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Preface

This documentation describes how to configure and use the iWay Integration Solution for TRADACOMS. It is intended for developers to enable them to parse, transform, validate, store, and integrate information into the existing enterprise and pass information electronically, to partners, in TRADACOMS-defined format.

Note: This Release 7.0.x content is currently being updated to support iWay Release 8.0.x software. In the meantime, it can serve as a reference for your use of iWay Release 8. If you have any questions, please contact Customer_Success@ibi.com.

How This Manual Is Organized

This manual includes the following chapters:

<table>
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<tr>
<th>Chapter/Appendix</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</tr>
<tr>
<td></td>
<td>Describes the TRADACOMS standard and how the components of the iWay Integration Solution for TRADACOMS streamline the flow of information.</td>
</tr>
<tr>
<td>2</td>
<td>Deployment Information for Your iWay Integration Solution</td>
</tr>
<tr>
<td></td>
<td>Describes the iWay products used with your iWay Integration Solution for TRADACOMS and provides a roadmap to full information on those products. Introduces the concept of a channel for the construction of a message flow in iWay Service Manager.</td>
</tr>
<tr>
<td>3</td>
<td>Working With TRADACOMS Inbound and Outbound Applications Using iWay Integration Tools</td>
</tr>
<tr>
<td></td>
<td>Describes how to work with TRADACOMS inbound and outbound applications using iWay Integration Tools (iIT).</td>
</tr>
<tr>
<td>4</td>
<td>Inbound Processing: TRADACOMS to XML</td>
</tr>
<tr>
<td></td>
<td>Includes an overview of the iWay business components and processing steps in a basic inbound message flow. The message flow converts a document from TRADACOMS format to XML format. Also includes instructions for configuring a basic inbound message flow.</td>
</tr>
<tr>
<td>Chapter/Appendix</td>
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</tr>
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<td>-----------------</td>
<td>----------</td>
</tr>
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<td>5</td>
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</tr>
<tr>
<td>A</td>
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</tr>
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<td>C</td>
<td>Using iWay Integration Tools to Configure an Ebix for TRADACOMS</td>
</tr>
<tr>
<td>D</td>
<td>Sample TRADACOMS Files</td>
</tr>
</tbody>
</table>

### Documentation Conventions

The following table describes the documentation conventions that are used in this manual.

<table>
<thead>
<tr>
<th>Convention</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>THIS TYPEFACE or this typeface</td>
<td>Denotes syntax that you must enter exactly as shown.</td>
</tr>
<tr>
<td>this typeface</td>
<td>Represents a placeholder (or variable), a cross-reference, or an important term. It may also indicate a button, menu item, or dialog box option that you can click or select.</td>
</tr>
<tr>
<td>underscore</td>
<td>Indicates a default setting.</td>
</tr>
<tr>
<td>Key + Key</td>
<td>Indicates keys that you must press simultaneously.</td>
</tr>
<tr>
<td>{ }</td>
<td>Indicates two or three choices. Type one of them, not the braces.</td>
</tr>
<tr>
<td></td>
<td>Separates mutually exclusive choices in syntax. Type one of them, not the symbol.</td>
</tr>
<tr>
<td>Convention</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>...</td>
<td>Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis (...).</td>
</tr>
<tr>
<td>.</td>
<td>Indicates that there are (or could be) intervening or additional commands.</td>
</tr>
</tbody>
</table>

Related Publications

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You can also access support services electronically, 24 hours a day, with InfoResponse Online. InfoResponse Online is accessible through our website, [http://www.informationbuilders.com](http://www.informationbuilders.com). It connects you to the tracking system and known-problem database at the Information Builders support center. Registered users can open, update, and view the status of cases in the tracking system and read descriptions of reported software issues. New users can register immediately for this service. The technical support section of [http://www.informationbuilders.com](http://www.informationbuilders.com) also provides usage techniques, diagnostic tips, and answers to frequently asked questions.

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To learn about the full range of available support services, ask your Information Builders representative about InfoResponse Online, or call (800) 969-INFO.
Help Us to Serve You Better

To help our consultants answer your questions effectively, be prepared to provide specifications and sample files and to answer questions about errors and problems.

The following tables list the environment information our consultants require.

<table>
<thead>
<tr>
<th>Platform</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td></td>
</tr>
<tr>
<td>OS Version</td>
<td></td>
</tr>
<tr>
<td>JVM Vendor</td>
<td></td>
</tr>
<tr>
<td>JVM Version</td>
<td></td>
</tr>
</tbody>
</table>

The following table lists the deployment information our consultants require.

<table>
<thead>
<tr>
<th>Adapter Deployment</th>
<th>For example, JCA, Business Services Provider, iWay Service Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container</td>
<td>For example, WebSphere</td>
</tr>
<tr>
<td>Version</td>
<td></td>
</tr>
<tr>
<td>Enterprise Information System (EIS) - if any</td>
<td></td>
</tr>
<tr>
<td>EIS Release Level</td>
<td></td>
</tr>
<tr>
<td>EIS Service Pack</td>
<td></td>
</tr>
<tr>
<td>EIS Platform</td>
<td></td>
</tr>
</tbody>
</table>

The following table lists iWay-related information needed by our consultants.

<table>
<thead>
<tr>
<th>iWay Adapter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>iWay Release Level</td>
<td></td>
</tr>
<tr>
<td>iWay Patch</td>
<td></td>
</tr>
</tbody>
</table>
The following table lists additional questions to help us serve you better.

<table>
<thead>
<tr>
<th>Request/Question</th>
<th>Error/Problem Details or Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the problem arise through a service or event?</td>
<td></td>
</tr>
<tr>
<td>Provide usage scenarios or summarize the application that produces the problem.</td>
<td></td>
</tr>
<tr>
<td>When did the problem start?</td>
<td></td>
</tr>
<tr>
<td>Can you reproduce this problem consistently?</td>
<td></td>
</tr>
<tr>
<td>Describe the problem.</td>
<td></td>
</tr>
<tr>
<td>Describe the steps to reproduce the problem.</td>
<td></td>
</tr>
<tr>
<td>Specify the error message(s).</td>
<td></td>
</tr>
<tr>
<td>Any change in the application environment: software configuration, EIS/database configuration, application, and so forth?</td>
<td></td>
</tr>
<tr>
<td>Under what circumstance does the problem not occur?</td>
<td></td>
</tr>
</tbody>
</table>

The following is a list of error/problem files that might be applicable.

- Input documents (XML instance, XML schema, non-XML documents)
- Transformation files
- Error screen shots
- Error output files
- Trace files
User Feedback

- Service Manager package to reproduce problem
- Custom functions and agents in use
- Diagnostic Zip
- Transaction log

For information on tracing, see the iWay Service Manager User’s Guide.

User Feedback

In an effort to produce effective documentation, the Technical Content Management staff welcomes your opinions regarding this document. Please use the Reader Comments form at the end of this document to communicate your feedback to us or to suggest changes that will support improvements to our documentation. You can also contact us through our website, http://documentation.informationbuilders.com/connections.asp.

Thank you, in advance, for your comments.

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Chapter 1

Introducing the iWay Integration Solution for TRADACOMS

The iWay Integration Solution for TRADACOMS transforms TRADACOMS documents into standard XML format, or transforms XML representations into TRADACOMS format.

This section provides an overview of TRADACOMS and describes the features that are provided by the iWay Integration Solution for TRADACOMS.

