

WebSphere Business Integration Express and  
Express Plus for Item Synchronization



# Quick Start Guide

*Version 4.3.1*



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Express Plus for Item Synchronization



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*Version 4.3.1*

**Note!**

Before using this information and the product it supports, read the information in "Notices" on page 45.

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This edition of this document applies to IBM WebSphere InterChange Server Express and Express Plus for Item Synchronization, version 4.3.1, and to all subsequent releases and modifications until otherwise indicated in new editions.

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# Contents

<b>About this document</b> . . . . .	<b>v</b>
Audience . . . . .	v
Related documents . . . . .	v
Conventions used in this guide . . . . .	v
<b>Quick Start Guide</b> . . . . .	<b>1</b>
Contacting IBM WebSphere Business Integration Express for Item Synchronization Support . . . . .	1
Finding help . . . . .	1
Using the components . . . . .	2
Configuration required after installation . . . . .	3
Administration . . . . .	44
<b>Notices</b> . . . . .	<b>45</b>
Programming interface information . . . . .	46
Trademarks and service marks . . . . .	46



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## About this document

The products IBM<sup>(R)</sup> WebSphere<sup>(R)</sup> Business Integration Express for Item Synchronization and IBM<sup>(R)</sup> WebSphere<sup>(R)</sup> Business Integration Express Plus for Item Synchronization are made up of the following components--InterChange Server Express, the associated Toolset Express product, the Item Synchronization collaboration, and a set of software integration adapters. Together, the components provide business process integration and connectivity among leading e-business technologies and enterprise applications as well as integration with the UCCnet GLOBALregistry.

This document provide an overview of the configuration procedures required after you have installed WebSphere Business Integration Express for Item Synchronization. Except where noted, all the information in this guide applies to both IBM<sup>(R)</sup> WebSphere<sup>(R)</sup> Business Integration Express for Item Synchronization and IBM<sup>(R)</sup> WebSphere<sup>(R)</sup> Business Integration Express Plus for Item Synchronization. The term *WebSphere Business Integration Express for Item Synchronization* and its variants refer to both products.

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## Audience

This document is for anyone who implements components for WebSphere Business Integration Express for Item Synchronization.

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## Related documents

The complete set of documentation available with this product describes the features and components common to all WebSphere Business Integration Express for Item Synchronization and WebSphere Business Integration Express Plus for Item Synchronization installations, and includes reference material on specific components.

You can install the documentation or read it directly online at the following site:  
<http://www.ibm.com/websphere/wbiitemsync/express/infocenter>

The site contains simple directions for downloading, installing, and viewing the documentation.

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## Conventions used in this guide

This guide contains some instructions that vary according to which of the supported platforms you are using. Such platform-specific instructions are noted where they occur. The notations are:

- *For Windows*  
The instruction is specific to the Microsoft Windows 2000 operating system.
- *For Linux*  
The instruction is specific to Red Hat Enterprise Linux WS/ES/AS for Intel 2.1, 2.4 Kernel and SuSE Linux Enterprise Server 7.3, 2.4 Kernel
- *For OS/400*  
The instruction is specific to OS/400 V5R2 (5722-SS1)

This document uses these abbreviations and style conventions:

- Abbreviations are used for some words and some variables in syntax statements. These abbreviations are used:

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App = name of application	Gen = generic
Attr = name of attribute	ICS = InterChange Server Express
BO* = business object (prefix to a BO file)	ObjectName* = variable name for business object
Collab = collaboration	Src = source
Dest = destination application	

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\* BO is the prefix to a BO file; the term BO generally refers to the business object definition text files. *ObjectName* refers to the variables used to represent business objects.

- The term “camelcase,” used in this document, refers to a style of capitalization whereby the spaces between words are eliminated, and the first letter of each word (or more than one letter if using acronyms) is capitalized. For example, the collaboration template name DemandForecastVer2 is in camelcase.

In addition, this document uses the following typographical conventions:

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<code>courier font</code>	Indicates a literal value, such as a command name, filename, information that you type, or information that the system prints on the screen.
<i>italic</i>	Indicates a variable name or a cross-reference.
blue outline	A blue outline, which is visible only when you view the manual online, indicates a cross-reference hyperlink. Click inside the outline to jump to the object of the reference.

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## Quick Start Guide

This document provides a roadmap of the required procedures for configuring your WebSphere Business Integration Express for Item Synchronization system. This document assumes that you have successfully installed the WebSphere Business Integration Express for Item Synchronization product. If you have not yet installed the WebSphere Business Integration Express for Item Synchronization product, see *Installing WebSphere Business Integration Express and Express Plus for Item Synchronization*.

This chapter includes the following sections:

- “Contacting IBM WebSphere Business Integration Express for Item Synchronization Support”
- “Finding help”
- “Configuration required after installation” on page 3
- “Administration” on page 44

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## Contacting IBM WebSphere Business Integration Express for Item Synchronization Support

For support issues relating to the WebSphere Business Integration Express for Item Synchronization product, you can contact IBM Customer Support in one of the following ways:

- Visit the IBM WebSphere Business Integration Express for Item Synchronization technical support Web site at:  
<http://www.ibm.com/software/integration/wbiitemsync/express/support/>.
- To contact IBM WebSphere Business Integration Express for Item Synchronization support via phone, call: 1-800-IBM-SERV (USA/Canada) or (for non-USA) refer to <http://techsupport.services.ibm.com/guides/contacts.html> for number in your geographic area.

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## Finding help

If you need more information regarding your WebSphere Business Integration Express for Item Synchronization system, refer to:

- “Tools help,” or
- “WebSphere Business Integration Express for Item Synchronization documentation”

## Tools help

To access context sensitive help for any of the Express tools, click **F1**.

## WebSphere Business Integration Express for Item Synchronization documentation

To access both the documentation and the content-sensitive help for WebSphere Business Integration Express for Item Synchronization, you must download the document viewer, and the documentation files, and the help from the IBM InfoCenter. If you have not already done so, go and download that documentation from the following Web site:

The IBM WebSphere Business Integration Express for Item Synchronization documentation set includes:

*Table 1. WebSphere Business Integration Express for Item Synchronization documentation set*

Title	Description
Map Development Guide	Describes how to use Map Designer Express and Relationship Designer Express for creating and modifying maps and relationships.
Business Object Development Guide	Describes how to use Business Object Designer Express to create business object definitions, both manually and using an Object Discovery Agent (ODA).
User Guide for WebSphere Business Integration Express and Express Plus for Item Synchronization	Provides an overview of the product and describes how to monitor and operate WebSphere Business Integration Express for Item Synchronization.
Installing WebSphere Business Integration Express and Express Plus for Item Synchronization	Describes the installation process for WebSphere Business Integration Express for Item Synchronization.
Quick Start Guide	Describes the required procedures for configuring your WebSphere Business Integration Express for Item Synchronization system.
Adapter for JDBC User Guide	Describes the configuration and business object development for the adapter for JDBC.
Adapter for JText User Guide	Describes the configuration and business object development for the adapter for JText.
Adapter for JMS User Guide	Describes the configuration and business object development for the adapter for JMS.
Adapter for WebSphere MQ User Guide	Describes the configuration and business object development for the adapter for WebSphere MQ.
Adapter for XML User Guide	Describes the configuration and business object development for the adapter for XML.
Adapter for Web Services User Guide	Describes the configuration and business object development for the adapter for Web Services.
Adapter for iSoft/MQ User Guide	Describes the configuration and business object development for the adapter for iSoft.
Adapter for e-Mail User Guide	Describes the configuration and business object development for the adapter for e-Mail.
Adapter for mySAP R/3 V.3.x (Express Plus only)	Describes the configuration and business object development for the adapter for mySAP R/3 V.3.x
Adapter for mySAP R/3 V.4.x (Express Plus only)	Describes the configuration and business object development for the adapter for mySAP R/3 V.4.x

## Using the components

WebSphere Business Integration Express for Item Synchronization utilizes the following types of components:

- Connectors

A connector provides the interface for interacting with an application that is involved in data exchange. Your implementation will include a connector for interacting with your UCCnet trading partner, and one or more connectors for interacting with your ERP application, as well as a connector that enables email for message handling.

Connectors are the primary component of adapters. Adapters are copied to your system when you run the Installer. However, adapters do not become functional until you configure the connector object for each adapter, as described later in this guide. Where appropriate, adapters also include components called object

discovery agents (ODAs). ODAs are used for creating business objects that are used with the connector objects of each specific adapter.

**Note:** WebSphere Business Integration Express for Item Synchronization allows you to use a maximum of four different adapters. One of these is the eMail adapter, and the other three are the adapters you choose for exchanging data with your UCCnet trading partner and for exchanging data with your ERP application. You may configure and use a maximum of three connector objects from any single adapter. For all adapters together, a total of seven connector objects can be configured. See your licensing agreement for details.

- Business objects

Business objects are the message units that contain the data that is exchanged by connectors. There are application-specific business objects, which carry data to and from applications, and generic business objects, which are used in the business processes performed by collaborations.

- Collaboration objects

A collaboration object contains the business logic for performing operations using the data contained in the business objects. You will create collaboration objects from the provided collaboration templates, as described later in this Guide.

**Note:** If you are using the Express Plus version of this product, the Process Designer Express tool provides the optional capability to create additional collaboration templates, as described in the *Collaboration Development Guide*.

- Maps

Maps are used to move data between the application-specific business objects handled by connectors and their applications, and the generic business objects used by the collaboration.

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## Configuration required after installation

This section provides a high-level overview of the configuration procedures required after you have successfully installed WebSphere Business Integration Express for Item Synchronization software:

- “Starting InterChange Server Express” on page 4
- “Starting System Manager” on page 5
- “Viewing delivered components” on page 6
- “Creating the logging table” on page 7
- “Configuring the XML data handler and meta-objects” on page 9
- “Configuring other business objects” on page 12
- “Developing business objects” on page 15
- “Modifying an existing business object” on page 17
- “Configuring the connectors” on page 18
- “Creating collaboration objects” on page 28
- “Deploying the solution” on page 40
- “Populating the relationships after deployment” on page 42
- “Restarting ICS Express and starting your Adapter” on page 43

## Starting InterChange Server Express

InterChange Server Express can be started in either Design mode or Production mode. Production mode is the default setting. You should change this setting before you start InterChange Server Express the first time:

- In Production mode, InterChange Server Express validates the integration component objects that you have imported into it as it starts, and it reports error messages if any dependent objects are missing. Production mode is typically used only after you have completely configured your implementation with all of its required objects and are ready to deploy it.
- In Design mode, InterChange Server Express starts without validating integration component objects or the dependencies between them. This allows you to add additional components gradually, as you complete the configuration of your system. You typically use Design mode until you believe your system is ready for deployment.

Before you start InterChange Server Express the first time, you should set it to start in Design mode, so that you can incrementally assemble your integration components. To set the InterChange Server Express to start in Design mode, do this:

- On a Windows system:  
Add the `-design` parameter in the Target field of the Windows shortcut property for InterChange Server Express before starting the server. For example:  
`C:\IBM\WebSphereItemSync1\bin\start_server.bat -design`
- On Linux:  
At the command line, append the `-design` parameter to `ProductDir/bin/ics_manager`
- On an OS/400 system:  
Add the `-design` parameter to the script that you use for starting InterChange Server Express. On OS/400, add the parameter to the CL command that calls the `/QIBM/UserData/WebBIICS/bin/start_server.sh` script.  
To do so, edit the `QWEBBISTR` member in file `QWEBBIICS` in library `QWEBBIICS`. Change this line:

```
DCL VAR(&DESIGN) TYPE(*CHAR) LEN(10) VALUE(' ')
```

to:

```
DCL VAR(&DESIGN) TYPE(*CHAR) LEN(10) VALUE('-design ')
```

Exit and Save. Then run the following CL Commands:

```
CRTCLPGM PGM(QWEBBIICS/QWEBBISTR) SRCFILE(QWEBBIICS/QWEBBIICS)
SRCMBR(QWEBBISTR) TEXT('WebSphere Business Integration Interchange
Server') OPTION(*GEN *NOSRC *NOXREF *NOSECLVL *NOSRCDBG *NOLSTDBG)
GENOPT(*NOLIST *NOXREF *NOPATCH) LOG(*JOB) ALWRTVSRC(*YES) REPLACE(*YES)
TGTRLS(*CURRENT) AUT(*EXCLUDE) SRTSEQ(*JOB RUN) LANGID(*JOB RUN)
```

And:

```
CHGOBJOWN OBJ(QWEBBIICS/QWEBBISTR) OBJTYPE(*PGM) NEWOWN(QWEBBIICS)
CUROWNAUT(*REVOKE)
```

After you have set the InterChange Server Express mode, do this to start InterChange Server Express:

- On a Windows system:  
Choose Start>Programs>IBM WebSphere Business Integration Express for Item Sync>InterChange Server Express>InterChange Server Express.

