

Application

Using CIDX

Standards Library Version 5.0

Sterling Commerce
An IBM Company

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Introduction

CIDX (Chemical Industry Data Exchange) is a standards organization that supports and maintains the Chem eStandards for standardized message exchange. Companies in the chemical industry use these standards for their industry-specific messaging needs.

CIDX has adopted the RosettaNet Implementation Framework (RNIF 1.1) at the messaging layer to enable the exchange of XML documents. CIDX has not adopted the public-process layer of the RNIF standards.

Chem eStandards define XML document type definitions (DTDs) that describe the service content of a message that systems exchange. The difference between CIDX 3.0 and CIDX 4.0 is in the service content, which is driven by DTD (3.0) and XSD (4.0) respectively. When there is a match between CIDX standards and RosettaNet messages, the CIDX standard adopts RosettaNet element names and data structures.

CIDX has traditionally used electronic document interchange (EDI) for message exchange, but has formed a new set of documents based on XML technologies. Chem eStandards provide XML replicas of EDI messages.

Note: Prior to using CIDX in [Application], you must activate your license. Contact Sterling Commerce Customer Support if you have any questions about license activation.

This table describes how [Application] supports CIDX:

Functionality	Details	Action You Need to Take to Implement CIDX
Services	<ul style="list-style-type: none"> ◆ RosettaNet Message Builder service creates message headers and bundles them with the payload (service content) ◆ RosettaNet Message Parser service parses and validates the CIDX message ◆ RosettaNet Message Sending service is required to send CIDX messages to a trading partner ◆ RosettaNet PIP Tracking service manages RosettaNet PIP tracking data and is used by CIDX business processes to ensure that the PIPs execute in the proper order and to add correlation data for CIDX messages ◆ RosettaNet Profile service loads the standard trading profile data as well as CIDX Profile data from the configured trading partner contracts (the data is retrieved from the database and serialized as XML, and the XML is returned and can be mapped into process data) ◆ HTTP Client adapter sends Action and Signal messages ◆ HTTP Server adapter sends documents to and receives documents from a trading partner using HTTP <p>Note: All header schemas for RNIF 1.1 are part of a RosettaNet service.</p>	◆ None

Functionality	Details	Action You Need to Take to Implement CIDX
Predefined business processes	<ul style="list-style-type: none"> ◆ Initiator business processes for each of the 62 CIDX transactions (60 transactions for 4.0 and 2 transactions for 3.0) ◆ Responder business processes for each of the 62 CIDX transactions (60 transactions for 4.0 and 2 transactions for 3.0) ◆ The following action templates for business processes (if you want to customize your own business processes) are located at: <installdir>/data/cidx/templates <ul style="list-style-type: none"> - OneActionTxn_Initiator_Private_Template.bpml - OneActionTxn_Responder_Private_Template.bpml - TwoActionTxn_Initiator_Private_Template.bpml - TwoActionTxn_Responder_Private_Template.bpml <p>Note: The two action PIP templates are provided to support linked documents.</p> <ul style="list-style-type: none"> ◆ RNIF Envelope business process uses the RosettaNet Message Builder service to build the final CIDX message ◆ RNIF Deenvelope business process uses the RosettaNet Message Parser service to handle incoming CIDX messages 	None

Functionality	Details	Action You Need to Take to Implement CIDX
Map Editor	<ul style="list-style-type: none"> ◆ Map Editor wizard enables you to generate a file layout using the CIDX message that you select. Included in the CIDX map are the map components that are defined by CIDX. ◆ Two DTD schema files are preloaded for Version 3.0 Invoice and Invoice Response messages. ◆ Sixty transactions are preloaded for version 4.0, including 60 schema files (XSDs) and 48 common library (XSDs) ◆ Properties dialog boxes that enable you to define and modify CIDX map components. ◆ 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. 	<ul style="list-style-type: none"> ◆ Download Map Editor. ◆ Create a map or maps to translate your CIDX messages.
Correlation Search	Search by CIDX information.	Utilize the Correlation search functionality to search for CIDX correlation information.
Trading Partner	<ul style="list-style-type: none"> ◆ The Trading Partner Contract Wizard includes a CIDX extension type. ◆ The Trading Partner Contract Wizard utilizes CIDX terminology for parameters. 	Create CIDX trading partner records, including Identities, Transports, Document Exchange, Packaging, Profiles, and Contracts.
PIP Codes	Codes for the 62 CIDX transactions are available in the PIP definition file that is preloaded with [Application]	None

Prerequisite

This manual assumes that you are familiar with CIDX.