In this chapter:

- Prerequisites for TRADACOMS
- A Brief History of Electronic Data Interchange
- Components of a TRADACOMS Transmission and File Structure
- Features of the iWay Integration Solution for TRADACOMS
- Components of the iWay Integration Solution for TRADACOMS
- Installing the iWay Integration Solution for TRADACOMS

Prerequisites for TRADACOMS

Before you use the iWay Integration Solution for TRADACOMS for inbound (TRADACOMS to XML) and outbound (XML to TRADACOMS) processing, ensure that the following prerequisites are met:

- You have a working knowledge of iWay Service Manager (iSM).
- You have a working knowledge of iWay Integration Tools (iIT).
- iSM Version 7.0.6 is installed.
- iIT Version 7.0.6 is installed.
- iWay Integration Solution for TRADACOMS (Patch) is installed.
- System and channel Special Registers (SREGs) are updated to match your directory structure.
A Brief History of Electronic Data Interchange

Electronic Data Interchange (EDI) is a set of standards for formatting information that is electronically exchanged between one business and another, or within a business. These standards describe how documents for conducting certain aspects of business—such as purchase orders and purchase order acknowledgements—are structured.

By specifying a standardized, computer-readable format for transferring data, EDI enables the automation of commercial transactions around the world. It provides a common, uniform language through which computers can communicate for fast and efficient transaction processing.

Early Standardization Efforts

Before the development of standards, many businesses used proprietary systems to exchange trading information such as purchase orders and invoices. However, they recognized the economic need for a faster, less costly way to process information in order to stay competitive in the business world. Business sectors such as transportation, grocery supply, and banking drove the creation of standards for the communication of data.

In 1968, the United States Transportation Data Coordinating Committee (TDCC) was formed to oversee the design and development of format standards for transportation documents. In 1975, the TDCC released its first standard, the Rail Transportation Industry Application.

The Rail Transportation Industry Application focused on the content of a message—rather than the means of transmission—through the use of transaction sets. A transaction set is a business document that consists of an arrangement of data segments. The data segments include data elements in an exact order. The concept of the transaction set is the basis of the EDI ANSI X12 standard created later and widely used today.

About the same time that the TDCC was formed, the United Kingdom (UK) started its own effort to develop standard transaction documents for trans-Atlantic trade. The UK Department of Customs and Excise, with the help of the British Simplification of Trade Procedures Board (SITPRO), developed a competitive document standard for international trade, named TRADACOMS.
The TRADACOMS Standard

TRADACOMS is an early standard for EDI used in the UK retail and grocery sector. It was introduced in 1982 as an implementation of the UN/GTDI syntax, one of the precursors of EDIFACT, and was maintained and extended by the UK Article Numbering Association (now called GS1 UK). The standard is obsolescent since development of it effectively ceased in 1995 in favor of the EDIFACT EANCOM subsets. Despite the fact that further development of TRADACOMS effectively ceased in 1995, it has proved durable and the majority of the retail EDI traffic in the UK still uses TRADACOMS.

Components of a TRADACOMS Transmission and File Structure

A TRADACOMS transmission consists of:

- A Start of Transmission Segment (STX)
- One or more messages
- An optional Reconciliation Message (RSGRSG)
- An End of Transmission Segment (END)

A TRADACOMS File consists of a series of Messages. Each Message has a similar overall structure, beginning with a Message Header Segment (MHD) and ending with a Message Trailer Segment (MTR). The contents, however, are different for each transaction type or File Format (for example, Orders, Invoices), and these are specified in the individual format specifications.

Normal practice should be to send one file per STX envelope. However, in library implementations, when several libraries trade through a shared EDI gateway, it is more efficient to send multiple files of the same type in a single STX envelope. This practice should be agreed between trading partners.

Each segment consists of:

- Segment label (for example, STX)
- Separator (=)
- One or more Data elements
  - Data (coded or free-text as permitted by rules)
  - Separator (:
- Data
Data Element terminator (+)

Segment terminator (‘)

For example:

STX=ANAA:1+5012345678987:LIB+5098765432123:SUPP+01906+246359++BTOERS2’

The five characters that are listed and described in the following table have special significance in a TRADACOMS transmission.

<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>=</td>
<td>The equals sign is used to separate a segment label from the first data element in the segment.</td>
</tr>
<tr>
<td>+</td>
<td>The plus sign is used to separate successive data elements within a segment.</td>
</tr>
<tr>
<td>:</td>
<td>The colon is used in composite data elements to separate successive component sub-elements.</td>
</tr>
<tr>
<td>’</td>
<td>The apostrophe is used to terminate a segment.</td>
</tr>
<tr>
<td>?</td>
<td>The question mark is used as a “release character”. When any of these five characters with special meaning is required as part of the text content of a data element, it must be preceded by the release character in order to ensure that it is not misinterpreted. For example, O’REILLY must be sent as O’REILLY. Note that the release character is not counted as part of the length of the data element.</td>
</tr>
</tbody>
</table>

Features of the iWay Integration Solution for TRADACOMS

The standards-based iWay Integration Solutions for Electronic Commerce reduces the amount of effort it takes to integrate document transformations with your internal enterprise applications and third-party trading partners. It includes conversion and validation of documents to XML format, making it easy to include documents in your XML-based integration projects.

Features include:

- Integration with iWay Service Manager (iSM).
Integration with iWay Trading Partner Manager (iTPM).

Integration with more than 200 other information assets, including popular back-office systems, databases, and front-office systems.

Integration with leading application servers. Some of the popular platforms are BEA WebLogic, IBM WebSphere, Sun Java Enterprise System, and Oracle Application Server.

Support for synchronous and asynchronous bi-directional interactions for documents between application servers, integration brokers, third-party software packages, and messaging services.

Out of the box Ebix-based support for transaction sets. For more information, see Ebix-Supported Transaction Set on page 79.

A Reusable framework for parsing, transforming, and validating documents without the need to write custom code.

A data dictionary approach to facilitate transformations to XML. All iWay Integration Solutions use dictionaries to transform data from standard format to any other format, or from any format to standard format. They support flat files, comma-delimited files, popular relational database formats, XML, and more.

Pre-built data dictionaries, XML schemas, transformation templates, and rule files for automatic transformation and validation of input and output documents.

TRADACOMS Syntax and Transmission Structure

The syntax is a looping data structure. Elements are variable length. Here are some other highlights:

- Batches begin with an STX segment and terminate with an END segment.
- The segment tag delimiter is an equal sign character (=) rather than a data element separator.
- Only implicit decimals are used.
- All dates use a six digit format (YYMMDD).

Any segment can occur only once in a TRADACOMS message definition. Segments tend to be very specific with a qualifier to identify their function.

TRADACOMS uses Files with one or more examples of the message being preceded by a header message, and followed by one or more trailer messages. This avoids the duplication of common header and trailer information which can occur in other standards.
TRADACOMS files are only intended to be used within the UK. They make no allowance for currencies other than Sterling. Tax information is also geared to UK requirements.

For more information, see the sample documents in *Sample TRADACOMS Files* on page 105.

**Components of the iWay Integration Solution for TRADACOMS**

iWay business components used in the construction of a message flow for TRADACOMS transactions include:

- e-Business Information Exchange (Ebix) File
- Listener
- Preparser
- Validation Report

**Ebix**

iWay Software provides the various Ebix files to use in conjunction with iWay integration solutions.

For more information on the supported documents and transaction set, see *Ebix-Supported Transaction Set* on page 79.

An Ebix is a collection of metadata that defines the structure of data.

Each document includes:

- A data dictionary, which describes the segments and elements that compose each document. The dictionary is used to validate and transform per the standard.

- An XML schema.

- A TRADACOMS to XML transformation template.

- A rule file, which validates business rules as defined by the standard or the user.

**Listener**

A listener is an iWay business component, which picks up an incoming message on a channel. The sample channel includes a File listener, which acquires transactions placed into a specified directory on a file system.
Preparser

A preparser is an iWay business component that converts incoming messages into XML documents.

Validation Report

A validation report service is created as an XML document in the data flow. The report consists of the input message, the output message, and a section that indicates SUCCESS or ERROR, and any error message from transformation. On ERROR, this report can be routed for inspection, remediation, and possible reprocessing.

Installing the iWay Integration Solution for TRADACOMS

For more information on the files and components described in this section (including installation instructions), see the i706000SM1394 Patch Release Notes.