- On a Linux system:  
First start the name server:  
`ProductDir/bin/PersistentNameServer.sh`  
Then start InterChange Server Express itself, in Design mode:  
`ProductDir/bin/ics_manager -start -design`
- On an OS/400 system:  
From the command line, issue the CL command STRSBS QWEBBIICS/QWEBBIICS.  
Alternatively, you can start it from an OS/400 shortcut on the Windows client, by choosing Start>Programs>IBM WebSphere Business Integration Express for Item Sync >iSeries Remote>InterChange Server Express>InterChange Server Express.

When you are ready to deploy your implementation, you should return the mode to Production mode. To do so, remove the `-design` parameter from the shortcut or script or CL program that you use for starting InterChange Server Express.

**Note:** To do this on OS\400, follow the same procedure as you did for setting the `-design` parameter, but use this value: `DCL VAR(&DESIGN) TYPE(*CHAR) LEN(10) VALUE(' ')`

## Starting System Manager

After you have finished running the Installer, you are ready to perform the final tasks for setting up your business integration system.

### 1. Start System Manager

The System Manager interface is the starting point for most of the tasks needed to complete the setup of your business integration system.

System Manager runs only on Windows. System Manager must be able to connect to InterChange Server Express in order to deploy a project. For System Manager to be able to connect to the InterChange Server Express running on Linux or OS/400, you must modify the ORB properties in the file

`ProductDir\bin\CWSharedEnv.bat`

on Windows to specify the name server that InterChange Server Express uses on your platform.

For OS/400, edit the `CWSharedEnv` file such that `ORB_HOST` points to the OS/400 host on which InterChange Server Express is running, and `ORB_PORT` specifies the port on which it is listening. Modify the `CWSharedEnv` file as follows:

```
set ORB_PORT=PortNumber
set ORB_HOST=HostName or IP address
```

If a port number is not specified for the `ORB_PORT`, the port number defaults to 14500.

For Linux, modify the `CWSharedEnv` file as follows:

```
set ORB_PORT=PortNumber
set ORB_HOST=HostName or IP address
```

Where `HostName` and `PortNumber` together specify which host the name server is running on and which port it is listening on.

To begin using System Manager, do this:

- If your InterChange Server Express platform is Windows or Linux, choose Start > Programs > IBM WebSphere Business Integration for Item Sync v4.3.1 > InterChange Server Express>InterChange Server Express.

If your InterChange Server Express platform is OS/400, choose Start > Programs > IBM WebSphere Business Integration for Item Sync v4.3.1 > iSeries remote > InterChange Server Express > IBM WebSphere InterChange Server to start InterChange Server Express.

- b. After InterChange Server Express has started, choose Start > Programs > IBM WebSphere Business Integration for Item Sync Express. v4.3 > Tools > Administrative > System Manager.

The System Manager environment displays.

**Note:** The first time you start up, you might see the Resource environment displayed, instead of System Manager. If this happens, in the Resource menu choose Window > Open Perspective > Other, and choose System Manager from the Select Perspective dropdown list.

In the InterChange Server Express panel at the lower left portion of the display, right-click on the displayed InterChange Server Express to verify that it is connected. If it is not connected, you may need to register the server (by choosing Server > Register Servers from the menu) and then connect to it. By default, the server you are using is named WebSphereICS (QWEBBIICS on OS/400), and the username/password combination for registering and connecting to it is:

admin/null

**For more information regarding System Manager, see the following:** *User Guide for WebSphere Business Integration Express and Express Plus for Item Synchronization*, and context-sensitive help for System Manager (activated when you press F1 within System Manager).

## Viewing delivered components

Most of the components necessary for implementing the ItemSync solution have already been created for you and are imported into System Manager when you run the Installer. You must configure some components, and you must create some from templates that are provided.

After you have System Manager, you can view the integration components that the Installer has already made available to you. To do so, in the upper left panel of System Manager, expand the icon for the ItemSyncLibrary integration component library, which resides under the Integration Component Libraries folder.

Three general types of content are provided for you in ItemSyncLibrary: business objects, collaboration templates, and maps. To complete the setup of your business integration system, you will modify or create some additional components, save them in ItemSyncLibrary, and then create a System Manager user project that contains the components. Then you will deploy that user project to InterChange Server Express.

In addition to the components already visible in ItemSyncLibrary, several connector configuration templates are provided to you. There is one template for each of the adapters that you selected when you ran the Installer. Before you begin the configuration steps that follow in this section, you should be certain that you have run the Installer to copy to your system all the adapters that you will be using. For a description of the roles that different adapters perform in an implementation, see Table 8 on page 18.

To view the connector configuration templates that have been copied to your system, do the following:



1. Open System Manager (for further information, see “Starting System Manager” on page 5 )
2. In the System Manager window, expand the **Integration Component Libraries** icon and highlight **Connectors**.
3. From the System Manager menu bar, click **Tools > Connector Configurator Express**. The Connector Configurator Express window opens and displays a **New Connector** dialog box.
4. The names of the connector templates that have been copied to your system appear in the **Template Name** field. Because each connector template is provided as a component of an adapter, you will see one template for each of the adapters that you selected when you ran the Installer.

To use the connectors, you will need to configure and create connector configuration objects. These tasks, and the configuration of some other necessary components, are described in the steps that follow in this guide.

## Importing additional components (optional)

If you are doing a non-default implementation, and have available to you additional components in the form of .jar files, you will need to import the components into System Manager in order to use them. Instructions for importing files into System Manager are provided in the *User Guide*.

## Creating the logging table

The WebSphere Business Integration Express for Item Sync system uses a database table called `audit_log` to track events associated with UCCnet activities. For more information on the use of this table, see the documentation for the Collaboration for UCCnet Item Synchronization.

To create the `audit_log` table, complete the following steps:

1. Create the `audit_log` table in the ICS repository.
  - For OS/400:** Run the CL command `CALL QWEBBIICS/QWEBBIIAL`
  - For Windows and Linux:** Use the script appropriate for your database server:
    - DB2 Database Server
      - a. Move to the following directory:  
`ProductDir\collaborations\dependencies\UCCnet\db2`
      - b. Start a DB2 session by entering the following command:  
`db2`
      - c. At the prompt, enter the following comment
        - On Windows:  
`db2 connect to SMB_DB`
        - On Linux:  
`db2 connect to SMB_DB user smbadmin using smbP4$$word`
      - d. After you are connected, enter the following command to run the script that creates the `audit_log` table:  
`db2 -f audit_log.sql`
    - Microsoft SQL Server
      - a. Start the Query Analyzer with `Start > Programs > Microsoft SQL Server > Query Analyzer`. Query Analyzer displays the Connect to SQL Server dialog.

- b. Make sure that the SQL Server authentication radio button is selected and log into the ICS database server with the following default account information:  
 Account: smbadmin  
 Password: smbP4\$\$word  
  
**Note:** This account information is the default database user account that the WebSphere Business Integration Express for Item Sync Installer creates. If you have modified this account since it was created, use the current account information.
  - c. Select the ICS repository database by selecting the SMB\_DB database from the dropdown menu in the Query Analyzer toolbar.
  - d. Load the audit\_log.sql SQL script into the Query Analyzer with File > Open. This script is located in the following directory:  
*ProductDir\collaborations\dependencies\UCCnet\mss*
  - e. Run the audit\_log.sql script with Query > Execute.
  - f. Leave Query Analyzer open for use in a later step.
2. Add the UCCnet property to the ICS configuration file, InterchangeSystem.cfg. The audit\_log feature requires that these properties exist and have values for it to execute correctly.
    - a. Create a backup copy of your InterchangeSystem.cfg file, which resides in the ProductDir directory. A suggested name for the backup copy is:  
 InterchangeSystem\_orig.cfg
    - b. Bring up the following file in an editor:  
 ProductDir\samples\UCCnet\InterchangeSystem.UCCnet  
  
**Note:** You can use a text editor or an XML editor to edit this file. However, do not use the Notepad editor.
    - c. Copy the entire contents of this InterchangeSystem.UCCnet file into an editor buffer. This file contains the XML definition of the UCCnet property and its subproperties.
    - d. Bring up the InterchangeSystem.cfg file into the editor.
    - e. Move to the bottom of the InterchangeSystem.cfg file and paste the contents of the editor buffer (the definition of the UCCnet property) into this file, just before the </cw:ServerConfig> tag near the end of the file.
    - f. Modify the values for the UCCnet subproperties as shown in Table 2 to identify your InterChange Server Express repository.

Table 2. UCCnet subproperties

UCCnet subproperty	Value
USER_NAME	For a DB2 database on Windows or Linux: smbadmin
PASSWORD	For OS/400, leave this value blank. For a DB2 database on Windows or Linux: smbP4\$\$word For OS/400, leave this value blank.



Table 2. UCCnet subproperties (continued)

UCCnet subproperty	Value
DRIVER	<p>For a DB2 database on Windows: database:COM.ibm.db2.jdbc.app.DB2Driver</p> <p>For a DB2 database on OS/400: com.ibm.db2.jdbc.app.DB2Driver</p> <p>For a MicrosoftSQL Server database: com.ibm.jdbc.sqlserver.SQLServerDriver</p>
DATA_SOURCE_NAME	<p>For a DB2 database on Windows: jdbc:db2:SMB_DB</p> <p>For OS/400 DB2UDB, use the following URL: jdbc:db2:MyHost/QWEBBIICSD where MyHost is the name of the OS/400 host on which InterChange Server Express is running</p> <p>For a Microsoft SQL Server database: jdbc_ibm.crossworlds:sqlserver://machine_name:1433; DatabaseName=SMB_DB</p> <p>(where machine_name is the name of the host machine on which your ICS repository resides)</p>
TARGETHLQ	<p>On OS/400 systems, set this value to a directory in the root file system on the OS/400. Recommended: /QIBM/UserData/WebBIICS/</p>

g. Save the InterchangeSystem.cfg file and exit the editor.

**Note:** The new UCCnet properties do not take effect until you reboot your InterChange Server.

## Configuring the XML data handler and meta-objects

Processing of UCCnet XML messages requires meta-objects for the Data Handler for XML (the XML data handler). This data handler uses a meta-object, which is a kind of business object, to hold its configuration information. In addition, each of the connectors that interacts with UCCnet requires a meta-object.

Default configuration files for these meta-objects are provided for you in System Manager. The default meta-objects are pre-set with default settings for use with a typical implementation. However, you must complete the configuration of the meta-objects by reviewing or setting certain values that are specific to your implementation, as described in the following steps.

The following steps describe how to complete configuration of the meta-objects. For each of these, you will launch Business Object Designer and open the business object definition for the meta object that you are viewing or configuring. (If the New Business Object Definition dialog appears when you launch Business Designer, click Cancel.):

1. Configure the meta-object for the UCCnet version of the XML data handler, MO\_DataHandler\_UCCnetXMLConfig, by modifying the meta-object to specify either DTD -support or schema-document support for communication with UCCnet, as described in the attributes inTable 3 on page 10. :

Table 3. Default values for properties in MO\_DataHandler\_UCCnetXMLConfig

Attribute name	Default value
BOPrefix	For DTD support: UCCnetDTD
DTDPath	For schema-document support: UCCnetXSD Full path to the XML-structure document: For DTD XML definition type: Envelope.dtd  For schema-document support XML definition type: Envelope.xsd  The Envelope structure document is available from the UCCnet web site. To download these files, you must have a valid UCCnet user ID and password.

After you have set the values, close the MO\_DataHandler\_UCCnetXMLConfig meta-object with File > Close. However do not exit Business Object Designer.

2. Optionally, open the meta-object for the UCCnet XML configuration, MO\_DataHandler\_UCCnet\_envelope, and view the values, which have been pre-set.
3. Open the meta-object for JTextRWL XML configuration, MO\_JTextRWLConnector\_Default, and view the values, which have been pre-set. Verify that the values set for OutputDir, ArchiveDir, and EventDir are the directories that you are using in your implementation. The following table describes the directory values:

Table 4. Default property values for MO\_JTextRWLConnector\_Default

Attribute name	Default value
OutputDir	Name of the directory where the JTextRWLConnector is to write the XML files it generates. For example: C:\IBM\WebSphereItemSync\UCCnet\JTextRWL\out  For OS/400, use the path to the directories on the OS/400 host on which InterChange Server Express is running. For example, /QIBM/UserData/Webbiics/UCCnet/JTextRWL/out
ArchiveDir	If the output directory you specify does not already exist, create it. Name of the directory where the JTextRWLConnector archives events (XML files). For example: C:\IBM\WebSphereItemSync\UCCnet\JTextRWL\archive  For OS/400, use the path to the directories on the OS/400 host on which InterChange Server Express is running. For example, /QIBM/UserData/Webbiics/UCCnet/JTextRWL/archive  If the archive directory you specify does not already exist, create it.