Inbound and Outbound Document Flow

The inbound document flow for a CIDX document through [Application] is as follows:

Inbound Sequence	Description
1	A CIDX message is received using HTTP.

Inbound Sequence	Description
2	The RN HTTP Server adapter is configured to invoke the Bootstrap business process when a message arrives.
3	The RNIF Develope business process invokes the RN Parsing service to construct the header elements into process data and extract the service content.
4	The RNIF Parsing service parses and validates the entire message.
5	Based on the result of the parsing, the RNIF Parsing service decides either to send an acknowledgement or exception. Additionally, the RNIF Parsing Service sends a HTTP Response status code to the initiator of the message (via HTTP).
6	The Transaction Responder Private business process is invoked to determine if the message is a two-action PIP.
7	If the transaction is a two-action PIP, the responder sends the response Action Message to the initiator.

The outbound document flow for a CIDX document through [Application] is as follows:

Outbound Sequence	Description
1	Using a compiled map, the translator creates the CIDX document and this document is used as primary document.
2	The Transaction-specific Initiator Private business process is invoked by setting the PIP/Transaction code and any other Contract information.
3	The RNIF Envelope business process is invoked to construct the Message Header elements. Note: Message building refers to creating message headers and bundling them with the actual payload (the service content of the message).
4	The RNIF Message Builder service is invoked to create the actual message using the header elements that were created, the primary document.
5	The RNIF HTTP Send business process is invoked to send the message to the responder using the RN HTTP Server adapter.

Using CIDX with [Application]

To use CIDX with [Application], you must complete the following tasks:

1. Create trading partner records, including Identities, Transports, Document Exchange, Packaging, Profiles, and Contracts.
2. Create the necessary maps.
3. To track CIDX messages, use the Correlation Search functionality.

Working with CIDX Trading Partners

To effectively set up trading partners that implement CIDX, you must configure Application with specific CIDX message data settings. This section provides an overview of the steps to set up trading partner information, including the different types of contracts necessary, along with the specific configuration settings that enable you to meet your CIDX data exchange requirements. After setting up your trading partner information, you can then create and implement business processes that comply with CIDX standards.

To configure trading partner information to implement CIDX, you must:

1. Create a trading profile for your organization and each of your trading partners. The trading profile enables you to define how you want to:
 - ◆ Build and parse CIDX message data.
 - ◆ Define message security and transport protocols.
2. Depending on contractual requirements agreed upon by you and your trading partner, you then create the following types of contracts:
 - ◆ A Partner Interface Process™ (PIP) is a CIDX-defined business process designed to be a framework for business flows between CIDX trading partners. For each PIP you plan to exchange, you must create a contract. For example, if the company is initiating and responding to E41, you must create a contract to initiate E41 and one to respond to E41.
 - ◆ You must create a RosettaNet contract for a PIP Code for Notification of Failure (PIP 0A1), as CIDX uses PIP0A1 as defined by RosettaNet as a standard means of Notification of Failure.
 - ◆ Message contracts—for CIDX-specific services to build and parse message, promote security, and send outbound CIDX messages to the appropriate URLs.

For more information about:

- ◆ CIDX solution for Application, see the Sterling Commerce Customer Support Web site at www.sterlingcommerce.com/customer/tech_support.html.
The Web site provides access to Support on Demand, which enables you to download the Application CIDX Implementation white paper. This white paper also describes the framework, business processes (BPML), and CIDX-specific services used to implement CIDX in Application.
- ◆ CIDX concepts and development, see the CIDX Web site at www.CIDX.org.

Before You Begin

Before you set up a CIDX trading profile and to simplify the tasks you must perform, collect and prepare the following information about your organization and trading partners:

- ◆ Trading partner name and address information, including:
 - ◆ DUNS numbers
 - ◆ Contact information, such as addresses, telephone numbers, e-mail addresses
- ◆ PIP information, including:

- ◆ PIP code and PIP version to exchange
- ◆ Roles of trading partners using each PIP (that is, the trading partners who is initiating and the trading partner who is responding).
- ◆ RNIF (RosettaNet Implementation Framework) version information (only RNIF v1.1 is supported).
- ◆ Transport information, including:
 - ◆ HTTP URLs
 - ◆ CA certificates for trading partner if using SSL
- ◆ Security information, digital signatures, and encryption and certificates (for example, certificates used to encrypt and decrypt).
- ◆ If you are using digital certificates, check in the appropriate certificate.

