# iWay

iWay Application Adapter for PeopleSoft User's Guide

Version 7.0.x and Higher

Information Builders

# *Contents*

# *Preface*

This document explains how to use the iWay Application Adapter for PeopleSoft, which is an interface between PeopleSoft 8 and other applications. It describes how to use the iWay Application Adapter for PeopleSoft with iWay Explorer to develop online connections to PeopleSoft 8 applications.

**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:

|   | Chapter/Appendix | Contents |
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| 1 | Introducing the iWay Application Adapter for PeopleSoft | Provides an overview of the iWay Application Adapter for PeopleSoft and summarizes how to use it to integrate PeopleSoft systems with other applications. |
| 2 | iWay Application Adapter for PeopleSoft Supported Platforms Matrix | Specifies version, platform, and database support information for iWay Application Adapter for PeopleSoft. |
| 3 | Application Adapter for PeopleSoft Quick Start Guide | Provides a quick start guide for the iWay Application Adapter for PeopleSoft. |
| 4 | Configuring the iWay Application Adapter for PeopleSoft | Describes how to configure the iWay Application Adapter for PeopleSoft. |
| 5 | Generating Component Interface APIs | Describes how to generate component interface APIs for use with the iWay Application Adapter for PeopleSoft. |
| 6 | Configuring the PeopleSoft Message Router | Describes how to configure the TCP/IP Target Connector (in PeopleSoft release 8.4) and the TCP/IP Handler (in PeopleSoft release 8.1). |
| 7 | Creating XML Schemas or Web Services for PeopleSoft | Describes how to create XML schemas for PeopleSoft business objects using iWay Explorer. |

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| 8 | Listening for PeopleSoft Events | Describes how to use iWay Explorer to connect to PeopleSoft and listen for events. |
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| 10 | PeopleSoft Troubleshooting and Error Messages | Explains limitations and workarounds when connecting to PeopleSoft. |
| A | Configuring the Application Adapter for PeopleSoft in an iWay Environment | Describes how to configure the adapter in the Service Manager console. |
| B | Using PeopleSoft Component Interfaces | Describes how to create, secure, and test a component interface for use with the iWay Application Adapter for PeopleSoft. |
| C | Using PeopleSoft 8 Integration Broker | Discusses how to configure and test PeopleSoft Integration Broker Release 8.4 and PeopleSoft Application Messaging Release 8.1 using a PeopleSoft-supplied File Output interface. |
| D | PeopleTools Upgrade Considerations | Provides upgrade considerations for PeopleTools. |

## Documentation Conventions

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

| Convention | Description |
|---|---|
| THIS TYPEFACE or this typeface | Denotes syntax that you must enter exactly as shown. |
| this typeface | 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. |
| underscore | Indicates a default setting. |
| Key + Key | Indicates keys that you must press simultaneously. |

| Convention | Description |
|---|---|
| { } | Indicates two or three choices. Type one of them, not the braces. |
| \| | Separates mutually exclusive choices in syntax. Type one of them, not the symbol. |
| ... | Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis (...). |
| .<br>.<br>. | Indicates that there are (or could be) intervening or additional commands. |

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## 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.

| | |
|---|---|
| **Platform** | |
| **Operating System** | |
| **OS Version** | |
| **JVM Vendor** | |
| **JVM Version** | |

The following table lists the deployment information our consultants require.

| | |
|---|---|
| **Adapter Deployment** | For example, JCA, Business Services Provider, iWay Service Manager |
| **Container** | For example, WebSphere |
| **Version** | |
| **Enterprise Information System (EIS) - if any** | |
| **EIS Release Level** | |
| **EIS Service Pack** | |
| **EIS Platform** | |

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

| | |
|---|---|
| **iWay Adapter** | |
| **iWay Release Level** | |
| **iWay Patch** | |

The following table lists additional questions to help us serve you better.

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

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

❏ 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

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# Chapter **1**

Chapter

# Introducing the iWay
# Application Adapter for PeopleSoft

This section provides an overview of the iWay Application Adapter for PeopleSoft and describes how to integrate other systems with PeopleSoft systems.

**In this chapter:**

❏   Key Features of the iWay Application Adapter for PeopleSoft

❏   How the iWay Application Adapter for PeopleSoft Works

❏   iWay Application Adapter for PeopleSoft Component Information

## Key Features of the iWay Application Adapter for PeopleSoft

The iWay Application Adapter for PeopleSoft provides a means to exchange real-time business data between PeopleSoft systems and other application, database, or external business partner systems. The adapter enables external applications for inbound and outbound processing with PeopleSoft.

The adapter uses XML messages to enable non-PeopleSoft applications to communicate and exchange transactions with PeopleSoft using services and events.

❏   **Services:** Applications use this capability to initiate a PeopleSoft business event. Services also are referred to as component methods.

❏   **Events:** Applications use this capability to access PeopleSoft data only when a PeopleSoft business event occurs. Events also are referred to as messages.

When you access a PeopleSoft component from another application, you use:

❏   **Component Interfaces.** If a Component Interface does not exist, create, secure, and test one. For more information, see *Using PeopleSoft Component Interfaces* on page 135 or your PeopleSoft documentation.

If the Component Interface exists, but you modified it, secure and test it. For more information, see *Using PeopleSoft Component Interfaces* on page 135 or your PeopleSoft documentation.

Alternatively, you can secure and test the Component Interface and create the Component Interface API after you generate schemas or web services.

❏   **Component Interface APIs.** Create an API for the Component Interface. For more information, see *Generating Component Interface APIs* on page 47.

❏ **Schemas and web services.** Create schemas or web services for the component methods. For more information, see *Creating XML Schemas or Web Services for PeopleSoft* on page 75.

To receive a message from PeopleSoft, you use:

❏ **The Integration environment.** Configure and test your PeopleSoft Integration Broker (release 8.4) or Application Messaging environment (release 8.1). For information on properly configuring the environment, see *Using PeopleSoft 8 Integration Broker* on page 157 or your PeopleSoft documentation.

❏ **Message routing.** Configure TCP/IP Target Connector (release 8.4), HTTP Target Connector (release 8.4), or TCP/IP Handler (release 8.1). For more information, see *Configuring the PeopleSoft Message Router* on page 57.

## How the iWay Application Adapter for PeopleSoft Works

The adapter uses your application server and XML messages to enable non-PeopleSoft applications to communicate and exchange transactions using one of the following two facilities:

❏ PeopleSoft Component Interface

❏ PeopleSoft Integration Broker (in release 8.4) or Application Messaging Manager (in release 8.1).

The adapter connects to the PeopleSoft Application Server by accessing APIs for the Component Interfaces that correspond to its supported business objects. Every Component Interface contains data and business logic for the business component, thus alleviating a requirement for the adapter to duplicate the processes defined within the business component.

The adapter is bidirectional, enabling it to:

❏ Detect an event by receiving an XML document from PeopleSoft using Integration Broker or Application Messaging.

❏ Pass an XML request document to execute an instance of the PeopleSoft Component Interface and its method.

## PeopleSoft Enterprise Application Integration Architecture

PeopleSoft provides for integration with other applications and systems through its Component Interface framework and its Integration Broker (in release 8.4) or Application Messaging (in release 8.1) facility. The iWay Application Adapter for PeopleSoft uses the PeopleSoft framework and leverages various integration access methods to provide the most flexibility and functionality.

Integration access methods supported by the iWay Application Adapter for PeopleSoft include:

❏ PeopleSoft Java™ API using Component Interfaces.

❏ PeopleSoft XML using Integration Broker or Application Messaging.

## PeopleSoft Component Interface

In the PeopleSoft environment, a Component Interface is a container for distributing PeopleSoft application data among PeopleSoft logical systems and for exchanging PeopleSoft application data with non-PeopleSoft systems.

The Component Interface is based on an existing business process within PeopleSoft. An example is a purchase order entry, which can be a PeopleSoft-delivered process or a user-developed process. The Component Interface also inherits its methods (for example. Add, Update, and so on) and its business logic from the underlying business process.

PeopleSoft delivers generic Component Interfaces with each of its applications. These are called Enterprise Integration Points (EIP). Customers also can develop their own custom Component Interfaces, or they can modify EIP as required.

## PeopleSoft Application Messaging Manager

PeopleSoft Application Messaging facilitates the integration of PeopleSoft XML with PeopleSoft. The iWay Application Adapter for PeopleSoft provides a handler that must be configured within the PeopleSoft application gateway using TCP/IP transport services.

## iWay Application Adapter for PeopleSoft Component Information

The iWay Application Adapter for PeopleSoft works with one of the following components:

❏ iWay Service Manager

❏ iWay Business Services Provider (iBSP)

When hosted in an iWay environment, the adapter is configured through iWay Service Manager and iWay Explorer. iWay Explorer is used to configure adapter connections and event capabilities and to create web services.

When the adapter is hosted in a third-party application server environment, iWay Explorer (used to configure PeopleSoft connections and event capabilities and to create web services) can be configured to work in a web services environment in conjunction with iBSP.

## Component Information Roadmap

The following table lists the deployment component and the location of component information for the iWay Application Adapter for PeopleSoft.

| Deployed Component | For more information, see |
|---|---|
| iWay Service Manager | Appendix A of this guide<br><br>*iWay Service Manager User's Guide* |
| iWay Explorer | Chapters 5 and 6 of this guide<br><br>*iWay Installation and Configuration* |
| iWay Business Services Provider (iBSP) | *iWay Installation and Configuration* |

## iWay Service Manager

iWay Service Manager is the heart of the Universal Adapter Framework and is an open transport service bus. Service Manager uses graphical tools to create sophisticated integration services without the need for custom integration code by:

❏ Creating metadata from target applications.

❏ Transforming and mapping interfaces.

❏ Managing stateless processes.

Its capability to manage complex adapter interactions makes it an ideal foundation for a service-oriented architecture.

## iWay Explorer

iWay Explorer uses a tree metaphor to introspect the PeopleSoft system metadata. The Explorer enables you to create XML schemas and web services for the associated object. In addition, you can create ports and channels to listen for events in PeopleSoft.

External applications that access PeopleSoft through the iWay Application System Adapter for PeopleSoft use either XML schemas or web services to pass data between the external application and the adapter.

## iWay Business Services Provider

The iWay Business Services Provider (iBSP) exposes, as web services, enterprise assets that are accessible from adapters regardless of the programming language or the particular operating system.

iBSP simplifies the creation and execution of web services when running:

❑ Custom and legacy applications.

❑ Database queries and stored procedures.

❑ Packaged applications.

❑ Terminal emulation and screen-based systems.

❑ Transactional systems.

Coupled with a platform and language independent messaging protocol called SOAP (Simple Object Access Protocol), XML enables application development and integration by assembling previously built components from multiple web services.

**Chapter** **2**

# iWay Application Adapter for PeopleSoft Supported Platforms Matrix

iWay Software is committed to support the diverse environments and varied systems of our users through support for leading enterprise applications, platforms, and databases.

This section specifies version, platform, and database support information for iWay Application Adapter for PeopleSoft. It is designed to provide a consolidated view of PeopleSoft (PeopleTools) releases and the various operating systems and databases, on which they are supported.

**In this chapter:**

## Application Adapter for PeopleSoft Supported Platforms Overview

PeopleSoft systems and applications that are supported by iWay Application Adapter for PeopleSoft are governed by the underlying PeopleTools version.

**Note:** PeopleSoft versions are generally discussed and referenced by the following:

- PeopleSoft application version

- PeopleTools version

PeopleTools is the development platform for PeopleSoft applications. Oracle provides a support matrix, which identifies the mapping between PeopleSoft application versions and PeopleTools releases. This support matrix is available through the *Lifetime Support Summary for PeopleSoft Releases (Doc ID 1348959.1),* which is maintained by Oracle.

## PeopleTools

iWay Application Adapter for PeopleSoft supports PeopleTools versions as listed in the following table.

| PeopleTools Series | Supported Versions |
| --- | --- |
| 8.1 | 8.17 to 8.22 |
| 8.4 | 8.40 to 8.52 |

## Application Adapter for PeopleSoft Operating Systems

iWay Application Adapter for PeopleSoft supports all of the operating systems that are listed in the *iWay Installation and Configuration Guide* under *Operating System Requirements*.

The only exceptions to the list are z/OS and OS/400, which are not supported by iWay Application Adapter for PeopleSoft.

## Databases

iWay Application Adapter for PeopleSoft does not function directly with databases and only operates at the API level.

## Java Development Kit (JDK)

iWay Application Adapter for PeopleSoft supports the Java Development Kit (JDK) versions that are listed in the *iWay Installation and Configuration Guide* under *Java Requirements*.

## Application Adapter for PeopleSoft Communication Modes

iWay Application Adapter for PeopleSoft supports the following communication modes:

❑ **Services (Outbound).** iWay Application Adapter for PeopleSoft can send messages to PeopleSoft.

❑ **Events (Inbound).** iWay Application Adapter for PeopleSoft can receive messages from PeopleSoft.

## PeopleSoft Object Types and Interfaces

iWay Application Adapter for PeopleSoft supports the following PeopleSoft Object Types and Interfaces:

❑ **Component Interfaces through PeopleSoft generated Java APIs.** Component Interfaces are used for outbound communication (services) from iWay Application Adapter for PeopleSoft to PeopleSoft systems.

❑ **Messages / Services through Integration Broker.** Messages are used for inbound communication (events) from PeopleSoft systems to iWay Application Adapter for PeopleSoft.

## PeopleSoft Communication Types

iWay Application Adapter for PeopleSoft supports the following communication types:

❑ **Component Interfaces:** Synchronous

❑ **Messages / Services:** Asynchronous

## PeopleSoft Operations

iWay Application Adapter for PeopleSoft supports the following operations:

❑ **Component Interfaces:** Operations such as Insert, Update, Delete, Find, and Browse are supported by adapter, except for the Cancel operation. Custom operations or methods are not supported by the adapter.

**Note:** Operations vary based on each Component Interface.

❑ **Messages / Services:** Receive documents from PeopleSoft.

## PeopleSoft Data Types

iWay Application Adapter for PeopleSoft supports the following data types:

❑ Character

❑ Number

❑ Date

However, iWay Application Adapter for PeopleSoft processes these data types as strings when sending and receiving documents with PeopleSoft systems.

## Other PeopleSoft Functions

There is no known list related to other functions for iWay Application Adapter for PeopleSoft.

## Known Application Adapter for PeopleSoft Limitations

This section lists known issues for iWay Application Adapter for PeopleSoft.

❏ The Cancel operation (method) for Component Interfaces is not supported.

❏ The synchronous communication type for events (inbound) is not supported.

## Related Information for the Application Adapter for PeopleSoft in Specific iWay Releases

For more information, see the *iWay New Features Bulletin and Release Notes* documentation for a specific release (for example, iWay Version 7.0.2).

# Application Adapter for PeopleSoft Quick Start Guide

This chapter provides a quick start guide for the iWay Application Adapter for PeopleSoft.

**In this chapter:**

❑ PeopleSoft Quick Start Overview

❑ Installing the Application Adapter for PeopleSoft

❑ Configuring the Application Adapter for PeopleSoft

❑ Upgrading PeopleTools

## PeopleSoft Quick Start Overview

This quick start guide summarizes the high-level key steps that are required to install, configure, and use the iWay Application Adapter for PeopleSoft. The quick start guide does not elaborate on any of the steps in detail. Instead, cross-references are provided for the corresponding sections in the *iWay Application Adapter for PeopleSoft User's Guide*. Users of the iWay Application Adapter for PeopleSoft are encouraged to follow the sequence of steps in this guide to quickly connect to a PeopleSoft system and begin using the adapter. To gain a complete understanding about the adapter, it is recommended for users to review the entire *iWay Application Adapter for PeopleSoft User's Guide*, as the quick start guide section is not a replacement for that level of detail. The steps in this quick start guide are required to be performed by an iWay integration developer ("Integrator") and PeopleSoft admin ("PeopleSoft Administrator"). For each task, the appropriate role is noted accordingly throughout the quick start guide.

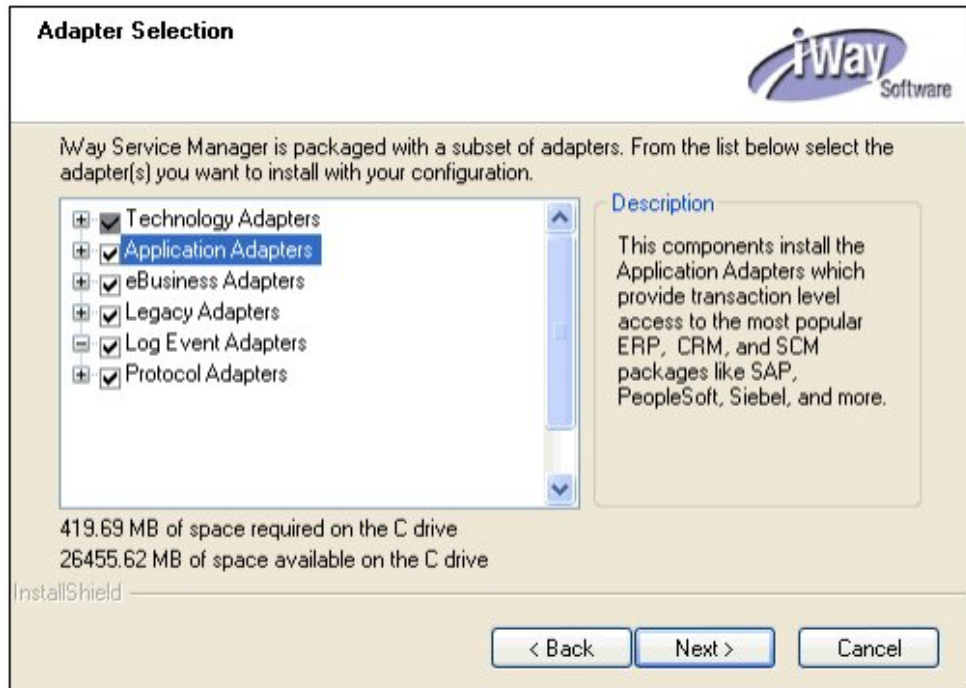## Installing the Application Adapter for PeopleSoft

Installing the iWay Application Adapter for PeopleSoft consists of the following key steps.

**Role:** Integrator

1. Review and verify the information in *iWay Application Adapter for PeopleSoft Supported Platforms Matrix* on page 19.

2. Refer to the *iWay Installation and Configuration Guide* to install the iWay Application Adapter for PeopleSoft.

**Note:** In the Adapter Selection pane of the installer, the iWay Application Adapter for PeopleSoft is located in the *Application Adapters* category, as shown in the following image.



The iWay Application Adapter for PeopleSoft is not installed by default and must be selected during the iWay installation.

3. In the *iWay Installation and Configuration Guide*, refer to *Chapter 3, Preparing Adapters* (PeopleSoft topic) to review supported versions and the library files that are required by the iWay Application Adapter for PeopleSoft.

## Configuring the Application Adapter for PeopleSoft

This section lists and describes the key configuration steps for configuring the iWay Application Adapter for PeopleSoft and then integrating with PeopleSoft for inbound and outbound processing.

## Initial Configuration

The initial configuration for the iWay Application Adapter for PeopleSoft consists of the following key steps.

1. Consult with your PeopleSoft system administrator to determine the PeopleTools version being used (not the PeopleSoft system/application version).

The iWay Application Adapter for PeopleSoft follows and is directed by the PeopleTools version (not the PeopleSoft system/application version). After you have determined the PeopleTools version, see *Specifying the Version of PeopleSoft* on page 29 to configure the adapter to use PeopleTools version 8.1 or version 8.4.

**Role:** Integrator

2. Refer to *Installing the Application Adapter for PeopleSoft Component Interfaces* on page 30 for information on installing the iWay prepackaged Component Interfaces into the PeopleSoft system.

   **Role:** PeopleSoft Administrator

3. Refer to *Configuring Component Interface Security* on page 35 for information on configuring the PeopleSoft system to provide access to the adapter.

   **Role:** PeopleSoft Administrator

4. If you are using PeopleTools version 8.1 and require use of the adapter to consume events from PeopleSoft (messages from PeopleSoft), then you must install the iWay prepackaged listener on the PeopleSoft system. For more information, see *Installing the TCP/IP Message Router for the iWay Application Adapter for PeopleSoft* on page 43.

   **Role:** PeopleSoft Administrator

5. If the adapter must integrate data inbound (services) into PeopleSoft, then Component Interface APIs must be generated. For more information, see *Generating Component Interface APIs* on page 47.

   **Role:** PeopleSoft Administrator

6. iWay Application Adapter for PeopleSoft requires a set of library files from PeopleSoft. For more information, see *Copying PeopleSoft Files Into the Lib Directory* on page 45.

   **Role:** PeopleSoft Administrator

7. If the adapter requires subscribing to messages (events) from PeopleSoft, then the application must be configured for this purpose. For more information, see *Configuring the PeopleSoft Message Router* on page 57.

   You must refer to the section that corresponds to your PeopleTools version (8.1 or 8.4). If your PeopleTools version is 8.48 or higher (8.4 series), see *Using PeopleSoft 8 Integration Broker* on page 157.

   **Role:** PeopleSoft Administrator

8. Collect the valid PeopleSoft connection parameters (such as server name, Jolt port number, user ID, and password) from the PeopleSoft administrator.

   **Role:** Integrator

9. Determine which PeopleSoft Component Interfaces and messages are required to be integrated through the iWay Application Adapter for PeopleSoft.

   **Role:** Integrator

10. For the given list of PeopleSoft Component Interfaces, ensure that security is enabled for these Component Interfaces. For more information, see *Securing a Component Interface* on page 140.

    **Role:** PeopleSoft Administrator

11. Ensure that the PeopleSoft Component Interfaces are tested for validation from the PeopleTools Application Designer. For more information, see *Testing a Component Interface* on page 150.

    **Role:** PeopleSoft Administrator

## Using the Adapter for Inbound Processing (Inbound Services Into PeopleSoft)

Using the iWay Application Adapter for PeopleSoft for inbound processing consists of the following key steps.

**Role:** Integrator

1. Start iWay Explorer, as described in *Starting iWay Explorer* on page 75.

2. Create and configure an adapter target for your PeopleSoft system, as described in *Establishing a Target for PeopleSoft* on page 76.

3. Create an schema (.xsd) document for the selected PeopleSoft Component Interface, as described in *Creating an XML Schema* on page 82.

4. Create a web service for the selected PeopleSoft Component Interface, as described in *Generating a Web Service for PeopleSoft* on page 84.

   **Notes:**

   ❏ The above steps can be repeated for all required PeopleSoft Component Interfaces.

   ❏ Any additional integration tasks should be performed through iWay Integration Tools (iIT) and iWay Service Manager (iSM) using the web services and XML schema documents (.xsd) that were generated for selected PeopleSoft Component Interfaces. For more information, refer to the iSM and iIT user documentation.

## Using the Adapter for Outbound Processing (Outbound Services From PeopleSoft)

For more information, see *Configuring an HTTP Event Listener for PeopleSoft Using iWay Service Manager* on page 115.

**Role:** Integrator

## Upgrading PeopleTools

If you are planning to upgrade PeopleTools while the iWay Application Adapter for PeopleSoft is deployed in a production environment, see *PeopleTools Upgrade Considerations* on page 199 for more information.

**Role:** Integrator

**Chapter 4**

# Configuring the iWay Application Adapter for PeopleSoft

This section describes how to configure the iWay Application Adapter for PeopleSoft. You must:

❏ Select your version of PeopleSoft.

❏ Install the adapter Component Interfaces.

❏ Install the adapter TCP/IP message router.

❏ Copy the psjoa.jar file (and, for PeopleSoft release 8.1, the pstools.properties file) into the iWay7\lib directory.

**In this chapter:**

❏ Specifying the Version of PeopleSoft

❏ Installing the Application Adapter for PeopleSoft Component Interfaces

❏ Installing the TCP/IP Message Router for the iWay Application Adapter for PeopleSoft

❏ Copying PeopleSoft Files Into the Lib Directory

## Specifying the Version of PeopleSoft

The iWay Application Adapter for PeopleSoft supports multiple versions of PeopleSoft. However, one version can be incompatible with another. The adapter must recognize the version you use. After installation, files for both versions of PeopleSoft appear in the iWay7\lib directory. The default location for this directory on Windows is:

```
C:\Program Files\iWay7\lib
```

On non-Windows systems, you use the corresponding location.

*Procedure:* **How to Specify the Version of PeopleSoft**

To specify the correct version of PeopleSoft:

1. To ensure the adapter functions properly, remove the file that does not correspond to your version.

   For PeopleSoft **8.4x** releases, remove the following file:

   ```
   iwpsci81.jar
   ```

For PeopleSoft **8.1x** releases, remove the following file:

```
iwpsci84.jar
```

2. After you change the contents of the lib directory, restart all iWay components.

The iwpsci84.jar file also supports PeopleTools version 8.5x. When connecting with PeopleTools versions 8.5x (such as 8.50 or 8.51), you can use the iwpsci84.jar file with those PeopleTools versions.

# Installing the Application Adapter for PeopleSoft Component Interfaces

The iWay Application Adapter for PeopleSoft includes two custom Component Interfaces. iWay Explorer uses these Component Interfaces to create schemas for events and services.

To configure Component Interfaces for use by the iWay Application Adapter for PeopleSoft:

1. Import and build the Component Interfaces.

2. Configure Component Interface security.

3. Test the Component Interfaces.

## Importing and Building the Component Interfaces

The Component Interfaces supplied with the iWay Application Adapter for PeopleSoft are delivered through a PeopleSoft project.

❑ For Release 8.4, the project is the IWY_CI_84 project, packaged in iwpsci84.zip.

❑ For Release 8.1, the project is the IWY_CI_81 project, packaged in iwpsci81.zip.

These files are installed with iWay 7.0 SM.

On Windows, their default location is:

```
C:\Program Files\iWay7\etc\setup\peoplesoft
```

On non-Windows systems, use the corresponding location. If this location does not exist, contact iWay Software for copies of the relevant files.

*Procedure:* **How to Import and Build the Component Interfaces**

To import the IWY_CI_81 or IWY_CI_84 project to PeopleSoft 8:

1. Unzip *iwpsci81.zip* or *iwpsci84.zip* to a directory of your choice.

The unzip process creates its own subdirectory. For example, if you extract the file to c:\temp, it creates c:\temp\IWY_CI_81 or c:\temp\IWY_CI_84.

2. Launch the PeopleSoft Application Designer in two-tier mode.

3. To open the Copy From File Select Project dialog box:

   In PeopleSoft **8.4**, select *Copy Project* from the Tools menu and then, select *From File*.

   In PeopleSoft **8.1**, select *Copy Project from File* from the File menu.

   The Copy Project From File dialog box opens.

4. Navigate to the original directory to which you unzipped the file.

5. To open the Copy From File dialog box, click *Open* (in 8.4) or *Copy* (in 8.1).

   **Note:** Although the following images illustrate PeopleSoft release 8.4, the corresponding instructions are accurate for releases 8.1 and 8.4.

   The following image shows the PeopleSoft Application Designer Copy From File dialog box. It includes PeopleTools release and target information on the left, a Definition Type(s) pane, and five buttons, Copy, Cancel, Options, Select All, and Deselect All.
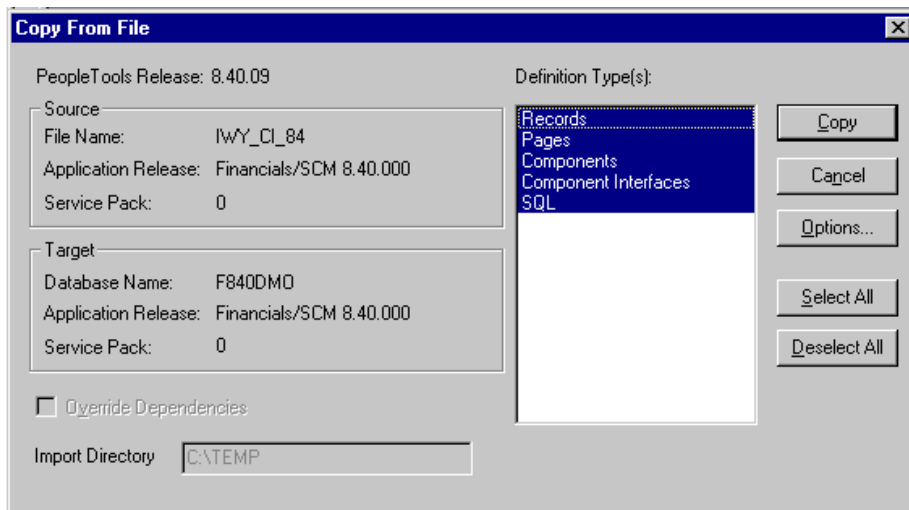


6. Highlight all the objects that appear under Definition Types and click *Copy*.

7. To build the views in the project, from the Build menu, select *Project*.

The following image shows the Build dialog box. It contains a Build Scope pane, a Build Options pane, and a Build Execute Options pane. It also contains Build, Cancel, and Settings buttons.
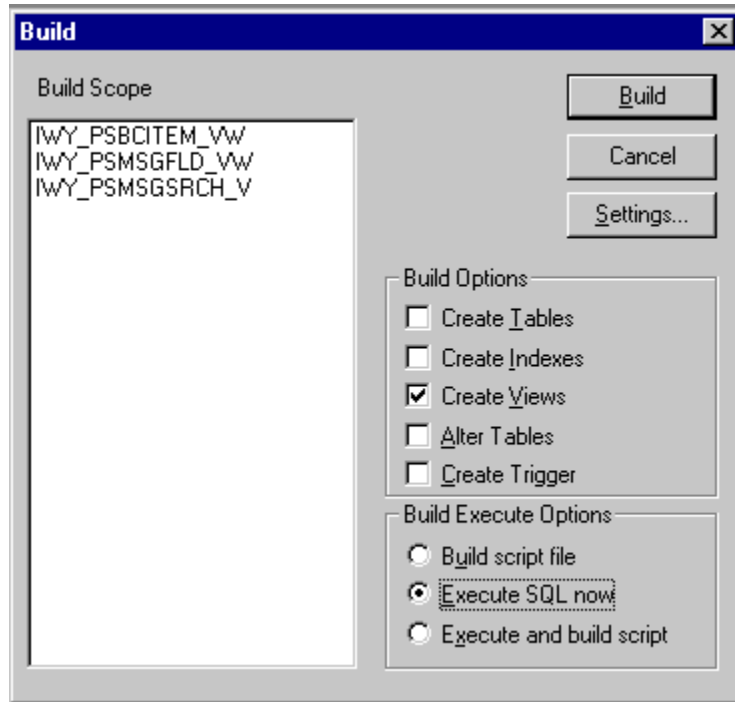


a. From Build Options, select the *Create Views* check box.

b. In the Build Execute Options pane, select the customary option for your site. (For example, in the previous image, the Execute SQL now option is selected.)

8. Click *Build*.

The following image shows the Application Designer Build Progress status pane. It contains a summary of the process completed and a progress bar. Only the Close button is active.
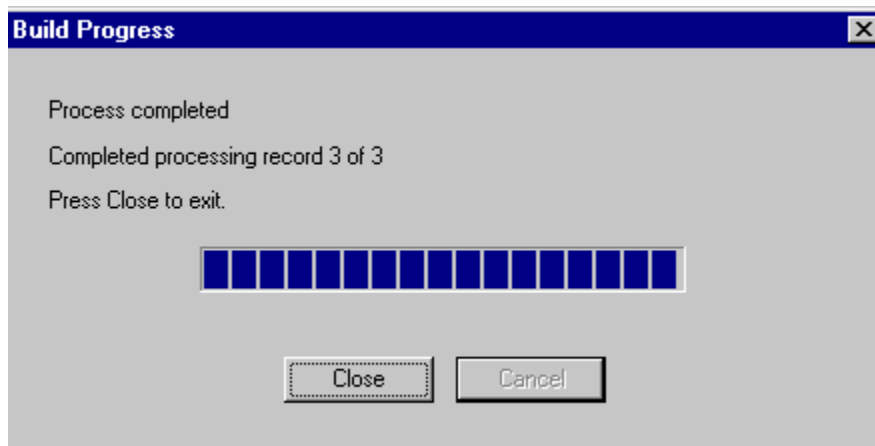


**Note:** There are no errors or warnings.

a. To ensure that the records were created correctly, use your native SQL Tool to view the records from the generated view.

b. If the records were not correctly generated, click *Close*.