Table 4. Default property values for MO\_JTextRWLConnector\_Default (continued)

Attribute name	Default value
EventDir	<p>Name of the directory from which the JTextRWLConnector obtains input events (XML files). For example: C:\IBM\WebSphereItemSync\UCCnet\JTextRWL\event</p> <p>For OS/400, use the path to the directories on the OS/400 host on which InterChange Server Express is running. For example, /QIBM/UserData/Webbiics/UCCnet/JTextRWL/event</p> <p>If the event directory you specify does not already exist, create it.</p>

- If you are using the JTextSoftconnector, your implementation must also include the MO\_JTextSoftConnector\_Default meta-object. This meta-object is not necessary if you are using the iSoftconnector (see Table 8 on page 18 for a description of the roles of the connectors). If you are using the JTextSoftconnector, open the meta-object, and view the values, which have been pre-set. Verify that the values set for OutputDir, ArchiveDir, and EventDir are the directories that you are using in your implementation. The following table describes the directory values:

Table 5. Default property values for MO\_JTextSoftConnector

Attribute name	Default value
OutputDir	<p>Name of the directory where the JTextSoftConnector is to write the XML files it generates. For example: C:\IBM\WebSphereItemSync\UCCnet\JTextSoft\out</p> <p>For OS/400: /QIBM/UserData/Webbiics/UCCnet/JTextSoft/out</p> <p>If the output directory you specify does not already exist, create it.</p>
OutputExt	xml
ArchiveDir	<p>Name of the directory where the JTextSoftConnector archives events (XML files). For example: C:\IBM\WebSphereItemSync\UCCnet\JTextSoft\archive</p> <p>For OS/400: /QIBM/UserData/Webbiics/UCCnet/JTextSoft/archive</p> <p>If the archive directory you specify does not already exist, create it.</p>
EventDir	<p>Name of the directory from which the JTextSoftConnector obtains input events (XML files). For example: C:\IBM\WebSphereItemSync\UCCnet\JTextSoft\event</p> <p>For OS/400: /QIBM/UserData/Webbiics/UCCnet/JTextSoft/event</p> <p>If the event directory you specify does not already exist, create it.</p>
EventExt	xml
EndBODelimiter	EOF

## Configuring other business objects

In addition to the creation and configuration of business objects for the XML data-handler meta-objects, you also need to configure business objects for the following components:

- iSoftConnector (only if you are using the Windows platform and exchanging messages with UCCnet through an AS2/EDIINT interface protocol)
- EMailConnector

### Configuring a business object for iSoftConnector

If you are exchanging messages with UCCnet through an AS2/EDIINT interface protocol (using the Windows platform), you must use a meta-object called MO\_ISoftAdapterConfig for the iSoft connector.

A default sample of this meta-object is copied to your system during installation. Open the meta-object in Business Object Designer to verify that it has the correct attributes for your implementation. Review the attributes described in Table 6:

Table 6. Attributes in MO\_ISoftAdapter\_Config

Attribute name	Type	Key	Application-specific information
Default	String	Yes	The output queue, where messages derived from the business object definitions listed in this meta-object are delivered. For example: <code>OutputQueue=queue://crossworlds.queue.manager/outbox_queue_name; DataEncoding=Text</code>  (where outbox_queue_name identifies where these messages are delivered) The output queue specified in this Default attribute applies to all business-object conversions.
UCCnet_envelope_Create	String	No	If the application-specific information that you provided for the Default attribute (above) is insufficient to identify the business-object configuration properties for the UCCnet_envelope business object, you can provide any additional information that might be required here. For more information about the format of this application-specific information, see the Adapter Guide for iSoft.

### Configuring a business object for EMailConnector

The EmailConnector handles messages for events that occur during the execution of the Item Sync collaboration. It uses a business object definition called EmailNotification to hold its configuration information.

To configure the EmailConnector, complete the following steps:

1. Bring up the EmailNotification business object definition in Business Object Designer. For information on how to edit an existing business object definition, see “Developing business objects” on page 15.
2. Set the Default Values for the following attributes to identify where the Item Sync collaboration directs email messages during its execution.

Table 7. Default property values for EmailNotification

Attribute name	Default value	Required
RecipientName	Email address of recipient	Yes. For information on how to specify the message recipients, see the <i>Adapter Guide for e-Mail</i> .
FromAddress	Email address of undelivered messages	No

3. Save the business object definition to the ItemSyncLibrary project with the File > Save menu option.
4. Close the EmailNotification business object definition with File > Close. However, do not exit Business Object Designer.

## Creating the ERP-source components

Your item information originates from your Enterprise Resource Planning (ERP) application. As the first step to sending this item information to UCCnet, an ERP-source connector receives information from your ERP application and takes the following steps:

1. It formats this information into the appropriate application-specific business object. For this step to be possible, a business object definition for this application-specific business object must exist and must define the item information that the ERP-source connector receives.
2. It converts the data in the application-specific business object to its equivalent format in the generic business object, ItemBasic. For this step to be possible, a map must exist to define the data transformations necessary.

**Note:** As part of creating ERP-source components, you must also create an ERP-source connector. For more information, see “Configuring the ERP-source connector” on page 25.

### Creating ERP-source business objects

The ERP-source business object is an application-specific business object that contains the item information your ERP application needs sent to UCCnet. For the ERP-source connector to create such a business object, it must be able to locate an associated business object definition, which the connector uses as a template for the business object creation. Therefore, as part of the Item Sync configuration process, you must create business object definitions to represent the item information that your ERP application must send to UCCnet.

To create a business object definition, use the Business Object Designer tool. This tool provides a graphical interface that assists you in naming the business object definition and defining its attributes. When you design your ERP-source business object definition, you must determine which item information needs to be sent to UCCnet. To assist in this determination, you can examine the information in the generic item-information business object, ItemBasic.

The basic steps to creating the business object definition for your application-specific business object are as follows:

1. Launch Business Object Designer to create a new business object definition. In System Manager, you can right-click on the Business Objects folder under the ItemSyncLibrary project. Alternatively, you can select the Tools > Business Object Designer menu option.

2. Specify the name of the business object definition in Business Object Name field and click OK. Business Object Designer displays a template for you to define the attributes of the business object definition.
3. Define the required attributes, including their names, types, and any application-specific information. One attribute with the business object definition must be designated as the key, whose value contains information to uniquely identify one business object of this type from another.
4. Save the business object definition with File > Save.
5. If your business object definition requires child business objects, repeat these steps to define each of the child business objects.

For a more complete description of Business Object Designer and how to create a business object definition, see “Developing business objects” on page 15.

### Creating ERP-source maps

Once the ERP-source connector has created the application-specific business object, the item information is ready to be sent to InterChange Server Express. There, any application-specific formats of data in this business object are converted to the data format used by the associated generic business object, ItemBasic. It is the generic business object that InterChange Server Express routes to various components of the Item Sync system. To provide this data conversion, you must create a map that describes the data transformations necessary to convert the data from any application-specific formats to their generic equivalents.

To create a map, use the Map Designer tool. This tool provides a graphical interface that assists you in naming the map and defining its transformation. When you design your ERP-source map, you must determine which item information is currently in an application-specific format; that is, which data is in a format different from its equivalent in the generic business object. To assist in this determination, you can examine the information in the generic item-information business object, ItemBasic.

The basic steps to creating the map from your application-specific business object to the ItemBasic generic business object are as follows:

1. Launch Map Designer to create a new map. In System Manager, you can right-click on the Maps folder under the ItemSyncLibrary project. Alternatively, you can select the Tools > Map Designer menu option.
2. Select ItemSyncLibrary as the project in which to store the map and click Next.
3. Choose the name of the business object definition that is the source for the map and Click Next. This source business object definition is the name of the application-specific business object that holds your ERP item information.
4. Choose the name of the business object definition that is the destination for the map and Click Next. For the top-level ERP-source map, the destination business object definition is ItemBasic.
5. In the Save map dialog, take the following steps:
  - a. Specify a name for the map in the Name field. Map names usually identify both the source and destination business objects in the following format:

`CwSource_to_CwDestination`

where Source and Destination are the names of your source and destination business object definitions, respectively. For example, if your application-specific business object was named JDBC\_ERPItem, the associated ERP-source map name could be:

CwJDBC\_ERPItem\_to\_CwItemBasic

- b. Make sure that the Mapping Direction box has the Application-Specific to Generic radio button selected.
- c. Click Finish. Map Designer displays the working area, with your source business object definition on the left and your destination business object definition (ItemBasic) on the right.
- d. To define the data transformations between attributes in the source and destination business objects, you can use the basic transformations (such as Move, Split, and Join). You can also perform transformations on dates and times. If you need to perform a transformation for which there is no existing transformation, you can define a custom transformation.
- e. When you have completed the definition of transformations, save the map to the ItemSyncLibrary project with File > Save > To Project.
- f. Answer Yes to the prompt that asks if you want to compile the map.
- g. If your application-specific business object definition contains child business objects, you must create a map for each of the child business objects. Repeat these steps to define maps for each of the child business objects. Map names for child business objects usually start with the "Sub" prefix to indicate a submap.

For a more complete description of Map Designer and how to create a map, see the *Map Development Guide*.

## Developing business objects

This section provides a roadmap of the basic steps for creating a business object definition. For complete details about developing a business object definition, see the *Business Object Development Guide*.

### Creating a business object definition

In the WebSphere business integration system, information sent or received between components is packaged in the form of a *business object*. For data that is transferred between a connector and an integration broker, you design *application-specific business objects* that model the appropriate application entities. Application-specific business objects are modeled during design-time as *business object definitions*, which are stored in the business integration system, specifically in the System Manager Integration Component Library (ICL). At runtime, data is populated in a *business object instance* (often just called a "business object") that is based on the proper definition, and is moved through the business integration system as dictated by its routing and business logic rules.

For details about the business object requirements of your specific adapter, refer to your adapter's user guide.

There are two ways to create a business object definition:

- Manually—Useful when creating a simple business object, or when modifying a definition generated by an Object Discovery Agent. Business Object Designer Express provides a graphic interface for manually creating a business object definition.
- Using an Object Discovery Agent—Useful when creating an application-specific business object. The *Object Discovery Agent* examines specified entities in the application, "discovers" the elements of those objects that correspond to business object attributes and the properties of each attribute, and generates the business object definition.



## Creating a business object manually

1. Launch Business Object Designer Express from System Manager, using a Windows shortcut, or from another development tool. For details, see *Business Object Development Guide*.
2. From the File menu, select **New**. Business Object Designer Express displays the New Business Object dialog.
3. Enter the name for the new business object definition.
4. Click OK. Business Object Designer Express displays the business object definition dialog.
5. Add attributes for each piece of information in the business object.
6. Click the **General** tab of the business object definition dialog to display the screen in which you specify the verbs.
7. Specify the verbs that this business object will support. These verbs represent the triggering events that the business object sends to the integration broker.
8. When you finish defining the business object, click **File > Save** from the menu bar to save your changes to the ICL.

## Using an Object Discovery Agent to create a business object definition

An Object Discovery Agent (ODA) is an optional component of an adapter. When you install a pre-defined adapter that has an ODA, its ODA is installed automatically. Business Object Designer Express provides a graphical interface in the form of a wizard, called *Business Object Wizard*, to interact with the ODA. The purpose of Business Object Wizard is to display a series of dialogs to the user. These dialogs obtain information from the user that the ODA needs to generate the business object content. The ODA is the component that “discovers” objects in the data source and generates the content. The ODA receives information that the user provides in the dialogs of Business Object Wizard. It then sends information (such as the generated content) to the ODA runtime, the intermediary component between Business Object Wizard and the ODA.

**Before using an ODA:** Before you run an ODA, verify that the following steps have occurred (for details, see *Business Object Development Guide*):

- The system startup files are available and correct.
- The ODA has been launched.
  - On Windows: Run `start_srcDataNameODA.bat`.
  - On Linux: Run `start_srcDataNameODA.sh`.
  - On OS/400: Use the short cuts provided on the Windows client. Click the ODA shortcut to start the ODA, Start>Programs>IBM WebSphere Business Integration Express for Item Sync v4.3.1 >iSeries remote>Adapters>Object Discovery Agents>ODAname. Alternatively on OS/400, you can use the `start_srcDataNameODA.sh` script in a QShell environment.
- Business Object Designer Express has been launched.

### Using the ODA to create business object definitions:

1. Open Business Object Designer Express.
2. From the File menu, click the “New Using ODA” menu item.  
Business Object Designer Express invokes Business Object Wizard, which displays the first dialog in the wizard, Select Agent.
3. Select the ODA to which Business Object Wizard connects.
4. Click Next. Business Object Wizard attempts to connect to the specified ODA.