The iWay Integration Solution for TRADACOMS includes the following files for installation:

- TRAD_TRAD93.ebx. Ebix file for the supported TRADACOMS transaction set.
- TRADACOMS_accelerator.zip. This .zip file contains a predefined directory structure that is used by inbound and outbound channels to route documents as they are processed. All iWay E-Commerce adapters share a common paradigm for these directories.

Procedure: How to Install the iWay Integration Solution for TRADACOMS

1. Unzip the TRADACOMS_accelerator.zip file to a location on your file system. For example:
   
   C:\TRADACOMS_accelerator

   **Note:** You must set the TRAD_Installdir Special Register (SREG) in the iSM Administration Console to reflect this location.

2. Stop iWay Service Manager (iSM).

3. Install patch i706000SM1394.

   You can also manually copy the following .jar files to the `<ism_home>\lib` directory:

   - iwtrad.jar
   - iwtransc.jar
4. Start iSM.

5. Deploy and start the iWay Integration Application (iIA) containing the sample channels using iWay Integration Tools (iIT).

For more information, see BAD XREF HERE "Import the Archive for Sample Inbound and Outbound Channels."
This topic describes the iWay products used with your iWay Integration Solution for TRADACOMS and provides a roadmap to full information on those products.

It also introduces the concept of a channel for the construction of a message flow in iWay Service Manager.

**In this chapter:**
- iWay Service Manager
- iWay Correlation Facility
- Using a Channel to Construct a Message Flow

## iWay Service Manager

iWay Service Manager (iSM) is the heart of the Universal Integration Framework and is an open transport service bus. iSM uses graphical tools to create sophisticated integration services without writing custom integration code by:

- Using metadata from target applications
- Transforming and mapping interfaces
- Managing stateless processes

Its capability to manage complex integration interactions makes it ideally suited to be the foundation of a service-oriented architecture.

For more information, see the *iWay Service Manager User’s Guide*.

## iWay Correlation Facility

The iWay Correlation Facility (also known as the Correlation Manager) maintains records of anticipated activities occurring in the system. Correlation actions take the correlation from OPEN to CLOSED state, and allow history to be recorded. Agents are provided to implement Correlation Facility interactions within process flows, however, it is possible to use this API to accomplish this same purpose within your own exits.

For more information on using the iWay Correlation Facility, see the *iWay Service Manager User’s Guide* and the *iWay Service Manager Programmer’s Guide*.
Using a Channel to Construct a Message Flow

The following diagram shows the channel components available in the construction of a message flow.

The value $n$ underneath a component name indicates how many instances of that component occur in a channel configuration (for example, zero, one, or more than one).

The required components are shown in bold.
Components of a Channel

A channel consists of:

- An inlet, which defines how a message enters a channel.
- A route, which defines the path a message takes through a channel.
- Outlets, which define how transformed messages leave a channel.
- Ebix files, which are collections of metadata that define the structure of data.

iSM provides a design-time repository called the Registry, where you assemble and manage the components in a channel.

**Inlets** contain:

- A listener, which brings the incoming message into the channel.
- Decryptors, which apply a decryption algorithm to an incoming message and verifies the security of the message.
- Preparsers, which convert incoming messages to XML.

**Routes** contain:

- Transformers
- Reviewers
- Validation rules processors
- Process flows (pflow). This stateless, lightweight, short-lived microflow is executed to carry a message through processing. Pflows are created using iWay Integration Tools (iIT) and are persisted to the Registry.
- Java services, which handle the business logic of processing a message.
- Adapters, which are used to connect to back-end systems.

**Outlets** contain:

- Preemitters.
- Encryptors.
- Emitters.

For more information on all of these components, see the *iWay Service Manager User's Guide*. 
This chapter describes how to work with TRADACOMS inbound and outbound applications using iWay Integration Tools (iIT).

In this chapter:

- TRADACOMS Inbound and Outbound Applications Overview
- TRADACOMS Inbound and Outbound Applications Prerequisites
- Extracting TRADACOMS User Samples
- Importing TRADACOMS User Samples to iIT as a Workspace
- Publishing iIAs to the iSM Registry
- Deploying iWay Integration Applications to iWay Service Manager
- Configuring Special Registers
- Stopping Inbound and Outbound Processing
- Testing Sample Applications

TRADACOMS Inbound and Outbound Applications Overview

This chapter provides instructions to create, import, export, and work with TRADACOMS inbound and outbound applications.

The previously deployed iIA and channels will be used to transform TRADACOMS to XML for inbound processing and XML to TRADACOMS for outbound processing.

The inbound application channel creates an XML representation of a TRADACOMS inbound message, and an XML-formatted validation report. The documents are routed based on the success or failure of transformation.

The outbound application channel creates a TRADACOMS message from XML and a XML-formatted validation report. The documents are routed based on the success or failure of transformation.
TRADACOMS Inbound and Outbound Applications Prerequisites

Before you continue, ensure that the following prerequisites are met:

- You have a working knowledge of iSM and iIT.
- iSM Version 7.0.6 is installed.
- iWay TRADACOMS Adapter is installed.
- iIT Version 7.0.6 is installed.
- System and channel Special Registers (SREGs) are updated to match your directory structure, as shown in How to Extract User Samples for TRADACOMS on page 26.

Extracting TRADACOMS User Samples

This section describes how to extract user samples for TRADACOMS.

Procedure: How to Extract User Samples for TRADACOMS

1. Download the TRAD_usr_samples.zip file containing TRADACOMS user sample workspace from the following website:

   http://techsupport.informationbuilders.com

   The downloaded TRADACOMS_usr_samples.zip contains the following files:

   - TRADCOMS_Accelerator.zip
   - TRAD_usr_samples_iIT_workspace.zip

2. Save the TRADACOMS_usr_samples_iIT_workspace.zip file to a folder on your local drive.
3. Unzip the TRADACOMS_Accelerator.zip file to the location where you want to store your data, as shown in the following image.

The TRADACOMS_Accelerator.zip file contains sample input and output data that you can use.

- Inbound test data is located in the following folder:
  \TRADACOMS_Accelerator\TRAD_in\IB_Archive

  For example:

- Outbound test data is located in the following folder:
For example:

![Importing TRADACOMS User Samples to iIT as a Workspace](image)

Importing TRADACOMS User Samples to iIT as a Workspace

This section describes how to import TRADACOMS user samples to iWay Integration Tools (iIT) as a workspace.

**Procedure:** How to Import TRADACOMS User Samples to iIT as a Workspace

1. Start iIT.
2. Right-click anywhere inside the Integration Explorer tab and select *Import...* from the context menu.
The Import dialog opens.

3. Expand the General folder, select Existing Projects into Workspace, and then click Next.
The Import Projects pane opens, as shown in the following image.

4. Click **Select archive file** and then click **Browse**.
The Select archive containing the projects to import pane opens.

5. Select the *TRAD_usr_samples_iIT_workspace.zip* file and click **Open**.
You are returned to the Import Projects pane, as shown in the following image.

6. Click Finish.
The TRADACOMS user samples are loaded into your iIT workspace, as shown in the following image.

![Image of Integration Explorer tab](image)

The Integration Explorer tab on the left pane displays a hierarchy of all the imported channel components (for example, Ebixes, listeners, outlets, preparsers, routes, process flows, and so on).

**Publishing iIAs to the ISM Registry**

This section describes how to publish iWay Integration Applications (iIAs) to the iWay Service Manager (ISM) Registry.
Procedure: How to Publish iIAs to the iSM Registry

1. In the Integration Explorer tab, right-click the application name, select **Integration Tools** from the context menu, and then click **Publish to**..., as shown in the following image.
2. In the Server URL field, type the server IP number or computer name and then the port number (default port is 9000). For example:

http://111.111.111.000:9000

Type the iSM credentials (for example, user name: iway, password: iway).