9. Double-click the SQL Build log statement.

The following image shows the PsBuild log file, which contains information about the SQL build process.
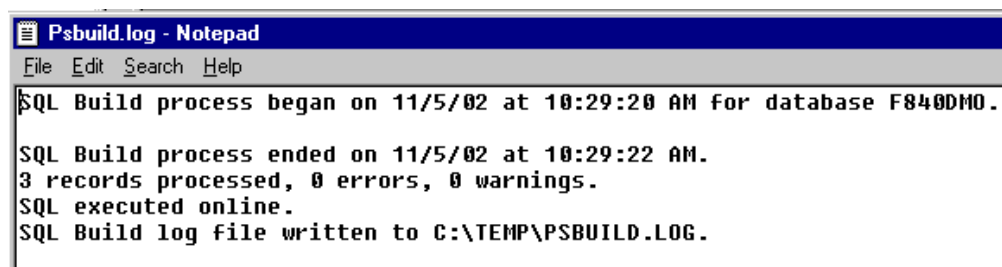


10. If you encounter problems, check the Build settings options by choosing *Build* and then, *Settings*.

The following image shows the Build Settings dialog box. It includes four tabs: Create (active), Alter, Logging, and Scripts. The Create tab includes three panes: Table Creation Options, View Creation Options, and Index Creation Options. Each pane includes two options. One is to recreate the table, view, or index if it already exists. The other is to skip the table or view if it already exists or to recreate the index only if modified. The dialog box also includes OK and Cancel buttons.
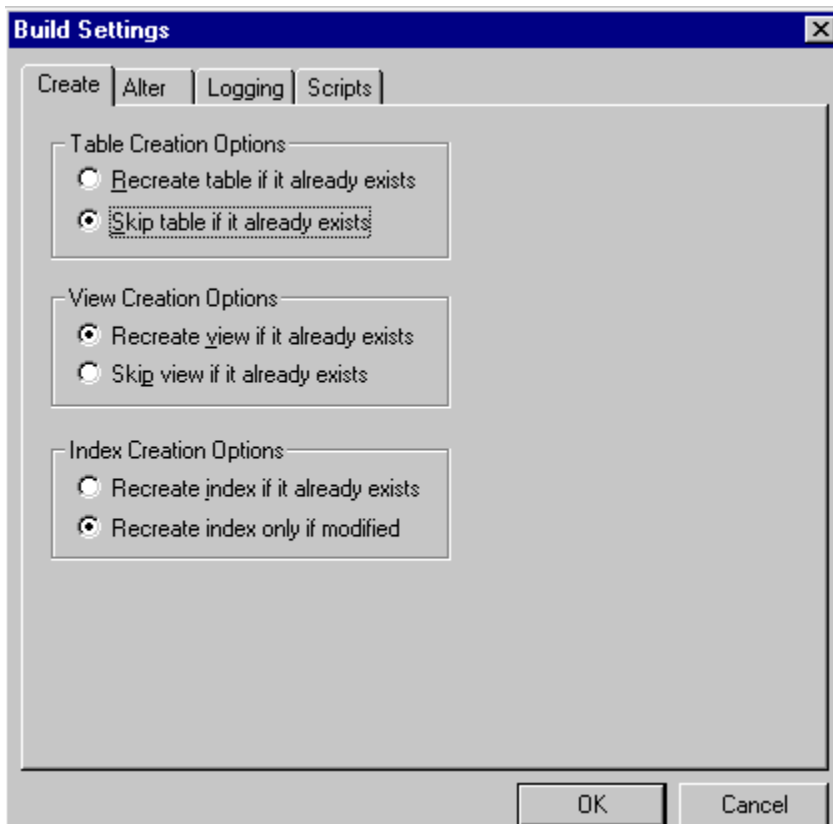


Depending on the application server database for PeopleSoft 8, a database may require the Tablespace name. For more information regarding this function, consult your PeopleSoft 8 database administrator.

You have finished importing and building the Component Interfaces. To configure security for Component Interfaces, see *Configuring Component Interface Security* on page 35.

## Configuring Component Interface Security

iWay Explorer requires the custom Component Interfaces that you imported and built in the previous procedure, *How to Import and Build the Component Interfaces* on page 30, so you must ensure that all iWay Explorer users have access to these Component Interfaces. As with all PeopleSoft objects, security is assigned at the Permission List level. Review your site security requirements to determine the users who will work with iWay Explorer and then, set Component Interface security for each distinct Permission List belonging to those users.

**Note:** These Component Interfaces are required for creating schemas and iWay Business Services, and they are required at run time for using the Find method. They have only Get and Find access and cannot be used to update your PeopleSoft database; this minimizes possible security exposures.

In PeopleSoft release 8.1, you may set security in 2-, 3-, or 4-tier mode; in release 8.4 and higher, you may set security in 4-tier mode only.

The following procedure describes how to configure security for all supported releases of PeopleSoft in all supported modes. The images in the procedure reflect PeopleSoft release 8.4 in 4-tier mode.

*Procedure:* **How to Configure Component Interface Security**

To configure security for each adapter Component Interface:

1. From the PeopleSoft user interface menu, choose *PeopleTools*, *Security*, *User Profiles*, *Permissions & Roles*, and then *Permission Lists*.

   The following image shows the expanded Security menu, which displays a list of options under Permissions & Roles.

   

2. Click *Permission Lists*.

The following image shows the Permission Lists pane. It contains two tabs, Find an Existing Value (active) and Add a New Value, a Search by drop-down list, an input field called "begins with," a Search button, an Advanced Search hyperlink, and a Search Results section.

**Permission Lists**

Enter any information you have and click Search. Leave fields blank for a list of all values.

Find an Existing Value | Add a New Value

Search by: Permission List ▼ begins with [              ]

[Search] Advanced Search

Search (Alt+1)

**Search Results**

Only the first 300 results can be displayed. Enter more information above and search again to reduce the number of search results.

View All    First ◄ 1-100 of 300 ► Last

| Permission List | Description |
|---|---|
| AEAE1000 | Environments Management |
| AEPNLS | AEPNLS: clone of ALLPNLS |
| ALLPAGES | ALLPAGES |
| ALLPORTL | All Portal |
| AMPNLS | (blank) |
| AMSYSTEM | (blank) |
| APPNLS | (blank) |
| APPSRVR | Can start application server |
| BDPNLSA | (blank) |
| BDPNLSS | (blank) |
| BIPNLS | Billing Panels |
| CPAE1000 | Application Environment |
| CPEO1000 | Enterprise Objects |

3. Click *Search* and select the relevant Permission List.

The following image shows that the Permission List appears on the General tab which is active. The other tabs are Pages, PeopleTools, Process, and Sign-on Times.



4. To display the Component Interfaces tab, click the arrow to the right of the Sign-on Times tab.

The following image shows the Component Interfaces tab with a list of interfaces. In addition to the Sign-on Times tab, the Message Monitor and Web Libraries tabs appear, but are inactive.
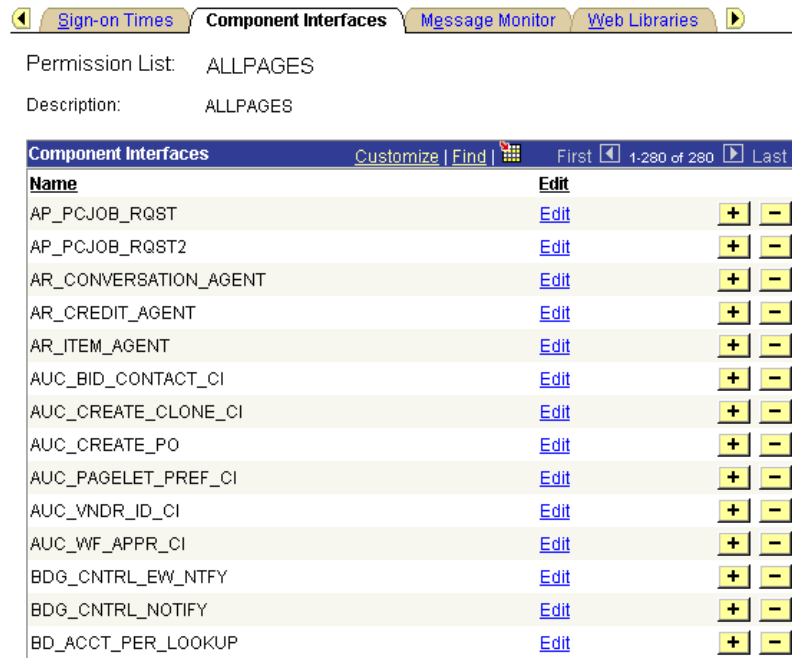


a. To add a new row to the Component Interfaces list, select the plus sign (+).

b. Type or select the *IWY_CI_ATTRIBUTES* Component Interface.

5. Click *Edit*.

The Component Interface Permissions pane for the IWY_CI_ATTRIBUTES component interface opens. It includes a column for Methods and drop-down lists for the Method Access including ones corresponding to Get and Find.

a. To set the Get and Find methods to Full Access, click *Full Access (All)*.

b. Click *OK*.

6. Repeat the process for the IWY_CI_MESSAGES Component Interface.

7. Scroll to the bottom of the Component Interfaces pane and click *Save*.

You have finished configuring security for the Component Interfaces delivered with the iWay Application Adapter for PeopleSoft. To test these Component Interfaces, see *Testing the Component Interfaces* on page 39.

## Testing the
## Component Interfaces

You must test each of the PeopleSoft Component Interfaces before using them with the adapter.

*Procedure:* **How to Test the Component Interfaces**

To test the Component Interfaces:

1. In PeopleSoft Application Designer, open the *IWY_CI_ATTRIBUTES* Component Interface.

2. Choose *Tools* and then, *Test Component Interface*.

   The following image shows the Component Interface Tester dialog box. It contains three panes: 'Get' keys, 'Create' keys (inactive), and 'Find' keys all for Component Interface. It includes three check boxes: Interactive Mode, Get History (selected), and Edit History Items. It also includes four buttons: Get Existing (active), Create New (inactive), Find button, and Cancel.
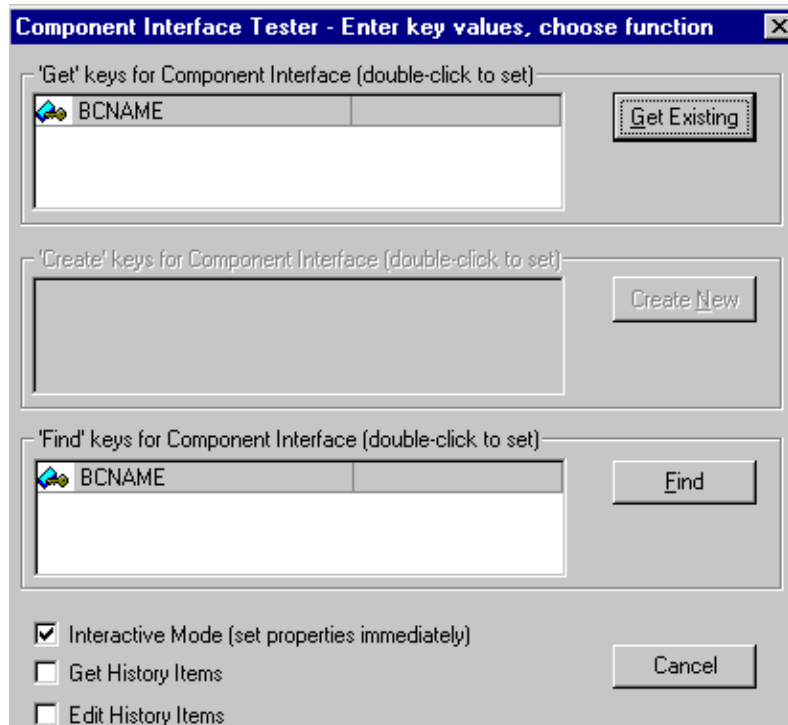


   **Note:** The Create New button is inactive because the Add method is not applicable to this Component Interface.
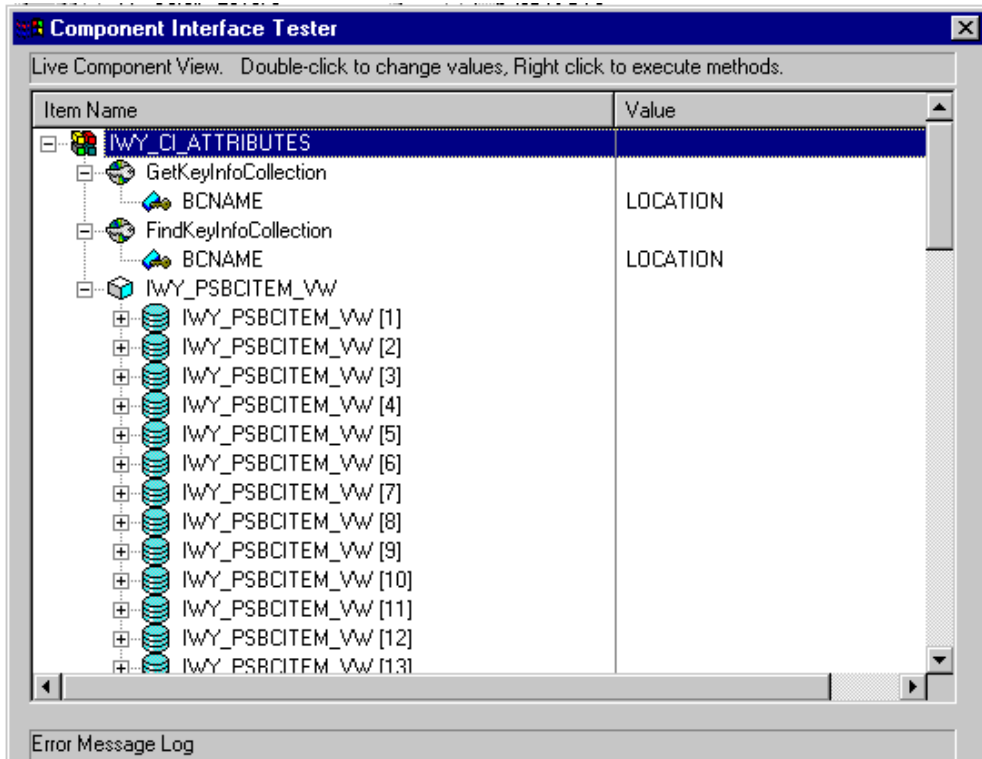
3.  Click the *Find* button.

    Entries for the underlying component appear. A message may appear stating that display is limited to a certain number of entries. This is not a significant limitation.

    The following image shows the Component Interface Tester - Find Results dialog box. It contains a Find Results field and Get Selected and Cancel buttons.
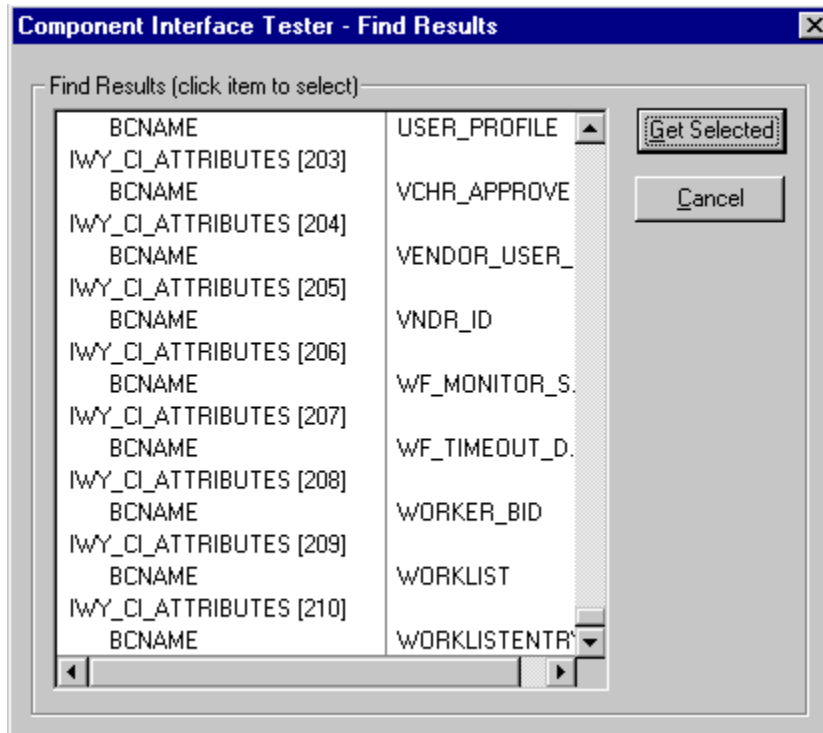


4.  Highlight one of the lines with its corresponding key in the Find Results window and click the *Get Selected* button.

The relevant data for the selected key appears as shown in the following image of the Component Interface Tester. The Tester includes an Item Name pane and a Value pane. The image shows the values for the keys, GetKeyInfoCollection and FindKeyInfoCollection, and the list of IWY_PSBCITEM_VW databases. It also contains an Error Message Log pane.



When this window appears, it means that the Component Interface was successfully tested for the Find method.

5. In the Component Interface Tester dialog box, click the *Get* button.

   For the Get method, an existing key must be entered.

The following image shows the Component Interface Tester dialog box. It contains three panes: 'Get' keys, 'Create' keys (inactive), and 'Find' keys, all for Component Interface. It also includes three check boxes: Interactive Mode, Get History (selected), and Edit History Items. It includes four buttons: Get Existing (active), Create New button (inactive), Find button, and Cancel.
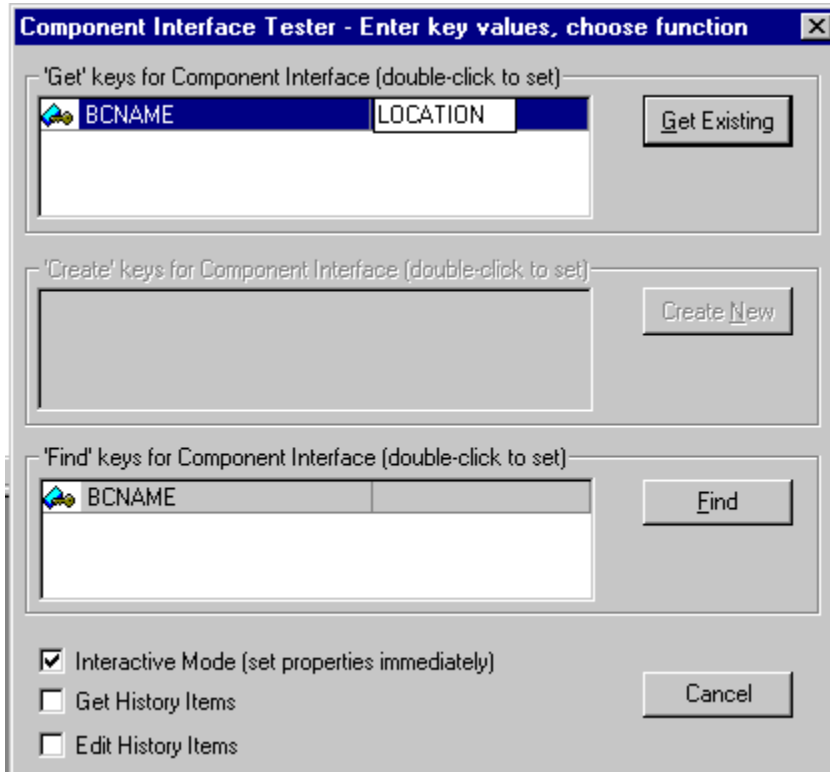


The exposed properties for the key that is entered are returned.

The following image shows the Component Interface Tester dialog box. It includes an Item Name pane and a Value pane as well as an Error Message Log pane.
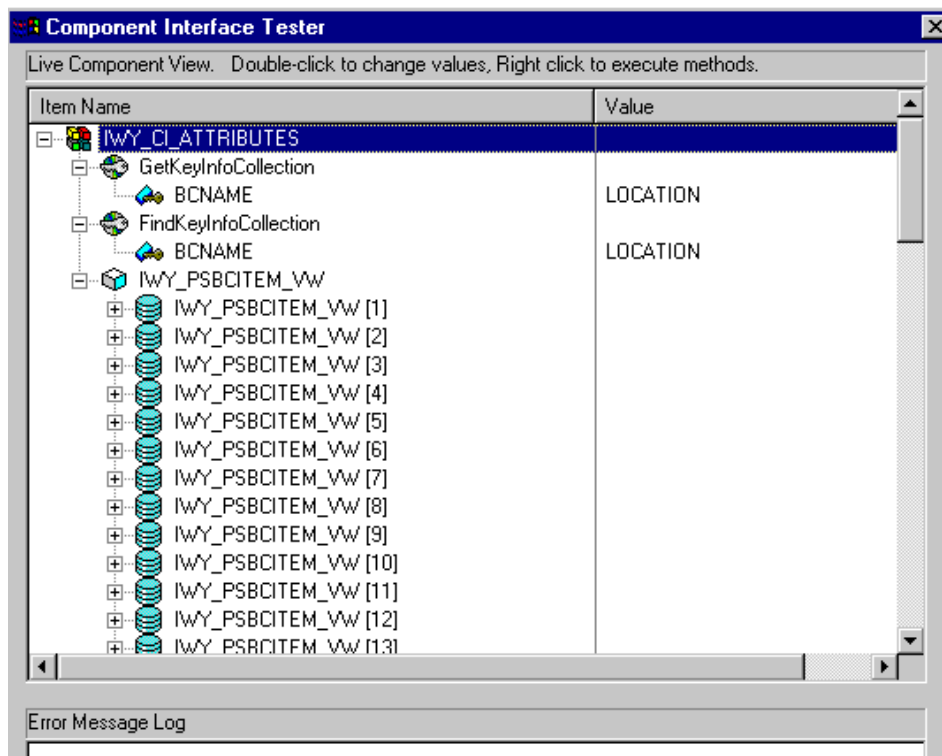


If the previous window opens, the Component Interface has been successfully tested for the Get method.

6. Repeat the previous steps for the IWY_CI_MESSAGES Component Interface.

You have finished testing the Component Interfaces.

## Installing the TCP/IP Message Router for the iWay Application Adapter for PeopleSoft

To enable PeopleSoft to send an XML event document to iWay components using TCP/IP, you must install the TCP/IP message router required for your specific PeopleSoft release level.

For PeopleSoft Release 8.4, install the TCP/IP target connector. For more information, see *Installing the TCP/IP Target Connector for PeopleSoft Release 8.4* on page 44.

For PeopleSoft Release 8.1, install the TCP/IP handler. For more information, see *Installing the TCP/IP Handler for PeopleSoft Release 8.1* on page 44.

**Notes:**

❑ If you are using PeopleTools Release 8.40 and higher, then iWay Software recommends you to use the target connectors that are delivered by PeopleSoft. Do not install the target connectors that are delivered with the iWay Application Adapter for PeopleSoft.

❑ The TCP/IP target connector configuration for PeopleSoft Release 8.4 is provided for customers who are migrating from an older PeopleSoft release (PeopleSoft 8.1 series) to a newer PeopleSoft release.

❑ If you are not using PeopleSoft messages for event handling, then skip the steps that describe how to install the target connectors for TCP and HTTP that are delivered with the iWay Application Adapter for PeopleSoft.

## Installing the TCP/IP Target Connector for PeopleSoft Release 8.4

The TCP/IP target connector for PeopleSoft release 8.4 is installed with iWay 7.0 SM. The default location on Windows is:

```
C:\Program Files\iWay7\etc\setup\peoplesoft\iwpsevent84.jar
```

On non-Windows systems, use the corresponding location.

If this location does not exist, contact iWay Software for copies of the relevant files.

*Procedure:* **How to Install the TCP/IP Target Connector for PeopleSoft Release 8.4**

To install the TCP/IP target connector for PeopleSoft Release 8.4:

1. Extract *TCPIPTARGET84.class* from iwpsevent84.jar. using an extraction utility appropriate for your platform.

2. Port *TCPIPTARGET84.class* to the platform where the PeopleSoft gateway web server resides.

3. Place *TCPIPTARGET84.class* in the PeopleSoft server target connector directory.

   This directory may vary according to your web or application server.

## Installing the TCP/IP Handler for PeopleSoft Release 8.1

The TCP/IP target connector for PeopleSoft release 8.1 is installed with iWay 7.0 SM. The default location on Windows is:

```
C:\Program Files\iWay7\etc\setup\peoplesoft\iwpsevent81.jar
```

On non-Windows systems, use the corresponding location.

If this location does not exist, contact your distributor for copies of the relevant files.

*Procedure:* **How to Install the TCP/IP Handler for PeopleSoft 8.1**

To install the TCP/IP Handler for PeopleSoft release 8.1:

1. Port *iwpsevent81.jar* to the platform where the PeopleSoft gateway web server resides.

2. Place *iwpsevent81.jar* in the servletclasses directory under the PeopleSoft web server.

3. Extract the embedded class files.

*Example:* **Installing the TCP/IP Handler on a UNIX System**

To install the TCP/IP handler for PeopleSoft release 8.1 on a UNIX system:

1. Log on to the UNIX system with the proper PeopleSoft ID and permissions.

2. Navigate to the PeopleSoft web servlets directory.

   This directory may vary by release and by web server, but usually is:

   ```
   $PS_HOME/webserv/servletclasses
   ```

3. To extract the class files required by PeopleSoft, issue the JAR command, for example:

   ```
   jar -xvf /tmp/iwpsevent81.jar
   ```

   The following output appears on a Sun/Solaris system:

   ```
   $ jar -xvf /tmp/iwpsevent81.jar
   created: META-INF/
   extracted: META-INF/MANIFEST.MF
   extracted: psft/pt8/tcphandler/TCPIPHandler81$Entry.class
   extracted:
   psft/pt8/tcphandler/TCPIPHandler81$HandlerEntry.class
   extracted:
   psft/pt8/tcphandler/TCPIPHandler81$PublicationHandler.class
   extracted: psft/pt8/tcphandler/TCPIPHandler81.class
   $
   ```

   **Note:** The files are placed in a new directory, tcphandler, under psft/pt8.

## Copying PeopleSoft Files Into the Lib Directory

iWay Explorer creates XSD schemas and iWay Business Services from PeopleSoft Component Interfaces and creates XSD schemas from PeopleSoft messages. To do so, the following file(s) must be in the iWay7\lib directory. The default location for this directory on Windows is:

```
C:\Program Files\iWay7\lib
```

On non-Windows systems, use the corresponding location.

You must ensure that the following are in the lib directory:

❑ PeopleSoft Java Object Adapter (psjoa.jar)

This file provides a low level interface between client applications and PeopleSoft. This file is provided with PeopleSoft and can be found in the following directory:

*PS_HOME*\web\PSJOA

where:

 *PS_HOME*

Is the PeopleSoft home directory.

The psjoa.jar file is different for every version of PeopleSoft. When you upgrade your Peopletools release, ensure you copy the psjoa.jar file for the new release into the iWay7\lib directory and restart all components.

❑ pstools.properties (for PeopleSoft 8.1.x)

PeopleSoft release 8.1x requires an additional file, pstools.properties found in the following directory:

*PS_HOME*\web\jmac

❑ psoftcrmci.jar file

This file is a set of Java classes that were generated from PeopleSoft Component Interfaces. For more information, see *Generating Component Interface APIs* on page 47.

# Generating Component Interface APIs

This section describes how to build and compile Component Interface APIs to use with the iWay Application Adapter for PeopleSoft.

**In this chapter:**

❑ Building the PeopleSoft API Java Programs

❑ Compiling the PeopleSoft API Java Programs

## Building the PeopleSoft API Java Programs

Whether you are using an Enterprise Integration Point (EIP) supplied by PeopleSoft or a customized Component Interface, you must create a PeopleSoft API to enable communications with the PeopleSoft application. The API is a collection of Java class files that reside on the client machine and mediate between the client application layer and PeopleSoft.

Before using your Component Interface, you must apply security to it and test it. For information about these tasks, as well as how to create a Component Interface, see *Using PeopleSoft Component Interfaces* on page 135.

*Procedure:* **How to Create a PeopleSoft API Java Program**

To create a PeopleSoft API Java program:

1. Open the PeopleSoft Application Designer.

The following image shows the PeopleSoft Application Designer Component Interface. The upper part is divided into two panes, and lower part displays a pane for viewing validation. The Build menu is open and the PeopleSoft APIs option is selected.
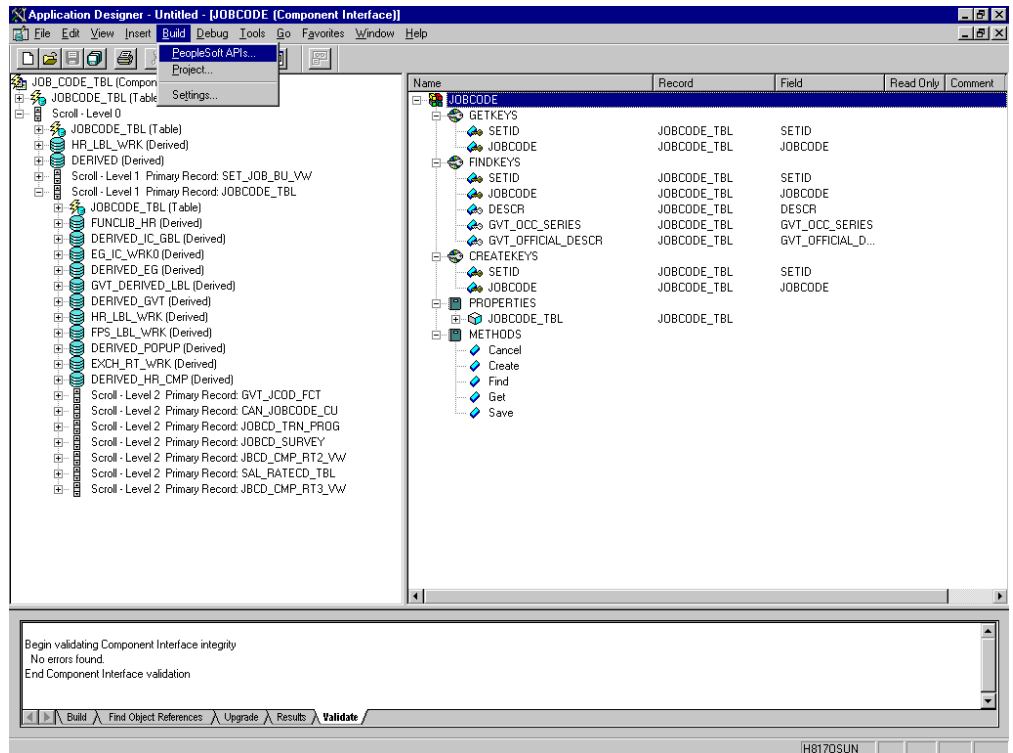


2. To open a Component Interface, click the right pane and from the Build menu, select *PeopleSoft APIs*.

The Build PeopleSoft API Bindings dialog box opens where you can select options for the COM Type Library and Java Classes in their respective panes as shown in the following image. Currently, the Build check box is selected in the COM Type Library pane which includes the following fields: Target Directory, Type Library Template, and COM Server DLL Location. The AutoRegister and Clean-up Registry check boxes are selected. The dialog box also contains the C Header Files pane that includes a Build check box (clear) and the Directory for Header file field.
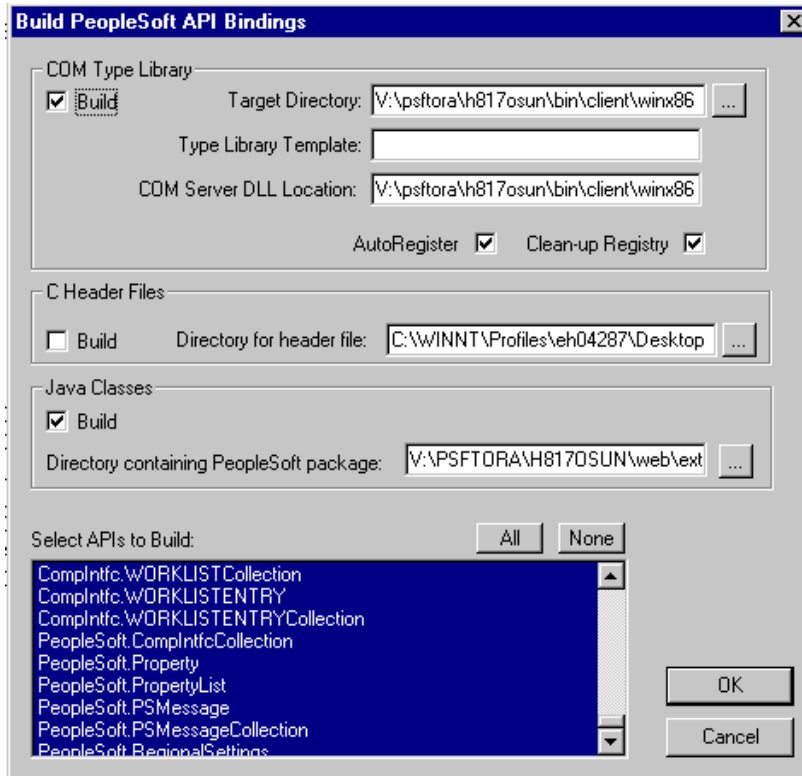


a. Because you are creating Java files, clear the *Build* check box for COM Type Library.

b. If it is not already selected, select the *Build* check box in the Java Classes pane and then, select a directory on your local machine where the Java files are to be placed, for example, c:\psoft8_components.