5. Once Business Object Wizard is connected to the ODA, it displays the second wizard dialog, *Configure Agent*.
6. Specify ODA configuration values or select a profile to display previously saved values.
7. Click *Next*. Business Object Wizard displays the third wizard dialog, *Select Source*.
8. Select objects in the source-code hierarchy for which you want the ODA to generate business object definitions.
9. After you select the source nodes for which business object definitions are to be generated, click *Next*. Business Object Wizard displays the fourth wizard dialog, which allows you to confirm your selection of source nodes.
10. After confirming your selection, click *Next*. Business Object Wizard displays the wizard's fifth screen, *Generating Business Objects*.  
After the ODA completes the generation of business object definitions, Business Object Wizard displays the final dialog in the wizard, *Save Business Objects*.
11. Click *Finish* to save the business object definitions to the ICL-based project

**For more detailed information, see the following:** *WebSphere Business Integration Express for Item Synchronization Business Object Development Guide*.

## Modifying an existing business object

Some application-specific business objects are provided to you. In some implementations, you may need to modify them.

You can open a business object definition provided by the adapter and modify it as needed using Business Object Designer Express. You can also modify any business object definition you have created. New objects are created in Business Object Designer Express, with or without the assistance of the ODA. To modify an existing object, use Business Object Designer Express directly (the ODA cannot be used to modify an existing business object).

To modify a business object definition:

1. From the list of business object definitions in the project, highlight the name of the definition you want to open.
2. To select multiple business object definitions in the project, do one of the following:
  - When selecting consecutive names, select the first name and, while pressing the *Shift* key, click the last name.
  - When selecting non-consecutive names, press the *Ctrl* key and click as you select each name.
3. After selecting the definitions to be opened, right-click and then click *Open*. Business Object Designer Express displays a window for each selected definition.
4. Edit the business object definition as needed. For details about the business object definitions provided with your adapter and the modifications you make to each, see the documentation of the specific adapter.
5. Save the business object definition:
  - If the project is ICL-based, the business object definition is saved in the project where it originated.

- If the project is local, the business object definition is saved to its existing file (where it was saved when it was created).

## Configuring the connectors

Connector Configurator Express allows you to configure the connector component of your adapter for use with InterChange Server Express.

You use Connector Configurator Express to:

- Create a connector configuration file -- you must create one configuration file for each required connector.
- Set properties in a configuration file -- you may need to modify the default values that are set for properties in this file. You must also specify supported business object definitions and, optionally, maps for use with the Item Synchronization Collaboration.

Use Connector Configurator Express to create this configuration file and to modify its settings.

### Creating required connector configuration files

**Note:** WebSphere Business Integration Express for Item Synchronization allows you to use a maximum of four different adapters. One of these is the eMail adapter, and the other three are the adapters you choose for exchanging data with your UCCnet trading partner and for exchanging data with your ERP application. You may configure and use a maximum of three connector objects from any single adapter. For all adapters together, a total of seven connectorobjects can be configured. See your licensing agreement for details.

The following table describes the required connector configuration files for a typical implementation of WebSphere Business Integration Express for Item Synchronization:

*Table 8. Connectors in the Item Sync solution*

Connector object that you configure	Required Installer component selections	Role of the configured connector
JTextRWLConnector, based on the JText connector template	Adapter for JText (installed by default when you choose the Typical package)	Inputs a worklist request to UCCnet. This connector is required for all implementations.
iSoftConnector, based on the iSoft connector template	Adapter for iSoft	Exchanges messages with UCCnet . Use this connector only if you are on the Windows platform and you intend to use an AS2/EDIINT interface protocol to exchange messages with UCCnet. This connector can be used on Windows platforms only. For OS/400 and Linux platforms, use the JTextISoftConnector.

Table 8. Connectors in the Item Sync solution (continued)

Connector object that you configure	Required Installer component selections	Role of the configured connector
JTextIsoftConnector, based on the JText connector template	Adapter for JText	Exchanges messages with UCCnet. Use this connector if you intend to use UCCNet Command Line Utility (CLU) to communicate with the iSoft Peer-to-Peer Agent. This connector can be used on Windows, Linux, and OS/400 platforms.
JText, JMS, JDBC, XML, Web Services, WebSphere MQ, or mySAP	One of the following adapters: <ul style="list-style-type: none"> <li>• Adapter for JText</li> <li>• Adapter for JMS</li> <li>• Adapter for JDBC</li> <li>• Adapter for XML</li> <li>• Adapter for Web Services</li> <li>• Adapter for WebSphere MQ</li> <li>• Adapter for mySAP mySAP R/3 V.3.x</li> <li>• Adapter for mySAP mySAP R/3 V.4.x</li> </ul>	Exchanges messages with your ERP application. You must configure at least one of these connectors.
EmailConnector	Adapter for e-Mail	Yes, if your UCCnet Item Synchronization collaboration uses the "notify by email" feature
PortConnector	None	Yes

Use Connector Configurator Express, launched from System Manager, to create these files. For information on how to launch, run, and use this tool, see the Connector Configurator Express appendix in your adapter user guide.

### Configuring the JTextRWLConnector

The JTextRWLConnector is the input connector for a UCCnet\_requestWorklist collaboration object. The UCCnet\_requestWorklist collaboration object passes a UCCnet worklist request to UCCnet from a filesystem folder. To poll for the worklist, a scheduler operation (which the operating system performs) must be configured to periodically drop a fresh copy of the request XML file into the event file-system folder for the JTextRWLConnector.

1. To create the JTextRWLConnector, complete the following steps:
  - a. In the Windows taskbar, right-click **Start** and select **Open All Users**
  - b. Navigate to the folder on your system that contains the installed adapters: **Programs > IBM WebSphere Business Integration Express for Item Sync v4.3 > Adapters > Connectors**.  
On OS/400: **Programs > IBM WebSphere Business Integration Express for Item Sync v4.3.1 > iSeries remote > Adapters > Connectors**.
  - c. Copy the startup shortcut for the JText connector (JText Connector) and rename it to: JTextRWL Connector
  - d. Right-click the new JTextRWL connector's startup shortcut and select **Properties**

- e. Click the **Shortcut** tab, edit the **Target** field to set the first command-line argument to JTextRWL. The following line shows the JText target before you edit the argument:

```
ProductDir\connectors\JText\start_JText.bat JText WebSphereICS
```

For example, if WebSphere Business Express for Item Sync is installed in your C: partition, then the initial text for the new startup shortcut would be:

```
C:\IBM\WebSphereItemSync\connectors\JText\start_JText.bat JText WebSphereICS
```

For OS/400:

```
C:\IBM\WebSphereItemSync\scripts\runCommand.bat start_adapter
JText/start_JText.sh JText QWEBBIICS QWEBBIJTC
```

In this case, you would change the shortcut so it reads:

```
C:\IBM\WebSphereItemSync\connectors\JText\
start_JText.bat JTextRWL WebSphereICS
```

For OS/400:

```
C:\IBM\WebSphereItemSync\scripts\runCommand.bat start_adapter
JText/start_JText.sh JTextRWL QWEBBIICS QWEBBIJTC
```

- f. Click **OK**.
2. Create the connector configuration file for the JTextRWLConnector, using Connector Configurator Express, as described below. (For more information on using Connector Configurator Express, see the Connector Configurator Express appendix in your adapter user guide.)
    - a. Open System Manager (for further information, see “Starting System Manager” on page 5)
    - b. In the System Manager window, expand the **Integration Component Libraries** icon and highlight **Connectors**.
    - c. From the System Manager menu bar, click **Tools > Connector Configurator Express**. The Connector Configurator Express window opens and displays a **New Connector** dialog box.
    - d. In the New Connector dialog, specify JTextRWLConnector in the **Name** field. To select the JText connector template, highlight the entry for JText in the displayed list of available templates. The properties from the JText connector template will display in the **Property Template Preview** section. When you click OK, Connector Configurator Express displays the configuration tabs.
    - e. In the **Standard Properties** tab, verify that the ApplicationName property is set to JTextRWLConnector.
    - f. In the **Supported Business Objects** tab, add the business object definitions listed in Table 9.

Table 9. Supported business objects for JTextRWLConnector

Business object definition	Agent support required?
MO_JTextRWLConnector_Default	Yes
MO_DataHandler_UCCnet_envelope	Yes
The UCCnet envelope:	Yes
• For DTD XML definition type: UCCnetDTD_envelope	
• For schema-document support XML definition type: UCCnetXSD_envelope	
UCCnetGBO_envelope	No

- g. Save the connector configuration file to the ItemSyncLibrary project, using the **File > Save > To Project** menu option.

- h. In the **Associated Maps** tab, add the maps listed in Table 10 to the specified business object definitions.

Table 10. Associated maps for JTextRWLConnector

Business object definition	Name of map
UCCnetDTD_envelope UCCnetXSD_envelope UCCnetGBO_envelope	UCCnetDTD_envelope_to_UCCnetGBO_envelope UCCnetXSD_envelope_to_UCCnetGBO_envelope For DTD XML definition type: RouterMap_UCCnetGBO_envelope_to_UCCnetDTD_envelope  For schema-document XML definition type: UCCnetGBO_envelope_to_UCCnetXSD_envelope

3. Save the connector configuration file to the ItemSyncLibrary ICL project with **File > Save > To Project**. Close Connector Configurator Express.

### Configuring the iSoft Connector

The iSoftConnector can be used only on the Windows platform. On OS/400 and Linux platforms, the JTextISoft connector is used instead. The instructions that follow for configuring the iSoft Connector assume that you included the iSoft connector among your selections when you ran the Installer.

The iSoft Connector connector exchanges messages with UCCnet through an AS2/EDIINT interface protocol. You need to create or modify a connector configuration file for the iSoftConnector, using Connector Configurator Express, and configure it to include the appropriate business objects.

To create the iSoftConnector, complete the following steps:

1. Create the connector configuration file for the iSoftConnector, using Connector Configurator Express, as described below (for more information about using this tool, see the Connector Configurator Express appendix in your adapter guide).
  - a. Start System Manager, and choose Tools>Connector Configurator Express.
  - b. In the Connector Configurator Express dialog, choose File>New>Connector Configuration.
  - c. In the New Connector dialog, specify iSoftConnector in the Name field. To select the iSoft connector template, highlight the entry for iSoft in the Template Name table. The properties from the iSoft connector template display in the Property Template Preview section. When you click OK, Connector Configurator Express displays the configuration tabs.
2. In the **Connector-Specific Properties** tab of Connector Configurator Express, verify that the connector-specific properties are set as shown in Table 11.

Table 11. Connector-specific properties for iSoftConnector

Connector-specific property	Value
ArchiveQueue	Queue to which copies of successfully processed messages are sent. For example: queue://crossworlds.queue.manager/MQCONN.ARCHIVE
Channel	WebSphere MQ server connector channel for your iSoft Peer-to-Peer Agent queue manager
ConfigurationMetaObject	MO_ISoftAdapterConfig

Table 11. Connector-specific properties for iSoftConnector (continued)

Connector-specific property	Value
DataHandlerConfigMO	MO_DataHandler_UCCnet_envelope
DefaultVerb	Create <b>Note:</b> If this connector-specific property does not appear in the list, add it.
ErrorQueue	Queue to which messages that could not be processed are sent. For example: queue://crossworlds.queue.manager/MQCONN.ERROR
HostName	The name of the host on which the iSoft Peer-to-Peer Agent WebSphere MQ queue manager is running
InputQueue	List of queues that the connector polls for new messages. Queue names are delimited with a semicolon (;). For example: queue://crossworlds.queue.manager/MQCONN.IN1; queue://crossworlds.queue.manager/MQCONN.IN2
InProgressQueue	Queue where messages are held during processing. For example: queue://crossworlds.queue.manager/MQCONN.IN_PROGRESS
Port	The port established for the WebSphere MQ Listener of the iSoft Peer-to-Peer Agent's queue manager
ReplyToQueue	Queue to which replies are sent. For example: queue://crossworlds.queue.manager/MQCONN.REPLY
UnsubscribedQueue	Queue to which messages that are not subscribed are sent. For example: queue://crossworlds.queue.manager/MQCONN.UNSUBSCRIBED
UseDefaults	True <b>Note:</b> If this connector-specific property does not appear in the list, add it.

- In the **Supported Business Objects** tab, add the business object definitions listed in Table 12.

Table 12. Supported business objects for iSoftConnector

Business object definition	Agent support required?
The UCCnet envelope: <ul style="list-style-type: none"> <li>For DTD XML definition type: UCCnetDTD_envelope</li> <li>For schema-document support XML definition type: UCCnetXSD_envelope</li> </ul>	Yes

- Save the connector configuration file to the ItemSyncLibrary project with the **File > Save > To Project** menu option.
- In the **Associated Maps** tab, add the maps listed in Table 13 on page 23 to the specified business object definitions.

