Sterling Standards Library

Using SPEC2000

Version 7.0

Sterling Commerce
An IBM Company

Contents

Using SPEC2000 with the Application

SPEC2000 Overview

SPEC2000 is a comprehensive set of e-business specifications, products, and services that are designed to overcome challenges in the aviation industry supply chain. Administered by the Air Transport Association (ATA), SPEC2000 is the product of 12 international industry associations representing airlines, manufacturers, suppliers, and repair agencies. The primary goal is to provide cost-effective, state-of-the-art methods for information exchange that are usable by the widest possible population of companies. Today the system includes four types of information exchange that comprise the SPEC2000 e-business system:

✦ ATA Aviation Marketplace

✦ E-Commerce Standards

✦ File Standards

✦ Bar Coding Standards

When used in a batch file, the SPEC2000 format consists of a sequence of records, in which each record may contain a series of segments. Each segment (or record, if it is not determined in terms of segments) consists of a set of control data elements which are slash-delimited, and usually begin with a Text Element Identifier (TEI). If the control data element does not begin with a TEI, the meaning of this control data element is implicit based on its order within the containing record or segment. There is typically one piece of data within a control data element, but sometimes it contains multiple pieces of data. Some data control elements are required to be present in a particular order, while others may appear in any order. Each data field is separated by a slash. Some records (for example, the header record of the V File) are required to have a slash delimiter at the end of the record, while other records (for example, the provisioning data record of the V file) are required to end with a space rather than a slash.

Note: The application does not support the Map Editor preloads for the messages specified for Automated Identification and Data Capture (Chapter 9 of the SPEC2000 documentation).

This table describes how the application supports SPEC2000:

Functionality	Details	Action You Need to Take to Implement SPEC2000
Services	◆ Generic Enveloping service translates messages, determines which business processes need to run to apply SPEC2000 envelopes, and starts those business processes. This service improves performance of SPEC2000 by consolidating the inner and outer envelopes into a single service. ◆ Generic Deenveloping service removes the envelopes from inbound messages.	Configure the Generic Enveloping and Deenveloping services in the application Graphic Process Modeler (GPM). **Note:** As a way to help reduce the number of envelopes you need to create and use, the services support use of an asterisk (*) as a wildcard character in mandatory envelope fields for SPEC2000. By using wildcards, you can set up one set of envelopes that can be used for multiple trading partners. If certain trading partners have specific requirements, you can still have envelopes that pertain just to them, and the service chooses the envelope that is the best match. In other words, the envelope that has the most matches to specific fields in the data, is the one selected.
Envelopes	◆ Inbound SPEC2000 envelope wizard to implement inbound SPEC2000. ◆ Outbound SPEC2000 envelope wizard to implement outbound SPEC2000. **Note:** Most message types support an acknowledgement in the form of S1CMDACK. The application does not support the reconciliation of business responses.	◆ Create the appropriate SPEC2000 envelopes for the SPEC2000 messages you are sending and receiving.
Predefined business processes	◆ SPEC2000Deenvelope business process extracts documents from a SPEC2000 envelope according to the content of the documents. SPEC2000Deenvelope then starts the appropriate business process. ◆ SPEC2000Envelope business process applies a SPEC2000 envelope to one or more SPEC2000 messages and then uses the envelope data to translate and process them.	Configure the predefined business processes as necessary.

Functionality	Details	Action You Need to Take to Implement SPEC2000
Map Editor	◆ Map Editor wizard enables you to generate a file layout for you using the preloaded SPEC2000 message that you select. Included in the SPEC2000 map are the map components that are defined by SPEC2000. ◆ The Map Editor wizard also enables you to generate file layouts for positional and XML formats. ◆ Properties dialog boxes that enable you to define and modify map components for SPEC2000, positional, and XML file formats. ◆ Autolink function automatically creates links between input and output fields that have the same name or business name. This function can be used with any data format. ◆ Additional mapping operations as needed. See the *Map Editor Guide* for information on other mapping operations.	◆ Download Map Editor. ◆ Create a map or maps to translate your SPEC2000 messages.
Correlation Search	Search by SPEC2000 information.	Use the EDI Correlation search functionality to search for SPEC2000 correlation information.
Reports	Report by SPEC2000 standard	◆ Use the EDI Translation Detail report to search for details of inbound and outbound SPEC2000 messages and easily create useful reports on your inbound and outbound SPEC2000 messaging. ◆ Use the EDI Outbound Acknowledgement report to monitor functional acknowledgments at the transaction 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.

Prerequisite Knowledge

The audience using this software should be familiar with the application and the SPEC2000 standard.

Note: This documentation is not intended to explain the SPEC2000 standard.

Using SPEC2000 with the Application

To use SPEC2000 with the application, you must complete the following tasks:

1. Create inbound and outbound SPEC2000 envelopes.

2. Use the predefined SPEC2000 business processes or create your own business processes.

3. Create any necessary code lists and maintain them as needed.

4. Create your SPEC2000 map or maps, linking your proprietary file format to the appropriate SPEC2000, positional, or XML message format.

5. To track SPEC2000 messages, use the EDI Correlation Search functionality.

6. To report on inbound and outbound SPEC2000 message flow, use the EDI Translation Detail report features.

7. To monitor the EDI Outbound Acknowledgement report functional acknowledgments at the transaction level, organized by parameters including sender identifier, receiver identifier, EDI standard, and acknowledgment status.

SPEC2000 Business Processes

Overview

To help you accomplish your business goals, the application provides two predefined enveloping business processes that are used by the application to implement SPEC2000 processing: SPEC2000Envelope and SPEC2000Deenvelope. These predefined business processes are initiated by services during SPEC2000 processing and do not require you to modify them unless modifications are necessary to meet your business requirements.

The following table lists business goals for the predefined SPEC2000 business processes:

Business Process	Business Goals
SPEC2000Deenvelope	Extracts documents from a SPEC2000 envelope, according to the content of the envelopes. SPEC2000Deenvelope then starts the appropriate business process.
SPEC2000Envelope	Applies a SPEC2000 envelope to one or more SPEC2000 messages and then uses the envelope data to translate and process them.

SPEC2000Deenvelope Business Process

The SPEC2000Deenvelope business process includes the Generic Deenveloping service to perform the following steps:

1. Extracts documents into process data.
2. Starts the SPEC2000 Deenveloping business process or other EDI Deenveloping business process, as appropriate.

If exceptions occur when running a SPEC2000Deenvelope business process, the application generates an EDI Compliance Report.

This table lists the configuration parameters for the SPEC2000Deenvelope business process:

Parameter	Default	Description
Document Tracking	False	When document tracking is enabled for a business process, tracking information is carried with the message throughout the process, and the tracking information is persisted about the message regardless of the persistence level you configured globally for the application.
Transaction	False	Indicates whether the transaction will be sent. False indicates that the transaction will not be sent.

Parameter	Default	Description
Set onfault processing	False	Onfault processing allows the process to immediately execute the application fault activity specified in the process, even if the process has not yet reached that step in the process. For example, if a process fails at step 3, but the on-fault activity is specified in step 7, if onfault processing is enabled, the process proceeds to the step 7 on-fault rather than halting at step 3.
Queue	4	The application enables you to set performance optimizations by queue, defining queue levels to allocate resources. This number indicates the previously allocated queue level that you want for this business process model for processing.
Persistence Level	System Default	The level of data to retain for generating a status report that describes each step that the business process completes. System default indicates that, for the data, configuration is already defined in the application to retain data.
Recovery Level	Manual	The level of recovery for this business process if the business process should halt during execution. Manual requires you to resume or restart the business process manually.
Document Store	System Default	The level of document storage for messages that process when the business process runs. System Default specifies to store messages in the file system or database, according to how you configured archiving and purging in the application.
Life Span	Life Span Days — 2 Life Span Hours — 0 Life Span Type — System Level Removal Method — Archive	The length of time, in days and hours, to retain the data in the application, along with the life span type and removal method.
Complete by Deadline	None Available **Note:** To set a deadline you must change it in the business process.	Complete by – The deadline time, in hours and minutes, by which the business process must complete process once it starts. ◆ First Notification: Hours and Minutes – Whether to receive notification before a business process deadline. ◆ Second Notification: Hours and Minutes – Whether to receive another notification before a business process deadline.
Event Reporting Level	None	The level of event reporting that is retrieved for this business process when it runs. Full specifies to generate events for the business process, including the business process start and end time, start and end times for all services or services running as a result of this business process, and any resulting errors and exceptions.
Removal Method	System Default	The method of removing files for this business process. The system default is "Archived."

Parameter	Default	Description
Start Mode	Async	The business process can be configured to execute in synchronous mode and asynchronous mode.

The following BPML code makes up the SPEC2000Deenveloping business process:

```
<process name="SPEC2000Deenvelope">
  <rule name="contract">
    <condition>CONTRACT_FOUND = "YES"</condition>
  </rule>
  <sequence>
    <sequence>
      <operation>
        <participant name="DeenvelopeGeneric"/>
        <output message="toService" >
          <assign to="break_processor">SPEC2000</assign>
          <assign to="ExhaustInputDuringBreakTranslation">false</assign>
          <assign to="." from="*"/>
        </output>
        <input message="fromService" >
          <assign to="." from="*"/>
        </input>
      </operation>
      <onFault code="Interchange-Non-Compliant">
        <assign to="BREAK">YES</assign>
      </onFault>
      <onFault code="Transaction-Non-Compliant">
        <assign to="BREAK">YES</assign>
      </onFault>
      <onFault>
        <operation>
          <participant name="BPExceptionService"/>
            <output message="toService">
              <assign to="exceptionCode" from="Prev_NotSuccess_Adv_Status/text()"/>
            </output>
            <input message="fromService"/>
        </operation>
      </onFault>
    </sequence>
    <choice>
      <select>
        <case ref="contract" activity="invoke_contract_workflow"/>
      </select>
      <sequence name="invoke_contract_workflow">
        <operation>
          <participant name="InvokeBusinessProcessService"/>
          <output message="toService">
            <assign to="INVOKE_MODE">ASYNC</assign>
            <assign to="." from="*"/>
          </output>
          <input message="fromService" >
            <assign to="." from="*"/>
          </input>
        </operation>
      </sequence>
```

```
      </choice>
    </sequence>
</process>
```

Before Using SPEC2000Deenvelope

Before you use the SPEC2000Deenvelope business process, you must complete the following tasks:

1. Create SPEC2000 inbound envelopes.

2. Create a business process that initiates the SPEC2000Deenvelope business processes.

SPEC2000Envelope Business Process

The SPEC2000Envelope business process is initiated when it is called by another business process or the EDI Enveloping service.

The SPEC2000Envelope business processes performs the following primary activities:

1. Starting with one or more documents, the Generic Enveloping service applies envelope properties at the document level to each document.

2. The service either looks up a contract or runs a business process.

This table lists the configuration parameters for the SPEC2000Envelope business process:

Parameter	Default	Description
Document Tracking	False	When document tracking is enabled for a business process, tracking information is carried with the message throughout the process, and the tracking information is persisted about the message regardless of the persistence level you configured globally for the application.
Transaction	False	Indicates whether the transaction will be sent. False indicates that the transaction will not be sent.
Set onfault processing	False	Onfault processing allows the process to immediately execute the on-fault activity specified in the process, even if the process has not yet reached that step in the process.
		For example, if a process fails at step 3, but the on-fault activity is specified in step 7, if onfault processing is enabled, the process proceeds to the step 7 on-fault rather than halting at step 3.
Queue	4	The application enables you to set performance optimizations by queue, defining queue levels to allocate resources. This number indicates that previously allocated queue level that you want for this business process model for processing.

Parameter	Default	Description
Persistence Level	System Default	The level of data to retain for generating a status report that describes each step that the business process completes. System default indicates that, for the data, configuration is already defined in the application to retain data.
Recovery Level	Manual	The level of recovery for this business process if the business process should halt during execution. Manual requires you to resume or restart the business process manually.
Document Storage Type	System Default	The level of document storage for messages that process when the business process runs. System Default specifies to store messages in the file system or database, according to how you configured archiving and purging in the application.
Life Span	Life Span Days — 2 Life Span Hours — 0 Life Span Type — System Level Removal Method — Archive	The length of time, in days and hours, to retain the data in the application, along with the life span type and removal method.
Complete by Deadline	None Available **Note:** To set a deadline you must change it in the business process.	Complete by – The deadline time, in hours and minutes, by which the business process must complete process once it starts. ◆ First Notification: Hours and Minutes – Whether to receive notification before a business process deadline. ◆ Second Notification: Hours and Minutes – Whether to receive another notification before a business process deadline.
Event Reporting Level	Full	The level of event reporting that is retrieved for this business process when it runs. Full specifies to generate events for the business process, including the business process start and end time, start and end times for all services or services running as a result of this business processes, and any resulting errors and exceptions.
Removal Method	System Default	The method of removing files for this business process. The system default is "Archived."
Start Mode	Async	The business process can be configured to execute in synchronous mode and asynchronous mode.

The following BPML code makes up the SPEC2000Envelope business process:

```
<process name="SPEC2000Envelope">

  <rule name="contract">
    <condition>CONTRACT_FOUND = "YES"</condition>
  </rule>

  <sequence>
    <sequence>
      <operation>
```

```
        <participant name="EnvelopeGeneric" />
        <output message="Xout" >
          <assign to="." from="*"></assign>
        </output>
        <input message="Xin" >
          <assign to="." from="*"></assign>
        </input>
      </operation>
      <onFault code="Translation-Error-Some-Docs">
        <assign to="BREAK">YES</assign>
      </onFault>
      <onFault code="Envelope-Translation-Error-Some-Docs">
        <assign to="BREAK">YES</assign>
      </onFault>
      <onFault>
        <operation>
          <participant name="BPExceptionService"/>
          <output message="Xout" >
            <assign to="exceptionCode" from="Prev_NotSuccess_Adv_Status/text()"/>
          </output>
          <input message="Xin"/>
        </operation>
      </onFault>
    </sequence>

    <choice>
      <select>
        <case ref="contract" activity="invoke_contract_workflow" />
      </select>
      <sequence name="invoke_contract_workflow">
        <operation>
          <participant name="InvokeBusinessProcessService" />
          <output message="Xout">
            <assign to="INVOKE_MODE">ASYNC</assign>
            <assign to="." from="*"></assign>
          </output>
          <input message="Xin" >
            <assign to="." from="*"></assign>
          </input>
        </operation>
      </sequence>
    </choice>

  </sequence>
</process>
```

Before Using the SPEC2000Envelope Business Process

Before you use the SPEC2000Envelope business process, you must complete the following tasks:

1. Create inner and outer outbound envelopes for your SPEC2000 messages.

2. Create a business process that initiates the SPEC2000Envelope business process.

SPEC2000 Enveloping

SPEC2000 Enveloping Overview

A *document envelope* consists of control information that enables organizations to effectively exchange messages. This information is added in headers and trailers to messages. Document envelopes are specific to the message protocol used. Creating document envelopes is necessary to use SPEC2000 with your trading partners.

