

Sterling Integrator[®]

**Using Document Tracking in
Sterling Integrator**

Version 5.0

Sterling Commerce
An IBM Company

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Document Tracking Basics

Using Document Tracking in Sterling Integrator provides detailed information about how document tracking functions in Sterling Integrator and how to configure document tracking in Sterling Integrator and across multiple Sterling Integrator instances.

Note: This documentation describes document tracking functionality at a high level. For more detailed information about the functional Sterling Integrator areas which are connected to document tracking, see the documentation for those functional areas.

This documentation assumes knowledge of:

- ◆ The operating system you are using with Sterling Integrator
- ◆ Sterling Integrator

This section covers the following topics:

- ◆ *About Document Tracking* on page 6
- ◆ *Searching for Documents* on page 9
- ◆ *Record Retention Features in Sterling Integrator* on page 11
- ◆ *Tracking with WebDAV* on page 12
- ◆ *Services that Support Document Tracking* on page 13
- ◆ *Reports Using Document Tracking* on page 15
- ◆ *Troubleshooting Document Tracking* on page 16

About Document Tracking

Sterling Integrator offers you a Document Tracking feature which enables you to obtain tracking data on documents as they flow through Sterling Integrator and to understand the relationships between documents. This document-centric feature enables you to track a document through its entire life cycle and to obtain document status information at any point in the document's life cycle—from the time the document arrives in Sterling Integrator, until processing is complete or the document exits the system.

The ability to track a document through its entire life cycle assists you in enabling visible business—removing information barriers to encourage a communication flow to exchange information.

Document tracking also provides you with document information that you can then use for reporting. And, this feature also enables you to track documents internodally, through multiple instances of Sterling Integrator.

Additionally, the Current Documents page allows you to view the most recent documents processed without specifying any search options. Current Documents gives you the ability to monitor current document processing at a glance from one page in Sterling Integrator. Document status (green light or red light) indicates if there is a problem with a specific document or an entire batch of documents. The ability to search for specific documents, or for documents processed more than one week previously, is still available. For more information on setting default retention limits, see *Record Retention Features in Sterling Integrator* on page 11. For more information on using the Current Documents function, see *Using Current Documents to Monitor Document Processing* on page 23.

All document tracking functions are related to a single document. A service or adapter which has tracking enabled for it works with multiple documents, and it tracks each document separately. For more information about which Sterling Integrator services and adapters have information inherently built in to them to enable document tracking, see *Document Tracking Service* on page 13, *Adapters that Support Document Tracking* on page 14 and *Other Services that Support Document Tracking* on page 13.

Throughout a document's life cycle, there are two major tracking operations that are performed on it:

- ◆ *Document Tracking Initialization* on page 6
- ◆ *Tracking Updates* on page 7

Document Tracking Initialization

The document tracking initialization process consists of several steps. In the first step:

- ◆ The document tracking initialization process verifies whether tracking is enabled.
- ◆ Then, if necessary, it creates a document tracking record and attaches this new record to the document.

Prior to creating the attached tracking record, the document tracking initialization process attempts to determine the current Tracking Identifier (Tracking ID) for the document, and returns a reference to the tracking record if it exists. If it does not locate a Tracking ID, it generates and assigns a new one to the document.

The Tracking ID uniquely identifies a business document's life cycle in Sterling Integrator. This ID is the key to constructing document relationships and history. Once you have enabled document tracking for a

business process, tracking information is carried with the document (via the tracking record, which functions like a document attachment) from that point forward.

Second, the document tracking initialization process attempts to locate an existing document tracking record (one may have been generated by a service or adapter) and configure it for the document, rather than automatically generating a new record.

Third, the document tracking initialization process attempts to glean additional information about the document using the document Information Discovery feature. The Information Discovery feature is an optional feature and it is disabled by default. This feature uses the translator and a list of maps (defined globally in `<install_dir>/properties/doc.tracking.properties`). The maps included with every installation of Sterling Integrator include the currently supported standards (including X12, EDIFACT, CII, and TRADACOM) at the batch level.

The maps used in information discovery provide the following core information for each document:

- ◆ Sender ID
- ◆ Receiver ID
- ◆ Control Number
- ◆ Standard
- ◆ Version
- ◆ Document Set ID (if any—some standards do not support this parameter)

The Information Discovery process is complex and also involves custom user-defined maps that you can specify and which are then considered in the information discovery process in the `<install_dir>/properties/doc.tracking.properties` property file.

Note: By default, the Information Discovery feature is disabled. You can enable it by using the `<install_dir>/properties/doc.tracking.properties` global property or force Information Discovery by using the Document Tracking Service, which provides the capability to track additional information about the document as it moves through its life cycle, when you request it. For more information about the Document Tracking Service, see *Document Tracking Service* on page 20.

If you are not using an EDI service, Information Discovery is not performed automatically. Also, the Information Discovery feature is overridden when you call the Document Tracking Service in a business process. For more information about using the Document Tracking Service, see *Document Tracking Service* on page 20.

Note: Leave the `<install_dir>/properties/doc.tracking.properties` global property as NONE (do not modify it) and then override when necessary by calling the Document Tracking Service in a business process. If you modify this global property, it *will* impact performance.

