

Sterling Warehouse Management System



Business Intelligence Guide

Release 9.1.04

Sterling Warehouse Management System



Business Intelligence Guide

Release 9.1.04

Note

Before using this information and the product it supports, read the information in "Notices" on page 77.

Copyright

This edition applies to the 9.1 Version of IBM Sterling Warehouse Management System and to all subsequent releases and modifications until otherwise indicated in new editions.

© **Copyright IBM Corporation 2005, 2012.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

| | |
|--|----------|
| Chapter 1. Introduction | 1 |
| Overview of Business Intelligence | 1 |
| Cognos Products | 1 |
| IBM Sterling Warehouse Management System Business Intelligence Components | 2 |
| IBM Sterling Warehouse Management System Business Intelligence and Cognos Integration | 3 |

| | |
|---|----------|
| Chapter 2. Installing and Configuring IBM Sterling Warehouse Management System Business Intelligence | 5 |
| Setting up Cognos | 5 |
| Setting up Security | 5 |
| Pre-Installation Tasks | 5 |
| Localize a Report | 6 |
| If you have installed Cognos on UNIX. | 6 |
| If you have installed Cognos on Windows | 6 |
| Cognos 10.1.1 Business Intelligence | 6 |
| Install in a GUI-based UNIX or Linux Environment | 7 |
| Install in a Text-based UNIX or Linux Environment | 8 |
| Install in a GUI-based Windows Environment | 9 |
| Configuring Cognos Data Sources | 10 |
| Configuration for Single Schema | 10 |
| Configuration for Multischema | 11 |
| IBM Sterling Warehouse Management System Business Intelligence Setup | 12 |
| Creating IBM Sterling Warehouse Management System Business Intelligence Table Views | 13 |
| Create WithHistory Table Views | 13 |
| Create WithoutHistory Table Views | 14 |
| Error Messages in the DB2 Universal Database | 15 |
| Run Custom Scripts on Windows | 15 |
| Run Custom Scripts on UNIX | 15 |
| Hide the Unused Buttons on the Cognos Toolbar | 16 |
| Disable or Modify a Cognos Cache Session. | 16 |
| Deploy the IBM Sterling Warehouse Management System Business Intelligence Reports | 17 |
| IBM Sterling Selling and Fulfillment Foundation Authentication Mechanism | 18 |
| Modifying Customer Overrides Properties | 19 |
| Launching Cognos BI server 10.1.1 | 19 |

| | |
|--|-----------|
| Chapter 3. The IBM Sterling Warehouse Management System Business Intelligence Framework | 21 |
| The IBM Sterling Warehouse Management System Business Intelligence Framework | 21 |
| IBM Sterling Warehouse Management System Business Intelligence Framework Views | 21 |
| Data Model | 22 |
| Star to Snowflake Model | 22 |
| Extending the IBM Sterling Warehouse Management System Business Intelligence Data Model | 23 |
| Data Model Objects. | 24 |

| | |
|--|-----------|
| Chapter 4. IBM Sterling Warehouse Management System Business Intelligence Reports | 27 |
| IBM Sterling Warehouse Management System Business Intelligence Reports | 27 |
| Inbound Reports. | 27 |
| Returns Reports | 28 |
| Inventory Reports | 29 |
| VAS Reports | 30 |
| Outbound Reports | 31 |
| Task Reports | 33 |
| Billing Activity Reporting Engine Reports | 33 |
| Rules for Creating New Reports | 34 |

| | |
|--|-----------|
| Chapter 5. Deploying Reports | 35 |
| Refreshing Databases | 35 |
| Create a Directory for Report Deployment | 35 |
| Refreshing Reports | 36 |

| | |
|--|-----------|
| Chapter 6. Localizing Reports | 37 |
| Localizing Reports | 37 |
| Literal Localization | 37 |
| Localize the Resource Bundle | 37 |
| Localizing Report Literals | 38 |
| Localizing Report Data | 39 |
| Localize Custom Report Literals | 39 |
| Localize Custom Report Data | 40 |

| | |
|---|-----------|
| Chapter 7. Troubleshooting and Tuning | 41 |
| Troubleshooting Business Intelligence Issues | 41 |
| Ensure Access Manager is Running Correctly | 41 |
| SQL Net Connect String Error | 41 |
| Failed to Change User Class. | 42 |
| Embed a Database Profile in Catalog | 42 |
| Change the Database Logon Type | 42 |
| Tuning the IBM Sterling Warehouse Management System Business Intelligence Reports | 43 |
| Tuning Your IBM Sterling Warehouse Management System Business Intelligence Installation. | 43 |
| Unable to View Data in the Reports | 43 |
| Unable to Generate Reports | 43 |

| | |
|--|-----------|
| Chapter 8. IBM Sterling Warehouse Management System Business Intelligence Views | 45 |
| IBM Sterling Warehouse Management System Business Intelligence Views | 45 |
| Catalog Views | 46 |
| Exception Views. | 46 |
| General Views | 47 |
| Inventory Views. | 48 |
| Invoicing Views | 50 |
| Logistics Views | 51 |
| Order Views | 52 |

| | |
|---|----|
| Order Header Views | 52 |
| Order Line Views | 53 |
| Order Release Views | 54 |
| Order To/From Transaction Views. | 55 |
| Organization Views. | 55 |
| Organization Levels View | 59 |
| Pricing Views. | 60 |
| Receiving Discrepancy Views | 60 |
| Receipt Views | 61 |
| Shipment Views | 62 |
| IBM Sterling Warehouse Management System Views | 64 |
| Work Order Views | 67 |

| | |
|--|----|
| Billing Activity Reporting Engine View | 69 |
|--|----|

Chapter 9. Server Sizing Requirements 71

| | |
|---|----|
| Cognos Server Sizing Requirements | 71 |
|---|----|

Chapter 10. Cognos Components . . . 73

| | |
|-----------------------------|----|
| Cognos Components | 73 |
|-----------------------------|----|

Index 75

Notices 77

Chapter 1. Introduction

Overview of Business Intelligence

The IBM® Sterling Warehouse Management System Business Intelligence component is an optional component, providing powerful analytic and performance metrics that interface with the IBM Sterling Selling and Fulfillment Foundation data set. The IBM Sterling Warehouse Management System Business Intelligence component enables you to explore and analyze warehouse data. Warehouse managers, inventory supervisors, etc. can then use this data to identify performance trends and make consistent and coordinated decisions to strengthen your extended enterprise and value chain relationships.

IBM Sterling Warehouse Management System Business Intelligence component is delivered through a partnership with Cognos® Corporation. The goal of IBM Sterling Warehouse Management System Business Intelligence is to enhance the value of the IBM Sterling Selling and Fulfillment Foundation application by providing operational and analytical reporting capabilities to IBM Sterling Selling and Fulfillment Foundation users and their suppliers and partners.

Cognos Products

The IBM Sterling Warehouse Management System Business Intelligence component integrates with the following Cognos products:

- **Cognos 10.1.1 Business Intelligence:** Cognos' Web-enabled client-side reporting tool is used for creating and managing both ad-hoc and scheduled reports. Cognos 10.1.1 Business Intelligence includes Query Studio, Report Studio, and Analysis Studio. Query Studio enables you to create ad-hoc reports through a graphical user interface and save the reports in a variety of formats, such as pdf, Excel, real-time reports, or prompted reports. Report Studio is used to create managed reports that are maintained, reused, and require a higher level of complexity than a report produced in Query Studio. Analysis Studio enables you to create ad-hoc cross-tab reports based on the multi-dimensional data sources such as cubes.
- **PowerPlay® Client:** Cognos' OLAP reporting tool that enables you to explore multi-dimensional information by pointing, clicking, and dragging. Users can selectively view different dimensions, such as sales by region by product. Data can be viewed in cross-tab formats as well as a variety of graphical formats. For more information about this reporting tool, see the Cognos PowerPlay documentation.
- **PowerPlay Web:** Cognos' server-based product for the web deployment of analytic cubes. Users access PowerPlay Web through their browser. No client-side reporting software is required. For more information about PowerPlay Web, see the Cognos PowerPlay documentation.
- **PowerPlay Transformer:** Transformer is the modeling tool that you use to build multi-dimensional models from your source data (with IQD's created using Cognos 10.1.1 Business Intelligence). These models are distributed as PowerCubes that you can view in PowerPlay for Windows or PowerPlay Web.
- **Impromptu®:** Cognos' customizable user interface or portal where users publish, find, organize, and view analytic reports and cubes on the web. For more information about Impromptu, see the Cognos Impromptu documentation.

For more information about the Cognos components, go to your Cognos customer support site at: <http://support.cognos.com/>.

IBM Sterling Warehouse Management System Business Intelligence Components

The IBM Sterling Warehouse Management System Business Intelligence component is delivered with the following:

- Data Model
- Database Scripts
- Custom Files

The IBM Sterling Warehouse Management System Business Intelligence Data Model is a metadata model created using Framework Manager. This Data Model is used to build Cognos 10.1.1 reports. The reports generated by Report Studio are viewed using Cognos Connection. Cognos Connection is used for administering security.

Data Model

The Data Model provided by IBM Sterling Warehouse Management System Business Intelligence is the base for creating reports. The Data Model consists of a set of functionally grouped entities. The following figure illustrates the flow of report creation.

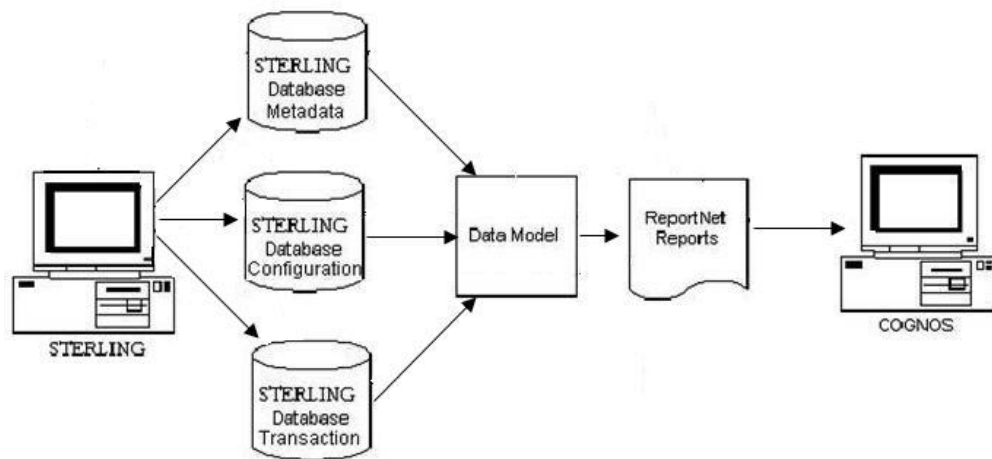


Figure 1. Report Flow Diagram

Database Scripts

The IBM Sterling Warehouse Management System Business Intelligence component provides the set of scripts that creates the IBM Sterling Warehouse Management System Business Intelligence views on the IBM Sterling Selling and Fulfillment Foundation Database. These are located in:

Analytics/Database/oracle/Scripts, Analytics/Database/db2/Scripts,
Analytics/Database/sqlserver/Scripts

Custom Files

The custom files (located in Analytics/Custom) are used to enhance the user's experience of the IBM Sterling Warehouse Management System Business Intelligence.

IBM Sterling Warehouse Management System Business Intelligence and Cognos Integration

IBM Sterling Warehouse Management System Business Intelligence provides access to Cognos Reports through the IBM Sterling Warehouse Management System Console. You must have authorization to access these reports.

Chapter 2. Installing and Configuring IBM Sterling Warehouse Management System Business Intelligence

Setting up Cognos

Before using the IBM Sterling Warehouse Management System Business Intelligence component, install the following Cognos products in accordance with Cognos' installation instructions for each product:

Note: If you are installing all Cognos products on one machine, we recommend that you install them in the order presented here.

- Cognos 10.1.1 Business Intelligence Server
- Framework Manager

Note: Depending on your usage (volume, users, data) Cognos recommends different configurations for the various servers used in this setup. Follow these recommendations to avoid setup-related performance issues down the road. For sample server sizing guidelines, see the topic "Server Sizing Requirements".

Setting up Security

The IBM Sterling Warehouse Management System Business Intelligence components do not ship with security enabled because it would complicate the deployment at a client site. All report components of the IBM Sterling Warehouse Management System are developed with the default "administrator" user privileges (login id=administrator, no password) using the default "Creator" user class in the "default" namespace. It is recommended that you enable security for the various Cognos components and subsequently the IBM Sterling Warehouse Management System Business Intelligence components after they are installed.

Pre-Installation Tasks

Before you begin installing IBM Sterling Warehouse Management System Business Intelligence, ensure if the following tasks are completed:

- The Cognos Connection has been installed.
- The content repository has been created through the Cognos Applications Manager.
- If you install IBM Sterling Selling and Fulfillment Foundation and IBM Sterling Warehouse Management System on the same computer, ensure that <INSTALL_DIR> and <YNW_ANALYTICS_HOME> do not point to the same directory.

Note: To generate reports using an Oracle database, the Oracle Client should be installed on the same machine as Cognos 10.1.1 Business Intelligence Server .

Note: Ensure that your <ANT_HOME>/lib has ant-contrib.jar.

If you do not have ant-contrib.jar, copy it from <INSTALL_DIR>/Migration/apache_ant-1.7.1/lib to <ANT_HOME>/lib.

For more information, see the *Cognos Configuration User Guide*.

Localize a Report

If you need to localize your reports, you must set the NLS_LANG environment variable to the appropriate value. The NLS_LANG environment variable has three components: language, territory, and character set.

If you have installed Cognos on UNIX

About this task

Export the NLS_LANG environment variable in the format language_territory.UTF8. For example, American_America.UTF8

If you have installed Cognos on Windows

Procedure

1. Stop the Cognos server.
2. Navigate to Start > Run > Regedit.
3. Create a backup of the registry by selecting Registry > Export Registry File.
4. Navigate to HKEY_LOCAL_MACHINE > SOFTWARE > ORACLE.
5. Under the ORACLE directory, locate Key_OraDB10g_home1 or similar.
6. On the right-hand side of the registry window, right-click NLS_LANG and select Modify.
7. Modify the NLS_LANG entry as follows:
NLS_LANG = language_territory.UTF8
For example, NLS_LANG = American_America.UTF8
8. Close the registry editor.
9. Navigate to Start > My Computer and right-click My Computer.
10. From the menu, select Properties. The System Properties dialog box displays.
11. In the System Properties pop-up window, click the Advanced tab.
12. In the Advanced tab window, click Environment Variables. The Environment Variables pop-up window displays.
13. In the Environment Variables pop-up window > System variables area, click New. The New System Variable pop-up window displays.
14. In the New System Variable pop-up window, perform the following tasks:
 - a. In Variable name, enter NLS_LANG.
 - b. In Variable value enter <language_territory.UTF8>. For example, AMERICAN_AMERICA.UTF8.
15. In the Environment Variables pop-up window, click OK.
16. In the System Properties pop-up window, click OK.
17. Restart your computer to enable your new environment variable.

Cognos 10.1.1 Business Intelligence

The Cognos Reporting component does not ship with security enabled. Cognos Connection should be used to enable security for these components.

Implementations must use the IBM Sterling Selling and Fulfillment Foundation Authentication Mechanism to authenticate users for viewing reports.

The database for content store for Oracle must have either UTF-8 or UTF-16 encoding. For more information about creating the database for content store, see the Cognos documentation at <http://www.ibm.com/cognos/support>.

You can copy the Oracle thin driver to <COGNOS_HOME>/c10/webapps/p2pd/WEB-INF. For more information about database drivers, see the Cognos documentation at <http://www.ibm.com/cognos/support>.

Since Cognos 10.1.1 cannot access the <INSTALL_DIR>/properties/ folder, you can include the connectivity information for the IBM Sterling Selling and Fulfillment Foundation in the <ANALYTICS_HOME>/bin/analytics.properties file.

Note: To execute reports successfully, ensure that you set the Enable CAF validation? flag to False, in the Cognos Configurator.

You can install the IBM Sterling Warehouse Management System in a Windows environment.

Install in a GUI-based UNIX or Linux Environment

About this task

Using a graphical user interface (GUI) in an X Windows client, you can install IBM Sterling Warehouse Management System Business Intelligence in a UNIX or Linux environment from a command line.

Note: The following instructions assume that you received an installation CD. If you downloaded IBM Sterling Warehouse Management System Business Intelligence from the Electronic Software Distribution (ESD) Portal, extract the downloaded file to an empty directory. The directory containing the extracted files is an electronic image of an installation CD. Use this directory wherever there is a reference to the installation CD in the following instructions. Ignore any instructions to place the installation CD in a drive.

To install the IBM Sterling Warehouse Management System Business Intelligence, follows these steps:

Procedure

1. Place the IBM Sterling Warehouse Management System Business Intelligence installation CD in the appropriate drive.
2. From the installation CD, copy the SCIInstallWizard.jar file to your home directory or base directory and change to that directory.

If you are using FTP to copy the files, verify that your session is set to binary mode.

3. Log in to a Windows machine.
 - a. Use a connectivity client to connect to your UNIX or Linux account.
 - b. Use the following command to set the display to use your X server as a client:

```
export DISPLAY=<server>:0.0
```

(or the appropriate Display identifier)

Note: The value 0.0 can be a different value. For example, 8.0.

4. Enter the following command from the directory where the SCIInstallWizard.jar resides:

```
<JAVA_HOME>/bin/java -Xmx512m -jar SCIIInstallWizard.jar
```

Note: On Linux, do not use any soft or symbolic links in the path to the jar file. Make sure that you specify the full path to the jar file.

The Installation dialog box is displayed in a GUI.

5. Click **Next** to start the installation program.
6. Review the license agreement, and click **Accept** to accept the terms.
7. Enter the directory where your JDK is installed. Click **Next**.
8. Enter the directory where you want to install the IBM Sterling Warehouse Management System Business Intelligence. Click **Select Folder** and refer this directory as `<YNW_ANALYTICS_HOME>` in subsequent prompts. After selecting the folder, click **Next**.
9. The Pending Installation Tasks screen is displayed. This screen is read-only. The following task is shown:
 - Verify Sufficient Disk Space
 - Click **Next** to continue.
10. On the Installation Progress screen, click **Install** to proceed with the installation. If you want to see detailed information about the progress of the installation, click **Show Details**, then click **Install**.
11. Once the installation is finished, click **Exit**.