Setting Up CIDX Trading Profiles

When setting up trading profiles in Application, you must perform the following tasks:

1. Create an identity record for your organization, indicating your organization as the base identity.
2. Create an identity record for each of your trading partners.
3. Create the following records in order to complete the trading profiles for your organization and each of your trading partners:
 - ◆ Transport
 - ◆ Document exchange
 - ◆ Delivery channel
 - ◆ Packaging (only one necessary for each trading relationship, not for each, individual trading partner)
 - ◆ Profiles
 - ◆ Contracts

Creating an Identity Record for Your Organization

When setting up your trading profile, consider that your organization is the base identity. Every trading partner is represented by at least one record, called an identity. An identity record describes the trading partner and contains information referenced when a business process involving the trading partner is run. A trading partner can have more than one identity to represent the different ways it does business. For example, a company's central office procurement organization might be radically different from its manufacturing supplies procurement organization. In such cases, you need a separate identity record for each organization.

A base identity is a regular identity that you can use as a starting point to create a new identity. The base identity maintains a link to the identity that inherited its properties. If you modify the base identity, all related identities (that is, ones that inherited the base identity properties) change, as well. When you create

an identity record using a base identity, everything in the new identity is the same as in the base identity, except the identity name, description, and other unique parameters, such as unique identification numbers.

You must create an identity before you can create a transport, document exchange, delivery channel, packaging, profile, and a contract when necessary. Each of these components references an identity.

Note: If you link one or more identities to a base identity and then add or modify anything related to the base identity, that change is propagated to all identities linked to the base.

To create an identity record:

1. From the **Trading Partner** menu, select **Setup > Advanced > Identities**.
2. Next to Create New Identity, click **Go!**
3. In the Base Identity page, for Select Base Identity, verify that **No Base Identities Available** is selected, and click **Next**.
4. In the Information page, complete the following fields and click **Next**:

Field	Description
Name	Name of your organization. Required.
Reference URL	Internet address of your organization. Optional.
DUNS	Unique 9-13 character identification number of your organization, as issued by Dun & Bradstreet Corporation. Required.
Identifier	Primary ID of your organization. Use DUNS number. Required.
Address Line 1	Conventional mailing address of your organization. Required.
Address Line 2	Additional mailing address information of your organization. Optional.
City	City where your organization is located. Required.
State or Province	State or province where your organization is located. Required.
Zip or Postal Code	ZIP Code or postal code where your organization is located. Required.
E-mail Address	E-mail address of your organization. Required.
Telephone Number	Telephone number of your organization. Required.
Time Zone	Time zone where your organization is located. Optional.
Country	Country where your organizations located. Optional.
Federation Peers	Discovery point URL for the trading partner you want to associate this identity with. Optional.

5. Click **Finish** to add the identity.

Creating an Identity Record for Your Trading Partner

For each CIDX trading partner, you must create an identity record.

To set up an identity record for your trading partner:

1. From the **Trading Partner** menu, select **Setup > Advanced > Identities**.
2. Next to Create New Identity, click **Go!**
3. In the Base Identity page, for Select Base Identity, select the name of the identity record that you created for your organization, and click **Next**.
4. In the Information page, complete the following fields and click **Next**:

Field	Description
Name	Name of your CIDX trading partner. Required.
Reference URL	Internet address of your CIDX trading partner. Optional.
DUNS	Unique 9-13 character identification your CIDX trading partner number, as issued by Dun & Bradstreet Corporation. Required.
Identifier	Primary ID of your CIDX trading partner. Use DUNS number. Required.
Address Line 1	Conventional mailing address of your CIDX trading partner. Required.
Address Line 2	Additional mailing address information of your CIDX trading partner. Optional.
City	City where your CIDX trading partner is located. Required.
State or Province	State or province where your CIDX trading partner is located. Required.
Zip or Postal Code	ZIP Code or postal code where your CIDX trading partner is located. Required.
E-mail Address	E-mail address of your CIDX trading partner. Required.
Telephone Number	Telephone number of your CIDX trading partner. Required.
Time Zone	Time zone where your CIDX trading partner is located. Optional.
Country	Country where your CIDX trading partner is located. Optional.
Federation Peers	???????

5. Click **Finish** to add the identity of this trading partner.

You are now ready to create a transport record for this CIDX trading partner.

Creating a Transport Record

To define how to send a CIDX message using HTTP, you must create a transport record.

