format | If you selected Input Data Format to be Text select: <ul style="list-style-type: none">• Text Positional - For a Flat text file with fields that have a fixed maximum length and records that have a common end-of-record terminator• Text Delimited - For a Flat text file that contains one or more records separated by a specified delimiter, or separator |
| Schema Name | Enter the relative path to the schema description file of the translation from XML input to a flat file. The location is relative to the CLASSPATH of the integration adapter. For example, if the flat file schema XML file is located in <INSTALL_DIR>/bin/test.xml, and <INSTALL_DIR> is in the CLASSPATH, then the value of the attribute is /bin/test.xml. |

Connection Properties

A Text Translator has to be either preceded by a File or DCS 6.2 Database node or succeeded by a File or DCS 6.2 Database node, using the following conditions:

- When the File or DCS 6.2 Database node is *followed* by a Text Translator component:
 - Output format is always XML
 - Input format must be text
- When the Text Translator component is *followed* by a File or DCS 6.2 Database node:
 - Output format must be text (either positional or delimited)
 - Input format must be XML

The Text Translator component cannot be directly before or after a pass-through node.

The following are the Text Translator node's connection properties:

Table 474. Text Translator Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none">• Any synchronous transport node• Any other component node except for a pass-through node |
| Can be placed after | <ul style="list-style-type: none">• Start node• Any synchronous transport node• Any other component node except for a pass-through node |
| Passes data unchanged | Yes |

XSL Translator

The Extensible Stylesheet Language (XSL) is used to transform XML documents into display formats such as HTML.

In Sterling Selling and Fulfillment Foundation, a classpath can be used to find the XSL files included by the `xsl:include` directive. You can define the class to provide a custom `URIResolver` during XSL processing using the `yfs.xsl.uriresolver` property. By default, the value of this property is set to `com.yantra.interop.util.YantraDefaultURIResolver`.

If you want to specify a different class name, modify the `yfs.xsl.uriresolver` property in the `<INSTALL_DIR>/properties/customer_overrides.properties` file. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

Note: If the `yfs.xsl.uriresolver` property is set to another class name, this new class will be used in place of the default `YantraDefaultURIResolver` class. The new class must implement the `javax.xml.transform.URIResolver` interface.

Configuration Properties

The following are the properties of this node:

Table 475. XSL Translator Configuration Properties

| Property | Description |
|----------|--|
| XSL Name | Enter the XSL template name. The location is relative to the CLASSPATH of the integration adapter. |

Connection Properties

The following are the XSL Translator node's connection properties:

Table 476. XSL Translator Connection Properties

| Connection | Node Connection Rules |
|--|---|
| Can be the first node after the start node | Only for services invoked synchronously |
| Can be placed before | <ul style="list-style-type: none">• Any transport node except for FTP or File I/O• Any other component node |
| Can be placed after | <ul style="list-style-type: none">• Start node• Any transport node except for FTP or File I/O• Any other component node |
| Passes data unchanged | Yes. The XSL translator can manipulate data streams to fit specific business integration needs. |

Defaulting Component

This component applies defaulting based on configured properties and invokes a class to apply additional overrides. It can also be used to localize data in the XML.

The input to this component is an XML and the output is the same XML with the defaults applied. The properties of this component define the XML attributes to which the defaults are applied. The attributes themselves are defined through the notation used in other service components.

For example, in the `createOrder()` API assume the unit of measure on the `<Item>` element in the `<OrderLine>` node needs to be defaulted. The component property is defined as:

```
Attribute=/Order/OrderLines/OrderLine/Item/@UnitOfMeasure  
Default Value = "EACH"  
Override = Y
```

If the input XML is:

```
<Order>  
  <OrderLines>  
    <OrderLine>  
      <Item ItemID="" />  
    </OrderLine>  
  </OrderLines>  
</Order>
```

A UnitOfMeasure attribute is added with a value of EACH to the Item element. The override property indicates if the attribute in the input XML needs to be overridden irrespective of the existence of the attribute.

The configuration properties for the defaulting component defined in the following table are optional.

Table 477. Defaulting Component Configuration Properties

| Property | Description |
|---------------------------------|--|
| General Tab | |
| Defaulting Template | <p>Enter the path for the defaulting template. This template consists of a set of attributes and their default values. For example:</p> <pre><Overrides> <Override AttributeName="/Order/OrderLines/OrderLine/Item/@UnitOfMeasure" AttributeValue="EACH" Override="Y" /> </Overrides></pre> <p>Note that the attribute path is an XPath variable.</p> |
| Custom Class | <p>Enter the custom class that provides the defaulting attributes. This class gets the original input to the component, modified XML by the defaulting template and apply any additional overrides and return the modified output XML. This class implements the YIFXMLAttrOverride interface. For more information about this interface, see the <i>Sterling Selling and Fulfillment Foundation: Javadocs</i>.</p> <p>This class can also verify the existence of order and apply or override the defaults applied previously. This class is primarily used to default based on lookup of data from the database or to reverse the defaulting, in the case of a modification.</p> |
| LocaleCode Path | <p>Enter the locale code path within the input document as an XPath expression.</p> <p>You can specify the Localize Attribute in the custom overrides rather than specifying a static attribute value. For example the XML file can contain the type as:</p> <pre><Overrides> <Override AttributeName="//Organization/@OrganizationCode" Type="LOCALIZE" /> </Overrides></pre> |
| Custom Overrides Tab | |
| Element Path | Specifies the path of the element for the custom overrides. This is an Xpath expression. |
| Attribute | Specifies the name of the attribute. |
| Value | Specifies the value of the attribute. |
| Adding a Custom Override | |
| Element Path | Enter the Xpath of the element for the custom overrides. |
| Attribute Name | Enter the name of the XML attribute that you wish to override. |

Table 477. Defaulting Component Configuration Properties (continued)

| Property | Description |
|--------------------------------|---|
| Localize Attribute | Select this option if the attribute value is localized. The path for localization is specified in the LocaleCode. |
| Use Static Attribute Value | Select this option if you want to use a static attribute value. Once this option is selected you can enter the value and check the override for an existing value. |
| Attribute Value | Enter the value for the attribute. |
| Always override Existing value | Check this box if you want to always override the existing value with the new value entered above. |

Data Security

The data security component enables users to configure an attribute of the XML that is coming in or flowing through the service to be validated against the list of enterprises. This enables you to secure data based on the user groups discussed in Section 4.3 Defining User Groups".

For enterprise validation, the list of enterprises that the user can access is determined and validated for the attribute value provided. Once the user is determined, the data security ID for that user is picked from the YFS_USER table and the list of enterprises the user can access is determined and the value of the attribute is validated.

For custom validation, you can implement a YIFSecurityValidator interface to set and validate the user ID. The class that implements this interface is created, the user is set in that component, and the input XML is parsed to obtain a list of attribute values, which are then passed to a validating method.

For more information about the YIFSecurityValidator, see the *Sterling Selling and Fulfillment Foundation: Javadocs*.

If the security component access validation succeeds, the input XML is passed to the next component. If the validation fails an error is thrown back to the caller indicating that the security access failed.

This data security component can be used in a service where an XML is flowing through. If the component is configured after a component that does not output an XML, a runtime error is thrown.

Table 478. Data Security Panel Configuration Properties

| Property | Description |
|------------------------|---|
| General Tab | |
| Enterprise Validation | Select this option if you want the user group to be validated against a list of enterprises. If this option is selected, the Attributes to Validate must be entered. |
| Attributes to Validate | Required, only if enterprise validation is selected. Enter the XPath to an attribute that needs to be validated. |

Table 478. Data Security Panel Configuration Properties (continued)

| Property | Description |
|----------------------|--|
| Custom Validation | Select this option if you choose to do a custom validation. The class name should be provided if this option is selected. |
| Class Name | Required, only if custom validation is selected. Enter the name of the custom class that you wish to implement for the custom validation. |
| User Identification | Select one of the following options to set the user information for the custom or enterprise validation. User ID: Select the user ID from the drop-down list. YFSEnvironment: Select this option to use the user ID from YFSEnvironment. |
| Arguments Tab | |
| Argument Name | The name of the parameter to be passed to the validator method. |
| Argument Value | The value of the parameter to be passed to the validator method. |

Jasper Printer Component

This component is used to automatically print a document based on an event. Additionally, you can also generate the PDF or an RTF object of a document. It is a standard XML-based component: accepts XML as input and provides an identical output XML.

For example, printing a pick list in a store for store pick-up is an example where the store does not maintain the inventory. In this case, the website where the order is placed or a call center captures orders for store pick-up. These orders are sent down to the store for processing. A store inventory control associate periodically checks to see if there are any orders to be picked. If there are, the associate can print a paper pick list to pull the products required off the retail floor. In some cases, the print can be triggered automatically when an order is received at the store.

A document can be printed conveniently by a single click from the console. This is supported by using flow execution and the printer component.

Jasper Print component can be used to generate a PDF report and stream it down via HTTP response. This can be done by configuring a service with a Jasper Print component and selecting the "Jasper Print Object" option. This service is now invoked by making a HTTP call to the "InteropJasperServlet" servlet and passing the input XML "locale" to the service and the name of the service that you created for generating PDF objects. These services are created in the Service Definition Framework (SDF). For more information about SDF and how to create service, see Chapter 3.

You can also audit the success and failure of the printing events using the print transaction defined under the general process type. This transaction is configurable

and has two events: Print.ON_SUCCESS and Print.ON_FAILURE. The ON_FAILURE event is raised only for service suspend exceptions such as print failures.

The following table provides the Jasper printing configuration properties:

Table 479. Jasper Printing Configuration Properties

| Field | Description |
|---|---|
| General Tab | |
| Jasper Report | This is a compiled Jasper file. The file name supports variables in both a standard and enhanced variable format as explained in the <i>Sterling Selling and Fulfillment Foundation: Customization Basics</i> . |
| Report Select Exp | Specify the element to be sent as the root of the report. By default, the entire XML is used. An error is thrown, if this field is given but does not resolve to an element. |
| Locale | Specify the locale for translating the literals in the report. The data in the XML can be localized using the defaulting component discussed in "Defaulting Component" on page 546. |
| Use Sterling Selling and Fulfillment Foundation Resource Bundle | If checked, all literals in the report are translated to the requested locale using the Sterling Selling and Fulfillment Foundation Resource Bundle. |
| Output Tab | |
| Printer | Select this option to specify a printer to use. |
| Printer Name | Enter the XML path pointing to the printer to use. |
| Number of Copies | Enter the number of copies you wish to print. |
| Variables Tab | |
| Variable Name | The name of the parameter to be passed to the validator method. |
| Variable Value | The value of the parameter to be passed to the validator method. |

To allow custom print formats, the configuration of the print component supports changing report file names based on an input XML. For example, if the input XML contains the file name:

```
${jasperfolder}/compiled/${orgcode}/report.${doctype}.jasper
```

First, all variables are resolved against the variables defined in the Variables tab:

```
orgcode g xml:/Order/@OrganizationCode
```

```
doctype g xml:/Order/@DocumentType
```

The remaining variables are resolved against the `yfs.properties` file. In this case, the `${jasperfolder}` variable is resolved from the `yfs.properties` definition: `jasperFolder=/someCustomJasperFolder`. To modify this property, add an entry for it in the `<INSTALL_DIR>/properties/customer_overrides.properties` file. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Properties Guide*.

So, with the input of `<Order OrganizationCode="DEFAULT" DocumentType="0001" />` the expression resolves to: `/someCustomJasperFolder/compiled/DEFAULT/report.0001.jasper`.

An exception is thrown if an error occurs when processing the report. For example, an exception is thrown if the file name is invalid. A service suspend exception is thrown while printing the report enabling the ability to pause an asynchronous service.

Adapter Nodes

The Service Definition Framework provides hooks to connect to external systems like IBM Sterling B2B Integrator through custom adapters. Sterling Selling and Fulfillment Foundation currently provides the standard adapter Sterling GISIBM Sterling B2B Integrator.