3. To build all files, follow the steps in *How to Build All of the API Files* on page 50. To build APIs for specific Component Interfaces, follow the steps in *How to Build APIs for a Specific Component Interface* on page 51.

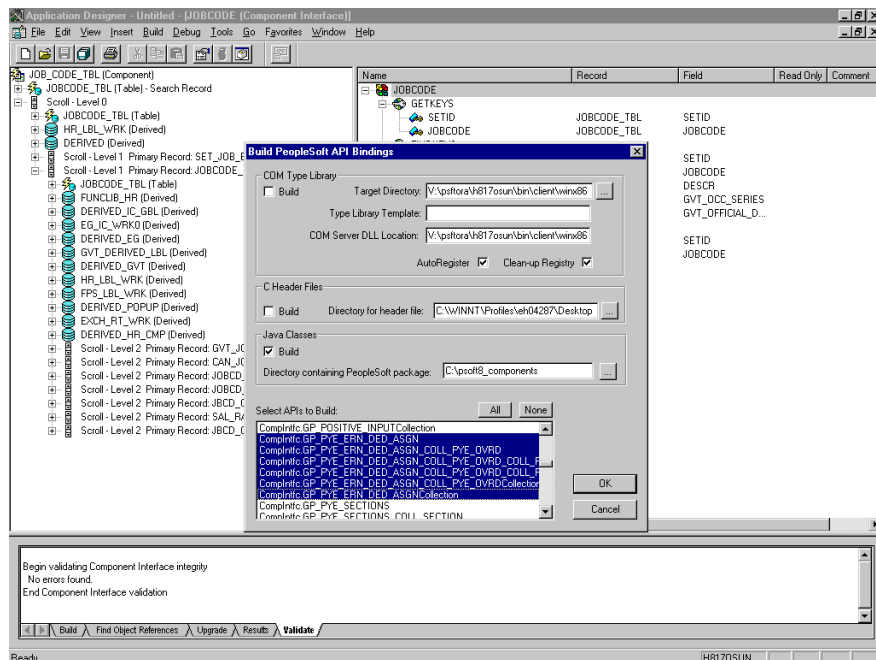### Procedure: How to Build All of the API Files

To build all files:

1. Complete the steps in *How to Create a PeopleSoft API Java Program* on page 47. In the Build PeopleSoft API Bindings dialog box:

   a. Select the Build check box for Java Classes.

   b. Specify a directory on your local machine where the Java files are to be placed, for example, c:\psoft8_components.

2. In the same dialog box, select the default, *All* (potentially a large number).

3. Click *OK*.

   PeopleSoft generates the files. This takes a few minutes. After the process is complete, a message appears in the output window.

   The following image shows the GP_PYE_ERN_DED_ASGN Component Interface from the HR 8.1 application. It shows the Build PeopleSoft API Bindings dialog box, with the Build check box in the Java Classes pane selected, and the location of the Java files. The list of APIs appears, and the All, None, OK, and Cancel buttons are active.



You are ready to compile the Java files. For more information, see *Compiling the PeopleSoft API Java Programs* on page 53.

*Procedure:* **How to Build APIs for a Specific Component Interface**

To build APIs for a specific Component Interface or interfaces:

1. Complete the steps in *How to Create a PeopleSoft API Java Program* on page 47. In the Build PeopleSoft API Bindings dialog box:

   a. Select the *Build* check box for Java Classes.

   b. Specify a directory on your local machine where the Java files are to be placed, for example, c:\psoft8_components.

2. In the same dialog box, click *None*.

   Selecting None clears the selected APIs, so you can select the appropriate ones for your Component Interface. There may be fewer than five, or more than 50 APIs, for a particular Component Interface. The APIs begin with the name of your Component Interface.

   a. Select the APIs for your Component Interface.

   b. In addition to the APIs for the selected Component Interface, you also must generate the API files for the following generic Component Interface properties:

   CompIntfcPropertyInfo

   CompIntfcPropertyInfoCollection

3. Select these properties in the same step as the Component Interface build process or select them separately.

The following image shows the Build PeopleSoft API Bindings dialog box, with the Build check box in the Java Classes pane selected, and the location of the Java files. The list of APIs and the generic properties appear, and the All, None, OK, and Cancel buttons are active.
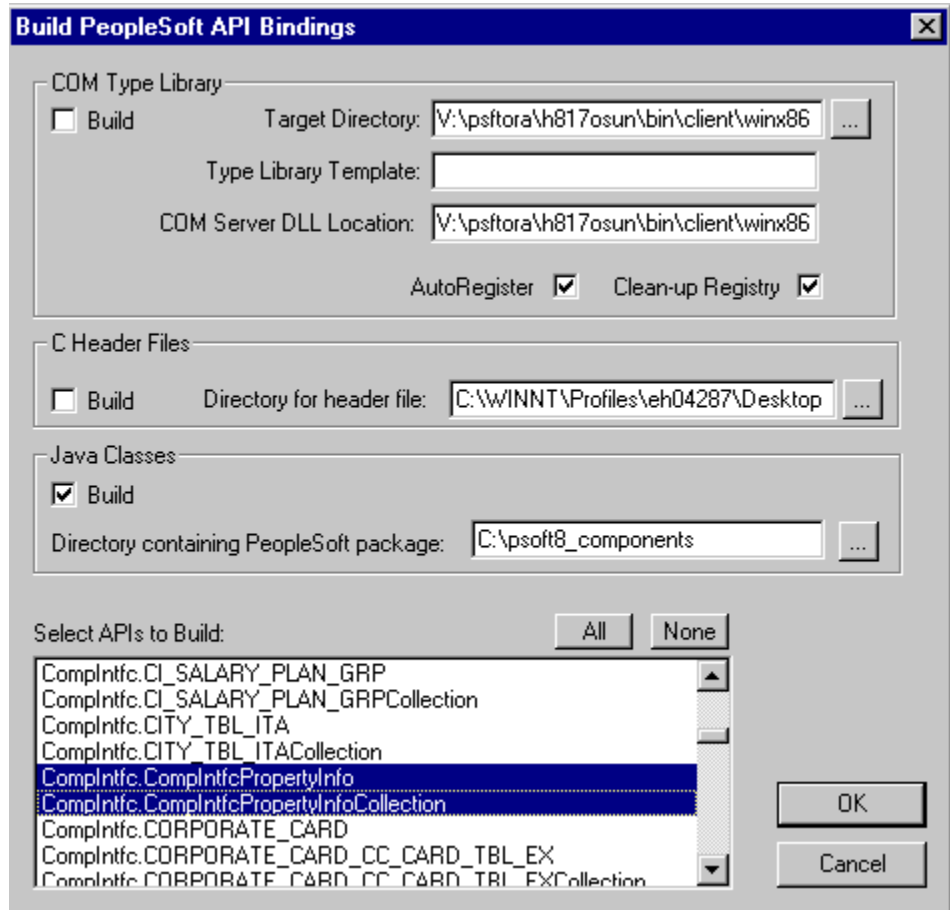


4. Click *OK*.

   PeopleSoft generates the files. This takes a few minutes. After the process is complete, a message appears in the output window.

   You are ready to compile the Java files. For more information, see *Compiling the PeopleSoft API Java Programs* on page 53.

# Compiling the
# PeopleSoft API Java Programs

PeopleSoft places the Java programs to compile in the directory called

*psoft8_components*\PeopleSoft\Generated\CompIntfc

where:

*psoft8_components*

   Is the directory specified during the build process.

If you chose to generate all APIs, the systems creates a second directory, that you are not required to access, called

*psoft8_components*\PeopleSoft\Generated\PeopleSoft

The process for compiling the PeopleSoft API Java Programs depends on whether you are compiling on the machine where you installed iWay Explorer or on another machine.

❏ To compile the PeopleSoft API Java programs on the **same machine where you installed iWay Explorer**, point to the psjoa.jar file or copy it to the directory where you placed the Java API files, for example, c:\psoft8_components.

   For more information, see *Building the PeopleSoft API Java Programs* on page 47.

❏ To compile the PeopleSoft API Java programs on **a machine other than the one where you installed iWay Explorer**, see *How to Compile the PeopleSoft API Java Programs on Another Machine* on page 53.

**Note:** There are two Java programs for every API file that you selected when you built the Java programs. For more information, see *Building the PeopleSoft API Java Programs* on page 47.

Before you compile the Java programs, you require the PeopleSoft Java Object Adapter, the psjoa.jar file, that resides on your PeopleSoft Application Server under the PS_HOME\Web \psjoa directory. This is the file that you placed in the adapter lib directory during installation. For more information, see the *iWay Installation and Configuration* manual.

*Procedure:* ## How to Compile the PeopleSoft API Java Programs on Another Machine

**Note:** If you are running on UNIX, do the compile and JAR steps on Windows NT and then move the file to your UNIX machine. The JAR file is binary. If you use an FTP-based tool to move your JAR file from Windows NT to UNIX, the file format must be set to binary.

To compile the PeopleSoft API Java programs on a machine other than the one where you installed iWay Explorer:

1. Obtain a copy of the psjoa.jar file from the PeopleSoft Application Server.

2. Ensure that the psjoa.jar file is in the Java class path before you compile the programs.

3. Compile the Java programs and ensure that you include the following path:

   ```
   \PeopleSoft\Generated\CompIntfc
   ```

   **Note:** The path is case-sensitive.

   The following Windows NT BAT file, run from the psoft8_components directory, properly compiles the Java APIs. (The code assumes that psjoa.jar was placed in psoft8_components.)

   ```
   @echo off
   set JAVA_HOME=<my-java-home>
   set PATH=%JAVA_HOME%\bin;%PATH%
   set CLASSPATH=%JAVA_HOME%\lib\tools.jar;psjoa.jar;%CLASSPATH%
   javac -classpath %CLASSPATH% .\PeopleSoft\Generated\CompIntfc\*.java
   ```

   where:

   ```
   <my-java-home>
   ```

   Is the fully qualified path name of your Java home directory.

   This code places the class files in the same directory with the Java files, but you can choose a different location depending on your site requirements.

4. Compress the class files into a JAR file.

   The following Windows BAT file, if run from the psoft8_components directory, creates a correct JAR file:

   ```
   @echo off
   set JAVA_HOME= my-java-home
   set PATH=%JAVA_HOME%\bin;%PATH%
   set CLASSPATH=%JAVA_HOME%\lib\tools.jar;%CLASSPATH%
   jar cvf my-jar-file.jar .\PeopleSoft\Generated\CompIntfc\*.class
   ```

   Where appropriate, substitutions are made for my-java-home and my-jar-file.

5. To verify that your JAR file is correct, open it with the WinZip application.

The following image shows the PeopleSoft JAR files opened in the WinZip application.
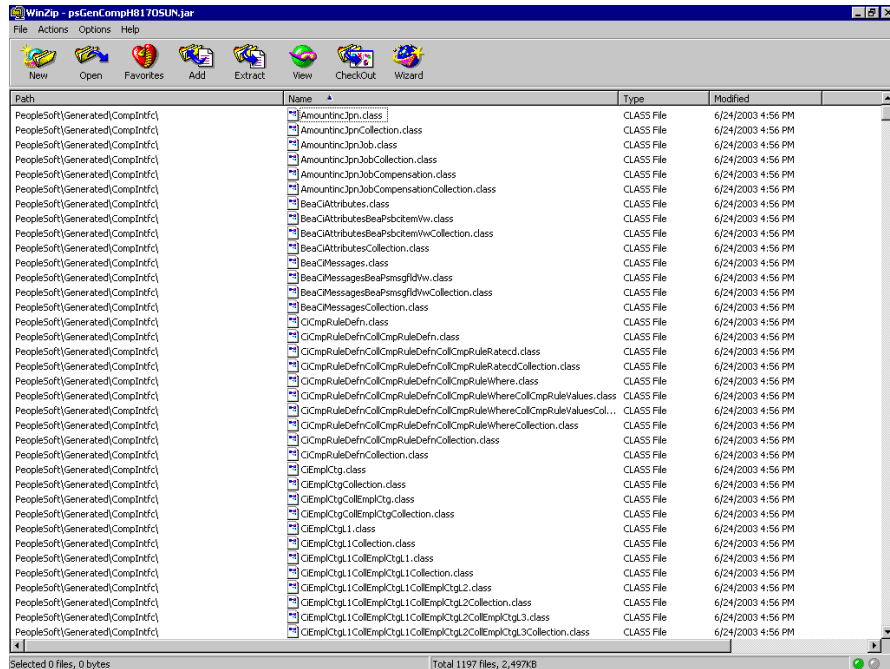


6. If the JAR file does not use the following case-sensitive path, you must go back and correct it:

    PeopleSoft\Generated\CompIntfc\

7. Place the JAR file in the common lib directory.

    This enables the iWay Application Adapter for PeopleSoft to communicate with the PeopleSoft Component Interface.

    For the current Windows NT version of the product, the default location is

    *iWay7*\lib

    For UNIX, the location is

    *iWay7*/lib

    where:

    *iWay7*

        Is the full path to your iWay installation.

For more information, see the *iWay Installation and Configuration* manual.

# Configuring the PeopleSoft Message Router

This section describes how to configure and test a TCP/IP or HTTP target connector and a TCP/IP handler for PeopleSoft.

**Note:** In PeopleSoft release 8.1, the messaging architecture is called Application Messaging and includes Application Messaging Gateway. In release 8.4, the messaging architecture is called Integration Broker, which includes Integration Gateway. When discussing release-independent issues, this section uses release 8.4 terminology. When discussing release-specific issues, it uses release-specific terminology.

**In this chapter:**

❏ Configuring the TCP/IP or HTTP Target Connector for PeopleSoft 8.4

❏ Configuring the TCP/IP Handler for PeopleSoft 8.1

❏ Testing Your PeopleSoft Configuration

## Configuring the TCP/IP or HTTP Target Connector for PeopleSoft 8.4

The TCP/IP message routing software, provided with the iWay Application Adapter for PeopleSoft, passes XML documents from PeopleSoft Integration Gateway to your application server.

The HTTP Outbound Connector, provided by PeopleSoft, may be used in place of the iWAY TCP/IP84 Connector in release 8.4.

This configuration topic assumes you are familiar with PeopleSoft Integration Broker (in release 8.4). If not, see *Using PeopleSoft 8 Integration Broker* on page 157 for basic information about configuring and testing. For a complete description before you work with the iWay Application Adapter for PeopleSoft, see your PeopleSoft documentation.

The procedures in this topic assume that your Integration Broker environment is configured and tested. For more information, see *Using PeopleSoft 8 Integration Broker* on page 157.

To configure the PeopleSoft 8.4 TCP/IP or HTTP Target Connector to send messages to your application server:

1. Configure the gateway for the TCP/IP Target Connector or HTTP Target Connector.

For more information, see *How to Configure the Gateway for the TCP/IP Target Connector* on page 58 or *How to Configure the Gateway for the HTTP Target Connector* on page 64.

**Note:** This step is optional when configuring the HTTP Connector. The HTTP Target Connector is supplied with your PeopleSoft application, and no special configuration steps are required. If you choose, you may configure default connection values on the Gateway. You can override these values when you configure the node.

2. Configure the node.

   For more information see *How to Configure the Node for the TCP/IP84 Connector* on page 60 or *How to Configure the Node to Use the HTTP Connector* on page 66.

   **Note:** Starting with release 8.4, the Integration Broker is delivered with an HTTP Outbound Connector. This connector can be used in place of the iWAY TCP/IP84 Connector for sending messages to your application server.

*Procedure:* **How to Configure the Gateway for the TCP/IP Target Connector**

To configure the gateway for the TCP/IP Target Connector:

1. In a web browser, open your PeopleSoft release 8.4 application.

2. In the Menu pane, expand *PeopleTools*, *Integration Broker,* and then click *Gateways*.

3. Open the *LOCAL Gateway ID*.

The following image shows the PeopleSoft Gateway ID pane on the right. The right pane includes the following: the Local Gateway check box, the Gateway URL field, fields with information for Connector ID, Description, and Connector Class Name, Properties hyperlinks, and the Refresh and Load buttons.
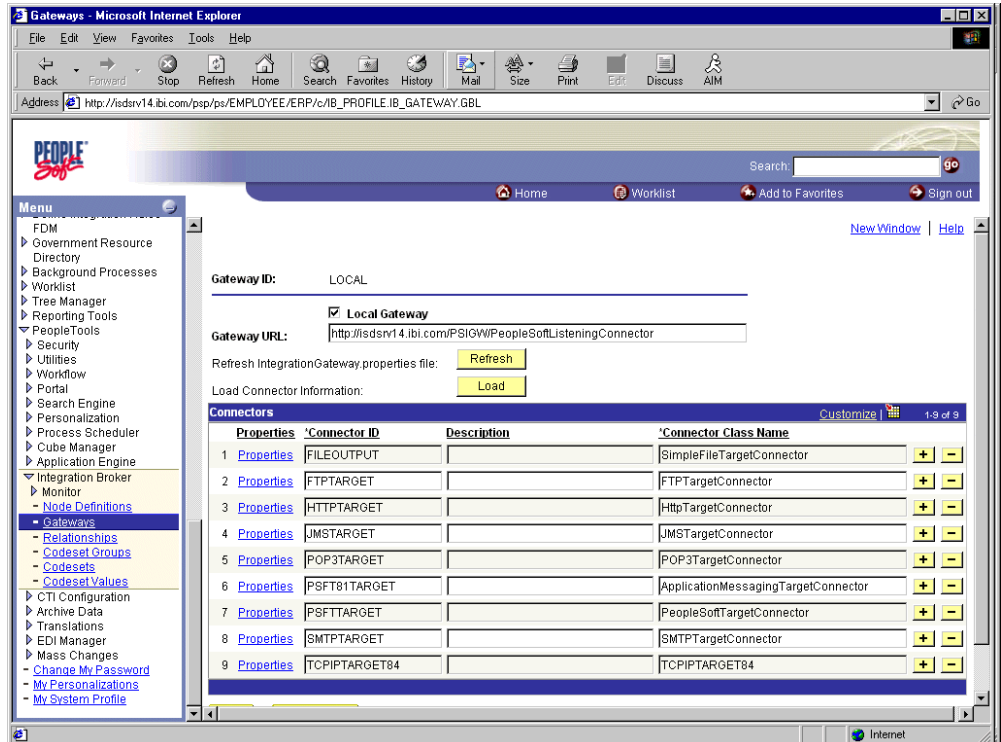


a.  If you do not see the TCPIPTARGET84 Connector ID, click *Load* and scroll to locate *TCPIPTARGET84* in the list.

    If TCPIPTARGET84 still does not appear, the connector class file was not installed in the Integration Gateway. For information about installing the TCPIPTAGER84 connector, see the *iWay Installation and Configuration* manual.

b.  Click the *Properties* hyperlink for TCPIPTARGET84.

The following image shows the Properties pane for TCPIPTARGET84. Gateways is selected in the Menu pane. The right pane contains the following components: the Gateway ID, Connector ID, and OK and Cancel buttons.
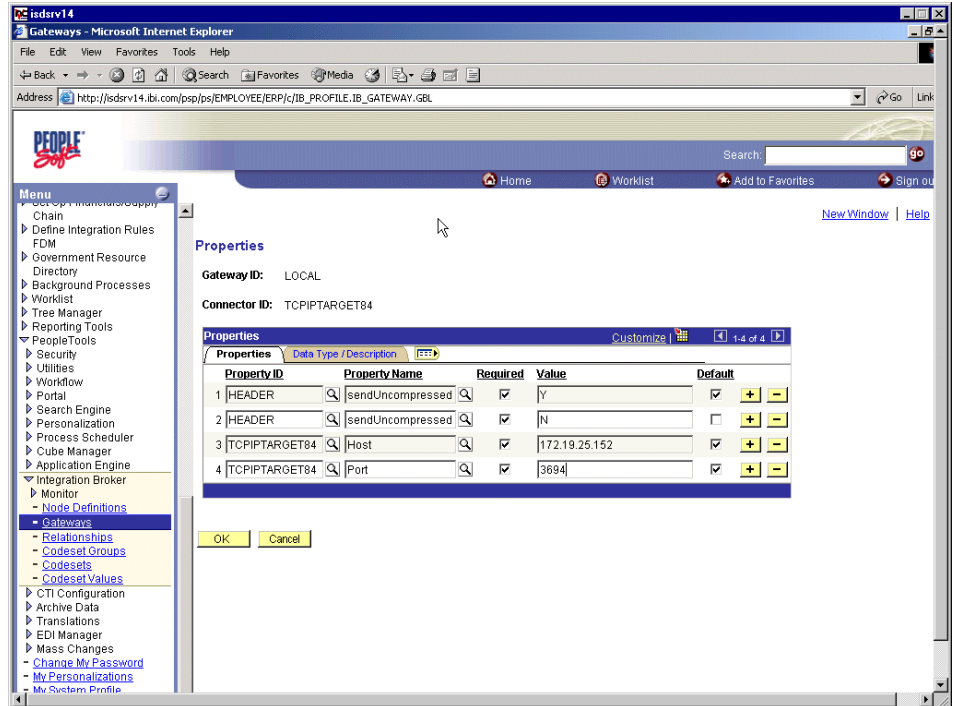


Default values appear for the host and the port. For complex business situations, you can override this setting on the individual node.

c. Type values for the host and the port for the machine on which your PeopleSoft XML listener is listening for incoming messages.

4. Click *OK*.

The Gateway window opens.

5. Scroll to the bottom of the window and click *Save*.

You have finished configuring the gateway for the TCP/IP Target Connector.

*Procedure:* **How to Configure the Node for the TCP/IP84 Connector**

To configure the node for the TCP/IP84 Connector:

1. In the Menu pane, select *PeopleTools*, *Integration Broker*, and then click *Node Definitions*.

2. Select the node that you want to configure.

   **Note:** This procedure uses a node called EXTERNAL. For more information about creating and using nodes, see *Using PeopleSoft 8 Integration Broker* on page 157 or your PeopleSoft documentation.

   The following image shows the Node Info tab for External node on the right. It includes the following: Description, Company ID, Hub Node, Master Node, Image Name, and Code Set Group Name fields; Node Type, Routing Type, and Authentication Options lists; Active Node, Local Node, Default Local Node, and Non-Repudiation check boxes; and Copy, Rename, and Delete buttons.



   a. From the Node Type drop-down list, select *External*.

   b. From the Routing Type drop-down list, select *Implicit*.

3. Select the *Connectors* tab.

   a. Select *TCPIPTARGET84* as the Connector ID.

      Default values appear for the host and the port.

     b. Type values for the host and the port for the machine and port that route XML to your application server.

     You can accept or override the default values for individual nodes.

     c. Click *Save*.

     d. If you are warned that you are changing the Connector, click *OK*.

4. Select the *Transactions* tab.

The following image shows the TCP/IP84 Connector Transaction tab for the External node type. It contains transaction details and the Add Transaction, Save, and Return to Search buttons.
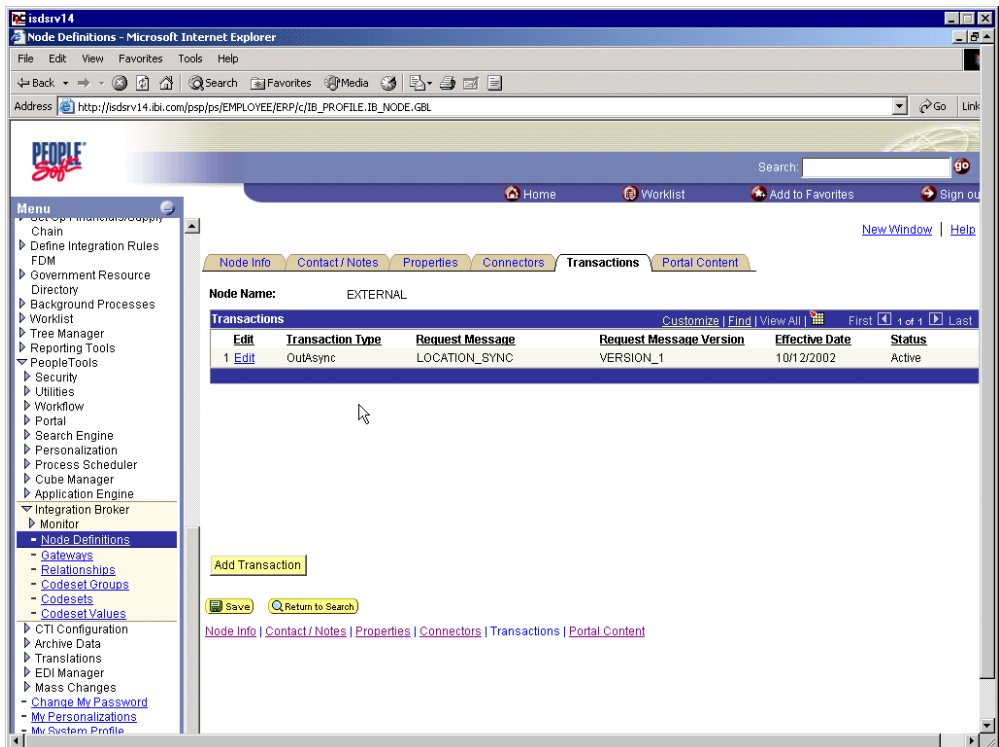


     a. If there are no transactions, click *Add Transaction* to add the message with which you are working.

     In this procedure, the node is already configured with the LOCATION_SYNC message.

     b. To make the Transaction Detail tab available and view transaction details for the LOCATION_SYNC message, click *Edit*.

The following image shows the TCP/IP84 Connector Transaction Detail tab, which contains information for the following: Node Name, Effective Date, Transaction Type, Request Message, Request Message Version, and Routing Type. The Comment field is currently empty.
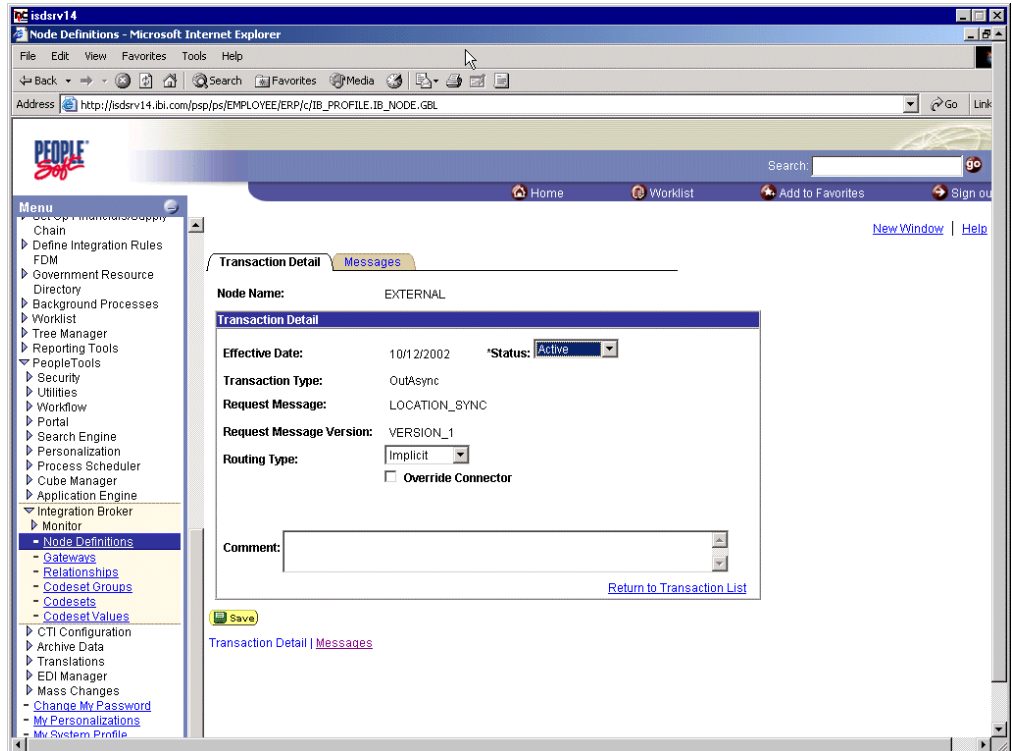


You can add the message with which you are working.

c.   Verify that the Routing Type is *Implicit*.

5.   Click *Save* and return to the *Transactions* tab.

a.   To edit additional transactions, click the *Edit* hyperlink to navigate to the Transaction Detail tab.

b.   In the Transaction Detail tab, from the Status drop-down list, select *Inactive*.

Inactive status is for initial testing only. After you test your configuration, you can change the status to Active and have as many nodes and transactions as required to satisfy your business requirements.

6.   Click *Save*.

You are ready to send XML messages to your PeopleSoft XML Listener.

## *Procedure:* How to Configure the Gateway for the HTTP Target Connector

To configure the gateway for the HTTP Target Connector:

1. In a web browser, open your PeopleSoft 8.4 application.

2. In the Menu pane, expand *PeopleTools*, *Integration Broker*, and then click *Gateways.*

3. Open the *LOCAL Gateway ID.*

   The following image shows the HTTP Target Connector Gateway ID pane on the right and includes the following: the Local Gateway check box, the Gateway URL field, fields with information for Connector ID, Description, and Connector Class Name, Properties hyperlinks, and the Refresh and Load buttons.
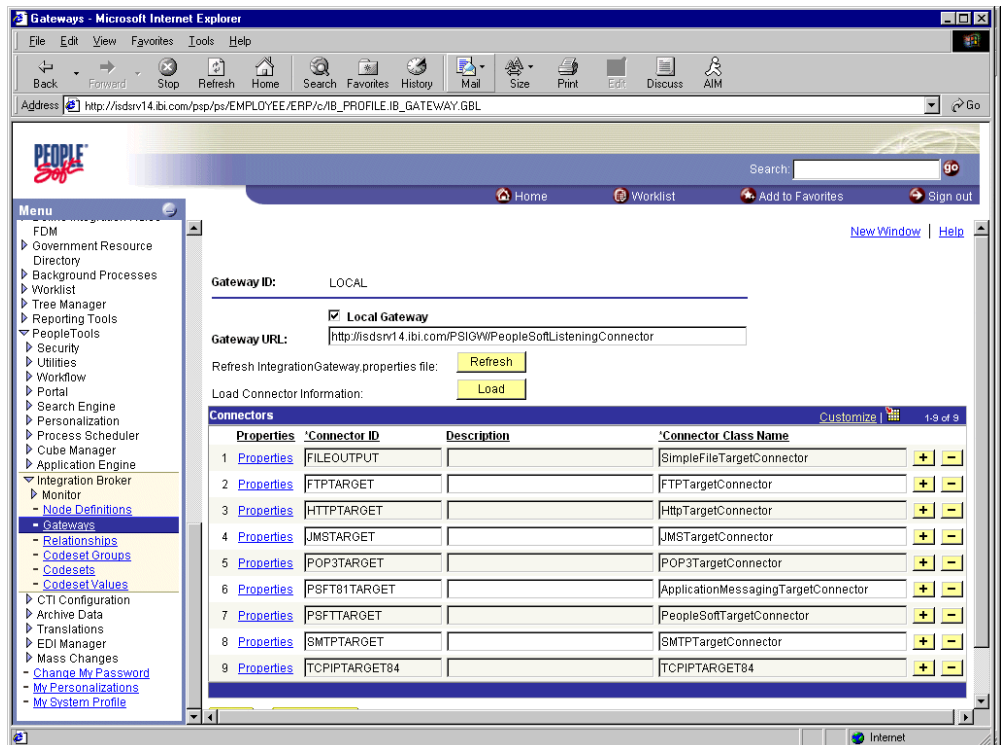


   a. If you do not see the HTTPTARGET Connector ID, click *Load*.

   b. If it still does not appear, consult with your PeopleSoft system administrator as your Gateway was not installed properly.