Table 13. Associated maps for iSoftConnector

Business object definition	Name of map
UCCnetGBO_envelope	For DTD XML definition type: RouterMap_UCCnetGBO_envelope_to_UCCnetDTD_envelope  For schema-document XML definition type: UCCnetGBO_envelope_to_UCCnetXSD_envelope
ItemBasic	For DTD XML definition type: RouterMap_CwItemBasic_to_UCCnetDTD_envelope  For schema-document XML definition type: CwItemBasic_to_UCCnetXSD_envelope_registerCommand_itemAddChange

6. Save the connector configuration file to the ItemSyncLibrary ICL project with **File > Save > To Project**. Close Connector Configurator Express.

For further information, see the *Adapter for iSoft Peer-to-Peer Agent User Guide*.

### Configuring the JTextISoftConnector

The JTextISoft connector is used for exchanging messages with UCCnet. The JTextISoft connector is required for the OS/400 and Linux platforms. For Windows platforms, either the JTextISoft connector or the ISoft connector can be used. The JTextISoft connector uses the UCCnet Command Line Utility (CLU) to communicate with UCCnet.

To configure and use the JTextISoftConnector, complete the following steps:

1. Create the Windows shortcut to start up this connector, as follows:
  - a. In the Windows taskbar, right-click **Start** and select **Open All Users**
  - b. Navigate to the folder on your system that contains the installed adapters: **Programs > IBM WebSphere Business Integration Express for Item Sync v4.3 > Adapters > Connectors**. On OS/400: **Programs > IBM WebSphere Business Integration Express for Item Sync v4.3 > iSeries remote > Adapters > Connectors**
  - c. Copy the startup shortcut for the JText connector (**JText Connector**) and rename it to: **JTextISoftConnector**
  - d. Right-click the new JTextISoft connector's startup shortcut and select **Properties**
  - e. Click the **Shortcut** tab, edit the **Target** field to set the first command-line argument to JTextISoft. The following line shows the JText target *before* you edit the argument:

```
ProductDir\connectors\JText\start_JText.bat JText WebSphereICS
```

For OS/400:

```
ProductDir\scripts\runCommand.bat  
start_adapter JText/start_JText.sh JText QWEBBIICS QWEBBIJTC
```

where *ProductDir* is the name of the directory in which WebSphere Business Integration Express for Item Sync is installed. For example, if WebSphere Business Express for Item Sync is installed in your C: partition, then the initial text for the new startup shortcut would be:



```
C:\IBM\WebSphereItemSync\connectors\JText\
start_JText.bat JText WebSphereICS
```

For OS/400:

```
C:\IBM\WebSphereItemSync\scripts\runCommand.bat
start_adapter JText/start_JText.sh JText QWEBBIICS QWEBBIJTC
```

In this case, you would change the shortcut so it reads:

```
C:\IBM\WebSphereItemSync\connectors\JText\
start_JText.bat JTextISoft WebSphereICS
```

For OS/400:

```
C:\IBM\WebSphereItemSync\scripts\runCommand.bat
start_adapter JText/start_JText.sh JTextISoft QWEBBIICS QWEBBIJTC
```

- f. Click **OK**.
2. Create the connector configuration file for JTextISoftConnector, as described below. (For more information on using Connector ConfiguratorExpress, see the Connector Configurator Express appendix in your adapter user guide.)
  - a. Open System Manager (for further information, see “Starting System Manager” on page 5)
  - b. In the System Manager window, expand the **Integration Component Libraries** icon and highlight **Connectors**.
  - c. From the System Manager menu bar, click **Tools > Connector Configurator Express**. The Connector Configurator Express window opens and displays a **New Connector** dialog box.
  - d. In the New Connector dialog, specify JTextISoftConnector in the **Name** field. To select the JText connector template, highlight the entry for JText in the displayed list of available templates. The properties from the JText connector template will display in the **Property Template Preview** section. When you click OK, Connector Configurator Express displays the configuration tabs.
  - e. In the **Standard Properties** tab, verify that the ApplicationName property is set to JTextISoftConnector.
  - f. In the **Supported Business Objects** tab, specify a value for the UCCnet envelope, to indicate support for either DTD or schema-document definition type: Table 14.

Table 14. Specifying definition type in business objects for JTextISoftConnector

Business object definition	Agent support required?
The UCCnet envelope: <ul style="list-style-type: none"> <li>• For DTD XML definition type: UCCnetDTD_envelope</li> <li>• For schema-document support XML definition type: UCCnetXSD_envelope</li> </ul>	Yes

- g. Save the connector configuration file to the ItemSyncLibrary project with the **File > Save > To Project** menu option.
- h. In the **Associated Maps** tab, add the maps listed in Table 15 on page 25 to the specified business object definitions.



Table 15. Specifying definition type in associated maps for JTextIsoftConnector

Business object definition	Name of map
UCCnetGBO_envelope	For DTD XML definition type: RouterMap_UCCnetGBO_envelope_to_UCCnetDTD_envelope  For schema-document XML definition type: UCCnetGBO_envelope_to_UCCnetXSD_envelope
ItemBasic	For DTD XML definition type: RouterMap_CwItemBasic_to_UCCnetDTD_envelope  For schema-document XML definition type: CwItemBasic_to_UCCnetXSD_envelope_registerCommand_itemAddChange

- i. Save the connector configuration file to the ItemSyncLibrary ICL project with **File > Save > To Project**. Close Connector Configurator Express.

### Configuring the ERP-source connector

The ERP-source connector is the input connector for the UCCnet\_ItemSync collaboration object. This connector receives information from your Enterprise Resource Planning (ERP) application and formats this information in the appropriate application-specific business object. It converts this application-specific business object to an ItemBasic business object, passing the ItemBasic business object to the UCCnet\_ItemSync collaboration. The UCCnet\_ItemSync collaboration delivers the ItemBasic business object to UCCnet through either the iSoftConnector or JTextIsoftConnector.

You choose the ERP-source connector based on the format that application-specific information can be obtained from your ERP application. WebSphere Business Integration Express for Item Sync provides the following adapters for use as possible ERP-source connectors:

Adapter	Purpose
Adapter for JDBC	Handles application-specific information using the Java Database Connectivity (JDBC) and converts between this format and an application-specific business object
Adapter for JMS	Handles application-specific information using the Java Message Service (JMS) and converts between this format and an application-specific business object
Adapter for JText	Handles application-specific information in file-system files and converts between this format and an application-specific business object
Adapter for WebSphere MQ	Handles application-specific information using WebSphere MQ queues and converts between this format and an application-specific business object
Adapter for XML	Handles application-specific information in XML and converts between this format and an application-specific business object

Adapter	Purpose
Adapter for Web Services	Handles application-specific information in SOAP and converts between this format and an application-specific business object

Once you have selected the appropriate ERP-source connector, you must create and configure it with the following steps:

**Note:** These steps assume that you have already created the application-specific business object definition and map for your ERP-source item information, as described in “Creating the ERP-source components” on page 13. If you have not yet completed these steps, you must do so before continuing with the creation of the ERP-source connector.

1. Create the connector configuration file for the ERP-source connector using Connector Configurator Express. For general information on how to use this tool to create a connector configuration file, see the Connector Configurator Express appendix in your adapter guide.
  - a. In the New Connector dialog, specify the name of your ERP-source connector in the **Name** field in the form ERPSourceConnector, where ERPSource can either be the literal string “ERPSource” or a string that identifies the format or source application of your ERP-source information. For example, if your ERP item information is obtained using the JDBC interface, you could use the JDBC connector and name this connector JDBCsourceERPConnector.
  - b. In the New Connector dialog, select the appropriate connector template from the **Template Name** table. For example, if your ERP-source connector is the Adapter for JDBC, highlight the entry for JDBC in the Template Name table. The properties from the JDBC connector template display in the **Property Template Preview** section. When you click **OK**, Connector Configurator Express displays the configuration tabs.
  - c. For the Standard Properties and Connector-Specific Properties tabs, provide the necessary values for the configuration properties. For information on the configuration properties for your ERP-source connector, see the associated adapter guide.
  - d. In the **Supported Business Objects** tab, add the business object definitions listed in Table 16.

Table 16. Supported business objects for ERP-source connector

Business object definition	Agent support required?
ERP-source application-specific business object definition (This is the business object definition that you created for the ERP-source connector. For more information, see “Creating ERP-source business objects” on page 13.)	Yes
ItemBasic	No

- e. Save the connector configuration file to the ItemSyncLibrary project with the **File > Save > To Project** menu option.
- f. In the **Associated Maps** tab, add the maps listed in Table 17 on page 27 to the specified business object definitions.

Table 17. Associated maps for ERP-source connector

Business object definition	Name of map
ERP-source application-specific business object (This is the map that you created for the ERP-source connector. For more information, “Creating ERP-source maps” on page 14.)	UCCnet_CwERPsource_to_CwItemBasic
	UCCnet_CwItemBasic_to_CwERPsource

2. Save the connector configuration file to the ItemSyncLibrary ICL project with **File > Save > To Project**. Close Connector Configurator Express.

### Configuring the PortConnector

The PortConnector is a “dummy” connector to bind to collaboration ports that do not send a business object to a connector during the Item Sync business process. To create the PortConnector, you create a connector configuration file using Connector Configurator Express. For general information on how to use this tool to create a connector configuration file, see the Connector Configurator Express appendix in your adapter guide.

1. In the **Name** field of the New Connector dialog, specify PortConnector. To select the Port connector template, highlight the entry for Port in the **Template Name** table. When you click **OK**, Connector Configurator Express displays the configuration tabs.
2. For the **Standard Properties** and **Connector-Specific Properties** tabs, you need not set any properties.
3. In the **Supported Business Objects** tab, add the required business object definitions. You will need the following for the collaboration templates that are supplied with the solution:

Table 18. Supported business objects for PortConnector

Business object definition	Agent support required?
ItemBasic	Yes
UCCnetGBO_envelope	Yes

4. In the **Associated Maps** tab, you need not add any maps.
5. Save the connector configuration file to the ItemSyncLibrary ICL project with **File > Save > To Project**. Do not close Connector Configurator Express.

### Configuring the EmailConnector

You create the connector configuration file for the EmailConnector using Connector Configurator Express. For general information on how to use this tool to create a connector configuration file, see the Connector Configurator Express appendix in your adapter user guide.

1. In the New Connector dialog, specify EmailConnector in the **Name** field. To select the e-Mail connector template, highlight the entry for eMail in the **Template Name** table. The properties from the e-Mail connector template display in the **Property Template Preview** section. When you click **OK**, Connector Configurator Express displays the configuration tabs.
2. In the **Connector-Specific Properties** tab, set the SMTP\_MailHost property to the hostname (or IP address) of the SMTP server in your system.
3. Save the connector configuration file to the ItemSyncLibrary project with the **File > Save > To Project** menu option.

## Creating collaboration objects

The WebSphere Business Integration Express for Item Sync system requires runtime objects, called collaboration objects, which are created from collaboration templates. The following table lists the collaboration objects you must create, based on their associated collaboration template.

Table 19. Collaboration objects for Item Sync

Collaboration template	Collaboration object
UCCnet_ItemSync	UCCnet_ItemSyncObject
For schema-document XML definition type:	UCCnetXSD_CIN_DISPATCHER_forICR_Obj
• ItemCommandRouter	UCCnetXSD_CIN_DISPATCHER_forPWL_Obj
• CIN_CIP_DISPATCHER	
UCCnet_requestWorklist	UCCnet_requestWorklistObject
UCCnet_processWorklist	UCCnet_processWorklistObject
Notify_by_eMail	UCCnet_processWorklist_
	UNKNOWN_RESPONSEObject
	UCCnet_processWorklist_
	AUTHORIZATION_RESPONSEObject
	UCCnet_processWorklist_
	DEAD_LETTER_PUB_RECEIPTObject
	UCCnet_processWorklist_
	CATEGORY_ADD_CHANGEObject
	UCCnet_processWorklist_
	UNKNOWN_MESSAGESObject
	UCCnet_processWorklist_
	SIMPLE_RESPONSEObject
	UCCnet_processWorklist_FAILURE_RESPONSEObject
	UCCnet_processWorklist_
	CATALOGUE_ITEM_CONFIRMATIONObject
	(for schema-document support only)
	UCCnet_processWorklist_RCIR_QUERY_RESPONSEObject
	(for schema-document support only)
	UCCnet_processWorklist_CI_RESPONSEObject
	(for schema-document support only, CIP operation)
	UCCnet_processWorklist_CIP_RESPONSEObject
	(for schema-document support only, CIP operation)
	ItemCommandRouter_DE_LIST_WITHDRAWObject
	(for schema-document support only, CIP operation)
	UCCnet_processWorklist_CIN_RESPONSEObject
	(for schema-document support only, CIN operation)

You create collaboration objects in the System Manager tool. Before beginning the steps in the subsequent sections, start up System Manager and connect to the WebSphereICS instance of InterChange Server Express. For information on how to start up System Manager, see “Starting System Manager” on page 5.