Tracking Updates

Before any tracking information is collected or updated, the service or adapter verifies whether tracking is enabled by checking the global system-level tracking parameter and the business process-level tracking parameter. The global system level is a property that you set for the entire installation of Sterling Integrator, which affects the ability of certain services and adapters to track document information, and this global method is used if there is no other way to determine if document tracking is enabled. For more information about the global system level setting, see *Global Document Tracking* on page 19. The business process level

is specific to each business process. Each business process stored in Sterling Integrator has a document tracking flag that indicates whether you enabled tracking for the business process. For more information about the business process level tracking setting, see *Business Process Document Tracking* on page 20.

If business process tracking is enabled when Sterling Integrator determines the tracking setting for a document, that setting is used and it overrides the global system tracking setting. For example, if global tracking is enabled but document tracking is disabled in a business process, then no tracking information is saved for documents from that business process.

When a new document is generated from an existing document, Sterling Integrator verifies whether document tracking is enabled for the source (existing) document, and then configures the new child document to have the same tracking parameters as the parent (source) document. An example is the extraction of group or transaction level business documents from EDI interchange batches. The services that extract the child (group and transaction level documents) check the tracking flag of the input (the parent interchange) and then set the tracking flag on the output documents (the group and transaction level documents) to be the same as the input document.

To add any new information to the document tracking record for a document, Sterling Integrator creates correlations of required system information and associates them with the document.

Predefined Correlations

Predefined correlations provide required system information that is stored in the tracking record for each document, and are used by other parts of Sterling Integrator. These correlations include possible search criteria and processing details. Some of the correlations have restrictions on values and other are limited by the number of correlations per tracking record.

This table lists the predefined document correlations:

Correlation	Definition
Status	<p>Defines the document status and is always present in the document tracking record. This parameter is similar to the statuses used for business processes. By default it is set to SUCCESS and can only be updated to WARNING or ERROR.</p> <p>Note: Once the status is set to ERROR, it can never be changed to a lower status level.</p>
State	<p>Defines the state of the document and is similar to the state of a business process. You define the document state during the creation of a business process and update the document state using the Document Tracking Service.</p> <p>For more information about using the Document Tracking Service, see <i>Document Tracking Service</i> on page 20.</p> <p>Examples of values for a document state correlation are COMPLETE and WAITING, though the value may be any user-defined state.</p>
Action	<p>Defines the action performed on a document. Examples of document action are CREATE, PARSE, and TRANSLATE.</p>

Correlation	Definition
Message ID	Stores the message identifier received from or sent to another instance of Sterling Integrator. Note: The Message ID correlation is used to correlate tracking records between instances of Sterling Integrator (internodal document tracking). All Sterling Integrator adapters that support internodal tracking support use this correlation to do so. For more information about which adapters support internodal document tracking, see <i>Adapters that Support Document Tracking</i> on page 14.
Entity ID	Stores the partner identifier. Note: Some Sterling Integrator adapters provide an identifier for the trading partner. If Entity ID is not specified for a partner then Profile ID or Contract ID is provided as the correlation value.
Tracking Type	Short description of the current document that is used for display purposes only on the Document Tracking search pages. For more information about using the Document Tracking search pages, see <i>Searching for a Document</i> on page 22.
Direction	Determines if the document is being sent (outbound) or received (inbound). The correlation value is restricted to OUTBOUND and INBOUND.
Sender ID	Specifies the sender identifier. This is not a unique correlation because various Sterling Integrator features handle the sender identifier differently, depending on the context. Therefore, this correlation differentiates between identically named sender identifiers by also storing the context or scope information with each Sender ID.
Receiver ID	Specifies the receiver identifier. This is not a unique correlation because various Sterling Integrator features handle the receiver identifier differently, depending on the context. Therefore, this correlation differentiates between identically named receiver identifiers by also storing the context or scope information with each Receiver ID.

Searching for Documents

Sterling Integrator provides you with several options to search for a specific document, including the Document Tracking search feature and a variety of other advanced search options. This section provides information about the:

- ◆ *Document Tracking Search* on page 9
- ◆ *Other Search Features* on page 10

Document Tracking Search

The Document Tracking page enables you to quickly and easily search for documents that match criteria you specify, including:

- ◆ Community
- ◆ Trading Partner Name

- ◆ Direction (of the document; inbound or outbound)
- ◆ Document Type
- ◆ Document/Tracking ID
- ◆ Date Range (“from” and “to” date and time information)

For more information about how to use the Document Tracking page, see *Using Document Tracking* on page 21.

Other Search Features

Sterling Integrator also provides you with a variety of advanced search options designed to help you locate a range of data related to your processes.

Central Search

In Sterling Integrator, you can use the Central Search pages to search for information about active business process instances that do not display in the Monitor page. In the Central Search pages, you can specify search criteria to locate business process instances and thereby also retrieve document information.

To use Central Search, select **Business Processes > Central Search**.

Advanced Search

Using the Advanced Search pages, you can refine your search and also search for more detailed business process information, retrieving associated document information.

Sterling Integrator enables you to search for documents by:

- ◆ Location
- ◆ Time processed
- ◆ Sender and Receiver IDs
- ◆ Correlations
- ◆ Document ID

To locate advanced search options, select **Business Processes > Advanced Search > Documents**.