4. Click the *Properties* hyperlink for HTTPTARGET.

The Properties pane for HTTPTARGET opens, as shown in the following image. Gateways is selected in the Menu pane on the left. On the right, information about Headers appears.
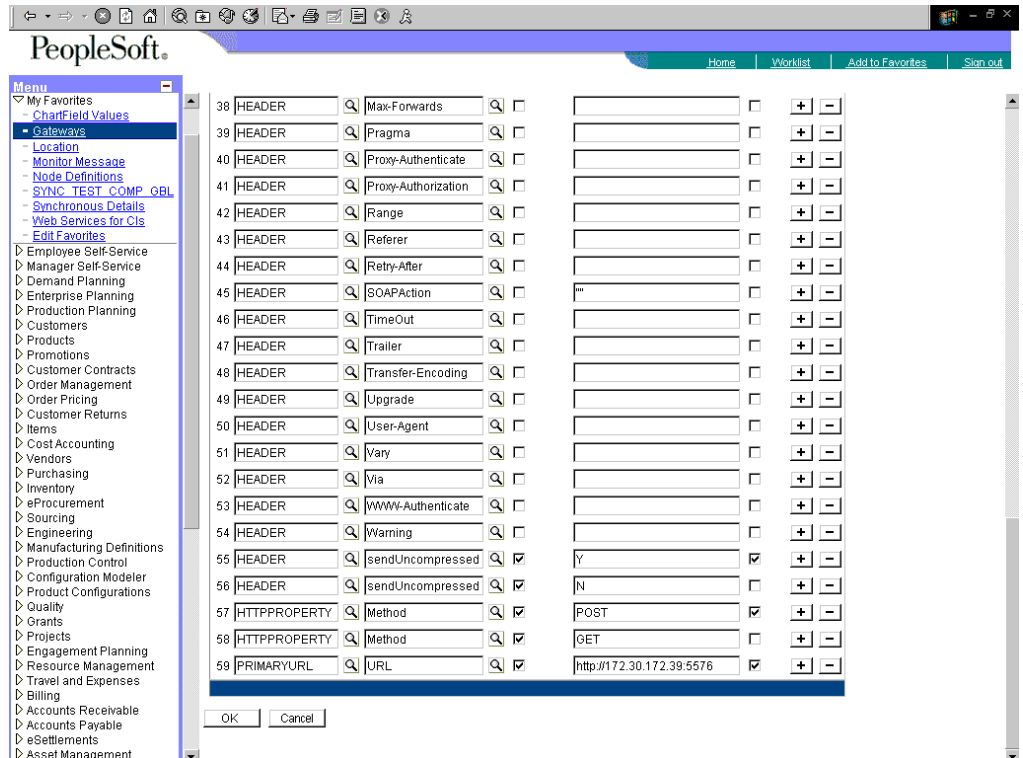


5. Scroll to the bottom and type a value for the PRIMARYURL.

   This is the default HTTP address (machine and port) on which your PeopleSoft XML Listener is listening for incoming messages.

   **Note:** For complex business situations, you can override this setting on the individual node.

6. Click *OK*.

   The Gateway window opens.

7. Scroll to the bottom of the window and click *Save*.

You have finished configuring the gateway for the HTTP Target Connector.

*Procedure:* **How to Configure the Node to Use the HTTP Connector**

To configure the node to use the HTTP Connector:

1. In the Menu pane, expand *PeopleTools*, *Integration Broker*, and then click *Node Definitions*.

2. Select the node that you want to configure.

   This procedure uses a node called EXTERNAL. For more information about creating and using nodes, see *Using PeopleSoft 8 Integration Broker* on page 157 or your PeopleSoft documentation.

   The following image shows the Node Info tab for External node on the right. It includes the following: Description, Company ID, Hub Node, Master Node, Image Name, and Code Set Group Name fields; Node Type, Routing Type, and Authentication Options lists; Active Node, Local Node, Default Local Node, and Non-Repudiation check boxes; and Copy, Rename, and Delete buttons.

   

   a. From the Node Type drop-down list, select *External*.

   b. From the Routing Type drop-down list, select *Implicit*.

3. Select the *Connectors* tab.

   The following image shows the PeopleSoft Integration Broker Connectors tab for the External node. It includes the following: Gateway ID, Connector ID, Property ID, Property Name, and Value fields and Save and Return to Search buttons.

   

   a. Change the Connector ID to *HTTPTARGET*.

   b. Type a value for each property based on the information in the following table.

   | Property ID | Property Name | Value |
   | --- | --- | --- |
   | HEADER | sendUncompressed | Y |
   | HTTPPROPERTY | Method | POST |
   | PRIMARYURL | URL | URL and the port of the HTTP listener |

   **Note:** For complex business situations you can configure multiple nodes and multiple listeners.

   c. Click *Save*.

        d.   If you are warned that you are changing the Connector, click *OK*.

4.   Select the *Transactions* tab.

The following image shows the Transactions tab selected. It contains the node name, Transaction information, and the Add Transaction, Save, and Return to Search buttons.
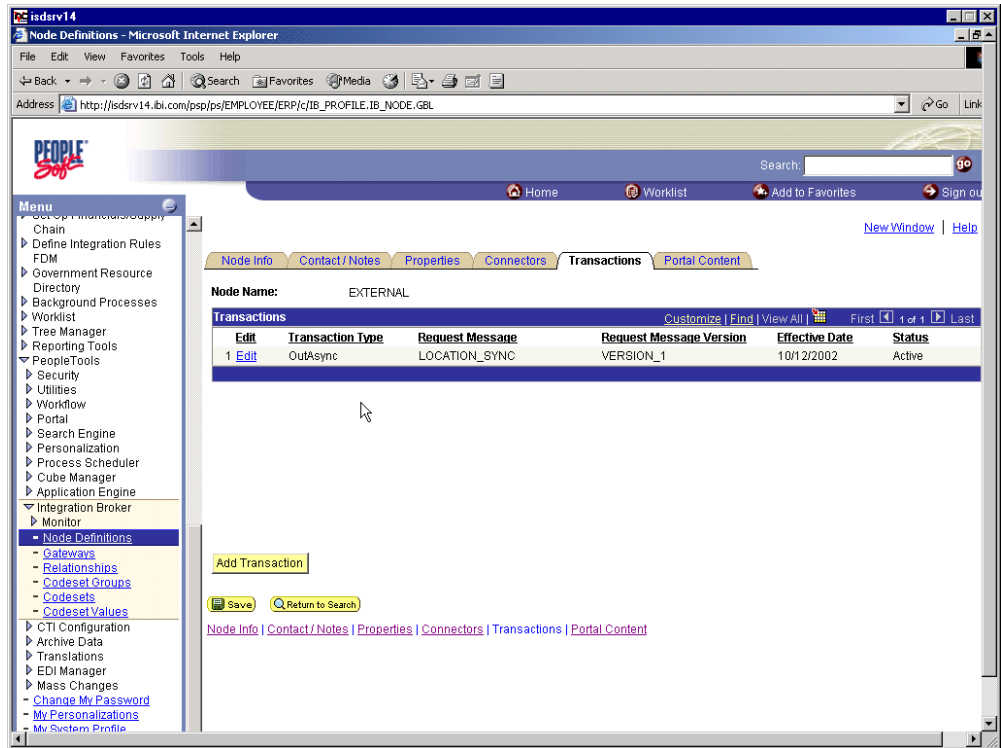


5.   If there are no transactions, click *Add Transaction*.

In this procedure, the node is already configured with the LOCATION_SYNC message.

The following image shows the PeopleSoft Integration Broker Transaction Detail tab for the External node. It contains information for the following: Effective Date, Status, Transaction Type, Request Message, Request Message Version, and Routing Type. Currently, the Comment field is empty.



You can add the message with which you are working.

    a.   Verify that the Routing Type is *Implicit*.

    b.   Click *Save.*

6.   Click *Return to Transaction List*.

    a.   If there are other transactions, edit them.

    b.   Set the status to *Inactive*.

        Inactive status is for initial testing only. After you test your configuration, you can change the status to Active and have as many nodes and transactions as required to satisfy your business requirements.

7.   Click *Save*.

You are ready to send XML messages to your PeopleSoft XML Listener.

# Configuring the TCP/IP Handler for PeopleSoft 8.1

This configuration topic assumes you are familiar with Application Messaging (in release 8.1) and assumes that your Application Messaging environment is properly configured and tested. If not, see *Using PeopleSoft 8 Integration Broker* on page 157 for basic information about configuring and testing. For a complete description before you work with the iWay Application Adapter for PeopleSoft, see your PeopleSoft documentation.

*Procedure:* **How to Configure the TCP/IP Handler for PeopleSoft 8.1**

To configure the TCP/IP Handler for PeopleSoft 8.1 to send messages to your application server:

1.  In a web browser, launch the PeopleSoft 8.1 Gateway Configuration servlet interface.

2.  If the Simple File Handler is currently loaded, unload and delete it before proceeding.

    You must see an empty Handler directory.

    The following image shows an empty PeopleSoft Handler directory with areas to view status, Load, Unload, Configure, or Delete. The Add handler button appears on the left.
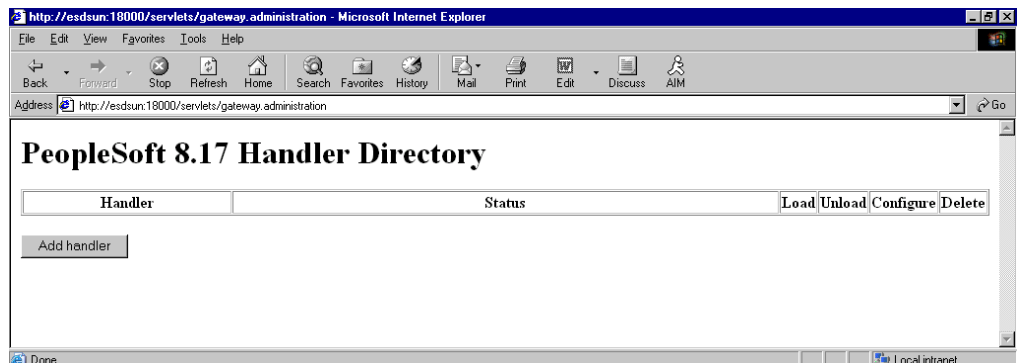


    a.  Click *Add handler*.

    b.  In the Handler class field, type the full path of TCPIPHandler81 (case-sensitive):

        `psft.pt8.tcphandler.TCPIPHandler81`

3.  Click *Save*.

The following image shows a loaded Add Handler directory.
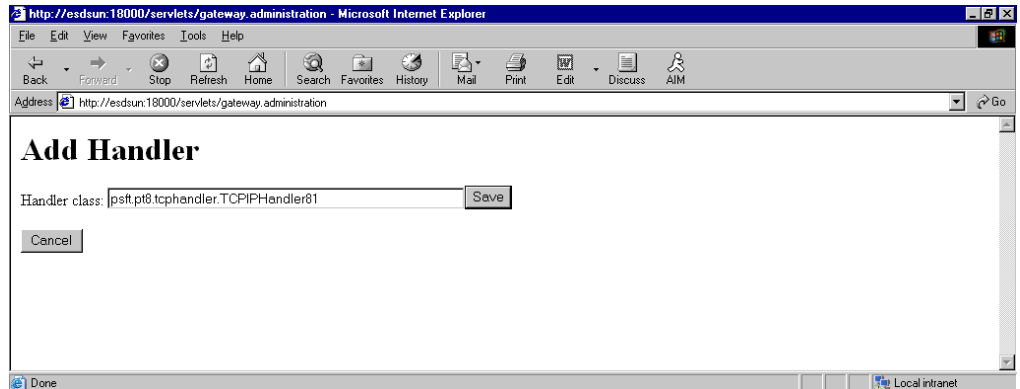


4. When you return to the PeopleSoft Handler directory, click *Load*.

5. Click *Configure*.

The following image shows the Add TCPIP81 Handler Directory window. It contains an Add a TCPIP81 node button and a Back to Handler Directory hyperlink.
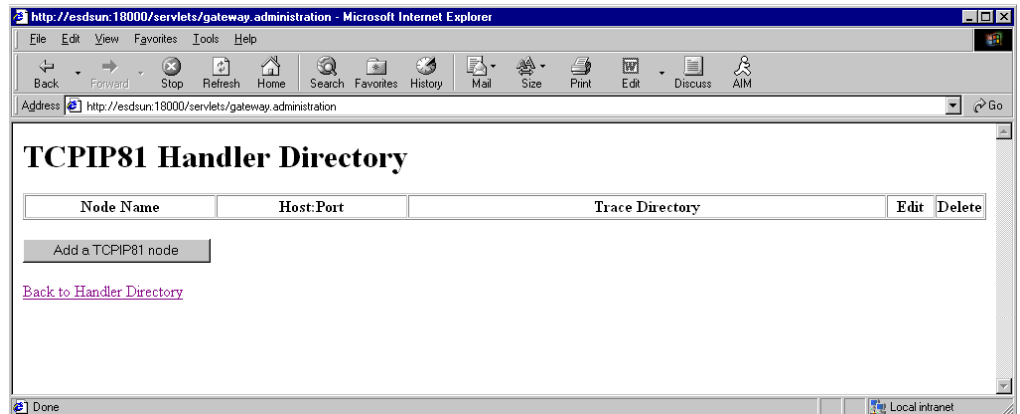


a. Click *Add a TCPIP81 node*.

This procedure uses a node named EXTERNAL. For more information about creating and using nodes, see *Using PeopleSoft 8 Integration Broker* on page 157 or your PeopleSoft documentation.

b. Enter the requested values based on the information in the following table.

| Field | Value Example | Description |
|---|---|---|
| Node Name | EXTERNAL | Name of the TCP/IP node. |
| Host Name | 172.19.25.152 | Machine on which your PeopleSoft XML listener is listening for incoming messages. |
| Port | 3694 | Port on which your PeopleSoft XML listener is listening for incoming messages. |
| Trace Directory | /tmp | Directory where a trace file is created when errors occur in message delivery. |

The system does not validate your entries.

6. Click *Save*.

7. For your changes to take effect, click *Back to Handler Directory* to return to the PeopleSoft 8.1 Handler Directory window.

8. Click *Unload and re-Load TCPIPHandler81*.

You are now ready to send messages from PeopleSoft to your application server.

## Testing Your PeopleSoft Configuration

PeopleSoft 8.1 and 8.4 provide a ping node mechanism for testing your configuration. The mechanism functions identically in both versions.

You test your configuration to ensure that:

❏ Your application server is up and running.

❏ The server name and/or port number for PeopleSoft and your application server match.

❏ The default page for HTTP exists.

### *Procedure:* How to Test a PeopleSoft Configuration

To test a PeopleSoft configuration:

1. In a web browser, open your PeopleSoft application.

2. Navigate to the message monitoring menu.

   **For PeopleSoft 8.4:** In the Menu pane, expand *PeopleTools, Integration Broker*, *Monitor,* and then select *Monitor Message*.

   **For PeopleSoft 8.1:** In the Menu pane, expand *Home*, *PeopleTools*, *Application Message Monitor*, *Use,* and then select *Application Message Monitor*.

3. Click the *Node Status* tab.

   The following image shows the Node Status tab which contains areas where you can schedule system pause times for the local node, ping a node to determine its availability, and view node information.
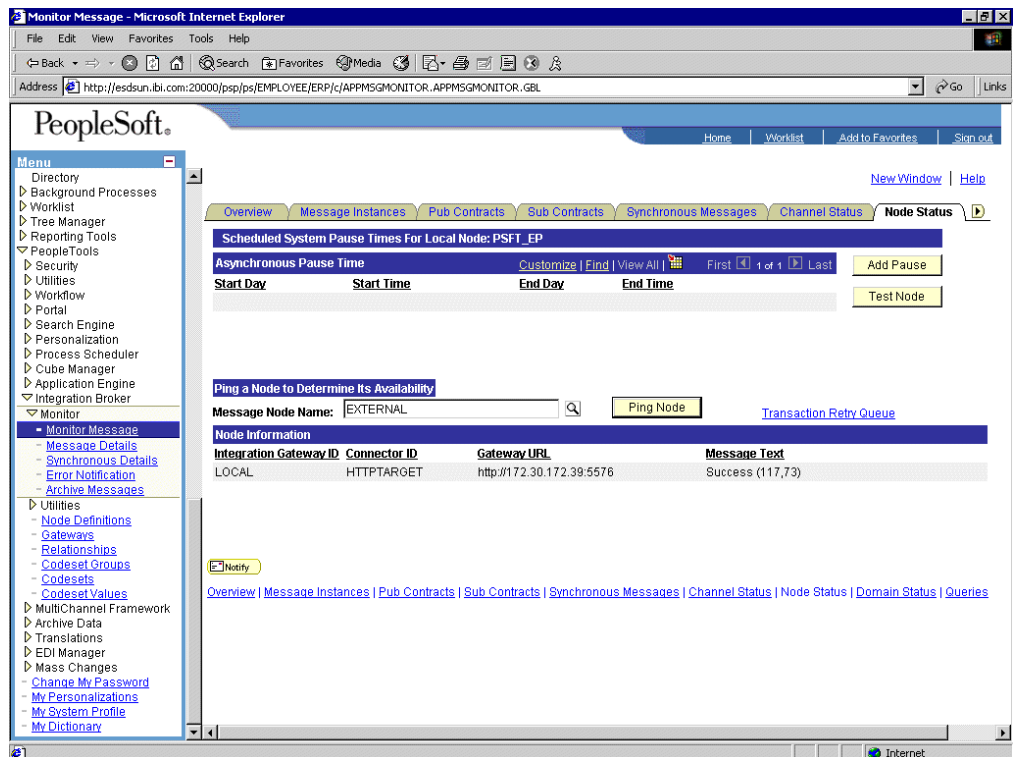


   a. From the Message Node Name drop-down list, select your node.

   b. Click *Ping Node*.

      If you properly configured both PeopleSoft and your application server, you receive a Success message.

An error indicates a configuration problem. For more information, see the Integration Broker error log.

**Chapter** 7

# Creating XML Schemas or Web Services for PeopleSoft

This section describes how to create XML schemas and generate web services (business services) for PeopleSoft business objects using iWay Explorer.

**In this chapter:**

❏ XML Schema and Web Services for PeopleSoft Overview

❏ Starting iWay Explorer

❏ Establishing a Target for PeopleSoft

❏ Modifying a Target

❏ Viewing Application System Objects

❏ Creating an XML Schema

❏ Generating a Web Service for PeopleSoft

## XML Schema and Web Services for PeopleSoft Overview

The iWay Application Adapter for PeopleSoft enables the processing of Component Interfaces and Messages.

External applications that access PeopleSoft through the adapter use either XML schemas or web services to pass data between the external application and the adapter. You can use iWay Explorer to create the required XML schemas and web services.

For more information on installing and configuring iWay Explorer, see the *iWay Installation and Configuration* manual.

## Starting iWay Explorer

Before you can use iWay Explorer, you must start your application server.

*Procedure:* **How to Open iWay Explorer**

To open iWay Explorer:

1. Ensure that your application server is running.

2. Enter the following URL in your browser:

```
http://hostname:port/iwae/index.html
```

where:

*hostname*

   Is the name of the machine where your application server is running.

*port*

   Is the port for the domain you are using for iWay.

iWay Explorer opens.

The iWay Adapters tab is active, and a list of the supported adapters appears on the left as shown in the following image. In the upper right, the Available Hosts drop-down list displays a Servlet iBSP instance you can access. A Welcome message appears on the right.
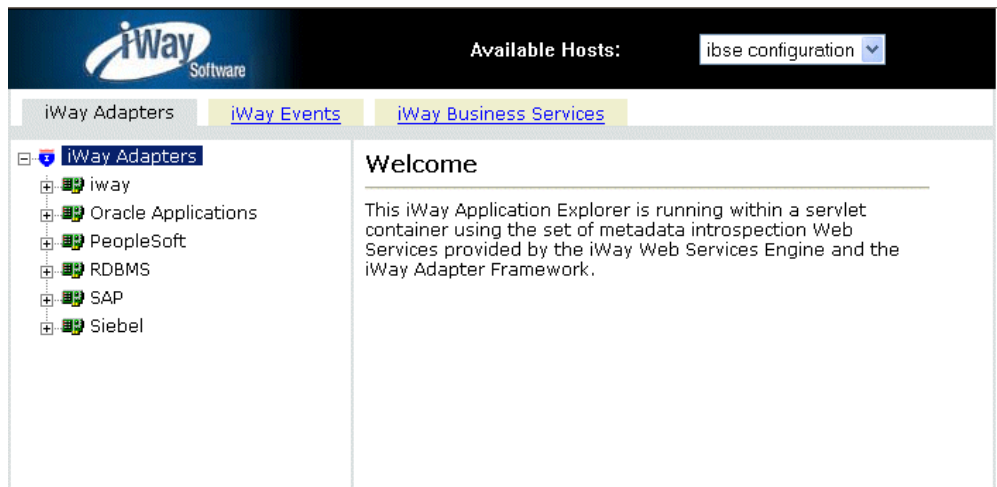


For more information on adding instances, see the *iWay Installation and Configuration* manual.

You are ready to create new targets for PeopleSoft.

## Establishing a Target for PeopleSoft

To browse PeopleSoft business objects, you must create a target for the system you intend to use. The target serves as your connection point and automatically is saved after you create it. For information on creating a target, see *How to Create a New Target* on page 77.

You must establish a connection to the system every time you start iWay Explorer or after you disconnect from the system. When you open iWay Explorer, a list of supported application systems appears in the left pane. The list is based on the adapters that you installed and for which you have licenses. For information on connecting to a target, see *How to Connect to a Target* on page 78.

*Procedure:* **How to Create a New Target**

To create a new target using iWay Explorer:

1. Click *iWay Adapters*.

2. Click the *PeopleSoft* node.

3. Move the pointer over *Operations* and select *Define a new target*.

   The Add a new PeopleSoft target pane opens on the right as shown in the following image.

   **Add a new PEOPLESOFT target**

   Targets represent configured connections to instances of backend systems. Choose a name and description for the new target that you wish to create.

   Target Name:  PSConnect

   Description:  Created on 2/1/04

   Target Type:  Application Server  ▼

   | Help | < Back | Next > | Cancel |

   a. In the Target Name field, type a descriptive name for the target, for example, PSConnect.

   b. In the Description field, type a brief description for the connection (optional).

   c. From the Target Type drop-down list, select the type of target to which you are connecting.

      The default value is Application Server.

4. Click *Next*.

The Set connection info pane opens on the right as shown in the following image.

**Set connection info**

| | |
|---|---|
| Application Server: | esdsun |
| Port: | 23240 |
| User: | VP1 |
| Password: | *** |

| Help | < Back | Finish | Cancel |

a. In the Application Server field, type the host name or IP address for the computer that is hosting the PeopleSoft application.

b. In the Port field, type the port number where the PeopleSoft application listens.

c. In the User field, type a valid user ID for the PeopleSoft application.

d. In the Password field, type a valid password for the PeopleSoft application.

5. Click *Finish*.

The PeopleSoft target, PSConnect, appears below the PeopleSoft node in the left pane as shown in the following image.

PeopleSoft
  PSConnect
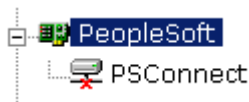
You are ready to connect to your PeopleSoft target.

*Procedure:* **How to Connect to a Target**

To connect to a target using iWay Explorer:

1. Expand the *PeopleSoft* node and select the target you defined, for example, PSConnect, as shown in the following image.

PeopleSoft
  PSConnect
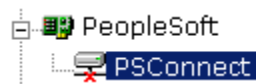
2. In the right pane, move the pointer over *Operations* and select *Connect*.

3. In the Password field, enter a valid password and click *OK*.

   The following image shows the change in the PSConnect node that reflects that a connection was made.
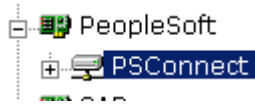
   

4. Expand the *PSoftConnect* node.

   The following PeopleSoft business objects appear:

   ❏ Component Interfaces

   ❏ Messages

   ❏ Component Interfaces (RPC)

*Procedure:* **How to Disconnect From a Target**

To disconnect from a target using iWay Explorer:

1. In the left pane, click the target to which you are connected, for example, PSConnect.

   The following image shows the PSConnect target below the expanded PeopleSoft ports node in the left pane and the Operations menu in the right pane.
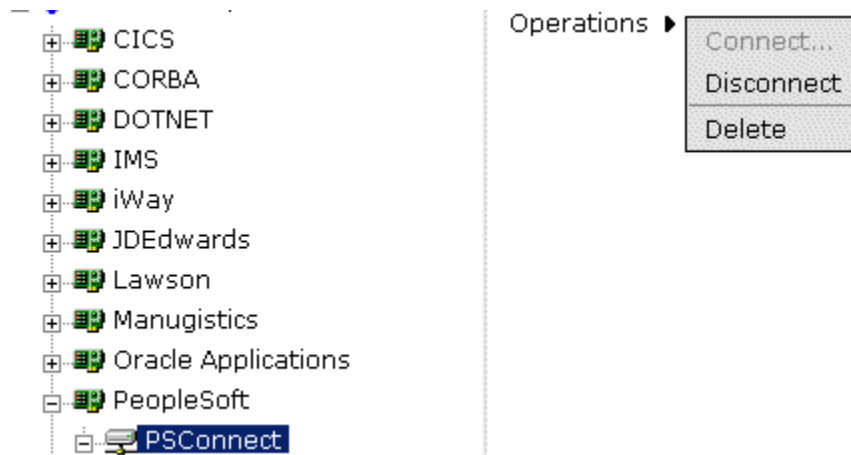
   

2. Move the pointer over *Operations* and select *Disconnect*.

Disconnecting from the application system drops the connection, but the node remains. The PSConnect node changes to reflect that a connection was closed.

# Modifying a Target

After you create a target for PeopleSoft using iWay Explorer, you can edit any of the information that you provided previously. For more information, see *How to Edit a Target* on page 80.

Although you can maintain multiple open connections to different application systems, it is recommended that you close connections when you are not using them. For information on disconnecting from a target, see *How to Disconnect From a Target* on page 79.

In addition to closing a connection, you can delete a target that is no longer required. You can delete it whether or not it is closed. If open, the target automatically closes before it is deleted. For more information, see *How to Delete a Target* on page 81.

*Procedure:*  **How to Edit a Target**

To edit a target using iWay Explorer:

1. In the left pane, click the target, for example, PSConnect.

2. In the right pane, move the pointer over *Operations* and select *Edit*.

   The Edit PeopleSoft target pane opens on the right as shown in the following image. It shows the fields for Target Name and Description, the Target Type drop-down list, and buttons to click to choose whether to proceed to the next pane or to cancel the action.

3. Modify the connection information.

4. To display additional information, click *Next*.

5. After you complete your edits in the next pane, click *Finish*.

*Procedure:* **How to Delete a Target**

To delete a target using iWay Explorer:

1. In the left pane, click the target, for example, PSConnect.

2. In the right pane, move the pointer over *Operations* and select *Delete*.

   A confirmation dialog box opens, as shown in the following image.
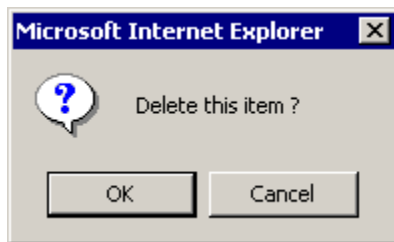


3. To delete the target you selected, click *OK*.

   The PSConnect node disappears from the left pane.

## Viewing Application System Objects

After you connect to PeopleSoft, iWay Explorer enables you to explore and browse business object metadata. For example, iWay Explorer enables you to view PeopleSoft Component Interface and Message metadata stored in the PeopleSoft business object repository.

*Procedure:* **How to View Application System Objects**

To view application system objects:

1. Click the icon to the left of the target name, for example, PSConnect.

2. To expand the desired PeopleSoft repository node, click the icon to the left of the repository name, for example, Component Interfaces.

The following image shows the list of PeopleSoft Component Interfaces that appears in the left pane.
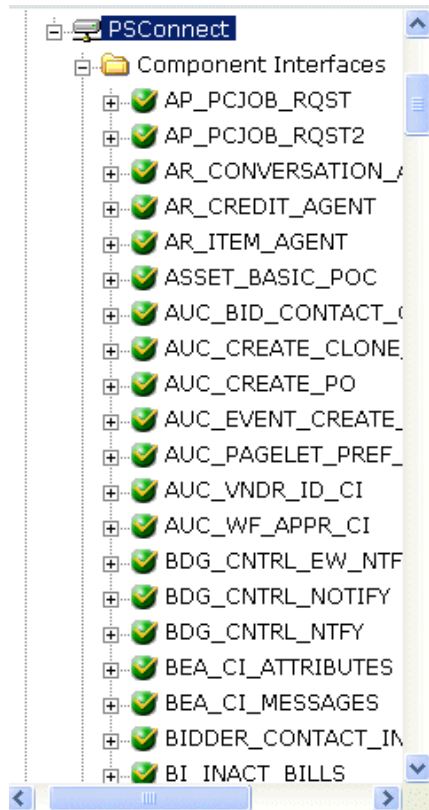


You can now generate schemas. For more information, see *Creating an XML Schema* on page 82.

## Creating an XML Schema

After you browse the PeopleSoft business object repository, you can generate XML request and response schemas for the object you wish to use with your adapter.

When the adapter is used with an iBSP configuration, iWay Explorer stores the schemas in a subdirectory of the iWay installation directory, for example,

```
C:\Program Files\iWay7\config\base\wsdl\schemas\service\
 peoplesoft\Psoft
```

where:

*Psoft*

Is the name of the connection to the PeopleSoft system as defined in iWay Explorer.

Under this directory, iWay Explorer creates subdirectories containing schemas.

*Procedure:* **How to Create an XML Schema**

To create XML request and response schemas for a PeopleSoft Component Interface using iWay Explorer:

1.  Select the Component Interface you require.

2.  In the right pane, move the pointer over *Operations* and select *Generate Schema*.

    The Schemas pane opens on the right with a table that defines the root tag for each schema and provides associated hyperlinks as shown in the following image.

**Schemas**

| Part | Root Tag | Schema |
|---|---|---|
| Request | PS8 | ... |
| Response | PS8 | ... |
| Event | N/A | N/A |
| EventReply | N/A | N/A |

| Help | | OK | Cancel |
|---|---|---|---|

3.  Click the hyperlink associated with the type of schema you want to view.

The XML schema appears on the right as shown in the following image.

```
<?xml version="1.0" encoding="UTF-8" ?>
<!--  Generated by the iBSE 2004-02-06T19:29:27Z
   -->
- <xsd:schema
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    targetNamespace="urn:iwaysoftware:adapter:peoplesoft
    xmlns:ci="urn:iwaysoftware:adapter:peoplesoft:ci"
    elementFormDefault="unqualified">
  - <xsd:element name="PS8">
    - <xsd:complexType>
      - <xsd:sequence>
        - <xsd:element name="component">
          - <xsd:complexType>
            - <xsd:simpleContent>
              - <xsd:extension
                  base="xsd:string">
                - <xsd:attribute
                    name="perform"
                    use="optional"
                    default="browse">
                  - <xsd:simpleType>
                    - <xsd:restriction
                        base="xsd:string">

                      <xsd:enumeration
                       value="browse" />
```

4. To return to the previous window, click the *Back* button on your web browser.

   After you create schemas, you can create web services.