## Creating the collaboration for UCCnet\_ItemSync

The collaboration object for the UCCnet\_ItemSync collaboration template is called UCCnet\_ItemSyncObject. You create a collaboration object from System Manager.

To configure this collaboration object, complete the following steps:

1. Right-click on the Collaboration objects folder of the ItemSyncLibrary project (in System Manager). From the context menu, choose Create New Collaboration Object. System Manager displays the Create New Collaboration dialog.
2. In the Create New Collaboration dialog, enter the following information:
  - a. Highlight UCCnet\_ItemSync in the Template name column of the table.
  - b. In the Collaboration object name field at the bottom of the dialog, enter the name of this collaboration object: UCCnet\_ItemSyncObject
  - c. Click Next to display the Bind ports dialog. Bind the ports of this collaboration object as shown in the following table.

Table 20. Port Bindings for UCCnet\_ItemSync

Collaboration port	Type	Bind to
DestinationAppRetrieve From	Connector Connector	PortConnector Your ERP-source connector (for example, JDBCsourceERPConnector)
To (For DTD XML definition type)	Connector	The connector that sends the ItemBasic business object to UCCnet (though the iSoft Peer-to-Peer Agent): <ul style="list-style-type: none"> <li>• If you are using the iSoft connector: specify iSoftConnector</li> <li>• If you are using UCCnet CLU: specify JTextISoftConnector</li> </ul>
To (For schema-document XML definition type)	Collaboration	ItemCommandRouter_Obj. From

**Note:** If you are configuring the ItemSync collaboration to work with schema-document XML definitions, you cannot bind the To port of this UCCnet\_ItemSync collaboration object at this time. The collaboration object that contains the port to which this port is bound has not yet been created. You can bind this port later, once the ItemCommandRouter\_Obj collaboration object exists. Continue with the steps outlined in this section. When you reach “Creating the collaboration objects for schema-based XML” on page 30”, instructions are provided for finishing the port binding for the UCCnet\_ItemSyncObject collaboration object.

- d. Click Next to display the Collaboration General Properties dialog. Set any general properties for this collaboration object. If you want to set a tracing level, specify a value for the system trace level or the collaboration trace level in this dialog.
- e. Click Next again to display the Properties dialog, which shows the collaboration-specific properties. Set the collaboration-specific properties for this collaboration object as shown in the following table.

Table 21. Collaboration-specific properties for UCCnet\_ItemSync

Property name	Property description	Required?
GtinDB_User	For Windows and Linux: smbadmin	Yes
GtinDB_PASSWORD	For OS/400, leave this value blank. For Windows and Linux: smbP4\$\$word	Yes
JDBC_DRIVER	For OS/400, leave this value blank. The name of the JDBC driver used to connect to the ICS repository database. For more information, see the description of the DRIVER property in "Creating the logging table" on page 7.	Yes, if InterChange Server Express does not register the driver in the Java Virtual Machine (JVM). The Microsoft SQL driver, for example, is already registered in the JVM.
JDBC_URL	The JDBC URL that corresponds to the driver that JDBC_DRIVER specifies. For more information, see the description of the DATA_SOURCE_NAME property in "Creating the logging table" on page 7.	Yes
SEND_EMAIL	Determines whether the Item Sync collaboration sends email when it generates certain messages To send email, set this property to the value "all". Otherwise, set it to "none".	Yes, if you want the Item Sync collaboration to send email
SEND_EMAIL_TO	Specifies the email address where the Item Sync sends email messages, assuming that the SEND_EMAIL property is set.	No. Requires: <ul style="list-style-type: none"> <li>• the EmailConnector</li> <li>• The SEND_EMAIL property set to "all"</li> </ul>
AUDITLOG_INSTANCE_NAME	UCCnet	Yes
SUPPLIER_NAME	Specifies the name of the partner that is synchronizing item information with UCCnet. This value is logged in audit entries.	No

- f. Click Finish to complete the definition of this collaboration object. System Manager displays the Graphical View of this collaboration object. Do not close this Graphical View of the UCCnet\_ItemSyncObject collaboration object.

### Creating the collaboration objects for schema-based XML

If your Item Sync solution uses the UCCnet Envelope that is based on the schema-document XML definition type (Envelope.xsd), you must create special collaboration objects to handle routing of information:

- One collaboration object from the ItemCommandRouter collaboration template
- Two collaboration objects from the CIN\_CIP\_DISPATCHER collaboration template

**Note:** If your Item Sync collaboration uses the UCCnet Envelope that is based on the DTD XML definition type (Envelope.dtd), you do not have to create the collaboration objects described in this section. You can skip this section and continue to the creation of the collaboration object for the UCCnet\_processWorklist collaboration template.

**Creating the collaboration object for ItemCommandRouter:** The collaboration object for the ItemCommandRouter collaboration template is called ItemCommandRouter\_Obj.

You create a collaboration object from System Manager.

To configure this collaboration object, complete the following steps:

1. Right-click on the Collaboration objects folder of the ItemSyncLibrary project (in System Manager). From the context menu, choose Create New Collaboration Object. System Manager displays the Create New Collaboration dialog.
2. In the Create New Collaboration dialog, enter the following information:
  - a. Highlight ItemCommandRouter in the Template name column of the table.
  - b. In the Collaboration object name field at the bottom of the dialog, enter the name of this collaboration object: ItemCommandRouter\_Obj
3. Click Next to display the Bind ports dialog. Bind the ports of this collaboration object as shown in the following table. The bindings you used depend in part on whether you implement your own data pool (CIN operation) or use UCCnet as a data pool (CIP operation).

Table 22. Port bindings for ItemCommandRouter

Collaboration port	Type	Bind to
From TO_RCIR ToCIN_CI	Collaboration Connector Collaboration	UCCnet_ItemSyncObject.To iSoftConnector For CIN operation: UCCnetXSD_CIN_CIP_DISPATCHER_forICR_Obj.From For CIP operation: ItemCommandRouter_DE_LIST_WITHDRAWObject:FromItemBasic (Note: For CIP operation, the ToCin_CI port is configured to send an email indicating that delist and withdrawal actions are not supported.)

**Note:** You cannot bind the TO\_CIN port of this ItemRouterCommand\_Obj collaboration object for CIN operation at this time. The collaboration object that contains the port to which this port is bound has not yet been created. You can bind this port later, once the UCCnetXSD\_CIN\_DISPATCHER\_forICR\_Obj collaboration object exists. Continue with the steps outlined in this section. When you reach “Creating collaboration objects from CIN\_CIP\_DISPATCHER” on page 32, instructions are provided for finishing the port binding for the ItemCommandRouter\_Obj collaboration object.

4. Click Next to display the Collaboration General Properties dialog. Set any general properties for this collaboration object. If you want to set a tracing level, specify a value for the system trace level or the collaboration trace level in this dialog.
5. Click Finish to complete the definition of this collaboration object. The ItemCommandRouter collaboration template does not have any collaboration-specific properties. Therefore, you can skip the Properties dialog.
6. System Manager displays in the Graphical View tab the ItemCommandRouter\_Obj collaboration object. Do not close this collaboration object so you can return to it later.
7. Complete the binding for the UCCnet\_ItemSyncObject with the following steps:
  - a. Open the collaboration object for UCCnet\_ItemSyncObject in the Graphical View tab by clicking on its name in the heading of the tab. If you have already closed UCCnet\_ItemSyncObject, double-click on its name in the Collaboration objects folder of System Manager to display it in the Graphical View tab.



- b. Switch to the Tree View for the collaboration object and right-click on the To port. From the context menu, select Bind Port.
- c. From the Configure Port dialog:
  - 1) Select Collaboration for BindWith
  - 2) Select ItemCommandRouter\_Obj.From from the list of collaboration object ports.
- d. Click OK to save the new binding.
- e. Close the UCCnet\_ItemSyncObject collaboration object.

**Creating collaboration objects from CIN\_CIP\_DISPATCHER:** When you are using the schema-document XML definition type, you need to create two collaboration objects from the CIN\_CIP\_DISPATCHER collaboration template.

Complete the following steps:

1. Right-click on the Collaboration objects folder of the ItemSyncLibrary project (in System Manager). From the context menu, choose Create New Collaboration Object. System Manager displays the Create New Collaboration dialog.
2. In the Create New Collaboration dialog, enter the following information:
  - a. Highlight CIN\_CIP\_DISPATCHER in the Template name column of the table.
  - b. In the Collaboration object name field at the bottom of the dialog, enter the name of this collaboration object:  
UCCnetXSD\_CIN\_DISPATCHER\_forICR\_Obj
3. Click Next to display the Bind ports dialog. Bind the ports of this collaboration object as shown in Table 23.

Table 23. Port bindings for UCCnetXSD\_CIN\_DISPATCHER\_forICR\_Obj

Collaboration port	Type	Bind to
DestinationAppReceive From To	Connector Collaboration Connector	PortConnector ItemCommandRouter_Obj.TO_CIN iSoftConnector

4. Click Next to display the Collaboration General Properties dialog. Set any general properties for this collaboration object. If you want to set a tracing level, specify a value for the system trace level or the collaboration trace level in this dialog.
5. Click Next again to display the Properties dialog, which shows the collaboration-specific properties. Set the collaboration-specific properties for this collaboration object as shown in the following table.

Table 24. Collaboration-specific properties for UCCnetXSD\_CIN\_DISPATCHER\_forICR\_Obj

Property name	Property description	Required?
CIN_DISPATCHER_GLN_FILE	The fully qualified name of the file that holds the GLNs subscribed to each category code.	Yes
TO_UCCNETGBO_PROCESSING_MAP	By the UCCnet_CIN_DISPATCHER object to map incoming ItemBasic objects to the outgoing CATALOGUE_ITEM_NOTIFICATIONMessage.	Yes
SUPPLIER_NAME	The name of the partner responsible for synchronizing item information with UCCnet. This value is included in audit log entries.	No



6. Click Finish to complete the definition of this collaboration object. System Manager displays this collaboration object in the Graphical View. You can close the UCCnetXSD\_CIN\_DISPATCHER\_forICR\_Obj collaboration object in the Graphical View.
7. Complete the binding for the ItemCommandRouter\_Obj with the following steps:
  - a. Open the collaboration object for ItemCommandRouter\_Obj in the Graphical View tab by clicking on its name in the heading of the tab. If you have already closed ItemCommandRouter\_Obj, double-click on its name in the Collaboration objects folder of System Manager to display it in the Graphical View tab.
  - b. Switch to the Tree View for the collaboration object and right-click on the TO\_CIN port. From the context menu, select Bind Port.
  - c. From the Configure Port dialog:
    - 1) Select Collaboration for BindWith.
    - 2) Select UCCnetXSD\_CIN\_DISPATCHER\_forICR\_Obj. From the list of collaboration object ports.
  - d. Click OK to save the new binding.
  - e. Close the ItemCommandRouter\_Obj collaboration object.
8. Repeat steps 1 and 2 to begin creation of the second collaboration object from the CIN\_CIP\_DISPATCHER template, UCCnetXSD\_CIN\_DISPATCHER\_forPWL\_Obj:
  - a. Select CIN\_CIP\_DISPATCHER as the collaboration template to use.
  - b. Name the collaboration object UCCnetXSD\_CIN\_DISPATCHER\_forPWL\_Obj.
9. Click Next to display the Bind ports dialog. Bind the ports of this collaboration object as shown in the following table.

Table 25. Port bindings for UCCnetXSD\_CIN\_DISPATCHER\_forPWL\_Obj

Collaboration port	Type	Bind to
DestinationAppReceive From	Connector Collaboration	PortConnector For CIN operation: UCCnet_processWorklist: RCIR_RESPONSE For CIP operation UCCnet_processWorklist:PUBLICATION_CMD_RESPONSE
To DestinationAppRetrieve	Connector Connector	iSoftConnector PortConnector

**Note:** You cannot bind the From port of this UCCnetXSD\_CIN\_DISPATCHER\_forPWL\_Obj collaboration object at this time. The collaboration object that contains the port to which this port is bound has not yet been created. You can bind this port later, once the UCCnet\_processWorklistObject collaboration object exists. Continue with the steps outlined in this section. When you reach “Creating the collaboration object for UCCnet\_processWorklist” on page 34, instructions are provided for finishing the port binding for the UCCnetXSD\_CIN\_DISPATCHER\_forPWL\_Obj collaboration object.

10. Click Next to display the Collaboration General Properties dialog. Set any general properties for this collaboration object. If you want to set a tracing level, specify a value for the system trace level or the collaboration trace level in this dialog.

11. Click Next again to display the Properties dialog, which shows the collaboration-specific properties. Set the collaboration-specific properties for this collaboration object the same as those shown in the table for UCCnetXSD\_CIN\_DISPATCHER\_forICR\_Obj.
12. Click Finish to complete the definition of this collaboration object. System Manager displays this collaboration object in the Graphical View. Do not close this Graphical View of the UCCnetXSD\_CIN\_DISPATCHER\_forPWL\_Obj collaboration object so you can return to it later.