During the envelope creation process, you need to assign the envelope name, description, and parameters, such as unique identification numbers (control numbers).

Note: Each time a user adds, modifies, or deletes an envelope, the action is logged to create an audit trail based on the user who performed the event.

Each envelope type has a specific properties page for the envelope and other pages that enable you to specify additional requirements for the envelope. Properties for the following envelopes can be found in this documentation:

✦ Outbound SPEC2000 ATA_InformationSet Envelope

✦ Outbound SPEC2000 Message XML Envelope

✦ Inbound SPEC2000 Message XML Envelope

✦ Outbound SPEC2000 CMD Outer Envelope

✦ Outbound SPEC2000 Command Message Envelope

✦ Inbound SPEC2000 Command Message Envelope

Document Lifespan

In previous releases, the document lifespan default was zero so that when the workflow expired, all associated documents were purged/archived with the workflow. Now the lifespan for ASC X12 documents awaiting acknowledgement is configurable, and the default is 30 days.

Note: You can change the default lifespan by editing the document.lifespan property in the enveloping.properties file. The document lifespan of the outbound document is automatically reset to zero after the acknowledgement for the document is received or if the user manually accepts the acknowledgement.

Envelope Structure

The application supports the use of many different standard protocols, including SPEC2000. The SPEC2000 protocol has one level of envelope, except for outbound command messages, which have two levels of envelopes (an outer envelope and a command message envelope).

Base Envelopes

The application uses a concept of a *base envelope* as a starting point to create a new envelope. The base envelope maintains a link to the new envelope that inherited its properties. If you modify the base envelope, all related envelopes (that is, ones that inherited the base envelope properties) change, as well.

Note: If you plan to create many envelopes using base envelopes, it is recommended that you do not use the base envelopes in production. You may want to document how your base envelopes are linked to other envelopes.

The default envelope is the version of the document envelope that the application uses. You can specify a default envelope only if there are two or more versions of the same envelope. One version must be selected as the default.

Types of Envelopes

There are many types of envelopes provided in the application. Each envelope is defined by its envelope properties. These predefined enveloping and deenveloping business processes are available for you to incorporate into your own business processes. Envelope parameters specify whether the document is inbound or outbound:

✦ *Inbound envelopes* identify documents that come into the application so they can be properly routed. Inbound envelopes also give you the option to translate documents when you choose to check documents for compliance. By choosing to translate documents from within the envelope, you can reduce document processing time because you do not need to specify a separate Translation service step in the business process.

✦ *Outbound envelopes* identify documents so that they can be sent to and received by trading partners.

Using SPEC2000 with the Sterling Community Manager (SCM)

If you are using the application with the Sterling Community Manager (SCM), please note the following:

✦ On the Document Envelopes list page, envelopes that are managed by SCM have **[SCM]** appended to their names.

✦ On the Document Envelopes summary page (that you access by selecting an envelope name from the envelope list), you are notified if the envelope is managed by SCM.

✦ When you attempt to edit an envelope managed by SCM, a warning dialog is displayed to indicate that you are editing an SCM resource.

✦ You cannot delete any of the versions of an envelope managed by SCM. The only way to delete these envelopes is through SCM.

✦ You cannot delete SCM-managed resources. For example, you cannot delete an envelope that is managed by SCM from the application.

✦ The import report indicates if an Import operation involving an SCM managed envelope fails.

✦ The SPEC2000 Converter automatically generates the envelope name from the envelope description. The envelope name is prefixed with the following constants based on the envelope type and the direction. When application envelopes are converted to the application, the naming convention is [standard]_[direction]_[envelope start tag]. For example:

- ◆ SPEC2000_Inbound_XML_

- ◆ SPEC2000_Outbound_XML_

- ◆ SPEC2000_Outbound_ATA_

- ◆ SPEC2000_Inbound_CMD_

- ◆ SPEC2000_Outbound_CMD_

- ◆ SPEC2000_Outbound_CAM_

    In addition to these constants, the lookup fields are also added to the name generation (for example, SPEC2000_Outbound_ATA_<Sender-Id>_<Receiver-Id>; SPEC2000_Outbound_XML_<Sender-Id>_<Receiver-Id>_<Message-Type>).

✦ Only one "next envelope" selection is supported for each envelope. Therefore, two or more agreements that result in conflicting "next envelope" chains will result in a conversion error.

✦ If you edit an envelope in the application user interface to chose a different "next envelope," a conversion error results if an agreement is created or updated using that envelope with a "next envelope" that is different than the envelope selected through the application user interface. In this scenario, any changes you make to the "next envelope" selection through the application user interface cannot be reverted through the execution of a program or update of an agreement in SCM.

✦ If you intend a change to the "next envelope" change to be temporary, you must revert it prior to the conversion of a new or updated agreement that uses that envelope, or you will receive a conversion error.

✦ If you intend a change to the "next envelope" to be permanent, you must terminate the original partner agreement in SCM. If the envelope changes involve sponsor answers, you may need to execute a new sponsor agreement, create a new partner program that uses the appropriate sponsor display step, and create a new partner agreement.

The converter uses the following XML tags for X-Path lookup to get the sponsor/partner answers from the Agreement XML:

SPEC2000 Inbound

✦ SCI_Envelope_SPEC2000_XML_IN_Sponsor

✦ SCI_Envelope_SPEC2000_XML_IN_Partner

✦ SCI_Envelope_SPEC2000_CMD_IN_Sponsor

✦ SCI_Envelope_SPEC2000_CMD_IN_Partner

SPEC2000 Outbound

✦ SCI_Envelope_SPEC2000_ATA_OUT_Sponsor

✦ SCI_Envelope_SPEC2000_XML_OUT_Sponsor

✦ SCI_Envelope_SPEC2000_XML_OUT_Partner

✦ SCI_Envelope_SPEC2000_CAM_OUT_Sponsor

✦ SCI_Envelope_SPEC2000_CAM_OUT_Partner

✦ SCI_Envelope_SPEC2000_CMD_OUT_Sponsor

✦ SCI_Envelope_SPEC2000_CMD_OUT_Partner

The SCM envelope converter automatically generates the envelope name for each envelope that is defined in the application based on fields used during inbound envelope lookup. Outbound envelopes have a name generation equal to the inbound equivalent. For example, the SPEC2000 outbound interchange envelope has a name generation equal to the SPEC2000 inbound interchange envelope. In addition to these fields, constant literals are also assigned as prefixes that are different for each envelope. The pattern used in the prefix is as follows:

```
{standard}_{direction}_{envelope start tag}
```

Envelope definitions created in the envelope converter on behalf of SCM are read-only in application (you cannot modify these envelopes).

The following questionnaires are also added to the SCM:

CAM

✦ SPEC2000_Outbound_CAM_Partner_Template_step.xml

✦ SPEC2000_Outbound_CAM_Sponsor_Template_step.xml

Note: CAM is used only for outbound.

Command Code

✦ SPEC2000_Inbound_CMD_Partner_Template_step.xml

✦ SPEC2000_Inbound_CMD_Sponsor_Template_step.xml

✦ SPEC2000_Outbound_CMD_Partner_Template_step.xml

✦ SPEC2000_Outbound_CMD_Sponsor_Template_step.xml

ATA Information Set

✦ SPEC2000_Outbound_ATA_Sponsor_Template_step.xml

✦ SPEC2000_Outbound_ATA_Partner_Template_Step.xml

Note: The ATA Information Set is used only for outbound.

Message XML

✦ SPEC2000_Inbound_XML_Partner_Template_step.xml

✦ SPEC2000_Inbound_XML_Sponsor_Template_step.xml

✦ SPEC2000_Outbound_XML_Partner_Template_step.xml

✦ SPEC2000_Outbound_XML_Sponsor_Template_step.xml

Using Wildcards

As a way to help reduce the number of envelopes you need to create and use, the EDI Enveloping and EDI Deenveloping services support use of an asterisk (*) as a wildcard character in mandatory envelope fields for the SPEC2000 standard. If optional fields are not provided in the envelope, they should not match data that provided values for those optional fields unless they were wildcarded in the envelope. If optional fields are not provided in the data, they should not match envelopes which defined values for those fields unless they were wildcarded in the envelope. If certain trading partners have specific requirements, you can create envelopes that pertain just to them, and the EDI Enveloping service chooses the envelope that is the best

match. That is, the envelope that has the most matches to specific fields in the data (for example, Receiver ID and Receiver ID Qualifier), is the one selected.

Note: The questionnaires in SCM for the SPEC2000 programs do not support the use of wildcards (*) in any of the fields, as compared to corresponding fields in the application. For example, the Message Type field in SPEC2000 envelopes supports wildcard (*) use in the application, which is not supported in SCM.

Wildcards in Deenveloping (Inbound)

The EDI Deenveloping service receives data, parses the headers, and extracts the EDI information from it. The service searches the available envelopes for the closest match to the EDI data.

When setting up enveloping with wildcards, consider the following:

✦ The Deenveloping service selects the envelope that matches the EDI data most closely. For example, if an envelope has the same Transaction ID as the incoming data, and another envelope has wildcards in all mandatory fields, the envelope with the matching Transaction ID is used.

✦ Sender ID and Receiver ID have priority over other EDI fields. For example, two envelopes are found that have a field that matches one EDI field from the data. One envelope matches the value in the Receiver ID field from the data; the other matches the Transaction ID field. The envelope that has the matching Receiver ID is selected by the service and used for processing.

✦ If no envelopes are found that have an exact match to fields in the EDI data, and an envelope with wildcards does exist, the envelope with wildcards is used.

✦ If multiple envelopes have the same matching information (for example, two envelopes match the Sender ID and Receiver ID exactly) the service ends with an error.

✦ The wildcard character is an "all or nothing" parameter. That is, if using asterisk, you cannot enter other characters in the field with it. For example, you can not enter Me* to match MeaslesAnimalHaven and Medeira Foods.

Wildcards in Enveloping (Outbound)

For Inbound envelopes, a wildcard value in the envelope matches any value in the input document, while an empty value in the envelope matches only an empty value in the input document. For Outbound envelopes, a wildcard value is equivalent to an empty value in the envelope. You can override wildcards with specific EDI values in outbound processing. You must supply the EDI data to the business process and the data must be in the correct format (that is, name/value pairs).

One option is to use the lightweight JDBC adapter to pull fields in from database tables. Whatever method you choose to retrieve the fields, the results must be given to the Correlation service, which places them into process data. Passing the data to the Correlation service must be the last step in the business process before running the EDI Encoder service. When the EDI Encoding service runs, it uses the same best-match process detailed in the Inbound section to determine which envelope to use. When the SPEC2000 envelope service runs, any envelope field values set in the Correlation service overrides those values defined in the envelope definition.

When setting up your outbound processing, consider the following:

✦ If an envelope field contains a wildcard, you must supply a correlation value for it or the service halts with an error.

✦ You can override wildcard values in an envelope by using the Correlation service to pass name/value pairs from the primary document to the EDI Encoder service.

✦ If an envelope contains specific values in the Sender ID, Sender ID Qualifier, Receiver ID, or Receiver ID Qualifier fields (that is, values other than a wildcard), the values passed from the Correlation service to the EDI Encoder service do not overwrite the values in the fields.

✦ If you are using the same envelope for inbound processing and acknowledgements, supply the Sender ID, Receiver ID, and Qualifiers in the envelope so that they are not overwritten by the correlation values.

Creating a SPEC2000 Envelope

You can create a SPEC2000 envelope either by using the application or by using Sterling Community Manager (SCM) Integration. See the SCM Integration documentation for more information on creating envelopes using that product.

To create a new envelope using the application:

1. From the **Administration** menu, select **Trading Partner** > **Document Envelopes** > **Envelopes**.

2. Under Create, next to New Envelope, click **Go!**

3. On the Envelope Standards page, select **SPEC2000** and click **Next**:

4. Select the type of envelope you want to create, including inbound or outbound, and click **Next**.

5. Do one of the following:

    ◆ To create this envelope from a base envelope, select the Base envelope from the Select Envelope list, and click **Next**.

       Note: All the properties are pre-filled but you can update them as needed.

    ◆ To create a new envelope, select the Not Applicable from the Select Envelope list, and click **Next**.

6. On the Name page, type a unique name for the envelope, and a description or comments, then click **Next**.

7. Complete the properties for the envelope as necessary and click **Next** after each page until you reach the confirm page. Required fields are highlighted in blue.

8. Click **Finish** to add the envelope.

9. Click **Return** to continue.

Updating a SPEC2000 Envelope

The application enables you to modify any information in your envelopes, except the name of the envelope.

Note: You can also edit SPEC2000 envelopes details from SCM by either terminating the agreement and re-executing the program with Save-As or using the Modify response option in SCM.

To update envelope properties:

1. From the **Administration** menu, select **Trading Partner** > **Document Envelopes** > **Envelopes**.

2. Find the envelope using the Search or List function.

3. From the list of envelopes, click **source manager** next to the envelope you want to update.

4. Click **edit** next to the envelope you want to update.

5. Update envelope properties and settings as necessary, clicking **Next** to continue.

6. Click **Finish** to update the envelope.

7. Click **Return** to continue.

Modifying an SCM-Managed SPEC2000 Resource

Resources created through SCM are centrally managed by SCM, and you are warned whenever you attempt to modify an SCM-managed SPEC2000 resource. Deletion of an SCM Managed SPEC2000 resource is not allowed from the application. The application user interface displays the following information to modify an SCM-managed SPEC2000 resource:

✦   When you click **Go!** next to **List all configurations** in the Trading Partner Configurations page, all the SPEC2000 resources that are managed by SCM have the keyword **[SCM]** appended to their names.

✦   When you click the name of the SPEC2000 resource in the profiles list page, there is a line in the information summary page indicating whether the resource is managed by SCM.

✦   When you attempt to edit a SPEC2000 resource managed by SCM, a warning dialog box is displayed with the options **OK** or **Cancel** and the following information:

```
Stop! This partner related data is now managed in Sterling Community Manager.
Please change the _____ information in Sterling Community Manager. Changes made
directly to Sterling Integrator are temporary and will be overwritten when updates
from Sterling Community Manager are absorbed. In case you have a critical need to
update it directly, please make sure that later on you make the same update in the
Partner _____ information in Sterling Community Manager as soon as possible.
Do you still want to proceed and make a temporary change?
```

Note: Any SCM-managed resource in the application cannot be deleted. The delete option is not displayed in the application for resources with [SCM] tag. The only way that you can delete SCM-managed resources in the application is by deleting the SCM agreements corresponding to the resource update operation that was performed in SCM to create these resources in the application.

Importing and Exporting Envelopes

The Import/Export feature enables you to save time and increase the accuracy of duplicating resources on different systems. This feature enables you to move resources and data between application environments of the same version. The Import/Export feature enables you to:

♦   Move from a test application environment to a production application environment.