For specific information about the installation, verify the `ant.install.log` file generated in your home directory.

Install in a Text-based UNIX or Linux Environment

About this task

Using a text-based (non-GUI) interface, you can install IBM Sterling Warehouse Management System Business Intelligence in a UNIX or Linux environment from a command line.

Note: The following instructions assume that you received an installation CD. If you downloaded IBM Sterling Warehouse Management System Business Intelligence from the Electronic Software Distribution (ESD) Portal, extract the downloaded file to an empty directory. The directory containing the extracted files is an electronic image of an installation CD. Use this directory wherever there is a reference to the installation CD in the following instructions. Ignore any instructions to place the installation CD in a drive.

To install the IBM Sterling Warehouse Management System Business Intelligence, follow these steps:

Procedure

1. Place the IBM Sterling Warehouse Management System Business Intelligence installation CD in the appropriate drive.
2. From the installation CD, copy the `SCIIInstallWizard.jar` file to your home directory or base directory and change to that directory.

If you are using FTP to copy the files, verify that your session is set to binary mode.

3. Enter the following command from the directory where the `SCIIInstallWizard.jar` resides:

```
<JAVA_HOME>/bin/java -Xmx512m -jar SCIIInstallWizard.jar
```

4. At the "Welcome to the IBM Sterling Warehouse Management System Business Intelligence Installer" prompt, press Enter.
5. At the "Press Enter to view the license agreement" prompt, press Enter to begin. The first page of the license agreement is displayed.
6. Type N for the next page of the agreement, or scroll directly to the end of the agreement by pressing any other key. After the last page of the license agreement is displayed, the prompt "Do you accept the license? Y or N" is displayed. Press Y for yes, N for no.
7. Enter the folder where you want to install the IBM Sterling Warehouse Management System Business Intelligence. This directory refers to the <YNW_ANALYTICS_HOME> in subsequent prompts. After entering the folder, press Enter.
8. In the next screen, confirm that you have selected the correct folder, and press Enter. The installation process starts.
9. Once the installation is finished, press Enter to exit.
For specific information about the installation, verify the `ant.install.log` file generated in your home directory.

Install in a GUI-based Windows Environment

About this task

Using a graphical user interface (GUI) in an X Windows client, you can install IBM Sterling Warehouse Management System Business Intelligence in a UNIX or Linux environment from a command line.

Note: The following instructions assume that you received an installation CD. If you downloaded IBM Sterling Warehouse Management System Business Intelligence from the Electronic Software Distribution (ESD) Portal, extract the downloaded file to an empty directory. The directory containing the extracted files is an electronic image of an installation CD. Use this directory wherever there is a reference to the installation CD in the following instructions. Ignore any instructions to place the installation CD in a drive.

To install the IBM Sterling Warehouse Management System Business Intelligence, follows these steps:

Procedure

1. Place the IBM Sterling Warehouse Management System Business Intelligence installation CD in the appropriate drive.
2. From the installation CD, copy the `SCIInstallWizard.jar` file to your home directory or base directory and change to that directory.

If you are using FTP to copy the files, verify that your session is set to binary mode.

3. Log in to a Windows machine.
 - a. Use a connectivity client to connect to your UNIX or Linux account.
 - b. Use the following command to set the display to use your X server as a client:

```
export DISPLAY=<server>:0.0
```

(or the appropriate Display identifier)

Note: The value 0.0 can be a different value. For example, 8.0.

4. Enter the following command from the directory where the `SCIInstallWizard.jar` resides:

```
<JAVA_HOME>/bin/java -Xmx512m -jar SCIInstallWizard.jar
```

Note: On Linux, do not use any soft or symbolic links in the path to the jar file. Make sure that you specify the full path to the jar file.

The Installation dialog box is displayed in a GUI.

5. Click **Next** to start the installation program.
6. Review the license agreement, and click **Accept** to accept the terms.
7. Enter the directory where your JDK is installed. Click **Next**.
8. Enter the directory where you want to install the IBM Sterling Warehouse Management System Business Intelligence. Click **Select Folder** and refer this directory as `<YNW_ANALYTICS_HOME>` in subsequent prompts. After selecting the folder, click **Next**.
9. The Pending Installation Tasks screen is displayed. This screen is read-only. The following task is shown:
 - Verify Sufficient Disk Space
 - Click **Next** to continue.
10. On the Installation Progress screen, click **Install** to proceed with the installation. If you want to see detailed information about the progress of the installation, click **Show Details**, then click **Install**.
11. Once the installation is finished, click **Exit**.
For specific information about the installation, verify the `ant.install.log` file generated in your home directory.

Configuring Cognos Data Sources

In order to map the IBM Sterling Selling and Fulfillment Foundation database schemas to Cognos, data sources must be configured on Cognos. In Release 9.1, the IBM Sterling Selling and Fulfillment Foundation is hosted either on single schema or on multischema. To support single schema or multischema on Cognos, data sources must be configured accordingly.

Configuration for Single Schema

Data pertaining to the IBM Sterling Selling and Fulfillment Foundation will point to a single schema. The following figure illustrates the setup required for a single schema.

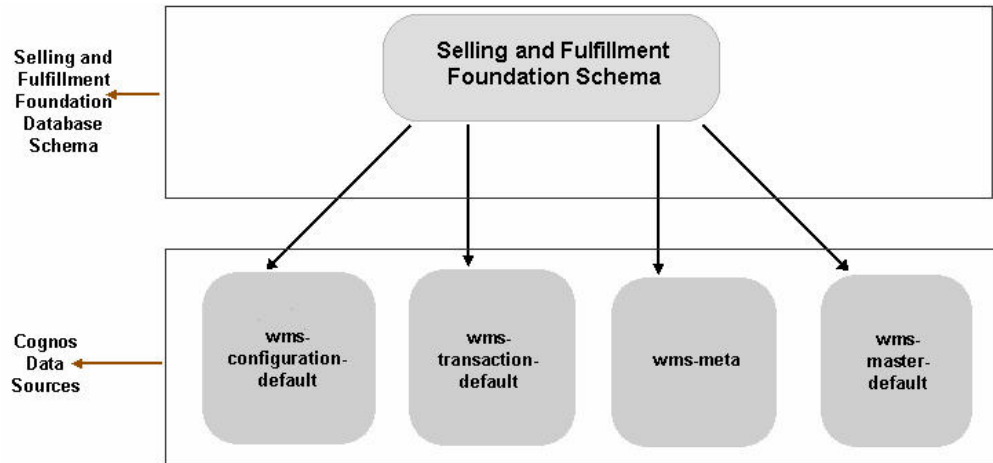


Figure 2. Single Schema Setup

Configure the following data sources on Cognos in order to represent individual table types in the IBM Sterling Selling and Fulfillment Foundation:

- wms-configuration-default
- wms-transaction-default
- wms-meta
- wms-master-default

All the data sources will point to a single schema that is mentioned in the jdbc.properties file under the <INSTALL_DIR>/properties directory.

Configuration for Multischema

When the IBM Sterling Selling and Fulfillment Foundation is hosted on multischema, there are three types of schemas, of which one is static, and the other two varies with the colonies.

Note: A colony represents a set of enterprises that are grouped together. A PK_PREFIX is a unique two digit number for each colony.

The following figure illustrates the setup required for multischema.

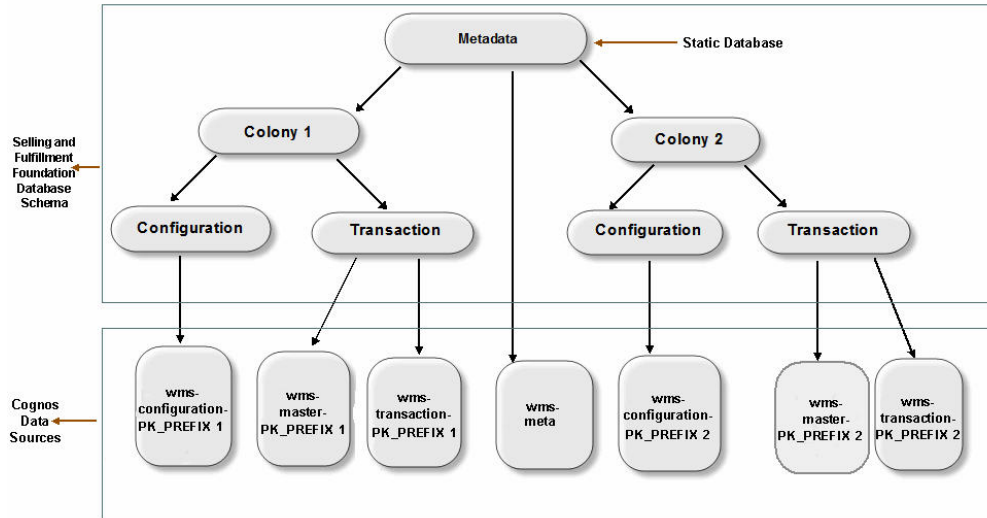


Figure 3. Multischema Setup

The static schema is called metadata, and contains information pertaining to colonies, and the schemas contained under the colonies. Each colony contains the following schemas:

- Configuration—This contains the configuration data.
- Transaction—This contains the master data and transaction data.

Therefore, in order to support multischema on Cognos, the following data sources must be created:

- wms-meta—Configure this data source such that it points to the metadata schema of the IBM Sterling Selling and Fulfillment Foundation. Specify the name of the data source as wms-meta.

Note: The metadata schema contains information pertaining to the colonies. For each colony, configure the following data sources:

- wms-configuration-<PK_PREFIX>
- wms-transaction-<PK_PREFIX>
- wms-master-<PK_PREFIX>
- wms-configuration-<PK_PREFIX>—Configure this data source such that it points to the configuration schema of the colony in the IBM Sterling Selling and Fulfillment Foundation.
- wms-transaction-<PK_PREFIX>—Configure this data source such that it points to the transaction schema of the colony in the IBM Sterling Selling and Fulfillment Foundation.
- wms-master-<PK_PREFIX>—Configure this data source such that it points to the transaction schema of the colony in the IBM Sterling Selling and Fulfillment Foundation. Note that the transaction schema contains both the master data and the transaction data.

IBM Sterling Warehouse Management System Business Intelligence Setup

Before you can use the IBM Sterling Warehouse Management System Business Intelligence component, you must:

1. Create the IBM Sterling Warehouse Management System Business Intelligence views in the IBM Sterling Selling and Fulfillment Foundation database.
2. To install the custom files, run the scripts described in the topics, "Run Custom Scripts on Windows" on page 15 and "Run Custom Scripts on UNIX" on page 15.

Creating IBM Sterling Warehouse Management System Business Intelligence Table Views

Before you can use the IBM Sterling Warehouse Management System Business Intelligence component, you must create the IBM Sterling Warehouse Management System Business Intelligence views in the IBM Sterling Selling and Fulfillment Foundation database. The IBM Sterling Warehouse Management System Business Intelligence metadata model is created from a set of IBM Sterling Warehouse Management System Business Intelligence Framework (YNA) views instead of the YFS tables directly.

Note: If you are using Microsoft SQL Server® database, ensure that IBM Sterling Warehouse Management System Business Intelligence is installed on Windows.

The YNA views are used specifically by the IBM Sterling Warehouse Management System Business Intelligence framework. The naming convention for these views is YNA_<view_name>_VW.

You can choose to generate WithHistory views or WithoutHistory views, based on your implementation requirements.

For more information about WithHistory and WithoutHistory views, see the topic, "IBM Sterling Warehouse Management System: Business Intelligence Framework Views".

Create WithHistory Table Views

About this task

WithHistory views are views that include data from History tables.

To create WithHistory views:

Procedure

1. Edit the yna_master_db_script.xml file located in the <YNW_ANALYTICS_HOME>/bin directory as follows:
 - a. Set the appropriate path for the DB driver directory in the dir attribute of the fileset element, **for example**, <fileset dir="/db/lib">.
 - b. Set the value of the type property to withHistory as mentioned below:
<property name="type" value="WithHistory"/>
 - c. If the IBM Sterling Selling and Fulfillment Foundation and IBM Sterling Warehouse Management System Business Intelligence are installed on the same server, set the file attribute in the property element to point to the jdbc.properties file, sandbox.cfg file, and noapp.properties file, **for example**, <property file="<INSTALL_DIR>/properties/jdbc.properties"/> and <property file="<INSTALL_DIR>/properties/sandbox.cfg"/>, and <property file="<INSTALL_DIR>/properties/noapp.properties"/>

If the IBM Sterling Selling and Fulfillment Foundation and IBM Sterling Warehouse Management System Business Intelligence are installed on

different servers, copy the jdbc.properties file and the sandbox.cfg file from IBM Sterling Selling and Fulfillment Foundation to IBM Sterling Warehouse Management System Business Intelligence, and set the file attribute in the property element to point to the copied jdbc.properties file, sandbox.cfg file, and noapp.properties file, **for example**, <property file="<INSTALL_DIR>/properties/jdbc.properties"/>, <property file="<INSTALL_DIR>/properties/sandbox.cfg"/>, and <property file="<INSTALL_DIR>/properties/noapp.properties"/>.

2. Execute the following script in the <YNW_ANALYTICS_HOME>/bin directory:

```
ant -f yna_master_db_script.xml
```

The system prompts to enter the IBM Sterling Selling and Fulfillment Foundation version number. Based on the version number, the IBM Sterling Warehouse Management System: Business Intelligence views will be created in the IBM Sterling Selling and Fulfillment Foundation database.

If you have a multischema environment in the IBM Sterling Warehouse Management System: Business Intelligence, views will be created for all the colonies of the IBM Sterling Selling and Fulfillment Foundation version number.

Create WithoutHistory Table Views

About this task

WithoutHistory views are views that do not include data from History tables.

To create WithoutHistory Views:

Procedure

1. Edit the yna_master_db_script.xml file located in the <YNW_ANALYTICS_HOME>/bin directory as follows:
 - a. Set the appropriate path for the DB driver directory in the dir attribute of the fileset element, **for example**, <fileset dir="/db/lib">.
 - b. Set the value of the type property to withoutHistory as mentioned below:
<property name="type" value="WithoutHistory"/>
 - c. If the IBM Sterling Selling and Fulfillment Foundation and IBM Sterling Warehouse Management System Business Intelligence are installed on the same server, set the file attribute in the property element to point to the jdbc.properties file, sandbox.cfg file, and noapp.properties file, **for example**, <property file="<INSTALL_DIR>/properties/jdbc.properties"/>, <property file="<INSTALL_DIR>/properties/sandbox.cfg"/>, and <property file="<INSTALL_DIR>/properties/noapp.properties"/>

If the IBM Sterling Selling and Fulfillment Foundation and IBM Sterling Warehouse Management System Business Intelligence are installed on different servers, copy the jdbc.properties file and the sandbox.cfg file from the IBM Sterling Selling and Fulfillment Foundation server to the IBM Sterling Warehouse Management System Business Intelligence server, and set the file attribute in the property element to point to the copied jdbc.properties file, sandbox.cfg file, and noapp.properties file, **for example**, <property file="<INSTALL_DIR>/properties/jdbc.properties"/>, <property file="<INSTALL_DIR>/properties/sandbox.cfg"/>, and <property file="<INSTALL_DIR>/properties/noapp.properties"/>.

2. Execute the following script in the <YNW_ANALYTICS_HOME>/bin directory:

```
ant -f yna_master_db_script.xml
```

The system prompts to enter the IBM Sterling Selling and Fulfillment Foundation version number. Based on the version number, the IBM Sterling Warehouse Management System: Business Intelligence views will be created in the IBM Sterling Selling and Fulfillment Foundation database.

If you have a multischema environment in the IBM Sterling Warehouse Management System: Business Intelligence, views will be created for all the colonies of the IBM Sterling Selling and Fulfillment Foundation version number.

Error Messages in the DB2 Universal Database

Some Failed to execute errors may be displayed during the **first run** of the above command in DB2 Universal Database™. The errors are typically of the following type and may be ignored:

```
[sql] Failed to execute: DROP VIEW YNA_STATUS_VW
[sql] com.ibm.db2.jcc.b.SqlException: DB2 SQL error: SQLCODE: -204,
SQLSTATE: 42704, SQLERRMC: STAGING.YNA_STATUS_VW
```

Some other Failed to execute errors could be displayed when running the above script from Windows operating system on the DB2 Universal Database. The errors are typically of the following type and may be ignored:

```
[sql] Failed to execute: DROP VIEW YNA_STATUS_VW
[sql] com.ibm.db2.jcc.b.SqlException: A result has opened by the previous
getResultSet() or getUpdateCount() call, Need to call getMoreResults()
```

Run Custom Scripts on Windows

About this task

To install a set of customized Web pages and images that enhance the users' experience of the IBM Sterling Warehouse Management System Business Intelligence Web component and to enable the IBM Sterling Selling and Fulfillment Foundation branding in this installation, you must complete the following task:

Procedure

1. Set the environment variables for Cognos and IBM Sterling Warehouse Management System Business Intelligence in the following script:
 - <YNW_ANALYTICS_HOME>/scripts/image_setup.bat
2. Images: Execute <YNW_ANALYTICS_HOME>\scripts\Image_Setup.bat. This copies some of the IBM Sterling Selling and Fulfillment Foundation images over the Cognos connection.

Run Custom Scripts on UNIX

Procedure

1. Set the environment variables for Cognos and IBM Sterling Warehouse Management System Business Intelligence in the following script:
 - <YNW_ANALYTICS_HOME>/scripts/image_setup.sh
2. Images: Execute <YNW_ANALYTICS_HOME>/scripts/image_setup.sh. This copies some of the IBM Sterling Selling and Fulfillment Foundation images over the Cognos connection.