3. Click Finish.

The Console tab on the bottom provides a status log that you can use for verification purposes, as shown in the following image.
Deploying iWay Integration Applications to iWay Service Manager

This section describes how to deploy iWay Integration Applications (iIAs) to iWay Service Manager (iSM).

Procedure: How to Deploy iWay Integration Applications to iWay Service Manager

1. Enter the following URL to access the iSM Administration Console:
   
   \[ \text{http://[host]:[port]}/ism \]

   where:

   host

   Is the host machine where iSM is installed. The default value is \textit{localhost}.

   port

   Is the port where iSM is listening. The default port is 9999.

2. After publishing the iIA, you can find it under the Management\Applications link in the iSM Administration Console, as shown in the following image.

   ![iWay Service Manager](image)

3. Click the \textit{Deploy} icon next to the application name under the Actions column.
4. Click **Deploy**.

5. From the Management drop-down list, select your deployed application.

6. Click **Server** in the top menu and then **Register Settings** in the left pane for the application.

7. Click **Add** to create all required registers (**TRAD_Installdir**, **TRAD_Input**, **TRAD_Output**, and **ValidateTRAD**) for the application.

   For more information, see BAD XREF HERE "Setting Registers in the iWay Service Manager Administration Console."
8. In the State column, click the Deployment State icon to start the deployed Application.

![iWay Service Manager](image)

9. When the Are you sure you want to start message appears, click OK to proceed.

10. Once the application has successfully started, place your input data into the input location that is configured for the application.

11. Select the application from the Management drop-down list.

12. Click the Monitoring link. The deployed application channels within the iIA are displayed, as shown in the following image.

![iWay Service Manager](image)

You can stop either channel and have only one channel running at a time as required.
Configuring Special Registers

This section describes how to configure the required Special Registers (SREGs) for the iWay Integration Solution for TRADACOMS using the iWay Service Manager (iSM) Administration Console. You must configure the following SREGs:

- TRAD_Installdir
- TRAD_Input
- TRAD_Output

These SREGs will be used by the pre-configured channels for inbound and outbound processing to route XML and TRADACOMS messages as required.

Procedure: How to Configure Special Registers

1. Create the following new folder on your file system:
   
   ```
   C:\TRADACOMS_Accelerator
   ```

2. Log on to the iSM Administration Console.

3. Click Server in the menu bar located on the top of the iSM Administration Console and then click Register Settings in the left pane.
The Register Settings pane opens, as shown in the following image.

4. Click Add.
The Register Settings pane opens, as shown in the following image.

5. Perform the following steps:
   
a. Type the following in the Name field:
      
      TRAD_InstallDir

b. Type the following in the Value field, which is the new folder you created on your file system in Step 1:
   
   C:\TRADACOMS_Accelerator

c. Click Finish.
You are returned to the Special Registers pane, where the new SREG you created (TRAD_Installldir) is now listed, as shown in the following image.

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>iwayoutversion</td>
<td>7.0.6</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>iwawayhome</td>
<td>C:\PROGRA~2\iwaway7/</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>iwawaydata</td>
<td>C:\PROGRA~2\iwaway7/</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>iwaway.startup</td>
<td>1476815813720</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>iwaway.config</td>
<td>base</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>engine</td>
<td>base</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>iwawayconfig</td>
<td>base</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>iwawayworkdir</td>
<td>C:\PROGRA~2\iwaway7/config/base</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>iwaway.workdir</td>
<td>C:\PROGRA~2\iwaway7/config/base</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>iwaway.serverp</td>
<td>172.30.234.118</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>iwaway.serverhost</td>
<td>INFORMATA-Q6T67IU</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>iwaway.serverfullhost</td>
<td>INFORMATA-Q6T67IU.ibl.com</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>iwaway.pid</td>
<td>1956</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>jca.unlimited</td>
<td>false</td>
<td>system defined (readonly)</td>
<td>string</td>
</tr>
<tr>
<td>TRAD_Installldir</td>
<td>C:\TRADACOMS_Accelerator</td>
<td>string</td>
<td></td>
</tr>
<tr>
<td>envoy.port</td>
<td>9001</td>
<td>integer</td>
<td></td>
</tr>
<tr>
<td>ibse.port</td>
<td>9000</td>
<td>integer</td>
<td></td>
</tr>
<tr>
<td>sentinel-pwd</td>
<td>[not viewable]</td>
<td>password</td>
<td></td>
</tr>
<tr>
<td>sentinel-uid</td>
<td>admin</td>
<td>string</td>
<td></td>
</tr>
<tr>
<td>sentinel-url</td>
<td><a href="http://localhost:8080">http://localhost:8080</a></td>
<td>string</td>
<td></td>
</tr>
</tbody>
</table>

6. Click Add.
The Register Settings pane opens, as shown in the following image.

7. Perform the following steps:
   a. Type the following in the Name field:
      
      TRAD_Input

   b. Type the following in the Value field, which is the input folder that will be used:

      sreg(TRAD_Installdir)\TRAD_in

   c. Click Finish.

      You are returned to the Special Registers pane, where the new SREG you created (TRAD_Input) is now listed, as shown in the following image.

8. Click Add.
9. Perform the following steps:
   a. Type the following in the Name field:
      
      TRAD_Output
   
   b. Type the following in the Value field, which is the output folder that will be used:
      
      sreg(TRAD_Installdir)\TRAD_out
   
   c. Click Finish.

   You are returned to the Special Registers pane, where the new SREG you created (TRAD_Output) is now listed, as shown in the following image.
Stopping Inbound and Outbound Processing

This section describes how to stop inbound (TRADACOMS to XML) and outbound (XML to TRADACOMS) processing.

Procedure: How to Stop Inbound (TRADACOMS to XML) Processing

Click the State icon adjacent to the inbound application channel under Management \Monitoring and click OK.

The inbound application channel will be stopped, as shown in the following image.

Procedure: How to Stop Outbound (XML to TRADACOMS) Processing

Click the State icon adjacent to the outbound application channel under Management \Monitoring and click OK.
The outbound application channel will be stopped, as shown in the following image.

![Image showing the iWay Service Manager with channels and messages]

**Testing Sample Applications**

This section describes how to test the sample inbound (TRADACOMS to XML) and outbound (XML to TRADACOMS) applications.

**Procedure:** **How to Test the Sample Inbound (TRADACOMS to XML) Application**

1. Copy a test data file from the following directory:

   `TRADACOMS_Accelerator\TRAD_IN\IB_Archive`

   to:

   `TRADACOMS_Accelerator\TRAD_in`
2. Observe the transformed XML output in the following directory:

TRADACOMS_Accelerator\TRAD_in\IB_Output
3. Observe the validation report in the following directory:

TRADACOMS_Accelerator\TRAD_in\IB_Report
For example:

4. If any Errors occur, then observe the following directory:

   TRADACOMS_Accelerator\TRAD_in\IB_Error
For example:

5. After transformation, the input file will get stored in the following directory:

   `TRADACOMS_Accelerator\TRAD_in\IB_Archive`
For example:

**Procedure:** How to Test the Sample Outbound (XML to TRADACOMS) Application

1. Copy a test file from the following directory:

   `TRADACOMS_Accelerator\TRAD_out\OB_Archive`

   to:

   `TRADACOMS_Accelerator\TRAD_out`
For example:

2. Observe the TRADACOMS formatted output in the following directory:

   TRADACOMS_Accelerator\TRAD_out\OB_Output
For example:

3. Observe the validation report in the following directory:

   TRADACOMS_Accelerator\TRAD_out\OB_Report
4. If any errors occur, then observe the following directory:

```
TRADACOMS_Accelerator\TRAD_out\OB_Error
```
5. After transformation, the input XML file will get stored in the following directory:

TRADACOMS_Accelerator\TRAQ_out\OB_Archive
For example:

![Image of computer interface showing file structure and files related to TRADACOMS integration tools]
Inbound Processing: TRADACOMS to XML

The iWay Integration Solution for TRADACOMS runs within iWay Service Manager (iSM). iSM converts a document from TRADACOMS format to XML format, and validates it based on TRADACOMS published implementation guides.