### Creating the collaboration object for UCCnet\_processWorklist

The collaboration object for the UCCnet\_processWorklist collaboration template is called UCCnet\_processWorklistObject.

To configure this collaboration object, complete the following steps:

1. Right-click on the Collaboration objects folder of the ItemSyncLibrary project (in System Manager). From the context menu, choose Create New Collaboration Object. System Manager displays the Create New Collaboration dialog.
2. In the Create New Collaboration dialog, enter the following information:
  - a. Highlight UCCnet\_processWorklist in the Template name column of the table.
  - b. In the Collaboration object name field at the bottom of the dialog, enter the name of this collaboration object: UCCnet\_processWorklistObject
3. Click Next to display the Bind ports dialog. Bind only the ports of this collaboration object that are shown in the following table.

Table 26. Initial port bindings for UCCnet\_processWorklist

Collaboration port	Type	Bind to
From	Connector	iSoftConnector or JTextlSoftConnector
ITEM_ADD_CHANGE	Connector	iSoftConnector or JTextlSoftConnector
NEW_ITEM_PUBLICATION_REQUEST	Connector	iSoftConnector or JTextlSoftConnector
INITIAL_ITEM_LOAD_REQUEST	Connector	iSoftConnector or JTextlSoftConnector
PUBLICATION_CMD_RESPONSE	<b>DTD support</b>	<b>DTD support</b>
	Connector XSD support, CIN operation	PortConnector <b>XSD support, CIN operation</b>
	Connector XSD support, CIP operation	PortConnector <b>XSD support, CIP operation</b>
DestinationAppReceive	Collaboration object	CIN_CIP_Dispatcher_forPWL_Obj:From
CIN_RESPONSE	Connector	PortConnector
	<b>DTD support</b>	<b>DTD support</b>
	Connector	PortConnector
	<b>XSD support, CIN operation</b>	<b>XSD support, CIN operation</b>
	Collaboration object	UCCnet_processWorklist_
	<b>XSD support, CIP operation</b>	CIN_RESPONSEObject:From
	Connector	<b>XSD support, CIP operation</b>
		PortConnector
CIP_RESPONSE	<b>DTD support</b>	<b>DTD support</b>
	Connector	PortConnector
	<b>XSD support, CIN operation</b>	<b>XSD support, CIN operation</b>
	Connector	PortConnector
	<b>XSD support, CIP operation</b>	<b>XSD support, CIP operation</b>
	Collaboration object	UCCnet_processWorklist_
		CIP_RESPONSEObject:From

Table 26. Initial port bindings for UCCnet\_processWorklist (continued)

Collaboration port	Type	Bind to
CI_RESPONSE	<b>DTD support</b> Connector <b>XSD support, CIN operation</b> Connector <b>XSD support, CIP operation</b> Collaboration object	<b>DTD support</b> PortConnector <b>XSD support, CIN operation</b> PortConnector <b>XSD support, CIP operation</b> UCCnet_processWorklist_ CI_RESPONSEObject:From
RCIR_RESPONSE	<b>DTD support</b> Connector <b>XSD support, CIN operation</b> Collaboration object <b>XSD support, CIP operation</b> Connector	<b>DTD support</b> PortConnector <b>XSD support, CIN operation</b> UCCnetXSD_CIN_DISPATCHER_ forPWL_Obj:From <b>XSD support, CIP operation</b> Second instance of iSoftConnector or JTextlSoftConnector
RCIR_QUERY_RESPONSE	<b>DTD support</b> Connector <b>XSD support</b> Collaboration object	<b>DTD support</b> PortConnector <b>XSD support</b> UCCnet_processWorklist_ RCIR_QUERY_RESPONSEObject

**Note:** The table above lists only those ports of the UCCnet\_processWorklistObject collaboration object that you can bind at this stage of the process. You cannot bind the following ports of this collaboration object at this stage:

- CATEGORY\_ADD\_CHANGE
- DEAD\_LETTER\_PUB\_RECEIPT
- AUTHORIZATION\_RESPONSES
- UNKNOWN\_RESPONSE
- UNKNOWN\_MESSAGE
- SIMPLE\_RESPONSE
- CATALOGUE\_ITEM\_CONFIRMATION
- FAILURE

All of these ports must be bound to a collaboration object based on the Notify\_by\_eMail collaboration template. You can bind these ports later, once these Notify\_by\_eMail collaboration objects exist. Continue with the steps outlined in this section. When you reach “Creating the collaboration objects for Notify\_by\_eMail” on page 37, instructions are provided for finishing the port binding for the UCCnet\_processWorklistObject collaboration object.

4. Click Next to display the Collaboration General Properties dialog. Set any general properties for this collaboration object. If you want to set a tracing level, specify a value for the system trace level or the collaboration trace level in this dialog.
5. Click Next again to display the Properties dialog, which shows the collaboration-specific properties. Set the collaboration-specific properties for this collaboration object as shown in Table 27 on page 36.

Table 27. Collaboration-specific properties for UCCnet\_processWorklistObject

Property name	Property description	Required?
DB_USER	For Windows and Linux: smbadmin	Yes
DB_PASSWORD	For OS/400, leave this value blank. For Windows and Linux: smbP4\$\$word	Yes
JDBC_DRIVER	For OS/400, leave this value blank. The name of the JDBC driver used to connect to the ICS repository database. For more information, see the description of the DRIVER property in "Creating the logging table" on page 7.	Yes, if InterChange Server Express does not register the driver in the Java Virtual Machine (JVM). The Microsoft SQL driver, for example, is already registered in the JVM.
JDBC_URL	The JDBC URL that corresponds to the driver that JDBC_DRIVER specifies. For more information, see the description of the DATA_SOURCE_NAME property in "Creating the logging table" on page 7.	Yes
SEND_EMAIL_TO	Specifies the email address where the Item Sync sends email messages, assuming that the SEND_EMAIL property is set.	No.Requires: the EmailConnector The SEND_EMAIL property set to "all"
SEND_EMAIL	Determines whether the Item Sync collaboration sends email when it generates certain messages To send email, set this property to the value "all". Otherwise, set it to "none".	Yes, if you want the Item Sync collaboration to send email
AUDITLOG_INSTANCE_NAME	UCCnet	Yes
SUPPLIER_NAME	The name of the partner responsible for synchronizing item information with UCCnet. This value is included in audit log entries.	No
DTD_URL	Specifies the value for the DOCTYPE line in outgoing XML. The default value is: DOCTYPE envelope SYSTEM <a href="http://www.uccnet.net/xmlschema/2.2/envelope_file">http://www.uccnet.net/xmlschema/2.2/envelope_file</a>  For the DTD XML definition type, replace envelope_file with: Envelope.dtd  For the schema-document XML definition type, replace envelope_file with: Envelope.xsd	No, unless the default value is incorrect for the environment
AUTO_RESPOND	Controls whether an automatic response is set to UCCnet	Yes

6. Click Finish to complete the definition of this collaboration object. System Manager displays the collaboration object in the Graphical View. Do not close this Graphical View of the UCCnet\_processWorklistObject collaboration object so you can return to it later.
7. If you are using the schema-document XML definition type for your UCCnet Envelope, complete the binding for the UCCnetXSD\_CIN\_DISPATCHER\_forPWL\_Obj with the following steps:
  - a. Open the collaboration object for UCCnetXSD\_CIN\_DISPATCHER\_forPWL\_Obj in the Graphical View tab by clicking on its name in the heading of the tab. If you have already closed

- UCCnetXSD\_CIN\_DISPATCHER\_forPWL\_Obj, double-click on its name in the Collaboration objects folder of System Manager to display it in the Graphical View tab.
- b. Switch to the Tree View for the collaboration object and right-click on the From port. From the context menu, select Bind Port.
  - c. From the Configure Port dialog:
    - 1) Select Collaboration for BindWith.
    - 2) Select UCCnet\_processWorklistObject.CIN\_DISPATCHER from the list of collaboration object ports.
  - d. Click OK to save the new binding.
  - e. Close the UCCnetXSD\_CIN\_DISPATCHER\_forPWL\_Obj collaboration object.

### Creating the collaboration objects for Notify\_by\_eMail

The Item Sync collaboration requires several collaboration objects for the Notify\_by\_eMail collaboration template.

To configure these collaboration objects, complete the following steps:

1. Right-click on the Collaboration objects folder of the ItemSyncLibrary project (in System Manager). From the context menu, choose Create New Collaboration Object. System Manager displays the Create New Collaboration dialog.
2. In the Create New Collaboration dialog, enter the following information:
  - a. Highlight Notify\_by\_eMail in the Template name column of the table.
  - b. In the Collaboration object name field at the bottom of the dialog, enter the name of the collaboration object you are creating and click Next. The following table lists the names of all collaboration objects that need to be created based on the Notify\_by\_eMail collaboration template.
3. In the Bind ports dialog, bind the From port of each Notify\_by\_eMail collaboration object to a Collaboration, as shown in the following table.

Table 28. Port bindings for Notify\_by\_eMail

Collaboration object	Bind to collaboration object port
UCCnet_processWorklist_CATEGORY_ADD_CHANGEObject	UCCnet_processWorklistObject: CATEGORY_ADD_CHANGE
UCCnet_processWorklist_DEAD_LETTER_PUB_RECEIPT	UCCnet_processWorklistObject: DEAD_LETTER_PUB_RECEIPT
UCCnet_processWorklist_AUTHORIZATION_RESPONSES	UCCnet_processWorklistObject: AUTHORIZATION_RESPONSES
UCCnet_processWorklist_UNKNOWN_RESPONSE	UCCnet_processWorklistObject: UNKNOWN_RESPONSE
UCCnet_processWorklist_UNKNOWN_MESSAGES	UCCnet_processWorklistObject: UNKNOWN_MESSAGES
UCCnet_processWorklist_SIMPLE_RESPONSE	UCCnet_processWorklistObject: SIMPLE_RESPONSE
UCCnet_processWorklist_CATALOGUE_ITEM_CONFIRMATION	UCCnet_processWorklistObject: CATALOGUE_ITEM_CONFIRMATION
Used for schema-document support only (CIN and CIP operation)	
UCCnet_processWorklist_RCIR_QUERY_RESPONSEObject	UCCnet_processWorklistObject: RCIR_QUERY_RESPONSE
Used for schema-document support only (CIN and CIP operation)	

Table 28. Port bindings for Notify\_by\_eMail (continued)

Collaboration object	Bind to collaboration object port
UCCnet_processWorklistObject:CI_RESPONSE Used for schema-document support only (CIP operation)	UCCnet_processWorklistObject:CI_RESPONSE
UCCnet_processWorklist_CIP_RESPONSEObject Used for schema-document support only (CIP operation)	UCCnet_processWorklist_CIP_RESPONSEObject
ItemCommandRouter_DE_LIST_WITHDRAWObject Used for schema-document support only (CIP operation)	Port Connector
UCCnet_processWorklist_CIN_RESPONSEObject Used for schema-document support only (CIN operation)	UCCnet_processWorklist_CIN_RESPONSEObject
UCCnet_processWorklist_FAILURE_RESPONSEObject	UCCnet_processWorklistObject:FAILURE

- Click Next to display the Collaboration General Properties dialog. Set any general properties for this collaboration object. If you want to set a tracing level, specify a value for the system trace level or the collaboration trace level in this dialog.
- Click Next again to display the Properties dialog, which shows the collaboration-specific properties. For each of the Notify\_by\_eMail collaboration objects, set the collaboration-specific properties for this collaboration object as shown in the following table.

Table 29. Collaboration-specific properties for Notify\_by\_eMail

Property name	Property description	Required
EMAIL_NOTIFICATION_RCPTS	Lists the email address of the message recipient	Yes
EMAIL_SUBJECT	Specifies the format of the subject line of the email message. For more information on the syntax that this property supports, see the description of this property in the reference page for the UCCnet Item Synchronization Collaboration.	Yes
EMAIL_MESSAGE	Specifies the format body of the email message. For more information on the syntax that this property supports, see the description of this property in the reference page for the UCCnet Item Synchronization Collaboration.	Yes
DOCTYPE	Specifies the value for the DOCTYPE line in outgoing XML. The default value is: DOCTYPE envelope SYSTEM <a href="http://www.uccnet.net/xmlschema/2.2/envelope_file">http://www.uccnet.net/xmlschema/2.2/envelope_file</a>  For the DTD XML definition type, replace envelope_file with: Envelope.dtd For the schema-document XML definition type, replace envelope_file with: Envelope.xsd	Yes

6. Click Finish to complete the definition of the collaboration object. System Manager displays the Graphical View of this collaboration object. Close the Graphical View for each of the Notify\_by\_eMail collaboration objects.
7. Complete the binding for the UCCnet\_processWorklistObject with the following steps:
  - a. Open the collaboration object for UCCnet\_processWorklistObject in the Graphical View tab by clicking on its name in the heading of the Graphical View tab. If you have already closed UCCnet\_processWorklistObject, double-click on its name in the Collaboration objects folder of System Manager to display it in the Graphical View tab.
  - b. Switch to the Tree View for the collaboration object. For each of the ports listed in the following table, right-click on the port and select Bind Port from the context menu. Provide the information in the Configure Port dialog as listed in the following table.