Correlation Search

Some advanced search pages enable you to specify correlated search criteria for advanced correlation searching. For example, the EDI Correlation page enables you to search for correlations created by business processes that include deenveloping, enveloping, and functional acknowledgment generation services, such as the EDI Encoder, EDI Enveloping, and EDI Overdue Acknowledgment Check, to perform document exchange.

To search for correlations, select **Business Processes > Advanced Search > Correlation**.

Record Retention Features in Sterling Integrator

Archiving your business process data not only protects your critical data but also conserves database disk space, thereby improving the efficiency of Sterling Integrator. You can schedule the intervals at which you want to automatically archive and purge the contents of the database in the same manner that you schedule the business processes that you create. In the Business Process Editor, you set a life span for business processes that defines the length of time, in days and hours, to retain the data in ONLINE tables. This is the length of time until the business process instance expires.

Once the business process expires, if you choose to archive the expired business process, the business process instance data is moved to disk. If you choose to purge the expired business process, the expired business process instance data is deleted without being archived to disk.

You can also configure a *persistence level* for each business process using the Business Process Editor, which enables you to define how much data (including associated documents, activities, step information, messages, and all process data) is retained by Sterling Integrator. The persistence level determines the level of detail written to the database as a business process runs. Decreasing the persistence level increases the business process performance, but it does so at the cost of fully tracking each step of the business process. The default value for Sterling Integrator is BP Step Status- Engine May Override. You may need to change the persistence level to a lower level to enhance performance.

You can also use an Archive Manager configuration parameter (available through **Operations > Archive Manager > Archive Configuration Settings**) to specify the default for how long (in days and hours) business process information remains in the system. That is, you define how long data exists in the Sterling Integrator database tables before it is archived to disk and/or purged. You can recover data that was archived using the Restore Manager, while data that was configured as “purge only” cannot be recovered, and thus is lost once it is purged.

Using the Archive Configuration Settings parameters, you can also specify an extra amount of time for Document Tracking-enabled business process information (documents, correlations, tracking records) to stay in Sterling Integrator before they are purged. Therefore, when you run document tracking business processes, the associated documents, correlations, and tracking records remain in the system longer than the rest of the information for that business process.

Note: To enable document tracking, you must select the **Document Tracking** check box from the Business Process Manager when you create or recompile the business process.

By default, the Archive Manager uses **2 days 0 hours** as the normal life span of a document workflow (workflows are archived or purged after 2 days), and **1 day 12 hours** as the life span for items for which document tracking has been enabled. These are the system-wide default settings, though you can override these values for each business process, in the Business Process Manager, when creating or recompiling a Business Process.

For example, you have a business process in which you enabled document tracking and you set the business process life span to five days and the document life span to thirty days. The business process is not decoupled from the document—instead, the document life span setting overrides the business process setting and document tracking items stay in Sterling Integrator for their normal life span *plus* the configured document tracking life span. So, while the business process in this example is archived after five days, the document tracking-related data remains in Sterling Integrator for *thirty-five* days after the archive.

Tracking with WebDAV

Web-based Distributed Authoring and Versioning (WebDAV) is a set of extensions to the HTTP protocol that improve HTTP's ability to share and manage files. Sterling Integrator provides a WebDAV Server that enables WebDAV clients to access the Mailboxing system. You can use the WebDAV client to download and upload documents to and from Sterling Integrator mailboxes, and to view the contents to those mailboxes if you have permission to do so.

When you use WebDAV Server, Sterling Integrator automatically tracks document information by using correlations. For more information about correlations, see *Predefined Correlations* on page 8.

Searching for WebDAV Document Tracking Information

To search for WebDAV document tracking information, you use the Sterling Integrator search tools. For more information about searching for documents, see *Searching for Documents* on page 9 and *Using Document Tracking* on page 21.

Predefined Correlations for Inbound Documents

This table lists the predefined correlations that are automatically recorded for inbound documents as name-value pairs:

Name	Value
WebDAVAction	PUT Note: The WebDAV Action is a WebDAV/HTTP method that captures each command sent by a WebDAV client to the server that causes an event that must be tracked. Currently, the only methods that are used by Sterling Integrator are GET (used when the user extracts a message) and PUT (used when the user adds a new message to the server).
Direction	inbound
Protocol	WebDAV
RemoteHostAddress	[the client IP address]
RemoteHostName	[the client host name]
Username	[the Sterling Integrator user name]

Predefined Correlations for Outbound Documents

This table lists the predefined correlations that are automatically recorded for outbound documents as name-value pairs:

Name	Value
WebDAVAction	GET Note: The WebDAV Action is a WebDAV/HTTP method that captures each command sent by a WebDAV client to the server that causes an event that must be tracked. Currently, the only methods that are used by Sterling Integrator are GET (used when the user extracts a message) and PUT (used when the user adds a new message to the server).
Direction	outbound
Protocol	WebDAV
RemoteHostAddress	[the client IP address]
RemoteHostName	[the client host name]
Username	[the Sterling Integrator user name]

Services that Support Document Tracking

Every activity that occurs in a Sterling Integrator business process is carried out by a service.