♦   Move resources from one application system to another.

The ability to import and export envelopes means that you can configure resources on one system and then move or copy them to a different system, thereby avoiding having to recreate the resources on each system. Even If you have resources that are going to be slightly different from one system to another, you can export the resources from one system and import them to a different system, and then make the necessary changes to the resource on the second system.

The Import/Export feature supports several different resource types, including envelopes.

Note: Importing an export file of envelopes always requires a passphrase, even if a passphrase was not required during the export. The passphrase is now required because of the addition of encrypted passwords that apply to some envelopes. When you are prompted for a passphrase for envelopes during the import of envelopes (when you did not use a passphrase when the envelopes were exported), you can supply any value for the passphrase.

Deleting a SPEC2000 Envelope

Caution: Before deleting a base envelope, consider the impact on all related envelopes (envelopes that inherited the base envelope properties). You cannot delete an envelope that is managed by SCM using the application. To remove a SCM-managed resource, delete the agreement corresponding to the resource from SCM.

To delete an individual envelope or all versions of an envelope:

1. From the **Administration** menu, select **Trading Partner** > **Document Envelopes** > **Envelopes**.

2. Find the envelope using the Search or List function.

3. Next to the envelope you want to delete, click **source manager**.

4. In Envelope Source Manager page, do one of the following:

   To delete an individual envelope:

   ◆ Next to the version, under Delete, select the check box.

   ◆ Next to Delete Selected Versions, click **Go!**.

   To delete all versions of this envelope, next to Delete All Versions, click **Go!**.

Inbound SPEC2000 Message XML Envelope

Note: An (*) asterisk indicates that a wildcard value can be used with that parameter (for mandatory fields, the wildcard value is an (*) asterisk). For Inbound envelopes, a wildcard value in the envelope matches any value in the input document, while an empty value in the envelope matches only an empty value in the input document. For Outbound envelopes the wildcard value will be matched with the values present in your custom business process, depending on the Correlation Override Value set in the envelope.

The following table describes the Inbound SPEC2000 Message XML envelope properties:

Field	Description
* Customer Id Code/Reporting Organization Code	The code identifying the customer. Valid value is three to five standard characters. Required.
* Supplier Code/Operator Code	The code identifying the supplier. Valid value is five standard characters. Optional.
* Message Sender	The message sender as it should appear on the interchange header segment sent to this company or division. Optional.
* Message Receiver	The message receiver as it should appear on the interchange header segment sent to this company or division. Optional.
Message Type	The type of message. Select a message type from the list or choose wildcard (*) to allow any message. Default is * (wildcard). Required.
Handling of non-compliant Messages	How non-compliant messages are handled. Valid values are Accept compliant and non-compliant transactions and Accept compliant transactions, reject non-compliant transactions (default).
Compliance Check Document	Check the document body for compliance. Valid values are Yes and No. Required.
Map Name Mode	Mode in which to specify the map to use to perform a compliance check. Valid values are: ◆ Specify ◆ Generate from data
Compliance Check Map Name	Which map to use to perform a compliance check. The map must already be checked in. Select the map. Required if you selected **Specify** for **Map Name Mode**.

Field	Description
Primary Name Format	Check boxes to instruct what information to include when generating and matching a name for the map. Required. Select from: ◆ Customer Id Code/Reporting Organization Code ◆ Supplier Code/Operator Code ◆ Message Sender ◆ Message Receiver ◆ Message Type **Note:** If you are using a generated map name (Map Name Mode is set to Generate from data), the application tries to generate and match the following maps: First, it tries to generate and match the map in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing map that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no generated map name exists in the system** is set to **Yes**.

Field	Description
First Backup Name Format	The first backup name format to use when generating a map name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional. Select from: ◆ Customer Id Code/Reporting Organization Code ◆ Supplier Code/Operator Code ◆ Message Sender ◆ Message Receiver ◆ Message Type **Note:** If you are using a generated map name (Map Name Mode is set to Generate from data), the application tries to generate and match the following maps: First, it tries to generate and match the map in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing map that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no generated map name exists in the system** is set to **Yes**.

Field	Description
Second Backup Name Format	The second backup name format to use when generating a map name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.
	Select from:
	◆ Customer Id Code/Reporting Organization Code
	◆ Supplier Code/Operator Code
	◆ Message Sender
	◆ Message Receiver
	◆ Message Type
	Note: If you are using a generated map name (Map Name Mode is set to Generate from data), the application tries to generate and match the following maps:
	First, it tries to generate and match the map in the primary name format (replacing the values that are selected for the corresponding value in the message).
	Second, it tries to generate and match the First Backup Name.
	Third, it tries to generate and match the Second Backup Name.
	Fourth, if there is not an existing map that matches the names generated in steps 1-3, an error is generated.
	Note: Only occurs if **Generate an error if no generated map name exists in the system** is set to **Yes**.
Generate an error if no generated map name exists in the system	Specifies whether to generate an error if the Map Name selected is not found. Valid values are Yes (default) and No.
	Note: Only displayed if Map Name Mode is set to Generate from data.
Keep translated document after compliance check	Whether to keep the translated document after performing the compliance check. Valid values are Yes (default) and No. Required.
Validate translation output	Whether to validate the translation output. Valid values are Yes (default) or No. Required.
Validate Schema of the map	Validates the document against the XSD for that message. Valid values are: Yes (default) and No. Required.
	Note: If you are using the Planning Evaluation Code (PLN) and Material Evaluation Code (MLN), you must select **No** for this parameter and define your own codelist with a combination of the codes in the schema (and use the codelist you defined in the map).

Field	Description
Error business process name	How to determine which business process name to use if there were errors in the compliance check. Required. Valid values are: ◆ Specify (default) ◆ Generate from data **Note:** If you select the **Generate from data** option, you must select at least one parameter for Primary Name Format.
Business Process for Non-Compliant Documents	Business process to be used when non-compliant documents are encountered. Optional. Displayed only if **Error Business Process Name** is set to **Specify**.
Primary Name Format	Check boxes to instruct what information to include when generating and matching a name for the business process. Required. Select from: ◆ Customer Id Code/Reporting Organization Code ◆ Supplier Code/Operator Code ◆ Message Sender ◆ Message Receiver ◆ Message Type **Note:** If you are using a generated business process name (Error Business Process is set to Generate from data), the application tries to generate and match the following business processes: First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no generated business process name exists in the system** is set to **Yes**.

Field	Description
First Backup Name Format	The first backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.

Select from:

◆ Customer Id Code/Reporting Organization Code

◆ Supplier Code/Operator Code

◆ Message Sender

◆ Message Receiver

◆ Message Type

Note: If you are using a generated business process name (Error Business Process is set to Generate from data), the application tries to generate and match the following business processes:

First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message).

Second, it tries to generate and match the First Backup Name.

Third, it tries to generate and match the Second Backup Name.

Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated.

Note: Only occurs if **Generate an error if no generated business process name exists in the system** is set to **Yes**.

Field	Description
Second Backup Name Format	The second backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.
	Select from:
	◆ Customer Id Code/Reporting Organization Code
	◆ Supplier Code/Operator Code
	◆ Message Sender
	◆ Message Receiver
	◆ Message Type
	Note: If you are using a generated business process name (Error Business Process is set to Generate from data), the application tries to generate and match the following business processes:
	First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message).
	Second, it tries to generate and match the First Backup Name.
	Third, it tries to generate and match the Second Backup Name.
	Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated.
	Note: Only occurs if **Generate an error if no generated business process name exists in the system** is set to **Yes**.
Generate an error if no generated business process name exists in the system	Specifies whether to generate an error if the Business Process selected is not found. Valid values are Yes (default) and No.
	Note: Only displayed if Error Business Process Name is set to Generate from data.
Determine the business process by	How to determine which business process name to use if there were no errors in the compliance check. Required. Valid values are:
	◆ Specifying a business process (default)
	◆ Generating the business process name from the data
	Note: If you select the **Generating the business process name from the data** option, you must select at least one parameter for Primary Name Format.

Field	Description
Primary Name Format	Check boxes to specify which information to include when generating and matching a name for the business process. Required. Select from: ◆ Customer Id Code/Reporting Organization Code ◆ Supplier Code/Operator Code ◆ Message Sender ◆ Message Receiver ◆ Message Type **Note:** If you are using a generated business process name (**Determine the Business Process By** is set to **Generating the business process name from the data**), the application tries to generate and match the following business process: ◆ First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message). ◆ Second, it tries to generate and match the first Backup Name. ◆ Third, it tries to generate and match the second Backup Name. ◆ Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.

Field	Description
First Backup Name Format	The first backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then the Second Backup Name Format. Optional.
	Select from:
	◆ Customer Id Code/Reporting Organization Code
	◆ Supplier Code/Operator Code
	◆ Message Sender
	◆ Message Receiver
	◆ Message Type
	Note: If you are using a generated business process name (**Determine the Business Process By** is set to **Generating the business process name from the data**), the application tries to generate and match the following business process:
	◆ First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message).
	◆ Second, it tries to generate and match the first Backup Name.
	◆ Third, it tries to generate and match the second Backup Name.
	◆ Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated.
	Note: Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.

Field	Description
Second Backup Name Format	The second backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then the Second Backup Name Format. Optional.
	Select from:
	◆ Customer Id Code/Reporting Organization Code
	◆ Supplier Code/Operator Code
	◆ Message Sender
	◆ Message Receiver
	◆ Message Type
	Note: If you are using a generated business process name (**Determine the Business Process By** is set to **Generating the business process name from the data**), the application tries to generate and match the following business process:
	◆ First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message).
	◆ Second, it tries to generate and match the first Backup Name.
	◆ Third, it tries to generate and match the second Backup Name.
	◆ Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated.
	Note: Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.
Generate an error if no generated business process name exists in the system	Specify whether to generate an error if there is no match to the generated business process name in the system. Valid values are Yes (default) and No.
	Note: Only displayed if **Determine the Business Process By** is set to **Generating the business process name from the data**.
Business Process List	Select a previously created business process to associate with this envelope Optional.
	Displayed only if **Determine the Business Process Name** is set to **Specifying a business process**.
Extraction Options	Business process data extraction. Required.
	Valid values:
	◆ Determined by business process (default)
	◆ Extract to a file system directory
	◆ Extract to a mailbox
Data Extraction Directory	Directory for data extraction. Optional.
Data Extraction Filename	Filename for data extraction. Optional.

Field	Description
Data Extraction Mailbox	Mailbox for data extraction. Required.
Data Extraction Mailbox Message Name	Mailbox message name for data extraction. Optional.
Signature Validation	Whether to validate the signature that the document contains. Valid values are Required and Not Used (default). Required.
Signature Certificate	Select the signature certificate. Required. **Note:** Only displayed if you selected **Yes** for **Signature Validation**.

Inbound SPEC2000 Command Message Envelope

Note: An (*) asterisk indicates that a wildcard value can be used with that parameter (for mandatory fields, the wildcard value is an (*) asterisk). For Inbound envelopes, a wildcard value in the envelope matches any value in the input document, while an empty value in the envelope matches only an empty value in the input document. For Outbound envelopes the wildcard value will be matched with the values present in your custom business process, depending on the Correlation Override Value set in the envelope.

The following table describes the Inbound SPEC2000 Command Message envelope properties:

Field	Description
* Originator Address[Sender ID]	The message sender as it should appear on the interchange header segment sent to this company or division. The valid value is seven to eight characters. Required.
* Destination Address[Receiver ID]	The message receiver as it should appear on the interchange header segment sent to this company or division.The valid value is seven to eight characters. Required.
* Message Type	The type of message. Select a message type from the list or choose wildcard (*) to allow any message. Default is * (wildcard). Required.
Generate an S1CMDACK Acknowledgement Message	Whether to generate an acknowledgement that notifies the sender that the receiver has received either a non-compliant document or an interpretable document transmission. Required. Valid values are Yes (default) and No.
Acceptor Lookup Alias for S1CMDACK Acknowledgement	Alias for accepter lookup for generated acknowledgements. Required if you selected S1CMDACK.
Send acknowledgement immediately	Whether to send the generated S1CMDACK immediately. Valid values are : Yes and No (default). Required.
Handling of non-compliant Messages	How non-compliant messages are handled. Valid values are Accept compliant and non-compliant transactions and Accept compliant transactions, reject non-compliant transactions (default).

Field	Description
Compliance Check Document	Check the document body for compliance. Valid values are Yes and No. Required.
Map Name Mode	Mode in which to specify the map to use to perform a compliance check. Valid values are: ◆ Specify ◆ Generate from data
Compliance Check Map Name	Which map to use to perform a compliance check. The map must already be checked in. Select the map. Required if you selected **Specify** for **Map Name Mode**.
Primary Name Format	Check boxes to instruct what information to include when generating and matching a name for the map. Required. Select from: ◆ Originator Address ◆ Destination Address ◆ Message Type **Note:** If you are using a generated map name (Map Name Mode is set to Generate from data), the application tries to generate and match the following maps: First, it tries to generate and match the map in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing map that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no generated map name exists in the system** is set to **Yes**.

Field	Description
First Backup Name Format	The first backup name format to use when generating a map name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.
	Select from:
	◆ Originator Address
	◆ Destination Address
	◆ Message Type
	Note: If you are using a generated map name (Map Name Mode is set to Generate from data), the application tries to generate and match the following maps:
	First, it tries to generate and match the map in the primary name format (replacing the values that are selected for the corresponding value in the message).
	Second, it tries to generate and match the First Backup Name.
	Third, it tries to generate and match the Second Backup Name.
	Fourth, if there is not an existing map that matches the names generated in steps 1-3, an error is generated.
	Note: Only occurs if **Generate an error if no generated map name exists in the system** is set to **Yes**.

Field	Description
Second Backup Name Format	The second backup name format to use when generating a map name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.
	Select from:
	◆ Originator Address
	◆ Destination Address
	◆ Message Type
	are using a generated map name (Map Name Mode is set to Generate from data), the application tries to generate and match the following maps:
	First, it tries to generate and match the map in the primary name format (replacing the values that are selected for the corresponding value in the message).
	Second, it tries to generate and match the First Backup Name.
	Third, it tries to generate and match the Second Backup Name.
	Fourth, if there is not an existing map that matches the names generated in steps 1-3, an error is generated.
	Note: Only occurs if **Generate an error if no generated map name exists in the system** is set to **Yes**.
Generate an error if no generated map name exists in the system	Specifies whether to generate an error if the Map Name selected is not found. Valid values are Yes (default) and No.
	Note: Only displayed if Map Name Mode is set to Generate from data.
Keep translated document after compliance check	Whether to keep the translated document after performing the compliance check. Valid values are Yes (default) and No. Required.
Validate translation output	Whether to validate the translation output. Valid values are Yes (default) or No. Required.
Error business process mode	How to determine which business process name to use if there were errors in the compliance check. Required. Valid values are:
	◆ Specify (default)
	◆ Generate from data
	Note: If you select the **Generate from data** option, you must select at least one parameter for Primary Name Format.
Business Process for Non-Compliant Documents	Business process to be used when non-compliant documents are encountered. Optional.
	Displayed only if **Error Business Process Name** is set to **Specify**.