Hide the Unused Buttons on the Cognos Toolbar

About this task

If the IBM Sterling Warehouse Management System Business Intelligence is installed on the same server on which Cognos BI server 10.1.1 is installed, by default, the Cognos toolbar will be displayed. To hide the unused buttons on the Cognos toolbar, perform the following steps:

Procedure

1. Set the <COGNOS_HOME> environment variable as the parent of the Cognos BI server 10.1.1 installation directory, for example, if Cognos BI server 10.1.1 is installed in the /usr/local/cognos/c10 directory, <COGNOS_HOME> must point to the /usr/local/cognos directory.
2. Browse to the <YNW_ANALYTICS_HOME>/customs directory, open the custom_system.xml file, and uncomment the objects corresponding to the buttons that must be hidden on the Cognos toolbar.
3. Run the ant -f ynwinstallanalytics.xml customizeview command from the <YNW_ANALYTICS_HOME>/bin folder.

Note: If you want to display the hidden buttons, manually comment the corresponding object from the UI_OBJECTS parameter in the <COGNOS_HOME>/c10/templates/ps/portal/system.xml file.

Disable or Modify a Cognos Cache Session

About this task

By default, the session cache setting is always enabled in Cognos BI server 10.1.1. In Cognos BI server 10.1.1, you can either disable or modify the session cache setting to increase or decrease the number of cache requests for each session.

To disable or modify the default session cache setting, perform the following steps:

Procedure

1. Rename the CQEConfig.xml.sample file, which can be accessed from the path <COGNOS_HOME>/c10/configuration/, as CQEConfig.xml.
2. Open the CQEConfig.xml file using a text editor such as Notepad.
3. By default, the value of the queryReuse parameter is set to 5.
To modify the session cache setting, change the value of the queryReuse parameter, as required, to increase or decrease the number of cache requests for each session.
To disable the session cache setting, set the value of the queryReuse parameter to 0.
4. Save the CQEConfig.xml file.
5. Using Cognos Configuration, stop the Cognos server, and restart it.

Deploy the IBM Sterling Warehouse Management System Business Intelligence Reports

About this task

To deploy the IBM Sterling Warehouse Management System Business Intelligence Reports follow these steps to Import the WMS-Analytics.zip into the Cognos Content Repository.

Procedure

1. Set the YNW_ANALYTICS_HOME environment variable as the IBM Sterling Warehouse Management System Business Intelligence Installation directory.
2. Set the COGNOS_HOME environment variable as the parent of the Cognos 10.1.1 Installation directory, **for example**, If Cognos 10.1.1 is installed in the /usr/local/cognos/c10 directory, COGNOS_HOME should point to the /usr/local/cognos directory.
3. Set the Display environment variable as appropriate to an X-Windows terminal.
4. The ynwinstallanalytics.xml file assumes that you have installed Cognos 10.1.1 and IBM Sterling Warehouse Management System Business Intelligence on the same machine. If, however, you have installed Cognos 10.1.1 and IBM Sterling Warehouse Management System Business Intelligence on two separate machines, modify the following line of the XML by replacing localhost with the IP address of the machine where Cognos 10.1.1 has been installed:

```
<property name="cognosurl" value="http://<localhost>:<9300>/p2pd/servlet/dispatch"/>
```

Note: Ensure that you copy the following third-party jar files from <COGNOS_HOME>/c10/webapps/p2pd/WEB-INF/lib to <YNW_ANALYTICS_HOME>/lib:

- axis.jar
 - axisCrnpClient.jar
 - CAM_AAA_CustomIF.jar
 - commons-discovery.jar
 - commons-logging.jar
 - dom4j.jar
 - jaxrpc.jar
 - saaj.jar
 - wsdl4j.jar
 - xalan.jar
 - xercesImpl.jar
 - xml-apis.jar
5. If IBM Sterling Warehouse Management System Business Intelligence and Cognos 10.1.1 are installed on the same machine, you must additionally run the target copylib in ynwinstallanalytics.xml.

Run the following command from <YNW_ANALYTICS_HOME>/bin: ant -f ynwinstallanalytics.xml copylib

This command copies:

- <YNW_ANALYTICS_HOME>/lib/sscap-auth.jar to <COGNOS_HOME>/c10/webapps/p2pd/WEB-INF/lib directory
- <YNW_ANALYTICS_HOME>/bin/analytics.properties.sample to <COGNOS_HOME>/c10/webapps/p2pd/WEB-INF/classes directory

- <YNW_ANALYTICS_HOME>/deployment/WMS-Analytics.zip to <COGNOS_HOME>/c10/deployment directory
 - <YNW_ANALYTICS_HOME>/images/refresh.gif to <COGNOS_HOME>/c10/webcontent/samples/images directory
- If IBM Sterling Warehouse Management System Business Intelligence and Cognos 10.1.1 are installed on different machines:
- Copy <YNW_ANALYTICS_HOME>/lib/sscap-auth.jar to <COGNOS_HOME>/c10/webapps/p2pd/WEB-INF/lib directory on the machine.
 - Copy the <YNW_ANALYTICS_HOME>/bin/analytics.properties.sample file to the <COGNOS_HOME>/c10/webapps/p2pd/WEB-INF/classes directory.
 - Copy the <YNW_ANALYTICS_HOME>/deployment/WMS-Analytics.zip file to the <COGNOS_HOME>/c10 deployment directory.
 - Copy the <YNW_ANALYTICS_HOME>/images/refresh.gif file to the <COGNOS_HOME>/c10/webcontent/samples/images deployment directory.

6. Ensure that the Cognos service has been started with Allow anonymous access set to True. After successful import of the content repository, set Allow anonymous access to False.
7. Run the following command from <YNW_ANALYTICS_HOME>/bin:


```
ant -f ynwinstallanalytics.xml
```

This publishes the IBM Sterling Warehouse Management System Business Intelligence package with reports on the Cognos Content Repository.
8. Save the <COGNOS_HOME>/c10/webapps/p2pd/WEB-INF/classes/analytics.properties.sample file as analytics.properties in the same directory.
9. Change the value of the sscap.app.url property in the analytics.properties file to point to the IBM Sterling Selling and Fulfillment Foundation Application URL as follows:


```
sscap.app.url=http://<hostname>:<portnumber>/smcfs
```

In this instance,

 - hostname is the computer name or IP address of the computer where the IBM Sterling Selling and Fulfillment Foundation is installed.
 - portnumber is the listening port of the computer where the IBM Sterling Selling and Fulfillment Foundation is installed.

IBM Sterling Selling and Fulfillment Foundation Authentication Mechanism

It is recommended that implementations use the IBM Sterling Selling and Fulfillment Foundation Authentication Mechanism to authenticate users for viewing reports.

To setup the IBM Sterling Selling and Fulfillment Foundation Authentication Mechanism:

1. Launch Cognos Configuration
2. Navigate to Security > Authentication
3. Add a new namespace sscap resource of the type Custom Java Provider
4. Assign the namespace ID sscap to this namespace resource
5. Assign the Java classname com.yantra.authenticator.YantraAuthentication

Modifying Customer Overrides Properties

To launch reports using the Application Console, the following properties has to be specified in the `<INSTALL_DIR>/properties/customer_overrides.properties` file.

The Cognos BI server 10.1.1 URL format is:

```
http://<machinename>/ibmcognos/cgi-bin/cognos.cgi
```

`<machinename>` should be replaced with the machine name or the IP address of the Cognos 10.1.1 installation machine.

For additional information about modifying the properties and the `customer_overrides.properties` file, see the *Sterling Selling and Fulfillment Foundation: Installation Guide*.

Note: DO NOT change the other parts of this URL. The IBM Sterling Warehouse Management System Business Intelligence access from the IBM Sterling Selling and Fulfillment Foundation may fail.

Note: By default, the following property is set in the `yfs.properties_ynw_ext` file:

```
yfs.analytics.reportnet.url=http://<machinename>/ibmcognos/cgi-bin/cognos.cgi
```

This property can be commented out if it is set in the `yfs.customeroverrides.properties` file. When executing the Cognos reports, the application will consider the URL set in the `customeroverrides.properties` file.

You must also configure the `yfs.analytics.namespace` property in the `<INSTALL_DIR>/properties/customer_overrides.properties` file. This property indicates the namespace that is to be configured to authenticate users in Cognos 10.1.1 BI.

Launching Cognos BI server 10.1.1

To launch Cognos BI server 10.1.1 from the IBM Sterling Warehouse Management System, you must configure:

```
yfs.analytics.reportnet.url=http://<machinename>/ibmcognos/cgi-bin/cognos.cgi  
property
```

`<machinename>` should be replaced with the machine name or the IP address of the Cognos 10.1.1 BI installation machine.

Note: Do not change the other parts of the URL mentioned earlier. The IBM Sterling Warehouse Management System Business Intelligence access from the IBM Sterling Selling and Fulfillment Foundation may fail.

You must also configure the `yfs.analytics.namespace=<sscap>` property which indicate the namespace that will be configured to authenticate the Cognos 10.1.1 BI.

Chapter 3. The IBM Sterling Warehouse Management System Business Intelligence Framework

The IBM Sterling Warehouse Management System Business Intelligence Framework

The IBM Sterling Warehouse Management System Business Intelligence Framework consists of:

- IBM Sterling Warehouse Management System Business Intelligence Framework views in the IBM Sterling Selling and Fulfillment Foundation database
- Data Model

You must complete the following tasks for a complete utilization of IBM Sterling Warehouse Management System Business Intelligence for analysis and reporting:

- Create views in the IBM Sterling Selling and Fulfillment Foundation database
- Optionally, build reports. Please refer to the Cognos 10.1.1 documentation for information about designing reports.
- Deploy reports
- Refresh reports
- Optionally, extend reports

IBM Sterling Warehouse Management System Business Intelligence Framework Views

The IBM Sterling Warehouse Management System Business Intelligence Framework (YNA) views are the foundation for the IBM Sterling Warehouse Management System Business Intelligence metadata model. They provide flexibility when exposing the underlying table changes in the database. These views also hide some of the complex table joins and the "where" clauses that are specific to the design of the IBM Sterling Selling and Fulfillment Foundation system. If you extend the basic Data Model to include other tables from the IBM Sterling Selling and Fulfillment Foundation Database, it is recommended to follow the same methodology. Column names of the views are usually identical to the underlying table field name.

Most of the views span one table. Others span multiple related tables, providing a list of columns containing important transactional information. Some views contain denormalized information that help reduce the complexity of the Data Model, for example, the YFS_PERSON_INFO table has been denormalized in all the related views.

IBM Sterling Warehouse Management System Business Intelligence provides two sets of views: WithHistory and WithoutHistory. WithHistory views contain IBM Sterling Warehouse Management System Business Intelligence view set and run against the historical and non-historical data. WithoutHistory views contain the IBM Sterling Warehouse Management System Business Intelligence view set but only run against non-historical data.

Important: WithHistory and WithoutHistory views work off the same view names and set of folders. Configure the model to access different view sets from different schema, one for historical data and one for non-historical data.

Data Model

The Data Model is a metadata model that provides:

- A single administration point for metadata supporting Cognos 10.1.1 reports.
- Centralized business rule definitions for maintenance and consistency.
- Access to data from several different types of sources.
- Expanded querying and reporting capabilities.
- Centralized data access setup (permissions)

Star to Snowflake Model

In a normalized database, there are typically master tables and transactional tables. The master table data is shared by many transactional tables, or a given transactional table may have multiple columns as foreign keys for the same master table. In a query, this type of transactional table(s) are joined to the same master table, the master table is repeated in the SQL query, for example,

```
SELECT <Required_Column> FROM YFS_ORGANIZATION O, YFS_PERSON_INFO PI1,  
YFS_PERSON_INFO PI2,  
YFS_PERSON_INFO PI3  
WHERE O.CORPORATE_ADDRESS_KEY = PI1.PERSON_INFO_KEY (+) AND  
O.CONTACT_ADDRESS_KEY = PI2.PERSON_INFO_KEY (+) AND O.BILLING_ADDRESS_KEY =  
PI3.PERSON_INFO_KEY (+)
```

In this example, the Person Info master table has been repeated for each referencing column. If the Organization table was joined to another table that had more references to the Person Info table, you could have viewed see more Person Info tables in the query.

In the Data Model, joins are created between the entities to represent the relationships between them. Naturally, if there is only one entity for a master table, and more than one reference to it is required in a particular query, the SQL that is produced will not be correct, for example,

```
SELECT <Required_Column> FROM YNA_ORDER_LINE_VW OL,  
YNA_ORGANIZATION_SHIP_NODES_VW SN  
WHERE OL.SHIP_NODE_KEY = SN.SHIP_NODE_KEY AND OL.RECEIVING_NODE =  
SN.SHIP_NODE_KEY .
```

This query is not correct. Therefore, in this case, you need two entities in the Catalog that correspond to the YNA_ORGANIZATION_SHIP_NODES_VW view. This is done by replicating the entity Organization Distribution Nodes into Organization Receiving Nodes and Organization Ship Nodes and separate joins are created with the Order Line entity.

If more entities require the same set of master tables, the master tables can be further replicated in the Catalog, for example, Organization Receiving Nodes and Organization Ship Nodes are required both by Order Line and Order Release. Therefore, there are two instances of each Node table in the Catalog.

Other tables may have to be similarly replicated from views. For details on these views, see the topic, "IBM Sterling Warehouse Management System: Business Intelligence Views". Because this replication is extended for more and more master tables, the Star model of the database begins to look like a Snowflake. The following figure illustrates this concept.

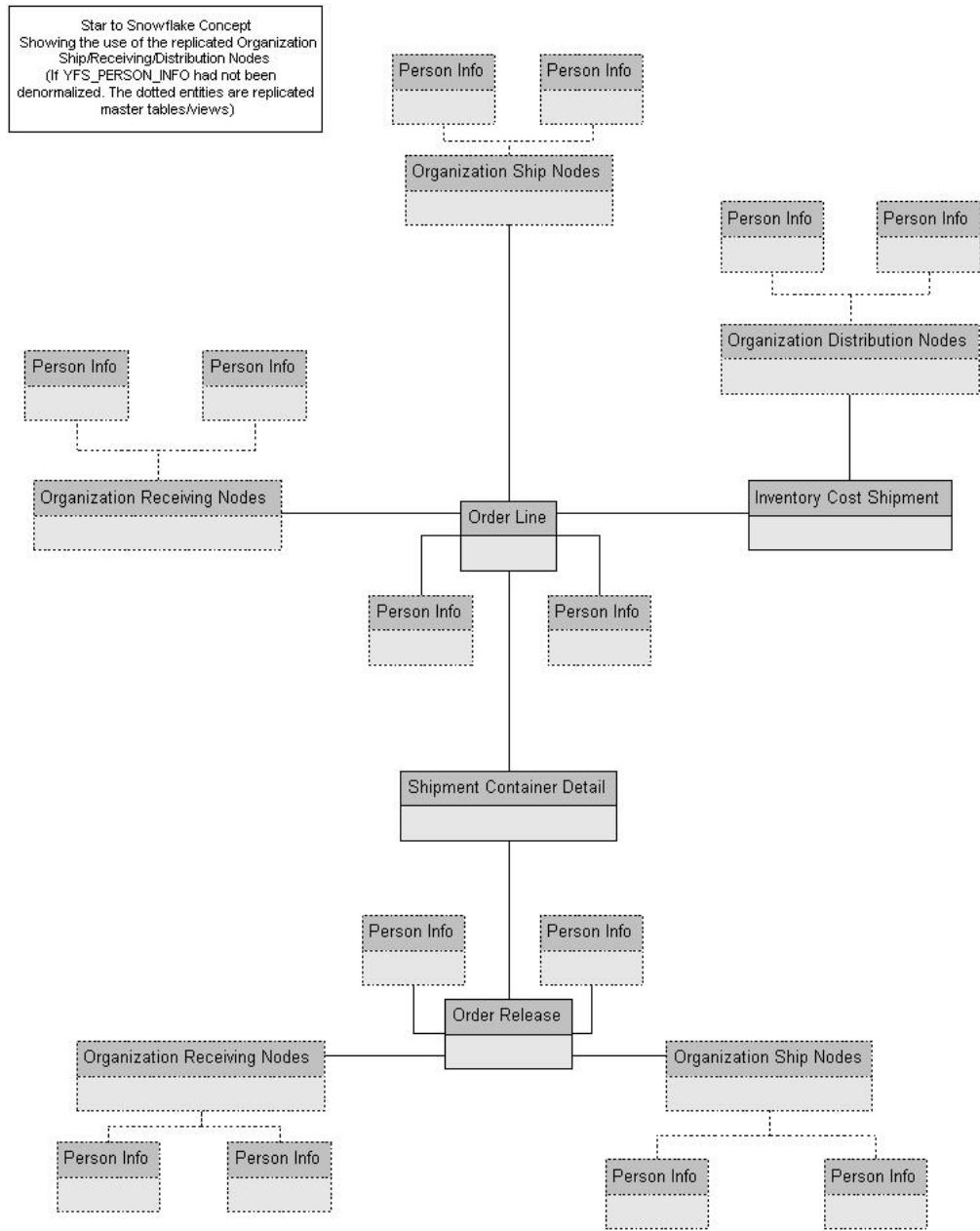


Figure 4. Star to Snowflake Model

Extending the IBM Sterling Warehouse Management System Business Intelligence Data Model

The IBM Sterling Warehouse Management System Business Intelligence Data Model can be modified to incorporate the specific needs of your IBM Sterling Selling and Fulfillment Foundation installation by extending the Catalog. This chapter discusses how you can extend the Catalog.

For information about extending your IBM Sterling Selling and Fulfillment Foundation installation, see the *Sterling Selling and Fulfillment Foundation: Customization Guide*.

Before you extend the Data Model, read the *Cognos 10.1.1* documentation so that you understand how to use the product and you can apply that knowledge to the Data Model. Be sure to create a backup of all the components that are going to be modified.

The Data Model is extended by adding, deleting or renaming fields, tables and views, or entities.

To add fields, tables, and views, follow the instructions in the *Cognos 10.1.1* documentation.

It is recommended that you do **not** delete or rename the objects that already exist in the Catalog delivered with IBM Sterling Warehouse Management System Business Intelligence. This can create compatibility problems with future versions of the IBM Sterling Warehouse Management System Business Intelligence Framework components. However, if it is absolutely necessary to delete some objects, follow the guidelines provided in the *Cognos 10.1.1* documentation.