This section describes the services and adapters that support document tracking, including:

- ◆ *Document Tracking Service* on page 13
- ◆ *Other Services that Support Document Tracking* on page 13
- ◆ *Adapters that Support Document Tracking* on page 14

Document Tracking Service

The Document Tracking Service enables you to define correlation name-value pairs to gather additional tracking data about documents. When you create or edit a business process, you can include the Document Tracking Service at appropriate points in the business process to define additional tracking data that Sterling Integrator gathers about a document (or a family of documents) by perpetuating the document information through the document's life cycle rather than in just one business process. For more information about the Document Tracking Service, see *Document Tracking Service* on page 20.

Other Services that Support Document Tracking

This table lists the other services (other than the Document Tracking service) in Sterling Integrator that have information built in to them to enable document tracking when they are used. These services provide implementation-specific data in addition to the system correlation information they automatically collect. For more information about system correlations, see *Predefined Correlations* on page 8.

These services may be used in business processes or they may be used by Sterling Integrator as part of internal document processing:

- ◆ ACH Deenvelope
- ◆ ACH Generation
- ◆ CII Deenvelope
- ◆ CII Enveloping
- ◆ EDI Deenvelope
- ◆ EDI Encoder
- ◆ EDI Enveloping
- ◆ EDI Post Processor
- ◆ EDIFACT Deenvelope
- ◆ EDIFACT Envelope
- ◆ EDIINT Acknowledge Check
- ◆ EDIINT Message
- ◆ EDIINT Pipeline
- ◆ Generic Deenvelope
- ◆ Generic Envelope
- ◆ HTTP Client Begin Session
- ◆ HTTP Client End Session
- ◆ HTTP Client GET
- ◆ HTTP Client Method
- ◆ HTTP Client POST
- ◆ HTTP Respond
- ◆ Mailbox Add
- ◆ Mailbox Extract Abort
- ◆ Mailbox Extract Begin
- ◆ Mailbox Extract Commit
- ◆ Translation
- ◆ X12 Deenvelope
- ◆ X12 Envelope

Adapters that Support Document Tracking

Adapters are services that communicate with external systems to move data in and out of Sterling Integrator. These adapters provide implementation-specific data in addition to the predefined correlation information they automatically collect. For more information about system correlations, see *Predefined Correlations* on page 8.

These Sterling Integrator adapters have information built in to enable document tracking:

- ◆ Connect:Direct Server
- ◆ HTTP Client
- ◆ HTTP Server
- ◆ MSMQ

Reports Using Document Tracking

Sterling Integrator provides you with a variety of reports that give you document information to enable timely decision-making, including:

- ◆ *EDI Outbound Acknowledgment Report* on page 15
- ◆ *EDI Translation Detail Report* on page 15
- ◆ *Translation Service Report* on page 16

EDI Outbound Acknowledgment Report

The EDI Outbound Acknowledgment report enables you to monitor functional acknowledgments at the group or interchange level, organized by parameters including sender identifier, receiver identifier, EDI standard, and acknowledgment status. You may want to use this report to determine, for example, how many functional acknowledgments from a specified sender identifier are overdue.

Note: In the report, the sender identifier and receiver identifier parameters are always displayed as a paired set. Even when the configuration process allows you to select only one parameter (sender identifier *or* receiver identifier), both parameters are displayed on the report.

EDI Translation Detail Report

The EDI Translation Detail report enables you to access EDI data (transaction, group, or interchange) for a specified time period. It further allows you to organize the report by selecting criteria such as direction of the transmission, sender and receiver identifier, envelope name, unique identifier for the envelope level, EDI standard used, and translation success or failure, among other parameters. This report allows you to quickly and easily access information about EDI translation in the Sterling Integrator system.

EDI translation detail reports reflect the number of EDI groups and transactions that were actually processed by the system. If an interchange is non-compliant, its groups are not processed and therefore you cannot view a group count. If a group is non-compliant, its transactions are not processed and therefore you cannot view a transaction count for that group. For example, if you have an interchange that has two groups—each group containing one transaction set—and one of the groups is non-compliant, the EDI translation detail report indicates that the group count for the interchange is **2**, and the transaction count is **1**.

Note: The EDI Translation Detail Report includes a parameter for document size (Doc Size). To improve performance, Sterling Integrator avoids persisting intermediate documents to the database wherever possible. For example, when transactions are batched, a document is only persisted for the batch

rather than for each individual transaction. Similarly, if transactions are being translated, only the translated version of the document is persisted to the database. This behavior greatly improves Sterling Integrator throughput.

Therefore, depending on the level of the report (interchange, group, or transaction) and the direction of the translation (inbound or outbound), the Doc Size parameter is defined differently:

- ◆ When you filter by interchange, the Doc Size parameter contains the actual size of the EDI interchange, regardless of direction (inbound or outbound).
- ◆ When you filter by outbound groups, the Doc Size parameter contains the actual size of the EDI interchange.
- ◆ When you filter by inbound groups, the Doc Size parameter contains the actual size of the EDI group, including the group level envelope segments.
- ◆ When you filter by inbound transactions, the Doc Size parameter contains the post-translation size. If the transaction sets are “batched,” there is one report entry to summarize and total post-translation size is reported. If the transaction sets are not batched, each transaction has its own report entry, and individual post-translation sizes are reported.
- ◆ When you filter by outbound transactions, the Doc Size parameter contains the actual size of the entire EDI Interchange. Outbound transactions are always presented as “batched,” with one report entry to summarize multiple transaction sets.
- ◆ If the EDI data is formatted as non-streamed, the doc size includes record separators.