Sterling GISIBM Sterling B2B Integrator

This adapter is used for communicating with the IBM Sterling B2B Integrator product over the HTTP protocol. It is capable of streaming XML over HTTP connection as opposed to sending name-value pairs resulting in better performance. However, if you want to use name-value pairs you need to be on a specific GIS fix pack. For more information about the fix pack appropriate for your JDK version, see the *Sterling Selling and Fulfillment Foundation: Installation Guide*.

Configuration Properties

The following are the properties of this adapter:

Table 480. IBM Sterling B2B Integrator Configuration Properties

| Property | Description |
|---------------------|---|
| URL | Enter the URL to which the message is to be posted. |
| Stream XML Document | Select this field if you want to send and receive streaming XML documents. If selected, the "HTTP Post Variable" entry box is disabled. |
| HTTP Post Variable | Enter the variable name to which the HTTP post data is to be assigned. |
| Is Secure | If this field is selected, the message is encrypted when being posted to the URL specified. |
| Key Store Type | If Is Secure is checked, set this value to JKS (Java Key Store). |
| Key Store | If Is Secure is selected, enter the key store for storing client side digital certificates. If you are using variables instead of the full path names ensure that the variable is defined in the <code><INSTALL_DIR>/properties/customer_overrides.properties</code> file. For additional information about overriding properties using the <code>customer_overrides.properties</code> file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| Key Store Passwd | If Is Secure is selected, enter the password to access the key store. |

Table 480. IBM Sterling B2B Integrator Configuration Properties (continued)

| Property | Description |
|--------------------|---|
| Trust Store | If Is Secure is selected, enter the trust store for storing server side digital certificates. If you are using variables instead of the full path names ensure that the variable is defined in the <INSTALL_DIR>/properties/customer_overrides.properties file. For additional information about overriding properties using the customer_overrides.properties file, see the <i>Sterling Selling and Fulfillment Foundation: Properties Guide</i> . |
| Trust Store Passwd | If Is Secure is selected, enter the password to access the trust store. |

If you want to use name-value pairs enter the HTTP post variable name. If you need to specify any additional name-value pairs enter the name and value in the Post Variables tab. In this tab, select the **Create New** icon and follow the information given in the following table:

Table 481. IBM Sterling B2B Integrator Post Variable Properties

| Fields | |
|---------------------|--|
| Post Variable Name | Enter the name of the post variable. |
| Post Variable Value | Enter the value of the post variable name. |

Chapter 25. Text Translator Reference

Occasionally, service nodes require files to be configured, in addition to the graphical user interface.

Understanding File Formats

A flat file usually contains a series of records (or lines), where each record is usually a sequence of fields.

A flat file format can be any of the following types:

- Positional
- Delimited
- XML

Text Translator Components

XSD Files

The Text Translator uses XSD files, a type of XML file, to convert flat files to and from XML format. Sterling Selling and Fulfillment Foundation supplies four XSDs—two XSDs for data coming in from positional and delimited files and two XSDs for data from Sterling Selling and Fulfillment Foundation to convert to positional and delimited flat files.

These files follow the standards defined by the World Wide Web Consortium (W3C); for information about this standard, see <http://www.w3.org/XML/Schema>.

All four XSD files are designed specifically to correspond with the Sterling Selling and Fulfillment Foundation APIs, and so they cannot be modified. However, you do need to refer to the XSDs when defining and implementing schema files.

Each of the following XSD files is described within this chapter:

- Text Translator Positional Receiver XSD File
- Text Translator Delimited Receiver XSD File
- Text Translator Positional Sender XSD File
- Text Translator Delimited Sender XSD File

These files are archived in the `ycpbe.jar` file in order to be used by Sterling Selling and Fulfillment Foundation.

Schema Files

The Text Translator uses schema files, a type of XML file, that describe the structure of each flat file. The format of the schema determines how the data is translated by a service and should unambiguously determine the parsing of the flat file data.

File schemas are required on a per API per file format basis (for example, you may need to create a positional createOrder schema or a delimited createOrder schema), so you need to write least one unique schema per API you intend to execute.

The translation step can be independent of the source of the input data. The same data could arrive through a flat file store or through a JMS queue, and the translation specification applies in either case.

The schema file for byte count check is 0-based for the file header and 1-based for the file trailer. Therefore, you must take this into account when creating the file schema. When specifying the FileTrailerLength in the positional schema file, you must account for a new line if the file trailer ends with a new line. On UNIX, a new line has one byte, and on Windows a new line has two bytes. The length of the new line character has to be added to the FileTrailerLength.

The schema file is stored in any location accessible as a CLASSPATH variable. For sample schema files that correspond to the provided sample input files, see the files in the <INSTALL_DIR>/xapidocs/code_examples/flatfile/ directory.

Note: IBM recommends that you periodically check for files within the /error/ and /complete/ directories that contain errors or are unprocessed.

Defining a Schema File

The schema file describes the structure of your incoming data file. The format of the schema determines how the data is translated by the service and should unambiguously determine the parsing of the flat file data.

File schemas are required on a per API per file format basis (for example, you may need to create a positional createOrder schema or a delimited createOrder schema), so you need to write least one unique schema per API you intend to execute. A schema file is written using XML.

The schema file is stored in any location accessible as a CLASSPATH variable. For sample schema files that correspond to the provided sample input files, see the files in the <INSTALL_DIR>/xapidocs/code_examples/flatfile/ directory.

XML to XML translation does not require a schema or XSD file.

Verifying the Text Translator Setup

Before deploying a service, you should create a few test files and run them through the entire process to ensure that all data is being captured and used correctly.

If any errors are encountered while processing a flat file, these errors are logged in two files as specified in the Flat File Receiver configuration file.

- Error file - logs a list of each incident where an error occurs
- Error data file - contains the actual records that are in error

For example, if you have specified that both error files use the default suffix (.err) and you want to process data from an incoming file named text.in, the Text Translator creates error log files when it encounters an error, and thereafter, any additional errors are appended to the end of each of the following files:

- text.in.err - lists the error incidents

- text.in.err.dat - contains the records that are in error

Error Messages

In order to cover a wide variety of situations, error messages typically have more than one parameter. Each parameter points to either field names or field positions. The following table lists all possible error conditions. At run-time, the parameters in braces ({}) are filled in with context-specific data.

Note: You should periodically check for files within the /error and /complete directories that contain errors or remain unprocessed.

Table 482. Possible Errors in the Error File

| Error Code | Description |
|--------------------------------------|---|
| YIF_OVERLAPPING_FIELDS | Field {0} intersects Field {1} in Record {2} This error code indicates that two fields in the same record have overlapping positions |
| YIF_INVALID_FIELD_BOUNDS | Field {0} has invalid bounds: startPos={1} endPos={2} This error code indicates that the startPosition of a field is greater than the end position of the field |
| YIF_INVALID_RECORD_TYPE_POS | The position of the record type field is invalid. |
| YIF_EMPTY_RECORD_TYPE | Record {0} does not have a record type identifier. When the data contains a record whose record type has not been declared in the schema. |
| YIF_EMPTY_RECORD_FOUND | No fields exist to match for a record. The data contains a record with a record type identifier but the individual fields do not exist |
| YIF_INVALID_FIELD_GAP | Record {0} should not have a gap [Field {1} endPosition={2}] and [Field {3} startPosition={4}]. In a positional format, two fields should not have a gap. It is fixed width, so unaccounted gaps cannot exist. Fixed width. Period. |
| YIF_FIELD_OVERLAPS_RECORD_TYPE | In Record {0}, the field {1}[startPos={2}, endPos={3}] overlaps record type field {4} [startPos={5}]. In a positional format, when a field datum overlaps with the boundary of a record type identifier. |
| YIF_FIELD_OVERLAPS_RECORD_TYPE_FIELD | In Record {0}, the field {1}[position={2}] overlaps record type field {3} [position={4}]. In a delimited format, when a field datum overlaps with the boundary of a record type identifier |
| YIF_SCHEMA_CONTAINS_CYCLE | Schema contains a cycle starting at element: {0} and ending before element: {1}. The schema description does not allow for cyclical containment. If it does, the above error code is reported. |
| YIF_RECORD_ID_TOO_LARGE | Record Id {0} is too large. Record Identifiers have a fixed width, this error is reported when the size is exceeded. |
| YIF_FIELD_NOT_DEFINED_IN_RECORD | Field {0} in attribute map does not exist in record {1}. When translating from XML to positional/delimited format, if the field that an XML attribute maps to does not exist. |
| YIF_TOO_MANY_ATTRIBUTE_MAPS | Number of attribute maps = {0} in elementMap {1} exceeds the number of fields = {2} in record {3}. The number of attributes in an XML element that need to be mapped to fields, cannot exceed the number of fields in the corresponding record. |

Table 482. Possible Errors in the Error File (continued)

| Error Code | Description |
|------------------------------------|---|
| YIF_INVALID_RID_BOUNDS | RecordIdStartPos: {0} must be less than the RecordIdEndPos: {1}. In a positional format, the bounds of the record identifier must be correct. |
| YIF_RECORD_ID_NOT_MATCHED | Could not match record id: {0} with any record declared in the schema |
| YIF_INCORRECT_RECORD_LENGTH | Record length is incorrect. |
| YIF_RECORD_LENGTH_TOO_SMALL | Too few fields. Min fields = {0} Found = {1} |
| YIF_TOO_FEW_FIELDS_FOR_RECORD | Found few fields for record id: {0}. Expected = {1} Found = {2} |
| YIF_TOO_MANY_FIELDS_FOR_RECORD | Too many fields for record id: {0}. Expected = {1} Found = {2} |
| YIF_RECORD_LENGTH_TOO_LARGE | Too many fields. Max fields = {0} Found = {1} |
| YIF_RECORD_TOKEN_NOT_FULLY_MATCHED | Scanned record name: {0} is not fully matched. Current Token: {1} |
| YIF_INCOMPLETE_PREVIOUS_MATCH | Record Set preceding scanned record name: {0} is not completely matched. |
| YIF_MAX_OCCURENCE_EXCEEDED | Number of matches exceeds Max matches for record: {0} |
| YIF_FILE_VIOLATES_CONTROL_INFO | File length: {0} must exceed the sum of the fileHeaderLength:{1} and the fileTrailerLength: {2} |
| YIF_FILE_HEADER_DOES_NOT_EXIST | Expected file header id: {0} is not found |
| YIF_FILE_TRAILER_DOES_NOT_EXIST | Expected file trailer id: {0} is not found |
| YIF_FILE_HEADER_DOES_NOT_MATCH | Expected file header id: <{0}> does not match found: <{1}> |
| YIF_FILE_TRAILER_DOES_NOT_MATCH | Expected file trailer id: <{0}> does not match found: <{1}> |
| YIF_UNABLE_TO_BOUND_INPUT_STREAM | Unable to set the bounds on input stream ScanLength= <{0}> ScanStartPosition=<{1}> |
| YIF_DIR_DOES_NOT_EXIST | The specified directory: {0} does not exist. |

Table 482. Possible Errors in the Error File (continued)

| Error Code | Description |
|------------------------------|---|
| YIF_DIR_IS_NOT_WRITEABLE | The specified directory: {0} does not have write permissions. |
| YIF_INVALID_INCLUDES_PATTERN | The includes pattern: {0} is not a valid regular expression. |

Text Translator XSD Files

Text Translator Positional Receiver XSD File

The positional receiver XSD file defines how the data in flat, positional files should be transformed to XML data. The following table lists the essential XSD elements and attributes.

“Newline” is the only supported record delimiter used by the Positional Receiver XSD file.