Table 30. Additional port bindings for UCCnet\_processWorklist

Collaboration object port	Bind to collaboration object port
CATEGORY_ADD_CHANGE	UCCnet_processWorklist_CATEGORY_ADD_CHANGEObject.From
DEAD_LETTER_PUB_RECEIPT	UCCnet_processWorklist_DEAD_LETTER_PUB_RECEIPTObject.From
AUTHORIZATION_RESPONSES	UCCnet_processWorklist_AUTHORIZATION_RESPONSESObject.From
UNKNOWN_RESPONSE	UCCnet_processWorklist_UNKNOWN_RESPONSEObject.From
UNKNOWN_MESSAGES	UCCnet_processWorklist_UNKNOWN_MESSAGESObject.From
SIMPLE_RESPONSE	UCCnet_processWorklist_SIMPLE_RESPONSEObject.From
CATALOGUE_ITEM_CONFIRMATION	UCCnet_processWorklist_CATALOGUE_ITEM_CONFIRMATIONObject.From
FAILURE	UCCnet_processWorklist_FAILURE_RESPONSEObject.From

- c. Once you have completed the port bindings for all the collaboration objects in the preceding table, you can close the UCCnet\_processWorklistObject collaboration object.

### Creating the collaboration object for UCCnet\_requestWorklist

The collaboration object for the UCCnet\_requestWorklist collaboration template is called UCCnet\_requestWorklistObject. You create a collaboration object from System Manager.

To configure this collaboration object, complete the following steps:

1. Right-click on the Collaboration objects folder of the ItemSyncLibrary project (in System Manager). From the context menu, choose Create New Collaboration Object. System Manager displays the Create New Collaboration dialog.
2. In the Create New Collaboration dialog, enter the following information:
  - a. Highlight UCCnet\_requestWorklist in the Template name column of the table.
  - b. In the Collaboration object name field at the bottom of the dialog, enter the name of this collaboration object: UCCnet\_requestWorklistObject
3. Click Next to display the Bind ports dialog. Bind the ports of this collaboration object as shown in the following table.



Table 31. Port bindings for UCCnet\_requestWorklist

Collaboration port	Type	Bind to
From	Connector	JTextRWLConnector
To	Connector	iSoftConnector or JTextISoftConnector

- Click Next again to display the Properties dialog, which shows the collaboration-specific properties. Set the collaboration-specific properties for this collaboration object as shown in the following table.

Table 32. Collaboration-specific properties for UCCnet\_requestWorklist

Property name	Property description	Required
DTD_URL	Specifies the value for the DOCTYPE line in outgoing XML. The default value is: DOCTYPE envelope SYSTEM http://www.uccnet.net/xmlschema/2.2/ envelope_file  For the DTD XML definition type, replace envelope_file with: Envelope.dtd For the schema-document XML definition type, replace envelope_file with: Envelope.xsd	No, unless the default value is incorrect for the environment
SET_UNIQUE_IDS	Controls whether unique IDs (messageIdentifier and uniqueCreatorIdentification) are set in the output XML messages. Possible values are: <ul style="list-style-type: none"> <li>• ALL: set all three unique IDs (default)</li> <li>• NONE</li> <li>• BLANK: set unique ID only if it is blank in the input</li> </ul>	No

- Click Finish to complete the definition of this collaboration object. System Manager displays this collaboration object in the Graphical View. You can close the UCCnet\_requestWorklistObject collaboration object in the Graphical View.

## Deploying the solution

Once you have created all the components in the ItemSyncLibrary ICL project, you are ready to create a user project and deploy this project to the WebSphereICS instance of InterChange Server Express.

**Note:** Before any adapter that uses WebSphere MQ Queues in its configuration (for example iSoftConnector) can be started (after deployment), the queues must be created. For OS/400 queue creation, use: Start>Programs>IBM WebSphere Business Integration Express for Item Sync v4.3.1>iSeries remote>InterChange Server Express> Configure Queue Manager. This will open crossworlds\_mq.tst (on OS/400) in NotePad on your PC. From NotePad you can edit the file to contain the Queues you need to create (see samples in your installed files directory). When you close NotePad, the OS/400 tools will create your Queue definitions in the Queue Manager listed in InterchangeSystem.cfg.

To deploy the solution, complete these steps:

- Create a user project from System Manager:
  - Right-click on the User Projects folder and select New User Project.



- b. From the New User Project dialog, enter the name of your user project in the Project name field and click in the box next to the ItemSyncLibrary in the Available Integration Component Libraries box.
  - c. Click Finish. Once System Manager creates your user project, you will see a plus sign ("+") appear next to the User Projects folder. Under this folder you will find a folder called InterChange Server Projects, and under that folder will be the folder for your new user project.
2. Make sure your InterChange Server instance is in Design mode. You can check the InterChange Server view in System Manager to determine the mode of your ICS instance. If your instance does not list "Design" in its Mode column, you must bring down the ICS instance and bring it back up in Design mode.
3. Deploy the user project to the WebSphereICS instance with the Deploy wizard.
  - a. Right-click on the WebSphereICS instance and select Add user project. Click on the new user project that you created.
  - b. The newly added user project appears under the WebSphereICS instance. Right-click on the WebSphereICS instance and select Deploy Project. The Deploy Wizard dialog displays.
  - c. Expand the user project that you are deploying, to see a list of project components.
  - d. Deploy the business object definitions by clicking in the box beside the Business Objects folder. Click Next and then click Finish to start the deployment of business object definitions.
  - e. Start the Deploy wizard again and deploy the maps by clicking in the box beside the Maps folder and checking the Compile option. Click Next, then click Finish to start the deployment of maps.
  - f. Start the Deploy wizard again and deploy the relationships by clicking in the box beside the Relationships folder and checking the Create schema option. Click Next, then click Finish to start the deployment of relationships.
  - g. Start the Deploy wizard again and deploy the connectors by clicking in the box beside the Connectors folder. Click Next, then click Finish to start the deployment of connectors.
  - h. Start the Deploy wizard again and deploy the collaboration templates by clicking in the box beside the Collaboration Templates folder. Click Finish to start the deployment of collaboration templates.
4. At this point, all components of the Item Sync solution except the collaboration objects should be deployed to your WebSphereICS instance. Before you deploy collaboration objects, you must restart InterChange Server:
  - a. Right-click on your WebSphereICS instance in the InterChange Server view of System Manager. Select the Shutdown > Gracefully option.
  - b. Restart your ICS instance with Start > Programs > IBM WebSphere Business Integration Item Sync Express v4.3 > InterChange Server Express > InterChange Server.  
 On OS/400: Start > Programs > IBM WebSphere Business Integration Item Sync Express v4.3 > iSeries remote > InterChange Server Express > InterChange Server.
  - c. Reconnect to your WebSphereICS instance in System Manager.
5. Launch System Monitor and start the relationships.
6. Start the Deploy wizard again and deploy the collaboration objects by clicking in the box beside the Collaboration Objects folder. Click Finish to start the deployment of collaboration objects.

## Populating the relationships after deployment

After the relationships have been deployed, you must then populate them with default values and make any necessary modifications to the default schemas. To populate the relationships, complete the steps appropriate for your database server.

### On OS/400:

- Run the appropriate CL command, and then start InterChange Server Express and your adapters. Use one of these CL commands:  
For DTD XML definition type: CALL QWEBBIICS/QWEBBIIREL  
For the schema-document XML definition type:CALL QWEBBIICS/QWEBBIIRELX

### On Windows and Linux: DB2 Database Server

1. Move to the following directory:  
ProductDir\collaborations\dependencies\UCCnet\db2
2. Start a DB2 session, as follows:
  - On Windows:  
Start > Programs > IBMDB2 > Command Line Tools > Command Window.
  - On Linux:  
Enter the following command in a terminal window:  
db2
3. At the prompt: On Windows, enter the following comment: db2 connect to SMB\_DB USER smbadmin USING smbP4\$\$word. On Linux, enter the following command:connect to SMB\_DB user smbadmin using smbP4\$\$word
4. After you are connected, enter the following command to run the script that creates the audit\_log table: audit\_log.sql
5. After you are connected, run one of the following SQL scripts:
  - For solutions that use the DTD XML definition type, enter the command: InitializeRelationshipTables.sql
  - For solutions that use the schema-document XML definition type, enter the command: InitializeRelationshipTablesForXSD.sql

### Windows and Linux: Microsoft SQL Server

1. If you have not left the Query Analyzer open from earlier configuration steps, start the Query Analyzer with Start > Programs > Microsoft SQL Server > Query Analyzer and enter the following information in the Connect to SQL Server dialog:
  - a. Make sure that the SQL Server authentication radio button is selected.
  - b. Log into the ICS database server with the following default account information:  
Account: smbadmin  
Password: smbP4\$\$word  
  
**Note:** This account information is the default database user account that the WebSphere Business Integration Express for Item Sync Installer creates. If you have modified this account since it was created, use the current account information.
  - c. Select the ICS repository database by selecting the SMB\_DB database from the dropdown menu in the Query Analyzer toolbar.
2. Load the appropriate relationship-table script into the Query Analyzer with File > Open.

- For solutions that use the DTD XML definition type, enter the command: InitializeRelationshipTables.sql
  - For solutions that use the schema-document XML definition type, enter the command: InitializeRelationshipTablesForXSD.sql  
This script is located in the following directory:  
ProductDir\collaborations\dependencies\UCCnet\mss
3. Run the relationship-table script with Query > Execute.
  4. Exit Query Analyzer.

### Populating the trading\_partner tables

After running the InitializeRelationshipTables or InitializeRelationshipTablesForXSD script, you must manually populate the trading\_partner table with the correct GLN SOURCE and TARGET information.

The following example adds a SOURCE row to the trading\_partner table. Since the SOURCE entry indicates your own GLN, the table should have only one SOURCE record.

```
insert into trading_partner (gln_code, trading_partner_name,
trading_partner_contact,
trading_partner_group, trading_partner_type, initial_load_flag)
values ('0000000000001','ACME Inc.','Mr. Acme', 'Group 1','SOURCE','Y')
```

The next example adds a TARGET entry to the table. Since the TARGET entries record your trading partners' GLNs, the table can have multiple TARGET records.

```
insert into trading_partner (gln_code, trading_partner_name,
trading_partner_contact, trading_partner_group, trading_partner_type,
initial_load_flag)
values ('0000000000002','Green Co.','Ms. Green', 'Group 1','TARGET','N')
```

## Restarting ICS Express and starting your Adapter

After you have deployed the project, you must shutdown ICS Express, then restart ICS Express, and then start your adapter.

1. To stop ICS Express, right-click on your WebSphereICS instance in the InterChange Server view of System Manager. Select the Shutdown > Gracefully option. Alternatively, on OS/400, you can use the CL command ENDSBS SBS(QWEBBIICS) OPTION(\*IMMED) to shut down ICS Express.
2. To start ICS Express:
  - On Windows:

Choose Start > Programs > IBM WebSphere Business Integration for Item Sync Express v4.3 > InterChange Server Express.
  - On Linux:

Enter the following command in a terminal window  
:ProductDir/bin/ics\_manager -start.
  - On OS/400: On the Windows machine where you installed System Manager and the toolset, choose the shortcut Start > Programs > IBM WebSphere Business Integration Express for Item Sync v4.3.1 > iSeries remote > InterChange Server Express. Or, on your OS/400 system, do the CL command, STRSBS QWEBBIICS/QWEBBIICS
3. To start the adapter
  - On Windows:

Choose Start > Programs > IBM WebSphere Business Integration for Item Sync Express v4.3 > Adapters > Connectors > *name of your adapter*.

- On Linux:  
Enter following command in a terminal window:  
ProductDir/connectors/Connector/start\_Connector.sh Connector ICS
- On OS/400: On the Windows machine where you installed System Manager and the toolset, choose Start > Programs > IBM WebSphere Business Integration Express for Item Sync v4.3.1 > iSeries remote > Adapters > Connectors > *name of your adapter*. V4.3>iSeries>Adapters>Connectors>*name of your adapter*

**For more information, see the following:** *User Guide for WebSphere Business Integration Express for Item Synchronization.*

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## Administration

Administration tasks for WebSphere Business Integration Express for Item Synchronization includes the following:

- Monitoring the system
- Operating ICS Express
- Operating connectors
- Operating maps
- Operating relationships

**For detailed information regarding Administration, see the following:** *User Guide for WebSphere Business Integration Express for Item Synchronization.*

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