   After you create schemas, you can also create events. For more information, see *Listening for PeopleSoft Events* on page 91.

## Generating a Web Service for PeopleSoft

You can generate web services for PeopleSoft. To generate web services, you must deploy the adapter in a web services environment using iWay Business Services Provider (iBSP). iBSP exposes functionality as web services and serves as a gateway to heterogeneous back-end applications and databases.

A web service is a self-contained, modularized function that can be published and accessed across a network using open standards. It is the implementation of an interface by a component and is an executable entity. For the caller or sender, a web service can be considered a "black box" that may require input and delivers a result. Business services can be integrated within an enterprise as well as across enterprises on any communication technology stack, whether asynchronous or synchronous, in any format.

You can make web services available to other services within a host server by generating WSDL (Web Services Description Language) from the web service.

*Procedure:*  **How to Create a Web Service**

To create a web service for PeopleSoft:

1. If you have not already done so, connect to a PeopleSoft target as described in *Establishing a Target for PeopleSoft* on page 76.

2. Expand the PeopleSoft node and select the interface for which you want to create a web service.

3. In the right pane, move the pointer over *Operations* and select *Create iWay Business Services*.

   The Create Web Service pane opens on the right as shown in the following image.

   **Create Web Service for LOCATION**

   ◉ Create a new service

   ○ Use an existing service

   | Help | < Back | Next > | Cancel |

   You can select to create a new service or you can select to use an existing service.

If you select to create a new service, the following Create Web Service pane opens.

**Create Web Service for LOCATION**

Service Name:

Description:

License:
production
test

Help    < Back    Next >    Cancel

a.  In the Service Name field, type a descriptive name for the web service.

b.  In the Description field, type a brief description of the web service (optional).

c.  From the License list, select *production* or *test*.

4.  Click *Next*.

The following image shows the next pane that opens, where you continue to input information.



a. In the Method Name field, type a descriptive name for the method.

b. In the Description field, type a brief description of the method (optional).

5. Click *Finish*.

iWay Explorer switches the view to the iWay Business Services tab, and the new web service appears in the left pane.

## Testing a Web Service

After a web service is created, test it to ensure that it functions properly. A test tool is provided for testing the web service.

### *Procedure:* How to Test a Web Service

To test a web service:

1. If you are not on the iWay Business Services tab of iWay Explorer, click the tab to access web services.

2. If it is not expanded, expand the list of web services under iWay Business Services.

3. Expand the *Services* node.

4. Select the name of the web service you want to test.

   The web service name appears as a hyperlink in the right pane.

5. In the right pane, click the named web services hyperlink.

The test option appears in the right pane.

If you are testing an iWay Business Service that requires XML input, an input xml field appears as shown in the following image.

Click **here** for a complete list of operations.

## test

**Test**
To test the operation using the **SOAP protocol**, click the 'Invoke' button.

input xml:

[ Browse... ] [ Upload ] [ More ] [ Invoke ]

6.  In the input xml field, either type a sample XML document that queries the service or browse to the location of an XML instance and click *Open*.

7.  Click *Invoke*.

    iWay Explorer displays the results in the right pane.

The following image shows a sample XML returned by iBSP.

```xml
<?xml version="1.0" encoding="UTF-8" ?>
- <SOAP-ENV:Envelope
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:SOAP-
    ENV="http://schemas.xmlsoap.org/soap/envelope/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-
    instance">
  - <SOAP-ENV:Body>
    - <GetLocationResponse
        xmlns="urn:iwaysoftware:ibse:jul2003:GetLocation:r
        cid="0714715118B19677314F2AFA356F0EEE">
      - <PS8>
        - <result>
          - <LOCATION_TBL row="1">
              <SETID>SHARE</SETID>

              <LOCATION>ALBERTA</LOCATION>
              <EFFDT>05/25/2006</EFFDT>

              <EFF_STATUS>A</EFF_STATUS>
              <DESCR>Alberta -
                Canada</DESCR>
              <DESCR_AC_0 />
              <DESCRSHORT />
              <BUILDING />
              <FLOOR />
```

### *Example:*  Retrieving a List of Locations

The following sample run-time input XML file retrieves a list of locations using the LOCATION Component Interface.

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<PS8>
  <component perform="browse">LOCATION</component>
  <key name="Setid">SHARE</key>
  <key name="Location">ALBERTA</key>
</PS8>
```

# Listening for PeopleSoft Events

This section describes how to use iWay Explorer to connect to PeopleSoft and listen for events. Several port dispositions are available, and you can choose the technique that best suits your requirements.

**In this chapter:**

❏  Understanding Event Functionality

❏  Creating, Editing, or Deleting a Port

❏  Creating, Editing, or Deleting a Channel

## Understanding Event Functionality

Events are generated as a result of activity in an application system. You can use events to trigger an action in your application. For example, PeopleSoft may generate an event when customer information is updated. If your application performs an action when this happens, your application is a consumer of this event.

After you create a connection to your application system, you can add events using iWay Explorer. To create an event, you must create a port and a channel.

The following is a description of how ports and channels work.

❏  **Port**

A port associates a particular business object exposed by an adapter with a particular disposition. A disposition defines the protocol and location of the event data. The port defines the end point of the event consumption. For more information, see *Creating, Editing, or Deleting a Port* on page 92.

❏  **Channel**

A channel represents configured connections to particular instances of back-end or other types of systems. A channel binds one or more event ports to a particular listener managed by an adapter. For more information, see *Creating, Editing, or Deleting a Channel* on page 103.

# Creating, Editing, or Deleting a Port

You can create, edit, or delete an event port using iWay Explorer.

You create a port for a PeopleSoft Message from the iWay Adapters tab or from the iWay Events tab. The following dispositions are available when using iWay Explorer in conjunction with an iBSP implementation.

❏ **File.** The File disposition uses a file URL to specify the destination file name or directory where the event document will be written. During run time, the destination file name may require indexing to avoid overwriting. For more information, see *How to Create an Event Port for the File Disposition* on page 93.

❏ **HTTP.** The HTTP disposition uses an HTTP URL to specify an HTTP end point to which the event document is posted. For more information, see *How to Create a Port for the HTTP Disposition* on page 94.

❏ **iBSP.** The iBSP disposition enables an event to launch a business service method. For more information, see *How to Create a Port for the iBSP Disposition* on page 95.

❏ **JMSQ.** The JMS queue disposition enables an event to be enqueued to a JMS queue. For more information, see *How to Create an Event Port for the JMS Queue Disposition* on page 100.

❏ **SOAP.** The SOAP disposition enables an event to launch a business service specified by a WSDL file. A SOAP action is optional; "" is the default value. For more information, see *How to Create a Port for the SOAP Disposition* on page 97.

❏ **MSMQ.** The Microsoft Message Queuing (MSMQ) disposition supports public and private queues. For more information, see *How to Create a Port for the MSMQ Disposition* on page 96.

❏ **MQSeries.** The MQSeries disposition enables an event to be enqueued to an MQSeries queue. Both queue manager and queue name may be specified. For more information, see *How to Create a Port for the MQSeries Disposition* on page 101.

❏ **MAIL.** The MAIL disposition option will be supported in a future release.

For information on editing a port, see *How to Edit an Event Port* on page 102. For information on deleting a port, see *How to Delete an Event Port* on page 102.

*Procedure:* **How to Create an Event Port for the File Disposition**

To create a specific event port for the File disposition using iWay Explorer:

1. Click the *iWay Events* tab.

2. In the left pane, expand the *PeopleSoft* node.

3. Select the *ports* node.

4. Move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right as shown in the following image where you choose parameters for the new port.

**Create New Port**

Choose parameters of the port that you wish to create.

Port Name: [                    ]

Description: [                    ]

Disposition Protocol: [FILE ▼]

Disposition: [ifile://[location];errorTo=[pre-define]

[ Help ]                [ OK ]    [ Cancel ]

   a. In the Port Name field, type a name for the event.

      **Note:** Ensure that you specify a name that conforms to standards set by PeopleSoft. For example, when using PeopleSoft, periods are not allowed. You must remove all instances of this character.

   b. In the Description field, type a brief description (optional).

   c. From the Disposition Protocol drop-down list, select *FILE*.

   d. In the Disposition field, type a File destination to which event data is written.

      When pointing iWay Explorer to an iBSP deployment, specify the destination file using the following format:

```
ifile://[location];
errorTo=[pre-defined port name or another disposition url]
```

The following table lists and describes the parameters for the disposition.

| Parameter | Description |
|---|---|
| location | Destination and file name of the document where event data is written, for example,<br><br>`ifile://D:\in\x.txt;errorTo=ifile://D:\error.` |
| errorTo | Location where error documents are sent. Predefined port name or another full URL. Optional. |

5. Click *OK*.

The event port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the event port you created.

You are ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting a Channel* on page 103.

*Procedure:* **How to Create a Port for the HTTP Disposition**

To create a port for an HTTP disposition using iWay Explorer:

1. Click the *iWay Events* tab.

2. In the left pane, expand the *PeopleSoft* node.

3. Select the *ports* node.

4. Move the pointer over *Operations* and select *Add a new port*.

The Create New Port pane opens on the right.

To point the iWay Explorer to an iBSP deployment, follow the steps in *How to Create a Port for the HTTP Disposition for an iBSP Deployment* on page 94.

*Procedure:* **How to Create a Port for the HTTP Disposition for an iBSP Deployment**

To create a port for the HTTP Disposition and point iWay Explorer to an iBSP deployment:

1. Perform the procedure, *How to Create a Port for the HTTP Disposition* on page 94.

2. In the Port Name field, type a name for the event.

3. In the Description field, type a brief description (optional).

4. From the Disposition Protocol drop-down list, select *HTTP*.

5. In the Disposition field, enter an HTTP destination.

6. To point iWay Explorer to an iBSP deployment, use the following format

```
ihttp://[myurl];responseTo=[pre-defined port name or another
disposition url];
```

where:

```
myurl
```

Is the URL target for the post operation, for example,

```
http://myhost:1234/docroot
```

```
responseTo
```

Is the location where responses are posted, if desired.

7. Click *OK*.

The port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the event port you created.

You are ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting a Channel* on page 103.

*Procedure:* **How to Create a Port for the iBSP Disposition**

To create a port for an iBSP disposition using iWay Explorer:

1. Click the *iWay Events* tab.

2. In the left pane, expand the *PeopleSoft* node.

3. Select the *ports* node.

4. Move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.

   a. In the Port Name field, type a name for the event.

   b. In the Description field, type a brief description (optional).

   c. From the Disposition Protocol drop-down list, select *iBSP*.

   d. In the Disposition field, enter an iBSP destination in the form of:

   ```
   ibse:svcName.mthName;
   responseTo=[pre-defined port name or another disposition url];
   errorTo=[pre-defined port name or another disposition url]
   ```

The following table lists and describes the parameters for the disposition.

| Parameter | Description |
|-----------|-------------|
| svcName | Name of the service created with iBSP. |
| mthName | Name of the method created for the business service. |
| responseTo | Location where responses to the business service are posted. Predefined port name or another full URL. Optional. |
| errorTo | Location where error documents are sent. Predefined port name or another full URL. Optional. |

5. Click *OK*.

The port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the port you created.

You are ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting a Channel* on page 103.

*Procedure:* **How to Create a Port for the MSMQ Disposition**

To create a port for an MSMQ disposition using iWay Explorer:

1. Click the *iWay Events* tab.

2. In the left pane, expand the *PeopleSoft* node.

3. Select the *ports* node.

4. Move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.

   a. In the Port Name field, type a name for the event.

   b. In the Description field, type a brief description (optional).

   c. From the Disposition Protocol drop-down list, select *MSMQ*.

   d. In the Disposition field, enter a MSMQ destination in the form of:

   ```
   msmq:/host/private$/qName;
   errorTo=[pre-defined port name or another disposition url]
   ```

The following table lists and describes the parameters for the disposition.

| Parameter | Description |
| --- | --- |
| host | Machine name where the Microsoft Queuing system is running. |
| Queue Type | For private queues, enter *Private$*. Private queues are queues that are not published in Active Directory. They appear only on the local computer that contains them. Private queues are accessible only by Message Queuing applications that recognize the full path name or format name of the queue. |
| qName | Name of the private queue where messages are placed. |
| errorTo | Location where error documents are sent. Predefined port name or another full URL. Optional. |

5. Click *OK*.

   The port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the port you created.

You are ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting a Channel* on page 103.

*Procedure:* **How to Create a Port for the SOAP Disposition**

To create a port for a SOAP disposition:

1. Click the *iWay Events* tab.

2. In the left pane, expand the *PeopleSoft* node.

3. Select the *ports* node.

4. Move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.

   a. In the Port Name field, type a name for the event.

   b. In the Description field, type a brief description (optional).

   c. From the Disposition Protocol drop-down list, select *SOAP*.

d.  In the Disposition field, enter an SOAP destination, using the following format:

```
soap:[wsdl-url];soapaction=[myaction];
method=[web service method];namespace=[namespace];
responseTo=[pre-defined port name or another disposition URL];
errorTo=[pre-defined port name or another disposition url]
```

The following table lists and describes the parameters for the disposition.

| Parameter | Description |
| --- | --- |
| wsdl-url | The URL to the WSDL file that is required to create the SOAP message, for example: <br><br> `http://localhost:7001/ibse/IBSEServlet/test/` *`webservice`*`.ibs?wsdl` <br><br> where: <br><br> *webservice* <br><br> Is the name of the web service you created using iWay Explorer. <br><br> To find this value, navigate to the *iWay Business Services* tab and open the *Service Description* hyperlink in a new window. The WSDL URL appears in the Address field. <br><br> You can also open the WSDL file in a third party XML editor (for example, XMLSPY) and view the SOAP request settings to find this value. |

| Parameter | Description |
|-----------|-------------|
| soapaction | Method called by the SOAP disposition, for example:<br><br>`webservice.method@test@@`<br><br>where:<br><br>`webservice`<br><br>    Is the name of the web service you created using iWay Explorer.<br><br>`method`<br><br>    Is the method being used.<br><br>`test`<br><br>    Is the license that is being used by the web service.<br><br>To find this value, navigate to the *iWay Business Services* tab and open the *Service Description* hyperlink in a new window. Perform a search for *soapAction*. |
| method | The web service method you are using. This value can be found in the WSDL file. |
| namespace | The XML namespace you are using. This value can be found in the WSDL file. |
| responseTo | Location where responses are posted. Predefined port name or another disposition URL. Optional.<br><br>The URL must be complete, including the protocol. |
| errorTo | Location where error documents are sent. Predefined port name or another full URL. Optional. |

5. Click *OK*.

   The event port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the event port you created.

   You are ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting a Channel* on page 103.

*Procedure:* **How to Create an Event Port for the JMS Queue Disposition**

To create a port for a JMS queue disposition using iWay Explorer:

1. Click the *iWay Events* tab.

2. In the left pane, expand the *PeopleSoft* node.

3. Select the *ports* node.

4. Move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.

   a. In the Port Name field, type a name for the event.

   b. In the Description field, type a brief description (optional).

   c. From the Disposition Protocol drop-down list, select *JMSQ*.

   d. In the Disposition field, enter a JMS destination.

   When pointing iWay Explorer to an iBSP deployment, use the following format:

   ```
   jmsq:myQueueName@myQueueFac;jndiurl=[myurl];
   jndifactory=[myfactory];user=[user];password=[xxx];
   errorTo=[pre-defined port name or another disposition url]
   ```

   The following table lists and describes the parameters for the disposition.

| Parameter | Description |
|---|---|
| queue | Name of a queue to which events are emitted. |
| Connection Factory | A resource that contains information about the JMS Server. |
| jndi_url | The URL to use to contact the JNDI provider. The syntax of this URL depends on the JNDI provider that is used. This value corresponds to the standard JNDI property:<br>`java.naming.provider.url` |
| jndi_factory | Is JNDI context. INITIAL_CONTEXT_FACTORY and is provided by the JNDI service provider. |
| user | User ID associated with this queue. |
| password | Password for the user ID. |

| Parameter | Description |
|-----------|-------------|
| errorTo | Location where error documents are sent. Predefined port name or another full URL. Optional. |

5. Click *OK*.

   The port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the port you created.

   You are ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting a Channel* on page 103.

*Procedure:* **How to Create a Port for the MQSeries Disposition**

To create a port for an MQSeries disposition using iWay Explorer:

1. Click the *iWay Events* tab.

2. In the left pane, expand the *PeopleSoft* node.

3. Select the *ports* node.

4. Move the pointer over *Operations* and select *Add a new port*.

   The Create New Port pane opens on the right.

   a. In the Port Name field, type a name for the event.

   b. In the Description field, type a brief description (optional).

   c. From the Disposition Protocol drop-down list, select *MQSeries*.

   d. In the Disposition field, enter an MQSeries destination.

      When pointing iWay Explorer to an iBSP deployment, use the following format:

```
mqseries:/qManager/qName;host=[hostname];port=[port];
channel=[channnelname];
errorTo=[pre-defined port name or another disposition url]
```

      The following table lists and describes the parameters for the disposition.

| Parameter | Description |
|-----------|-------------|
| qManager | Name of the queue manager to which the server must connect. |
| qName or respqueue | Name of the queue where messages are placed. |

| Parameter | Description |
|---|---|
| host | Host on which the MQ server is located (MQ Client only). |
| port | Number to connect to MQ server queue manager (MQ client only). |
| channel | Case-sensitive name of the channel that connects with the remote MQ server queue manager (MQ client only). The default channel name for MQSeries is SYSTEM.DEF.SVRCONN. |
| errorTo | Location where error documents are sent. Predefined port name or another full URL. Optional. |

5. Click *OK*.

The port appears under the ports node in the left pane. In the right pane, a table appears that summarizes the information associated with the event port you created.

You are ready to associate the event port with a channel. For more information, see *Creating, Editing, or Deleting a Channel* on page 103.

*Procedure:* **How to Edit an Event Port**

To edit an event port:

1. Select the event port you want to edit.

2. In the right pane, move the pointer over *Operations*, and select *Edit*.

    The Edit Port pane opens on the right.

3. Make the required changes to the event port configuration fields.

4. Click *OK*.

*Procedure:* **How to Delete an Event Port**

To delete an event port:

1. Select the event port you want to delete.

2. In the right pane, move the pointer over *Operations*, and select *Delete*.

A confirmation dialog box opens, as shown in the following image.
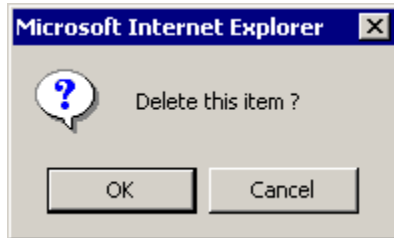


3. To delete the event port you selected, click *OK*.

   The event port disappears from the list in the left pane.

## Using the Default Event Port

When using iWay Explorer to connect to PeopleSoft and listen for events, a default event port is available at all times as shown in the following image.



The default event port can be used for testing purposes or when you do not want to route event data to a specific port you configured. The default port is enabled when you start a channel that does not have a specific event port assigned.

The default event data is actually a file disposition that writes to an out.xml file in the following output directory:

```
ifile://./eventOut/out.xml
```

## Creating, Editing, or Deleting a Channel

All defined event ports must be associated with a channel. You can create, edit, or delete a channel for your event adapter using iWay Explorer. For information on creating a channel, see *How to Create a Channel* on page 104. For information on editing a channel, see *How to Edit a Channel* on page 112. For information on deleting a channel, see *How to Delete a Channel* on page 112.

You can also create a channel using one of the following protocols:

❏ **HTTP.** For more information, see *How to Create an HTTP Channel* on page 107.

❏ **File.** For more information, see *How to Create a File Channel* on page 108.

❏ **TCP.** For more information, see *How to Create a TCP Channel* on page 110.

*Procedure:* **How to Create a Channel**

To create a channel using iWay Explorer:

1. Click the *iWay Events* tab.

   a. In the left pane, expand the *PeopleSoft* node.

      The ports and channels nodes appear.

   b. Click the *channels* node.

2. In the right pane, move the pointer over *Operations* and select *Add a new channel*.

   The Add a new PEOPLESOFT channel pane opens on the right as shown in the following image.

   ### Add a new PEOPLESOFT channel

   Choose a name and description for the new channel that you wish to create.

   | | |
   |---|---|
   | Channel Name: | |
   | Description: | |
   | Channel Type: | HTTP Listener |

   | Help | < Back | Next > | Cancel |
   |---|---|---|---|

   a. In the Channel Name field, type a name, for example, TEST_CHANNEL.

   b. In the Description field, type a brief description (optional).

   c. From the Channel Type drop-down list, select a channel type, for example, HTTP Listener.

3. Click *Next*.

The Edit channels pane opens on the right as shown in the following image where you enter the listener port number and choose the synchronization type from the drop-down list.

**Edit channels**

| | |
|---|---|
| Listener port: | 8080 |
| Https: | ☐ |
| Synchronization Type: | REQUEST ▾ |

| Help | < Back | Next > | Cancel |
|------|--------|--------|--------|

**Note:** The adapter supports only Request-Response and Request-Ack synchronization types.

4. Enter information specific to your PeopleSoft system and the channel you are creating.

   **Note:** Https is not supported by the adapter.

5. Click *Next*.

The Select Ports pane opens as shown in the following image. Current ports appear on the left and available ports appear on the right. Arrow buttons are active to use to move the port from one list to the other. Back, Finish, and Cancel buttons are active.

**Select Ports**
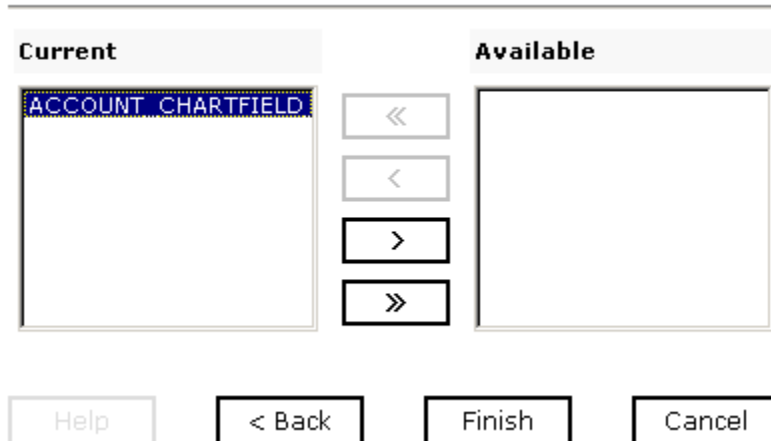
| Current | | Available |
|---|---|---|
| ACCOUNT_CHARTFIELD | ≪ ‹ › ≫ | |

| Help | < Back | Finish | Cancel |

a. Select an event port from the list of current ports.

b. To transfer the port to the list of available ports, click the single right arrow button. To associate all event ports, click the double right arrow button.

6. Click *Finish*.

The channel appears in the left pane under the channels port with an X over the icon to indicate that the channel is disconnected as shown in the following image.

- peoplesoft
  - channels
    - TEST_CHANNEL
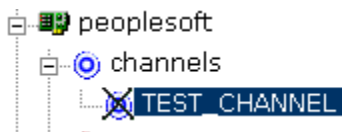
A summary window opens in the right pane, showing the channel description, channel status, and available ports. All the information in the summary is associated with the channel you created.

You must start the channel to activate your event configuration.

7. In the right pane, move the pointer over *Operations* and select *Start the channel*.

When the channel is activated, the X over the icon in the left pane disappears.

To stop the channel at any time, you can move the pointer over Operations and select the option to stop the channel.

*Procedure:* **How to Create an HTTP Channel**

To create an HTTP channel using iWay Explorer:

1. Click the *iWay Events* tab.

    a. In the left pane, expand the *PeopleSoft* node.

       The ports and channels nodes appear.

    b. Click the *channels* node.

2. In the right pane, move the pointer over *Operations* and select *Add a new channel*.

    The Add a new PEOPLESOFT channel pane opens on the right.

    a. Type a name for the channel, for example, NewChannel.

    b. Type a brief description (optional).

    c. From the drop-down list, select *HTTP Listener*.

3. Click *Next*.

    The Edit Channels pane opens on the right.

4. Provide the required values based on the list of parameters and their descriptions in the following table.

| Parameter | Description |
|---|---|
| Listener port | Port on which to listen for PeopleSoft event data. |
| HTTPS | For a secure HTTP connection, select this check box. |
| Synchronization Type | Choose from three synchronization options:<br>❑ REQUEST<br>❑ REQUEST_RESPONSE<br>❑ REQUEST_ACK |

5. Click *Next*.

    The Select Ports pane opens.

    a. Select an event port from the list of current ports.

    b.   To transfer the port to the list of available ports, click the single right arrow button. To associate all the event ports, click the double right arrow button.

6. Click *Finish*.

   The channel appears under the channels node in the left pane. An X over the icon indicates that the channel is currently disconnected.

   You must start the channel to activate your event configuration.

   In the right pane, a summary provides the channel description, channel status, and available ports. All the information is associated with the channel you created.

7. In the right pane, move the pointer over *Operations* and select *Start the channel*.

   When the channel is activated, the X over the icon in the left pane disappears.

   To stop the channel at any time, you can move the pointer over Operations and select the option to stop the channel.

### *Procedure:*  How to Create a File Channel

To create a File channel using iWay Explorer:

1. Click the *iWay Events* tab.

       a.   In the left pane, expand the *PeopleSoft* node.

           The ports and channels nodes appear.

       b.   Click the *channels* node.

2. In the right pane, move the pointer over *Operations* and select *Add a new channel*.

   The Add a new PEOPLESOFT channel pane opens on the right.

       a.   Type a name for the channel, for example, NewChannel.

       b.   Type a brief description (optional).

       c.   From the drop-down list, select *File Listener*.

3. To open the Edit Channels pane, click *Next*.

       a.   In the Request tab, enter values based on the descriptions in the following table.

| Parameter | Description |
| --- | --- |
| Polling Location | Target file system location for the PeopleSoft XML file. |

| Parameter | Description |
|-----------|-------------|
| File Mask | File name to use for the output file generated as a result of the operation. |

b. In the Response tab, enter values for the parameters based on the descriptions in the following table.

| Parameter | Description |
|-----------|-------------|
| Synchronization Type | Choose from three options:<br><br>❑ REQUEST<br><br>❑ REQUEST_RESPONSE<br><br>❑ REQUEST_ACK |
| Response/Ack Directory | Target file system location for the PeopleSoft XML file. |

c. In the Advanced tab, enter values for the parameters based on the descriptions in the following table.

| Parameter | Description |
|-----------|-------------|
| Error Directory | Directory to which documents with errors are written. |
| Poll interval (msec): | Interval (in milliseconds) when to check for new input. Optional. Three seconds is the default. |
| Processing Mode | **Sequential** indicates single processing of requests.<br><br>**Threaded** indicates processing of multiple requests simultaneously. |
| Thread limit | If you selected threaded processing, indicates the maximum number of requests that can be processed simultaneously. |

4. Click *Next*.

The Select Ports pane opens.

a. Select an event port from the list of current ports.

b. To transfer the port to the list of available ports, click the single right arrow button. To associate all the event ports, click the double right arrow button.

5. Click *Finish*.

   The channel appears under the channels node in the left pane. An X over the icon indicates that the channel is currently disconnected.

   You must start the channel to activate your event configuration.

   In the right pane, a summary provides the channel description, channel status, and available ports. All the information is associated with the channel you created.

6. Move the pointer over *Operations* and select *Start the channel*.

   When the channel is activated, the X over the icon in the left pane disappears.

   To stop the channel at any time, you can move the pointer over Operations and select the option to stop the channel.

### *Procedure:* How to Create a TCP Channel

To create an TCP channel using iWay Explorer:

1. Click the *iWay Events* tab.

   a. In the left pane, expand the *PeopleSoft* node.

      The ports and channels nodes appear.

   b. Click the *channels* node.

2. In the right pane, move the pointer over *Operations* and select *Add a new channel*.

   The Add a new PEOPLESOFT channel pane opens on the right.

   a. Type a name for the channel, for example, NewChannel.

   b. Type a brief description (optional).

   c. From the drop-down list, select *TCP Listener*.

3. Click *Next*.

   The Edit Channels window opens on the right.

4. Enter values for the parameters based on the descriptions in the following table:

| Property Name | Property Description |
|---|---|
| Host | Host machine on which the adapter is installed. |

| Property Name | Property Description |
|---|---|
| Port Number | Socket number on which iWay Service Manager listens for incoming messages from a client application. |
| Synchronization Type | Choose from the following synchronization options:<br><br>❏ RECEIVE_REPLY<br><br>❏ RECEIVE_ACK<br><br>❏ RECEIVE |
| Is Length Prefix | For PeopleSoft events that return data that is not in XML format. The TCP/IP event application must prefix the data with a 4-byte binary length field when writing data to the TCP/IP port. |
| Is XML | For PeopleSoft events that return data in XML format. No preparser is required. |
| Is Keep Alive | Maintains continuous communication between the event transaction and the channel. |

5. Click *Next*.

   The Select Ports pane opens.

   a. Select an event port from the list of current ports.
   b. To transfer the port to the list of available ports, click the single right arrow button. To associate all the event ports, click the double right arrow button.

6. Click *Finish*.

   The channel appears under the channels node in the left pane. An X over the icon indicates that the channel is currently disconnected.

   You must start the channel to activate your event configuration.

   In the right pane, a summary provides the channel description, channel status, and available ports. All the information is associated with the channel you created.

7. Move the pointer over *Operations* and select *Start the channel*.

   When the channel is activated, the X over the icon in the left pane disappears.

   To stop the channel at any time, you can move the pointer over Operations and select the option to stop the channel.

*Procedure:* **How to Edit a Channel**

To edit a channel:

1. In the left pane, select the channel you want to edit.

2. In the right pane, move the pointer over *Operations* and select *Edit*.

   The Edit channel pane opens on the right and includes current information for Channel Name, Description, and Channel Type as shown in the following image.

   **Edit PEOPLESOFT channel TEST_CHANNEL**

   Choose a name and description for the channel that you wish to create.

   Channel Name:    TEST_CHANNEL

   Description:     Created on 2/1/04.

   Channel Type:    TCP Channel

   [ Help ]   [ < Back ]   [ Next > ]   [ Cancel ]

3. Make the required changes to the channel configuration fields.

4. Click *Next* to continue making changes on the next pane.

5. When you are finished making your changes, click *Finish*.

*Procedure:* **How to Delete a Channel**

To delete a channel:

1. In the left pane, select the channel you want to delete.

2. In the right pane, move the pointer over *Operations* and select *Delete*.

   A confirmation dialog box opens, as shown in the following image.

   **Microsoft Internet Explorer**   ☒

   ? Delete this item ?

   [ OK ]   [ Cancel ]
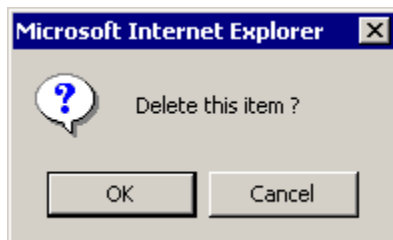
3. To delete the channel you selected, click *OK*.

   The channel disappears from the list in the left pane.

# Configuring an HTTP Event Listener for PeopleSoft Using iWay Service Manager

This section describes how to configure an HTTP event listener for PeopleSoft using iWay Service Manager.

**In this chapter:**

❏  PeopleSoft HTTP Event Listener Overview

❏  Configuring an HTTP Listener

## PeopleSoft HTTP Event Listener Overview

Using the iWay Service Manager Administration Console, you can define a channel that includes an HTTP listener as an inlet to receive an event response from PeopleSoft. For example, when the HTTP listener receives a PING GET message from PeopleSoft, it will look for a file that is defined in the Default Page field. If the Default Page field is empty, the HTTP listener will look for the index.html file. This file must be created in advance and copied to a directory that is defined in the Document Root field. If the HTTP listener does not find the index.html file, the listener does not return a response to the PeopleSoft PING message. As a result, PeopleSoft PING generates the following error message:

```
Integration Gateway - External System Contact Error (158,10721)
```

## Configuring an HTTP Listener

A listener is a component that receives input for a channel from a configured endpoint. This section describes how to configure an HTTP event listener for PeopleSoft.

*Procedure:* **How to Configure an HTTP Listener for PeopleSoft**

To configure an HTTP event listener:

1.  In the left console pane of the Registry menu, select *Listeners*.

**Components**

Adapters

Decryptors

Ebix

Emitters

Encryptors

Listeners

Preemitters

The Listeners pane opens, as shown in the following image.

**Listeners**
Listeners are protocol handlers, that receive input for a channel from a configured endpoint. Listed below are references to the listeners that are defined in the registry.

Listeners

☐ Filter | By Name Where Name | ▾ | Equals | ▾ | _____ |

| ☐ | Name | Type | References | Description |
|---|---|---|---|---|
| ☐ | file1 | File | 🖳 | A default/sample file listener. |
| ☐ | javadoc | HTTP | 🖳 | The javadoc listener is used to make the iWay Service Manager API available to a remote browser. |
| ☐ | pictures.loader | File | 🖳 | The pictures listener locates files with a variety of common image file extensions (img, gif, jpg, ...). |
| ☐ | pictures.viewer | HTTP | 🖳 | The pictures.viewer is used to kickoff the image retrieval process as defined by the pictures sample. |
| ☐ | scifibooks | Schedule | 🖳 | This listener is defined for use by the SciFi Books sample. It wakes up daily and kicks off the update for the channel. |

[Add] [Delete] [Rename] [Copy]

The table that is provided lists any existing listeners and a short description for each.

2.  Click *Add*.

The Listener Type pane opens.



3. Select HTTP from the Type drop-down list and click *Next*.

The configuration parameters pane for the HTTP listener opens.

4. Perform the following steps:

   a. In the Port field, enter an available port number that will be used by the HTTP listener to listen for PeopleSoft events. For example, 6655.

   b. In the Document Root field, enter the directory path where PeopleSoft event data will be written. For example, C:\TEMP\PS\OUT.

   c. In the Default Page field, enter the name of the file that is available in the directory defined in the Document Root field. For example, index.xml.

   **Note:** The index.xml file refers to an empty file that can be created using any text editor.

   d. Scroll down to the Default Java File Encoding field and select *UTF-8* from the drop-down list.

5. Click *Next*.

   The Name and Description pane opens.

   **Listeners**
   Listeners are protocol handlers, that receive input for a channel from a configured endpoint. Listed below are references to the listeners that are defined in the registry.

   | Select listener type | |
   |---|---|
   | Name * | Name of the new listener |
   | | ps_http_listener |
   | Description | Description for the new listener |
   | | This listener is used to listen for PeopleSoft events. |

   [<< Back] [Finish]

6. Provide a name and, optionally, a description, for the listener, and click *Finish*.

   The listener is added to the list in the Listeners pane.

   **Listeners**
   Listeners are protocol handlers, that receive input for a channel from a configured endpoint. Listed below are references to the listeners that are defined in the registry.

   Listeners

   ☐ Filter [By Name Where Name ▽] [Equals ▽] [_____]

   | | Name | Type | References | Description |
   |---|---|---|---|---|
   | ☐ | file1 | File | ⬛ | A default/sample file listener. |
   | ☐ | javadoc | HTTP | ⬛ | The javadoc listener is used to make the iWay Service Manager API available to a remote browser. |
   | ☐ | pictures.loader | File | ⬛ | The pictures listener locates files with a variety of common image file extensions (img, gif, jpg, …). |
   | ☐ | pictures.viewer | HTTP | ⬛ | The pictures.viewer is used to kickoff the image retrieval process as defined by the pictures sample. |
   | ☐ | ps_http_listener | HTTP | ⬛ | This listener is used to listen for PeopleSoft events. |
   | ☐ | scifibooks | Schedule | ⬛ | This listener is defined for use by the SciFi Books sample. It wakes up daily and kicks off the update for the channel. |

   [Add] [Delete] [Rename] [Copy]

After the HTTP listener is added to iWay Service Manager, you must assign the listener to an inlet that can be used to construct a channel.

For more information on how to configure a channel, see the *iWay Service Manager User's Guide*.

*Procedure:* **How to Define an Inlet**

This section describes how to define a new inlet by using the HTTP event listener that was configured for PeopleSoft.

1. In the left console pane of the Registry menu, select *Inlets*.



The Inlets pane opens.
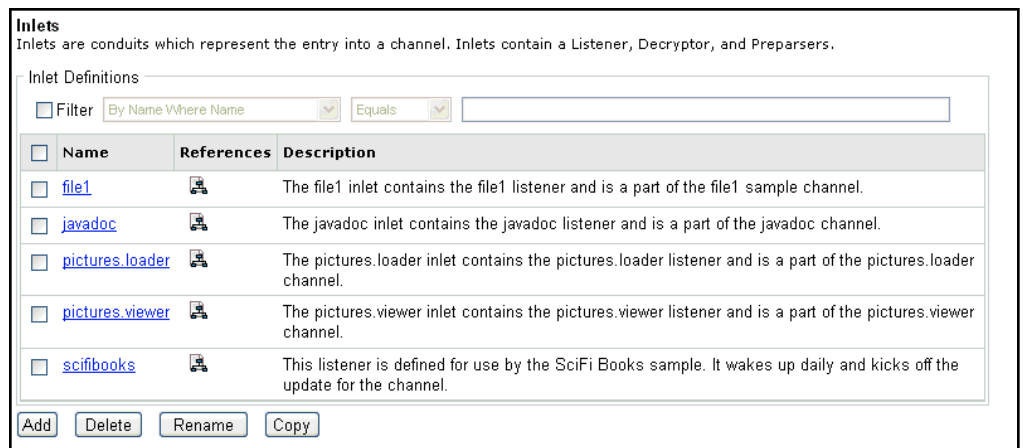


The table that is provided lists each inlet that is defined with a brief description.

2. Click *Add*.

The New Inlet Definition pane opens.

3. Enter a name, for example, PS, and description for the inlet.

4. Click *Finish*.

   The Construct Inlet pane opens.

   Construct Inlet
   Below are the components currently registered in the inlet. The order of decryptor and preparser components may be changed within each
   component type by checking a component and using the 'Move Up' and 'Move Down' buttons.

   | | Name | Type | Move | Description |
   |---|---|---|---|---|
   | | No data was found. | | | |

   << Back   Add   Delete

   The table that is provided is used to list the components that are currently registered with
   the inlet.

5. Click *Add*.

   The Select component type pane opens.

   Select component type

   | | Component Types | Description |
   |---|---|---|
   | ⦿ | Listener | Listeners are protocol handlers, that receive input for a channel from a configu red endpoint. |
   | ○ | Decryptor | Decrypts the document. |
   | ○ | Preparser | A logical process that handles documents before they are parsed by the system. U sually used to convert from non-XML to xml. |

   << Back   Next >>

   The table that is provided lists the component types you can select and register with the
   inlet you are defining.

6. Select *Listener* from the list of component types and click *Next*.

The Select a listener definition pane opens, as shown in the following image.



7.  Select the *ps_http_listener* listener, and click *Finish*.

    You are returned to the Construct Inlet pane, which now includes the ps_http_listener you registered with your inlet.



You can now configure a route and an outlet, which can be used to construct a channel in iWay Service Manager.

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

# 10 PeopleSoft Troubleshooting and Error Messages

This section provides troubleshooting information for the following three categories:

❑ iWay Explorer

❑ PeopleSoft

❑ iBSP

The following topics explain limitations and workarounds when connecting to PeopleSoft. The adapter-specific errors described in this section can arise using the adapter with an iBSP configuration.

**In this chapter:**

❑ Error Messages in iWay Explorer

❑ Error Messages in PeopleSoft

❑ Error Messages in iBSP

## Error Messages in iWay Explorer

The following table lists errors and solutions when using iWay Explorer with the iWay Application Adapter for PeopleSoft.

| Error | Solution |
|-------|----------|
| Cannot connect to the iWay Application Adapter for PeopleSoft from iWay Explorer. The following error message appears:<br><br>`Problem activating adapter` | Ensure that:<br><br>❑ PeopleSoft is running.<br><br>❑ The PeopleSoft user ID and password are correct.<br><br>❑ The port number is correct.<br><br>❑ The custom Component Interface is properly installed. |

| Error | Solution |
|---|---|
| The following error message appears:<br><br>`java.lang.IllegalStateException:`<br>`java.lang.Exception: Error Logon`<br>`to PeopleSoft System` | You have provided invalid connection information for PeopleSoft, or the wrong psjoa.jar is in the lib directory.<br><br>The psjoa.jar file version is specific to the PeopleTools release. |
| PeopleSoft does not appear in the iWay Explorer Adapter node list. | Ensure that the PeopleSoft JAR files, iwpsci84.jar (or iwpsci81.jar) and psjoa.jar, are added to the lib directory. |
| Logon failure error at run time | If the password for connecting to your PeopleSoft system is not specified when creating a target or with the Edit option in iWay Explorer, you cannot connect to PeopleSoft. The connection password is not saved in repository.xml. Update the password using the Edit option in iWay Explorer and then restart the application server. |
| The following error message appears:<br><br>`Jolt Session Pool cannot provide`<br>`a connection to the appserver.`<br>`This appears to be because there`<br>`is no available application`<br>`server domain. [Fri Aug 27`<br>`13:06:27 EDT 2004]`<br>`bea.jolt.ServiceException:`<br>`Invalid Session` | The host name or port number for PeopleSoft is incorrect. |
| Properties do not appear for a Component Interface. | You are using the wrong iwpsci8x.jar file. |

| Error | Solution |
|-------|----------|
| Cannot generate schemas. | If the error message "Index: -1, Size:0" appears, or if you can log on to iWay Explorer, but you cannot view any Component Interfaces or Messages, then both the iwpsci81.jar and iwpsci84.jar files might be in your lib directory. Stop your server, remove the JAR file that is not required, and restart your server. |
| Pstools.properties file was not initialized. | The Pstools.properties file is required for the PeopleSoft 8.1 release. If you are using PeopleSoft 8.1, then you must add this file. This error message may appear, even if you are not using PeopleSoft 8.1. In this case, ignore the error message. |

## Error Messages in PeopleSoft

The following table lists errors and solutions when using PeopleSoft.

| Error | Solution |
|-------|----------|
| Services are not working properly when using the PeopleSoft Component Interface test tool in three-tier mode. | To test properly using the Component Interface test tool:<br><br>1. Open Application Designer.<br><br>2. Select the Component Interface.<br><br>3. Use the test tool.<br><br>If the service works in test tool, then review the XML and check for redundant fields in XML. |

| Error | Solution |
|-------|----------|
| `Jolt Session Pool cannot`<br>`provide a connection to the`<br>`appserver. This appears to be`<br>`because there is no available`<br>`application server domain.`<br>`[Fri`<br>`Aug 27 13:06:27 EDT 2004]`<br>`bea.jolt.ServiceException:`<br>`Invalid Session` | The host name or port number for PeopleSoft is incorrect. |
| Component Interfaces and Messages do not appear in the adapter tree. | The project is not installed properly on the PeopleSoft system. |
| Return error code -1 is received from PeopleSoft at run time, for example:<br><br>`<LOCATIONProcessResponse`<br>`xmlns="http://xmlns.oracle.com/`<br>`LOCATION">`<br><br>`<error >-1</error>`<br>`</LOCATIONProcessResponse>` | You are either using the incorrect version of psjoa.jar, or you have both the iwpsci81.jar and iwpsci84.jar files in your lib directory. In the second case, you must delete the unused JAR file and then restart the server.<br><br>The psjoa.jar file version is specific to the PeopleTools release. |
| Pstools.properties file was not initialized. | This file is required for PeopleSoft 8.1. If you are using PeopleSoft 8.1, you should add this file. If you are not using PeopleSoft 8.1 and this error message still appears, ignore the message. |
| `Cannot find Component`<br>`Interface`<br>`{CI name}` | The reason may be either of the following:<br><br>❏ The Java API for the selected component interface is not found in the API JAR file. Check the Java API for the class file for the CI. If not found, add the class file for the CI.<br><br>❏ The component interface name is mentioned incorrectly in the request document. |
| `Not Authorized (90,6) Failed`<br>`to`<br>`execute PSSession request` | The component interface does not have the access required to perform the operation. Change the permission settings in the PeopleSoft, Security, Permission list for the component interface. |

| Error | Solution |
|---|---|
| `Must also provide values for keys{keyname}` | The reason may be one of the following: ❏ The request XML document does not have the element for the mandatory key. Include the keyname and the value in the request document. ❏ The Key field name is mentioned incorrectly in the request document. ❏ The Perform operation is mentioned incorrectly in the request XML document. |

## Error Messages in iBSP

This topic discusses the types of errors that can occur when processing web services through iWay Business Services Provider (iBSP).

## General Error Handling in iBSP

iWay Business Services Provider (iBSP) serves as both a SOAP gateway into the adapter framework and as the engine for some of the adapters. In both design time and execution time, various conditions can cause errors in iBSP when iWay Business Services that use adapters are running. Some of these conditions and resulting errors are exposed the same way, regardless of the specific adapter; others are exposed differently, based on the adapter being used. This topic explains what you can expect when you encounter some of the more common error conditions on an adapter-specific basis.

Usually, the SOAP gateway (*agent*) inside iBSP passes a SOAP request message to the adapter required for the web service. If an error occurs, the way it is exposed depends on the adapter and the API or interfaces that the adapter uses. A few scenarios cause the SOAP gateway to generate a SOAP fault. In general, when the SOAP agent inside iBSP receives an invalid SOAP request, a SOAP fault element is generated in the SOAP response. The SOAP fault element contains fault string and fault code elements. The fault code contains a description of the SOAP agent error.

The following SOAP response document results when iBSP receives an invalid SOAP request:

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/
envelope/">
  <SOAP-ENV:Body>
    <SOAP-ENV:Fault>
      <faultcode>SOAP-ENV:Client</faultcode>
      <faultstring>Parameter node is missing</faultstring>
    </SOAP-ENV:Fault>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

In the previous example, iBSP did not receive an element in the SOAP request message that is required for the WSDL for this web service.

## Adapter-Specific Error Handling

When an adapter raises an exception during execution, the SOAP agent in iBSP produces a SOAP fault element in the generated SOAP response. The SOAP fault element contains fault code and fault string elements. The fault string contains the native error description from the adapter target system.

Because adapters use the target system interfaces and APIs, whether or not an exception is raised depends on how the target system interface or API treats the error condition. If a SOAP request message is passed to an adapter by the SOAP agent in iBSP and that request is invalid based on the WSDL for that service, the adapter may raise an exception yielding a SOAP fault.

Although it is almost impossible to anticipate every error condition that an adapter may encounter, the following examples describe how adapters handle common error conditions and how they are then exposed to the web services consumer application.

*Example:*     **iWay Application Adapter for PeopleSoft Invalid SOAP Request**

When the iWay Application Adapter for PeopleSoft receives a SOAP request message that does not conform to the WSDL for the web service being executed, the following SOAP response is generated.

```
<SOAP-ENV:Envelope xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/1999/XMLSchema">
  <SOAP-ENV:Body>
   <m:CARRIERResponse xmlns:m="urn:schemas-iwaysoftware-com:iwse"
     xmlns="urn:schemas-iwaysoftware-com:iwse"
     cid="2A3CB42703EB20203F91951B89F3C5AF">
     <PS8>
       <error>Cannot find Component Interface {VARRIER}
               (91,2)Initialization failed
               (90,7)Not Authorized
               (90,6)Failed to execute PSSession request
               Cannot find Component Interface {VARRIER} (91,2)
       </error>
       </PS8>
   </m:CARRIERResponse>
   </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

*Example:*   **Empty Result From SOAP Request**

When the iWay Application Adapter for PeopleSoft executes a Component Interface as a web service using input parameters passed in the SOAP request that do not match records in PeopleSoft, the following SOAP response is generated.

```
<SOAP-ENV:Envelope xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/1999/XMLSchema">
  <SOAP-ENV:Body>
    <m:CARRIERResponse xmlns:m="urn:schemas-iwaysoftware-com:iwse"
     xmlns="urn:schemas-iwaysoftware-com:iwse"
     cid="2A3CB42703EB20203F91951B89F3C5AF">
     <PS8>
       <error>No rows exist for the specified keys. {CARRIER}
          (91,50)Failed to execute PSBusComp request</error>
       </PS8>
    </m:CARRIERResponse>
   </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

*Example:*   **Failure to Connect to PeopleSoft**

When the iWay Application Adapter for PeopleSoft cannot connect to PeopleSoft when executing a web service, the following SOAP response is generated.

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/
envelope/">
  <SOAP-ENV:Body>
    <SOAP-ENV:Fault>
      <faultcode>SOAP-ENV:Server</faultcode>
      <faultstring>java.lang.Exception: Error Logon to PeopleSoft
System<faultstring>
    </SOAP-ENV:Fault>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

### *Example:*   Invalid SOAP Request

When the adapter receives a SOAP request message that does not conform to the WSDL for the web service being executed, the following SOAP response is generated.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/
envelope/">
  <SOAP-ENV:Body>
    <SOAP-ENV:Fault>
      <faultcode>SOAP-ENV:Server</faultcode>
      <faultstring>RPC server connection failed: Connection refused:
        connect</faultstring>
    </SOAP-ENV:Fault>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

### *Example:*   Empty Result From an Adapter Request

**Note:** The condition for this adapter does not yield a SOAP fault.

When the adapter executes a SOAP request using input parameters passed that do not match records in the target system, the following SOAP response is generated.

```
<SOAP-ENV:Envelope xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/1999/XMLSchema">
  <SOAP-ENV:Body>
    <m:RunDBQueryResponse xmlns:m="urn:schemas-iwaysoftware-com:iwse"
      xmlns="urn:schemas-iwaysoftware-com:iwse"
      cid="2A3CB42703EB20203F91951B89F3C5AF">
      <RunDBQueryResult run="1" />
    </m:RunDBQueryResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

# Configuring the Application Adapter for PeopleSoft in an iWay Environment

After you successfully configure the adapter to represent a particular adapter target, the adapter can be assigned to an iWay Service Manager channel.

**In this appendix:**

❏   Configuring the Application Adapter for PeopleSoft in iWay Service Manager

## Configuring the Application Adapter for PeopleSoft in iWay Service Manager

Before configuring the adapter in iWay Service Manager, you must first create a target, which represents a connection to a backend system, using iWay Explorer. For more information on configuring targets and connections using iWay Explorer, see *Creating XML Schemas or Web Services for PeopleSoft* on page 75 or the *iWay Explorer User's Guide*.

You configure the adapter in the iWay Service Manager console. The configuration process creates run-time connection and persistent data files within Service Manager. The configuration process interrogates the Service Manager repository entries that were built when the target and connection were created using iWay Explorer. The define adapter process creates the run-time repository based on the design-time repository.

*Procedure:*   **How to Define an Adapter**

To define an adapter:

1.   In the Service Manager console, select *Registry*, then *Adapters*.

2.   Click *Add*.

The iBSP URL pane opens, as shown in the following image.



3.   Enter your iBSP URL, which is the location of the Service Manager repository, for example, `http://localhost:9000`. This field is required.

4.   Click *Next*.

An adapter selection pane opens, as shown in the following image.



5.  From the Adapter drop-down list, select the Adapter, then click *Next*.

6.  From the Target drop-down list, select a target you configured for the adapter in iWay Explorer, then click *Next*.

The connection information associated with the target selected is displayed.



a.  Select whether to return an error document when an error occurs.

b.  Select whether an adapter connection will be reused between executes.

c.  Review the connection information you specified in iWay Explorer. You can change or update any information.

7.  Click *Next*.

8.  Provide a name and, optionally, a description, for the adapter, and click *Finish*.

The adapter appears in the adapters list, as shown in the following image.
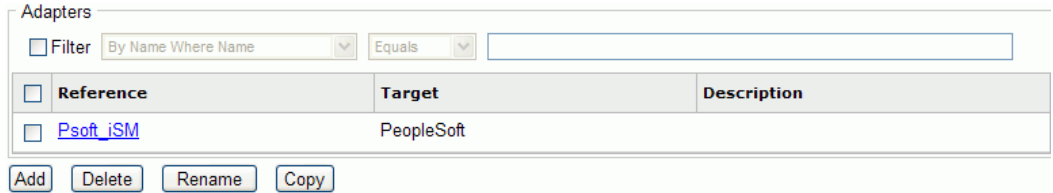


## Procedure: How to Modify or Update an Adapter Connection

The following image shows the Adapter Defines pane which displays the name of the adapter and the description (optional).
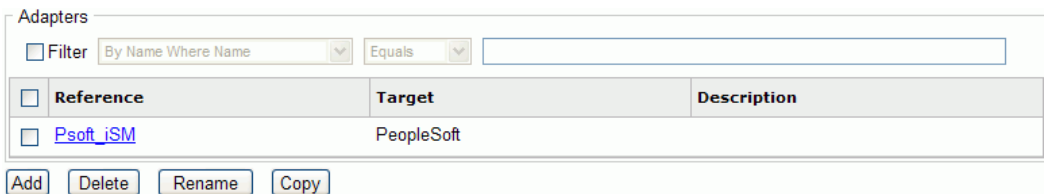


To modify or update an adapter connection:

1. From the Adapters list, click the adapter reference you defined, in this example, `Psft_iSM`.

   The pane that displays the target connection information opens. You cannot change the name of the adapter or the target, but you can edit the connection information.

2. After you modify the connection information, click *Update Connection Properties*.

3. After you make changes or additions to the adapter target in iWay Explorer, click *Update Adapter Data*.

4. Click *Finish*.

# Using PeopleSoft Component Interfaces

This section describes how to create new Component Interfaces—and how to modify existing Component Interfaces—for use with the iWay Application Adapter for PeopleSoft. You also can use Component Interfaces supplied by PeopleSoft with your application.

Before using a Component Interface you must apply security to it and test it. After securing and testing a Component Interface, you must generate its API, as described in *Generating Component Interface APIs* on page 47.

**Note:** This section is intended as a helpful supplement; it is not a substitute for PeopleSoft documentation. For complete and up-to-date information about PeopleSoft Component Interfaces, see the *PeopleSoft Online Library* for your PeopleSoft system.

**In this appendix:**

❏ Creating a Component Interface

❏ Viewing or Modifying Available Methods

❏ Securing a Component Interface

❏ Testing a Component Interface

## Creating a Component Interface

You create Component Interfaces using the PeopleSoft Application Designer. For more information about Application Designer, see your PeopleSoft documentation.

You can add properties from the records in the component view. You can delete a property in the Component Interface that you do not want to expose. You can rename a property by clicking the property and then clicking again until you can type a new name. If you rename a property, it can be referenced in the Component Interface only by the new name, not by the underlying component name.

A property may an icon adjacent to it. For example, EMPLID has an icon indicating that it is a key field from the underlying record. NAME has an icon indicating that it is an alternate key field from the underlying record. For a complete list of property icons, see the PeopleBooks documentation.

*Procedure:*   **How to Create a New Component Interface**

To create a Component Interface:

1. Open the PeopleSoft Application Designer.

2. From the File menu, select *New*.

   The New dialog box opens in the PeopleSoft Application Designer, with a list of objects, as shown in the following image.
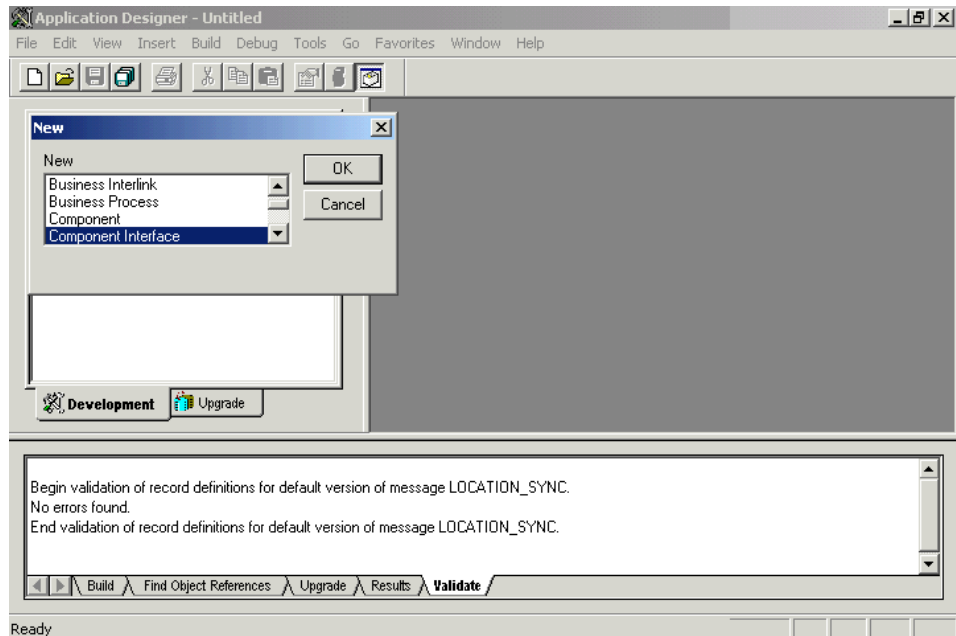


3. Select *Component Interface*.

4. Click *OK*.

**Information Builders**

The Select Source Component for Component Interface dialog box opens as shown in the following image. It contains the following: Object Type drop-down list (unavailable), the Selection Criteria pane (which includes a Project drop-down list and Name, Description, and Market fields), and an Objects marking selection criteria pane. It also contains Select, Cancel, and New Search buttons.
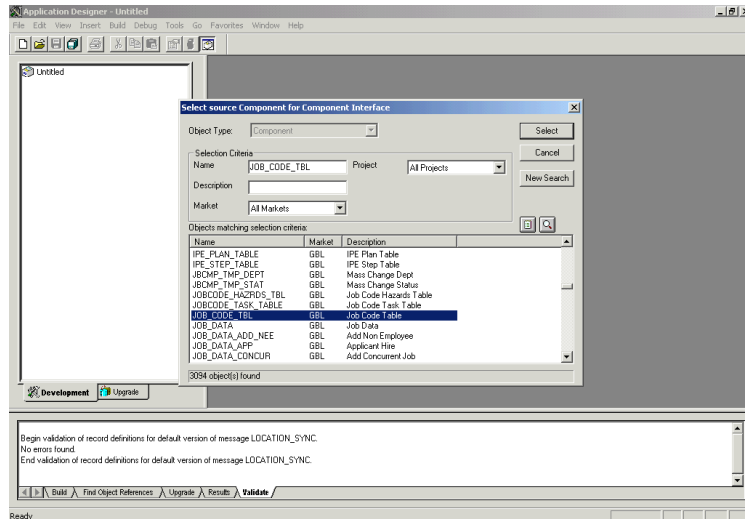


5. Highlight the component to use as a basis for the Component Interface and click *Select*.

The Application Designer dialog box, which asks a question and contains Yes, No, and Explain buttons, opens as shown in the following image.
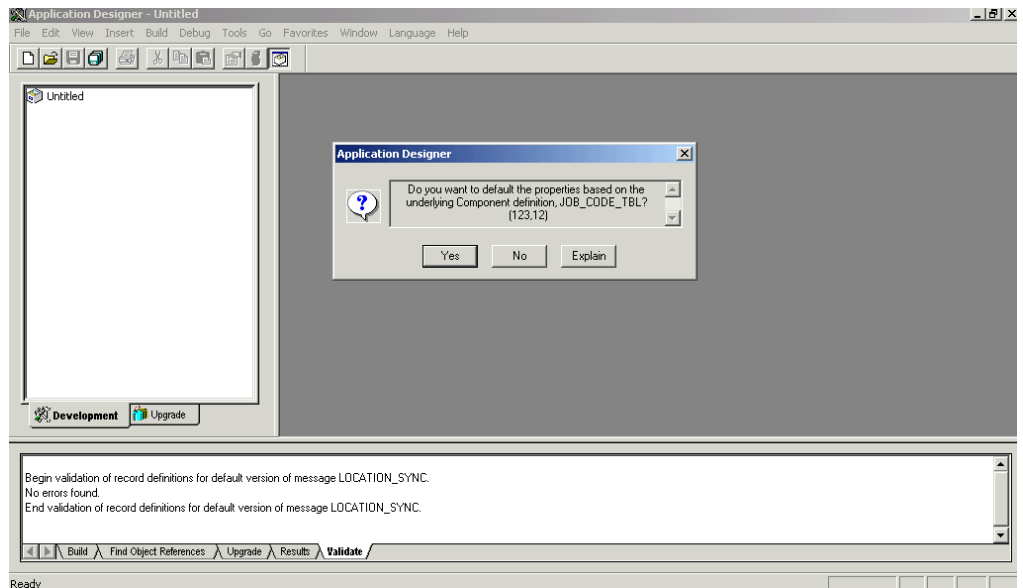


**Note:** If the Component Interface is large, expose the component properties manually.

6. Choose one of the following options:

To create the Component Interface **without displaying properties and to expose component properties manually,** click *No*.

a. Drag the relevant fields from the left pane to the right pane.

b. To select the functions to perform, right-click either the right or left pane, depending on which pane is active.

For a complete list of functions, see the PeopleBooks documentation.

To create the Component Interface and to **display the properties of the underlying Component Interface,** click *Yes*.

The following image shows the Application Designer component interface. The underlying properties appear in the right pane in a tree structure with information in columns for Name, Record, Field, Read, and Comments.
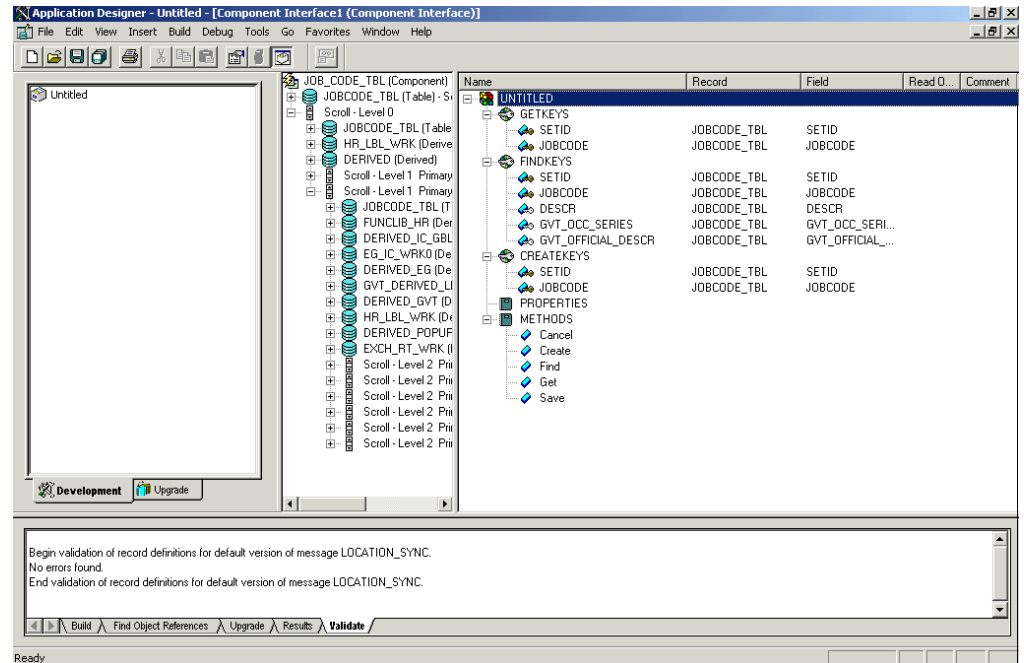


## Viewing or Modifying Available Methods

The standard methods for the Component Interface are:

❏ Create

❏ Find

❏ Get

❏ Save

Only those methods in the underlying component are available. For example, if the underlying component does not contain Add capabilities, the Create method is not available.