Table 483. Elements in the Positional Flat File Receiver XSD File

| Property | Description |
|--|---|
| ParserDefaults Element | |
| RecordIdStartPosition | Required. Integer. This field indicates the start position of the RecordId for each record. |
| RecordIdEndPosition | Required. Integer. This field indicates the end position of the RecordId for each record. |
| DefaultRecordDelimiter | Optional. The default record delimiter is Newline. |
| DefaultEscapeCharacter | Optional. CharacterType. The default escape character is \. |
| DefaultPadCharacter | Required. String. Minimum length=1. Maximum length=1. Fills the non-data portion of a field with any single character. Valid values include a space or zero as well as any other character. The default value is #. For example if you specify trailing ###'s in a field, they are ignored. This character is used for visual convenience when you want to space out the fields correctly and do not want to rely on the blank space. |
| SkipCarriageReturn | Optional. Boolean. Defaults to true. |
| FileHeader Element | |
| The header that is written to a file before writing anything else. This can be used as control information. Each transaction set starts with a header record. If it contain internationalized text, its length must be byte accounted. For example, a Sales Order record set has an OrderHeader record that specifies the beginning of the transaction set. This element is optional. However, if FileHeader element is provided the FileTrailer element must also be present. These two elements are used to include text at the beginning and end of each file respectively. | |

Table 483. Elements in the Positional Flat File Receiver XSD File (continued)

| Property | Description |
|--|---|
| FileHeaderName | Optional. String. The descriptive name of the FileHeader. However, this is not used for processing. |
| FileHeaderId | Required. String. This attribute provides the text to match, at the start of each file. |
| FileHeaderStartPos | Required. Integer. The starting position of the header. |
| FileHeaderLength | Required. Integer. The length of the header. |
| FileTrailer Element | |
| The trailer that is written to the end of a file. This can be used as control information to verify if a file is indeed complete. If it contain internationalized text, its length must be byte accounted. | |
| FileTrailerName | Optional. String. The descriptive name of the FileTrailer. However, this is not used for processing. |
| FileTrailerId | Required. String. This attribute provides the text to match, at the end of each file. |
| FileTrailerStartPos | Required. Integer. The starting position of the trailer. |
| FileTrailerLength | Required. Integer. The length of the trailer. |
| CharacterType Element | |
| This element specifies the character type of all the elements and attributes used in the XSD file. Required. String. Minimum length=1. Maximum length=1. | |
| Root Element | |
| The elements and attributes defined under Root elements portrays the organization of the input flat file. | |
| Name | Required. NMTOKEN. The name of the root element. This is the same root-element name of the XML you are building. |
| Description | Optional. String. The description of the root element. This attribute is not used for processing. |
| XMLName | Optional. Name of the root entity in the translated XML. |
| Header Element | |
| Required. This is the first record that is read under Root element. | |
| Name | Required. NMTOKEN. The name of the header element. This is the tag name in your XML file. |
| RecordName | Required. NMTOKEN. The name of the record. This field must match the Name attribute of the Record element. This name is the identifier for the RecordName used in the flat file. |
| MinOccurence | Optional. Integer. Minimum number of times this sequence can occur. By default, this sequence should occur at least once. A value of 0 means that the occurrence of this sequence is optional. Defaults to 1. |
| MaxOccurence | Required. Integer. The maximum number of times this sequence can occur. A value of 0 means that this sequence can occur an unlimited number of times. Defaults to 1. |
| Terminal Element | |
| Defines a record that is not a part of a sequence or a choice entity. A terminal entity is a leaf node in the hierarchy. | |

Table 483. Elements in the Positional Flat File Receiver XSD File (continued)

| Property | Description |
|--|---|
| MinOccurrence | Optional. Integer. Minimum number of times this sequence can occur. By default, this sequence should occur at least once. A value of 0 means that the occurrence of this sequence is optional. Defaults to 1. |
| MaxOccurrence | Optional. Integer. The maximum number of times this sequence can occur. A value of 0 means that this sequence can occur an unlimited number of times. Defaults to 1. |
| Name | Required. NMTOKEN. Name of the terminal node. |
| RecordName | Required. NMTOKEN. Name of the record that corresponds with this terminal node. |
| Sequence Element | |
| <p>This element is required and is of type SequenceType.</p> <p>The record corresponding to a sequence entity which indicates the beginning of a sequence. This record may have sub-record of multiple types like, Terminal, Sequence or Choice elements.</p> <p>For example, an order transaction could contain an order line, and an order line could contain a sequence of one or more line items. In this case, the order line record corresponds to a sequence entity, and this sequence entity contains another sequence entity corresponding to a line item as a child.</p> | |
| MinOccurrence | Optional. Integer. Minimum number of times this sequence can occur. By default, this sequence should occur at least once. A value of 0 means that the occurrence of this sequence is optional. Defaults to 1. |
| MaxOccurrence | Optional. Integer. The maximum number of times this sequence can occur. A value of 0 means that this sequence can occur an unlimited number of times. Defaults to 1. |
| Name | Required. NMTOKEN. The name of the sequence element. |
| RecordName | Required. NMTOKEN. The record name of the sequence element identified in the flat file. |
| Choice Element | |
| <p>This element is required and is of ChoiceType.</p> <p>The choice entity declaration defines one entity in a group of child elements that displays in the data. The choice entity does not correspond to a record. It is simply a grouping of a record's child elements, specifying that exactly one of its child elements can occur. However, each child element can correspond to a sequence element or a terminal element.</p> | |
| MinOccurrence | Optional. Integer. Minimum number of times this sequence can occur. By default, this sequence should occur at least once. A value of 0 means that the occurrence of this sequence is optional. Defaults to 1. |
| MaxOccurrence | Optional. Integer. The maximum number of times this sequence can occur. A value of 0 means that this sequence can occur an unlimited number of times. Defaults to 1. |
| Name | Required. NMTOKEN. The name of the choice element. |
| RecordDefinitions\Record Element | |
| <p>A record describes a line in the flat file. This record definition is translated into an XML element.</p> | |

Table 483. Elements in the Positional Flat File Receiver XSD File (continued)

| Property | Description |
|--|--|
| RecordId | Required. NMTOKEN. This is the RecordId in the source XML file. |
| Name | The name of the record. This is used to associate with a Header, Terminal, Sequence or Choice Name attribute. |
| Description | String. The description of the name. This is not used while processing the file. |
| XMLName | Required. NMTOKEN. The tag name of the output element. |
| Field Element | |
| Each record consists of fields, which are translated into attributes or child elements depending on the ContainmentType. | |
| Name | Required. NMTOKEN. The name of the field. This name must be unique within a record. |
| XMLName | Required. NMTOKEN. The output attribute or element name of the XML. |
| Description | Optional. String. The description on the field. |
| ContainmentType | This is either an Attribute or Element in the XML. If it is an Attribute, a new attribute is set to this field's value. If it is an Element, a new child element is created with the tag name set to XMLName and the value set to value of this field. Defaults to Attribute. |
| StartPosition | Required. Integer. The StartPosition should be one number greater than the EndPosition of the previous record or field, so that these two fields or records are contiguous. |
| EndPosition | Required. Integer. The ending position of the field. |
| fileLayoutType Element | Required. String. Values are Positional - flat file with fixed-length fields Delimited - flat file with varying-length fields XML - flat file with fields denoted by XML tags |
| recordLayoutType Element | Required. String. Values are: Positional Delimited |
| Justification | Optional. Specifies the alignment of data. Right - Aligns data to the right. Left - Aligns data to the left when the data is less than the maximum field length. This also aligns data to the left when the amount of data is less than the minimum length requirement. Default. |
| DefaultValue | Optional. NMTOKEN. |
| PadCharacter | Required. String. Minimum length=1. Maximum length=1. Fills the non-data portion of a field with any single character. Valid values include a space or zero. |
| PadCharacterType Element | |

Table 483. Elements in the Positional Flat File Receiver XSD File (continued)

| Property | Description |
|----------------------------------|--|
| | Required. String. Minimum length=1. Maximum length=1. Fills the non-data portion of a field with any single character. Valid values include a space or zero. |
| JustificationType Element | |
| | Optional. Specifies the alignment of data. Right - Aligns data to the right. Left - Aligns data to the left when the data is less than the maximum field length. This also aligns data to the left when the amount of data is less than the minimum length requirement. Default. |

Text Translator Delimited Receiver XSD File

The Text Translator delimited receiver XSD file defines how the data in delimited flat files should be transformed to XML data. The following table defines the essential elements and attributes.

The Root, FileHeader and FileTrailer element definitions remain the same as explained in “Text Translator Positional Receiver XSD File” on page 557.

Table 484. Elements in the Delimited Flat File receiver XSD File

| Property | Description |
|-------------------------------|--|
| ParserDefaults Element | |
| RecordIdStartPosition | Required. Integer. Indicates the start position of a record. |
| DefaultRecordDelimiter | Required. RecordDelimiterType. The default delimiter between records is NewLine. |
| DefaultFieldDelimiter | Optional. CharacterType. The default field delimiter between the fields is comma [,]. |
| DefaultEscapeCharacter | Optional. CharacterType. The default escape character is \. |
| DefaultPadCharacter | Required. String. Minimum length=1. Maximum length=1. Fills the non-data portion of a field with any single character. Valid values include a space or zero as well as any other character. The default value is #. For example if you specify trailing ###s in a field, they are ignored. This character is used for visual convenience when you want to space out the fields correctly and do not want to rely on the blank space. |

Table 484. Elements in the Delimited Flat File receiver XSD File (continued)

| Property | Description |
|--|---|
| DefaultWrapCharacter | <p>The Wrapping/Quote character is parameterized. One can define the default wrapping character in the Flat file-Delimited-Schema (Service component specific).</p> <p>A sample entry is given below:</p> <pre><?xml version="1.0" encoding="UTF-8"?> <FlatfileDelimitedSchema xmlns:xsi= "http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation= 'delimitedreceiver.xsd'> <ParserDefaults DefaultRecordDelimiter="Newline" DefaultFieldDelimiter=" " DefaultPadCharacter="#" RecordIdStartPosition="1" DefaultWrapCharacter="@"> ... </ParserDefaults> </FlatfileDelimitedSchema></pre> <p>In the above example, the Wrap/Quote character is set to <u>@</u>.</p> <p>Note: The default wrap character attribute is optional, and by default has a value of "". If DefaultWrapCharacter="NONE", then no wrap character is used.</p> |
| SkipCarriageReturn | Optional. Boolean. Defaults to true. |
| TranslationProperties Attributes | |
| SchemaXMLFile | <p>Required. String. the relative path to the XSD description file of the translation from XML input to a flat file. The location is relative to the CLASSPATH of the FileSendAgent.</p> <p>For example, if the flat file XSD XML file is located in the <INSTALL_DIR>/bin/test.xml file, and <INSTALL_DIR> is in the CLASSPATH, then the value of the attribute is /bin/test.xml file.</p> |
| RecordDefinitions\Record Element | |
| A record describes a line in the flat file. This record definition is translated into an XML element. | |
| Recorded | Required. NMTOKEN. This is the RecordId in the source XML file. |
| Name | The name of the record. This is used to associate with a Header, Terminal, Sequence or Choice Name attribute. |
| Description | String. The description of the name. This is not used while processing the file. |
| Smiling | Required. NMTOKEN. The tag name of the output element. |
| Field Element | |
| Each record consists of fields, which are translated into attributes or child elements depending on the ContainmentType. | |
| Name | Required. NMTOKEN. The name of the field. This name must be unique within a record. |
| Smiling | Required. NMTOKEN. The output attribute or element name of the XML. |

Table 484. Elements in the Delimited Flat File receiver XSD File (continued)

| Property | Description |
|------------------|---|
| Field Position | Required. Integer The position of this field within the record. If the Recorded is at position 1, then the numbering of fields should begin at position 2. |
| Containment Type | This is either an Attribute or Element in the XML. If it is an Attribute, a new attribute is set to this field's value. If it is an Element, a new child element is created with the tag name set to Smiling and the value set to value of this field. The default value is Attribute. |

Text Translator Positional Sender XSD File

The Text Translator positional sender XSD file defines how XML data should be transformed into a flat, positional file. The following table lists the essential XSD elements and attributes.

The FileHeader and FileTrailer element definitions remain the same as explained in "Text Translator Positional Receiver XSD File" on page 557.