This chapter provides the information you need to understand and implement a basic inbound message flow.

In this chapter:

- Inbound Processing Overview
- Special Register Sets
- Sample Channel File Listener
- Sample Channel Preparser
- Sample Channel Process Flow
- Adding an Ebix to a Channel
- Rebuilding Your Application

Inbound Processing Overview

This section describes the iWay business components and the processing steps in the basic inbound message flow.

The inbound process converts a TRADACOMS formatted document to an XML document. Inbound processing consists of the following components in the sample message flow:

- **Inlet**
  - The file **listener** picks up the incoming TRADACOMS document.
  - The **preparser** obtains the message type from the TRADACOMS document. The preparser converts the original TRADACOMS document to an XML representation of that document.
The iWay Integration Solution for TRADACOMS supports one preparser, XDTRADPreParser (com.ibi.preparsers.XDTRADPreParser), which is provided by iWay Software.

## Validation

The inbound TRADACOMS document is validated for structure and content. The published TRADACOMS standards and user implementation guides define element types (for example, numeric, alpha, or date) and describe business rules to apply for validation.

For example, the following is a typical date segment in an inbound TRADACOMS document:

```
FIL=7012+1758+160901+FL RLX'
```

**Note:** All TRADACOMS dates use a six digit date format (YYMMDD).

## Route and Process Flow

In our sample message flow, the validation report service (TRAD_Validation_rpt) creates a validation report in XML format. This report indicates success or failure transformation and contains the input and output documents. The route directs the document based on this report. You can also apply additional business logic by adding a service to the flow.

For more information on the services available with iSM, see the *iWay Service Manager Component Reference Guide*.

## Outlet

Outlets define how messages leave a channel at the end of a process. In this example, a *Passthrough* emitter is used. All the file emits are done in the process flow.

For more information on the emitters available with iSM, see the *iWay Service Manager User's Guide*.

For more information on deploying and starting the sample channels within the iWay Integration Application (iIA), see *Working With TRADACOMS Inbound and Outbound Applications Using iWay Integration Tools* on page 25.
Special Register Sets

A Special Register (SREG) is a variable that users can set. As a best practice within the EDI framework, you can use SREGs to define input and output locations. When an iWay Integration Application (iIA) containing EDI channels is migrated between systems (for example, from Dev to UAT), the only changes required to deploy the iIA in the new system is to set the SREG and start the iIA. EDI channels use multiple locations and paths. This practice minimizes the migration effort. For a list of SREGs that are provided with iSM, see the iWay Service Manager Programmer's Guide. For more information on defining an SREG of your own, see the iWay Service Manager User's Guide.

The sample inbound TRADACOMS channel sets all of the SREGs that are listed in the following table.

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>sreg(TRAD_INPUT)</td>
</tr>
<tr>
<td>Archive</td>
<td>sreg(TRAD_INPUT)/IB_Archive</td>
</tr>
<tr>
<td>Ack</td>
<td>sreg(TRAD_INPUT)/OB_Output</td>
</tr>
<tr>
<td>Error</td>
<td>sreg(TRAD_INPUT)/IB_Error</td>
</tr>
<tr>
<td>BadOutput</td>
<td>sreg(TRAD_INPUT)/IB_Error</td>
</tr>
<tr>
<td>GoodOutput</td>
<td>sreg(TRAD_INPUT)/IB_Output</td>
</tr>
<tr>
<td>ValidRpt</td>
<td>sreg(TRAD_INPUT)/IB_Report</td>
</tr>
</tbody>
</table>

Procedure: How to Modify SREG Sets in the Channel

1. In the Integration Explorer tab (left pane of iT), double-click the name of the SREG set (for example, TRAD).
The selected SREG set opens as a new tab, as shown in the following image.

2. Ensure to save your changes.

3. If you make any changes to the SREG set, rebuild and redeploy the iIA for the changes to take effect.

Sample Channel File Listener

The following image shows a sample File listener that has been configured using the Channel Builder in iIT.

The following table describes the EDI-specific configuration parameters for the File listener. An asterisk (*) indicates that a parameter is required. For parameters not listed in the following table, accept the default value. Ensure that you have created any directories that are referenced by the SREGs, or errors will occur during deployment.
### Parameter Table

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Path *</td>
<td>sreg(TRAD.Input)</td>
</tr>
<tr>
<td></td>
<td>This value is an SREG that uses a defined</td>
</tr>
<tr>
<td></td>
<td>directory in which input messages are</td>
</tr>
<tr>
<td></td>
<td>received.</td>
</tr>
<tr>
<td>Destination *</td>
<td>sreg(TRAD.ListenerOutput)</td>
</tr>
<tr>
<td></td>
<td>This value is an SREG that uses a defined</td>
</tr>
<tr>
<td></td>
<td>directory in which output files are</td>
</tr>
<tr>
<td></td>
<td>stored after transformation.</td>
</tr>
<tr>
<td>Removal Destination</td>
<td>sreg(TRAD.Archive)</td>
</tr>
<tr>
<td></td>
<td>This value is an SREG that uses a defined</td>
</tr>
<tr>
<td></td>
<td>directory to which input messages are</td>
</tr>
<tr>
<td></td>
<td>moved if they fail during transformation.</td>
</tr>
<tr>
<td></td>
<td>It is recommended to configure a removal</td>
</tr>
<tr>
<td></td>
<td>destination when you are constructing a</td>
</tr>
<tr>
<td></td>
<td>basic channel.</td>
</tr>
<tr>
<td>Suffix In</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Input files with any file extension are</td>
</tr>
<tr>
<td></td>
<td>allowed.</td>
</tr>
<tr>
<td>Suffix Out</td>
<td>XML</td>
</tr>
<tr>
<td></td>
<td>The extension for output files is <code>.xml</code>.</td>
</tr>
</tbody>
</table>

**Sample Channel Preparser**

The TRADACOMS preparser used in the sample channel does not have any parameters that can be modified by the user.

**Sample Channel Process Flow**

A route is defined in the sample channel that invokes the `TRADtoXML_pflow_QS_validreport` process flow. Using the validation report, valid transformed XML data is output to one folder and invalid transformed data will be written to another folder. If transformation in the preparser fails, then a *bad* validation report will be written. Bad validation reports can be routed through email or a queue for further inspection and remediation.
The following image shows the process flow from the sample channel.

Prior versions of the iWay e-Business user documentation demonstrate how to build channels and process flows in more detail using the iSM Administration Console and iIT.

**Adding an Ebix to a Channel**

This section describes how to add an Ebix to the channel.

**Procedure: How to Add an Ebix to a Channel**

1. Open Channel Builder in iIT and then select the name of the channel in the upper-left pane.

2. Click the green plus (+) symbol to add a new Ebix. You can also select an Ebix and click the red (x) symbol to delete an Ebix.

   If your channel contains multiple Ebixes, then use the up and down arrows to order the Ebixes. Ebixes are executed in the order that they appear on this screen, from top to bottom.

3. Ensure to save your changes.
4. If you make any changes to the channel, rebuild and redeploy the iIA for the changes to take effect.

Rebuilding Your Application

If any changes are made to your application, then you must rebuild your application.

Procedure: How to Rebuild Your Application

1. In the Integration Explorer tab (left pane of iT), right-click Applications, click New, and then select Application from the context menu, as shown in the following image.
The New Application Wizard (General Properties pane) opens, as shown in the following image.

2. Enter a name for your application, and then click Next.
The Resource Selection pane opens, as shown in the following image.

3. Select the check boxes next to your channels and then click Finish.

**Important:** Applications must be rebuilt and redeployed when changing Ebixes or SREGs in a channel. If you are unsure, rebuild and restart your application.