To create a transport record:

1. From the **Trading Partner** menu, select **Setup > Advanced > Transports**.
2. Next to Create New Transport, click **Go!**

3. In the Information page, complete the following fields and click **Next**:

Field	Description
Name	Name for the transport record to create for this CIDX trading partner. Required. Note: You should use part of a company name or DUNS in this field and an indicator that references CIDX.
Identity	Unique ID used when you created an identity record for this CIDX trading partner. Required.

4. In the Communications page, complete the following fields and click **Next**:

Field	Description
Receiving Protocol	Communications protocol supported by this transport record when receiving data. Select HTTP. Required.
Sending Protocol	Communications protocol supported by this transport when sending data. Select HTTP. Required.
End Point IP	Leave this field blank.
End Point Port	Leave this field blank.

5. In the End Point Settings page, complete the following fields and click **Next**:

Field	Description
End Point	Destination URL for this trading partner. Required. Note: If using SSL, verify use of the following URL format: http://host:port/continued URL .
End Point Type	Purpose of this end point. Select All Purpose . Required.

6. In the Protocol Settings page, complete the following fields and click **Next**:

Field	Description
Response Timeout (seconds)	Number of seconds to wait for remote response to an outbound queue. Type the value 600 in this field. Required for CIDX.
Firewall Proxy	IP address, port number, login ID, and password of the remote firewall represented in URL format where commas separate values (for example, <host>, <port>). If used, you may need to specify both a login ID and a password. Used for outbound sessions. Optional.
Firewall Connect Count (seconds)	Number of seconds that Application attempts to contact port address of the transport before timing out. Optional.
Socket Timeout (seconds)	Number of seconds to wait for remote response to a command. Type the value 600 in this field. Required.

7. In the Security page, complete the following fields and click **Next**:

Field	Description
SMIME Encryption User Certificate	Certificate used to encrypt CIDX messages that are sent outbound through this transport record. This certificate has no impact in CIDX messages being received through this transport. Therefore, if this transport is for the company running Application, leave this field blank . If this transport is for your CIDX trading partner, choose the Trusted encryption certificate from the trading partner that you previously checked in. Required for CIDX.
SMIME Decryption Certificate (System Store)	Certificate used to decrypt CIDX messages that are received (inbound) through this transport record. This certificate has no impact in CIDX messages being received through this transport. Therefore, if this transport is for the company running Application, leave this field blank. If this transport is for your CIDX trading partner, choose the encryption certificate from the trading partner that you previously checked in. Required for CIDX. Valid values are blank (recommended), OpsKey, OpsDrv, UIKey, and B2BHTTP.
SSL	Whether Secure Sockets Layer (SSL) must be active. Select Must to enable this transport to use this protocol with a key certificate. This field is used in conjunction with the key certificate field. If not using a key certificate, select None . Required for CIDX.
Key Certificate Passphrase	Password that protects the Web server key certificate. Required if SSL option is set to Must.
Cipher Strength	Strength of the algorithms used to encrypt messages. Select Strong (default) to indicate strength of algorithms with a key certificate. This field is used in conjunction with the key certificate field. If not using a key certificate, select All or Weak . Required.
Key Certificate (System Store)	Leave this field blank—it is not applicable to CIDX since RosettaNet 1.1 does not support encryption.
CA Certificates	Certificate used to verify the Web server certificate of a trading partner. These certificates must come from your CIDX trading partners and you must have previously checked them in. Required if the SSL option is Must or Optional.

8. In the Protocol Mode page, complete the following fields and click **Next**:

Field	Description
Protocol Mode	Use the default value PUT . Required.
Document	Leave this field blank.

9. In the Transport Account page, complete the following fields and click **Next**:

Field	Description
User ID	Unique ID that associates this transport with the remote system of your CIDX trading partner. Optional.

Field	Description
Password	Password that authenticates the user ID to the remote system of your CIDX trading partner. Optional.
Confirm Password	Password typed in the Password field. Optional.

10. Click **Finish** to update the transport record.

You are now ready to create a document exchange record.

Creating a Document Exchange Record

To describe properties of the documents and messages passed between you and your CIDX trading partner, you must create a document exchange record.

To create a document exchange record:

1. From the **Trading Partner** menu, select **Setup > Advanced > Document Exchange**.
2. Next to Create New Document Exchange, click **Go!**
3. In the New Document Exchange: Information page, complete the following fields and click **Next**:

Field	Description
Name	Name for the document exchange to create for this CIDX trading partner. Required. Note: You should use part of the company name or DUNS number in this field.
Identity	Unique ID used when you created an identity record for this CIDX trading partner. Required.