Table 485. Elements in the Positional Flat File Sender XSD File

| Property | Description |
|--|---|
| Parser Defaults Element | |
| Record Id Start Position | Required. Integer. This field indicates the start position of the Recorded for each record. |
| Record Id End Position | Required. Integer. This field indicates the end position of the Recorded for each record. |
| Default Record Delimiter | Required. Record Delimiter Type. The default delimiter between records is Newline. |
| Default Escape Character | Optional. Characterizes. The default escape character is \. |
| Default Pad Character | Required. String. Minimum length=1. Maximum length=1. Fills the non-data portion of a field with any single character. Valid values include a space or zero as well as any other character. The default value is #. For example if you specify trailing ###'s in a field, they are ignored. This character is used for visual convenience when you want to space out the fields correctly and do not want to rely on the blank space. |
| SkipCarriageReturn | Optional. Boolean. Defaults to true. |
| ElementMapList Element | |
| This element maps the elements in the XML to the records in the flat file. | |
| ElementMap Element | |
| ElementName | Required. NMTOKEN. The name of the element in the XML file. |
| RecordId | Required. NMTOKEN. The record identifier to write. |
| AttributeMap Element | |

Table 485. Elements in the Positional Flat File Sender XSD File (continued)

| Property | Description |
|--|--|
| AttributeName | Required. NMOKEN. The name of the attribute. |
| FieldName | Required. NMOKEN. The field corresponding to the attribute. This field corresponds to the Name attribute of the Field element. |
| TruncateData | Optional. Boolean. Defaults to true. |
| RecordDefinitions\Record Element | |
| A record describes a line in the flat file. This record definition is translated into an XML element. | |
| RecordId | Required. NMOKEN. This is the RecordId in the source XML file. |
| Name | The name of the record. This is used to associate with a Header, Terminal, Sequence or Choice Name attribute. |
| Description | String. The description of the name. This is not used while processing the file. |
| XMLName | Required. NMOKEN. The tag name of the output element. |
| Field Element | |
| Each record consists of fields, which are translated into attributes or child elements depending on the ContainmentType. | |
| Name | Required. NMOKEN. The name of the field which is used as a reference in the AttributeMap. This name must be unique within a record. |
| XMLName | Required. NMOKEN. The output attribute or element name of the XML. |
| StartPosition | Required. Integer. The StartPosition should be one number greater than the EndPosition of the previous record or field, so that these two fields or records are contiguous. |
| EndPosition | Required. Integer. The ending position of the field. |
| PadCharacter | Required. String. Minimum length=1. Maximum length=1. Fills the non-data portion of a field with any single character. Valid values include a space or zero. |
| Justification | Optional. Specifies the alignment of data. Right - Aligns data to the right. Left - Aligns data to the left when the data is less than the maximum field length. This also aligns data to the left when the amount of data is less than the minimum length requirement. Default. |

Text Translator Delimited Sender XSD File

The Text Translator delimited Sender XSD file defines how to transform XML data to delimited files. The following table lists the essential elements and attributes.

The Root, FileHeader and FileTrailer element definitions remain the same as explained in "Text Translator Positional Receiver XSD File" on page 557.

Table 486. Elements in the Delimited Flat File Sender XSD File

| Property | Description |
|---|---|
| ParserDefaults Element | |
| RecordIdStartPosition | Required. Integer. Indicates the start position of a record. |
| DefaultRecordDelimiter | Required. RecordDelimiterType. The default delimiter between records is NewLine. |
| DefaultFieldDelimiter | Optional. CharacterType. The default field delimiter between the fields is comma [,]. |
| DefaultEscapeCharacter | Optional. CharacterType. The default escape character is \. |
| DefaultPadCharacter | Required. String. Minimum length=1. Maximum length=1. Fills the non-data portion of a field with any single character. Valid values include a space or zero as well as any other character. The default value is #. For example if you specify trailing ###'s in a field, they are ignored. This character is used for visual convenience when you want to space out the fields correctly and do not want to rely on the blank space. |
| SkipCarriageReturn | Optional. Boolean. Defaults to true. |
| SuppressEORFieldDelimiter | Optional. Boolean. Defaults to False. This attribute when passed as True does not print the delimiter at the end of the record. |
| ElementMapList Element | |
| This element maps the elements in the XML to the records in the flat file. | |
| ElementMap Element | |
| ElementName | Required. NMTOKEN. The name of the element in the XML file. |
| RecordId | Required. NMTOKEN. The record identifier to write. |
| AttributeMap Element | |
| AttributeName | Required. NMTOKEN. The name of the attribute. |
| FieldName | Required. NMTOKEN. The field corresponding to the attribute. This field corresponds to the Name attribute of the Field element. |
| TruncateData | Optional. Boolean. Defaults to true. |
| RecordDefinitions\Record Element | |
| A record describes a line in the flat file. This record definition is translated into an XML element. | |
| RecordId | Required. NMTOKEN. This is the RecordId in the source XML file. |
| Name | The name of the record. This is used to associate with a Header, Terminal, Sequence or Choice Name attribute. |
| Description | String. The description of the name. This is not used while processing the file. |
| XMLName | Required. NMTOKEN. The tag name of the output element. |
| WriteRecordId | The default value is Y. If set to N, no record ID is written to the output file. |

Table 486. Elements in the Delimited Flat File Sender XSD File (continued)

| Property | Description |
|--|--|
| Field Element | |
| Each record consists of fields, which are translated into attributes or child elements depending on the ContainmentType. | |
| Name | Required. NMTOKEN. The name of the field which is used as a reference in the AttributeMap. This name must be unique within a record. |
| XMLName | Required. NMTOKEN. The output attribute or element name of the XML. |
| FieldPosition | Required. Integer The position of this field within the record. If the RecordId is at position 1, then the numbering of fields should begin at position 2. |

Running the Text Translator

The Text Translator uses scripts located in the <INSTALL_DIR>/bin/ directory.

If you want to ensure that the file schemas and XSDs are parsed correctly and understood, you can add the following line to the startup script:

```
"-Djavax.xml.parsers.SAXParserFactory=org.apache.xerces.jaxp.SAXParserFactoryImpl
-Djavax.xml.parsers.DocumentBuilderFactory=org.apache.xerces.jaxp.DocumentBuilderFactoryImpl"
```

For example, the entire Java line in the startIntegrationServer.sh script might resemble the following example:

```
java
-Djavax.xml.parsers.SAXParserFactory=org.apache.xerces.jaxp.SAXParserFactoryImpl
-Djavax.xml.parsers.DocumentBuilderFactory=org.apache.xerces.jaxp.DocumentBuilderFactoryImpl com.yantra.integration.adapter.IntegrationAdapter TextTranslatorJMS
```


Chapter 26. Document Types

This chapter provides a reference for the different document types used by Sterling Selling and Fulfillment Foundation.

Table 487. Document Types

| Document Type | Number | Description |
|----------------|--------|--|
| Order | | |
| Sales Order | 0001 | This document type is used to sell items or services, either from business to business or business to customer. |
| Planned Order | 0002 | This document type is used to plan an order that takes place in the future. |
| Return Order | 0003 | This document type is used for returning items to the seller. |
| Template Order | 0004 | This document type is used to create a template that future orders can be modeled from. |
| Purchase Order | 0005 | This document type is used by a business to purchase items or services from another business. |
| Transfer Order | 0006 | This document type is used to transfer items from one organization to another (for example, a warehouse to a distribution center, a warehouse to another warehouse, a distribution center to a store). |
| Master Order | 0007 | This document type is used to sell items that ship in a timed sequence, either from business to business or business to customer. |
| Quote | 0015 | This document type is used to provide quotes for a sales opportunity. |
| Load | | |
| Load | 1001 | This document type is used for a delivery plan which consolidates multiple shipments into a single delivery. |
| General | | |
| General | 2001 | This document type is used for transactions and services that do not fall under any other document types. |
| Putaway | 2002 | This document type is used for transactions and services that are used for the putaway related processes (to specify the location where the products coming into the warehouse would be putaway). |
| Layout | 2003 | This document type is used for transactions and services that are used for configuring the warehouse layout and related processes. |
| Inventory | 2004 | This document type is used for transactions and services that are used for inventory tracking, maintenance, and related processes. |
| Trailer | 2005 | This document type is used for transactions and services that are used for the trailer loading and unloading related processes. |

Table 487. Document Types (continued)

| Document Type | Number | Description |
|--------------------|--------|--|
| Task | 2006 | This document type is used for transactions and services that plan all tasks that need to be done within a warehouse. |
| Move Request | 2007 | This document type is used for transactions and services that describe how products should be moved from one location to another within a warehouse. |
| Manifest | 2008 | This document type is used for transactions and services that relate to the manifest process, and provide the carrier that describes what is in the shipment. |
| Over Pack | 2009 | This document type is used for transactions and services that relate to the overpacking process, which involves packing one or more outbound containers into another outbound container. |
| Count | | |
| Count | 3001 | This document type is used for transactions and services that relate to performing a physical count of inventory in the warehouse. |
| Container | | |
| Container | 5001 | This document type is used for transactions and services that relate to containers used to pack outbound goods. |
| Wave | | |
| Outbound Picking | 4001 | This document type is used for transactions and services that relate to the outbound picking process. |
| Work Order | | |
| Work Order | 7001 | This document type is used when a Provided Service is ordered, a Work Order gets created, typically for tasks like installation and repairs. |
| Opportunity | | |
| Opportunity | 0020 | This document type is used to provide sales opportunities for customers. |

Chapter 27. Condition Builder Attributes

Condition Builder Attributes

Statements in the condition builder are built using attributes that are defined throughout the Applications Manager.

These attributes are grouped as follows:

Sales Order

- Order fulfillment
- Order negotiation
- Outbound shipment
- Receipt

Planned Order

- Planed order execution
- Planned order negotiation

Return Order

- Reverse logistics
- Return shipment
- Return receipt

Template Order

- Template order

Purchase Order

- Purchase order execution
- Purchase order negotiation
- Inbound shipment
- Purchase order receipt

Transfer Order

- Transfer order execution
- Transfer order delivery
- Transfer order receipt

Master Order

- Master order fulfillment

Quote

- Quote fulfillment

Load

- Load execution

General

- General
- WMS putaway
- WMS layout definition
- WMS inventory
- Trailer loading
- Task execution
- Move request execution
- Manifesting
- Over pack build

Count

- Count execution

Container

- Pack process

Wave

- Outbound picking

Work Order

- VAS process

Opportunity

- Opportunity fulfillment

Item-Based Allocation (IBA)

- Item-based allocation (IBA) order

Sales Order

Order Fulfillment

The Condition Builder attributes for Order Fulfillment, Order Execution, Quote Fulfillment, Transfer Order Execution, and Template Order are identical.

Table 488. Order Fulfillment Condition Builder Attributes

| Attribute | Description |
|-----------------------------|--|
| Order Attributes | |
| Condition Variable 1 | A variable that can be used for condition building. This is an existing field in the YFS_ORDER_LINE database table, and can be used to create conditions without extending the database. |
| Condition Variable 2 | A variable that can be used for condition building. This is an existing field in the YFS_ORDER_LINE database table, and can be used to create conditions without extending the database. |
| Delivery Method | The delivery method of the order (shipment, pickup or delivery). |

Table 488. Order Fulfillment Condition Builder Attributes (continued)

| Attribute | Description |
|--------------------------------------|--|
| Disposition Code | The disposition code of the item. This field is only applicable for Reverse Logistics and Supply Collaboration. |
| Line Type | The type of the order line. Sterling Selling and Fulfillment Foundation has no application logic associated with the order line type. This field can be set up as per your business practices. |
| Order Type | The type of the order. Sterling Selling and Fulfillment Foundation has no application logic associated with the order type. This field can be set up as per your business practices. |
| Payment Status | The payment status of the order. |
| Sale Voided | The flag indicating whether the order is voided. |
| Transaction ID | The ID of the last transaction that was run on the order. |
| Participant Attributes | |
| Bill To ID | The ID of the bill to address for the order. |
| Buyer Organization Code | The code of the organization that is buying the goods or services. |
| Enterprise Code | The code of the enterprise on the order. |
| Receiving Node | The node that receives the shipment for the order. |
| Seller Organization Code | The code of the organization that is selling the goods or services. |
| Ship Node | The node that ships the shipment for the order. |
| Ship Node Interface Type | The interface type of the ship node on the order (External Application, Console, Sterling Store Inventory Management, or WMS 6.2). |
| Ship To ID | The ID of the ship to address for the order. |
| Supplier Code | The code of the supplier for the order. |
| Item Attributes | |
| Item ID | The ID of the item on the order line. |
| Item Group Code | The group code of the service item. For example, if the service is a provided service item, then the item group code is PS. |
| Product Line | The product line of the item on the order line. |
| Sourcing Attributes | |
| Fulfillment Type | The fulfillment type of the order. |
| Intentional Backorder | The flag indicating whether the order was intentionally dropped into backordered status at order creation. |
| Is Firm Predefined Node | The flag indicating whether the node on the order is a firm predefined node. |
| Order Sourcing Classification | The order sourcing classification of the order. |
| Reservation Mandatory | The flag indicating whether the reservation is mandatory. |
| Related Order Attributes | |
| Chain Type | The chain type of the order. |
| Is Chained Line | The flag indicating whether the order line is chained with another order line. |

Table 488. Order Fulfillment Condition Builder Attributes (continued)

| Attribute | Description |
|-----------------------------------|---|
| Is Derived Line | The flag indicating whether the order line is derived from another order line. |
| Order Purpose | The purpose of the order. If this is an exchange order, this field is set to EXCHANGE. |
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

Order Negotiation

The Condition Builder attributes for Order Negotiation and Planned Order Negotiation are identical.