Data Model Objects

The Data Model provides a simplified, English-oriented, non-technical view of the metadata. In the Data Model, business entities are defined and renamed such that they can be represented using common business names and grouped from a business perspective. The Data Model provides intuitive access to the report building blocks. Navigate to **Tools** → **Modify Names**, to change the column names. This function provides a list of name rules that are executed for these entities. The Data Model has the following components:

- Filters
- Entities
- Joins

Filters

IBM Sterling Selling and Fulfillment Foundation provides filters that is used to narrow down the selected data. Filters are also required for limiting access to data for different classes of users.

A filter includes the data that is "filtered" (filtered in, not filtered out). For condition-level details of a filter, see the filter properties in the model. The SQL that is formed in cases where a filter is applied contains the condition of that filter. The filter that is provided:

- **Sales Order** – limits data to the Document_Type of 0001.

Entities

The Data Model includes entities from the views and entities created in the model.

- Entities from Views - For details on these entities, see the topic, IBM Sterling Warehouse Management System Business Intelligence Views.
- Entities Created in the Catalog - When a normalized database, typically represented as a star model, is modeled, it is denormalized in the model to allow multiple joins in the same tables. That is, a star model is expanded into a snowflake. Some of this denormalization is done in the YNA views for commonly joined tables, such as YFS_PERSON_INFO. Other entities have been duplicated in the Data Model.

Joins

Joins are created in the Data Model. This reduces the maintenance overheads for the model.

Cardinality for Joins

The cardinality for the joins are specified in accordance with the database design logic for the various entities, for example, An Order Header may not always have a Carrier Service Code. Therefore, the cardinality for the Order Header join with Organization Carrier is 0:1 on the Carrier side.

Additionally, to allow flexibility in reporting, some of the joins have optional cardinality (0:1 or 0:n). This is done so that, in a query, the main entity's data set is not restricted by the lack of data in the views it is joined with. Typically, the transactional views do not have optional joins, however, the master views have them.

The Data Model allows changing of the optional cardinality to a direct join at an individual report level.

Join Cardinality Flexibility

The Item and Item Alias entities have a 1:1-0:n join in the business layer. When the Cognos 10.1.1 report containing these two entities is created, it is as follows:

```
select T1."MANUFACTURER_NAME" as c1,
       T2."ALIAS_NAME" as c2
from ("YNA_ITEM_VW" T1 left outer join "YNA_ITEM_ALIAS_VW" T2 on T2."ITEM_KEY" =
T1."ITEM_KEY")
--If we now uncheck the Report->Query->Access->"Include the missing table join
--values (outer join)" check box, the query changes to
select T1."MANUFACTURER_NAME" as c1,
       T2."ALIAS_NAME" as c2
from "YNA_ITEM_ALIAS_VW" T2,
YNA_ITEM_VW" T1
where (T2."ITEM_KEY" = T1."ITEM_KEY")
```

However, if the join in the business layer was 1:1-1:n instead, the flexibility described here would not have been possible to achieve.

Chapter 4. IBM Sterling Warehouse Management System Business Intelligence Reports

IBM Sterling Warehouse Management System Business Intelligence Reports

To aid warehouse managers who are responsible for decision-making in terms of inventory, inbound, outbound, and other operations in the warehouse, the IBM Sterling Warehouse Management System Business Intelligence provides many reports. Access to these reports is controlled, based on the group to which the user belongs.

The IBM Sterling Warehouse Management System Business Intelligence reports can also be used by enterprise users for tracking inventory across nodes. These reports aid enterprise users in better decision-making by providing complete visibility to the inventory across all nodes.

The IBM Sterling Warehouse Management System Business Intelligence also provides a better user interface by integrating reports with the Application Console. Dynamic menus are provided to enable users to access reports from the appropriate consoles. The reports displayed in the menu are based on the user's group. For example, only users who belong to the group representing warehouse managers can view the Order Billing Report and the Shipment Billing Report in their menu. Data security is maintained in the reports by allowing only users with appropriate permissions to access the information.

After the user navigates to the search screen of a specific report, the criteria for generating the report can be entered in the search screen. Based upon this criteria, the IBM Sterling Warehouse Management System Business Intelligence displays the appropriate report.

Reports are created using Cognos 10.1.1. Please refer to the Cognos 10.1.1 documentation for information about designing reports.

The reports provided with the IBM Sterling Warehouse Management System are grouped into the following four menu classifications:

- Inbound Reports
- Returns Reports
- Inventory Reports
- VAS Reports
- Outbound Reports
- Billing Activity Reporting Engine Reports

Inbound Reports

Inbound reports provide visibility to receipts. These reports aid receiving supervisors to plan receipts and labor requirement for receipts, as well as to manage discrepancies. The warehouse manager can also see information on receipts that are expected shortly, so as to make the dock doors available for these receipts.

For more information about inbound reports, see the *Sterling Warehouse Management System: Reports Guide*.

The different inbound reports provided with the IBM Sterling Warehouse Management System are:

- **Await Material Report**
This report shows the summary of the items that are waiting for material. This report helps the warehouse manager to identify items that are unavailable and to prioritize inbound shipments that can reduce the awaiting items in this report.
- **Delivery Dock Schedule Report**
The Dock Schedule Report provides visibility into appointments taken for one or more receiving docks, for a range of dates.
- **Dock to Stock Cycle Time KPI Report**
This report is used to measure the Dock to Stock cycle time on all inbound shipments or receipts. Cycle time is defined as the time that elapses from the start of the receipt to the time that Putaway is completed.
- **Inbound Labor Requirements Report**
This report is used to determine labor requirements for receiving activities. The labor required is calculated based on the Standard Allowable Minutes defined.
- **Item Attribute Setup Report**
This report lists all items in the warehouse that do not have their attributes completely defined. This report is useful to identify items that have incomplete setup, as this information is required to execute warehouse operations.
- **Receipt Discrepancy Report**
This report is used to track the receipt discrepancy details between the expected and received quantities for a particular day or date range. The report displays the discrepancy as Short Receipt, Over Receipt, or Damaged.
- **Receipt Detail Report**
This report lists the details of the shipments received for the selected shipment, Purchase Order (PO), or date range. It provides details at the item and quantity level.
- **Receiving Summary Report**
This report lists the receipts for the selected shipment, PO, or date range. It provides summary receipt information at the shipment level.
- **Shipment Billing Summary Report**
This report displays the number of shipments and shipment lines shipped, and the number of receipts and receipt lines received. This report also provides the transaction details for the transactions in the details report.
- **Vendor Non-Compliance Report**
The Vendor Non-Compliance Report displays the non-compliant shipments observed during the inbound process. This report helps the warehouse to identify the vendors shipping non-compliant shipments.

Returns Reports

Returns reports aid warehouse managers to view information about inventory returns.

For more information about returns reports, see the *Sterling Warehouse Management System: Reports Guide*.

The returns report provided with the IBM Sterling Warehouse Management System is:

- Returns Report by Reason Code
This report lists all shipments based on the return reason code entered during the return process. This report can also be generated for specific selected reason codes.

Inventory Reports

Inventory reports aid inventory supervisors to manage inventory, track the movement of inventory within the warehouse, and get visibility on the different categories of inventory, such as, inventory that are on hold. These reports can also be used to categorize inventory based on cost.

For more information about inventory reports, see the *Sterling Warehouse Management System: Reports Guide*.

The different inventory reports provided with the IBM Sterling Warehouse Management System are:

- Containers Not Having Standard Quantity Report
This report lists all cartons stored in the warehouse that have less than the standard case or pallet quantity. This report can be used to identify opportunities for consolidation.
- Cycle Count Variance Daily Report
This report provides the cycle count variance information, on a daily basis, for a given date range.
- Cycle Count Variance Monthly Report
This report provides the cycle count variance information, on a monthly basis, for a given date range.
- Cycle Count Variance Weekly Report
This report provides the cycle count variance information, on a weekly basis, for a given date range.
- Dedicated Locations Activity Report
This report provides visibility into locations that are dedicated to certain Stock Keeping Units (SKUs). The activity report categorizes the locations based on the number of times the location is replenished.
- Dedicated Locations Usage Report
This report provides visibility into locations that are dedicated to certain Stock Keeping Units (SKUs). This usage report shows locations that have remained unused in various time buckets.
- Empty Location Report
This report provides a list of empty locations in the warehouse. This report can also be accessed as a sub-report of the Space Consolidation Report.
- Inventory Aging Report
This report provides the inventory age identified by its receipt date. In case the receipt date information is lost, the inventory age cannot be ascertained and is therefore classified as "Inventory with Unknown Age".
- Inventory Audit Report
This report is used to track inventory changes resulting from the execution of tasks in the warehouse. This report can help in tracking changes to item or location inventory, inventory changes done by a user, or a combination of these.

- **Inventory Balance Report**
This report is used to balance the opening and closing quantity of inventory for an item within a date range.
- **Inventory Hold Report**
This report lists the item and location details for all items that are on hold due to Quality Control activities, Count variances, and locations that are frozen for Picking or Putaway.
- **Item Inventory Across Nodes Report**
This report is used to track the inventory of items across nodes for either all or selected enterprises. The report can be executed only for those enterprises to which the user has access.
- **Item Inventory Report**
This report lists the details of the item inventory at the node. You can drill down to location level and container level reports from this report.
- **Item Tag No. Report**
This report lists all item transactions for the given tag number. The report displays the transactions in three categories: Inbound, Inventory, and Outbound.
- **Item Velocity Report**
Due to changes in demand, seasonal variations, and product life cycle characteristics, item velocity changes over time. This report captures the item velocity, as measured by the number of shipments that the item features in during the selected date range.
- **Location/SKU Velocity Mismatch Report**
This report matches the Location Velocity to the Item Velocity to identify locations that have a mismatch. The warehouse can use this report to reorganize item locations to optimize the utilization of locations.
- **Node Inventory Valuation Report**
This report lists the item, quantity, and valuation details for a node. This report is useful in determining the inventory valuation in a node.
- **Participant List Report**
This report lists the number of participants defined in the Participant Model with role details.
- **Space Consolidation Report**
This report provides item-wise information about the location capacity utilization. This helps in identifying space consolidation opportunities.
- **Space Utilization Report**
This report provides information on location capacity utilization in terms of percentage.
- **Location Inventory Detail Report**
This report is used to track the inventory of items and locations in the warehouse at the item, case, pallet, status, and other item attributes levels.
- **Location Inventory Summary Report**
This report is used to track the inventory of items and locations in the warehouse at the item or location level.

VAS Reports

Value Added Services (VAS) reports aid warehouse managers to view information about work orders to perform Value Added Services on the inventory.

For more information about VAS reports, see the *Sterling Warehouse Management System: Reports Guide*.

The VAS report provided with the IBM Sterling Warehouse Management System is:

- Work Order Report
This report displays all the work orders for the node, in different stages of completion. This report is used to review open work orders.

Outbound Reports

Outbound reports aid shipping supervisors to see information on order billing and shipment billing. These reports can also be used to get visibility to outbound labor requirements, on-time shipments, and so on.

For more information about outbound reports, see the *Sterling Warehouse Management System: Reports Guide*.

The different outbound reports provided with the IBM Sterling Warehouse Management System are:

- BOL Total Weights Report
This report lists the number of cartons or pallets, and the total weight details against each Bill Of Lading (BOL). This report lists all details for BOLs shipped for the selected carrier or date range.
- Container Volume Monthly Report
This report shows the number of containers shipped each month. For the current month, it only shows the total number of cartons shipped till date.
- Daily Shipment Report
This report provides high-level visibility into shipment activity in the warehouse, on a daily basis, for a specified date range. This report provides daily information on new shipments awaiting shipping on the day, shipments shipped on the day, shipment pending from previous days, and shipments carried over to the next day.
- Dock Pickup Schedule Report
The Dock Schedule Report provides visibility into appointments taken for one or more shipping docks, for a range of dates.
- Generic Shipper Report
This report gives details of shipments that are either to be shipped or were shipped using each carrier that the warehouse uses. The warehouse can use this report to understand the carrier usage patterns.
- Hot Inventory Report
This report helps to identify the inbound shipments that should be unloaded based on the hot items in the trailer or container. These items are on backorder for the warehouse, and available in the expected shipments.
- On Time Shipment Report
This report captures the number of shipments shipped at the scheduled time. It also categorizes the delayed shipments into buckets of delays by one, two, or more days.
- Order Billing Summary Report
This report lists the transaction details for all types of orders handled by the warehouse. This report helps to track metrics, such as the number of orders or order lines shipped or received.
- Order Cycle Time KPI Report

This report is used to measure the turnaround cycle time on all outbound shipments or orders. Cycle time is defined as the time that elapses from when an order is released to a warehouse until the time it is shipped.

- **Order Shipment Report**
This report shows the details of shipments against orders. It also shows the quantity ordered and shipped at the item level.
- **Outbound Labor Requirements Report**
This report is used to determine the labor requirements for waves or shipments that are to be picked, packed, and shipped on a future date. This report is useful to plan resource requirements for outbound activities.
- **Pack and Hold Shipments Report**
This report lists all shipments that are currently in the 'pack and hold' status, along with their location and shipper details. This report is useful to the warehouse supervisor to review pack and hold shipments.
- **Parcel Manifest Report**
This report lists the Parcel manifest details in terms of shipment details, number of containers, weight, and other details for the selected manifest number or carrier and service.
- **Pickup Dock Schedule Report**
The Dock Schedule Report provides visibility in to appointments taken for one or more shipping docks, for a range of dates.
- **Replenishment Status Report**
This report helps the monitoring of replenishment activities in the warehouse. The report provides information about the replenishment status and highlights shortages or overages of replenishment quantities.
- **Same Day Pick Pack Ship Percentage Report**
This report gives a measure of the number of shipments picked, packed, and shipped on the same day. The criterion for any shipment to be counted is that the pick date is the same as the actual ship date.
- **Shipment Billing Summary Report**
This report displays the number of shipments and shipment lines shipped, and the number of receipts and receipt lines received. This report also lists the transaction details for the transactions in the details report.
- **Shipment Fill Rate Monthly Report**
This report shows the percentage of complete shipments shipped by the warehouse. The percentage is calculated as the ratio of the complete shipments shipped to the total number of shipments shipped by the node.
- **Shipments Near or Past Cancel Date Report**
This report lists unshipped shipments that are near or past the selected order cancel date range. This report is useful to track the shipments that are due and manage resources to execute the same.
- **Shipment Shortage Report**
This report lists all shipments that have item shortages and aids warehouse managers in managing exceptions.
- **Staging Locations Report**
Warehouses have limited staging locations. Therefore, they can become a bottleneck if not managed properly. This report provides a means to identify locations that might be occupying space by having shipments that are either not loaded or awaiting containers.
- **Vendor Non-Compliance Report**

The Vendor Non-Compliance Report displays the non-compliant shipments observed during the inbound process. This report helps the warehouse to identify the vendors shipping non-compliant shipments.

Task Reports

Task reports aid warehouse managers to view information about the various tasks performed in the warehouse.

For more information about task reports, see the *Sterling Warehouse Management System: Reports Guide*.

The task reports provided with the IBM Sterling Warehouse Management System are:

- In-Progress Container Summary Report

This report shows the current status of the pick-pack-ship process. The default container dashboard view shows two graphs: Number of containers by statuses and Number of Containers by Carriers.

- In-Progress Shipment Summary Report

This report shows the current status of the pick-pack-ship process. The default dashboard view shows these two graphs: Number of Shipments and Cartons Across All Carriers, and Number of Shipments and Cartons by Carrier.

- User Productivity Daily Report

This report provides user productivity information, on a daily basis, for a given date range.

- User Productivity Monthly Report

This report provides user productivity information, on a monthly basis, for a given date range.

- User Productivity Weekly Report

This report provides user productivity information, on a weekly basis, for a given date range.

- Warehouse Activity Completion Report

This report provides a summary of the various warehouse tasks that are in "Completed" status. The numbers change as more tasks enter the "Completed" status. The user can also select only a specific set of task types to populate the activity report.

Billing Activity Reporting Engine Reports

The Billing Activity Reporting Engine aids warehouse managers to view information about the various activities performed in the warehouse.

For more information about billing activity reporting engine reports, see the *Sterling Warehouse Management System: Reports Guide*.

The different billing activity reporting engine reports provided with the IBM Sterling Warehouse Management System are:

- Billing Activity Report

The Billing Activity Report shows the billable activities performed in the warehouse for an Enterprise, as captured by the Billing Activity Reporting Engine.

Rules for Creating New Reports

- Never make changes to the IBM Sterling Warehouse Management System Business Intelligence package, or add or modify reports within. From release to release, IBM Sterling Selling and Fulfillment Foundation may provide new deployment files. These files will overwrite all changes you made to the IBM Sterling Warehouse Management System Business Intelligence package.
- To add new reports, open the IBM Sterling Warehouse Management System Business Intelligence package model in the Framework Manager. Rename the package (for example, Sterling_NEWNAME_Analytics). Save this package and publish it to the content repository.
- After publishing the renamed package, you will see a new package folder (named, for example, Sterling_NEWNAME_Analytics) along with the previous IBM Sterling Warehouse Management System Business Intelligence on Cognos Connection. All new reports should be added to the new package and any changes to the model (for example, new or modified views) should also be made to the new package in Framework Manager.

Chapter 5. Deploying Reports

Refreshing Databases

To view the report data, you must deploy the reports and refresh them against your database. The resulting reports allow you to analyze the data in various forms.

Read the *Cognos 10.1.1 Powerplay Enterprise Server Installation and Configuration Guide* before deploying the IBM Sterling Warehouse Management System Business Intelligence.

The database impact of a refresh depends on the volume of data involved, the refresh frequency, and the report complexity. Depending on your requirements, you may have installed all the Cognos components on a single machine, 1 to 2 machines, or a distributed setup. See the *Cognos 10.1.1 Powerplay Enterprise Server Installation and Configuration Guide* for various setup scenarios. Your transactional database may be co-located. You may need to refresh your database only during offpeak hours, or have a 24/7 requirement for your system.

You must therefore, analyze your deployment scenario and setup the refresh accordingly.

Important: It is recommended that you refresh the reports against a replicated database instead of your transactional database.