Translation Service Report

The Translation Service Report enables you to sort and report details of translations performed by the Translation Service that occur outside of EDI processing in Sterling Integrator. The information provided on this report includes document tracking information collected through the document tracking process.

To use the Translation Service Report, you must have document tracking enabled in your business process. For more information about enabling document tracking, see *Business Process Document Tracking* on page 20.

You can also create your own online report of processed documents by selecting a combination of criteria. For more information about creating your own online report using the Document Tracking pages, see *Using Document Tracking* on page 21.

Troubleshooting Document Tracking

If you are using the Sterling Integrator document tracking and you seem to be missing information, check with your system administrator to determine the tracking level that is configured in your `<install_dir>/properties/enveloping.properties.in` file.

Note: If the tracking level is set to improve performance, this may have a negative impact on document tracking capabilities. For more information about configuring the tracking level parameter for optimal document tracking capabilities, see the *Enhancing EDI Performance* topic.

Configuring Document Tracking

This section provides information about how document tracking functions in Sterling Integrator and how to configure document tracking in Sterling Integrator.

This section covers the following topics:

- ◆ *About System Configuration of Document Tracking* on page 18
- ◆ *Global Document Tracking* on page 19
- ◆ *Business Process Document Tracking* on page 20
- ◆ *Document Tracking Service* on page 20
- ◆ *Using Document Tracking* on page 21
- ◆ *Using Current Documents to Monitor Document Processing* on page 23

About System Configuration of Document Tracking

You can configure document tracking in Sterling Integrator at three levels:

1. *Global Document Tracking* on page 19
2. *Business Process Document Tracking* on page 20
3. *Document Tracking Service* on page 20

In this list, each successive level overrides the other level or levels. For example, Business Process Document Tracking overrides settings for Global Document Tracking. And, using the Document Tracking Service overrides settings you configure for Business Process Document Tracking *and* Global Document Tracking.

Global Document Tracking

You can configure global (system-level) document tracking in the **doc_tracking.properties** file, which is located in `<install dir>/properties` in your Sterling Integrator installation. This is a global system tracking setting that defines defaults for all services and adapters, and is used by Sterling Integrator for enabling the tracking for adapters and other parts of Sterling Integrator that do not have a relationship with business processes. For more information about enabling tracking for business processes, see *Business Process Document Tracking* on page 20.

The `doc_tracking.properties` file contains two main configuration options:

- ◆ *Global Tracking* on page 19
- ◆ *Tracking Discovery Level* on page 19

Global Tracking

The **tracking.global.enabled** property enables global tracking for all adapters and services. The default is TRUE (enabled), but you can configure it to FALSE to disable the default global tracking behavior.

Note: Regardless of whether you set the `tracking.global.enabled` property to true (enabled) or false (disabled), it is overridden by any tracking parameters specified at the business process level and by the Document Tracking Service. For more information about configuring business process-level document tracking, see *Business Process Document Tracking* on page 20. For more information about using the Document Tracking Service, see *Document Tracking Service* on page 20.

To disable global document tracking, change the `<install dir>/properties/tracking.global.enabled` property as follows:

```
tracking.global.enabled=false
```

Tracking Discovery Level

The **tracking.discovery** property specifies the default information discovery level for document tracking in Sterling Integrator. This property is overridden by the Document Tracking Service. For more information about using the Document Tracking Service, see *Document Tracking Service* on page 20.

Caution: By default, the `tracking.discovery` property is set to NONE because the discovery process can have a serious adverse impact on system performance.

The tracking discovery values are:

- ◆ NONE – No discovery
- ◆ OPTIONAL – Enable tracking discovery only when the first tracking record is initialized
- ◆ MANDATORY – Enable tracking discovery for every tracking step or on every update to the tracking record

To change the global tracking discovery level, change the `<install dir>/properties/tracking.discovery` property as follows:

```
tracking.discovery=OPTIONAL
```

Business Process Document Tracking

Sterling Integrator provides you with an optional method of overriding the default global system setting (described in *Global Document Tracking* on page 19). The default global system setting is used for adapters and processes that do not use business processes.

By default, all business processes have the tracking option disabled. However, when you create, check in, or edit a business process you can enable tracking for that process. Therefore, even if the global system tracking option is configured to *enable* tracking, by default your business processes will *not* track their associated documents because the global system tracking option does not control any business process configurations.

Once you have enabled document tracking for a business process, tracking information is carried with the document (in the tracking record, which functions like a document attachment) from that point forward, and the tracking information is persisted about the document regardless of the persistence level you configured for Sterling Integrator.

You can configure the persistence level for each business process using the Business Process Editor, which enables you to define how much data is persisted (or stored) in the database or file system for this business process (including associated documents, activities, and all process data). The persistence level determines the level of detail written to the database as a business process runs. The default value for Sterling Integrator is BP Step Status- Engine. You may need to change the persistence level to a lower level to enhance performance.

Once you have enabled tracking in a business process, for monitoring and tracking purposes you can:

- ◆ Track processing history
- ◆ View transaction details
- ◆ Obtain processing state information

Note: Document tracking is turned off (disabled) by default for the predefined EDI business processes. The default EDI performance settings (which are set by using a TRACKING_LEVEL parameter in the enveloping.properties file) can be overridden for certain EDI-related services by using a TRACKING_LEVEL parameter. This allows you to obtain maximum EDI performance in some business processes and maximum search and tracking functionality in others.