Field	Description
Primary Name Format	Check boxes to instruct what information to include when generating and matching a name for the business process. Required. Select from: • Originator Address • Destination Address • Message Type Displayed when **Generate from data** is specified for **Business Process for Non-compliant Documents**. **Note:** If you are using a generated business process name (Error Business Process is set to Generate from data), the application tries to generate and match the following business processes: First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no generated business process name exists in the system** is set to **Yes**.

Field	Description
First Backup Name Format	The first backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.

Select from:

◆ Originator Address

◆ Destination Address

◆ Message Type

are using a generated business process name (Error Business Process is set to Generate from data), the application tries to generate and match the following business processes:

First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message).

Second, it tries to generate and match the First Backup Name.

Third, it tries to generate and match the Second Backup Name.

Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated.

Note: Only occurs if **Generate an error if no generated business process name exists in the system** is set to **Yes**.

Field	Description
Second Backup Name Format	The second backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.
	Select from:
	◆ Originator Address
	◆ Destination Address
	◆ Message Type
	Note: are using a generated business process name (Error Business Process is set to Generate from data), the application tries to generate and match the following business processes:
	First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message).
	Second, it tries to generate and match the First Backup Name.
	Third, it tries to generate and match the Second Backup Name.
	Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated.
	Note: Only occurs if **Generate an error if no generated business process name exists in the system** is set to **Yes**.
Generate an error if no generated business process exists in the system	Specifies whether to generate an error if the business process selected is not found. Valid values are Yes (default) and No.
	Note: Only displayed if Error business process mode is set to Generate from data.
Determine the business process by	How to determine which business process name to use if there were no errors in the compliance check. Required. Valid values are:
	◆ Specifying a business process (default)
	◆ Generating the business process name from the data
	Note: If you select this option, you must select at least one parameter for Primary Name Format.

Field	Description
Primary Name Format	Check boxes to specify which information to include when generating and matching a name for the business process. Required. Select from: ◆ Originator Address ◆ Destination Address ◆ Message Type **Note:** If you are using a generated business process name (**Determine the Business Process By** is set to **Generating the business process name from the data**), the application tries to generate and match the following business process: ◆ First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message). ◆ Second, it tries to generate and match the first Backup Name. ◆ Third, it tries to generate and match the second Backup Name. ◆ Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.
First Backup Name Format	The first backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then the Second Backup Name Format. Optional. Select from: ◆ Originator Address ◆ Destination Address ◆ Message Type **Note:** If you are using a generated business process name (**Determine the Business Process By** is set to **Generating the business process name from the data**), the application tries to generate and match the following business process: ◆ First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message). ◆ Second, it tries to generate and match the first Backup Name. ◆ Third, it tries to generate and match the second Backup Name. ◆ Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.

Field	Description
Second Backup Name Format	The second backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then the Second Backup Name Format. Optional.
	Select from:
	◆ Originator Address
	◆ Destination Address
	◆ Message Type
	Note: If you are using a generated business process name (**Determine the Business Process By** is set to **Generating the business process name from the data**), the application tries to generate and match the following business process:
	◆ First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message).
	◆ Second, it tries to generate and match the first Backup Name.
	◆ Third, it tries to generate and match the second Backup Name.
	◆ Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated.
	Note: Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.
Generate an error if no generated business process name exists in the system	Specify whether to generate an error if there is no match to the generated business process name in the system. Valid values are Yes (default) and No.
	Note: Only displayed if **Determine the Business Process By** is set to **Generating the business process name from the data**.
Business Process List	Select a previously created business process to associate with this envelope Optional.
	Displayed only if **Determine the Business Process Name** is set to **Specifying a business process**.
Extraction Options	Business process data extraction. Required.
	Valid values:
	◆ Determined by business process (default)
	◆ Extract to a file system directory
	◆ Extract to a mailbox
Data Extraction Directory	Directory for data extraction. Optional.
Data Extraction Filename	Filename for data extraction. Optional.
Data Extraction Mailbox	Mailbox for data extraction. Required.

Field	Description
Data Extraction Mailbox Message Name	Mailbox message name for data extraction. Optional.

Outbound SPEC2000 ATA_Information Set Envelope

Note: An (*) asterisk indicates that a wildcard value can be used with that parameter (for mandatory fields, the wildcard value is an (*) asterisk). For Inbound envelopes, a wildcard value in the envelope matches any value in the input document, while an empty value in the envelope matches only an empty value in the input document. For Outbound envelopes the wildcard value will be matched with the values present in your custom business process, depending on the Correlation Override Value set in the envelope.

The following table describes the Outbound SPEC2000 ATA_Information Set envelope properties:

Field	Description
* Message Sender	The message sender as it should appear on the interchange header segment sent to this company or division. Required.
* Message Receiver	The message receiver as it should appear on the interchange header segment sent to this company or division. Required.
Use Correlation Overrides	Whether to use correlation overrides. Required. Valid values are: ◆ **Always** - If a correlation override value is provided, always use that value instead of the value in the envelope (except for the Sender ID, Receiver ID, and Sender/Receiver Qualifier fields, which must have a * in the envelope definition to use the correlation override value). ◆ **Only when the envelope field has a wildcard value (*)** - Only use correlation override values for fields in the envelope definition that are specified with a wildcard (*). ◆ **Never** - Never use correlation overrides. ◆ **Use the default specified in enveloping.properties** - The enveloping.properties file defines when to use correlation overrides if this choice is selected. The properties file will either define Always, Never, or Only when the envelope field has a wildcard (*) value. The applicable properties file property is **enveloping.correl_override_default.[standard]**. Allowed values are No (which means never), WildcardOnly, or All (which means always, except for the Sender ID, Receiver ID, and Sender/Receiver Qualifier fields, which must have a * in the envelope definition to use the correlation override value).
Determine the business process by	How to determine which business process name to use if there were no errors in the compliance check. Required. Valid values are: ◆ Specifying a business process (default) ◆ Generating the business process name from the data **Note:** If you select the **Generating the business process name from the data** option, you must select at least one parameter for Primary Name Format.

Field	Description
Primary Name Format	Check boxes to specify which information to include when generating and matching a name for the business process. Required. Select from: ♦ Message Sender ♦ Message Receiver **Note:** If you are using a generated business process name (**Determine the Business Process By** is set to **Generating the business process name from the data**), the application tries to generate and match the following business process: ♦ First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message). ♦ Second, it tries to generate and match the Backup Name. ♦ Third, if there is not an existing business process that matches the names generated in steps 1-2, an error is generated. **Note:** Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.
Backup Name Format	The backup name format to use when generating a business process name. Optional. Select from: ♦ Message Sender ♦ Message Receiver **Note:** If you are using a generated business process name (**Determine the Business Process By** is set to **Generating the business process name from the data**), the application tries to generate and match the following business process: ♦ First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message). ♦ Second, it tries to generate and match the Backup Name. ♦ Third, if there is not an existing business process that matches the names generated in steps 1-2, an error is generated. **Note:** Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.
Generate an error if no generated business process name exists in the system	Specify whether to generate an error if there is no match to the generated business process name in the system. Valid values are Yes (default) and No. **Note:** Only displayed if **Determine the Business Process By** is set to **Generating the business process name from the data**.
Business Process List	Select a previously created business process to associate with this envelope Optional. Displayed only if **Determine the Business Process Name** is set to **Specifying a business process**.

Field	Description
Extraction Options	Business process data extraction. Required. Valid values: ◆ Determined by business process (default) ◆ Extract to a file system directory ◆ Extract to a mailbox
Data Extraction Directory	Directory for data extraction. Optional.
Data Extraction Filename	Filename for data extraction. Optional.
Data Extraction Mailbox	Mailbox for data extraction. Required.
Data Extraction Mailbox Message Name	Mailbox message name for data extraction. Optional.

Outbound SPEC2000 Message XML Envelope

Note: An (*) asterisk indicates that a wildcard value can be used with that parameter (for mandatory fields, the wildcard value is an (*) asterisk). For Inbound envelopes, a wildcard value in the envelope matches any value in the input document, while an empty value in the envelope matches only an empty value in the input document. For Outbound envelopes the wildcard value will be matched with the values present in your custom business process, depending on the Correlation Override Value set in the envelope.

The following table describes the Outbound SPEC2000 Message XML envelope properties:

Field	Description
Next Envelope	Specifies the envelope to use after this envelope. Required.
Create New Envelope	Adds an envelope to use as next envelope or edits an existing envelope. Optional.
Customer Id Code/Reporting Organization Code	The code identifying the customer. Valid value is three to five standard characters. Optional.
Supplier Code/Operator Code	The code identifying the supplier. Valid value is five standard characters. Optional.
* Message Sender	The message sender as it should appear on the interchange header segment sent to this company or division. Required.
* Message Receiver	The message receiver as it should appear on the interchange header segment sent to this company or division. Required.
Message Type	The type of message. Select a message type from the list or choose wildcard (*) to allow any message. Default is * (wildcard). Required.

Field	Description
Acceptor Lookup Alias	Alias for accepter lookup. Required.
Use Correlation Overrides	Whether to use correlation overrides. Required. Valid values are: ◆ **Always** - If a correlation override value is provided, always use that value instead of the value in the envelope (except for the Sender ID, Receiver ID, and Sender/Receiver Qualifier fields, which must have a * in the envelope definition to use the correlation override value). ◆ **Only when the envelope field has a wildcard value (*)** - Only use correlation override values for fields in the envelope definition that are specified with a wildcard (*). ◆ **Never** - Never use correlation overrides. ◆ **Use the default specified in enveloping.properties** - The enveloping.properties file defines when to use correlation overrides if this choice is selected. The properties file will either define Always, Never, or Only when the envelope field has a wildcard (*) value. The applicable properties file property is **enveloping.correl_override_default.[standard]**. Allowed values are No (which means never), WildcardOnly, or All (which means always, except for the Sender ID, Receiver ID, and Sender/Receiver Qualifier fields, which must have a * in the envelope definition to use the correlation override value).
Translate Message	Whether to automatically translate the message. Valid values are Yes (default) and No. Required.
Map Name Mode	Mode in which to specify the map to use to perform the translation. Valid values are: ◆ Specify ◆ Generate from data
Validate translation input	Whether to validate the translation input. Valid values are Yes (default) or No. Required.
Validate translation output	Whether to validate the translation output. Valid values are Yes (default) or No. Required.
Validate Schema of the map	Validates the document against the XSD for that message. Valid values are: Yes (default) and No. Required. **Note:** If you are using the Planning Evaluation Code (PLN) and Material Evaluation Code (MLN), you must select **No** for this parameter and define your own codelist with a combination of the codes in the schema (and use the codelist you defined in the map).
Compliance Check Map Name	Which map to use to perform the translation. The map must already be checked in. Select the map. Required if you selected **Specify** for **Map Name Mode**.

Field	Description
Primary Name Format	Check boxes to instruct what information to include when generating and matching a name for the translation map. Required. Select from: ◆ Customer Id Code/Reporting Organization Code ◆ Supplier Code/Operator Code ◆ Message Sender ◆ Message Receiver ◆ Message Type **Note:** If you are using a generated map name (Map Name Mode is set to Generate from data), the application tries to generate and match the following maps: First, it tries to generate and match the map in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing map that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no gemerated map name exists in the system** is set to **Yes**.

Field	Description
First Backup Name Format	The first backup name format to use when generating a map name for translation. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.

Select from:

- Customer Id Code/Reporting Organization Code

- Supplier Code/Operator Code

- Message Sender

- Message Receiver

- Message Type

Note: If you are using a generated map name (Map Name Mode is set to Generate from data), the application tries to generate and match the following maps:

First, it tries to generate and match the map in the primary name format (replacing the values that are selected for the corresponding value in the message).

Second, it tries to generate and match the First Backup Name.

Third, it tries to generate and match the Second Backup Name.

Fourth, if there is not an existing map that matches the names generated in steps 1-3, an error is generated.

Note: Only occurs if **Generate an error if no gemerated map name exists in the system** is set to **Yes**.

Field	Description
Second Backup Name Format	The second backup name format to use when generating a map name for translation. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional. Select from: ◆ Customer Id Code/Reporting Organization Code ◆ Supplier Code/Operator Code ◆ Message Sender ◆ Message Receiver ◆ Message Type **Note:** If you are using a generated map name (Map Name Mode is set to Generate from data), the application tries to generate and match the following maps: First, it tries to generate and match the map in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing map that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no gemerated map name exists in the system** is set to **Yes**.
Generate an error if no generated map name exists in the system	Specifies whether to generate an error if the Map Name selected is not found. Valid values are Yes (default) and No. **Note:** Only displayed if Map Name Mode is set to Generate from data.
Error business process mode	How to determine which business process name to use if there were errors in the compliance check. Required. Valid values are: ◆ Specify (default) ◆ Generate from data **Note:** If you select this option, you must select at least one parameter for Primary Name Format.
Business Process for Non-Compliant Documents	Business process to be used when non-compliant documents are encountered. Optional. Displayed only if **Error Business Process Mode** is set to **Specify**.

Field	Description
Primary Name Format	Check boxes to instruct what information to include when generating and matching a name for the business process. Required. Select from: ◆ Customer Id Code/Reporting Organization Code ◆ Supplier Code/Operator Code ◆ Message Sender ◆ Message Receiver ◆ Message Type **Note:** If you are using a generated business process name (Error Business Process is set to Generate from data), the application tries to generate and match the following business processes: First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.

Field	Description
First Backup Name Format	The first backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.
	Select from:
	◆ Customer Id Code/Reporting Organization Code
	◆ Supplier Code/Operator Code
	◆ Message Sender
	◆ Message Receiver
	◆ Message Type
	Note: If you are using a generated business process name (Error Business Process is set to Generate from data), the application tries to generate and match the following business processes:
	First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message).
	Second, it tries to generate and match the First Backup Name.
	Third, it tries to generate and match the Second Backup Name.
	Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated.
	Note: Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.

Field	Description
Second Backup Name Format	The second backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.
	Select from:
	◆ Customer Id Code/Reporting Organization Code
	◆ Supplier Code/Operator Code
	◆ Message Sender
	◆ Message Receiver
	◆ Message Type
	Note: If you are using a generated business process name (Error Business Process is set to Generate from data), the application tries to generate and match the following business processes:
	First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message).
	Second, it tries to generate and match the First Backup Name.
	Third, it tries to generate and match the Second Backup Name.
	Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated.
	Note: Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.
Generate an error if no generated business process exists in the system	Specifies whether to generate an error if the business process selected is not found. Valid values are Yes (default) and No.
	Note: Only occurs if **Error Business Process Mode** is set to **Generate from data**.
Generate Signature	Whether to generate a signature for the document. Valid values are Yes and No (default). Required.
Signature Certificate	Select the signature certificate. Required.
	Note: Only displayed if you selected **Yes** for **Generate Signature**.
Signature Algorithm	Select the signature algorithm. Required.
	Note: Only displayed if you selected **Yes** for **Generate Signature**.