Refreshing the reports against a replicated database instead of your transactional database allows you to configure and tune the replicated database according to your reporting needs, such as creating indices, keys on the tables, or tuning your database parameters. You can replicate the transactional database using the standard database replicating tools in the market. If you need to refresh against a transactional database, keep in mind the performance impact on both the refresh and the IBM Sterling Selling and Fulfillment Foundation transactions occurring in the database during the refresh period.

Create a Directory for Report Deployment

About this task

Refer to the Cognos 10.1.1 documentation for information about how to deploy IBM Sterling Warehouse Management System Business Intelligence reports.

Remember to provide filter values for any reports that have filters, for example, data or security.

We recommend the following steps to create your folder structure for report deployment:

Procedure

1. Create a folder named "Staging" (or similar) under /<YNW_ANALYTICS_HOME>.
2. Under the "Staging" folder create a folder named "Publish".

3. Under the "Publish" folder, create a folder for "Reports" where you will put the reports that are ready to be deployed.
4. You can create additional folders under "Reports" to group reports, for example, Finance or Marketing.

Refreshing Reports

Based on the type of report deployed, the report could be either scheduled to refresh at certain times, or is executed at the time it is viewed, for example, Burst Reports. See the Cognos 10.1.1 BI documentation for more information about refreshing reports.

Chapter 6. Localizing Reports

Localizing Reports

Localization is the process of adapting the IBM Sterling Warehouse Management System for a particular country or region. Localization enables the IBM Sterling Warehouse Management System to support the character set of a user's locale, present numbers, literals, and report data that is appropriate to the locale.

This chapter explains how to localize the IBM Sterling Warehouse Management System reports.

For more information about localizing the IBM Sterling Warehouse Management System see the *Sterling Selling and Fulfillment Foundation: Localization Guide*.

Literal Localization

All IBM Sterling Warehouse Management System reports use a common resource bundle that contains the literals displayed on the screens. IBM Sterling Warehouse Management System enables you to customize and localize resource bundles, as needed.

Localize the Resource Bundle

About this task

The complete resource bundles in the `ycrnbundle.properties` file are always released with the localized versions of the IBM Sterling Warehouse Management System Business Intelligence. Incremental updates are not provided. If you localize the IBM Sterling Warehouse Management System reports, it is your responsibility or that of your third-party localization company to compare and validate the differences between the resource bundles shipped with the product to those that you have localized.

The resource bundles of IBM Sterling Warehouse Management System Business Intelligence are located in the `<YNW_ANALYTICS_HOME>/resources/ycrnbundle.properties` file.

To localize the resource bundles:

Procedure

1. Copy the `<YNW_ANALYTICS_HOME>/resources/ycrnbundle.properties` file and save it as `<YNW_ANALYTICS_HOME>/resources/ycrnbundle_<language>_<country>.properties`.
2. Each resource bundle contains a `<key>=<value>` pair where key is the resource key and value is the literal displayed for the corresponding locale. Replace `<value>` with the translated value.
 - Some of the literals that need to be translated in the resource bundles contain data placeholders. These data placeholders indicate that the literal is displayed with one or more data values within the literal, for example, the application displays the error message "Priority should be greater than X" where X could be any number. Because the location of the X within the literal can be different for different languages, the resource bundle uses a

placeholder that can be placed anywhere in the literal during translation. The resource bundle entry looks as follows:

```
PRIORITY_ERROR_MESSAGE=Priority should be greater than {0}
```

Notice how the {0} place holder indicates where the dynamic data value appears in the literal. This {0} can be placed anywhere in the literal, for example,

```
PRIORITY_ERROR_MESSAGE=A number greater than {0} should be entered
```

or

```
PRIORITY_ERROR_MESSAGE={0}: Priority entered should be greater than this
```

are valid possibilities. This gives you the flexibility to translate the literal in any way the language dictates. Note that multiple placeholders may appear in the literal as well, for example, {0}, {1}, {2}, and so forth. Each placeholder must exist somewhere in the corresponding translated literal.

- When using literals that contain data placeholders, you cannot use single quotation marks. If a single quotation mark is used in conjunction with a placeholder, the single quotation mark is not displayed and the placeholder is not replaced with its replacement value. In order to avoid this situation, enter two single quotes wherever a single quote is required.

The following is an invalid entry:

```
PRIORITY_ERROR_MESSAGE=The primary organization's name is {0}
```

The following is valid entry:

```
PRIORITY_ERROR_MESSAGE=The primary organization''s name is {0}
```

- Files should be returned in native format with UTF-8 encoding.
 - Properties should be returned in escaped Unicode format with UTF-8 encoding.
3. Tahoma is used as default font. Therefore if you want to display or type Unicode characters, you should localize the theme. This is done by changing the font to Unicode in the theme-specific XML files.
 4. Save the modified file. If the file is in UTF-8 format, convert it to ASCII by running the native2ascii command as follows:

```
native2ascii -encoding UTF-8 <source file> <target file>
```

Note: Files localized in Latin1 languages do not require this conversion.

The file should be returned in the following format:

```
<filename>_<2 letter code for language as given by ISO 639>_<2 letter code for territory as given by ISO 3166>.<file extension>
```

For example, ycrnbundle.properties should be returned as ycrnbundle_fr_FR.properties.

Localizing Report Literals

To localize the report literals, in the <YMW_ANALYTICS_HOME>/bin folder, execute the following command:

```
ant -f ycrnlocalizer.xml import
```

Note: The ycrnlocalizer.xml command assumes that you have installed Cognos 10.1.1 BI and IBM Sterling Warehouse Management System Business Intelligence on the same machine. If, however, you have installed Cognos 10.1.1 BI and IBM Sterling Warehouse Management System Business Intelligence on two separate machines, modify the following line of the XML by replacing localhost with the IP address of the machine where Cognos 10.1.1 BI has been installed:

```
<property name="cognosurl" value="http://<localhost>/crn/cgi-bin/cognos.cgi"/>
```

This command reads all the bundles in the <YNW_ANALYTICS_HOME>/resources folder. It then adds the literal translations for each locale into the report definitions present in the <YNW_ANALYTICS_HOME>/reports folder. The modified report definitions are copied into the <YNW_ANALYTICS_HOME>/localizedreports folder, and also added into the content repository. When the reports are generated again, the literals are displayed according to the user's locale.

Localizing Report Data

About this task

All the columns in the reports that describe an entity are localized out-of-the-box, for example, Item Description, Shipment Status, Order Status, Task Status, Document Types, and so forth.

To localize the report data in your system:

- Localized views are created by performing an outer join on the report-specific view and the YFS_LOCALIZED_STRINGS table.

Note: Localization of Item Descriptions is done differently. Item Descriptions are localized by performing an outer join on the report-specific view and the YFS_LANGUAGE_DESCRIPTION table.

- The report data is taken from the localized views created in the previous step.
- The report contains a mandatory filter on the locale code to fetch data specific to the user's locale.

For example, to localize Item Descriptions in the Inventory Aging Report,

- YNA_NODE_INVENTORY_NL_VW is a non-localized view to fetch data for the Inventory Aging Report.
- YNA_NODE_INVENTORY_VW is a localized view which performs an outer join between YNA_NODE_INVENTORY_NL_VW and the YFS_LANGUAGE_DESCRIPTION table.
- The Inventory Aging Report is designed from YNA_NODE_INVENTORY_VW. This report has a mandatory filter on the locale code.

YNA_NODE_INVENTORY_NL_VW is located in <YNW_ANALYTICS_HOME>/database/<database>/Scripts/WithHistory/ Node Inventory MasterNL.sql

YNA_NODE_INVENTORY_VW is located in <YNW_ANALYTICS_HOME>/database/<database>/Scripts/WithHistory/ Node Inventory Master.sql.

The Inventory Aging Report definition is located in: <YNW_ANALYTICS_HOME>/Reports/Inventory_Aging_Report.xml.

Localize Custom Report Literals

About this task

The IBM Sterling Warehouse Management System enables you to create custom reports and localize them.

To localize custom report literals, in the <YNW_ANALYTICS_HOME>/bin folder:

Procedure

1. Save the extended resource bundles as <YNW_ANALYTICS_HOME>/resources/extn/extnbundle_<language>_<country>.properties.

For example, `ycrnbundle.properties` should be saved as `ycrnbundle_fr_FR.properties`.

2. Execute the following command:

```
ant -f ycrnlocalizer.xml import
```

Results

This command reads all the bundles in the `<YNW_ANALYTICS_HOME>/resources` folder. It then adds the literal translations for each locale into the report definitions present in the `<YNW_ANALYTICS_HOME>/reports` folder. The modified report definitions are copied into the `<YNW_ANALYTICS_HOME>/localizedreports` folder, and also added into the content repository. When the reports are generated again, the literals are displayed according to the user's locale.

Localize Custom Report Data

About this task

To localize the custom report data in your system:

Procedure

1. Create a localized view by performing an outer join on the report-specific view and the `YFS_LOCALIZED_STRINGS` table.

Note: Localization of Item Descriptions is done differently. Item Descriptions are localized by performing an outer join on the report-specific view and the `YFS_LANGUAGE_DESCRIPTION` table.

2. Take the report data from the localized views created in the previous step.
3. In the report, create a mandatory filter on the locale code to fetch data specific to the user's locale. If the data is fetched from multiple localized views, the locale code should be added as a filter for each view.

Chapter 7. Troubleshooting and Tuning

Troubleshooting Business Intelligence Issues

This topic explains some of the issues that may be encountered when using IBM Sterling Warehouse Management System Business Intelligence. It also includes tips about overcoming this issues.

Note: This chapter does not include troubleshooting instructions for standard Cognos products or issues. For Cognos product-related troubleshooting, see the Cognos documentation.

Ensure Access Manager is Running Correctly

About this task

To ensure that the Access Manager is running correctly:

Procedure

1. Make sure that the Access Manager is installed after the Netscape LDAP server is installed, configured, and registered.
2. Configure the Cognos LDAP authentication using DDN 0=yantra.
3. When registering the Access Manager using the Access Manager Wizard, configure the Cognos LDAP provided in the previous step.
4. If, for some reason, the authentication is not working for the default namespace, then uninstall the Access Manager, re-install LDAP, and re-configure with proper parameters, re-register and then try connecting again.

SQL Net Connect String Error

About this task

If you get the error "The SQL Net connect string shown on the Analytics catalog is BLACKHOLE after installing the IBM Sterling Warehouse Management System Analytics on a fresh server" when trying to open the catalog:

The catalog's available user classes do not correspond to any defined by the Common Logon Server"

Follow these steps to ensure that the YNA-catalog can be opened:

Procedure

1. Launch the Access Manager Administrator.
2. Right-click Root User Class, select Add User Class, and perform the following functions:
 - Under the General tab enter Creator in the Name text box.
 - Select the Permissions tab and set the permissions for the Creator user class.
 - Click Apply to save the information.
 - Click OK to return to the Access Manager Administration Tree.
3. From the Administration Tree select the folder named Users.

- Select the user(default is administrator) that you would like to associate with the user class, right-click, and select Membership tab. Select the user class that the user belongs to. In this case the Creator user class. Alternatively you can associate the user by selecting the user named Administrator, and then drag it into the Creator user class.

Results

An error will occur if any user not belonging to a specific user class attempt to log in to the catalog, hence ensure that all the users belong to a user class before attempting to open an Impromptu catalog.

Failed to Change User Class

If you receive the error: "Failed to change the User Class. Unable to access the user profile creator. Incomplete catalog login information for user class", when running reports through the browser, you need to embed a user id and password into the catalog.

Embed a Database Profile in Catalog

About this task

To embed a database user ID and password in a catalog:

Procedure

1. Open the catalog in Cognos 10.1.1 BI.
2. Select Catalog->Profiles from the main menu.
3. Select the Database tab.
4. For each User Class, in the Database Security Options section, select Database Logon and supply a database id and password.

Change the Database Logon Type

About this task

To change the Database Logon type:

Procedure

1. Launch Report Administration.
2. Select the Report Project view.
3. Highlight the report set.
4. Select the User radio button in the Database Logon Type section.

Results

If the reports have already been published, delete them all and re-publish with the change mentioned above.

This chapter provides some tips for tuning reports and your IBM Sterling Warehouse Management System Business Intelligence installation. For information regarding performance tuning of individual Cognos products, see the Cognos Administration Guides.

Tuning the IBM Sterling Warehouse Management System Business Intelligence Reports

Because all IBM Sterling Warehouse Management System Business Intelligence reports are eventually based on SQL statements, It is recommended that you tune the SQL underlying the reports and sub-reports. You can avoid complicated report SQL by breaking the reports up into sub-reports.

Tuning Your IBM Sterling Warehouse Management System Business Intelligence Installation

Tuning your IBM Sterling Warehouse Management System Business Intelligence installation involves sizing the servers where the installation is installed. For information about sizing your servers for IBM Sterling Warehouse Management System Business Intelligence, see the topic, Server Sizing Requirements.

Unable to View Data in the Reports

If you are unable to view data in the reports, perform these tasks:

- Ensure that the URL of the Cognos Web site is added as a trusted Web site in your browser.
- Ensure that cookies are enabled in your browser.
- Ensure that the value of the `yfs.analytics.reportnet.url` property in the `custom_override.properties` file, for example, `yfs.analytics.reportnet.url=http://<machinename>/ibmcognos/cgi-bin/cognos.cgi`, does not contain extra space at the end.
- Ensure that the value of the `sscap.app.url` property in the `analytics.properties` file, for example, `sscap.app.url=http://<hostname>:<portnumber>/smcfs`, does not contain extra space at the end.

Unable to Generate Reports

When you generate a report for the first time, and if an "Internal error has occurred. Please contact your system administrator" or "RSV-SRV-0042" error message is displayed, regenerate the report. For more information about the error messages pertaining to report generation can be found at: <http://www-01.ibm.com/support/docview.wss?uid=swg21340994>.

Chapter 8. IBM Sterling Warehouse Management System Business Intelligence Views

IBM Sterling Warehouse Management System Business Intelligence Views

IBM Sterling Warehouse Management System Business Intelligence Views are a layer of abstraction on the YFS tables. Most of these views are straight select statements from the table, having a UNION with its history (archived) table, if it exists. The fields in these views are derived directly from the underlying table, without any calculations. These views are not described in detail in this appendix. For their descriptions, see the Entity Relationship Diagrams.html. For a complete list of the view SQL and the join where clause, see the corresponding.sql files located in:

- <YNW_ANALYTICS_HOME>/Database/oracle/Scripts/WithHistory
- <YNW_ANALYTICS_HOME>/Database/oracle/Scripts/WithoutHistory
- <YNW_ANALYTICS_HOME>/Database/db2/Scripts/WithHistory
- <YNW_ANALYTICS_HOME>/Database/db2/Scripts/WithoutHistory
- <YNW_ANALYTICS_HOME>/Database/sqlserver/Scripts/WithHistory
- <YNW_ANALYTICS_HOME>/Database/sqlserver/Scripts/WithoutHistory

For more information about WithHistory and WithoutHistory views, see the topic, The IBM Sterling Warehouse Management System Business Intelligence Framework"IBM Sterling Warehouse Management System: Business Intelligence Framework Views.

Note: Views to query Resource Pool capacity across service lines currently are NOT provided. This is due to bandwidth limitations

Note: Views created directly on, or joined to, the YFS_ORDER_HEADER table exclude draft order records (specifically: YNA_ORDER_HEADER_VW, YNA_ORDER_LINE_VW, YNA_ORDER_HEADER_ADD_VW, and YNA_INV_COST_SHIPMENT_VW). Therefore, reports based on, or joined with, these views will not show draft order data.

To include such records, remove this SQL clause from the views mentioned above:

```
OH.DRAFT_ORDER_FLAG = 'N'
```

To exclude such records in views that you create or modify, append this SQL clause to the view definition:

```
YFS_ORDER_HEADER.DRAFT_ORDER_FLAG = 'N'
```

The following sets of views are described in this topic:

- Catalog
- Exceptions
- General
- Inventory
- Invoicing
- Logistics

- Order
- Order Header
- Order Line
- Order Release
- Order To/From Transaction
- Organization
- Organization Levels
- Pricing
- Receiving Discrepancy
- Receipt Views
- Shipment
- Sterling Warehouse Management System Views
- Work Order

Note: Relationship diagrams for all of the views are available under Analytics\Database\ERD.

Catalog Views

This set of views expose the Item and Catalog-related data. The set consists of the views described in the following table.

Table 1. Catalog Views

| View | Description | Interpreted Columns | SQL Filename |
|------------------------|--|---------------------|--------------------------------------|
| YNA_CATEGORY_ITEM_VW | This view exposes the data in the YFS_CATEGORY_ITEM table. | None | MASTER/Catalog_Category_Item.sql |
| YNA_CATEGORY_VW | This view exposes the data in the YFS_CATEGORY table. | None | MASTER/category_vw.sql |
| YNA_CATALOG_MASTER_VW | This view exposes the data in the YFS_CATALOG_MASTER table. | None | MASTER/Catalog_Master.sql |
| YNA_ITEM_VW | This view exposes the data in the YFS_ITEM table. | None | MASTER/item_vw.sql |
| YNA_ITEM_ALIAS_VW | This view exposes the data in the YFS_ITEM_ALIAS table. | None | MASTER/item_alias_vw.sql |
| YNA_ITEM_TAG_VW | This view exposes the data in the YFS_ITEM_TAG table. | None | MASTER/Item_Tag.sql |
| YNA_ITEM_UOM_MASTER_VW | This view exposes the data in the YFS_ITEM_UOM_MASTER table. | None | CONFIGURATION/item_uom_master_vw.sql |
| YNA_CATEGORY_NL_VW | This view exposes the data in the YFS_CATEGORY table. | None | MASTER/Catalog_CategoryNL.sql |

Exception Views

This set of views expose the Exception-related data. The set consists of the views described in the following table.