If you define an EDI business process and turn Document Tracking on, that overrides the TRACKING_LEVEL settings in both the properties file and the EDI service parameter.

Document Tracking Service

The Document Tracking Service enables you to define correlation name-value pairs to gather additional tracking data about documents. When you create or edit a business process, you can include the Document Tracking Service at appropriate points in a business process to define additional tracking data that Sterling Integrator gathers about a document (or a family of documents).

The additional tracking data is defined using any number of correlation name-value pairs that are associated with the specified primary document. These correlation name-value pairs provide Sterling Integrator with more pieces of information about which you can query for document data.

When you add the Document Tracking service to a business process and set the use-system-default to TRUE when you are configuring the Document Tracking service, tracking is only performed if it is enabled at the business process level. So, if the Document Tracking Service is present in a business process (and you set use-system-default to TRUE *and* tracking is enabled in the business process), tracking is automatically enabled at that point, regardless of how you configured the global document tracking system default. Using the Document Tracking Service in this manner enables you to control the exact moment that a tracking record is updated. For more information configuring the global document tracking system default, see *Global Document Tracking* on page 19.

The Document Tracking Service can override the default system discovery level. For more information about configuring the default discovery level, see *Global Document Tracking* on page 19.

For more information, see *Example of Using the Document Tracking Service* on page 21.

When you set up a business process, you can include one or more tracking services. If document tracking has been enabled when you check in the business process, the information discovery process is responsible for creating the document tracking record (and populating it with an unique tracking ID along with predefined tracking data). The document tracking service then *adds* to the contents of the tracking record. However, if document tracking is not enabled, the tracking service *creates* the tracking record.

Example of Using the Document Tracking Service

When the business process is executed and documents are processed, tracking data about the documents is gathered and passed from one step in the business process to the next. For example, during one of the steps in the process, if Document A is split into three documents—A1, A2 and A3—all four documents (Document A, A1, A2, and A3) share a common tracking ID because the document information is perpetuated through the document's life cycle rather than in just one business process. The relationships between documents within a family (for example, parent Document A and child Documents A1, A2, and A3) are available when a user searches for documents using tracking information as the search criteria.

Using Document Tracking

The Document Tracking page enables you to quickly and easily search for documents that match criteria that you specify.

For more information, see:

- ◆ *Document Tracking Parameter Definitions* on page 22
- ◆ *Searching for a Document* on page 22

Document Tracking Parameter Definitions

The following table contains the parameter definitions for the Document Tracking page.

Parameter	Description
Community	The name of a community (trading partners that you have organized into groups so that you can track related documents, trends, and other supply chain information) or ALL.
Trading Partner Name	The name of a specific trading partner or ALL.
Direction	The direction of the document (whether it is inbound or outbound).
Document Type	The type of document, such as X12, EDIFACT, TRADACOMS, CII, and so forth. Note: Document types vary and depend upon the business process with which they are associated. You add a document type to a community for tracking purposes.
Document/Tracking ID	A unique identifier assigned to the document during the life cycle of the document to track relationships and history. This document tracking ID can be passed through Sterling Integrator systems for internodal tracking support.
Date Range	A beginning date and time used to restrict the range of the search. Note: The date format is 08/05/2004 and the time format is 3:01.
To	An end date and time used to restrict the range of the search. Note: The date format is 08/05/2004 and the time format is 3:01.

Note: If you are using the Sterling Integrator AS2 Edition, you can also configure file tracking through that interface.

Searching for a Document

To search for a document or documents in Sterling Integrator:

1. From the **Document Tracking** page, select criteria to enable Sterling Integrator to locate the document or documents in which you are interested.

Using more parameters makes the criteria you specify as restrictive as possible, which more precisely narrows the search and the results that are returned.

2. Click **Go!** and Sterling Integrator searches for documents that match the criteria you specified.

The Document Advanced Search pages display documents that match the specified criteria or notes that no documents satisfy the search criteria.

Note: If you want to see more than 50 results per page, you can edit the `<install_dir>/properties/doc_tracking.properties` file. Locate and change the value of the `tracking.ui.search.maxnumber` parameter to the number of results you want to be displayed.

Using Current Documents to Monitor Document Processing

The Current Documents page allows you to view the most recent documents processed without specifying any search options. Current Documents gives you the ability to monitor current document processing at a glance from one page in Sterling Integrator. Document status (green light or red light) indicates if there is a problem with a specific document or an entire batch of documents. The ability to search for specific documents, or for documents processed more than one week previously, is still available.

For more information, see:

- ◆ *Benefits of Using Current Documents* on page 23
- ◆ *Accessing Current Documents* on page 23
- ◆ *Changing the Number of Documents Displayed* on page 24
- ◆ *Enabling the Details Feature in Document Tracking* on page 25
- ◆ *About Security Levels for Current Documents* on page 25

Note: To optimize Current Documents performance, the `useNewCorrelationSearch` property value (located in the `jdbc.properties` file in the Sterling Integrator Properties directory) has a default value of True. To use Current Documents, do not change this value; this property value must be set to True for you to use this functionality and to receive related performance enhancements.