Table 489. Order Negotiation Condition Builder Attributes

| Attribute | Description |
|-------------------------------------|---|
| Enterprise Code | The code of the enterprise on the order. |
| Initiator Organization Code | The code of the organization that initiates the negotiation. |
| Negotiator Organization Code | The code of the organization that can accept, counter-offer, or reject the initiator's offer. |
| Negotiation Pipeline Key | The key of the negotiation pipeline this order is going through. |
| Negotiation Number | The negotiation number of this order. |
| Negotiation Rule Key | The key of the negotiation rule for this order. |
| Header Entity | The entity for which the negotiation was initiated. Currently, the only applicable entity is Order. |
| Negotiation Status | The status of the negotiation for this order. |
| Document Type | The document type for this order. Typical value is Sales Order. |
| Freight Terms | The freight terms for this order. |
| Payment Terms | The payment terms for this order. |
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

Outbound Shipment

The condition builder attributes for Outbound Shipment, Inbound Shipment, Transfer Order Delivery, and Return Shipment are identical.

Table 490. Outbound Shipment Condition Builder Attributes

| Attribute | Description |
|---|---|
| Enterprise Code | The code of the enterprise on the outbound shipment. |
| Buyer Organization Code | The code of the organization that is buying the goods or services. |
| Seller Organization Code | The code of the organization that is selling the goods or services. |
| Ship Node | The node that ships this shipment. |
| Ship Node Interface Type | The interface type of the ship node on the order (External Application, Console, Sterling Store Inventory Management, or WMS 6.2). |
| Receiving Node | The node that receives this shipment. |
| Ship Mode | The shipment mode that is used for the shipment. For example, Parcel, Truck Load, Less-Than Truck Load. |
| Freight Terms | The freight terms for this shipment. |
| Carrier Type | The shipment's carrier type for this shipment. |
| Hazardous Materials Flag | The flag indicating whether these materials are hazardous. |
| ESP Check Required | The flag indicating whether an Economic Shipping Parameters check is required at shipment consolidation time. |
| Is Appointment Required | The flag indicating whether an appointment is required for a service execution. |
| Routing Guide Maintained | The flag indicating whether a routing guide is maintained for this shipment. |
| Carrier | The carrier for the shipment. |
| Real-time Integration with WMS 6.2 | The flag indicating whether the node this shipment is shipping from is integrating with the Sterling Store Inventory Management. Setting this field to N means that you are integrating with WMS 6.2, or any other warehouse management system. |
| Manually Entered | The flag indicating whether or not the shipment was entered through the Console. |
| Delivery Code | The code of the entity that pays for the transportation costs. |
| Country/Region | The country or region that the shipment is being shipped to. |
| Delivery Method | The delivery method of the shipment (shipment, pickup or delivery). |
| Is Serial Requested | The flag indicating whether the shipment has any line with a specific serial number passed. If that is the case, a different outbound shipment process can be selected in the pipeline. |
| Is Provided Service | The flag indicating whether the shipment has an associated provided service item. |
| Shipment Type | Indicates a set of shipments that are of the same nature. |

Table 490. Outbound Shipment Condition Builder Attributes (continued)

| Attribute | Description |
|----------------------------|---|
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

Receipt

The Receipt condition builder attributes are identical to the Return Receipt attributes.

Planned Order

Planned Order Execution

The Planned Order Execution condition builder attributes are identical to the Order Fulfillment attributes.

Planned Order Negotiation

The Planned Order Negotiation condition builder attributes are identical to the Order Negotiation attributes.

Return Order

Reverse Logistics

Table 491. Return Fulfillment Condition Builder Attributes

| Attribute | Description |
|-----------------------------|--|
| Order Attributes | |
| Condition Variable 1 | A variable that can be used for condition building. This is an existing field in the YFS_ORDER_LINE database table, and can be used to create conditions without extending the database. |
| Condition Variable 2 | A variable that can be used for condition building. This is an existing field in the YFS_ORDER_LINE database table, and can be used to create conditions without extending the database. |
| Delivery Method | The delivery method of the return (shipment, pickup or delivery). |
| Disposition Code | The disposition code of the item. |
| Line Type | The type of the return line. Sterling Selling and Fulfillment Foundation has no application logic associated with the return line type. This field can be set up as per your business practices. |

Table 491. Return Fulfillment Condition Builder Attributes (continued)

| Attribute | Description |
|--------------------------------------|--|
| Order Type | The type of the return. Sterling Selling and Fulfillment Foundation has no application logic associated with the return type. This field can be set up as per your business practices. |
| Payment Status | The payment status of the return. |
| Sale Voided | The flag indicating whether the return is voided. |
| Transaction ID | The ID of the last transaction that was run on the return. |
| Participant Attributes | |
| Bill To ID | The ID of the bill to address for the return. |
| Buyer Organization Code | The code of the organization that is buying the goods or services. |
| Enterprise Code | The code of the enterprise on the return. |
| Receiving Node | The node that receives the shipment for the return. |
| Seller Organization Code | The code of the organization that is selling the goods or services. |
| Ship Node | The node that be ships the shipment for the return. |
| Ship Node Interface Type | The interface type of the ship node on the return (External Application, Console, Sterling Store Inventory Management, or WMS 6.2). |
| Ship To ID | The ID of the ship to address for the return. |
| Supplier Code | The code of the supplier for the return. |
| Item Attributes | |
| Item ID | The ID of the item on the return line. |
| Item Group Code | The group code of the service item. For example, if the service is a provided service item, then the item group code is PS. |
| Product Line | The product line of the item on the return line. |
| Sourcing Attributes | |
| Fulfillment Type | The fulfillment type of the return. |
| Intentional Backorder | The flag indicating whether the return was intentionally dropped into backordered status at return creation. |
| Is Firm Predefined Node | The flag indicating whether the node on the return is a firm predefined node. |
| Order Sourcing Classification | The order sourcing classification of the return. |
| Reservation Mandatory | The flag indicating whether the reservation is mandatory. |
| Related Order Attributes | |
| Chain Type | The chain type of the return. |
| Is Chained Line | The flag indicating whether the return line is chained with another return line. |
| Is Derived Line | The flag indicating whether the return line is derived from another return line. |
| Order Purpose | This field is only applicable to sales orders. |

Table 491. Return Fulfillment Condition Builder Attributes (continued)

| Attribute | Description |
|----------------------------|---|
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

Return Shipment

The Return Shipment condition builder attributes are identical to the Outbound Shipment attributes.

Return Receipt

The Condition Builder attributes for Receipt, Purchase Order Receipt, Return Receipt, Transfer Order Receipt are identical.

Table 492. Return Receipt Condition Builder Attributes

| Attribute | Description |
|--|---|
| Document Type | The document type on the receipt. Typical value is Return Order. |
| Enterprise Code | The code of the enterprise that owns the receipt. |
| Seller Organization Code | The code of the organization that is selling the goods or services. |
| Ship Node | The node where the shipment was shipped out of. |
| Buyer Organization Code | The code of the organization that is buying the goods or services. |
| Receiving Node | The node where the shipment was received. |
| Receiving Node Interface Type | The interface type of the receiving node on the order (External Application, Console, Sterling Store Inventory Management, or WMS 6.2). |
| Ship Mode | The shipment mode that is used for the shipment. For example, Parcel, Truck Load, Less-Than Truck Load. |
| Freight Terms | The freight terms on the receipt. |
| Carrier Type | The carrier type on the receipt. |
| Is Hazardous Material | The flag indicating whether there are hazardous materials that are being received. |
| Is Inspection Pending | The flag indicating whether there is an inspection pending on this return. |
| Is Receiving Node Integrated Real Time | The flag indicating whether the receiving node is integrating with WMS 6.2, or with another WMS system. |

Table 492. Return Receipt Condition Builder Attributes (continued)

| Attribute | Description |
|----------------------------|---|
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

Template Order

The Template Order condition builder attributes are identical to the Order Fulfillment attributes.

Purchase Order

Purchase Order Execution

Table 493. Purchase Order Execution Condition Builder Attributes

| Attribute | Description |
|-------------------------------|--|
| Order Attributes | |
| Condition Variable 1 | A variable that can be used for condition building. This is an existing field in the YFS_ORDER_LINE database table, and can be used to create conditions without extending the database. |
| Condition Variable 2 | A variable that can be used for condition building. This is an existing field in the YFS_ORDER_LINE database table, and can be used to create conditions without extending the database. |
| Delivery Method | The delivery method of the inbound order (shipment, pickup or delivery). |
| Disposition Code | The disposition code of the item. |
| Line Type | The type of the inbound order line. Sterling Selling and Fulfillment Foundation has no application logic associated with the inbound order line type. This field can be set up as per your business practices. |
| Order Type | The type of the inbound order. Sterling Selling and Fulfillment Foundation has no application logic associated with the inbound order type. This field can be set up as per your business practices. |
| Payment Status | The payment status of the inbound order. |
| Sale Voided | The flag indicating whether the inbound order is voided. |
| Transaction ID | The ID of the last transaction that was run on the inbound order. |
| Participant Attributes | |
| Bill To ID | The ID of the bill to address for the inbound order. |
| Buyer Organization Code | The code of the organization that is buying the goods or services. |

Table 493. Purchase Order Execution Condition Builder Attributes (continued)

| Attribute | Description |
|---------------------------------|---|
| Enterprise Code | The code of the enterprise on the inbound order. |
| Receiving Node | The node that receives the shipment for the inbound order. |
| Seller Organization Code | The code of the organization that is selling the goods or services. |
| Ship Node | The node that ships the shipment for the inbound order. |
| Ship Node Interface Type | The interface type of the ship node on the inbound order (External Application, Console, Sterling Store Inventory Management, or WMS 6.2). |
| Ship To ID | The ID of the ship to address for the inbound order. |
| Supplier Code | The code of the supplier for the inbound order. |
| Item Attributes | |
| Item ID | The ID of the item on the inbound order line. |
| Item Group Code | The group code of the service item. For example, if the service is a provided service item, then the item group code is PS. |
| Product Line | The product line of the item on the inbound order line. |
| Sourcing Attributes | |
| Fulfillment Type | The fulfillment type of the inbound order. |
| Intentional Backorder | The flag indicating whether the inbound order was intentionally dropped into backordered status at inbound order creation. |
| Is Firm Predefined Node | The flag indicating whether the node on the inbound order is a firm predefined node. |
| Order Sourcing Classification | The order sourcing classification of the inbound order. |
| Reservation Mandatory | The flag indicating whether the reservation is mandatory. |
| Related Order Attributes | |
| Chain Type | The chain type of the inbound order. |
| Is Chained Line | The flag indicating whether the inbound order line is chained with another inbound order line. |
| Is Derived Line | The flag indicating whether the inbound order line is derived from another inbound order line. |
| Order Purpose | This field is only applicable to sales orders. |
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

Purchase Order Negotiation

Table 494. Purchase Order Negotiation Condition Builder Attributes

| Attribute | Description |
|------------------------------|---|
| Enterprise Code | The code of the enterprise on the inbound order. |
| Initiator Organization Code | The code of the organization that initiates the negotiation. |
| Negotiator Organization Code | The code of the organization that can accept, counter-offer, or reject the initiator's offer. |
| Negotiation Pipeline Key | The key of the negotiation pipeline this inbound order is going through. |
| Negotiation Number | The negotiation number of this inbound order. |
| Negotiation Rule Key | The key of the negotiation rule for this inbound order. |
| Header Entity | The entity for which the negotiation was initiated. Currently, the only applicable entity is Order. |
| Negotiation Status | The status of the negotiation for this inbound order. |
| Document Type | The document type for this inbound order. Typical value is Purchase Order. |
| Freight Terms | The freight terms for this inbound order. |
| Payment Terms | The payment terms for this inbound order. |
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

Inbound Shipment

The Inbound Shipment condition builder attributes are identical to the Outbound Shipment attributes.