4. In the Retry Settings page, complete the following fields and click **Next**:

Field	Description
Number of Retries	Number of times that Application tries to contact this CIDX trading partner before timing out. Type the value 3 . Required.
Retry Interval (sec)	Number of seconds that Application waits before trying again to contact this CIDX trading partner after the previous attempt timed out. Type the value 3000 . Required.
Persist Duration (sec)	Number of seconds that a message received is kept before being passed to the integration engine. Type the value 10000 . Required.

5. In the Enveloping Properties page, complete the following field and click **Next**:

Field	Description
Protocol	The security protocol to be used. If using digital signatures to exchange CIDX messages, select SMIME from this field (if not, you would select None). Required for CIDX.

6. Skip this step if you are not using digital signatures to exchange CIDX messages. Otherwise, in the Security page, complete the following fields and click **Next**:

Field	Description
Encryption Algorithm	Not used for CIDX because RNIF 1.1 does not support encryption.
Signing Algorithm	<p>Algorithm used to sign outgoing CIDX messages. Required if this document exchange is for the trading partner running Application. Otherwise, use the default value. Optional.</p> <p>Valid values are:</p> <ul style="list-style-type: none"> ◆ MD5 – Message digest algorithm that verifies the integrity of data through a 128-bit message digest. ◆ SHA1 – Secure hash algorithm that verifies the integrity of data through a 160-bit (20 byte) message digest. Transmission is a bit slower than MD5; however, the larger message digest size offers a more secure data transference.
Signing Key Certificate	Key certificate used to sign outgoing CIDX messages. This certificate is a system certificate created for the trading partner running Application and it contains a private key. Select the appropriate key certificate from this field. If this document exchange is used for a trading partner other than the one running Application, use the default value. Required.
Signing User Certificate	Trusted certificate that contains the public key used to verify incoming digital signatures from a trading partner. If using this document exchange for a trading partner other than the one running Application, verify that None Available is selected from this field. Otherwise, select the appropriate trusted certificate from this field. Required.

7. Click **Finish** to add the document exchange record.

You are now ready to create a delivery channel.

Creating a Delivery Channel Record

You can define several delivery channels in one trading profile.

To create a delivery channel record:

1. From the **Trading Partner** menu, select **Setup > Advanced > Delivery Channels**.
2. Next to Create New Delivery Channel, click **Go!**
3. In the Information page, complete the following fields and click **Next**:

Field	Description
Name	<p>Name for the delivery channel record to create for this CIDX trading partner. Required.</p> <p>Note: You should use part of a company name or DUNS in this field or use an indicator that references CIDX.</p>

Field	Description
Identity	Unique ID used when you created an identity record for this CIDX trading partner. Required.

4. In the Channel Definition page, complete the following fields and click **Next**:

Field	Description
Transport	Name of the transport record you created for this CIDX trading partner. This name must match the Name field of the transport record. Required.
Document Exchange	Name of the document exchange you created for this CIDX trading partner. This name must match the Name field of the document exchange record. Required.

5. The fields in the Security page are not used to implement CIDX. Therefore, click **Next** to skip this page.

6. In the Delivery Settings page, complete the following fields and click **Next**:

Field	Description
Receipt Type	Not used to implement CIDX. Use the default value NONE . Required.
Receipt Signature Type	Not used to implement CIDX. Use the default value NONE . Required.
Receipt Timeout	Time-out value for receipt of expected MDNs, in seconds. Type the value 86400 in this field. Required.
Delivery Mode	Select Asynchronous HTTP . Required.
Receipt to Address	Not used to implement CIDX. Leave this field blank.

7. Click **Finish** to add the document channel record.

You are now ready to create a packaging record.

Creating a Packaging Record

To define how to build and package outbound messages to your CIDX trading partner, you must create a packaging record.

To create a packaging record:

1. From the **Trading Partner** menu, select **Setup > Advanced > Packaging**.
2. Next to Create New Packaging, click **Go!**

3. In the Information page, complete the following fields and click **Next**:

Field	Description
Name	Name for the packaging record to create for this CIDX trading partner. Required. Note: You should use part of a company name or DUNS in this field or use an indicator that references CIDX.
Message Parsable	Whether the message can be parsed. Ensure that No is selected from this field. Required for CIDX.