For more information on deploying and starting your application, see *Deployment Information for Your iWay Integration Solution* on page 21.
Outbound Processing: XML to TRADACOMS

The iWay Integration Solution for TRADACOMS runs within iWay Service Manager (iSM). iSM validates an XML document based on TRADACOMS published implementation guides and converts it to a document in TRADACOMS format.

This chapter provides the information you need to understand and implement a basic outbound message flow.

In this chapter:

- Outbound Processing Overview
- Special Register Sets
- Sample Channel File Listener
- Sample Channel Process Flow
- Adding an Ebix to a Channel
- Rebuilding Your Application

Outbound Processing Overview

This section describes the iWay business components and the processing steps in the basic outbound message flow.

The outbound process converts an XML document to a TRADACOMS-formatted document. Outbound processing consists of the following components in the sample message flow:

- **Inlet**
  The file **listener** picks up the incoming XML document.

- **Route and Process Flow**
  A process flow guides the document through the next stages of the process.
  Rules processing runs against the XML-formatted TRADACOMS document to validate its structure and content. The published TRADACOMS standards and user implementation guides define element types (for example, numeric, alpha, or date) and describe business rules to apply for validation.
The XMLToTRADTransformAgent obtains the message type and version from the XML-formatted TRADACOMS document. The appropriate transformation template is applied from the Ebix. The transformation converts the XML-formatted TRADACOMS document to TRADACOMS format.

The validation report service (TRAD_Validation_rpt) creates a validation report in XML format. This validation report indicates a status of success or failure, which is used to route the document in the process flow.

Outlet

Outlets define how messages leave a channel at the end of a process. In this example, a Passthrough emitter is used. All the file emits are done in the process flow.

For more information on the emitters available with iSM, see the iWay Service Manager User's Guide.

For more information on deploying and starting the sample channels within the iWay Integration Application (iIA), see Working With TRADACOMS Inbound and Outbound Applications Using iWay Integration Tools on page 25.

Special Register Sets

A Special Register (SREG) is a variable that users can set. As a best practice within the EDI framework, you can use SREGs to define input and output locations. When an iWay Integration Application (iIA) containing EDI channels is migrated between systems (for example, from Dev to UAT), the only changes required to deploy the iIA in the new system is to set the SREG and start the iIA. EDI channels use multiple locations and paths. This practice minimizes the migration effort. For a list of SREGs that are provided with iSM, see the iWay Service Manager Programmer's Guide. For more information on defining an SREG of your own, see the iWay Service Manager User's Guide.

The sample outbound TRADACOMS channel sets all of the SREGs that are listed in the following table.

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>sreg(TRAD_OUTPUT)</td>
</tr>
<tr>
<td>Output</td>
<td>sreg(TRAD_OUTPUT)</td>
</tr>
<tr>
<td>Archive</td>
<td>sreg(TRAD_OUTPUT)/OB_Archive</td>
</tr>
<tr>
<td>ValidationReport</td>
<td>sreg(TRAD_OUTPUT)/OB_Report</td>
</tr>
<tr>
<td>Name</td>
<td>Value</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>Error</td>
<td>sreg(TRAD_OUTPUT)/OB_Error</td>
</tr>
</tbody>
</table>

**Procedure:** How to Modify SREG Sets in the Channel

1. In the Integration Explorer tab (left pane of iIT), double-click the name of the SREG set (for example, XMLTRAD).

   The selected SREG set opens as a new tab, as shown in the following image.

2. Ensure to save your changes.
3. If you make any changes to the SREG set, rebuild and redeploy the iIA for the changes to take effect.
Sample Channel File Listener

The following image shows a sample File listener that has been configured using the Channel Builder in iIT.

![Sample Channel File Listener Image]

The following table describes the EDI-specific configuration parameters for the File listener. An asterisk (*) indicates that a parameter is required. For parameters not listed in the following table, accept the default value. Ensure that you have created any directories that are referenced by the SREGs, or errors will occur during deployment.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Path</td>
<td>sreg(XMLTRAD.Input)</td>
</tr>
<tr>
<td></td>
<td>This value is an SREG that uses a defined directory in which input messages are received.</td>
</tr>
<tr>
<td>Destination</td>
<td>sreg(XMLTRAD.ValidationReport)\validation__sreg(basename)_*.xml</td>
</tr>
<tr>
<td></td>
<td>This value is an SREG that uses a defined directory in which output messages are received.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> The underscore is a double underscore used in the destination to insert an underscore in the file name.</td>
</tr>
</tbody>
</table>
### Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removal Destination</td>
<td>sreg(XMLTRAD.Archive)</td>
</tr>
</tbody>
</table>

This value is an SREG that uses a defined directory to which output messages are moved if they fail during transformation.

It is recommended to configure a removal destination when you are constructing a basic channel.

<table>
<thead>
<tr>
<th>Suffix In</th>
<th>XML</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input files with the extension .xml are allowed.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suffix Out</th>
<th>TRAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>In this example, the extension for output files is .trad.</td>
<td></td>
</tr>
</tbody>
</table>

### Sample Channel Process Flow

A route is defined in the sample channel that invokes the XMLToTRAD_Ebix_2 process flow. Using the validation report, valid transformed XML data is output to one folder and invalid transformed data will be written to another folder. If the transformation agent fails, then a bad validation report will be written. Bad validation reports can be routed through email or a queue for further inspection and remediation.

The following image shows the process flow from the sample channel.

Prior versions of the iWay e-Business user documentation demonstrate how to build channels and process flows in more detail using the iSM Administration Console and iiT.
Adding an Ebix to a Channel

This section describes how to add an Ebix to the channel.

Procedure: How to Add an Ebix to a Channel

1. Open Channel Builder in iT and then select the name of the channel in the upper-left pane.

2. Click the green plus (+) symbol to add a new Ebix. You can also select an Ebix and click the red (x) symbol to delete an Ebix.

   If your channel contains multiple Ebixes, then use the up and down arrows to order the Ebixes. Ebixes are executed in the order that they appear on this screen, from top to bottom.

3. Ensure to save your changes.

4. If you make any changes to the channel, rebuild and redeploy the iIA for the changes to take effect.

Rebuilding Your Application

If any changes are made to your application, then you must rebuild your application.
**Procedure: How to Rebuild Your Application**

1. In the Integration Explorer tab (left pane of iT), right-click *Applications*, click *New*, and then select *Application* from the context menu, as shown in the following image.
The New Application Wizard (General Properties pane) opens, as shown in the following image.

2. Enter a name for your application, and then click Next.
The Resource Selection pane opens, as shown in the following image.

3. Select the check boxes next to your channels and then click Finish.

**Important:** Applications must be rebuilt and redeployed when changing Ebixes or SREGs in a channel. If you are unsure, rebuild and restart your application.

For more information on deploying and starting your application, see *Deployment Information for Your iWay Integration Solution* on page 21.
Ebix-Supported Transaction Set

This appendix describes the TRADACOMS transaction set supported by the iWay Integration Solution for TRADACOMS in the Ebix file that is supplied with the product.

In this appendix:

- TRAD93

TRAD93

The iWay Integration Solution for TRADACOMS supports the TRAD93 transaction set.
Appendix B

Configuring the EDI Activity Driver

This section describes how to configure the EDI Activity Driver using iWay Service Manager.

In this appendix:

- EDI Activity Driver Overview for TRADACOMS
- Configuring the EDI Data Provider
- Configuring the EDI Activity Driver

EDI Activity Driver Overview for TRADACOMS

The EDI Activity Driver is an extension of the Activity Facility in iWay Service Manager (iSM). It is used to log events as messages are processed. Logging can occur when:

- a message is acquired.
- a message is emitted.
- an error occurs.
- a component such as an agent or process flow is called.

For more information about the Activity Facility, see the *iWay Service Manager User's Guide*.

Using the iSM Administration Console, you must first configure the EDI data provider and then the Activity Facility handler.