Benefits of Using Current Documents

The Current Documents feature offers the following benefits:




- ◆ You can monitor document processing to ensure documents are processing successfully, and take corrective action if necessary.
- ◆ If a problem document is noted, you can view document details with one click to see what happened.
- ◆ By default, the page is automatically refreshed every minute for the most current information.
- ◆ You can change the number of documents displayed per page, change the name of the document displayed to something more meaningful—for example, document type—and enable detailed document tracking.

Accessing Current Documents

To access Current Documents, go to **Business Processes > Current Documents**. The following information is available on the Current Documents page:

- ◆ Up to a week of processed documents display. To view documents older than one week, use the **Advanced Search > Documents** feature.
- ◆ Documents are generally listed in the order received, with the most current documents at the top.
- ◆ Select **Automatically refresh every minute** to get current information. Deselect this option to disable the automatic refresh.
- ◆ Last update date and time displays when the page was last refreshed.

The following graphic and table show the available fields:

Current Documents						
<input checked="" type="checkbox"/> Automatically refresh every minute						
Documents 1-1 of 1						
Status	Document	Proc. ID	Sender ID	Receiver ID	Correlations	Details
	xslt_result	8757	None	None		
Last update on 4/19/2005 3:55:35 PM						

Field Name	Description
Status	Green or red traffic light indicates the processing status of the document: <ul style="list-style-type: none"> ◆ Green status indicates no errors or warnings occurred during processing. ◆ Red status indicates errors or warnings were encountered during processing.
Document	Name of the document processed. This can be changed in the business process so that a meaningful name will appear instead of the default. Most pre-configured business processes already have the document name established. Click the document name to view the contents. <p>Note: You can change the meta data for your service to display a more meaningful document name, such as the document type, in Current Documents instead of the default name. The default display is the Body Name, if available, otherwise it is the document ID. Some services, such as EDI documents (EDIFACT, for example), are already configured to display the document type.</p> <p>Note: Contents will not be viewable if encrypted or obscured.</p>
Proc. ID	Processing ID assigned by Sterling Integrator as an identification number. Click the Processing ID to view Business Process Details.
Sender ID	ID of the document sender as found in the document. If no ID is found, Sender ID is None.
Receiver ID	ID of the document receiver as found in the document. If no ID is found, Receiver ID is None.
Correlations	Click the Correlations icon to view document correlations.
Details	If document tracking is enabled at the business process level, you can view the document history by clicking on Details from the Current Documents page.

Changing the Number of Documents Displayed

Current Documents displays the most recent 15 documents that have been processed. You can change this and display more than 15 documents per page by making an adjustment on the My Account page.

To change the number of documents displayed:

1. Select **Accounts > My Account**. The My Account page is displayed.

2. In the Preferences section, next to **Page Size for Current Documents**, select the number of documents you want to display on each page. Remember that the larger number you select, the more you will have to scroll to see all of the documents displayed, and the system may take longer to display results.
3. Click **Save**. Your changes are saved. Log out Sterling Integrator and then log back in to see the change in preferences.

Enabling the Details Feature in Document Tracking

The Details icon on the Current Documents page allows you to see the hierarchical views and relationships between your documents. For a document to appear in Current Documents, you must turn on document tracking for your business process, which also enables the Details icon on the Current Documents page.

Note: All documents that belong to a family share a common Tracking ID. However, each document has a unique Document ID.

To enable document tracking details:

1. Open your business process.
2. Open Source Manager.
3. Click **Edit**.
4. Select **Document Tracking**.
5. Click **Next** until you reach the last page of the wizard.
6. Click **Finish**.

About Security Levels for Current Documents

Documents that are viewed using Current Documents may contain sensitive information, so Sterling Integrator might not display every document if the user does not have access to the business processes that generated them.

To keep confidential or sensitive documents secure, you should configure your business processes so that only authorized users are able to run those that process confidential information. The resulting documents will only be viewable by a user authorized to see them.

Another option you can use to keep confidential data safe from access by unauthorized users is to use the Obscure Service to encrypt your documents. Using the Obscure Service, documents are displayed in Current Documents for all user levels, but the data contained within them is encrypted and not readable.

Internodal Document Tracking

This section provides information about how Sterling Integrator enables internodal document tracking, thus allowing you to locate document information across two or more Sterling Integrator systems configured as peers in a federated system.

This section covers the following topics:

- ◆ *About Internodal Document Tracking* on page 26
- ◆ *Configuring Internodal Document Tracking* on page 27
- ◆ *Internodal Document Tracking Scenario* on page 28

About Internodal Document Tracking

An internodal (federated) system is a network of Sterling Integrator installations (nodes) that communicate with each other using discovery points (a specific URL on each Sterling Integrator node that enables other nodes to link to it).

A *node* is a single installation of Sterling Integrator. A Sterling Integrator cluster is one node in an internodal (federated) system. Tracking documents on other nodes is based on associating a peer node with a trading partner and giving permissions to the user account that allows you to track documents from node to node. Each federated node has an account for each remote system.

As a member of a community or a federated system, you can track documents as they are processed on different nodes in the community or on peer systems based on the permissions assigned in the trading partner user account associated with the peer (for security reasons, internodal document tracking is based on trading partner information). This tracking process is called *internodal tracking*.