4. In the Packaging Settings page, complete the following fields and click **Next**:

Field	Description
Payload Type	Payload type that describes the message format for transporting documents. Required for CIDX. Valid values are: <ul style="list-style-type: none"> ◆ Plain Text – Payload is not signed and it is not encrypted. ◆ Signed Detached – Payload is signed with a detached signature for RNIF v1.1 messages. ◆ Encrypted – Payload is encrypted according to the EDIINT specifications. ◆ Signed Detached Encrypted – Not applicable for CIDX.
MIME Type	Select Application from this field. Required for CIDX.
MIME Sub Type	Select XML from this field. Required for CIDX.
Compress Data	Not applicable for CIDX.

5. Click **Finish** to add the packaging record.

You are now ready to create a profile record.

Creating a Profile Record

To define the roles (that is, initiator or responder of data exchange) of each trading partner exchanging CIDX data and create business processes that comply with CIDX standards, you must create a profile.

To create a profile record:

1. From the **Trading Partner** menu, select **Setup > Advanced > Profiles**.
2. Next to Create New Profile, click **Go!**

3. On the Information page, complete the following fields and click **Next**:

Field	Description
Name	Name for the profile record to create for this CIDX trading partner. Required. Note: You should use part of a company name or DUNS in this field or use an indicator that references CIDX.
Identity	Unique ID used when you created an identity record for this CIDX trading partner. Required.

4. On the Profile Definition page, complete the following fields and click **Next**:

Field	Description
Profile Type	Type of profile that must be used for data exchanged for this CIDX trading profile. Ensure that CIDX is selected. Required for CIDX.
GLN	Not used to implement CIDX. Leave this field blank.
Delivery Channel	Name of the delivery channel you created for this CIDX trading partner. This name must match the Name field of the delivery channel record. Required.
Packaging	Name of the packaging you created for this CIDX trading partner. This name must match the Name field of the packaging record. Required.
Provider	Third-party service provider name. Type cidx (using lowercase letters). Required.

5. On the CIDX Data page, complete the following fields and click **Next**:

Field	Description
Role	Role of this CIDX trading partner. Optional. Valid values are: <ul style="list-style-type: none"> ◆ Responder – Receiving CIDX data ◆ Initiator – Sending CIDX data
CIDX Version	Version of RosettaNet Implementation Framework being used by this CIDX trading partner. Select 1.1 from this field. Required.
Location Code	Not used for CIDX.
Partner Location Code	Not used for CIDX.
Classification Code	CIDX classification code. Required.
Supply Chain Code	CIDX supply chain code. Required.
Contact	CIDX trading partner contact information. Required.

6. The fields in the Business Processes page are not used to implement CIDX. Therefore, click **Next** to skip this page.

7. Click **Finish** to add the profile record.

You have now finished creating trading profiles and can create the appropriate contracts.

Creating CIDX Contracts

Contracts enable you to tie CIDX trading partners together to create an effective trading relationship. To enable Application to comply with PIP specifications when running business processes, and to enable services to build and parse message, promote security, and send and receive outbound CIDX messages to the appropriate URLs, you must create a contract that distinguishes *each* PIP interaction involved in a business process. You can create the contracts in any order.

Your system administrator creates and maintains the contracts that are needed to configure the trading relationships with your trading partners. There are three types of contracts that the system needs when configuring for CIDX; the PIP contracts, which define the PIP settings used by CIDX business processes, and the Messaging contracts, which define the profiles to be used when building and parsing CIDX messages, and you must also create a CIDX contract for a PIP Code for Notification of Failure (PIP 0A1) because CIDX uses PIP0A1 as defined by RosettaNet as a standard means of Notification of Failure.

The Contract Wizard enables you specify information about your enterprise and your partners' enterprises, to ensure that the system can accurately process CIDX signal and 0A1 Notification of Failure messages.

You must create a RosettaNet contract for the PIP0A1 Notification of Failure with the appropriate initiator and responder profiles, for any other PIPs, and for the messages you will be sending to and receiving from your trading partners.

To create a contract:

1. From the Administration menu, select **Trading Partner > Contracts**.
2. Under Create, next to New Contract, click **Go!**
3. On the Information page, complete the following fields and click **Next**:

Field	Description
Name	<p>Descriptive name for the contract. Required.</p> <p>You should use part of a company name, an indicator that references whether this trading partner is the initiator or responder, or the type of PIP being used. For example:</p> <ul style="list-style-type: none"> ◆ If this contract is for your organization and considered the initiator sending data, type FromCompanyToTradingPartner_TXNE41. ◆ If this contract is for your CIDX trading partner and considered responding to data sent, type ToTradingPartnerFromCompany_TXNE41.
Start Date	<p>Start date and time of the contract. Valid value is any valid date in the format <i>yyyy-mm-dd</i>. Must be less than or equal to End Date. Default value is the current date. Required.</p>
End Date	<p>Expiration date and time of the contract. Valid value is any valid date in the format <i>yyyy-mm-dd</i>. Must be greater than or equal to Start Date. Default value is the current date. Required.</p>