Outbound SPEC2000 CMD Outer Envelope

Note: An (*) asterisk indicates that a wildcard value can be used with that parameter (for mandatory fields, the wildcard value is an (*) asterisk). For Inbound envelopes, a wildcard value in the envelope matches any value in the input document, while an empty value in the envelope matches only an

empty value in the input document. For Outbound envelopes the wildcard value will be matched with the values present in your custom business process, depending on the Correlation Override Value set in the envelope.

The following table describes the Outbound SPEC2000 CMD Outer envelope properties:

Field	Description
Header	Specifies the message header. In the inbound side the Deenveloping service parses the header and put the header you enter in the process data, if present.Optional. **Note:** This parameter can be overridden by the Correlation Service based on the Correlation Overrides value (Out_SpecHeader is the tag).
Priority	Specifies the message priority. Optional. **Note:** Enter two characters to set the priority in the outer outbound envelope. This field must always start with Q (alphabetic capital letter). This field can be overridden by the Correlation Service (Out_Priority is the tag).
* Destination Address[Receiver ID]	The message receiver as it should appear on the interchange header segment sent to this company or division. This is an alphanumeric mandatory field of 7-8 characters length. Required. **Note:** This parameter can be overridden by the Correlation Service based on the Correlation Overrides Value (Out_Outer_ReceiverID is the tag). The Inner Envelope ReceiverID can be simultaneously overridden by tag Out_ReceiverID. Only the Outer Envelope parameters SenderID and ReceiverID deviate from the standard convention out_<parm name>.
Additional Destination Address	An additional destination address. Optional. **Note:** This field allows you to define additional addresses. In the message header this field is appended to **Destination Address**, delimited by a space.
Additional Destination Addresses Lines	Additional lines for the destination address. Optional. **Note:** This field allows you to define additional addresses in multiple lines. In the message header this field is appended in the second line of destination addresses.
* Originator Address[Sender ID]	The message sender as it should appear on the interchange header segment sent to this company or division. This is an alphanumeric mandatory field of 7-8 characters length that is appended to the header. Required. **Note:** This parameter can be overridden by the Correlation Service based on the Correlation Overrides Value (Out_Outer_SenderID is the tag). The Inner Envelope SenderID can be simultaneously overridden by tag Out_SenderID. Only the Outer Envelope parameters SenderID and ReceiverID deviate from the standard convention out_<parm name>.

Field	Description
Date Time Format	The format of the date and time. Optional. Valid values are: ◆ None (default) ◆ Date Only (MMDDYY) ◆ Date Only (DDMMYY) ◆ Date Only (YYMMDD) ◆ Date Only (YYYYMMDD) ◆ Time Only (HHMMSS) ◆ Date and Time (YYYYMMDDHHMMSS) ◆ Custom Format **Note:** If you choose **Custom Format,** you must provide a format in another envelope field. The value entered in the Custom time format will be appended to the SenderID, delimited by a space ( ).
Delimiter for Additional Message Identity	A delimiter used for additional message identity. Optional. Valid values are: ◆ None (default) ◆ Hyphen (-) ◆ Slash (/) ◆ Space ( ) ◆ Dot (.)
Additional Message Identity	The additional message identity, if any. This is a free-form field in which you can enter any string. This String is appended to the Date/Time field, delimited by the above selected delimiter (Delimiter for Additional Message Identity) to form the message Identity. **Note:** Correlation override may be used with this field, using the tag Out_AdditionalMessageIdentity. If you choose **None** for the **Date Time Format** parameter, only this field is used to construct the Message Identity. Optional.
Communications Service Code	The communications service code. Optional. Valid values are: ◆ None (default) ◆ PDM (Possible Duplicate Message) ◆ COR (Correction) ◆ QTA (Message Interrupted - Will Be Resent) ◆ QTB (Message Interrupted - Will Not Be Resent) ◆ INT (Intercepted Message) ◆ * (wildcard) **Note:** This field can also be overridden by the Correlation Service with the Out_CommunicationServiceCode .

Field	Description
Exclude Standard Message Identifier (CAM)	If selected, specifies to exclude the standard message identifier (CAM). Default is not selected, which indicates that the CAM will not be included in the header.
Include End of the Message Character in the Message	If selected, specifies to include the end of the message (LF LF LF and EOT) characters. Default is not selected. Characters CR LF are added to the header and the transmission control characters SOH, STX and ETX will also be added regardless of what you select for this parameter.
Use Correlation Overrides	Whether to use correlation overrides. Required. Valid values are:

Use Correlation Overrides (continued):

- **Always** - If a correlation override value is provided, always use that value instead of the value in the envelope (except for the Sender ID, Receiver ID, and Sender/Receiver Qualifier fields, which must have a * in the envelope definition to use the correlation override value).

- **Only when the envelope field has a wildcard value (*)** - Only use correlation override values for fields in the envelope definition that are specified with a wildcard (*).

- **Never** - Never use correlation overrides.

- **Use the default specified in enveloping.properties** - The enveloping.properties file defines when to use correlation overrides if this choice is selected. The properties file will either define Always, Never, or Only when the envelope field has a wildcard (*) value. The applicable properties file property is **enveloping.correl_override_default.[standard]**. Allowed values are No (which means never), WildcardOnly, or All (which means always, except for the Sender ID, Receiver ID, and Sender/Receiver Qualifier fields, which must have a * in the envelope definition to use the correlation override value).

Field	Description
Specify the Supplementary Address	Whether the supplementary address must be specified. Valid values are Yes and No (default). Required.
S1FRADDR/A1FRADDR	Allows you to specify the supplementary address. Optional.
S1TOADDR/A1TOADDR	Allows you to specify the supplementary address. Optional.
Limit Interchange Size	Specifies whether the interchange size should be limited. Based on the value set in Maximum Interchange Size limit, the interchange will be split into multiple if it contains more than the value specified.

Limit Interchange Size (continued):

Valid values are:

- No

- Specify size limit

- Use global default in enveloping.properties (default)

Required.

Note: When Use global default in enveloping.properties (which is the default) is selected, the application does not display the Maximum Interchange Size (bytes) parameter, because It picks up the value from the enveloping.properties file. The enveloping.properties file contains a property for each supported standard and more specific properties for each message type that can override the standard property.

Field	Description
Invoke Business Process for Each Interchange	Whether a business process is invoked for each interchange generated. Valid values are Yes and No (default). Required.
	Note: If Invoke Business Process for Each Interchange is set to No, the service places the name of the business process specified in the envelope into process data using the key WFD_NAME. This business process is then invoked by the Invoke Business Process Service. If Invoke Business Process For Each Interchange is set to Yes, the service directly bootstraps an instance of the business process specified in the envelope, and does not set WFD_NAME in process data.
Maximum Interchange Size (bytes)	Specify the maximum size of each individual interchange. Required.
	Note: Only displayed if you selected **Specify size limit** for the **Limit Interchange Size** parameter. The default value specified by the SPEC2000standard is 3480 bytes.
Determine the business process by	How to determine which business process name to use if there were no errors in the compliance check. Required. Valid values are:
	◆ Specifying a business process (default)
	◆ Generating the business process name from the data
	Note: If you select the **Generating the business process name from the data** option, you must select at least one parameter for Primary Name Format.
Primary Name Format	Check boxes to specify which information to include when generating and matching a name for the business process. Required.
	Select from:
	◆ Originator Address
	◆ Destination Address
	Note: If you are using a generated business process name (**Determine the Business Process By** is set to **Generating the business process name from the data**), the application tries to generate and match the following business process:
	◆ First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message).
	◆ Second, it tries to generate and match the Backup Name.
	◆ Third, if there is not an existing business process that matches the names generated in steps 1-2, an error is generated.
	Note: Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.

Field	Description
Backup Name Format	The backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the Backup Name Format. Optional. Select from: ◆ Originator Address ◆ Destination Address **Note:** If you are using a generated business process name (**Determine the Business Process By** is set to **Generating the business process name from the data**), the application tries to generate and match the following business process: ◆ First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message). ◆ Second, it tries to generate and match the first Backup Name. ◆ Third, if there is not an existing business process that matches the names generated in steps 1-2, an error is generated. **Note:** Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.
Generate an error if no generated business process name exists in the system	Specify whether to generate an error if there is no match to the generated business process name in the system. Valid values are Yes (default) and No. **Note:** Only displayed if **Determine the Business Process By** is set to **Generating the business process name from the data**.
Business Process List	Select a previously created business process to associate with this envelope Optional. Displayed only if **Determine the Business Process Name** is set to **Specifying a business process**.
Extraction Options	Business process data extraction. Required. Valid values: ◆ Determined by business process (default) ◆ Extract to a file system directory ◆ Extract to a mailbox
Data Extraction Directory	Directory for data extraction. Optional.
Data Extraction Filename	Filename for data extraction. Optional.
Data Extraction Mailbox	Mailbox for data extraction. Required.
Data Extraction Mailbox Message Name	Mailbox message name for data extraction. Optional.

Outbound SPEC2000 Command Message Envelope

Note: An (*) asterisk indicates that a wildcard value can be used with that parameter (for mandatory fields, the wildcard value is an (*) asterisk). For Inbound envelopes, a wildcard value in the envelope matches any value in the input document, while an empty value in the envelope matches only an empty value in the input document. For Outbound envelopes the wildcard value will be matched with the values present in your custom business process, depending on the Correlation Override Value set in the envelope.

The following table describes the Outbound SPEC2000 Command Message envelope properties:

Field	Description
Next Envelope	Specifies the envelope to use after this envelope. Required.
Create New Envelope	Adds an envelope to use as next envelope or edits an existing envelope. Optional.
Customer Id Code	The code identifying the customer. Valid value is three to five standard characters. Optional.
Supplier Code	The code identifying the supplier. Valid value is five standard characters. Optional.
* Originator Address[Sender ID]	The message sender as it should appear on the interchange header segment sent to this company or division. This is an alphanumeric mandatory field of 7-8 characters length that is appended to the header. Required.
* Destination Address[Receiver ID]	The message receiver as it should appear on the interchange header segment sent to this company or division. This is an alphanumeric mandatory field of 7-8 characters length. Required.
Message Type	The type of message. Select a message type from the list or choose wildcard (*) to allow any message. Default is * (wildcard). Required.
Acceptor Lookup Alias	Alias for accepter lookup. Required.

Field	Description
Use Correlation Overrides	Whether to use correlation overrides. Required. Valid values are:
	◆ **Always** - If a correlation override value is provided, always use that value instead of the value in the envelope (except for the Sender ID, Receiver ID, and Sender/Receiver Qualifier fields, which must have a * in the envelope definition to use the correlation override value).
	◆ **Only when the envelope field has a wildcard value (*)** - Only use correlation override values for fields in the envelope definition that are specified with a wildcard (*).
	◆ **Never** - Never use correlation overrides.
	◆ **Use the default specified in enveloping.properties** - The enveloping.properties file defines when to use correlation overrides if this choice is selected. The properties file will either define Always, Never, or Only when the envelope field has a wildcard (*) value. The applicable properties file property is **enveloping.correl_override_default.[standard]**. Allowed values are No (which means never), WildcardOnly, or All (which means always, except for the Sender ID, Receiver ID, and Sender/Receiver Qualifier fields, which must have a * in the envelope definition to use the correlation override value).
Expect an acknowledgement	Whether you expect an acknowledgement that notifies the receiver has received an interpretable document. Valid values are Yes and No (default). Required.
Acknowledgement overdue time (hours)	Amount of time, in hours, within which you must receive an acknowledgement. Valid value is four numeric characters. Optional.
Acknowledgement overdue after (minutes)	Amount of time, in minutes, within which you must receive an acknowledgement. Valid value is four numeric characters. Optional.
Generate control number	Whether to generate a control number. Valid values are:
	◆ Yes (default)
	◆ Yes (and generate from data)
	◆ No
Specify whether to Override the Acknowledgement number in transaction with control number	Whether to override the acknowledgement number in the transaction with the control number. Valid values are Yes and No (default).
Global Transaction Set Control Number	Transaction set control reference used globally. Select a previously defined global transaction set control reference. Valid value is up to 16 standard characters. Required.

Field	Description
Primary Name Format	Check boxes to instruct what information to include when generating and matching a control number. Required. Select from: ◆ Customer Id Code ◆ Supplier Code ◆ Originator Address ◆ Destination Address ◆ Message Type **Note:** If you are using a generated control number (Generate Control Number is set to Generate from data), the application tries to generate and match the following control numbers: First, it tries to generate and match the control number in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing control number that matches the names generated in steps 1-3, a new global control number will be created.

Field	Description
First Backup Name Format	The first backup name format to use when generating a control number for translation. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional. Select from: ♦ Customer Id Code ♦ Supplier Code ♦ Originator Address ♦ Destination Address ♦ Message Type **Note:** If you are using a generated control number (Generate Control Number is set to Generate from data), the application tries to generate and match the following control numbers: First, it tries to generate and match the control number in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing control number that matches the names generated in steps 1-3, a new global control number is created.

Field	Description
Second Backup Name Format	The second backup name format to use when generating a control number for translation. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.
	Select from:
	◆ Customer Id Code
	◆ Supplier Code
	◆ Originator Address
	◆ Destination Address
	◆ Message Type
	Note: If you are using a generated control number (Generate Control Number is set to Generate from data), the application tries to generate and match the following control numbers:
	First, it tries to generate and match the control number in the primary name format (replacing the values that are selected for the corresponding value in the message).
	Second, it tries to generate and match the First Backup Name.
	Third, it tries to generate and match the Second Backup Name.
	Fourth, if there is not an existing control number that matches the names generated in steps 1-3, a new global control number is created.
Translate Message	Whether to automatically translate the message. Valid values are Yes (default) and No. Required.
Map Name Mode	Mode in which to specify the map to use to perform a compliance check. Valid values are:
	◆ Specify
	◆ Generate from data
Validate translation input	Whether to validate the translation input. Valid values are Yes (default) or No. Required.
Validate translation output	Whether to validate the translation output. Valid values are Yes (default) or No. Required.
Map Name	Which map to use to perform the translation. The map must already be checked in. Select the map. Required if you selected **Specify** for **Map Name Mode**.

Field	Description
Primary Name Format	Check boxes to instruct what information to include when generating and matching a name for the map. Required. Select from: ◆ Customer Id Code ◆ Supplier Code ◆ Originator Address ◆ Destination Address ◆ Message Type **Note:** If you are using a generated map name (Map Name Mode is set to Generate from data), the application tries to generate and match the following maps: First, it tries to generate and match the map in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing map that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no gemerated map name exists in the system** is set to **Yes**.