Purchase Order Receipt

The Purchase Order Receipt condition builder attributes are identical to the Return Receipt attributes.

Transfer Order

Transfer Order Execution

The Transfer Order Execution condition builder attributes are identical to the Order Fulfillment attributes.

Transfer Order Delivery

The Transfer Order Delivery condition builder attributes are identical to the Outbound Shipment attributes.

Transfer Order Receipt

The Transfer Order Receipt condition builder attributes are identical to the Return Receipt attributes.

Master Order Fulfillment

Table 495. Master Order Fulfillment Condition Builder Attributes

| Attribute | Description |
|---------------------------------|--|
| Master Order Attributes | |
| Condition Variable 1 | A variable that can be used for condition building. This is an existing field in the YFS_ORDER_LINE database table, and can be used to create conditions without extending the database. |
| Condition Variable 2 | A variable that can be used for condition building. This is an existing field in the YFS_ORDER_LINE database table, and can be used to create conditions without extending the database. |
| Delivery Method | The delivery method of the order (shipment, pickup or delivery). |
| Disposition Code | The disposition code of the item. This field is only applicable for Reverse Logistics and Supply Collaboration. |
| Line Type | The type of the order line. Sterling Selling and Fulfillment Foundation has no application logic associated with the order line type. This field can be set up as per your business practices. |
| Order Type | The type of the order. Sterling Selling and Fulfillment Foundation has no application logic associated with the order type. This field can be set up as per your business practices. |
| Payment Status | The payment status of the order. |
| Sale Voided | The flag indicating whether the order is voided. |
| Transaction ID | The ID of the last transaction that was run on the order. |
| Participant Attributes | |
| Bill To ID | The ID of the bill to address for the order. |
| Buyer Organization Code | The code of the organization that is buying the goods or services. |
| Enterprise Code | The code of the enterprise on the order. |
| Receiving Node | The node that receives the shipment for the order. |
| Seller Organization Code | The code of the organization that is selling the goods or services. |
| Ship Node | The node that ships the shipment for the order. |
| Ship Node Interface Type | The interface type of the ship node on the order (External Application, Console, Sterling Store Inventory Management, or WMS 6.2). |
| Ship To ID | The ID of the ship to address for the order. |
| Supplier Code | The code of the supplier for the order. |
| Item Attributes | |
| Item ID | The ID of the item on the order line. |

Table 495. Master Order Fulfillment Condition Builder Attributes (continued)

| Attribute | Description |
|--|---|
| Item Group Code | The group code of the service item. For example, if the service is a provided service item, then the item group code is PS. |
| Product Line | The product line of the item on the order line. |
| Sourcing Attributes | |
| Fulfillment Type | The fulfillment type of the order. |
| Intentional Backorder | The flag indicating whether the order was intentionally dropped into backordered status at order creation. |
| Is Firm Predefined Node | The flag indicating whether the node on the order is a firm predefined node. |
| Order Sourcing Classification | The order sourcing classification of the order. |
| Reservation Mandatory | The flag indicating whether the reservation is mandatory. |
| Related Master Order Attributes | |
| Chain Type | The chain type of the order. |
| Is Chained Line | The flag indicating whether the order line is chained with another order line. |
| Is Derived Line | The flag indicating whether the order line is derived from another order line. |
| Order Purpose | The purpose of the order. If this is an exchange order, this field is set to EXCHANGE. |
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

Quote Fulfillment

The Quote Fulfillment condition builder attributes are identical to the Order Fulfillment condition builder attributes.

Load Execution

Table 496. Load Execution Condition Builder Attributes

| Attribute | Description |
|--------------------------------|---|
| Load Type | The type of the load document. |
| Enterprise Code | The code of the enterprise on the load document. |
| Owner Organization Code | The code of the organization that owns the load document. |
| Carrier | The carrier used to carry the load. |
| Carrier Service Code | The code of the carrier service used to carry the load. |
| Ship Mode | The shipment mode that is used for the shipment. For example, Parcel, Truck Load, Less-Than Truck Load. |

Table 496. Load Execution Condition Builder Attributes (continued)

| Attribute | Description |
|-----------------------------------|---|
| Hazardous Material | The flag indicating whether hazardous materials are being carried in this load. |
| Origin Node | The node where the load originated from. |
| Destination Node | The node where the load is being shipped to. |
| Multiple Load Stop | The flag indicating whether or not a shipment goes through multiple stops to load or unload additional shipments. |
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

General

The following Condition Builder attributes are identical to those for WMS Putaway, WMS Layout Definition, WMS Inventory, Trailer Loading, Task Execution, Move Request Execution, Manifesting, and Over Pack Build.

Table 497. General Condition Builder Attributes

| Attribute | Description |
|-----------------------------------|--|
| Enterprise Code | The code of the enterprise. |
| Organization Code | The code of the organization. |
| Provider Organization Code | The code of the organization that provides the service. |
| Ship Node | The node that ships this shipment. |
| Supply Type | The supply type associated with the inventory status. Typical values are Onhand, Held, etc. |
| Item ID | The ID of the item on the order line. |
| Unit Of Measure | The unit of measure of the item. |
| Product Class | The inventory classification of an item based on the product's characteristics. Typical values are FQ - First Quality, SQ - Second Quality, etc. |
| Inventory Status | The inventory sub classification of the product, based on the results of the inventory control processes within the warehouse. Typical values are Good - Good Inventory, Damaged - Damaged inventory, Qlty-Hold - Quality Hold, etc. |
| Adjustment Type | The type of inventory adjustment. Typical values are Cycle Count, Receipt, Picking, Packing, Shipping, etc. |
| Alert Type | The type of alert raised when an exception occurs. |
| Carrier | The carrier used to carry the shipment. |
| Task Type | The Task Type applicable to a task. Typical values are Receipt, QC, Count, Replenishment, Retrieval, Putaway, VAS, Pack, Shipping, and Picking. |

Table 497. General Condition Builder Attributes (continued)

| Attribute | Description |
|----------------------------|---|
| Assigned To User ID | The ID of the user to whom the task is assigned. |
| Task Status | The Task Status within the pipeline that the task travels through. Typical values are Open, Suggested, In Progress, Held, Completed, Canceled, etc. |
| Document Type | The document type for this order. Typical values are Sales Order, Purchase Order, Transfer Order, and Return Order. |
| SC UI Client Version | The Rich Client Platform application version number. |
| Activity Group ID | The identifier for the activity group. |
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

WMS Putaway

The WMS Putaway condition builder attributes are identical to the General attributes.

WMS Layout Definition

The WMS Layout Definition condition builder attributes are identical to the General attributes.

WMS Inventory

The WMS Layout Inventory condition builder attributes are identical to the General attributes.

Trailer Loading

The Trailer Loading condition builder attributes are identical to the General attributes.

Task Execution

The Task Execution condition builder attributes are identical to the General attributes.

Move Request Execution

The Move Request Execution condition builder attributes are identical to the General attributes.

Manifesting

The Manifesting condition builder attributes are identical to the General attributes.

Over Pack Build

The Over Pack Build condition builder attributes are identical to the General attributes.

Count Execution

Table 498. Count Execution Condition Builder Attributes

| Attribute | Description |
|-----------------------|--|
| Enterprise Code | The code of the enterprise for which the count request is created. |
| Request Type | The type of count requested. |
| Count Program Name | The name of the count program for which the count request is created. |
| Node Key | The node where the count request is processed. |
| Zone ID | The zone where the count must be performed. |
| Location Size Code | The capacity of the location where the count must be performed. |
| Is LPN Level | The flag indicating whether the count tasks are be performed at the LPN level. |
| Is Case Level | The flag indicating whether the count tasks are be performed at the case level. |
| Is Pallet Level | The flag indicating whether the count tasks are be performed at the pallet level. |
| Is Item Level | The flag indicating whether the count tasks are be performed at the item level. |
| Is Resolvable | The flag indicating whether variance can be resolved for this count result. |
| Product Class | The inventory classification of an item based on the product's characteristics. Typical values are FQ - First Quality, SQ - Second Quality, etc. |
| Unit Of Measure | The unit of measure of the item that was counted. |
| Item Classification 1 | The first item classification attribute for determining the Count Strategy. |
| Item Classification 2 | The second item classification attribute for determining the Count Strategy. |
| Item Classification 3 | The third item classification attribute for determining the Count Strategy. |
| Has Variance | The flag indicating whether the count request has a variance. |
| Has Absolute Variance | The flag indicating whether the count request has an absolute variance. |
| Variance Quantity | The difference in quantity (+/-) between the count result and system quantity. |

Table 498. Count Execution Condition Builder Attributes (continued)

| Attribute | Description |
|---|---|
| Absolute Variance Quantity | The absolute difference between the count result and system quantity. |
| Variance Value | The difference in cost/value (+/-) between the count result and system quantity. |
| Absolute Variance Value | The absolute difference in cost/value between the count result and system quantity. |
| Has Variance With Previous Count | The flag indicating whether the variance between the current count result and previous count results displays. |
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

Pack Process

Table 499. Pack Process Condition Builder Attributes

| Attribute | Description |
|--|--|
| Node Attributes | |
| Ship Node | The node that ships this shipment. |
| Receiving Node | The node that receives this shipment. |
| Ship from Ship Node Interface Type | The interface type of the ship node from which the shipment is shipped (External Application, Console, Sterling Store Inventory Management, or WMS 6.2). |
| Ship from Supplier Code | The code of the supplier that is shipping the shipment. |
| Ship from DCM Integration Real Time | The flag indicating whether the node from which the shipment is shipped uses WMS 6.2. |
| Ship from Country/Region | The code of the country or region from which the shipment is being shipped. |
| Ship to Ship Node Interface Type | The interface type of the ship node to which the shipment is shipped (External Application, Console, Sterling Store Inventory Management, or WMS 6.2). |
| Ship to Supplier Code | The code of the supplier to whom the shipment is being shipped. |
| Ship to DCM Integration Real Time | The flag indicating whether the node to which the shipment is shipped uses WMS 6.2. |
| Ship to Country/Region | The code of the country or region to which the shipment is being shipped. |
| Organization Attributes | |
| Enterprise Code | The code of the enterprise that owns the shipment. |
| Buyer Organization Code | The code of the organization that is buying the goods or services. |
| Seller Organization Code | The code of the organization that is selling the goods or services. |

Table 499. Pack Process Condition Builder Attributes (continued)

| Attribute | Description |
|------------------------------------|---|
| Shipment Attributes | |
| Ship Mode | The shipment mode that is used for the shipment. For example, Parcel, Truck Load, Less-Than Truck Load. |
| Carrier | The carrier used to carry the shipment. |
| Freight Terms | The freight terms of the shipment. |
| Delivery Code | The code of the entity that pays for the transportation costs. |
| Pack And Hold | The flag indicating whether the shipment needs to be packed and put away for retrieval at a later date. |
| Shipment Container Count | The number of containers in the shipment. |
| Shipment Containerized Flag | The flag indicating the containerization state of the shipment. The values are: 01 - not containerized, 02 - containerization in progress and 03 - containerization completed. |
| Container Attributes | |
| Is Shipment Container | The flag indicating whether the container belongs to a shipment. |
| Is Load Container | The flag indicating whether the container is part of a load. |
| Is Inventory Pallet | The flag indicating whether the container is an inventory pallet. |
| Is Converted From LPN | The flag indicating whether the inventory container has been converted to a shipment container. |
| Is Serial Capture Pending | The flag indicating whether the serial capture is pending for the container. |
| Is Pack Process Complete | The flag indicating whether any more pack activities are pending for the container. |
| Is Product Placing Complete | The flag indicating whether placing the product into the container according to the system's suggestion has been completed. |
| Requires VAS | The flag indicating whether the container requires value added services. |
| Has Child Containers | The flag indicating whether a container is a parent container having other containers. |
| Number of Items | The number of items contained in the container. |
| Container Type | The attribute that specifies whether a shipment container is a case or pallet. |
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