Field	Description
Status	State of the composition/negotiation process that creates the contract. Default value is SIGNED. Required. Valid values are: <ul style="list-style-type: none"> ◆ PROPOSED – Contract being negotiated by the parties. The first stage of negotiation. ◆ AGREED – Contract agreed upon by the parties. The next stage of negotiation. ◆ SIGNED – Contract signed by the parties. The final stage of negotiation. The contract is usable.

4. On the Contract Definition page, complete the following fields and click **Next**:

Field	Description
Production Profile	Unique ID of the profile for the CIDX trading partner producing (or sending) the data. This name must match the Name field used when creating the identity record. Required.
Consumption Profile	Unique ID of the profile for the CIDX trading partner consuming (or receiving) the data. This name must match the Name field used when creating the identity record. Required.
Business Process	Not used to implement CIDX. Not Applicable should be selected.

5. On the Extensions page, select **CIDX** and click **Next**.

6. You must specify CIDX extensions if you are creating two PIP contracts. For example, if the company is initiating and responding to TXNE41, you must create a contract to initiate TXNE41 and one to respond to TXNE41.

On the CIDX Extensions page, complete the following fields and click **Next**:

Field	Description
Transaction Code	PIP settings used by the CIDX business processes. Select the appropriate code from the list. Required.
Transaction Version	Version of PIP to trade. Valid values are listed, based on the PIP code selected. Required.
CIDX Version	CIDX version number to trade with your CIDX trading partner. Required. Valid values are 3.0 and 4.0.
Transaction Role	Transaction role for company that uses Application and is trading this transaction. Valid values are Buyer and Seller. Required.
Global Usage Code	Whether to use this contract in test or production mode. Required.

7. On the Transaction Definition page, complete the following fields and click **Next**:

Caution: You should select a Sender Business Process and Responder Business Process only on this page and accept all other default values, which are based on PIP standards. No additional changes need to be made to these fields unless you require customization.

Field	Description
Sender Business Process	PIP private initiating process for the sender business process. Select the appropriate business process from the list. Required.
Responder Business Process	PIP private responding process for the responder business process. Select the appropriate business process from the list. Required.
Response Mode	Mode in which to respond to a PIP. Required. Valid values are: <ul style="list-style-type: none"> ◆ Synch – Synchronously ◆ Asynch – Asynchronously (default)
Non-Repudiation Required?	Receiving trading partner cannot deny having received a message. To disable this feature, clear the check box. Optional.
Time to Acknowledge	Amount of time, in minutes, within which you must receive an acknowledgement. Valid value is four numeric characters. Optional.
Time to Acknowledge Acceptance	Amount of time, in minutes, within which you must accept an acknowledgement. Optional.
Time to Perform	Time in which the PIP private responding process should respond to the business process. Optional.
Retry Count	Application continues to retry contacting the trading partner for the specified number of times. Optional.
Is Authorization Required?	Instructs Application to verify the presence of appropriate contracts for this transaction, to ensure that your trading partner is authorized to send the message to you. This feature is automatically enabled and cannot be disabled.
Non-Repudiation of Origin and Content	Originating trading partner can not deny having originated and sent a message. To disable this feature, clear the check box. Optional.

8. On the Transaction Steps page, review the steps you have selected to run using the transaction and click **Next**.
9. Click **Finish** to add the contract. Repeat steps 1 - 10 to create a contract for the trading partner who is either initiating and responding to a PIP, if necessary.

Creating CIDX Maps

Overview

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

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

Application's CIDX 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, Application diverges slightly from the W3C base 1.0 XML specification. The Application 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.