Field	Description
First Backup Name Format	The first backup name format to use when generating a map name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional. Select from: ◆ Customer Id Code ◆ Supplier Code ◆ Originator Address ◆ Destination Address ◆ Message Type **Note:** If you are using a generated map name (Map Name Mode is set to Generate from data), the application tries to generate and match the following maps: First, it tries to generate and match the map in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing map that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no gemerated map name exists in the system** is set to **Yes**.

Field	Description
Second Backup Name Format	The second backup name format to use when generating a map name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.
	Select from:
	◆ Customer Id Code
	◆ Supplier Code
	◆ Originator Address
	◆ Destination Address
	◆ Message Type
	Note: If you are using a generated map name (Map Name Mode is set to Generate from data), the application tries to generate and match the following maps:
	First, it tries to generate and match the map in the primary name format (replacing the values that are selected for the corresponding value in the message).
	Second, it tries to generate and match the First Backup Name.
	Third, it tries to generate and match the Second Backup Name.
	Fourth, if there is not an existing map that matches the names generated in steps 1-3, an error is generated.
	Note: Only occurs if **Generate an error if no gemerated map name exists in the system** is set to **Yes**.
Generate an error if no generated map name exists in the system	Specifies whether to generate an error if the Map Name selected is not found. Valid values are Yes (default) and No. **Note:** Only displayed if Map Name Mode is set to Generate from data.
Error business process mode	How to determine which business process name to use if there were errors in the compliance check. Required. Valid values are:
	◆ Specify (default)
	◆ Generate from data
	Note: If you select this option, you must select at least one parameter for Primary Name Format.
Business Process for Non-Compliant Documents	Business process to be used when non-compliant documents are encountered. Optional. Displayed only if **Error Business Process Name** is set to **Specify**.

Field	Description
Primary Name Format	Check boxes to instruct what information to include when generating and matching a name for the business process. Required. Select from: ◆ Customer Id Code ◆ Supplier Code ◆ Originator Address ◆ Destination Address ◆ Message Type **Note:** If you are using a generated business process name (Error Business Process is set to Generate from data), the application tries to generate and match the following business processes: First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message). Second, it tries to generate and match the First Backup Name. Third, it tries to generate and match the Second Backup Name. Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated. **Note:** Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.

Field	Description
First Backup Name Format	The first backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.

Select from:

- ◆ Customer Id Code

- ◆ Supplier Code

- ◆ Originator Address

- ◆ Destination Address

- ◆ Message Type

Note: If you are using a generated business process name (Error Business Process is set to Generate from data), the application tries to generate and match the following business processes:

First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message).

Second, it tries to generate and match the First Backup Name.

Third, it tries to generate and match the Second Backup Name.

Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated.

Note: Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.

Field	Description
Second Backup Name Format	The second backup name format to use when generating a business process name. The system allows for two alternatives if the Primary Name Format is not found-checking for the First Backup Name Format and then, if that is not found, checking for the Second Backup Name Format. Optional.
	Select from:
	◆ Customer Id Code
	◆ Supplier Code
	◆ Originator Address
	◆ Destination Address
	◆ Message Type
	Note: If you are using a generated business process name (Error Business Process is set to Generate from data), the application tries to generate and match the following business processes:
	First, it tries to generate and match the business process in the primary name format (replacing the values that are selected for the corresponding value in the message).
	Second, it tries to generate and match the First Backup Name.
	Third, it tries to generate and match the Second Backup Name.
	Fourth, if there is not an existing business process that matches the names generated in steps 1-3, an error is generated.
	Note: Only occurs if **Generate an error if no generated business process name** exists in the system is set to **Yes**.
Generate an error if no generated map name exists in the system	Specifies whether to generate an error if the Map Name selected is not found. Valid values are Yes (default) and No.
	Note: Only occurs if **Error Business Process Name** is set to **Generate from data**.

Creating SPEC2000 Maps

Overview

The Map Editor enables you to map SPEC2000 documents, and generates a file layout for you using the components and message types that you select. The Map Editor-generated SPEC2000 map consists of map components that are comparable to parameters that are defined by SPEC2000.

Note: You need to download the Map Editor component to use it.

Map Editor allows you to modify the map components by using the Deactivate, Promote, Split, Copy, Cut, and Paste functions.

You can create a map for the SPEC2000 online messages and batch files that are loaded as DDF files as part of the Map Editor installation. The *data definition format* (DDF) is a Sterling Commerce format that contains an XML-formatted description of the input or output side of a source map and has the file extension .ddf. The extended rules for the DDF files are extracted from the standards database that is downloaded when you download and install the Map Editor.

SPEC2000 messages are also loaded using schema for XML messages. Additionally, you can create maps for customized messages.

Note: The field lengths in the Map Editor preloaded DDFs are same as the lengths in the ATA schemas, not the field lengths that are defined for the corresponding command messages in the specification.

SPEC2000 Components in the Map Editor

The following table lists the components that make up the SPEC2000 layout in the Map Editor, the icons that represent the components, and descriptions of the components. For information about adding a map component to a layout, see *Map Editor Basics*.

Component	Icon	Description
SPEC2000 root element		The *SPEC2000 root element* represents the message that the application is mapping. At the SPEC2000 file root element, you define the message type and encoding. It is a group and can contain groups and records.

Component	Icon	Description
Group		A *group* is a looping structure that contains a sequence or an implicit group of repeating field tags (in Map Editor a group is related segments and groups that repeat in sequence until either the group data ends, or the maximum number of times that the loop is permitted to repeat is exhausted). A group that is subordinate to another group is a subgroup (and corresponds to a nested looping structure, a loop within a loop). When a group contains an extended rule or a standard rule, an asterisk appears to the right of the group icon.
Segment		A SPEC2000 *segment* contains a field tag (in Map Editor, a SPEC2000 segment is a group of related elements that combine to communicate useful data). A SPEC2000 segment can occur once or can repeat multiple times. **Note:** If a SPEC2000 segment occurs more than once in a map, it is identified by its name <ID>. The second and subsequent occurrences are identified by <ID>:*n*, where *n* is the number of the occurrence in the map.
Element		An *element* is a field or a group of SPEC2000 components (the smallest piece of information defined by the standard) that define a SPEC2000 element. An element can have different meanings depending on the context. In other data formats in the Map Editor, an element is not considered to have useful meaning except in the larger context of the segment that contains it. However, elements used in the Map Editor to represent SPEC2000 fields and components contain useful and discrete information. **Note:** If an element occurs more than once in a map it is identified by its name <ID>. The second and subsequent occurrences are identified by <ID>:*n*, where *n* is the number of the occurrence in the map. A *repeating element* is an element with the ability to loop (occur more than once) within a particular SPEC2000 segment. To enable a single element to repeat multiple times within a SPEC2000 element, the occurrence of the element must be separated by a start and end delimiter. The use of start and end delimiters help the translator determine where elements and components are defined within a field tag. When a field has a link performed against it, a red check mark appears over the element icon. When a field contains an extended rule or a standard rule, an asterisk appears to the right of the element icon.

Creating a SPEC2000 Map Using Preloaded Messages in the Map Editor

When you create a new map, you can use a wizard that creates a layout for you based on the standard. The wizard saves you time and effort and minimizes the risk of having an invalid standard format.

When you create a map, for both the input and output sides, you choose whether you want to use a preloaded standard, an existing file format, or want to create a new file format for that side of the map (including selecting from standards that you have previously downloaded to the standards database). The preloaded standards are downloaded when you download the Map Editor to your machine, as well as any optional standards such as the SWIFT MX standards and those included with the Financial Services XML Standards bundle, and include the following:

Note: For a complete list of the preloaded standards consult the Map Editor New Map Wizard.

Note: If the map you are creating contains greater than 20,000 objects, you will receive a message noting that this map contains a very large number of objects. For best performance, it is recommended that

you consider whether any unnecessary objects in the map can be removed, do not expand the entire object tree—expand only the section of the tree you are currently mapping, consider using the **Show links to or from the currently selected element** option instead of the **Show links to or from all visible elements** option, and save the map using the .MAP file format (using the Save As function).

To create a SPEC2000 map using the preloaded messages in Map Editor:

1. From the Map Editor **File** menu, select **New**.

2. In the **New Map Wizard**, complete the questions in the first window and click **Next**.

Note: Be sure that **Sterling Integrator** is selected in the **What kind of map are you creating** list.

3. If you are translating from SPEC2000, in the Input Format window select the **Create a New Data Format Using this Standard** option.

4. Then, select **SPEC2000 (E-Business Specification for Materials Management)** and click **Messages**. If you are translating from another format, select that format and continue to the next page of the wizard.

5. If you selected SPEC2000, choose the type of message to auto-generate (BATCH FILES, ONLINE MESSAGES, or XML MESSAGES) and click **Next**.

6. Select the ODBC data source that contains the SPEC2000 standards database (for SPEC2000 for BATCH FILES and ONLINE MESSAGES only), select **SI SPEC2000 Standard**; for other formats, select **Sterling Integrator Standards**) and click **Next**.

7. Select the version and message or file type that you want to use and click **Next**.

8. Click **Finish** to load the message.

9. Click **Next** to select the Output Format.

10. If you are translating from SPEC2000, in the Output Format window select the **Create a New Data Format Using this Standard** option.

11. Then, select **SPEC2000 (E-Business Specification for Materials Management)** and click **Messages**. If you are translating from another format, select that format and continue to the next page of the wizard.

12. If you selected SPEC2000, choose the type of message to auto-generate (BATCH FILES, ONLINE MESSAGES, or XML MESSAGES) and click **Next**.

13. Select the ODBC data source that contains the SPEC2000 standards database (for SPEC2000 for BATCH files and ONLINE MESSAGES only), select **SI SPEC2000 Standard**; for other formats, select **Sterling Integrator Standards**) and click **Next**.

14. Select the version and message or file type that you want to use and click **Next**.

15. Click **Finish** to load the message.

16. The Map Editor displays the new map in the Map Editor window.

17. In the Map Editor, select **File > Save** to save the map. Do not use spaces or apostrophes in the map name.

Note: To compile the map, select **File > Compile**. A progress dialog box displays and updates during the compilation process. If the map contains a large number of objects, you may be prompted that you should save the map in .MAP format.

18. To save a map as a .map file, select **File > Save As** and then select Source Maps (*.map) from the Save as type list.

Note: Prior to opening an .mxl (XML-formatted) file, the Map Editor verifies that you have the Microsoft XML Core Services (MSXML) 4.0 installed on the same computer as Map Editor. If you do not have the Microsoft XML Core Services (MSXML) 4.0 installed, the Map Editor cannot save or load .mxl source files.

Creating a SPEC2000 Map Using Customized Messages

When you create a new map, you can use a wizard that creates a layout for you based on the standard. The wizard saves you time and effort and minimizes the risk of having an invalid standard format.

Note: If the map you are creating contains greater than 20,000 objects, you will receive a message noting that this map contains a very large number of objects. For best performance, it is recommended that you consider whether any unnecessary objects in the map can be removed, do not expand the entire object tree—expand only the section of the tree you are currently mapping, consider using the **Show links to or from the currently selected element** option instead of the **Show links to or from all visible elements** option, and save the map using the .MAP file format (using the Save As function).

To create a SPEC2000 map using customized messages in Map Editor:

1. From the Map Editor **File** menu, select **New**.

2. In the **New Map Wizard**, complete the questions in the first window and click **Next**.

Note: Be sure that **Sterling Integrator** is selected in the **What kind of map are you creating** list.

3. If you are translating from SPEC2000, in the Input Format window select the **Create a New Data Format Using this Syntax** option.

4. Then, select **SPEC2000 (E-Business Specification for Materials Management)** and click **Customize**. If you are translating from another format, select that format and continue to the next page of the wizard.

5. If you selected SPEC2000, choose the type of message to auto-generate (BATCH FILES, ONLINE MESSAGES, or XML MESSAGES) and click **Next**.

6. Select the ODBC data source that contains the SPEC2000 standards database (for SPEC2000 for BATCH FILES and ONLINE MESSAGES only, select **SI SPEC2000 Standard**; for other formats, select **Sterling Integrator Standards**) and click **Next**.

7. Select the version and message or file type that you want to use and click **Next**.

8. Click **Finish** to load the message.

9. Click **Next** to select the Output Format.

10. If you are translating from SPEC2000, in the Output Format window select the **Create a New Data Format Using this Syntax** option.

11. Then, select **SPEC2000 (E-Business Specification for Materials Management)** and click **Customize**. If you are translating from another format, select that format and continue to the next page of the wizard.

12. If you selected SPEC2000, choose the type of message to auto-generate (BATCH FILES, ONLINE MESSAGES, or XML MESSAGES) and click **Next**.

13. Select the ODBC data source that contains the SPEC2000 standards database (for SPEC2000 for BATCH FILES and ONLINE MESSAGES only), select **SI SPEC2000 Standard**; for other formats, select **Sterling Integrator Standards**) and click **Next**.

14. Select the version and message or file type that you want to use and click **Next**.

15. Click **Finish** to load the message.

16. The Map Editor displays the new map in the Map Editor window.

17. In the Map Editor, select **File > Save** to save the map. Do not use spaces or apostrophes in the map name.

Note: To compile the map, select **File > Compile**. A progress dialog box displays and updates during the compilation process. If the map contains a large number of objects, you may be prompted that you should save the map in .MAP format.

18. To save a map as a .map file, select **File > Save As** and then select Source Maps (*.map) from the Save as type list.

Note: Prior to opening an .mxl (XML-formatted) file, the Map Editor verifies that you have the Microsoft XML Core Services (MSXML) 4.0 installed on the same computer as Map Editor. If you do not have the Microsoft XML Core Services (MSXML) 4.0 installed, the Map Editor cannot save or load .mxl source files.

For information about creating and managing map components, see the *Map Editor Guide*.

XML Data Format

If you select XML MESSAGES as the format for your map, the Map Editor XML implementation conforms to the rules of the XML language 1.0 specification, as published by the World Wide Web Consortium (W3C). However, to be more flexible, Map Editor and the translator diverges slightly from the W3C base 1.0 XML specification. The Map Editor implementation enables you to do the following with XML:

✦ Specify the number of times that a group can repeat.

✦ Specify the number of times an element in a mixed group can repeat.

✦ Repeat an element (with a structure different from the structure of the original element) in a different part of the document.

For more information, see:

✦ *XML Components* on page 73

✦ *XML Considerations* on page 75

✦ *Support for XML Schemas* on page 75

✦ *Abstract Elements and Map Editor* on page 76

✦ *Creating an XML Layout from a DDF File* on page 77

XML Components

The following table lists the components that make up the XML message layout in the Map Editor, the icons that represent the components, and descriptions of the components.