*Procedure:* **How to View or Change Available Methods**

The following image shows the Properties dialog box with the Standard Methods tab active. The check boxes for standard methods and for Cancel are selected.
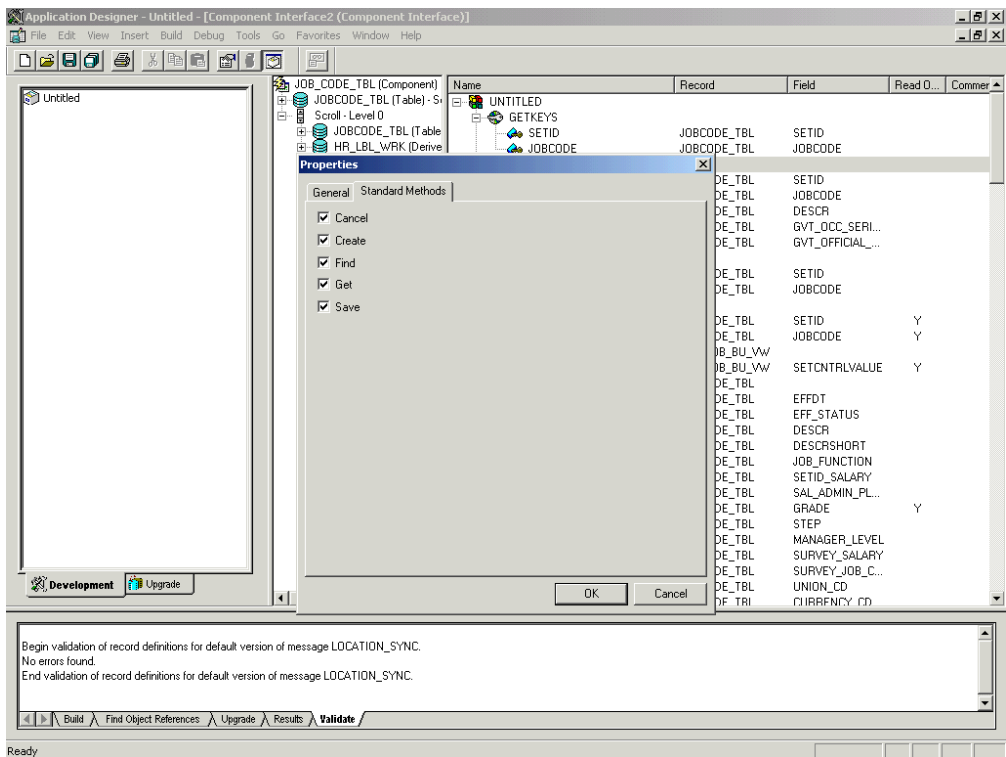


To view or change available methods:

1.  Open the Component Interface Properties dialog box.

2.  Click the *Standard Methods* tab.

3.  Select the desired methods.

4.  Click *OK*.

## Securing a Component Interface

You must configure security for the Component Interface before you can begin to test.

For information on configuring security for PeopleSoft Version 8.1x in two- and three-tier mode, see *How to Configure Component Interface Security for PeopleSoft Version 8.1x* on page 141. For information on configuring security for PeopleSoft Version 8.4 or higher, see *How to Configure Interface Security for PeopleSoft Version 8.4 or Higher* on page 145.

*Procedure:* **How to Configure Component Interface Security for PeopleSoft Version 8.1x**

The following image shows the Maintain Security window with the Use menu expanded.
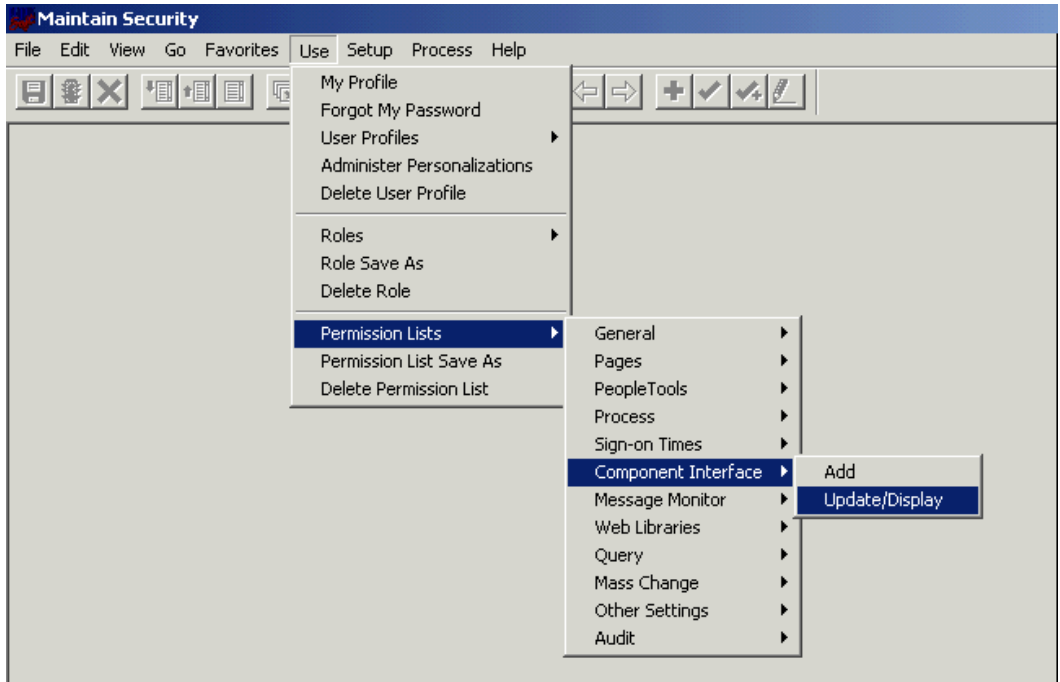


To configure Component Interface security:

1. From the Use menu, select *Permission Lists*, *Component Interface*, and then click *Update/Display*.

The Update/Display Permission Lists dialog box opens as shown in the following image. It contains a Permission List field, Permission List and Description information, and OK, Cancel, Search, Detail, Use Query, and New Query buttons.
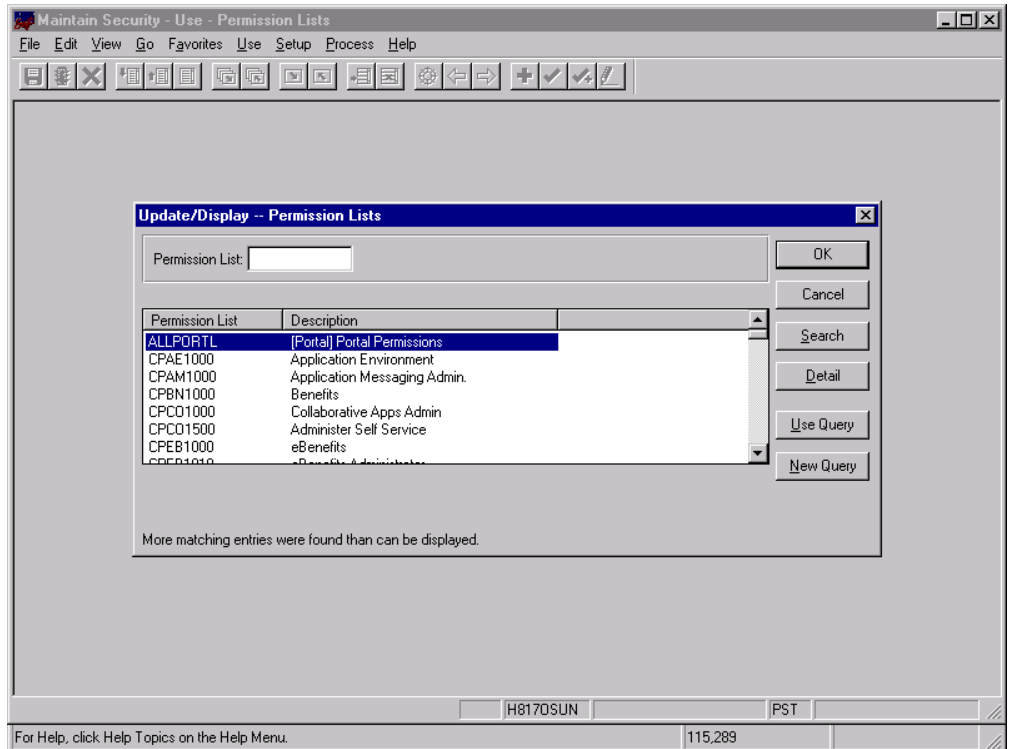


Before Security can be set, you must identify the permission list or lists.

2. Select the relevant permission list and click *OK*.

For information on permission lists, see the PeopleBooks documentation.

The following image shows the Permission Lists pane and contains information about the ALLPORTL permission list in the Name column. The Component Interface tab is active.
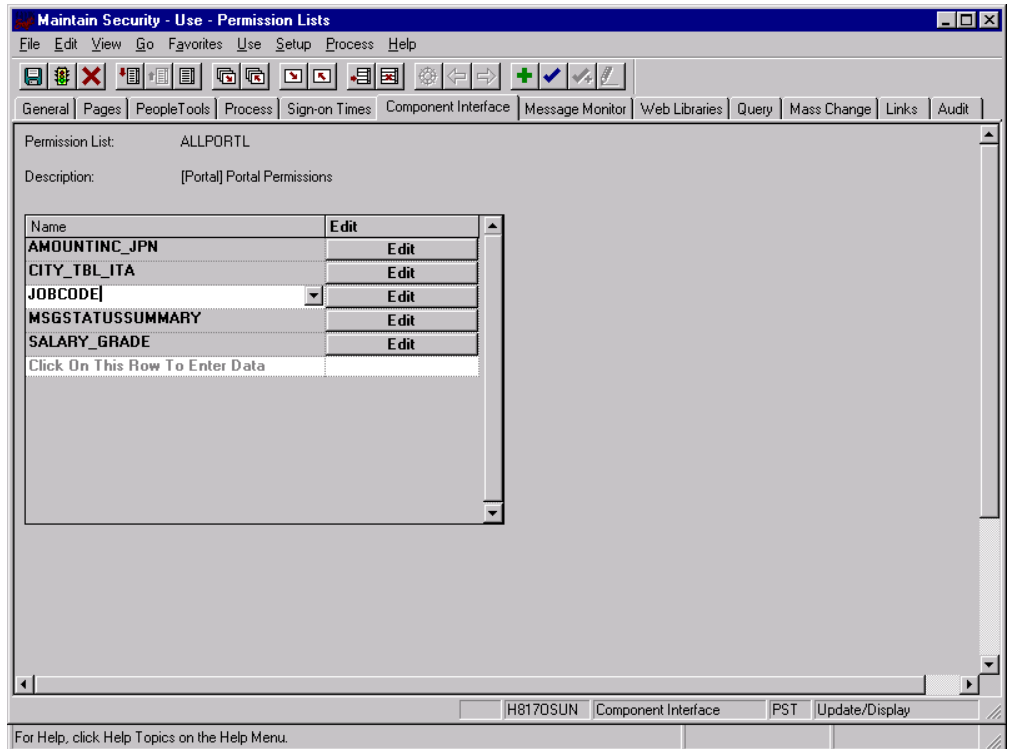


3.  To insert the new Component Interface you created, click *Click On This Row To Enter Data*.

4.  When the Edit button appears, click *Edit*.

When you select the Component Interface, all available methods appear, including user-defined methods. You can then specify whether this particular Permission List must have Full or Partial Access.

The following image shows the ALLPORTL Permission List with full access to all methods (Get, Create, Save, Cancel, and Find). It also contains OK, Cancel, Full Access All, and No Access All buttons.
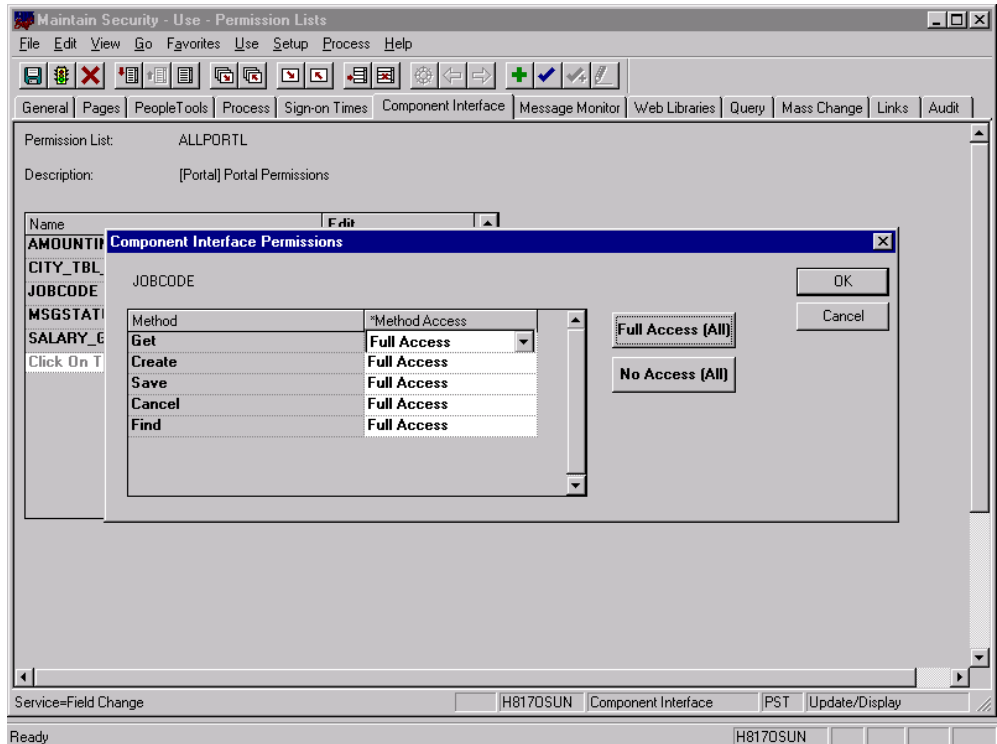


5.  To select the desired level of access, click in the Method Access column opposite the method and select from the drop-down list.

6.  Click *OK*.

### *Procedure:*   How to Configure Interface Security for PeopleSoft Version 8.4 or Higher

The following image shows the configure component interface security window. Permissions and Roles is expanded in the left pane.
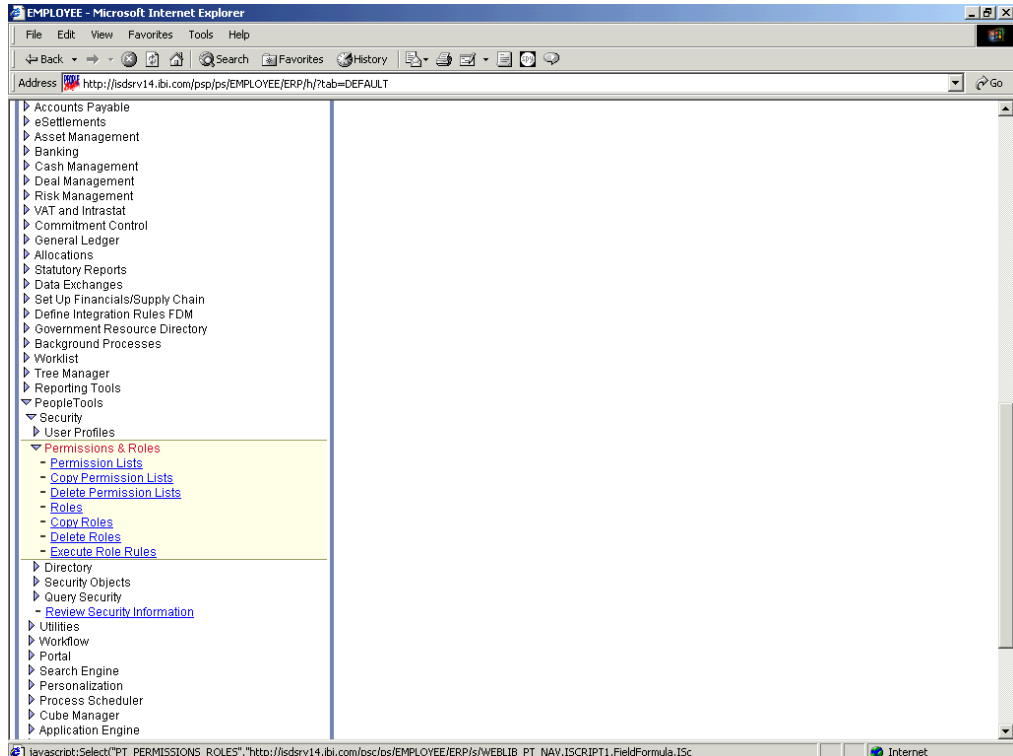


To configure interface security:

1.   Expand *PeopleTools*, *Security*, *User Profiles*, and *Permissions & Roles* and then, click *Permission Lists*.

The following image shows the Permission Lists pane on the right with the Find an Existing Value tab active. You can view an existing value in the Permission List column with its associated description and search for results.
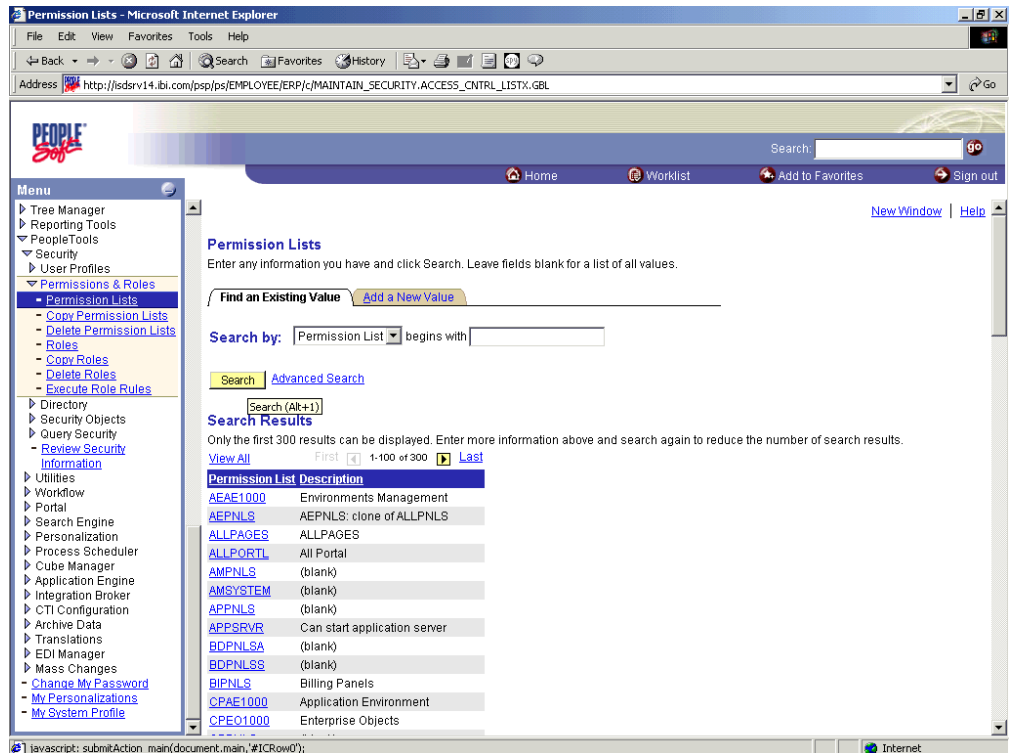


2.  Click *Search*.

3.  Select the relevant permission list.

The following image shows the General tab and contains information for the ALLPAGES permission list. It contains Description and Navigator Homepage fields; check boxes for selecting Can Start Application Server? and Allow Password to be Emailed?; and options to choose between Never Time-out and Specific Time-out.
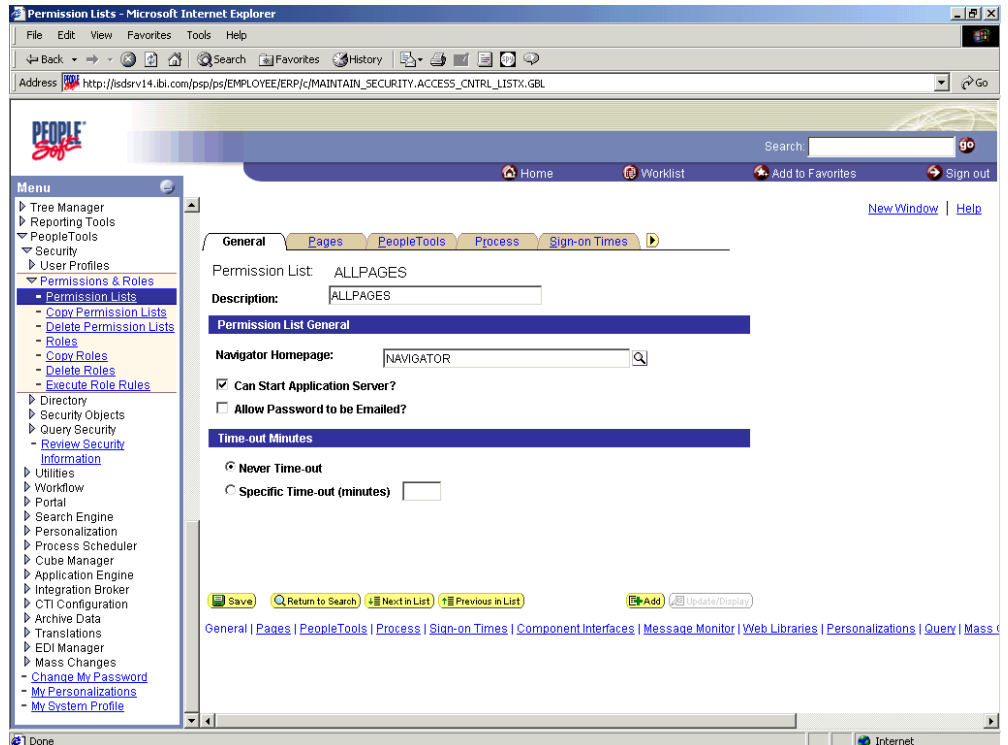


4.  To view the Component Interfaces tab, click the right arrow next to the Sign-on Times tab and click the *Component Interfaces* tab.

The following image shows the Component Interfaces tab and lists component interfaces for the ALLPAGES permission list.
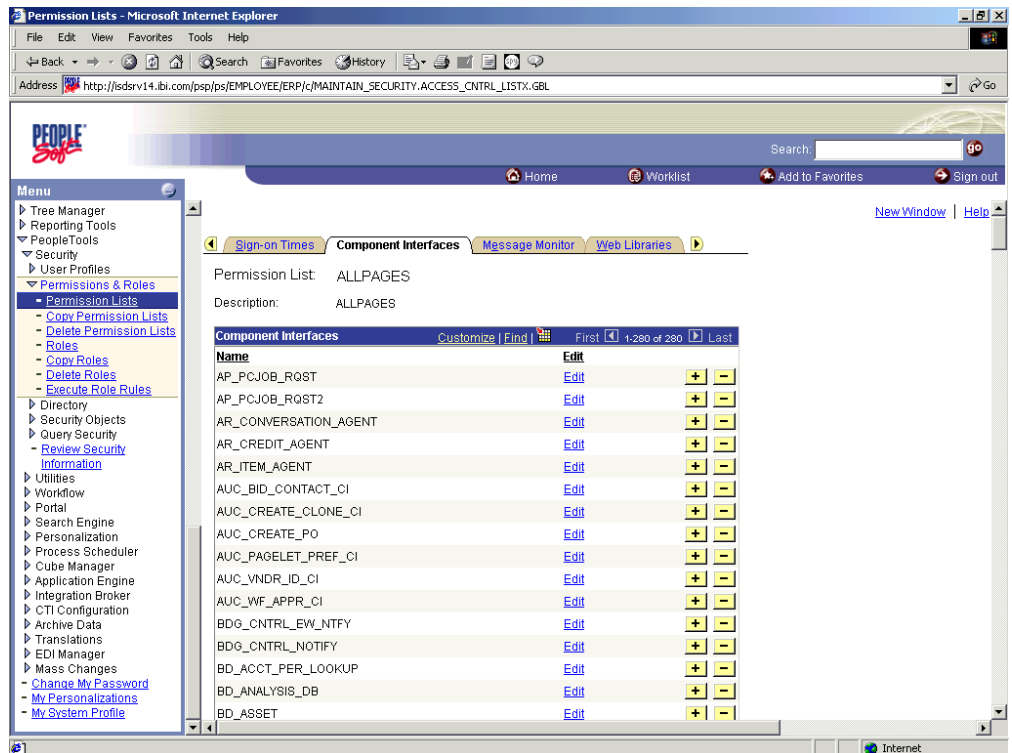


5.  To add a new row to the Component Interfaces list, click the *plus* button.

The following image shows the Component Interfaces tab and lists component interfaces for the ALLPAGES permission list. It includes a component interface name field where you clicked the plus sign to add a row.
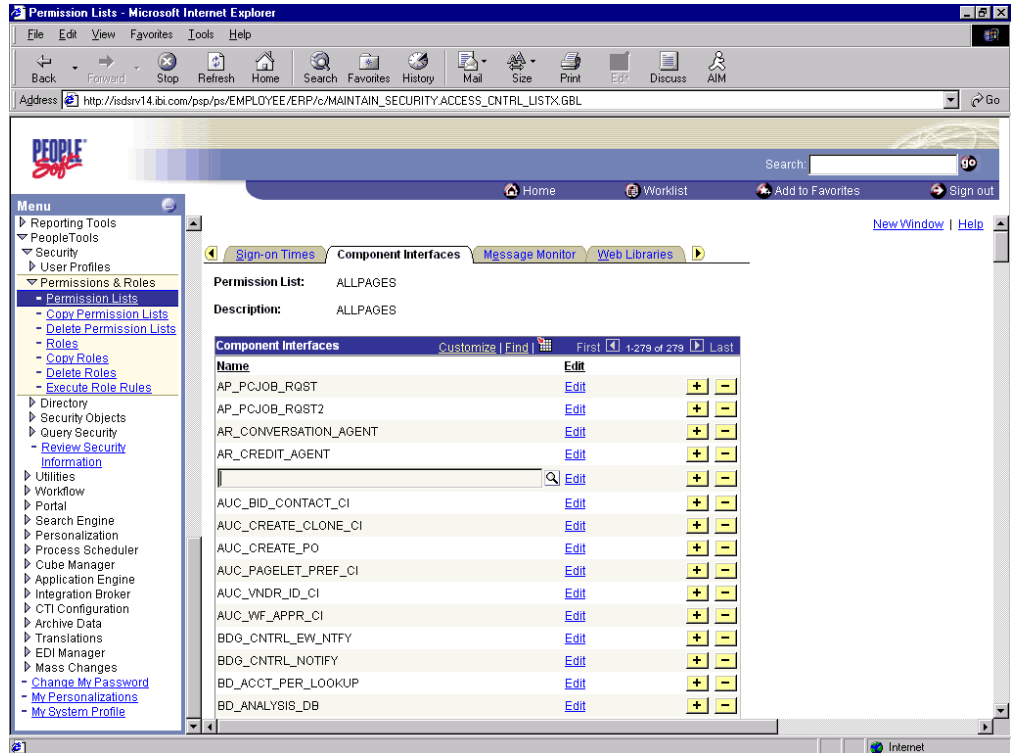


6.  Type the Component Interface name and click *Edit*.

The following image shows the Component Interface Permissions pane for the component interface AR_ITEM_AGENT. It includes a column for the Method; drop-down lists for the Method Access corresponding to: Get, Create, Save, Cancel, and Find; and the buttons for Full Access (active) or No Access.
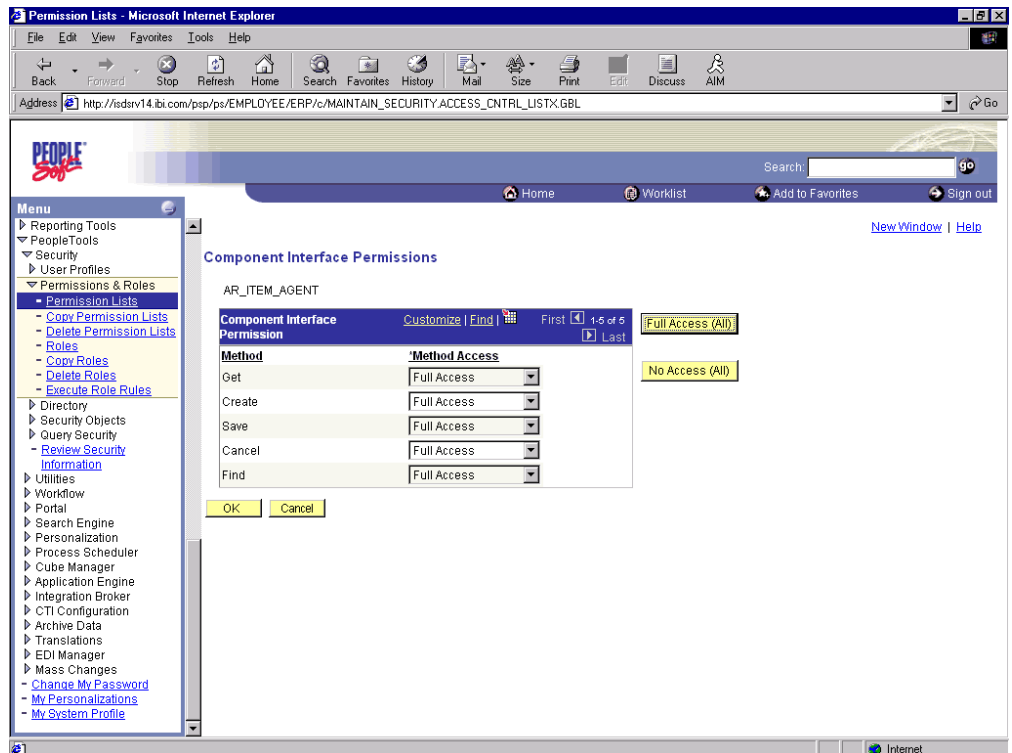


a.  From the drop-down lists, select the desired access level for each method.

b.  Click *OK*.

7.  Scroll down in the right pane and click *Save*.

## Testing a Component Interface

The iWay Application Adapter for PeopleSoft uses PeopleSoft metadata and Component Interfaces, therefore, it can accommodate new or modified Component Interfaces. The adapter makes no assumptions about Component Interfaces except that they are logical and valid. Therefore, each Component Interface must be tested before it can be used as a source for the adapter.

If changes are made to the underlying application by the user or by a PeopleSoft upgrade, and the changes invalidate a Component Interface, the user must repair the invalid Component Interface before the adapter uses it.

*Procedure:* **How to Test a Component Interface**

To test a Component Interface:

1. In Application Designer, from the Tools menu, select *Test Component Interface*.

   The Component Interface Tester dialog box opens as shown in the following image. It contains the following panes: Get keys for Component Interface, Create keys for Component Interface, and Find keys for Component Interface. It also contains Get Existing, Create New, Find, and Cancel buttons and check boxes for Interactive Mode and Get History Items.
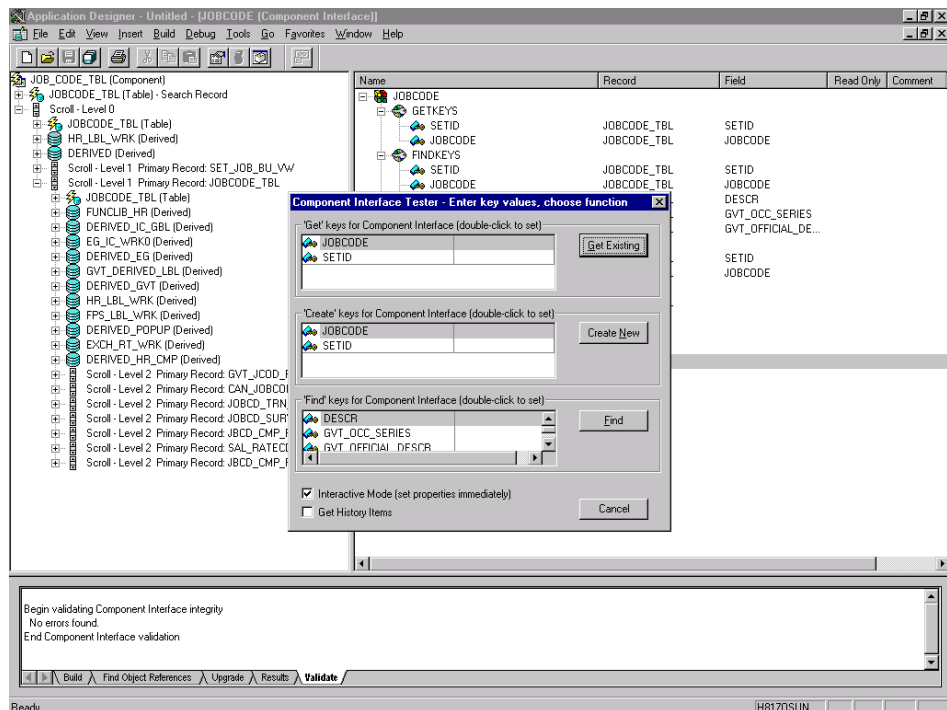


2. To test the Component Interface, use one the following methods:

   To test the Component Interface using the **Find method,** click *Find*.