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 all 62 CIDX Standards Release messages that are preloaded when you download the Map Editor. This includes the following:

- ◆ Two DTD schema files are preloaded for the version 3.0 Invoice and Invoice Response transactions.
- ◆ Sixty transactions are preloaded for version 4.0, including 60 schema files (XSDs) and 48 common library (XSDs)

CIDX Components in the Map Editor

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

Component	Icon	Description
CIDX root element		The <i>CIDX root element</i> represents the CIDX document that Application is mapping. The CIDX 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 <i>element</i> contains related elements and content particles. In addition, an element can contain one pcddata 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 CIDX Element object cannot be referenced by standard rules or links.
Abstract element		An <i>abstract element</i> 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 <i>content particle</i> contains related subordinate objects that define either a choice, a sequence, or an all. A content particle can contain only one pcddata. 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.
Pcddata		A <i>pcdata</i> contains character data in a CIDX document. Only one pcddata can be defined per element or content particle. Application automatically names the pcddata with the name of the parent element or content particle. When a pcddata has a link performed against it, a red check mark appears over the pcddata icon. When a pcddata contains an extended rule or a standard rule, an asterisk appears to the right of the pcddata icon.
Attribute container		An <i>attribute container</i> does not correspond to an XML function. Application uses attribute containers to contain the attributes of an element. The attribute container has no properties. When you create the first attribute of an 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		<p>An <i>attribute</i> 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.</p> <p>When an attribute has a link performed against it, a red check mark appears over the attribute icon.</p> <p>When an attribute contains an extended rule or a standard rule, an asterisk appears to the right of the attribute icon.</p>

Creating a CIDX Map

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

To create an CIDX map:

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 CIDX, in the Input Format window (**Create a New Data Format Using this Standard** option) select **CIDX** and click **Messages**. If you are translating from another format, select that format and continue to the next screen.
4. Select the version of the standard (choices are 3.0 and 4.0) and the message you want to use and click **Next**.
5. If you selected version 4.0, clear the checkboxes next to any subelements that you do not want included in the map and click **Next**.

Note: If you clear any checkboxes your map will not conform to the CIDX standard. Ensure that the **Build codelists for enumerated attributes** option is selected.

6. Click **Finish** to load the message.
7. Click **Next** to select the Output Format.
8. If you are translating to CIDX, in the Output Format window (**Create a New Data Format Using this Standard** option) select **CIDX** and click **Messages**. If you are translating to another format, select that format and continue to the next screen.
9. Select the version of the standard and the message you want to use and click **Next**.
10. If you selected version 4.0, clear the checkboxes next to any subelements that you do not want included in the map and click **Next**.

Note: If you clear any checkboxes your map will not conform to the CIDX standard.

11. Click **Finish** to load the message.
12. Click **Finish**. The Map Editor displays the new map in the Map Editor window.

Validating CIDX Service Content Against a DTD or Schema

Application supports validating CIDX service content against either a DTD or an XML schema, since many new PIPs are XML schema-based.

Note: You must check the schemas that you will use for validation into the Application schema repository. See *Checking In Schemas* for more details.

Searching for CIDX Correlations

Correlation searches rely on name-value pairs that define the specific data items you are trying to locate. These defined name-value pairs are tracking points for business processes and documents. The Correlation search feature offers the following additional benefits:

- ◆ You can receive the results of search queries more quickly.
- ◆ You can further refine correlation searches by specifying a start and end date/time range.
- ◆ You can further refine CIDX correlation searches by specifying CIDX-specific criteria.

To search for CIDX correlations:

1. From the **Administration** menu, select **Business Processes > Advanced Search > Correlation**.
2. Select the start and end dates and times within which the correlated data you are searching for can be located. Using the following formats, type the date and time range and select **A.M.** or **P.M.**:
 - ◆ Date – MM/DD/YYYY
 - ◆ Time – HR:MN:SCThese fields default to a range of the last 24 hours.
3. In the **Type** field, select **ANY**, **Document**, or **Business process**.
ANY is the default value. Selecting Document or Business process further targets your returned results.
4. In the **Location** field, select one of the following options:
 - ◆ **Live Tables** – Display correlations for live (active) instances.
 - ◆ **Restored Tables** – Display correlations for instances restored from an offline location.
5. To refine your search to correlations you specify (rather than all generated correlations), select **Standard** from the Name list.
6. In the Value fields, type **CIDX** as the value that corresponds with the Standard name, and click **Go!**
This will enable you to search for CIDX documents and business processes.

Note: Alternatively, you can search by standard RosettaNet correlation keys such as the following:

- ◆ IdentityID
- ◆ PartnerID
- ◆ PIPName
- ◆ PIPCode
- ◆ PIPVersion
- ◆ RNIFVersion
- ◆ PIPInstanceID
- ◆ IsInitiator
- ◆ PIPStepNumber

- ◆ PIPStepName
 - ◆ PIPStepDateTime
 - ◆ PIPStepDocumentID
 - ◆ PIPStatus
7. To access your search results, select the number link that indicates the number of document and/or business process matches found. The document page opens to display the documents that matched the search criteria you selected.