Table 2. Exception Views

| View | Description | Interpreted Columns | SQL Filename |
|-----------------------------|--|---------------------|--|
| YNA_EXECUTION_EXCEPTION_VW | This view exposes data from the YFS_EXECUTION_EXCEPTION table | None | CONFIGURATION/execution_exception_vw.sql |
| YNA_EXCEPTION_INBOX_VW | This view exposes the data in the YFS_INBOX table. | None | TRANSACTION/Exception_Inbox.sql |
| YNA_EXCEPTION_INBOX_REF_VW | This view exposes the data in the YFS_INBOX_REFERENCES table. | None | TRANSACTION/Exception_Inbox_References.sql |
| YNA_EXCEPTION_QUEUE_SUBS_VW | This view exposes the data in the YFS_QUEUE_SUBSCRIPTION table. | None | MASTER/Exception_Queue_Subscription.sql |
| YNA_EXCEPTION_QUEUE_NL_VW | This view exposes the data in the YFS_QUEUE table. | None | CONFIGURATION/Exception_QueueNL.sql |
| YNA_EXEC_EXCEPTION_AUDIT_VW | This view exposes data from the YFS_EXECUTION_EXCEPTION_AUDIT table. | None | TRANSACTION/Exec_Exception_Audit_Vw.sql |

General Views

This set of views expose the general related data. The set consists of the views described in the following table.

Table 3. General Views

| View | Description | Interpreted Columns | SQL Filename |
|-----------------------------|--|---------------------|---|
| YNA_COMMON_CODE_NL | This view exposes limited columns from the YFS_COMMON_CODE table | None | CONFIGURATION/Common_CodeNL.sql |
| YNA_COMMON_CODE_VW | This view exposes data from the YFS_COMMON_CODE table. | None | CONFIGURATION/common_code_vw.sql |
| YNA_DESCRIPTIONS_CONFIG_VW | This view contains DESCRIPTION column from all of Configuration Tables | None | CONFIGURATION/description_view_config.sql |
| YNA_DESCRIPTIONS_MASTER_VW | This view contains DESCRIPTION column from all of Master Tables | None | MASTER/description_view_master.sql |
| YNA_LANGUAGE_DESCRIPTION_VW | This view exposes data from the YFS_LANGUAGE_DESCRIPTION table. | None | MASTER/language_description_vw.sql |
| YNA_LOCALE_VW | This view exposes data from the YFS_LOCALE table. | None | CONFIGURATION/locale_vw.sql |
| YNA_LOCALIZED_STRINGS_VW | This view exposes data from the YFS_LOCALIZED_STRINGS table. | None | CONFIGURATION/localized_strings_vw.sql |
| YNA_PERSON_INFO_VW | This view exposes data from the YFS_PERSON_INFO table. | None | CONFIGURATION/person_info_vw.sql |

Table 3. General Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|-------------------------|---|---------------------|---------------------------------------|
| YNA_PRODUCTIVITY_VW | This view exposes data from the YFS_PRODUCTIVITY table. | None | TRANSACTION/Productivity.sql |
| YNA_PERSON_INFO_VW | This view exposes data from the YFS_PERSON_INFO table | None | TRANSACTION/person_info_vw.sql |
| YNA_WORKFLOW_PTD_VW | This view exposes the data in the YFS_PIPELINE, YFS_PIPELINE_DEFINITION, and YFS_PIPELINE_DROP _STS_COND tables. It provides information about the Pipeline, Transaction, and Drop Status (PTD) for various Process Types. It is a helper view used by other views in IBM Sterling Warehouse Management System Business Intelligence. | None | CONFIGURATION/Workflow_PTD.sql |
| YNA_PERSON_INFO_VW | This view exposes data from the YFS_PERSON_INFO table | None | MASTER/Person_Info.sql |
| YNA_PIPELINE_VW | This view exposes data from the YFS_PIPELINE table. | None | CONFIGURATION/pipeline_vw.sql |
| YNA_SCAC_AND_SERVICE_VW | This view exposes data by joining the YNA_SCAC _AND_SERVICE_NL_VW and YNA_LOCALIZED_DESCRIPTIONS_VW views. | None | CONFIGURATION/scac_and_service_vw.sql |
| YNA_STATUS_NL_VW | This view exposes the data for few columns in the YFS_STATUS table. | None | CONFIGURATION/StatusNL.sql |
| YNA_STATUS_VW | This view exposes data from the YFS_STATUS table. | None | CONFIGURATION/status_vw.sql |
| YNA_DOCUMENT_PARAMS_VW | This view exposes data from the YFS_DOCUMENT_PARAMS table. | None | CONFIGURATION/document_params_vw.sql |
| YNA_QUEUE_VW | This view exposes data from the YFS_QUEUE table. | None | CONFIGURATION/queue_vw.sql |

Inventory Views

This set of views expose the Inventory-related data. The set consists of the views described in the following table.

Table 4. Inventory Views

| View | Description | Interpreted Columns | SQL Filename |
|-----------------------------|--|---------------------|--|
| YNA_INVENTORY_AUDIT_VW | This view exposes the data in the YFS_INVENTORY_AUDIT table. | None | TRANSACTION/ inventory_audit_vw .sql |
| YNA_INVENTORY_COST_MATCH_VW | This view exposes the data in the YFS_INVENTORY_MATCH table. | None | TRANSACTION/ Inventory_Cost_Match .sql |
| YNA_INV_COST_SHIPMENT_VW | This view exposes the data in the YFS_INVENTORY_SHIPMENT and YFS_ORDER_HEADER tables. In addition to the columns of YFS_INVENTORY_SHIPMENT table, this view also exposes the seller organization on the order where the shipment was made. | None | TRANSACTION/ Inventory_Cost_Shipment.sql |
| YNA_INVENTORY_DEMAND_VW | This view exposes the data in the YFS_INVENTORY_DEMAND table. | None | TRANSACTION/ Inventory_Demand.sql |
| YNA_INVENTORY_ITEM_VW | This view exposes the data in the YFS_INVENTORY_ITEM table. | None | TRANSACTION/ inventory_item_vw.sql |
| YNA_INVENTORY_SUPPLY_VW | This view exposes the data in the INVENTORY_SUPPLY table. | None | TRANSACTION/ inventory_supply_vw.sql |
| YNA_INVENTORY_TAG_VW | This view exposes the data in the YFS_INVENTORY_TAG table. | None | TRANSACTION/ Inventory_Tag.sql |
| YNA_INVENTORY_STATUS_VW | This view exposes data from the YFS_INVENTORY_STATUS table | None | CONFIGURATION/ inventory_status_vw.sql |
| YNA_INVENTORY_STATUS_NL_VW | This view exposes selected columns from the YFS_INVENTORY_STATUS table. | None | CONFIGURATION/ Inventory_StatusNL.sql |
| YNA_GLOBAL_SERIAL_NUM_VW | This view exposes the data in the YFS_GLOBAL_SERIAL_NUM table. | None | TRANSACTION/ Global_Serial_Num.sql |
| YNA_INVENTORY_RECEIPT_VW | This view exposes the data in the YFS_INVENTORY_RECEIPT table. | None | TRANSACTION/ inventory_receipt_vw.sql |
| YNA_RES_POOL_VW | This view exposes the data in the YFS_RES_POOL table. | None | MASTER/ res_pool_vw.sql |

Table 4. Inventory Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|-------------------------------|---|---------------------|---|
| YNA_RES_POOL_CAPCTY_CONS_VW | This view exposes data from the YFS_RES_POOL_CAPCTY_CONSMPTN table. | None | TRANSACTION/Res_pool_consmptn_dtls_vw.sql |
| YNA_RES_POOL_CONSMPTN_DTLS_VW | This view exposes the data in the YFS_RES_POOL_CONSMPTN_DTLS table. | None | TRANSACTION/res_pool_consmptn_dt1_vw.sql |
| YNA_SERVICE_RESOURCE_VW | This view exposes the data in the YFS_SERVICE_RESOURCE table. | None | MASTER/service_resource_vw.sql |

Invoicing Views

This set of views expose the Invoice-related data. The set consists of the views described in the following table.

Table 5. Invoicing Views

| View | Description | Interpreted Columns | SQL Filename |
|-------------------------------|--|---------------------|--|
| YNA_INVOICE_COLLECTION_VW | This view exposes the data in the YFS_INVOICE_COLLECTION table. | None | TRANSACTION/Invoicing_Collection.sql |
| YNA_INVOICE_HEADER_CHARGES_VW | This view exposes the data in the YFS_HEADER_CHARGES table. It also exposes the YFS_HEADER_CHARGES table filtered for Header Charges related to Invoicing. | None | TRANSACTION/Invoicing_Header_Charges.sql |
| YNA_INVOICE_LINE_CHARGES_VW | This view exposes the YFS_LINE_CHARGES table for the Line Charges related to Invoicing. | None | TRANSACTION/Invoicing_Line_Charges.sql |
| YNA_INVOICE_LINE_TAX_VW | This view exposes the YFS_TAX_BREAKUP table filtered for Taxes related to Invoicing. It is used for Line Taxes. | None | TRANSACTION/Invoicing_Line_Tax.sql |
| YNA_INVOICE_ORDER_DETAIL_VW | This view exposes the data in the YFS_ORDER_INVOICE_DETAIL table. | None | TRANSACTION/Invoicing_Order_Detail.sql |

Table 5. Invoicing Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|----------------------------|---|---------------------|---|
| YNA_INVOICE_TAX_CHARGES_VW | This view exposes the YFS_TAX_BREAKUP table filtered for Taxes related to Invoicing. It is used for Header Taxes. | None | TRANSACTION/ Invoicing_Tax_ Breakup.sql |
| YNA_INVOICE_ORDER_VW | This view exposes the data in the YFS_ORDER_INVOICE table. | None | TRANSACTION/ Invoicing_ Order.sql |

Logistics Views

This set of views expose the Shipment-related data. The set consists of the views described in the following table.

Table 6. Logistics Views

| View | Description | Interpreted Columns | SQL Filename |
|-----------------------------|---|---------------------|--|
| YNA_DELIVERY_PLAN_VW | This view exposes the data in the YFS_DELIVERY_PLAN table. | None | TRANSACTION/Delivery_Plan.sql |
| YNA_LOAD_ADD_VW | This view exposes limited columns from the YFS_LOAD table | None | TRANSACTION/Load.sql |
| YNA_LOAD_VW | This view exposes the data in the YFS_LOAD table. | None | TRANSACTION/load_vw.sql |
| YNA_LOAD_SHIPMENT_VW | This view exposes the data in the YFS_LOAD_SHIPMENT table. | None | TRANSACTION/ load_shipment_vw.sql |
| YNA_LOAD_SHIPMENT_ADD_VW | This view exposes limited columns from YFS_LOAD_SHIPMENT | None | TRANSACTION/Load_Shipment.sql |
| YNA_LOAD_SHIPMENT_CHARGE_VW | This view exposes the data in the YFS_LOAD_SHIPMENT_CHARGE table. | None | TRANSACTION/ Load_Shipment_Charge.sql |
| YNA_LOAD_STATUS_AUDIT_VW | This view exposes the data in the YFS_LOAD_STATUS_AUDIT table. | None | TRANSACTION/ Load_Status_Audit.sql |
| YNA_LOAD_STOP_VW | This view exposes the data in the YFS_LOAD_STOP table. | None | TRANSACTION/load_stop_vw.sql |
| YNA_LOAD_STOP_ADD_VW | This view exposes limited columns from the YFS_LOAD_STOP table | None | TRANSACTION/Load_Stop.sql |

Order Views

This view exposes the Order-related audit data. The set consists of the views described in the following table.

Table 7. Order Views

| View | Description | Interpreted Columns | SQL Filename |
|-----------------------------|---|---------------------|---|
| YNA_ORDER_AUDIT_VW | This view exposes the data in the YFS_ORDER_AUDIT_H table. It is provided for backward compatibility. Important: The changeOrder API creates audit information in a format that is not exposed to the IBM Sterling Warehouse Management System Business Intelligence Framework. | None | TRANSACTION/Order_Audit.sql |
| YNA_PAYMENT_VW | This view exposes the data in the YFS_PAYMENT table filtered for an Order Header. | None | TRANSACTION/Payment.sql |
| YNA_ORDER_RELEASE_STATUS_VW | This view exposes the data in the YFS_ORDER_RELEASE_STATUS table filtered for an Order Header. | None | TRANSACTION/order_release_status_vw.sql |

Order Header Views

This set of views expose the Order Header related data. The set consists of the views described in the following table.

Table 8. Order Header Views

| View | Description | Interpreted Columns | SQL Filename |
|-----------------------------|--|---------------------|--|
| YNA_ORDER_HEADER_VW | This view exposes the data in the YFS_ORDER_HEADER table. | None | TRANSACTION/order_header_vw.sql |
| YNA_ORDER_HEADER_ADD_VW | This view exposes limited columns from YFS_ORDER_HEADER | None | TRANSACTION/Order_Header.sql |
| YNA_ORDER_HEADER_CHARGES_VW | This view exposes the data in the YFS_order_header_charges table for charges filtered for an order header. | None | TRANSACTION/Order_Header_Charges.sql |
| YNA_ORDHDR_CHARGE_TRANSN_VW | This view exposes the data in the YFS_CHARGE_TRANSACTION table. | None | TRANSACTION/Order_Header_Charge_Xn.sql |

Table 8. Order Header Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|----------------------------|--|---------------------|--|
| YNA_ORDHDR_INSTRUCTION_VW | This view exposes the data in the YFS_INSTRUCTION_DETAIL table. It exposes instruction details filtered for an Order Header. | None | TRANSACTION/Order_Header_Instruction.sql |
| YNA_ORDHDR_TAX_VW | This view exposes data in the YFS_TAX_BREAKUP table filtered for an Order Header. | None | TRANSACTION/Order_Header_Tax.sql |
| YNA_ORDER_HOLD_TYPE_VW | This view exposes the data in the YFS_ORDER_HOLD_TYPE table. | None | TRANSACTION/YNA_ORDER_HOLD_TYPE_VW.sql |
| YNA_ORDER_HOLD_TYPE_LOG_VW | This view exposes the data in the YFS_ORDER_HOLD_TYPE_LOG table. | None | TRANSACTION/YNA_ORDER_HOLD_TYPE_LOG_VW.sql |
| YNA_CHARGE_TRAN_DIST_VW | This view exposes the data in the YFS_CHARGE_TRAN_DIST table. | None | TRANSACTION/YNA_CHARGE_TRAN_DIST_VW.sql |

Order Line Views

This set of views expose the Order Line-related data. The set consists of the views described in the following table.

Table 9. Order Line Views

| View | Description | Interpreted Columns | SQL Filename |
|---------------------------|--|---------------------|--|
| YNA_ORDER_KIT_LINE_VW | This view exposes the data in the YFS_ORDER_KIT_LINE table. | None | TRANSACTION/Order_Kit_Line.sql |
| YNA_ORDER_LINE_VW | This view exposes the data in the YFS_ORDER_LINE table. | None | TRANSACTION/order_line_vw.sql |
| YNA_ORDER_LINE_ADD_VW | This view exposes limited columns from YFS_ORDER_LINE | None | TRANSACTION/Order_Line.sql |
| YNA_ORDER_LINE_CHARGES_VW | This view exposes the data in the YFS_ORDER_LINE_CHARGES table filtered for an Order. | None | TRANSACTION/Order_Line_Charges.sql |
| YNA_ORDER_LINE_DS_VW | This view exposes the data in the YFS_ORDER_LINE.YFS_ORDER_HEADER.YFS_PERSON_INFO table. | None | TRANSACTION/Order_Line_Delivery_Srvs.sql |
| YNA_ORDER_LINE_OPTION_VW | This view exposes the data in the YFS_ORDER_LINE_OPTION table. | None | TRANSACTION/Order_Line_Option.sql |

Table 9. Order Line Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|-----------------------------|---|---------------------|--|
| YNA_ORDER_LINE_PROD_VW | This view exposes the data in the YFS_ORDERLINE.YFS_ORDER_HEADER.YFS_PERSON_INFO table. | None | TRANSACTION/Order_Line_Prod.sql |
| YNA_ORDER_LINE_PS_VW | This view exposes the data in the YFS_ORDER_PROD_SER_ASSOC, YFS_ORDER_LINE table. | None | TRANSACTION/Order_Line_Provided_Srvc.sql |
| YNA_ORDER_LINE_REQ_TAG_VW | This view exposes the data in the YFS_ORDER_LINE_REQ_TAG table. | None | TRANSACTION/Order_Line_Req_Tag.sql |
| YNA_ORDER_LINE_SCHEDULE_VW | This view exposes the data in the YFS_ORDER_LINE_SCHEDULE table. | None | TRANSACTION/order_line_schedule_vw.sql |
| YNA_ORDER_PROD_SER_ASSOC_VW | This view exposes the data in the YFS_ORDER_PROD_SER_ASSOC table. | None | TRANSACTION/\Order_Prod_Srvc_Assoc.sql |
| YNA_ORDLINE_INSTR_VW | This view exposes the instruction details data in the YFS_INSTRUCTION_DETAIL_H table for an Order Line. | None | TRANSACTION/Order_Line_Instruction.sql |
| YNA_ORDLINE_TAX_VW | This view exposes the data in the YFS_TAX_BREAKUP table filtered for an Order Line. | None | TRANSACTION/Order_Line_Tax.sql |

Order Release Views

This set of views expose the Order Release-related data. The set consists of the views described in the following table.

Table 10. Order Release Views

| View | Description | Interpreted Columns | SQL Filename |
|--------------------------|---|---------------------|----------------------------------|
| YNA_ORDER_RELEASE_VW | This view exposes the data in the YFS_ORDER_RELEASE table filtered for an Order Line. | None | TRANSACTION/order_release_vw.sql |
| YNA_ORDER_RELEASE_ADD_VW | This view exposes limited columns from YFS_ORDER_RELEASE | None | TRANSACTION/Order_Release.sql |

Order To/From Transaction Views

This set of views expose the Order Transaction-related data. The set consists of the views described in the following table.

Table 11. Order To/From Transaction Views

| View | Description | Interpreted Columns | SQL Filename |
|-----------------------------|---|---------------------|---|
| YNA_ORDER_RELEASE_STATUS_VW | This view exposes the data in the YNA_ORDER_RELATED_STATUSES_VW view. | None | TRANSACTION/order_release_status_vw.sql |

Organization Views

This set of views expose the data related to any organization. The set consists of the views described in the following table.