The internodal document tracking feature alerts you that the document arrived. You can extend the amount of information that is viewed and tracked by adding different permissions to the user account that is set up when you join a federated system or community. You can set up a peer to have only the default permission being notified when a document arrives, or you can configure a peer to have full document tracking access, up to the point that the document is sent out of the node for processing.

Configuring Internodal Document Tracking

Sterling Integrator enables complete remote tracking of documents processed on other nodes in an internodal network when you associate a trading partner with a peer in the internodal system.

Note: When you accept an invitation to join a federated system or community, a user account with default tracking permissions is automatically created.

For more information, see:

- ◆ *Internodal Document Tracking Prerequisites* on page 27
- ◆ *Internodal Document Tracking Permission Levels* on page 27
- ◆ *Searching for Documents on Other Nodes* on page 27

Internodal Document Tracking Prerequisites

Before you can track documents on other nodes, you must:

- ◆ Configure document tracking for each business process that you want to monitor on all nodes. You can configure a business process for document tracking on the confirm page when you check in a business process.
- ◆ Establish a peer relationship with the other nodes, either through a community or a federated system. If you are communicating with the Connect:Direct or MQ Series adapters, you must use EDI services to link to the trading partner information so the Sterling Integrator federated system can conduct internodal document tracking.

If you are communicating using AS2, you can use the community management feature for internodal document tracking.

Internodal Document Tracking Permission Levels

There are several different levels of tracking permissions that you can configure by setting permissions for the user account that is created when you configure a peer relationship with another node in Sterling Integrator. These allowable tracking permissions include:

- ◆ Tracking all business process including parent and child relationships (all tracking data)
- ◆ Tracking any document, regardless of whether you sent it
- ◆ Tracking documents according to document status
- ◆ Tracking documents according to document state
- ◆ Tracking documents upon arrival in the destination node

Searching for Documents on Other Nodes

Sterling Integrator enables you to search for documents on other nodes by the document:

- ◆ Location (this search criteria is not associated with internodal tracking, only with archiving)

- ◆ Time-processed correlation
- ◆ Sender and Receiver ID correlations
- ◆ Other Correlations
- ◆ Document ID correlation

Only documents containing a Message ID correlation value support internodal tracking. For more information about the Message ID correlation value, see *Predefined Correlations* on page 8.

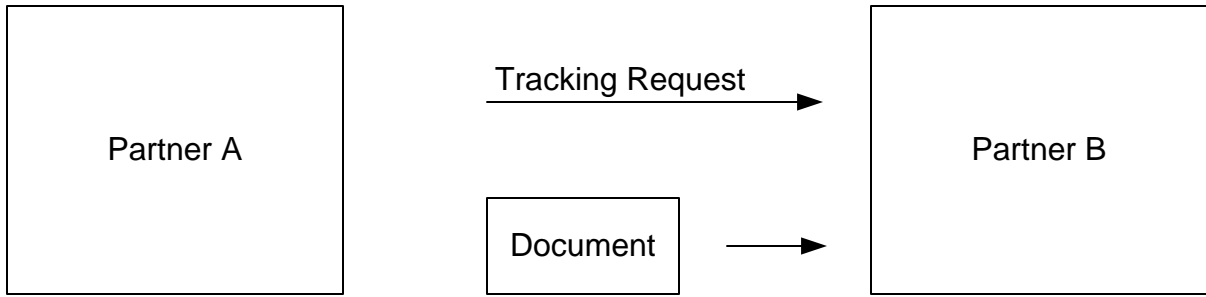
Internodal Document Tracking Scenario

This section describes an internodal tracking scenario to help you understand how Sterling Integrator performs internodal document tracking:

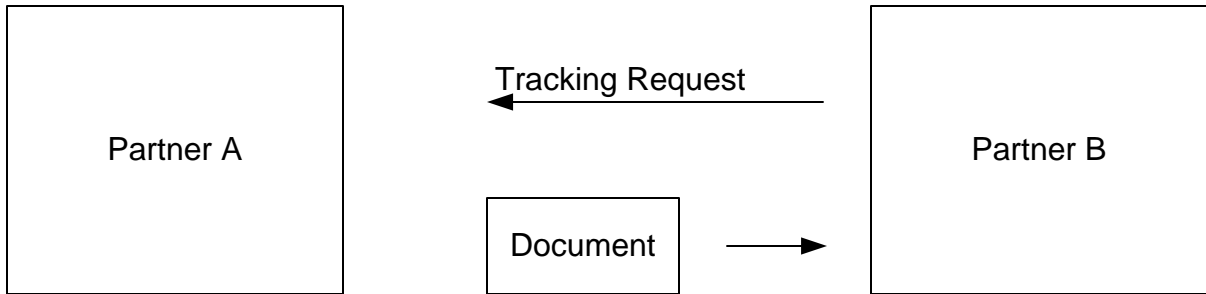
The simplest business scenario for internodal tracking is one-to-one document tracking. For example, Partner A sends a document to Partner B, and then Partner A queries Partner B for information about that document. Or, Partner B can query Partner A about a document they received from Partner A.

In this scenario, all the information is limited to the two nodes involved (Partner A and Partner B), and all permission and settings are configured for communication between only those two partners.

The following figure shows a one-to-one document tracking scenario:



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