Configuring the EDI Data Provider

This section describes how to configure the EDI data provider using the iSM Administration Console.

Procedure: How to Configure the EDI Data Provider

1. Log on to the iSM Administration Console.
2. From the left pane under Providers, click Data Provider, as shown in the following image.
The Data Provider pane opens, as shown in the following image.

Data Provider
Listed below are the data provider definitions that are available in the base configuration of this server.

### JDBC

**Connections** - JDBC or Java Database Connectivity is a standard for database-independent connectivity between the Java platform and a wide range of databases. The JDBC interface provides a call-level API for SQL-based database access. The listings below define JDBC connections used within iWay Service Manager. iWay components that use JNDI can access a JDBC provider as a DataSource by setting the initial context factory to com.ibm.jndi.XDIniContextFactory and using the name jdbc/provider name.

<table>
<thead>
<tr>
<th>Name</th>
<th>Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>No connections have been defined</td>
<td></td>
</tr>
</tbody>
</table>

New

### JLINK

**Servers** - JLINK is a technology that can be used to access information hosted by iWay, WebFOCUS and EDA data servers. The servers listed below are defined for use with JLINK.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>No servers have been defined</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

New

The tables that are provided list the configured JDBC and JLINK data providers that are available. By default, no data providers are configured.

3. In the JDBC area, click New to configure a new JDBC data provider.
4. In the Name field, enter a name for the new JDBC data provider, for example, EDI_Activity_DB.

5. From the Driver Class drop-down list, select an appropriate driver or enter the specific driver name (class) that you are using, for example:

   com.mysql.jdbc.Driver

6. From the Connection URL drop-down list, select an appropriate connection URL or enter the specific driver connection URL that you are using, for example:

   jdbc:mysql://localhost:3306/IWay

7. In the User field, enter a user name with respect to the JDBC URL and driver.
8. In the Password field, enter a password with respect to the JDBC URL and driver.
9. In the Initial Pool Size field, enter the number of connections to place in the connection pool during startup.
10. In the Maximum Number of Idle Connections field, enter the maximum number of idle connections to retain in the connection pool.

   A value of zero means that there is no limit, except what is enforced by the maximum number of connections in the connection pool.

11. In the Maximum Number of Connections field, enter the maximum number of connections in the connection pool.

   A value of zero means that there is no limit.

12. Click Add.

   The JDBC data provider that you configured is added to the JDBC Connections list, as shown in the following image.

---

**Configuring the EDI Activity Driver**

This section describes how to configure the EDI Activity Driver using the iSM Administration Console.

**Procedure: How to Configure the EDI Activity Driver**

1. Log on to the iSM Administration Console.
2. From the left pane under Facilities, click *Activity Facility*, as shown in the following image.

The Activity Facility pane opens, as shown in the following image.

![Activity Facility pane](image)

The table that is provided lists the configured Activity Facility handlers. Initially, no handlers are shown.

3. Click *Add* to configure a new Activity Facility handler.

The configuration pane for the Activity Facility handler opens.

4. From the Type drop-down list, select *EDI Activity Logs*.

5. Enter a unique name for the EDI Activity Driver and a brief description.

6. From the Active drop-down list, select *true*. 

7. Configure the JDBC driver for the database you are using.

![Configuration Parameters]

If the database tables do not exist, they will be automatically created when the iSM is restarted.

8. Provide values for the remaining parameters, as defined in the following table.

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>JNDI Factory Name</td>
<td>String</td>
<td>The JNDI initial context factory class that is used to access a data source. Use <code>com.ibi.jndi.XDInitialContextFactory</code> for an iWay JDBC provider or leave this field blank for the JVM default.</td>
</tr>
<tr>
<td>JNDI Name</td>
<td>String</td>
<td>The JNDI name for the data source this driver will use. To use an iWay JDBC provider, enter the JNDI name as <code>jdbc/&lt;data provider name&gt;</code> otherwise the defined provider's information will be used.</td>
</tr>
<tr>
<td>Table</td>
<td>String</td>
<td>The table name to which to write log. If this field is left blank, then the activity log will be written to the JVM default log file.</td>
</tr>
<tr>
<td>Compression</td>
<td></td>
<td>What form of compression, if any, should be used on the messages. Compression saves space at the expense of time. Options include: none, zip, and bzip.</td>
</tr>
</tbody>
</table>

*Table name for the activity log. This must be a valid identifier in the database being used. If the table does not exist at startup, it will be created automatically.*
<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression</td>
<td>Drop-down list</td>
<td>Specify whether the messages are to be compressed. Values include: none (default), smallest, fastest, standard, Huffman</td>
</tr>
<tr>
<td>Start Events</td>
<td>Boolean Drop-down list</td>
<td>If set to true (default), the input messages will be recorded in the activity log. This values must be set to true for use of the audit reports in the console.</td>
</tr>
<tr>
<td>Internal Events</td>
<td>Boolean Drop-down list</td>
<td>If set to true, system events are included in the activity log. System events include activities such as parsing and transformations (optional). False is selected by default.</td>
</tr>
<tr>
<td>Security Events</td>
<td>Boolean Drop-down list</td>
<td>If set to true (default), security events are recorded. This includes digital signature, and so on. However, console activity is not recorded.</td>
</tr>
<tr>
<td>Business Error Events</td>
<td>Boolean Drop-down list</td>
<td>If set to true, business errors are recorded, such as rules system violations. False is selected by default.</td>
</tr>
<tr>
<td>Emit Events</td>
<td>Boolean Drop-down list</td>
<td>If set to true (default), output messages from emitter services will be recorded. This is required for use of the audit log reports in the console.</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>End Events</td>
<td>Boolean, Drop-down list</td>
<td>If set to true (default), the end of message processing will be recorded in the activity log. This is required for use of the audit log reports in the console.</td>
</tr>
<tr>
<td>Notes Table</td>
<td>String</td>
<td>Table name for the notes table, which contains log annotations. If the table does not exist at startup, it will be created automatically.</td>
</tr>
<tr>
<td>MAC Algorithm</td>
<td>String, Drop-down list</td>
<td>The Message Authentication Code (MAC) algorithm. None (default) indicates a MAC should not be computed.</td>
</tr>
<tr>
<td>MAC Provider</td>
<td>String, Drop-down list</td>
<td>The Message Authentication Code (MAC) provider. Not Specified indicates the default provider should be used. The remaining available value is SunJCE.</td>
</tr>
<tr>
<td>MAC Secret Key</td>
<td>String</td>
<td>The Message Authentication Code (MAC) secret key to use.</td>
</tr>
</tbody>
</table>

9. Click Update.
   If necessary, start the database services.

10. Restart iSM to start the EDI Activity Driver and begin logging.

    The EDI Activity Driver inserts records into the configured activity database. The records are designed for fast writing rather than for ease of later analysis. A set of inquiry service agents suitable for use in a process flow is available to assist during the analysis of the log. Users are cautioned that iWay does not guarantee the layout of the record from release to release, and this should be checked against the actual schema.