Table 12. Organization Views

| View | Description | Interpreted Columns | SQL Filename |
|--------------------------------|---|---------------------|--|
| YNA_ORGANIZATION_VW | This view exposes data from the YFS_ORGANIZATION table | None | CONFIGURATION/organization_vw.sql |
| YNA_ENTERPRISE_VW | This view exposes data from the YFS_ENTERPRISE table | None | YNA_ENTERPRISE_VW |
| YNA_ENTERPRISE_PARTICIPANTS_VW | This view exposes limited columns from YFS_ORG_ENTERPRISE | None | CONFIGURATION/Organization_Enterprise_Participants.sql |
| YNA_ORG_ENTERPRISE_VW | This view exposes data from the YFS_ORG_ENTERPRISE table | None | CONFIGURATION/org_enterprise_vw.sql |

Table 12. Organization Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|--------------------------------|--|---------------------|---|
| YNA_ORGANIZATION_SHIP_NODES_VW | <p>This view exposes the data in the YFS_SHIP_NODE.YFS_PERSON_INFO table. It is based on the YFS_SHIP_NODE table and provides information about Ship Nodes in the IBM Sterling Selling and Fulfillment Foundation system with the Contact Address and Ship Node Address information denormalized into the view. This view is used in multiple places in the Catalog. It is replicated into Organization Ship Nodes and Organization Receiving Nodes in the Business Layer (the base entity being Organization Distribution Nodes). These entities are further multiplied in the Package Layer.</p> | None | CONFIGURATION/Organization_Ship_Nodes.sql |
| YNA_ORGANIZATION_USERS_NL_VW | <p>This view exposes the data in the YFS_USER.YFS_PERSON_INFO table. It provides information about Users in the IBM Sterling Selling and Fulfillment Foundation system with the Contact Address and Billing Address information denormalized into the view. This view is not joined to the YFS_Organization table.</p> | None | MASTER/Organization_UsersNL.sql |
| YNA_ORGANIZATION_NL_VW | <p>This view exposes the data in the YFS_ORGANIZATION.YFS_PERSON_INFO table. It provides information about any Organization in the IBM Sterling Selling and Fulfillment Foundation system with the Corporate Address, Contact Address and Billing Address information denormalized into the view.</p> | None | CONFIGURATION/OrganizationNL.sql |

Table 12. Organization Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|--------------------------------|--|---------------------|---|
| YNA_ORGANIZATION_BUYER_NL_VW | <p>This view exposes the data in the YFS_ORGANIZATION.</p> <p>YFS_ORG_ROLE.YFS_ROLE.</p> <p>YFS_PERSON_INFO table.</p> <p>It primarily contains columns</p> <p>from the YFS_ORGANZIATION table for Organizations that play the role of a Buyer in the IBM Sterling Selling and Fulfillment Foundation. The Corporate Address, Contact Address and the Billing Address information has been denormalized into the view.</p> | None | CONFIGURATION/ Organization_BuyerNL.sql |
| YNA_ORGANIZATION_CARRIER_NL_VW | <p>This view exposes the data in the YFS_ORGANIZATION.YFS_ORG_ROLE.YFS_ROLE.</p> <p>YFS_PERSON_INFO table.</p> <p>It primarily contains columns</p> <p>from the YFS_ORGANZIATION table for an Organization that plays the role of a Carrier in the IBM Sterling Selling and Fulfillment Foundation. The Corporate Address, Contact Address and the Billing Address information has been denormalized into the view.</p> | None | CONFIGURATION/ Organization_CarrierNL.sql |

Table 12. Organization Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|--------------------------|--|---------------------|---|
| YNA_ORG_ENTERPRISE_NL_VW | This view exposes the data in the YFS_ORGANIZATION.YFS_ORG_ROLE.YFS_ROLE.YFS_PERSON_INFO table. It primarily contains columns from the YFS_ORGANIZATION table for an Organization that plays the role of a Carrier in the IBM Sterling Selling and Fulfillment Foundation. The Corporate Address, Contact Address and the Billing Address information has been denormalized into the view. | None | CONFIGURATION/Organization_EnterpriseNL.sql |
| YNA_ORG_SELLER_NL_VW | This view exposes the data in the YFS_ORGANIZATION.YFS_ORG_ROLE.YFS_ROLE.YFS_PERSON_INFO table. It primarily contains columns from the YFS_ORGANIZATION table for an Organization that plays the role of a Seller in the IBM Sterling Selling and Fulfillment Foundation. The Corporate Address, Contact Address and the Billing Address information has been denormalized into the view. | None | CONFIGURATION/Organization_SellerNL.sql |
| YNA_ORG_ROLE_VW | This view returns all organizational along with their roles from the YFS_ORGANIZATION table. | None | CONFIGURATION/Organization_Role.sql |
| YNA_VENDOR_VW | This view exposes data from the YFS_VENDOR table. | None | MASTER/Vendor.sql |
| YNA_SHIP_NODE_VW | This view exposes data from the YFS_SHIP_NODE table | None | CONFIGURATION/ship_node_vw.sql |

Organization Levels View

The Organization Levels view is a helper view used for representing the organizational hierarchy captured in the YFS_ORGANIZATION table. This view should be customized to reflect your organization hierarchy before the view is created.

The top of the organization corresponds to ORGANIZATION_KEY_0 that is the ORGANIZATION_KEY column from the YFS_ORGANIZATION table, next level is ORGANIZATION_KEY_1. The last level is the one where your transactional data is stored. This level must correspond to ORGANIZATION_KEY. For each parent organization, use (uncomment) 1 ORGANIZATION_KEY_n starting from 0. So, if you have 3 levels in the organization, your view SQL will look as shown in the following example.

```
Create Or Replace View YNA_ORGANIZATION_LEVELS_VW (
  ORGANIZATION_KEY_0,
  ORGANIZATION_KEY_1,
  -- ORGANIZATION_KEY_2,
  -- ORGANIZATION_KEY_3,
  -- The last key must be called ORGANIZATION_KEY. This is the level at which the
  transaction detail (Orders) is stored.
  -- Transformer uses this column name in the Level input sources to link to the
  Transaction input sources.
  ORGANIZATION_KEY )
As Select
0.ORGANIZATION_KEY,
01.ORGANIZATION_KEY,
02.ORGANIZATION_KEY -- The Organization level at which data is stored
--, 03.ORGANIZATION_KEY,
--04.ORGANIZATION_KEY,
From
YFS_ORGANIZATION 0
, YFS_ORGANIZATION 01
, YFS_ORGANIZATION 02
--, YFS_ORGANIZATION 03
--, YFS_ORGANIZATION 04
Where
(O.PARENT_ORGANIZATION_CODE Is Null Or O.PARENT_ORGANIZATION_CODE = ' ')
And 01.PARENT_ORGANIZATION_CODE (+) = 0.ORGANIZATION_CODE
And 02.PARENT_ORGANIZATION_CODE (+) = 01.ORGANIZATION_CODE
--And 03.PARENT_ORGANIZATION_CODE (+) = 02.ORGANIZATION_CODE
--And 04.PARENT_ORGANIZATION_CODE (+) = 03.ORGANIZATION_CODE
```

Figure 5. Organization Levels View SQL

;

Each ORGANIZATION_KEY_n in this view can be used as a level in the organization hierarchy dimension in cubes that have data at the lowest ORGANIZATION_KEY level and also contain the ORGANIZATION_KEY in the IQD.

Note: If the transactional data is stored at different levels within the organization, the data will not rollup correctly and you may get “orphan” categories in transformer.

Note: Since the organization hierarchy depth is defined at view creation time, this dimension works for multiple organizations *only* if each has the same number of levels. You may have to create dummy hierarchies to achieve this. Otherwise, a given view (with n levels) will only display part of the hierarchy for organizations

with more than n levels. It is recommended that you either create dummy hierarchies, or, create a view with the minimum number of levels that are present in all the organizations in your data.

Table 13. Organization Levels View

| View | Description | Interpreted Columns | SQL Filename |
|----------------------------|--|---------------------|---------------------------------------|
| YNA_ORGANIZATION_LEVELS_VW | This view exposes the data in the YFS_ORGANIZATION table. It is a helper view used for representing the organizational hierarchy captured in the YFS_ORGANIZATION table. This view should be customized to reflect your organization hierarchy before the view is created. | None | CONFIGURATION/Organization_Levels.sql |

Pricing Views

This set of views expose the Price-related data. The set consists of the views described in the following table.

Table 14. Pricing Views

| View | Description | Interpreted Columns | SQL Filename |
|-------------------------------|--|---------------------|--|
| YNA_PRICE_ITEM_DETAIL_LIST_VW | This view exposes the data in the YFS_ITEM_PRICE_SET_DTL table. | None | CONFIGURATION/Pricing_Item_Detail.sql |
| YNA_PRICE_ITEM_LIST_VW | This view exposes the data in the YFS_ITEM_PRICE_SET table. | None | CONFIGURATION/Pricing_Item.sql |
| YNA_PRICE_LIST_VW | This view exposes the data in the YFS_PRICE_SET table. | None | CONFIGURATION/Pricing_List.sql |
| YNA_PRICE_PROGRAM_DETAIL_VW | This view exposes the data in the YFS_IPRICE_PROGRAM_DEFN table. | None | CONFIGURATION/Pricing_Program_Detail.sql |
| YNA_PRICE_PROGRAM_VW | This view exposes the data in the YFS_PRICE_PROGRAM table. | None | CONFIGURATION/Pricing_Program.sql |

Receiving Discrepancy Views

This set of views expose the Receiving Discrepancy-related data. The set consists of the views described in the following table.

Table 15. Receiving Discrepancy Views

| View | Description | Interpreted Columns | SQL Filename |
|------------------------------|--|---------------------|---------------------------------------|
| YNA_RECEIVING_DISCREPANCY_VW | This view exposes the data in the YFS_RECEIVING_DISCREPANCY table. | None | TRANSACTION/Receiving_Discrepancy.sql |

Table 15. Receiving Discrepancy Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|-----------------------------|--|---------------------|--|
| YNA_RECEIVING_DISCR_DTL_VW | This view exposes the data in the YFS_RECEIVING_DISCR_DTL table. | None | TRANSACTION/Receiving_Discrepancy_Detail.sql |
| YNA_RECEIPT_LOT_DISCR_NL_VW | This view obtains the lot discrepancies in receipts by joining the data in the YFS_SHIPMENT, YFS_SHIPMENT_LINE, YFS_ORDER_LINE, YFS_RECEIPT_HEADER, YFS_ORDER_HEADER, YFS_ORDER_LINE_REQ_TAG, YFS_RECEIPT_LINE tables. | None | TRANSACTION/Receipt_Lot_DiscrepancyNL.sql |
| YNA_RECEIPT_QTY_DISCR_NL_VW | This view obtains the quantity discrepancies in receipts by joining the data in the YFS_RECEIVING_DISCREPANCY, YFS_SHIPMENT, YFS_ORDER_LINE, YFS_RECEIPT_HEADER, and YFS_ORDER_HEADER tables. | None | TRANSACTION/Receipt_Quantity_DiscrepancyNL.sql |
| YNA_RECEIPT_SL_DISCR_NL_VW | This view obtains the serial discrepancies in receipts by joining the data in the YFS_SHIPMENT, YFS_SHIPMENT_LINE, YFS_RECEIPT_HEADER, YFS_ORDER_LINE, and YFS_RECEIPT_LINE tables. | None | TRANSACTION/Receipt_Serial_DiscrepancyNL.sql |

Receipt Views

This set of views expose the Receipt related data. The set consists of the views described in the following table.

Table 16. Receipt Views

| View | Description | Interpreted Columns | SQL Filename |
|---------------------------|---|---------------------|-----------------------------------|
| YNA_RECEIPT_HEADER_VW | This view exposes the data in the YFS_RECEIPT_HEADER table. | None | TRANSACTION/receipt_header_vw.sql |
| YNA_RECEIPT_HEADER_ADD_VW | This view exposes limited columns from YFS_RECEIPT_HEADER | None | TRANSACTION/Receipt_Header.sql |

Table 16. Receipt Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|-----------------------------|--|---------------------|--------------------------------------|
| YNA_RECEIPT_LINE_VW | This view exposes the data in the YFS_RECEIPT_LINE table filtered by Receipt Line. | None | TRANSACTION/Receipt_Line.sql |
| YNA_RECEIPT_STATUS_AUDIT_VW | This view exposes the data in the YFS_RECEIPT_STATUS_AUDIT table filtered by Receipt Line. | None | TRANSACTION/Receipt_Status_Audit.sql |

Shipment Views

This set of views expose the Shipment-related data. The set consists of the views described in the following table.

Table 17. Shipment Views

| View | Description | Interpreted Columns | SQL Filename |
|-------------------------------|---|---|---|
| YNA_ORDER_SHIPMENT_VW | This view exposes data from the YFS_SHIPMENT, YFS_SHIPMENT_LINE, YFS_ORDER_HEADER, and YFS_ORDER_LINE tables. | None | TRANSACTION/Order_Shipment.sql |
| YNA_PACK_HOLD_SHIPMENTS_VW | This view obtains detail of pack and hold shipments from the YNA_SHIPMENT_VW | DOCK_LOCAION_ID = The dock door from which the pack-and-hold shipment is scheduled to be shipped. | TRANSACTION/Pack_and_Hold.sql |
| YNA_SHIPMENT_VW | This view exposes the data in the YFS_SHIPMENT table. | None | TRANSACTION/shipment_vw.sql |
| YNA_SHIPMENT_ADD_VW | This view exposes limited columns from YFS_SHIPMENT table | None | TRANSACTION/Shipment.sql |
| YNA_SHIPMENT_CONTAINER_VW | This view exposes the data in the YFS_SHIPMENT_CONTAINER table. | None | TRANSACTION/Shipment_Container.sql |
| YNA_SHIPMENT_CONTAINER_DTL_VW | This view exposes the data in the YFS_CONTAINER_DETAILS table. | None | TRANSACTION/Shipment_Container_Detail.sql |
| YNA_SHIPMENT_LINE_NL_VW | This view exposes limited columns from the YFS_SHIPMENT_LINE table | None | TRANSACTION/Shipment_LineNL.sql |

Table 17. Shipment Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|------------------------------|--|--|--|
| YNA_SHIPMENT_LINE_REQ_TAG_VW | This view exposes the data in the YFS_SHIPMENT_LINE_REQ_TAG table. | None | TRANSACTION/Shipment_Line_Req_Tag.sql |
| YNA_SHIPMENT_STATUS_AUDIT_VW | This view exposes the data in the YFS_SHIPMENT_STATUS_AUDIT table. | None | TRANSACTION/Shipment_Status_Audit.sql |
| YNA_SHIPMENT_TAG_SERIAL | This view exposes the data in the YFS_SHIPMENT_TAG_SERIAL table. | None | TRANSACTION/Shipment_Tag_Serial.sql |
| YNA_PACK_HOLD_VW | This view obtains details of pack-and-hold shipments from the YNA_SHIPMENT_VW. | DOCK_LOCATION_ID = The dock door from which the pack-and-hold shipment is scheduled to be shipped. | TRANSACTION/Pack and Hold.sql |
| YNA_BOL_REPORT_VW | This view obtains the summary of all loads by joining the YFS_LOAD, YFS_LOAD_SHIPMENT, and YFS_SHIPMENT tables. | NO_OF_CASES = total number of containers of type 'Case' included in the load. NO_OF_PALLETS = total number of containers of type 'Pallet' included in the load. | TRANSACTION/BOL_Report.sql |
| YNA_CONTAINER_INNER_PACK_VW | This view exposes data from the YFS_CONTAINER_INNER_PACK table. | None | TRANSACTION/ContainerInnerPack.sql |
| YNA_CONTAINER_STG_LOCN_VW | This view obtains the details of containers in the shipment sort location by joining YNA_LPN_LOCATION_VW, YNA_SHIPMENT_CONTAINER_VW, YNA_SHIPMENT_CONTAINER_VW, and YNA_SHIPMENT_CONTAINER_DTL_VW. | None | TRANSACTION/Container_Staging_Locn.sql |

Table 17. Shipment Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|-------------------------------|--|--|--|
| YNA_SHIP_LOAD_CNTR_SUMMARY_VW | This view returns the number of cases and pallets for a shipment by joining the YNA_SHIPMENT_VW, YNA_LOAD_SHIPMENT_VW, and YNA_LOAD_STOP_VW views. | NO_OF_CASES = The total number of cases without any parent container. NO_OF_PALLETS = The total number of pallets without any parent container. | TRANSACTION/Shipment_Load_Cntr_Summary.sql |
| YNA_DAILY_SHIPMENT_VW | This view retrieves the data required for Daily Shipment Report from the YFS_Shipment table. | None | TRANSACTION/Daily_Shipment.sql |
| YNA_SHIPMENT_DISCREPANCY_VW | This view retrieves the data required for Vendor Non-Compliance Report from the YNW_Shipment_Discrepancy table. | None | TRANSACTION/Vendor_Compliance.sql |
| YNA_WAVE_VW | This view exposes data from the YFS_WAVE table. | None | TRANSACTION/Wave.sql |

IBM Sterling Warehouse Management System Views

This set of views expose IBM Sterling Warehouse Management System-related data. The set consists of the views described in the following table.