Outbound Picking

Table 500. Outbound Picking Condition Builder Attributes

| Attribute | Description |
|----------------------------|---|
| Activity Group ID | The identifier for the activity group. |
| Shipment Group ID | The identifier for the shipment group. |
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

VAS Process

Table 501. VAS Process Condition Builder Attributes

| Attribute | Description |
|--------------------------------------|--|
| Enterprise Code | The code of the enterprise that owns the item or license plate. |
| Provider Organization Code | The code of the organization that provides the service. |
| Node Key | The node, where the work orders are run. |
| Purpose | The purpose for the work order (ORDER / STOCK / SHIP) |
| Service Item Group Code | The code of the service item group (KIT/DKIT/COMPL/INVC/PS) |
| Service Item ID | The identifier for the service item. |
| Segment Type | The type of segment. This may be MTO (made to order) or MTC (made to customer). |
| Segment | The segment to which the inventory involved in the work order belongs. |
| Has Components | The flag indicating whether the work order has component items. |
| Status | The status of the work order. |
| Pre Call Status | The flag indicating the status of the pre-call process. |
| Appt Status | The status of the appointment. This is in sync with the service order line. The appointment status is used in case of provided service work order. |
| Number Of Attempts | The number of attempts made to run the work order. |
| Number Of Hours until Appointment | The number of hours left before the appointment for the service item. |
| Number Of Hours After Appointment | The number of hours after the last appointment for the service item. |
| Number Of Hours After Last Execution | The number of hours after the last attempt to run the service. |
| Last Execution Success | The flag indicating whether the last attempt to run the service was successful or not. |

Table 501. VAS Process Condition Builder Attributes (continued)

| Attribute | Description |
|----------------------------|---|
| Open Work Order Flag | The flag indicating whether the execution of the work order has ended or not. |
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

Opportunity Fulfillment

Table 502. Opportunity Fulfillment Condition Builder Attributes

| Attribute | Description |
|-------------------------------|---|
| Opportunity Attributes | |
| Opportunity ID | The ID of the opportunity. |
| Opportunity Name | The name of the opportunity. |
| Status | The status of the opportunity. |
| Currency Value | The currency value of the opportunity. |
| Probable Success Rate | The likelihood of whether an order will be created from the opportunity. |
| Participant Attributes | |
| Bill To ID | The ID of the bill to address for the opportunity. |
| Buyer Organization Code | The code of the organization that may buy the goods or services. |
| Enterprise Code | The code of the enterprise for the opportunity. |
| Owner User ID | The user ID of the opportunity owner. |
| Co-Owner User ID | The user ID of the opportunity co-owner. |
| Customer Contact ID | The ID of the customer contact for the opportunity. |
| Team Code | The code of the team that manages the opportunity. |
| {Enter Your Own Attribute} | <p>A customizable condition builder attribute. For more information about customizing this field, see the <i>Sterling Selling and Fulfillment Foundation: Extending the Condition Builder</i>.</p> <p>This field is limited only to unexposed key attributes that are predefined by Sterling Selling and Fulfillment Foundation as opposed to any XML attribute that you can enter.</p> |

Item Based Allocation

The Item Based Allocation transaction allocates unpromised and promised demands of existing orders to more suitable supplies based upon inventory items and nodes which have been triggered for the Item Based Allocation process in the YFS_IBA_TRIGGER table.

The Item Based Allocation agent obtains and processes all Item Based Allocation triggers from the YFS_IBA_TRIGGER table that meet the following conditions:

- IBA_RUN_REQUIRED = "Y"
- LAST_IBA_PROCESSED_TS was 'x' hours before current time, where 'x' is from the 'Item Based Allocation Agent Execution Interval (in hours)' rule in the Installation rules. For more information about installation rules, refer to the topic "System Administration Components: Defining Installation Rules" in the *Sterling Selling and Fulfillment Foundation: Configuration Guide*. This rule is used to indicate the interval that the Item Based Allocation agent should not reprocess the triggers in the YFS_IBA_TRIGGER table, which were processed earlier. This prevents the IBA agent from over-processing the item and node combination in the given time interval to avoid any high loads on the system.
- PROCESSING_BY_AGENT="N" or PROCESS_OVER_BY_TS is before the current timestamp. The PROCESSING_BY_AGENT field is used to prevent the picking up of the IBA trigger which is being processed by another instance of the agent.

If InventoryOrganizationCode is specified in the agent criteria, only the IBA trigger with inventory items of that inventory organization is retrieved.

For each triggered item and node combination, the agent finds all of the applicable order lines or order line reservations that contain the item and node and tries to move their unpromised and promised demands to more suitable available supplies based on user-configured IBA selection rules or FIFO (First-In-First-Out) IBA selection rules.

Sterling Selling and Fulfillment Foundation creates new positive order line reservations with the matched supply's first ship date and negative order line reservations for the existing demand ship date. Once all orders are processed, they are placed on hold to be rescheduled if changes are detected in the order line reservations.

The following configuration is required for the Item Based Allocation process:

- The Use Item Based Allocation rule needs to be enabled.
- Item and node need to have Item Based Allocation Allowed enabled.
- A hold type is required to be set up for the change order line reservations modification type so that the order can be placed on hold for rescheduling. For more information, refer to the *Sterling Selling and Fulfillment Foundation: Javadocs*.

The 'When a line is backordered, backorder against the highest priority ship node' rule should be checked in order to reallocate backordered demand. For more information, see the Fulfillment Rules section in the *Sterling Selling and Fulfillment Foundation: Distributed Order Management Configuration Guide*.

Before processing the Item Based Allocation logic, the Item Based Allocation agent updates the following fields on the Item Based Allocation trigger:

- PROCESSING_BY_AGENT = "Y". This indicates that an instance of the agent is currently processing this trigger.
- PROCESS_OVER_BY_TS = current time + 1 hr. This indicates the expected time that the agent should finish with processing this IBA trigger. One hour is the fixed window and cannot be changed. Sterling Selling and Fulfillment Foundation treats the PROCESSING_BY_AGENT flag as "N" regardless of the actual value when current timestamp is after this timestamp.
- IBA_RUN_REQUIRED = "N". This resets the IBA_RUN_REQUIRED flag back to "N".

Obtaining a List of Demands Based on Applicable Order Release Statuses and Order Line Reservations to be Allocated

A list of demands is derived from applicable order release statuses and order line reservations, which have the item and node in the IBA trigger. The following types of demands are retrieved:

- Demands of chained orders
- Demands of orders with chained order already created
- Demands of orders with procurement node but chained order creation is not yet created
- Demands of orders without procurement node
- Demands from order line reservations

The demand quantity is derived based on the order release status quantity with the status from the Status Inventory Type configuration that has a demand type, which considers the supply type with 'Use Consider Demand Type for Item Based Allocation' enabled. For more information, refer to the *Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide*.

Obtaining a List of Available Supplies for Allocation

Sterling Selling and Fulfillment Foundation obtains the available supply based on the availability of the item at the node by ignoring unpromised and promised demands. If the inventory organization maintains its inventory externally, the external availability can be read by the YFSGetExternalInventoryUE user exit. Only the availability of supplies that consider the 'Demand Type Look for Availability during Item Based Allocation' are used in the allocation logic. For more information, refer to the *Sterling Selling and Fulfillment Foundation: Global Inventory Visibility Configuration Guide*.

Allocated demands should be matched with the same supplies as "Demand to look for during release".

Matching Demands Against Supplies in FIFO (First-In-First-Out) Order

Sterling Selling and Fulfillment Foundation sorts the list of available supplies in the order of the first shippable date (ETA), and matches the obtained list of demands using the top-down logic (unlike the normal matching logic for obtaining availability, where matches are based on the closest ETA). Demands are allocated in the following orders:

- Demands of chained orders - first based on user-configured sequencing rules, and then in ascending order of order creation date. (These types of demands are matched based on the closest ETA to avoid any changes in the chained orders).
- Demands of orders with a chained order already created - first based on user-configured sequencing rules, then in ascending order of product availability date. (These types of demands are matched based on the closest ETA to avoid any changes in the orders).
- Demands of orders for which procurement node and chained order creation is imminent (within the advanced notification time window) - first based on user-configured sequencing rules, then in order of order creation date.
- Demands of orders without a procurement node and within the release window (advanced notification time window) - first based on user-configured sequencing rules, then in order of order creation date.

- Demands from order line reservations on the order lines in the order of requested reservation date, and left-over demands (outside of the advanced notification time window) of orders with or without a procurement node, first based on user-configured sequencing rules and then in the order of order creation date.
- Demands from inventory reservations in the order of ship date.

Notice that different types of demands are given different priorities based on their significance. The demands of chained orders or orders related to chained orders are treated with a higher priority than the demands of normal orders. Furthermore, the demands with a ship date within the advanced notification time window also have a higher priority than the demands with a date outside of the advanced notification time window.

Updating Order Reservations for the Matched Demands

After matching the available supply and demand in user-configured sequencing and then in FIFO order, the system builds up a list of order line reservation changes and inventory demand changes (corresponding to the order line reservation changes) and summarize them to optimize the number of order reservation updates and inventory updates. Negative order line reservations are added for the matched demands. Positive order reservations are added for the matched demands with the product availability date set to the matched supplies' first ship date.

After the Item Based Allocation agent completes its tasks for an Item Based Allocation trigger, it updates the fields of the trigger with the following values:

- IBA_REQUIRED = "N"
- LAST_IBA_PROCESSED_TS = current timestamp.
- PROCESS_OVER_BY_TS = current timestamp.
- PROCESSING_BY_AGENT = "N"

The Item Based Allocation agent should be used in conjunction with the rescheduling process as the rescheduling process reschedules the affected orders by utilizing the order line reservations created by the Item Based Allocation process.

Attributes

The following are the attributes for this time-triggered transaction:

Table 503. Item Based Allocation Attributes

| Attribute | Value |
|----------------------|--|
| Base Transaction ID | ITEM_BASED_ALLOCATION |
| Base Document Type | General |
| Base Process Type | General |
| Abstract Transaction | No |
| APIs Called | changeOrder – for updating the order line reservations created as part of the Item Based Allocation process. |
| User Exits Called | None |

Criteria Parameters

The following are the criteria parameters for this transaction:

Table 504. Item Based Allocation Criteria Parameters

| Parameter | Description |
|------------------------------------|--|
| Action | Required. Triggers the transaction. If left blank, it defaults to Get, the only valid value. |
| Number of Records To Buffer | Optional. Number of records to retrieve and process at one time. If left blank or specified as 0 (zero), it defaults to 5000. |
| InventoryOrganization Code | The inventory organization code of the inventory items which are processed by the Item Based Allocation agent. If provided, only the IBA triggers with the inventory item that belongs to this inventory organization are processed. |
| ColonyID | Required in a multischema deployment where the YFS_IBA_TRIGGER table may exist in multiple schemas. Runs the agent for the colony. |

Statistics Tracked

The following statistics are tracked for this transaction:

Table 505. Item Based Allocation Statistics

| Statistic Name | Description |
|------------------------------------|--|
| NumOrdersProcessed | Number of orders processed by the Item Based Allocation agent. |
| NumOrdersRequiredReschedule | Number of orders required rescheduling as the result of Item Based Allocation process. |

Pending Job Count

None.

Events Raised

This transaction raises events as specified under the changeOrder API in the *Sterling Selling and Fulfillment Foundation: Javadocs*.

Chapter 28. Configuring Change Project Management

Change Project Management

Many users implement new features or database changes as separate projects. The Change Project Management feature allows you to implement new functionalities (projects) on a staging or a testing (source) environment before implementing them on a production (target) environment to minimize operational errors. After the changes are validated, they are published on the production environment using Change Data Export and Change Data Import agents. A Change Project provides the mechanism to consolidate database changes as a single unit and is a collection of smaller tasks called "Change Requests".