<table>
<thead>
<tr>
<th>Database Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>recordkey</td>
<td>Unique record identifier.</td>
</tr>
<tr>
<td>Database Field</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>recordtype</td>
<td>Type of this record - the event being recorded.</td>
</tr>
<tr>
<td></td>
<td>□ 101 - Message start.</td>
</tr>
<tr>
<td></td>
<td>□ 131 - Entry to event (see subtype codes below).</td>
</tr>
<tr>
<td></td>
<td>□ 132 - Normal exit from event.</td>
</tr>
<tr>
<td></td>
<td>□ 133 - Failed exit from event.</td>
</tr>
<tr>
<td></td>
<td>□ 151 - Ancillary message (usually rules violation).</td>
</tr>
<tr>
<td></td>
<td>□ 181 - Emit.</td>
</tr>
<tr>
<td></td>
<td>□ 191 - Message end.</td>
</tr>
<tr>
<td>signature</td>
<td>Encoding of the listener name and protocol.</td>
</tr>
<tr>
<td>protocol</td>
<td>Name of the protocol.</td>
</tr>
<tr>
<td>address</td>
<td>Address to which an emit is to be issued. The format depends on the protocol.</td>
</tr>
<tr>
<td>tstamp</td>
<td>Timestamp of record.</td>
</tr>
<tr>
<td>correlid</td>
<td>Control Number</td>
</tr>
<tr>
<td>tid</td>
<td>Transaction ID assigned to this message.</td>
</tr>
<tr>
<td>msg</td>
<td>Message appropriate to this record type. For example, an input message contains the original message received, if possible. Streaming input does not contain a record.</td>
</tr>
<tr>
<td>context</td>
<td>Serialized special registers that were in the context at the time the record was written.</td>
</tr>
<tr>
<td>text</td>
<td>Message text for business errors (rules system violations).</td>
</tr>
<tr>
<td>Database Field</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>status</td>
<td>Status code recorded.</td>
</tr>
<tr>
<td></td>
<td>- 0 - Success</td>
</tr>
<tr>
<td></td>
<td>- 1 - Success, message end (191 record)</td>
</tr>
<tr>
<td></td>
<td>- 10 - Rules error</td>
</tr>
<tr>
<td>subtype</td>
<td>Event code for event records.</td>
</tr>
<tr>
<td></td>
<td>- 1 - Preparser</td>
</tr>
<tr>
<td></td>
<td>- 2 - Parser</td>
</tr>
<tr>
<td></td>
<td>- 3 - In reviewer</td>
</tr>
<tr>
<td></td>
<td>- 5 - In validation</td>
</tr>
<tr>
<td></td>
<td>- 6 - In transform</td>
</tr>
<tr>
<td></td>
<td>- 7 - Agent or flow</td>
</tr>
<tr>
<td></td>
<td>- 8 - Out transform</td>
</tr>
<tr>
<td></td>
<td>- 9 - Out validation</td>
</tr>
<tr>
<td></td>
<td>- 11 - Preemitter</td>
</tr>
<tr>
<td></td>
<td>- 1000 - input record written to table before transformation</td>
</tr>
<tr>
<td>partner_to</td>
<td>Sender ID</td>
</tr>
<tr>
<td>partner_from</td>
<td>Receiver ID</td>
</tr>
<tr>
<td>encoding</td>
<td>Encoding of the listener that obtained the document.</td>
</tr>
<tr>
<td>mac</td>
<td>Not used in this version.</td>
</tr>
<tr>
<td>Driver version</td>
<td>1.0 in 7.0 SM</td>
</tr>
</tbody>
</table>
Using iWay Integration Tools to Configure an Ebix for TRADACOMS

This section describes how to use iWay Integration Tools (iIT) to configure an e-Business Information Exchange (Ebix) file for TRADACOMS.

In this appendix:

- Ebix Overview
- Ebix Prerequisites
- Working With iWay Integration Tools (iIT)

Ebix Overview

You can use iWay Integration Tools (iIT) to import, edit, export, and work with e-Business Information Exchange (Ebix) files. You can:

- Import and create a custom TRADACOMS Ebix in iIT.
- Add a custom qualifier to the custom Ebix.
- Export the edited Ebix to a physical location.

The edited Ebix can be returned and then tested with the appropriate TRADACOMS message.

Ebix Prerequisites

This section provides a list of prerequisites for using iWay Integration Tools (iIT) to configure an Ebix for TRADACOMS:

- Have a working knowledge of iIT and TRADACOMS.
- Ensure the iWay TRADACOMS adapter is installed.
- Ensure iIT Version 7.0.6 is installed.

Working With iWay Integration Tools (iIT)

This section describes how to import, edit, and export an Ebix using iWay Integration Tools (iIT).
Procedure: How to Import an Ebix

1. Start iWay Integration Tools (iT).

2. Right-click the Integration Explorer pane, click New, and then select Integration Project from the context menu, as shown in the following image.
3. Enter a new Integration Project name, for example, *TRADACOMS_Ebix_edit_sample_proj*, in the Project name field, and then click *Finish*, as shown in the following image.
4. Right-click the Integration Explorer pane and select Import from the context menu, as shown in the following image.

![Integration Explorer pane with context menu](image)

5. In the Import wizard, expand iWay Integration, select Ebix, and then click Next.

6. Click the *ellipsis* (…) button to the right of the Import field.

   The Open dialog is displayed.
7. Navigate to and select your TRAD_TRAD93.ebx file, and then click Open.

8. Click Next.
9. In the Ebix pane, expand the Ebix tree, and then in the Ebix Entries pane, highlight ORDHDR, and then click Finish.
Your iIT interface should now resemble the following image:
**Procedure:** How to Edit an Ebix

1. Expand SG0, SG1, SG2, OLD, UNOR, and then select 03 [Unit of Measure], as shown in the following image.
2. Click the Properties tab at the bottom, then scroll down to view the Domain value, and add EACHES into the Domain value field in the properties window.

   ![Component Element Table](image)

3. Save your edited Ebix by clicking the Save icon.

   An asterisk (*) character appears next to the file name until you have saved the edited changes, as shown in the following image.

   ![File Name with Asterisk](image)

4. Click on Yes to confirm your changes.
Your iIT interface should now resemble the following image:

![Image of iIT interface]

**Note:** The asterisk (*) character will disappear once the edited Ebix has been saved successfully.
**Procedure:** How to Export an Ebix

To export an Ebix:

1. Expand the Ebixes folder in the left pane, then expand TRAD, TRAD_TRAD93, Trad93, and then right-click ORDHDR and select Export from the context menu.
2. Expand the iWay Integration folder, select Ebix, and then click Next, as shown in the following image.
3. In the left pane, expand \textit{TRADACOMS\_Ebix\_edit\_sample\_proj}, then on the right pane, select the check box for the \textit{ORDHDR} document and enter or select the destination to write the Ebix, as shown in the following image.

![Export Ebix resources to the local file system](image)

4. Click Next.
5. Provide a name for the Ebix in the Name field, add an optional description (optional), and then click Finish.

![Image of the Export Ebix dialog box]

Your exported Ebix is now available in the specified location.

You can attach the Ebix to your channel in iIT using the Channel Builder. Be sure to set the execution order of your Ebix after adding it to your queue. The order that the Ebix are executed is top-down as they are displayed. If you want this custom ORDHDR dictionary to be executed prior to the standard one in the stock Ebix, then the custom Ebix must be at the top of the list.
Appendix D

Sample TRADACOMS Files

This appendix provides sample TRADACOMS files.

In this appendix:

- TRADACOMS ORDHDR (Order Header)
- TRADACOMS INVFIL (Invoice File Header)

TRADACOMS ORDHDR (Order Header)

TRADACOMS uses a header with each interchange (ORDHDR for the ORDERS message). This header message contains information that is specific to each message in the interchange.

The following is a sample TRADACOMS ORDHDR (Order Header).

```
STX=ANA:1+5000000000000:SOME STORES LTD+5010000000000:SUPPLIER UK LTD+070315:130233+000007+PASSW+ORDHDR+B©
MHD=1+ORDHDR:9© TYP=0430+NEW-ORDERS©
SDT=5010000000000:000030034© CDT=5000000000000© FIL=1630+1+070315©
MTR=6© MHD=2+ORDERS:9©
CLO=5000000000283:89828+EAST SOMEWHERE DEPOT© ORD=70970::070315©
DIN=070321++0000© OLD=1+5010210000000++:00893592+12+60++++CRUSTY ROLLS:4 PACK© OTR=1©
MTR=7© MHD=3+ORDTLR:9© OFT=1©
MTR=3© END=3©
```

TRADACOMS INVFIL (Invoice File Header)

The following is a sample TRADACOMS INVFIL (Invoice File Header).
Feedback

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