Component	Icon	Description
XML root element		The *XML root element* represents the XML document that is being mapped. The XML root element is a looping structure that contains elements and content particles that repeat in sequence until either the group data ends or the maximum number of times that the loop is permitted to repeat is exhausted. The root element cannot be referenced by standard rules or links.
Element		An *element* contains related elements and content particles. In addition, an element can contain one pcdata and one attribute container. These objects repeat in sequence until either the element data ends or the maximum number of times that the loop is permitted to repeat is exhausted. A repeating element that contains another repeating element corresponds to a nested looping structure. The XML Element object cannot be referenced by standard rules or links.
Abstract element		An *abstract element* is an inconcrete element from an XML schema (for example, the term "appliance" may be considered an abstract element while "dishwasher" is a concrete one). An abstract element must be substituted with a non-abstract element for a map to be successfully compiled.
Content particle		A *content particle* contains related subordinate objects that define either a choice, a sequence, or an all. A content particle can contain only one pcdata. If specified, these objects can repeat in sequence until either the content particle data ends or the maximum number of times that the loop is permitted to repeat is exhausted. If you create a content particle that is subordinate to another content particle, the content particle corresponds to a nested looping structure (a loop within a loop). A content particle cannot be referenced by standard rules or links.
Pcdata		A *pcdata* contains character data in an XML document. Only one pcdata can be defined per element or content particle. Map Editor automatically names the pcdata with the name of the parent element or content particle. When a pcdata has a link performed against it, a red check mark appears over the pcdata icon. When a pcdata contains an extended rule or a standard rule, an asterisk appears to the right of the pcdata icon.
Attribute container		An *attribute container* does not correspond to an XML function. Map Editor uses attribute containers to contain the attributes of an XML element. The attribute container has no properties. When you create the first attribute of an XML element, the Map Editor automatically creates an attribute container object. An element can have only one attribute container, but the attribute container object can enclose many attribute objects.

Component	Icon	Description
Attribute		An *attribute* specifies information associated with an element that further defines the element. The attribute is located within an attribute container. Attributes do not have to occur in sequence in the input data.
		When an attribute has a link performed against it, a red check mark appears over the attribute icon.
		When an attribute contains an extended rule or a standard rule, an asterisk appears to the right of the attribute icon.

XML Considerations

Before you create an XML layout, consider:

✦ You have two options for creating an XML layout: manually create an XML layout or create an XML layout from a document type definition (DTD) or XML schema.

✦ If you are using an XML schema, you must install the following software. Both are available from the Microsoft Web site.

   ◆ Microsoft XML Core Services 4.0 RTM (XML parser)

   ◆ Windows Installer 2.0 (to install the preceding XML parser)

An XML schema defines rules for the structure and content of an XML document. The schema you use must meet www.w3.org schema standards. Only valid schemas will generate an XML map structure.

Note: Verify the schema is valid by using a Schema Validator.

Support for XML Schemas

The Translation service uses the Xerces 1.4.3 XML parser, which supports the W3C XML Schema recommendation version 1.0 (available at www.w3.org/TR/xmlschema-0).

Note: Because of how the Xerces XML parser handles elements with complex content, it is best to modify the schema to use unbounded instead of maxOccurs with large values and to avoid using large values for minOccurs. Otherwise, you may see a StackOverflowError from the Xerces parser during translation.

The Map Editor uses the Microsoft XML Core Services 4.0 RTM (XML parser) to read and validate XML schemas. The Map Editor does not display the following features of XML schemas:

✦ Substitution groups

✦ Data type facets other than minimum and maximum length

✦ Abstract element types (for more information about how abstract element types are supported in the Map Editor, see *Abstract Elements and Map Editor* on page 76)

✦ Data type derivations

✦ The Map Editor uses XML schemas to create the initial file format. You cannot create a new element after importing a schema by referring to a type defined in the schema.

✦ Annotations

✦ Prohibited attribute constraints

✦ The nillable, fixed-value, and default value attributes of an element

The Map Editor supports the following XML schema features, and:

✦ Treats list data types as strings

✦ Creates a code list to contain the enumeration values of a simple type derived by enumeration

✦ If a simple data type is derived by the union of differing integral types, treats the data type as a string (for example, a date/time type joined with an integer type would be treated as a string)

✦ The translator currently wraps a CDATA section around any text that contains one of the five *special characters* (< (less than), > (greater than), & (ampersand), ' (single quote or apostrophe), and " (double quote)

Abstract Elements and Map Editor

An abstract element is an non-concrete element from an XML schema (for example, the term "appliance" may be considered an abstract element while "dishwasher" is a concrete one). An abstract element must be substituted with a non-abstract element for a map to be successfully compiled. For more information about changing an abstract element to an XML element, see *Creating an Element* on page 83.

Note: Abstract elements are reported during map compilation as Warnings.

Creating an XML Layout from a DDF File

The *data definition format* (DDF) is a Sterling Commerce format that contains an XML-formatted description of the input or output side of a source map and has the file extension .ddf. DDF files include the hierarchical and looping structure of the data, the map objects (groups, records, fields) and their attributes (for example, names, descriptions, data types). A DDF file can be loaded (imported) or created (for export) from the Map Editor.

Note: DDF files do not contain standard or extended rules, links, or any other map information unrelated to the data format. The exceptions are the Use Code and Use Constant code lists. If the map references a Use Code or Use Constant standard rule and instructs the translator to raise a compliance error if the code is not found in the Use Code or Use Constant code list, the translator saves the standard rule and the associated code list.

DDF files support constants by using attributes. A typical example of attributes is as follows:

```
USECONSTANT="yes" CONSTANTID="0" CONDITIONALFIELDID="-1"
```

The fields and attributes are present at the Field level in a DDF file. Therefore, when constants (a type of standard rule) are used in the map, and you have saved that map as a DDF file, the DDF file also contains the attributes, and when you open this DDF file those constants below are applied to their respective fields.

Constant	Attribute
USECONSTANT	This attribute will show whether constant is used for that particular field. Values will be Yes or No.
CONSTANTID	This attribute is similar to ConstantID tag in the mxl file.
CONDITIONALFIELDID	This attribute is similar to ConditionalFieldID tag in the mxl file.

Requirement for Using DDF Files

Because DDF files are formatted in XML, you must have the Microsoft XML Core Services (MSXML) 4.0 installed on the same computer as the Map Editor. You can obtain Microsoft XML Core Services (MSXML) 4.0 by installing the most current release of Microsoft Internet Explorer. If you do not have the Microsoft XML Core Services (MSXML) 4.0 installed, the Map Editor cannot support DDF files.

Opening a DDF File

Map Editor enables you to open, or import, a DDF file in two ways—when you create a new map, and when you open a DDF file into one side of an existing map. Either way, using a DDF file provides you with a quick way to create either side of a map.

When you create a new map, the New Map wizard enables you to select a DDF file to use as the basis for the input or output side of the map. When you open a DDF file, Map Editor assigns acceptable defaults if attributes are not included. For example, if a value is not specified for Minimum Length, a value of zero is assigned.

To open a DDF (including the BECS DDFs that are preloaded with Map Editor) file into an existing map:

Caution: Opening a DDF file into an existing map replaces the selected side of the map. After you open a DDF file into a map, you cannot undo the operation.

1. In the Map Editor, right-click the **data format** icon on the side of the map where you want to open the DDF file and select **Open File Definition** from the shortcut menu.

Note: If you already used Map Editor to create that side of the map, you are prompted with a message that warns you that the existing file format will be replaced. Click **Yes** to continue.

2. Browse to locate the DDF file.

3. Click **Open** to open the selected DDF file into the map.

Creating a DDF File

Map Editor enables you to create (save as a DDF/IFD) a DDF file so that you can use it as a starting place in other maps or as a means to update existing maps.

To create a DDF file:

1. In the Map Editor, right-click the **data format** icon on the side of the map from which you want to create a DDF file and select **Save File Definition As** from the shortcut menu.

2. Browse to the location where you want to save the DDF file.

3. Click **Save** to save the DDF file.

Creating an XML Layout from a DTD or Schema

When you create a new map, you can either manually create an XML layout or you can use a wizard that creates a layout for you based on a DTD or schema.

The wizard performs the following tasks:

✦ Raises a warning if it encounters attributes that use entities or notations

✦ Changes attributes of type ENTITY or ENTITIES to type CDATA

✦ Changes attributes of type NOTATION to type ENUMERATED

✦ Disregards comments and processing instructions

✦ Discards external entities and notations

✦ Does not support XML namespaces for DTDs or conditional sections

✦ Supports internal and external parameter entities

✦ Supports external parameter entities that reference a URL only if Microsoft® Internet Explorer 3.0 or later is installed on the computer

To create an XML layout from a DTD or schema:

1. From the Map Editor **File** menu, select **New**.

2. In the **New Map Wizard**, complete the questions on the first screen.

Note: To use XML schemas, the map type must be Sterling Integrator.

3. If you are translating from XML, from the **Create a new data format using this syntax** list, select **XML** and click **Customize**. If you are translating from another format, select that format and continue to the next screen.

4. In the **New XML Wizard**, select the **Customization File Type**—the type of file you want to use to create your XML layout, either DTD or XML schema.

5. Type the name of the DTD or XML schema, type the URL, or browse to the location of the DTD or XML schema, and click **Next**.

6. Select the root element. The DTD or schema does not explicitly define the root element, so you can select from all the elements defined in the DTD or all the top-level elements defined in the .XSD schema (elements subordinate to the schema element). By default, the wizard selects the first element it encounters.

7. Specify the maximum length for data elements. For a DTD, you can specify the maximum length of data elements because length is not defined in the DTD and is optional for elements declared in the XML schema. For an XML schema, the maximum length can be specified for some elements. You can specify a default field length for elements that do not have a specified field length.

8. If you want the map to contain code lists equivalent to the enumerations defined in the DTD or schema, select the **Build code lists for enumerated attributes** check box.

Note: The default for the Build code lists for enumerated attributes check box is cleared because using code lists may be redundant and thus your map is smaller and more efficient without them.

9. Click **Next**.

10. If you chose to import an XML schema, select the subelements you want to be included in the map, and click **Next**.

Note: The list displays the entire tree of elements and subelements for the root element you selected, hierarchically displayed using indentation. Attributes are not included in this list. The default is that all elements and subelements are selected. When you clear the box next to an element, all its subelements are automatically cleared. Similarly, when you select the box next to a child element, its parent elements are automatically selected. Selecting only the elements and subelements you need for your map reduces the size of the map and makes it more efficient.

11. If you are translating to XML, on the Output screen (from the **Create a new data format using this syntax** list), select **XML** and click **Customize**.

12. In the **New XML Wizard**, select the **Customization File Type**—the type of file you want to use to create your XML layout, either DTD or XML schema.

13. Type the name of the DTD or XML schema, type the URL, or browse to the location of the DTD or XML schema, and click **Next**.

Note: When using the file:// protocol to reference a DTD, if you are unsure or FTP connection (host name and FTP or Internet access) and the DTD is on the application server, provide an absolute path in the reference by omitting the host name and leaving the following slash. For example, file://home/sterling/dtd/test.dtd. If you are sure or FTP connection, then you can specify a host name.

If you are using an XML schema and the XML parser detects any errors, the messages are displayed in an error window.

14. Select the root element. The DTD or schema does not explicitly define the root element, so you can select from all the elements defined in the DTD or all the top-level elements defined in the .XSD schema (elements subordinate to the schema element). By default, the wizard selects the first element it encounters.

15. Specify the maximum length for data elements. For a DTD, you can specify the maximum length of data elements because length is not defined in the DTD and is optional for elements declared in the XML schema. For an XML schema, the maximum length can be specified for some elements. You can specify a default field length for elements that do not have a specified field length.

16. If you want the map to contain code lists equivalent to the enumerations defined in the DTD or schema, select the **Build code lists for enumerated attributes** check box.

Note: The default for the Build code lists for enumerated attributes check box is cleared because using code lists may be redundant and thus your map is smaller and more efficient without them.

17. Click **Next**.

18. If you chose to import an XML schema, select the subelements you want to be included in the map, and click **Next**.

Note: The list displays the entire tree of elements and subelements for the root element you selected, hierarchically displayed using indentation. Attributes are not included in this list. The default is that all elements and subelements are selected. When you clear the box next to an element, all its subelements are automatically cleared. Similarly, when you select the box next to a child element, its parent elements are automatically selected. Selecting only the elements and subelements you need for your map reduces the size of the map and makes it more efficient.

19. Click **Finish**.

20. The **XML Load Warnings** dialog box opens if there are any errors. If the Map Editor made changes to the DTD to make it compliant with the application, it indicates the changes. Click **OK**.

21. Continue with the **New Map Wizard** as directed. When you click **Finish**, the Map Editor displays the new map in the Map Editor window.

Overview: Creating XML Map Objects

The map objects that you can create depend on which map object is currently selected (has focus in the map). The following table describes the available options (N/A indicates that no map object can be created when the specified object is selected):

If the Currently-Selected Object Is	Then You Can Create
XML File (root element)	◆ Element ◆ Content particle ◆ Pcdata ◆ Attribute
Element	◆ Element ◆ Content particle ◆ Pcdata ◆ Attribute
Content Particle	◆ Element ◆ Content particle ◆ Pcdata
Pcdata	N/A
Attribute Container	Attribute

If the Currently-Selected Object Is	Then You Can Create
Attribute	N/A

Managing the XML File

The *XML File object* represents the XML document that you are mapping, including the root element. This object is created automatically by Map Editor. This table describes the two dialog boxes unique to the XML File object:

Dialog Box	Function
XML File Properties dialog box	Enables you to define entities, output format specifications, and file-level extended rules.
Entity Properties dialog box	Enables you to define entities. This dialog box is accessible through the **XML File Properties** dialog box.

Note: The XML File object cannot be referenced by standard rules or links.

For more information, see:

✦ *Modifying XML File Properties* on page 81
✦ *Creating an Entity* on page 82
✦ *Regarding Decimal Points* on page 82

Modifying XML File Properties

To modify the properties of an XML file:

1. Right-click the **XML File** icon and select **Properties** from the shortcut menu. The Map Editor displays the **XML File Properties** dialog box (**Name** tab displayed by default).

2. Do you want to create an entity?

   ◆ If Yes, click the **Entities** tab to access entity options.

   ◆ If No, continue with step 3.

3. Do you want to modify the output options for the XML file?

   ◆ If Yes, click the **Output** tab and continue with step 4.

   ◆ If No, continue with step 5.

4. In the **Output** tab, specify the following:

   ◆ Whether the translator generates a prolog or document type declaration

   ◆ Public ID (if applicable)

   ◆ System ID (if applicable)

- ◆ How the XML elements are output to the file

  a. Do you want to specify an extended rule for the XML file?

  - ◆ If Yes, select the **Loop Extended Rules** tab, define the rule, and continue with step 6.

  - ◆ If No, continue with step 6.