Note: For publishing the change projects on the target environment, ensure that the target environment is a replica of the source environment to maintain the same primary keys of the database across all deployments.

CAUTION:

The Change Project management feature is not supported when either source or target environment is upgraded since the primary keys of the data are different and cannot be synchronized. Also, the Change Project management feature is not supported if Reference Implementation is installed on either source or target environments.

Note: If two or more Change Projects have Change Requests that modify the same entity, the Change Projects must be named in an alphabetical order for the changes to be imported sequentially.

The Sterling Business Center enables administrators to define Change Projects, define Change Requests for the Change Projects, assign contributors to work on the Change Requests and approve them before publishing them on the production environment.

To make entity changes, a change project must be created individually for each organization, even if the organization data is inherited from each other.

Change Projects are approved by designated users called "approvers". Once the Change Project is approved, the changes are published on the production environment either soon after approval or at a defined time set in the Applications Manager. Change projects are not published if they are not in the "Approved" status.

Database changes made during Change Request or Change Project processing are stored in the table, `YFS_ENTITY_CHANGE`. The `manageChangeProject` API is used to manage a Change Project and its Change Requests. For details on the API, refer to the *Javadocs*.

Note: In a multi-schema environment, changes can be made to Change Projects belonging to its own enterprise colony only.

The Change Project Management module allows you to configure the following:

- Change Requests
- Change Project Rules

Change Project Rules

For publishing the approved Change Projects on the production environment, each installation or deployment must define its own project rules:

- Export projects: Projects in a "Developer" environment must be exported to a "Staging" environment. When projects are approved, they must be moved to the "Production" environment.
- Maintain entity changes: Entity changes must be logged to send modified data to another environment. The logging is turned off for "Production" environment.

The project rules are stored in a resource XML file called `changeDataManagementRules.xml`. For example,

```
<ChangeDataManagementRules DeploymentName="STAGING">
  <Rules>
    <Rule Name="MaintainEntityChanges" Value="Y">
      <TableTypeList>
        <TableType Type="CONFIGURATION"/>
        <TableType Type="MASTER"/>
      </TableTypeList>
    </Rule>
    <Rule Name="EnableChangeProjectManagement" Value="Y"/>
    <Rule Name="ChangeProjectIDPrefix" Value="ST"/>
    <Rule Name="ExportChangeProjects" Value="N"/>
    <Rule Name="PreventTableImport" Value="Y">
      <TableList
        Table Name="YFS_USER"/>
    </TableList>
  </Rules>
</ChangeDataManagementRules>
```

Set the following rules in `changeDataManagementRules.xml`:

DeploymentName

Define the installation or deployment. For example, "Development", "Staging".

MaintainEntityChanges

Set this rule to "Y" to track changes for the table types configured under the rule.

EnableChangeProjectManagement:

Set this rule to "Y" to track changes through Change Projects and Change Requests.

ChangeProjectIDPrefix

A prefix used to generate Change Project IDs. Specify a unique prefix for each deployment. For example, ST for Staging, DV for development.

ExportChangeProjects

Set this rule to "Y" to export Change Project definitions to another environment.

PreventTableImport

You can prevent certain tables from being imported as part of entity transformation. Set this rule to "Y" to prevent import of tables specified under the rule.

Entity Transformation

Configuration parameters differ for different environments. For example, the configuration (URLs, IP addresses etc.) of a "Developer" environment is different

from that of a "Staging" environment. When data from one environment is exported to another environment, the configuration also must be changed to suit the target environment. For example, when data from "Staging" environment is exported to "Production", the IP addresses for records must be changed to 10.10.20.81 from 10.10.20.80. This is called "Entity Transforms", which is defined for an entity and is associated with a source-target pair deployment.

The entity transforms for export and import of records is defined and stored in a resource XML file, entityTransforms.xml. For example:

```
<Transformations>
  <Table Name="YFS_SUB_FLOW">
    <Columns>
      <Column Name="CONFIG_XML">
        <Transform Match="t3://localhost:7001
          Replace="{PROVIDER_URL}" XPath
            ="/xml:/SubFlowConfig/Link/Properties/@ProviderURL">
        </Column>
      </Columns>
    </Table>
  </Transformations>
```

During export, configuration parameters of the source environment for an entity are replaced with the configuration parameters of the target environment, which is specified in entityTransforms.xml.

Define Change Project Rules

Each installation or deployment must define its own project rules for Change Projects in the system.


You can define the following project rules from the Change Project Rules screen.

- Entity locking level
- Synchronization time at which the Change Projects must be exported.

Set Entity Locking Level

Multiple designated users can work on a Change Project simultaneously, however, a user can work only on one Change Request at a time. In such a scenario, changes being made to a Change Request for a Change Project is locked so that other users cannot override the changes for the same project. To support entity locking, the changes are stored in the YFS_ENTITY_CHANGE record. By default, the entities are locked at the Change Request level for a Change Project. Parent entity locking is used to lock records. A Locking entity is defined in the entity XML files for each entity.


The entity lock level can be set at either Change Request or Change Project level.

- To set the entity locking level, perform the following steps:
 1. From the tree in the application rules side panel, select **Change Project Management ->Change Project Rules**.
 2. The Change Project Rules screen is displayed.
 3. Select the level at which the changes must be locked from the **Level At Which Changes Should Be Locked** drop-down list.
 4. Click .

Set a Sync Time

A Change Project is published on the production environment when a synchronization time is set, which is defined by the enterprise.



To set a synchronization time, perform the following steps:

1. From the tree in the application rules side panel, select **Change Project Management ->Change Project Rules**
2. The Change Project Rules screen is displayed.
3. Enter a time (HH:MM format) in the **Change Project is Available For Synchronization At** text box.
4. Click .



Manage Change Requests

Use the Manage Change Requests module to manage Change Requests. The Change Requests screen allows you to view a list of change requests assigned to the current logged in user, view the details of a Change Request or mark a Change Request as complete.

To view Change Requests, perform the following steps:

1. From the tree in the application rules side panel, select **Change Project Management ->Change Requests**
2. The Change Requests screen is displayed with a list of available Change Requests along with their status.
3. Select a Change Request from the list.
4. After you select a Change Request, you can do one of the following operations:
5. Click  to view the details of the Change Request. The Change Request Details dialog box is displayed with the Change Request details such as Change Request ID, Change Project ID, Status, Short and Long Descriptions.
6. Click  to mark a Change Request as complete.

Note: Only Change Requests that are in "Work in Progress" status can be marked complete.

7. Click  to mark a Change Request as "Work in progress" for the logged in user.
8. Click  to remove the Change Request from "Work in progress" status for the logged in user.

Note: The Change Request status does not change to "Open".

Properties to be Set Before Publishing Database Changes

The following properties must be set before publishing changes to the target environment:

Properties to be set in customer_overrides.properties

The following properties must be set in customer_overrides.properties file before the Change Data Export agent is run:

- yfs.ChangeDataPublisherExportDirectory
- yfs.ChangeDataPublisherWorkingDirectory
- yfs.ChangeDataPublisherFilePrefix

Properties to be set in silent.txt

The following property must be set in silent.txt file before installation:

OVERRIDE_LOAD_DEFAULTS_PK_GEN

For details on the above properties, refer to the *Properties Guide and Installation Guide*.

Export a Change Project

When a Change Project is approved, it is ready for exporting to the production environment.

The Change Project is published on the production environment when either of the following options is set:

- The check box, **Publish immediately when the changes are approved** is selected during Change Project approval in Sterling Business Center ,or,
- A sync time is set, which is defined by the enterprise in the Applications Manager. The sync time is inherited from the enterprise and is used for publishing the Change Project after it is approved. If a time is not set, the Change Project is published soon after approval.

The Change Project is published based on the project rules specified for each deployment. The agents, Change Data Export Agent and Change Data Import Agent are used to publish the approved Change Projects on the target environment.

Chapter 29. Object Extensibility

Attribute Definition

Each enterprise may require and maintain different customization for entities such as quote, order, order line or opportunity. The customization of entities can be achieved by defining dynamic attributes for a combination of enterprise and document type. A new attribute domain with the purpose, ENTITY_EXTN is created for an enterprise during database customization of an entity. Each enterprise can define its attributes under the newly created domain. The configuration of the attribute domain with the entity and document type is stored in the YFS_ENTITY_ATTRIBUTE_DOMAIN table. The manageEntityAttributeDomain API is used to create the attribute domain used for the entity and document type.

Attribute Value Management

The extended entities have corresponding hang off tables with predefined number of columns. For example, an extended attribute for Order Header would have a corresponding column in the YFS_ORDER_HEADER_EXTENSION hang off table that stores the transaction data of the attribute. The createOrder API is used to populate values for these extended columns on order header. The changeOrder API is used to modify values for these extended columns on order header. For more information on the APIs, refer to the *Javadocs*.

The type of data associated with an attribute is based on the data type of the column. For example, an attribute belonging to the "Numeric" data type, will be associated with "Number" data type of the corresponding column in the hang off table.

For details on creating extended attributes, refer to the *Sterling Business Center System Configuration Guide*.

Mapping of Column and Attribute

Each attribute extended or defined for an enterprise is stored in the YFS_ENTITY_CUSTOM_ATTRIBUTE table along with the column name to which the attribute is mapped. The extended entities have corresponding hang off tables with predefined number of columns. The manageEntityCustomAttribute API is used to manage custom attributes for document type and entity.

Number of columns for a given entity and document type are predefined for an enterprise.

The following number of columns are predefined for the supported data types:

- DATE : 10 columns
- INTEGER : 10 columns
- DECIMAL : 10 columns
- TEXT : 20 columns
- BOOLEAN : 10 columns

The first five columns are indexed. The indexed columns are used for searchable attributes. The rest of the columns are used for non-searchable attributes.

When a new attribute is created, it is mapped to the first available column for that entity and document type. A searchable attribute is mapped to the first column of the five indexed columns. A non-searchable attribute is mapped to the first available column after the five indexed columns, if it does not exceed the maximum number of columns defined for the entity and document type.

Each attribute mapped to a column can have one of the following statuses:

- **PENDING:** Mapped to a column but cannot store transaction data
- **ACTIVE:** Ready to store or already contains transaction data
- **INACTIVE:** Unused attribute, does not contain any transaction data,
- **DELETED:** Deleted attribute which sets the mapped column free.

A new attribute is mapped to an available column with the status "PENDING". Pending attributes must be activated to store transaction data. Activation of attributes is done by the `manageEntityCustomAttribute` API. When an extended "ACTIVE" attribute is no longer used by the enterprise, it is marked as "INACTIVE". When "PENDING" attributes are deactivated, the status of the attributes is marked as "DELETED".

Attributes can be mapped to "DELETED" columns but cannot be mapped to "INACTIVE" columns. "INACTIVE" columns must be deleted before reusing them for mapping other attributes. An agent `YSCRecycleEntityAttributeAgent` is used to delete the "INACTIVE" columns for the entity and document type combination of an enterprise.

Here is an example of how the mapping logic works:

A non-searchable text attribute `My_order_type` must be added for an entity, Sales Order. Maximum number of defined columns for this entity is 20.

The following is the mapping of attribute and the columns:

Table 506. Attribute and Column Mapping

| Attribute | Column Name | Status |
|---------------|-------------|----------|
| Attribute1 | Column1 | Active |
| Attribute2 | Column2 | Deleted |
| Attribute3 | Column3 | Active |
| Attribute4 | Column4 | Inactive |
| Attribute5 | Column5 | Active |
| My_order_type | Column6 | Active |

The new attribute, "My_order_type" is mapped to the first available column of the non-indexed columns, namely, Column6, after the five indexed columns, since it does not exceed the maximum number of columns defined for that entity (20).

When the maximum number of columns defined for an entity and document type is reached (that is, all the columns are mapped to attributes), the `manageEntityCustomAttribute` API looks for the columns marked as "Deleted". For example, if a predefined number of columns for an entity and document type is 20,

and, a new attribute (21) must be inserted, the API looks for a column with the status "Deleted" to insert the new attribute.

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