Table 18. Sterling Warehouse Management System Views

| View | Description | Interpreted Columns | SQL Filename |
|-------------------------|---|---------------------|-------------------------------------|
| YNA_DOCK_APPOINTMENT_VW | This view exposes data from the YFS_DOCK_APPOINTMENT table | None | TRANSACTION/dock_appointment_vw.sql |
| YNA_TRAN_LOCN_ATTRS_VW | This view exposes the data in the YFS_TRAN_LOCN_ATTRS table | None | TRANSACTION/tran_locn_attrs_vw.sql |
| YNA_SKU_DEDICATION_VW | This view exposes data from the YFS_SKU_DEDICATION table | None | MASTER/sku_dedication_vw.sql |
| YNA_COUNT_RESULT_VW | This view exposes data from the YFS_COUNT_RESULT table | None | TRANSACTION/count_result_vw.sql |
| YNA_COUNT_REQUEST_VW | This view exposes data from the YFS_COUNT_REQUEST table | None | TRANSACTION/count_request_vw.sql |

Table 18. Sterling Warehouse Management System Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|------------------------------|--|---------------------|---|
| YNA_USER_VW | This view exposes data from the YFS_USER table | None | MASTER/user_vw.sql |
| YNA_SCAC_EX_VW | This view exposes data from YFS_SCAC_EX table. | None | CONFIGURATION/Scac_Ex.sql |
| YNA_SCAC_VW | This view exposes data from YFS_SCAC table | None | CONFIGURATION/Scac.sql |
| YNA_SKU_DEDICATION_VW | This view exposes data from the YFS_SKU_DEDICATION table | None | MASTER/sku_dedication_vw.sql |
| YNA_MANIFEST_VW | This view exposes data from the YFS_Manifest table | None | TRANSACTION/Manifest.sql |
| YNA_MOVE_REQUEST_VW | This view exposes data from YFS_MOVE_REQUEST table | None | TRANSACTION/Move_Request.sql |
| YNA_MOVE_REQ_STATUS_AUDIT_VW | This view exposes data from YFS_MOVE_REQ_STATUS_AUDIT table | None | TRANSACTION/Move_Request_Status_Audit.sql |
| YNA_TASK_VW | This view exposes data from the YFS_TASK table | None | TRANSACTION/task_vw.sql |
| YNA_TASK_STATUS_AUDIT_VW | This view exposes data from YFS_TASK_STATUS_AUDIT table | None | Task Status Audit.sql |
| YNA_UOM_CONVERSION_VW | This view exposes the data from YFS_UOM_CONVERSION table. | None | CONFIGURATION/UOM_Conversion.sql |
| YNA_LOCATION_VW | This view exposes data from the YFS_LOCATION table | None | MASTER/location_vw.sql |
| YNA_LOCATION_INVENTORY_VW | This view exposes data from the YFS_LOCATION_INVENTORY table | None | TRANSACTION/location_inventory_vw.sql |
| YNA_LOCATION_SIZE_VW | This view exposes data from the YFS_LOCATION_SIZE table | None | MASTER/location_size_vw.sql |
| YNA_LOCN_INVENTORY_AUDIT_VW | This view exposes data from the YFS_LOCN_INVENTORY_AUDIT table | None | TRANSACTION/locn_inventory_audit_vw.sql |
| YNA_LPN_DTL_VW | This view exposes data from the YFS_LPN_DTL table | None | TRANSACTION/lpn_dtl_vw.sql |
| YNA_LPN_HDR_VW | This view exposes data from the YFS_LPN_HDR table | None | TRANSACTION/lpn_hdr_vw.sql |
| YNA_LPN_HEADER_VW | This view exposes data from the YFS_LPN_HEADER table | None | TRANSACTION/Lpn_Header.sql |
| YNA_LPN_LOCATION_VW | This view exposes data from the YFS_LPN_LOCATION table | None | TRANSACTION/LPN_Location.sql |

Table 18. Sterling Warehouse Management System Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|-----------------------------------|--|---|---|
| YNA_INVENTORY_BAL_NL _INNER_VW | This view exposes data from the YFS_INVENTORY_AUDIT table. | None | TRANSACTION/Inventory_Balance_Inner.sql |
| YNA_ITEM_UOM_VW | This view exposes data from the YFS_ITEM_UOM table | None | MASTER/Item_UOM.sql |
| YNA_ENTERPRISE_NODE_VW | This view obtains all nodes for an enterprise by joining the YFS_ORG_ENTERPRISE and YFS_ORGANIZATION tables | None | CONFIGURATION/Enterprise_Node.sql |
| YNA_PRODUCTIVITY_TYPE_VW | This view exposes data by joining the YNA_PRODUCTIVITY_TYPE_NL_VW and YNA_LOCALIZED_DESCRIPTIONS_VW views | None | CONFIGURATION/productivity_type_vw.sql |
| YNA_MODULE_DOCUMENT_TYPE_VW | This view exposes data from the YFS_MODULE_DOCUMENT_TYPE table | None | CONFIGURATION/Module_Document_Type.sql |
| YNA_PROCESS_TYPE_STAT_NL_VW | This view obtains statuses and processes obtained from each document type | None | CONFIGURATION/Process_Type_StatusNL.sql |
| YNA_PRODUCTIVITY_TYPE_NL_VW | This view exposes data from the YFS_PRODUCTIVITY_TYPE table | None | CONFIGURATION/Productivity_TypeNL.sql |
| YNA_DOCUMENT_PARAMS_NL_VW | This view exposes the data in YFS_DOCUMENT_PARAMS table | None | CONFIGURATION/Document_ParamsNL.sql |
| YNA_LOCATION_SIZE_NL_VW | This view exposes the data in the YFS_LOCATION_SIZE table. | None | MASTER/Location_SizeNL.sql |
| YNA_LOCATION_NL_VW | This view obtains data by joining the YNA_DISTNT_DEDICATED_LOCN_VW, YNA_LOCATION_VW, and YNA_TRAN_LOCN_ATTRS_VW views. | ACTIVITY_DAY _DIFF = The difference between the modify date for the location and the current date. | MASTER/LocationNL.sql |
| YNA_SCAC_AND_SERVICE_NL_VW | This view exposes data from YFS_SCAC_AND_SERVICE and YFS_CARRIER_SERVICE tables. | None | CONFIGURATION/Scac_And_ServiceNL.sql |

Table 18. Sterling Warehouse Management System Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|------------------------------|---|---------------------|-----------------------------------|
| YNA_TASK_ADD_VW | This view exposes limited columns from the YFS_TASK table. | None | TRANSACTION/Task.sql |
| YNA_TASK_STATUS_AUDIT_VW | This view exposes data from the YFS_TASK_STATUS_AUDIT table. | None | TRANSACTION/Task_Status_Audit.sql |
| YNA_TASK_TYPE_VW | This view exposes data from the YFS_TASK_TYPE table | None | CONFIGURATION/task_type_vw.sql |
| YNA_TASK_TYPE_NL_VW | This view exposes data from the YFS_TASK_TYPE table | None | CONFIGURATION/Task_TypeNL.sql |
| YNA_ZONE_VW | This view exposes data from the YFS_ZONE table | None | MASTER/zone_vw.sql |
| YNA_ZONE_MASTER_DATA_NL_VW | This view exposes the data in YFS_ZONE table for the User's Node | None | MASTER/Zone_Master_DataNL.sql |
| Shipment_Dashboard_Helper_VW | This view exposes the data of the YNA_Shipment_VW based on the status comparison with the YFS_Status table. | None | Shipment_Dashboard_Helper.sql |

Work Order Views

This view exposes the Work Order-related audit data. The set consists of the views described in the following table.

Table 19. Work Order Views

| View | Description | Interpreted Columns | SQL Filename |
|--------------------------------|--|---------------------|--|
| YNA_WORK_ORDER_NL_VW | This view exposes data from the YFS_WORK_ORDER table. | None | TRANSACTION/YNA_WORK_ORDER_NL_VW.sql |
| YNA_WORK_ORDER_TAG_VW | This view exposes the data in the YFS_WORK_ORDER_TAG table. | None | TRANSACTION/YNA_WORK_ORDER_TAG_VW.sql |
| YNA_WORK_ORDER_STS_AUDIT_VW | This view exposes the data in the YFS_WORK_ORDER_STS_AUDIT table. | None | TRANSACTION/YNA_WORK_ORDER_STS_AUDIT_VW.sql |
| YNA_WORK_ORDER_SERVICE_TOOL_VW | This view exposes the data in the YFS_WORK_ORDER_SERVICE_TOOL table. | None | TRANSACTION/YNA_WORK_ORDER_SERVICE_TOOL_VW.sql |

Table 19. Work Order Views (continued)

| View | Description | Interpreted Columns | SQL Filename |
|--------------------------------|--|---------------------|--|
| YNA_WORK_ORDER_SERVICE_LINE_VW | This view exposes the data in the YFS_WORK_ORDER_SERVICE_LINE table. | None | TRANSACTION/YNA_WORK_ORDER_SERVICE_LINE_VW.sql |
| YNA_WORK_ORDER_PROD_DEL_VW | This view exposes the data in the YFS_WORK_ORDER_PROD_DEL table. | None | TRANSACTION/YNA_WORK_ORDER_PROD_DEL_VW.sql |
| YNA_WORK_ORDER_NOTES_VW | This view exposes the data in the YFS_WORK_ORDER_NOTES table. | None | TRANSACTION/YNA_WORK_ORDER_NOTES_VW.sql |
| YNA_WORK_ORDER_COMPONENT_VW | This view exposes the data in the YFS_WORK_ORDER_COMPONENT table. | None | TRANSACTION/YNA_WORK_ORDER_COMPONENT_VW.sql |
| YNA_WORK_ORDER_COMP_TAG_VW | This view exposes the data in the YFS_WORK_ORDER_COMP_TAG table. | None | TRANSACTION/YNA_WORK_ORDER_COMP_TAG_VW.sql |
| YNA_WORK_ORDER_AUDT_DTL_VW | This view exposes the data in the YFS_WORK_ORDER_AUDT_DTL table. | None | TRANSACTION/YNA_WORK_ORDER_AUDT_DTL_VW.sql |
| YNA_WORK_ORDER_APPT_VW | This view exposes the data in the YFS_WORK_ORDER_APPT table. | None | TRANSACTION/YNA_WORK_ORDER_APPT_VW.sql |
| YNA_WORK_ORDER_ACTY_DTL_VW | This view exposes the data in the YFS_WORK_ORDER_ACTY_DTL table. | None | TRANSACTION/YNA_WORK_ORDER_ACTY_DTL_VW.sql |
| YNA_WORK_ORDER_ACTIVITY_VW | This view exposes the data in the YFS_WORK_ORDER_ACTIVITY table. | None | TRANSACTION/YNA_WORK_ORDER_ACTIVITY_VW.sql |
| YNA_WO_HOLD_TYPE_VW | This view exposes the data in the YFS_WO_HOLD_TYPE table. | None | TRANSACTION/YNA_WO_HOLD_TYPE_VW.sql |
| YNA_WO_HOLD_TYPE_LOG_VW | This view exposes the data in the YFS_WO_HOLD_TYPE_LOG table. | None | TRANSACTION/YNA_WO_HOLD_TYPE_LOG_VW.sql |
| YNA_WO_APPT_USER_VW | This view exposes the data in the YFS_WO_APPT_USER table. | None | TRANSACTION/YNA_WO_APPT_USER_VW.sql |

Billing Activity Reporting Engine View

This view exposes the Work Order-related audit data for the Billing Activity Report. The set consists of the views described in the following table.

Table 20. Billing Activity Report Views

| View | Description | Interpreted Columns | SQL Filename |
|----------------------------|--|---------------------|--|
| YNA_ARE_ACTIVITY_CODE_VW | This view exposes the data in the YNW_ARE_ACTIVITY_CODE table. | None | CONFIGURATION/are_activity_code_vw.sql |
| YNA_ARE_ACTIVITY_DETAIL_VW | This view exposes the data in the YNW_ARE_ACTIVITY_DETAIL table. | None | TRANSACTION/are_activity_detail_vw.sql |
| YNA_ARE_ACTIVITY_HEADER_VW | This view exposes the data in the YNW_ARE_ACTIVITY_HEADER table. | None | TRANSACTION/are_activity_header_vw.sql |

Chapter 9. Server Sizing Requirements

Cognos Server Sizing Requirements

Before you install Cognos 10.1.1 BI, ensure that you meet the requirements as described in the following table.

Table 21. Cognos 10.1.1 BI (IWR) Server Requirements

| Characteristics | Users | RAM (# of Processes * RAM) | Disk and CPU |
|---|---|---|--|
| 8 catalogs 3 databases – DB2®, Microsoft SQL Server, Oracle 10 reports per catalog 75% personnel, 25% public | 200 users 10% concurrent (20) Users are evenly distributed across catalogs. | PROCESSES Not applicable - dynamic TOTAL RAM = 256 - 512MB Difficult to calculate dependent on size of reports Memory for IWR= 256 – 512 MB Memory for NT Server = 70 MB Memory for Web Server= 5 MB Memory for database drivers | DISK SPACE Temporary disk space needed for report rendering to PDF (5X final report size) and final report storage. Difficult to estimate. Temporary disk space for IWR= 1 GIG IWR Software= 100 MB Reports and Catalogs = 100 MB NT Server = 500 MB Database drivers TOTAL Disk Space= 1.7 GIG CPU # of PROCESSORS = 1 scalable to 2 PROCESSOR = 200+ MHz |

Chapter 10. Cognos Components

Cognos Components

The complete list of Cognos components are listed below. Most of these components are automatically installed with the main Cognos components.

- Client and Authoring Components
 - **Report Studio** - used to build reports from the IBM Sterling Warehouse Management System Business Intelligence catalog (WMS-Analytics.cpf).
 - **Analysis Studio** - used to create ad-hoc cross-tab reports based on multi-dimensional data sources such as cubes.
- Server Components
 - **Cognos 10.1.1 Reports** - used to web-enable reports
- Security Components
 - **Access Manager** - used for user authentication
 - **Others:** Ticket server
- Tools
 - Cognos 10.1.1 Report Administrator
 - Cognos 10.1.1 Server Administrator
 - PDF Servers (for cubes and reports)
 - Access Manager Configuration Wizard
 - Other Server Administrator applications
 - Scheduler

Index

Special characters

###VB###WMS-l###VE### Business

Intelligence
extending the catalog 24
setup 12

A

adding fields 24
adding tables 24
adding views 24
authentication mechanism 18
setting up 18

B

Bill Of Lading (BOL) 31

C

catalog
views 46
Cognos
basic components 5
components 73
Impromptu 1
PowerPlay 1
PowerPlay Web 1
products 1
server sizing requirements 71
setup 5
common code
views 47
creating
table views 13
custom report data
localizing 40
custom report literals
localizing 39
customer_overrides.properties
file modifications 19

D

database
refresh impact 35
refreshing replicated 35
database scripts 2
deploying
Sterling Warehouse Management
System Business Intelligence
Reports 17
deploying reports 35

E

entities
created in Catalog 24

exceptions
views 46

F

folder structure
suggested for reports deployment 35
Framework 21

I

IBM Sterling Warehouse Management
System Business Intelligence
table views creation 13
image_setup.sh 15
Impromptu 1
inventory
views 48
invoicing
views 50

J

joins 25
cardinalities for 25
cardinality flexibility 25

L

literal localization 37
logistics
views 51

O

order
views 52, 67, 69
order header
views 52
order line
views 53
order release
views 54
order to/from transaction
views 55
organization
views 55
organization levels
views 59

P

performance tuning
reports 43
Sterling Warehouse Management
System
Business Intelligence 43

performance tuning (*continued*)
Sterling Warehouse Management
System (*continued*)
Business Intelligence
installation 43
tuning Sterling Warehouse
Management System 43
PowerPlay 1
PowerPlay Web 1
pricing
views 60
Purchase Order (PO) 28

R

receiving discrepancy
views 60
refreshing
a replicated database 35
impact on database 35
reports 36
report data
localizing 39
report literals
localizing 38
reports
creation process flow 2
designing 27
refreshing 36
tuning 43
requirements
server sizing 71
resource bundles
localizing 37
reverse logistics
views 61

S

scripts
database 2
running custom 15
security components
Access Manager 73
Netscape LDAP server 73
others 73
server
sizing requirements 71
setup.bat 15
shipment
views 62
Star to Snowflake Model 22
Sterling Selling and Fulfillment Solution
Authentication Mechanism 6
Sterling Warehouse Management
views 64
Sterling Warehouse Management reports
inbound reports 27
inventory reports 29
outbound reports 31

Sterling Warehouse Management reports
(*continued*)
 returns reports 28
 task reports 33
 VAS reports 30
Sterling Warehouse Management System
 Business Intelligence
 definition 1
 deploying 17
 framework 21
 views 21
Stock Keeping Unit (SKU) 29

T

table views
 creating 13

V

Value Added Services (VAS) 30
views
 catalog 46
 exceptions 46
 general 47
 inventory 48
 invoicing 50
 logistics 51
 order 52, 67, 69
 order header 52
 order line 53
 order release 54
 order to/from transaction 55
 organization 55
 organization levels 59
 pricing 60
 receiving discrepancy 60
 reverse logistics 61
 shipment 62
 Sterling Warehouse Management 64
 workflow 47

W

workflow
 views 47

Y

YNA (Sterling Warehouse Management
 Business Intelligence Framework) 13

Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing

IBM Corporation

North Castle Drive

Armonk, NY 10504-1785

U.S.A.

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing

Legal and Intellectual Property Law

IBM Japan Ltd.

1623-14, Shimotsuruma, Yamato-shi

Kanagawa 242-8502 Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be

incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation

J46A/G4

555 Bailey Avenue

San Jose, CA 95141-1003

U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

All IBM prices shown are IBM's suggested retail prices, are current and are subject to change without notice. Dealer prices may vary.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows:

© IBM 2012. Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. 2012.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

Trademarks

IBM, the IBM logo, and [ibm.com](http://www.ibm.com)[®] are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at <http://www.ibm.com/legal/copytrade.shtml>.

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

IT Infrastructure Library is a registered trademark of the Central Computer and Telecommunications Agency which is now part of the Office of Government Commerce.

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

ITIL is a registered trademark, and a registered community trademark of the Office of Government Commerce, and is registered in the U.S. Patent and Trademark Office.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Cell Broadband Engine is a trademark of Sony Computer Entertainment, Inc. in the United States, other countries, or both and is used under license therefrom.

Linear Tape-Open, LTO, the LTO Logo, Ultrium and the Ultrium Logo are trademarks of HP, IBM Corp. and Quantum in the U.S. and other countries.

Connect Control Center[®], Connect:Direct[®], Connect:Enterprise[®], Gentran[®], Gentran[®]:Basic[®], Gentran:Control[®], Gentran:Director[®], Gentran:Plus[®], Gentran:Realtime[®], Gentran:Server[®], Gentran:Viewpoint[®], Sterling Commerce[™], Sterling Information Broker[®], and Sterling Integrator[®] are trademarks or registered trademarks of Sterling Commerce[™], Inc., an IBM Company.

Other company, product, and service names may be trademarks or service marks of others.



Printed in USA