5. Click **OK**. The Map Editor saves your changes and closes the XML File Properties dialog box.

Creating an Entity

An *entity* is an object that represents a string of characters. To create an entity:

1. In the Map Editor, right-click the XML root element. From the shortcut menu, select **Properties**.

2. In the **XML File Properties** dialog box, click the **Entities** tab to access the entity options.

3. Click **New**.

4. In the **Entity Properties** dialog box, specify the properties as necessary.

Note: In the Tag tab, the tag must match the entity tag in the XML document. XML tags cannot contain spaces.

5. Click **OK** to save the entity and close the Entity Properties dialog box.

6. Click **OK** again to close the XML File Properties dialog box.

Regarding Decimal Points

If you need to specify that each decimal point in your data is defined and generated as a something other than the default period (.), you can do so on the Decimal Point tab.

To change the default decimal point setting:

1. In the Map Editor, open each XML file.

2. Open the **XML File Properties** dialog box.

3. In the **Decimal Point** tab, select the **Define Decimal Point** check box.

4. In the **Decimal Point Character** box, type the value you want Map Editor to use as a decimal point—for example, a comma (,). This resets the decimal point default to use what you specified instead of a period.

5. Click **OK**.

6. Save the map.

7. Compile the map. The decimal point setting is now correctly set to use your specification.

Managing XML Elements

An *XML element* contains related elements, content particles, or both. In addition, an element can contain one pcdata, one attribute or both. These objects repeat in sequence until either the element data ends or the maximum number of times that the loop is permitted to repeat is exhausted.

Note: The XML Element object cannot be referenced by standard rules or links.

For more information, see:

✦ *Creating an Element* on page 83

✦ *Inserting an Element from a Schema or DTD* on page 83

Creating an Element

To create an element:

1. Right-click a map object and select either **Create Sub** or **Insert** from the shortcut menu.

2. From the shortcut menu, select **Element**. The Map Editor displays the **XML Element Properties** dialog box.

3. In the **Name** tab, specify the following:

    ◆ Unique element name

    ◆ Description (if applicable)

    ◆ Additional notes

4. If necessary, click the **Tag** tab and change the value in the Tag box.

Note: This value must match the element in the XML document. XML tags cannot contain spaces.

5. Select the **Repeating** tab to access the occurrence options.

6. Select either the **Conditional** or **Mandatory** option to specify whether the element is required in the map.

7. Select the appropriate repeating option for the element.

8. If you must specify the number of times the element can repeat (loop), type that number in the **Maximum usage** box.

9. Did you specify that the element repeats (loops)?

    ◆ If Yes, continue with step 11.

    ◆ If No, continue with step 12.

10. Do you want to specify an extended rule for this element?

    ◆ If Yes, click the **Loop Extended Rules** tab, define the rule, and continue with step 12.

    ◆ If No, continue with step 12.

11. Click **OK**. The Map Editor saves the element and closes the XML Element Properties dialog box.

Inserting an Element from a Schema or DTD

The Insert Element from Schema or DTD function enables you to add an element from a schema or DTD.

To insert an element from a schema or DTD:

1. Right-click the XML map component after which you want to insert the element and select **Insert > Element from schema/dtd**, or if you want the element to be the first element in the XML file format, right-click the XML File icon and select **Create Sub > Element from schema/dtd**.

2. From the **Customization File Type** list, select whether the element will be copied from a DTD or schema.

3. In the **File Location** box, type the file path and name of the DTD or schema or click **Browse** and select the file (then click **Open**).

4. Click **Next**.

5. Follow the instructions on the next wizard page and click **Next**.

6. If you chose to insert the element from a schema, you are prompted with another wizard page. Follow the instructions on that wizard page and click **Next**.

7. Click **Finish** to insert the element into your XML file format. The Map Editor displays the XML Element Properties dialog box so you can configure the element properties. If the inserted element is an abstract one, the displayed XML Element Properties dialog box enables you to provide a concrete element to replace the abstract one, by clearing the **Defined as Abstract** check box on the **Tag** tab (you *must* replace abstract elements with concrete elements by clearing this check box to avoid map compilation errors or, optionally, you can avoid the compilation errors by deactivating the abstract elements). For more information about abstract elements, see *Abstract Elements and Map Editor* on page 76.

8. In the **Name** tab, specify the description (if applicable).

Note: The Additional notes box is populated automatically with the XML element annotation when you import an XML schema.

9. If necessary, click the **Tag** tab and change the value in the Tag box.

Note: This value must match the element in the XML document. XML tags cannot contain spaces.

10. If the element is an abstract type, select the **Tag** tab and clear the **Defined as abstract** check box. By clearing this check box, you change the abstract element to a concrete one. This check box must be cleared to enable the map to compile successfully (without compilation errors).

Note: Optionally, you can avoid compilation errors from abstract elements by deactivating the abstract elements.

11. Select the **Repeating** tab to access the occurrence options.

12. Select either the **Conditional** or **Mandatory** option to specify whether the element is required in the map.

13. Select the appropriate repeating option for the element.

14. If you must specify the number of times the element can repeat (loop), type that number in the **Maximum usage** box.

15. Did you specify that the element repeats (loops)?

    ◆ If Yes, continue with step 11.

    ◆ If No, continue with step 12.

16. Do you want to specify an extended rule for this element?

    ◆ If Yes, click the **Loop Extended Rules** tab, define the rule, and continue with step 12.

    ◆ If No, continue with step 12.

17. Click **OK**. The Map Editor saves the element and closes the XML Element Properties dialog box.

Managing Content Particles

In Map Editor, a *content particle* contains child objects that define either a choice or a sequence. A content particle can contain related elements, content particles, or both. In addition, a content particle can contain one pcdata. If specified, these objects repeat in sequence until either the content particle data ends, or the maximum number of times that the loop is permitted to repeat is exhausted.

Note: The Content Particle object cannot be referenced by standard rules or links.

Creating a Content Particle

To create a content particle:

1. Right-click a map object and select either **Create Sub** or **Insert** from the shortcut menu.

2. From the shortcut menu, select **Content Particle**. The Map Editor displays the **Content Particle Properties** dialog box.

3. In the **Name** tab, specify the following:

    ◆ Unique content particle name

    ◆ Description (if applicable)

    ◆ Additional notes

Note: The Additional notes box is populated automatically with the XML content particle annotation when you import an XML schema.

4. Click the **Type** tab to access the content particle type options.

5. Select the appropriate option to define what the child objects of the content particle represent.

6. Click the **Repeating** tab to access the occurrence options.

7. Select **Conditional** or **Mandatory** to specify whether the content particle is required in the map.

8. Select the appropriate repeating option for the content particle.

9. In the **Maximum usage** box, type the number of times the content particle can repeat (loop).

10. Did you specify that the content particle repeats (loops)?

    ◆ If Yes, continue with step 11.

    ◆ If No, continue with step 12.

11. Do you want to specify an extended rule for this content particle?

    ◆ If Yes, select the **Loop Extended Rules** tab, define the rule, and continue with step 12.

    ◆ If No, continue with step 12.

12. Click **OK**. The Map Editor saves the content particle and closes the Content Particle Properties dialog box.

Managing Pcdata

A pcdata object contains character data in an XML document. Only one pcdata object can be defined per element or content particle. Map Editor automatically names the pcdata object with the name of the parent element or content particle.

Note: When a pcdata has an operation performed against it (link, standard rule, or as an extended rule storage field), the Map Editor displays a red check mark over the pcdata icon.

Note: By default, the translator always trims "white space" from XML Pcdata fields during input. To control this behavior (to deactivate the trimming of Pcdata white space by the translator during input), add the line trimPcdata=false to the customer_overrides.properties file in the Properties directory.

White space can be trimmed from pcdata objects on both the input and output sides of the map. The default property value for the trim pcdata setting is **Use trim setting from customer_overrides.properties** for the input side of the map and **Never trim whitespace from PCDATA on the output side** of the map.

Creating a Pcdata

To create a pcdata:

1. Right-click a map object and select either **Create Sub** or **Insert** from the shortcut menu.

2. From the shortcut menu, select **Pcdata**. The Map Editor displays the **Pcdata Properties** dialog box.

3. In the **Validation** tab, specify the following:

    ◆ Whether the pcdata is required

    ◆ Minimum length

    ◆ Maximum length

    ◆ Type of data

    ◆ How the data is formatted

4. Do you want to specify an extended rule for this pcdata?

    ◆ If Yes, click the **Extended Rule** tab, define the rule, and continue with step 5.

    ◆ If No, continue with step 6.

5. Do you want to specify a standard rule for this pcdata?

    ◆ If Yes, click the **Standard Rule** tab, define the rule, and continue with step 6.

    ◆ If No, continue with step 6.

6. Click **OK**. The Map Editor saves the pcdata and closes the **Pcdata Properties** dialog box.

Managing Attributes

In Map Editor, each attribute is contained in an attribute container. An element can only have one attribute container object, but the attribute container object can enclose many attribute objects.

Note: When an attribute has an operation performed against it (link, standard rule, or as an extended rule storage field), the Map Editor displays a red check mark over the attribute icon.

The *attribute container object* does not correspond to an XML feature. Map Editor uses attribute container objects to contain the attributes of an XML element, so attribute containers do not have properties. An attribute container object is automatically created when you create the first attribute of an XML element. Subsequent attribute objects are created in the existing attribute container object.

The *attribute object* specifies information associated with an element that further defines the element.

Creating an Attribute

To create an attribute:

1. Right-click a map object and select either **Create Sub** or **Insert** from the shortcut menu.

2. From the shortcut menu, select **Attribute**. The Map Editor displays the Attribute Properties dialog box.

3. In the **Name** tab, specify the following:

   ◆ Unique attribute name

   ◆ Description (if applicable)

   ◆ Additional notes

Note: The Additional notes box is populated automatically with the XML attribute annotation when you import an XML schema.

4. If necessary, click the **Tag** tab and change the value in the **Tag** box.

Note: The value in the Tag box must match the attribute tag in the XML document. XML tags cannot contain spaces.

5. Click the **Type** tab to access the attribute type options.

6. In the **Type** tab, specify the following:

   ◆ Attribute type

   ◆ Default usage of the attribute

   ◆ Default value (only if you selected Default Exists or Fixed)

Note: To use an enumerated attribute, you must also create a code list and use a code list standard rule with the attribute.

7. Click the **Validation** tab to access the validation options.

8. In the **Validation** tab, specify the following:

   ◆ Minimum length

   ◆ Maximum length

   ◆ Type of data

   ◆ How the data is formatted

9. Do you want to specify an extended rule for this attribute?

   ◆ If Yes, click the **Extended Rule** tab, define the rule, and continue with step 10.

   ◆ If No, continue with step 11.

10. Do you want to specify a standard rule for this attribute?

   ◆ If Yes, click the **Standard Rule** tab, define the rule, and continue with step 11.

   ◆ If No, continue with step 11.

11. Click **OK**. The Map Editor saves the attribute and closes the Attribute Properties dialog box.

SPEC2000 Properties

The following properties (in the **customer_overrides.properties** property file) are used for SPEC2000:

✦ The **spec2000.teis.crlfReqAtBlockStartAndEnd** property determines for which TEIS the following rule is applicable. The rule is that each occurrence of the TEI in an online message is transmitted as a separate line starting with the TEI and ending with **/(CRLF)**, or, if the last line, **(CRLF)** only. The TEIS currently supported by this property are: REM, CST, DDT, AMU, SAR, RET, INT, ADT, AMT, CRT, and DRT.

✦ The **spec2000.processPNR.input** property allows you to refactor or validate PNR data on the input side of the map. The three valid values are:

   ◆ **refactor** refactors the data before storing it in the storage

   ◆ **validate** validates against the given rules and throw appropriate error

   ◆ **none** skips any refactoring or validation and allows Map Editor to handle the PNR data

✦ The **spec2000.processPNR.output** property allows you to refactor or validate PNR data on the output side of the map. The three valid values are:

   ◆ **refactor** refactors the data before storing it in the storage

   ◆ **validate** validates against the given rules and throw appropriate error

   ◆ **none** skips any refactoring or validation and allows Map Editor to handle the PNR data

SPEC2000 Reporting

The EDI Translation Detail report enables you to access EDI data (for a particular standard like SPEC2000) 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 through the system.

To run a report containing details on inbound/outbound SPEC2000 messages:

1. From the **Operations** menu, select **Reports**.

2. Use the Report Configuration wizard to create a new **EDI Transaction Detail** report.

3. On the **Detail Filtering** page in the **Standard** parameter, clear the checkboxes for all standards *except* **SPEC2000**.

4. Filter by any other desired criteria and click **Finish** at the end of the Report Configuration Wizard to save the report configuration.

5. Use the Report Source Manager to execute and view the report from your saved configuration.

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

To run a report containing details on SPEC2000 acknowledgements:

1. From the **Operations** menu, select **Reports**.

2. Use the Report Configuration wizard to create a new **EDI Outbound Acknowledgement** report.

3. On the **Detail Filtering** page in the **Standard** parameter, clear the checkboxes for all standards *except* **SPEC2000**.

4. Filter by any other desired criteria and click **Finish** at the end of the Report Configuration Wizard to save the report configuration.

5. Use the Report Source Manager to execute and view the report from your saved configuration.

Searching for SPEC2000 Correlations

Correlation data, often called correlations, is defined as specific pieces of data that you may need to review in the process of monitoring, tracking, and troubleshooting your activities. These data items are defined by type and value. These type-value pairs are known as name-value pairs, and are a powerful tool you can use to record and search for business process- and document-specific data. The application has some predefined correlations and enables you to define more so that you can easily and efficiently monitor and track your activities, such as SPEC2000 message flow.

To search for SPEC2000 interchange correlations:

1. From the **Administration** menu, select **Business Process** > **Monitor** > **Advanced Search** > **EDI Correlation**.
2. In the Search Option area, specify any combination of the following search criteria, as appropriate. To search for SPEC2000 messages, in the **Interchange Level Options Standard** box, type **SPEC2000**.
3. Click **Go!** to display the EDI correlation records that match your search criteria.

4. In the EDI Correlation Interchange Results page, click **info** in the Detail column for the SPEC2000 interchange for which you want to view details.

5. In the EDI Correlation Interchange Detail Results page, click **info** to the right of Document Correlations for additional information about the SPEC2000 messages.

To search for SPEC2000 transaction level correlations:

6. From the **Administration** menu, select **Business Process** > **Monitor** > **Advanced Search** > **EDI Correlation**.
7. In the Search Option area, specify any combination of the following search criteria, as appropriate. To search for SPEC2000 messages, in the **Transaction Level Options Standard** box, type **SPEC2000**.
8. Click **Go!** to display the EDI correlation records that match your search criteria.

9. In the EDI Correlation Transaction Results page, click **info** in the Detail column for the SPEC2000 transaction for which you want to view details.

10. In the EDI Correlation Transaction Detail Results page, click **info** to the right of Document Correlations for additional information about the SPEC2000 messages.