The Component Interface Tester - Find Results dialog box opens and displays all of the possible entries for the underlying component. If there are more than 300 entries, a message appears as shown in the following image.
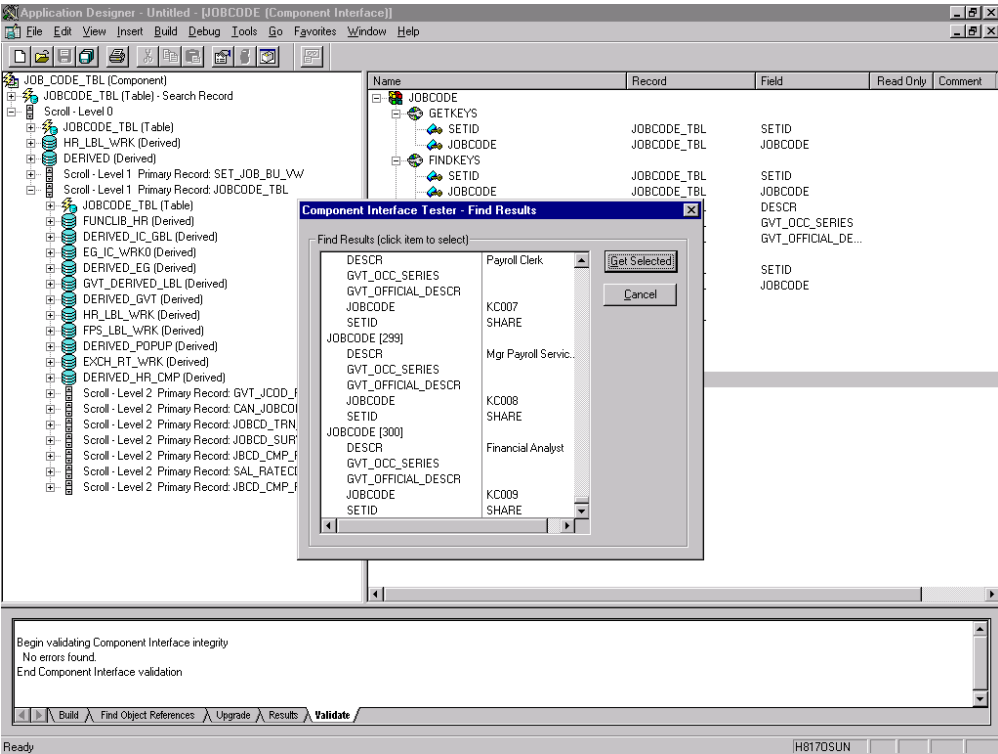


a. In the left pane of the Find Results dialog box, select a field.

b. To display the relevant data for that particular field, click *Get Selected*.

The following image shows the Component Interface Tester that opens.
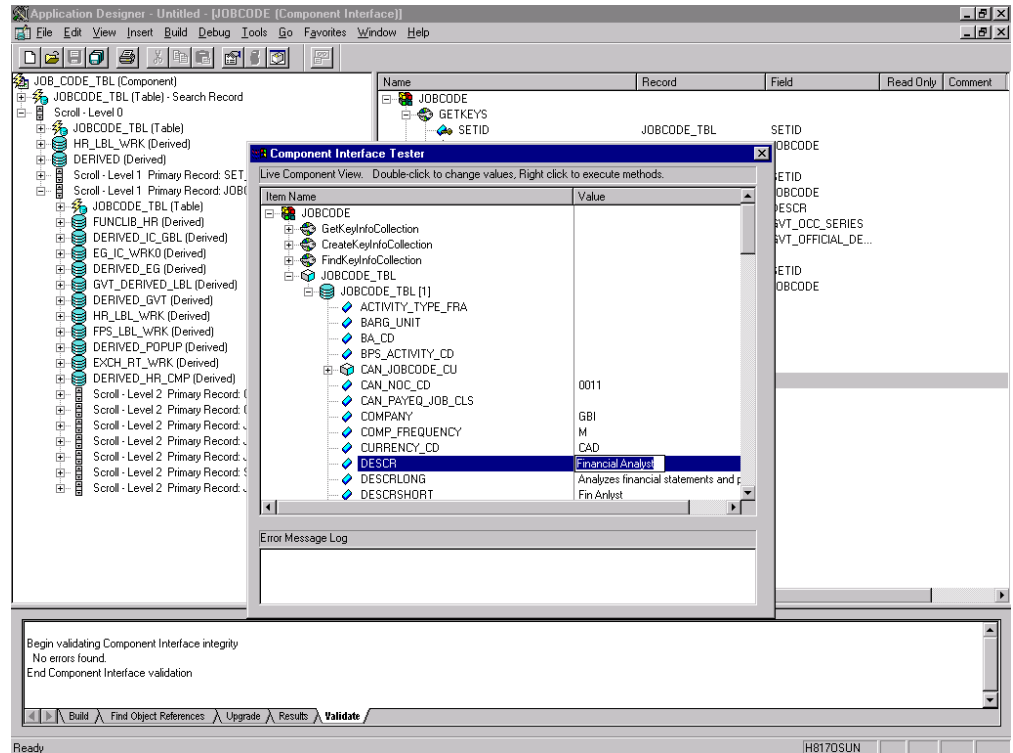


If the security settings permit, you can change the values in the individual fields.

To test the Component Interface using the **Get method:**

c. Enter the existing key(s).

d. Click *Get Existing*.

This returns the exposed properties for the key that you entered.

You can change values if Update access was specified.

Alternatively, you can test using the Create method.

To test the Component Interface using the **Create method:**

e. Enter all required key values.

f. Click *Create New*.

When you enter valid values in Create keys, a pane that displays the JOBCODE data after the Table name is expanded with default data in place appears as shown in the following image.
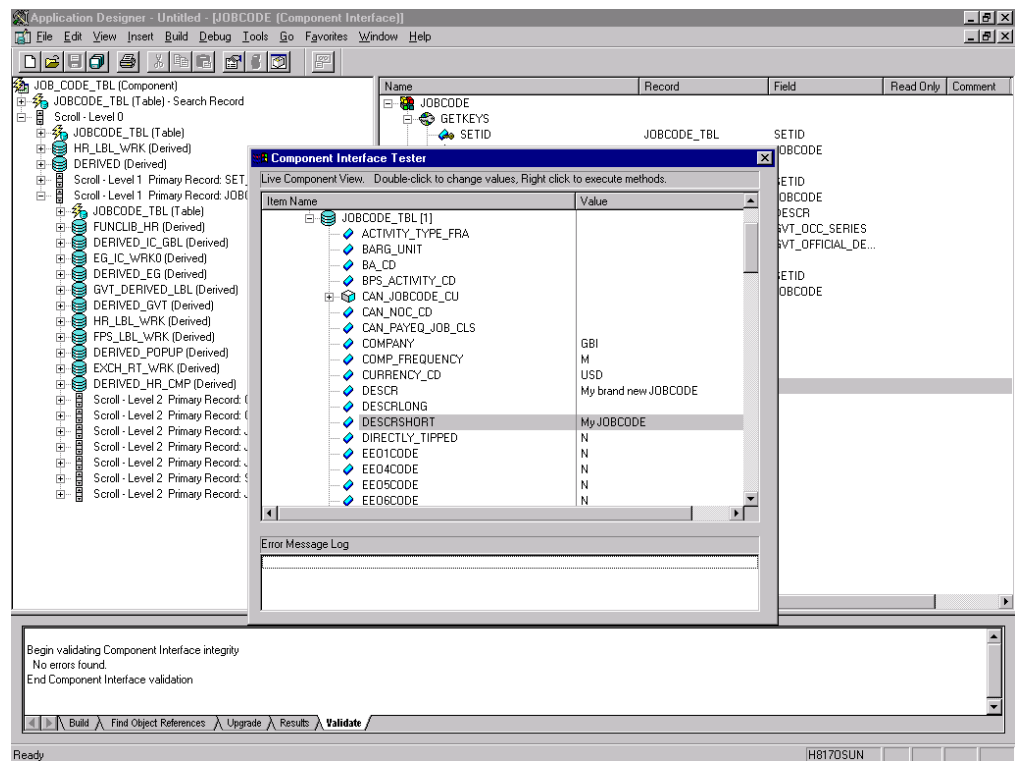


At this point, you can change fields. Changes are validated against the underlying business logic of the component.

g. After you finish making changes, right-click the top item in the pane.

3. To save your changes, click the *Save* icon.

The keys used to create the record can be used with the Get method for viewing data.

You can view the data that was added in the PeopleSoft Component as shown in the following image. The Job Code Profile pane displays information in fields and drop-down lists relating to job title, description, and so forth.



The Effective Date is one of the default values.

You have finished testing the Component Interface. Before using the Component Interface, you must generate its API. For more information, see *Generating Component Interface APIs* on page 47.

# Using PeopleSoft 8
# Integration Broker

This section discusses how to configure and test PeopleSoft Integration Broker (Release 8.4) and PeopleSoft Application Messaging (Release 8.1) using a PeopleSoft-supplied File Output interface.

In PeopleSoft Release 8.1, the messaging architecture is called Application Messaging and includes Application Messaging Gateway. In Release 8.4, the messaging architecture is called Integration Broker and includes Integration Gateway. When discussing release-generic issues, this section uses Release 8.4 terminology. When discussing release-specific issues, it uses release-specific terminology.

**Note:** This section is intended as a helpful supplement; it is not a substitute for PeopleSoft documentation. For more complete and up-to-date information on PeopleSoft Messaging and Integration Broker, see the *PeopleSoft Online Library* for your PeopleSoft system.

**In this appendix:**

## PeopleSoft Integration Broker

PeopleSoft Integration Broker provides a mechanism for communicating with the outside world using XML files. Communication can take place between different PeopleSoft applications or between PeopleSoft and third-party systems.

To subscribe to data, third-party applications can accept and process XML messages posted by PeopleSoft using the available PeopleSoft connectors or by adding a custom built connector to the Integration Gateway. This topic primarily covers publishing outbound asynchronous messages from a PeopleSoft system to a third-party application using the delivered File Output connector. For information on outbound synchronous messages, see *Using Outbound Synchronous Messages* on page 195.

To send a message, you must properly configure various internal structures and processes. The following descriptions are generally release-generic. Details of differences between Releases 8.1 and 8.4 are discussed in other topics.

Most of the examples in this section use the LOCATION_SYNC message, which is a PeopleSoft Enterprise Integration Point (EIP) and is supplied with most PeopleSoft applications. If LOCATION_SYNC is not part of your package, you can use any supplied message.

❏ **Message.** A Message is a container for the data that goes into the XML. It contains basic structural information, such as records and fields. To send the XML file, the Message must be in an Active status.

❏ **Message Channel.** The Message Channel is a mechanism for structuring records into logical groupings. Each Message can belong to only one Message Channel. For the Message to be delivered, the Message Channel must be in an Active (Run) status.

In Release 8.1, the Message Channel also provides preliminary routing instructions; you can specify the Message Nodes that handle the message. Each Message Channel can route messages to multiple Message Nodes.

❏ **Message Node.** Message node functionality changed from 8.1 to 8.4.

In Release 8.1, the primary function of the Message Node is to specify the Gateway that receives the messages.

Much of the "intelligence" built into the Message Channel in Release 8.1 moved to the Message Node in Release 8.4 which provides additional flexibility. You can specify which messages the Message Node can handle. In addition, the Gateway Connector is bound to the Message Node. Each Message Node can route messages to only one Connector.

❏ **Integration Gateway.** The Integration Gateway is a program that runs on the PeopleSoft web server. It is the physical hub between PeopleSoft and the third-party system.

❏ **Target Connector/Handler.** Connectors are Java programs that run under the control of the Integration Gateway and control the final output destination of the XML file. PeopleSoft Release 8.4 comes with several connectors including HTTP, FTP, SMTP, JMS, POP3, and a Simple File connector that places the file in a directory on the web server. This section discusses the Simple File connector.

❏ **PeopleCode.** PeopleCode is the programming tool provided with PeopleTools that enables you to create complex application functionality. A message can be initiated only by using specific PeopleCode instructions. This code is usually triggered by an application event, such as creating a new database entry through an online panel or through a batch job.

## Configuring Integration Broker in PeopleSoft Release 8.4 (PeopleTools Releases 8.48 - 8.51)

This section provides a tutorial that walks you through the PeopleSoft event generation process. PeopleTools Releases 8.48 - 8.51 are supported. The tutorial uses the PeopleTools Release 8.48.02 and 8.90 Financial / SCM application. As a result, if you are using a different platform, then correlate the terms and commands specific to that operating system. For more information, refer to the appropriate user guide for each specific component.

## Configuring PeopleSoft Services

This section describes how to configure PeopleSoft services.

*Procedure:* **How to Add a Remote Node**

To add a remote node:

1. Logon to PeopleSoft using the browser-based GUI (Pure Internet Architecture).

2. Select *PeopleTools*, *Integration Broker*, *Integration Setup*, followed by *Nodes*.

   The Node Definitions tab is displayed.



3. Perform the following steps:

   a. In the Node Name field, type a name for the new node definition, for example, EXTERNAL.

   b. In the Description field, type a brief description for the new node definition.

   c. From the Node Type drop-down list, select *External*.

   d. From the Authentication Option drop-down list, ensure that the default option, *none*, is selected.

e.  In the Default User ID field, type the user ID that is being used by the PeopleSoft system, for example, PS.

f.  Select the *Active Node* check box.

4.  Click the *Connectors* tab.

The Connectors tab is displayed.



5.  Perform the following steps:

a.  In the Gateway ID field, type *LOCAL*.

b.  In the Connector ID field, type *HTTPTARGET*.

c.  For the PRIMARYURL value, enter the host and port number of the PeopleSoft adapter instance that is used to listen for events. For example:

    ```
    http://bpelclient:1971
    ```

d.  Leave the default values for the remaining properties.

6.  Save your changes.

*Procedure:*   **How to Select a Service**

To select a service:

1.  Select *PeopleTools*, *Integration Broker*, *Integration Setup*, followed by *Services*.

2.  Search for the *DEPT_SYNC* service and select it.

The DEPT_SYNC Services pane is displayed.



3. From the Existing Operations section on the lower left, click the *DEPT_SYNC.VERSION_1* service operation.

The Service Operation - General pane is displayed.



4. Click the *Active* check box.

5. Click the *Routings* tab to add a new routing.



6. In the Routing Name field, type a name for the new routing, for example, ADD_DEPT.

7. Click *Add*.

8. Click the *Routing Definitions* tab to add a new routing definition.



9. Perform the following steps:

   a. In the Sender Node field, type *PSFT_HR*, which is the default PeopleSoft node that publishes the message.

   b. In the Receiver Node field, type *EXTERNAL*, which is the new node that has been created to subscribe the message published by PeopleSoft.

10. Click the *Connector Properties* tab.



11. Perform the following steps:

    a.  In the Gateway ID field, type *LOCAL*.

    b.  In the Connector ID field, type *HTTPTARGET*.

    c.  For the PRIMARYURL value, enter the host and port number of the PeopleSoft adapter instance that is used to listen for events. For example:

        `http://bpelclient:1971`

12. Click *Save* and then click *Return*.

    You are returned to the Routing Definitions pane. Notice that the new routing definition (ADD_DEPT) is now added to the list.



13. Click *Save* to save the details of the Service Operation.

14. Click the *Return to Service* link to return to the Services pane.

15. Click *Save* on the Services pane.

### *Procedure:* How to Activate the Gateway

To activate the gateway:

1. Select *PeopleTools*, *Integration Broker*, *Configuration*, followed by *Gateways*.

2. Search for the Integration Gateway ID, for example, Local and select it.

   The Gateways pane is displayed.



3. Click *Ping Gateway*.

   A new browser window is displayed, which shows that the gateway is active.



4. Close the new browser window to return to the Gateways pane.

5. Ensure that HTTPTARGET is listed in the Connectors section. If it is not listed, click *Load Gateway Connectors* to refresh the available connectors.

*Procedure:* **How to Activate the Domain**

To activate the domain:

1. Select *PeopleTools*, *Integration Broker*, *Configuration*, followed by *Quick Configuration*.

   The Quick Configuration pane is displayed.



2. Ensure that the domain is active.

*Procedure:* **How to Activate the Service**

To activate the service:

1. Select *PeopleTools*, *Integration Broker*, *Integration Setup*, followed by *Services*.

The Services pane is displayed.



2. Ensure that the service is active.

### *Procedure:* How to Activate the Service Operation (Queue and Message Node)

To activate the service operation:

1. Select *PeopleTools*, *Integration Broker*, *Configuration*, *Integration Setup*, followed by Services.

   The Services pane is displayed.



2. From the Existing Operations section on the lower left, click the *DEPT_SYNC.VERSION_1* service operation.

Information Builders

The Service Operation - General pane is displayed.



3. In the message information section on the bottom of the page, note the value in the Queue Name field of the service operation.



4. Click the *View Queue* link.

The Queue Definitions pane opens.

5.  Ensure that the Queue Status drop-down list has Run selected.

6.  Click *Return* to return to the Service operation pane.

7.  Click the *Routings* tab.



8.  Ensure that the routings are active.

9.  Click the *Return to Service* link on the bottom of the pane to return to the Services pane.

10. Click *Return to Search* to go to the Services search pane.

    In the above steps, if the status has been activated in any of the panes for any of the components, then make sure to save the status at the appropriate pane and the respective components.

11. Select *PeopleTools*, *Integration Broker*, *Configuration*, *Integration Setup*,*Services*, followed by *Nodes*.

    The Node Definitions pane opens.



12. Ensure that the status of the External node is active.

    This completes the configuration on the PeopleSoft side.

## Triggering the Event in PeopleSoft

This section describes how to trigger the event in PeopleSoft.

### *Procedure:* How to Trigger the Event

To trigger the event:

1. Logon to PeopleSoft using the browser-based GUI (Pure Internet Architecture).

2. Navigate to *Main Menu*, *Set up HRMS*, *Foundation Tables*, followed by *Departments*.

   The Departments pane is displayed.



3. Click the *Add a New Value* tab.



4. Enter the appropriate value in the SetID and Department fields.

5. Click *Add*.

The Department Profile tab opens.



6. Provide the necessary information according to your requirements to create a new Department record.

7. Click *Save* at the bottom of the pane when you are finished.

## Verifying the Event Results

This section describes how to verify the event results.

*Procedure:* **How to Verify the Results**

To verify the results:

1. Logon to PeopleSoft using the browser-based GUI (Pure Internet Architecture).

2. Navigate to *Main Menu*, *PeopleTools*, *Integration Broker*, *Service Operation Monitor*, followed by *Asynchronous Services*.

The Monitor Overview tab is displayed.



Here you can view the results of the events at the queue level.

3. Click the number link (5) queue (Enterprise_Setup) in the Result section.

The Operation Instances tab is displayed.



Notice that a new record for the event (department) is available.

4. Click the *Details* link on the lower-right.

The Asynchronous Details browser window opens.



Notice that the status of the transaction is DONE for the Publishing and Subscriber nodes.

## Configuring Integration Broker in PeopleSoft Release 8.4 (PeopleTools Releases 8.40 - 8.47)

You can configure PeopleSoft 8.4 to send an asynchronous outbound message to the File Output connector.

To configure application messaging in PeopleSoft 8.4:

1. Ensure that the message is active and is routed to the proper Message Channel.

2. Configure the IntegrationGateway.properties file to communicate with your PeopleSoft 8.4 application.

3. Configure the Integration Gateway and File Output connector.

4. Create and configure a new Gateway node.

These tasks are described in detail in the following procedures.

*Procedure:* **How to Ensure the Message Is Active and Is Routed Correctly**

To ensure that the message is active and is routed to the proper Message Channel:

1. Open Application Designer.

2. On the File menu, point to *Open*, click *Message*, and open the *LOCATION_SYNC* message.

The Application Designer opens as shown in the following image. The message field names appear in a column with corresponding columns for the field alias and a check box indicating whether to include the field.
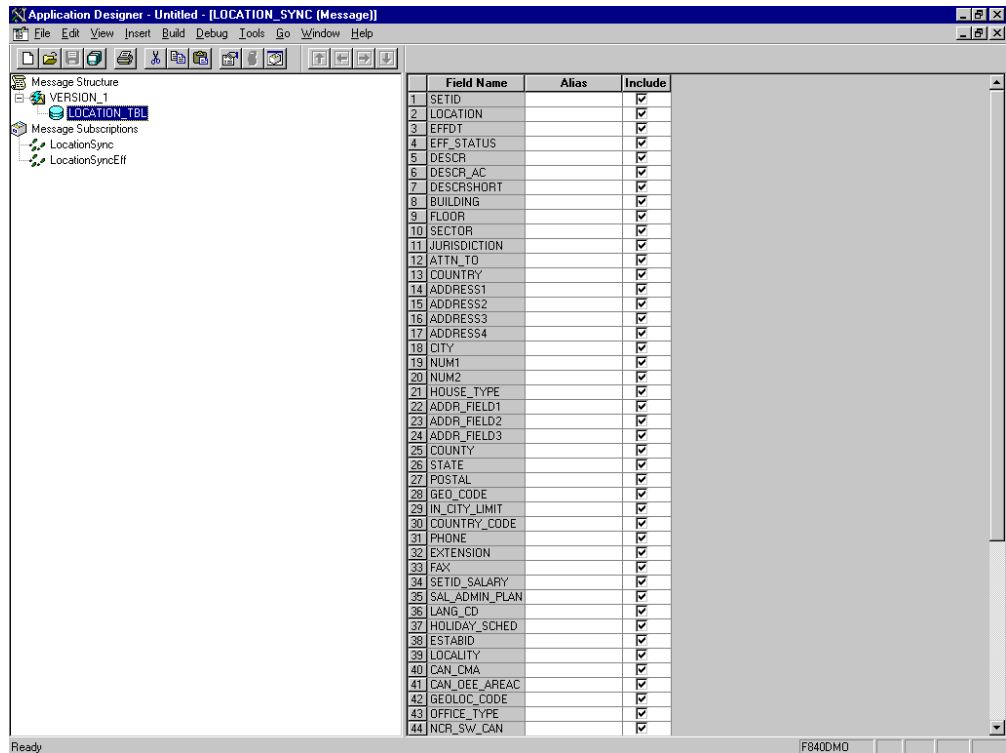


3.  To view the fields that are included in the Message, select *LOCATION_TBL*.

4.  To view the Properties dialog box, right-click *LOCATION_TBL* and select *Properties*.

The Message Properties dialog box opens as shown in the following image and includes Non-Repudiation and Status check boxes, Message Channel and Default Version lists, and Use Message Monitor Dialog and Use Page options.
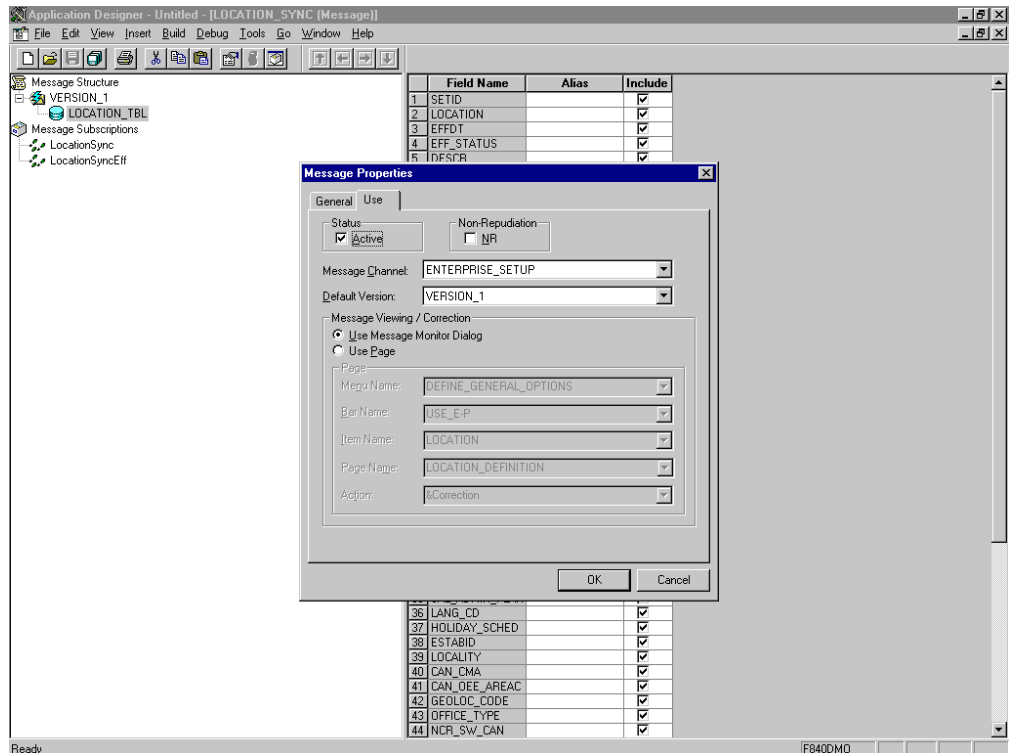


a. Select the *Use* tab.

b. Ensure the *Status* check box is selected, indicating that the message is active.

   The message is routed to the Message Channel, ENTERPRISE_SETUP, and the default message version is VERSION_1 (messages can have multiple versions).

5. Click *OK*.

6. Save the message.

You have ensured that the message is active and routed correctly.

*Procedure:* **How to Configure the IntegrationGateway.properties File**

If your web server is WebSphere, the IntegrationGateway.properties file resides in:

```
C:\websphere\AppServer\installedApps\peoplesoft\PSIGW\Web-inf\
```

**Information Builders**

To configure the IntegrationGateway.properties file:

1. Using the editor of your choice, open the *IntegrationGateway.propertie*s file.

2. Find the section of the file that specifies the JOLT connect string setting for the default application server. This is usually near line 75 and looks similar to the following:

```
## JOLT connect string setting for optional Default Application
Server. Do NOT specify a NODENAME.
#
# Example:
#ig.isc.serverURL=//MYSERVER:9000
#ig.isc.userid=MYUSERID
#ig.isc.password=MYPASSWORD
#ig.isc.toolsRel=8.40
```

3. Uncomment (or copy and uncomment) the four lines that specify the connection.

4. Enter the appropriate information.

   In the following example, the PeopleTools release is 8.40.09.

```
ig.isc.serverURL=//isdsrv14:9000
ig.isc.userid=VP1
ig.isc.password=VP1
ig.isc.toolsRel=8.40.09
```

   The PeopleSoft tools release must be precise to the last decimal.

   **Note:** With Release 8.42, the password must be stored in an encrypted format. PeopleSoft provides a script called PSCipher.bat (PSCipher.sh on Unix) to accomplish encryption. Usually, this script is located in the path of the IntegrationGateway.properties file. To run this script, follow the instructions provided by PeopleSoft.

You have finished configuring the IntegrationGateway.properties file.

*Procedure:* **How to Configure the Integration Gateway and the File Output Connector**

To configure the Integration Gateway and the File Output Connector:

1. In a web browser, open your PeopleSoft 8.4 application in 4-tier mode.

2. In the Menu pane, expand *PeopleTools*, *Integration Broker*, and then, click *Gateways*.

3. Open the *LOCAL Gateway ID* and type the following Gateway URL:

```
machine-name/PSIGW/PeopleSoftListeningConnector
```

where:

*machine-name*

> Is the URL of your PeopleSoft web server.

a.  Click *Refresh*.

> A message appears stating the outcome of the refresh process.

b.  Click *OK*.

4.  Scroll down and click *Save*.

You must click Save before continuing.

5.  Click the *Properties* hyperlink for the FILEOUTPUT Connector ID.

The Properties pane for the FILEOUTPUT Connector opens, as shown in the following image. Information for the Gateway ID and the Connector ID appears. The Properties tab is active and includes fields for the Property ID, Name, and Value. Check boxes indicating whether required and whether the value is the default also appear on the tab.
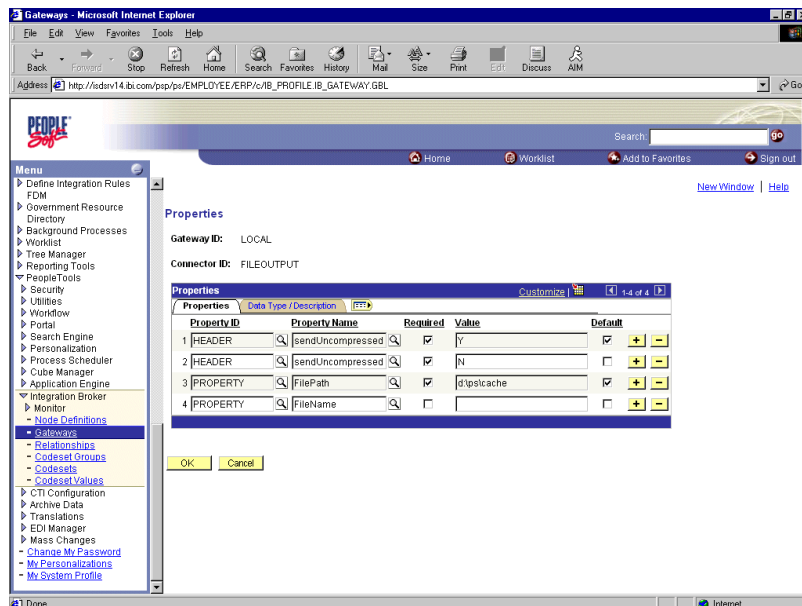


a.  Accept or overwrite the default values.

In the previous image, the FilePath PROPERTY from the c:\temp default was changed to d:\ps\cache.

b.  To return to the Gateway window, click *OK*.

6.  Scroll down and click *Save*.

You have finished configuring the Integration Gateway and the File Output Connector.

*Procedure:*   **How to Create and Configure a New Gateway Node**

To create and configure a new Gateway Node:

1.  In the Menu pane, expand *PeopleTools*, *Integration Broker*, and click *Node Definitions*.

    a.  Select the *Add a New Value* tab.

    b.  In the Node Name field, type a node name.

        It is recommended that you name your first (trial) message node EXTERNAL. After successfully configuring and sending messages using this node, you can create additional message nodes with names appropriate for your application.

2.  Click *Add*.

    The Node Info tab becomes available.

    a.  In the Description field, type an appropriate description.

    b.  From the Node Type drop-down list, select *EXTERNAL*.

    c.  From the Routing Type drop-down list, select *Implicit*.

3.  Click the *Connectors* tab to make it available.

    a.  For the Gateway ID, specify *LOCAL*.

    b.  For the Connector ID, specify *FILEOUTPUT*.

    c.  Accept or overwrite the default Gateway property values.

4.  Click *Save*.

5.  To specify the transactions to route messages to your node, select the *Transactions* tab.

6.  Click *Add Transaction*.

    a.  From the Transaction Type drop-down list, select *Outbound Asynchronous*.

    b.  In the Request Message field, specify *LOCATION_SYNC*.

    c.  In the Request Message Version field, specify *VERSION_1*.

7.  Click *Add*.

    The Transaction Detail pane opens.

    a.  In the Routing Type drop-down list, verify that the value is *Implicit*.

    b.  Click *Save*.

    c.  Click the *Return to Transaction List* hyperlink.

d. To ensure that your data entry is not lost, click *Save* again.

You have finished creating and configuring the new Gateway Node.

8. Continue with the instructions in *Viewing the PeopleCode for a Message* on page 190.

# Configuring
# Application Messaging in PeopleSoft Release 8.1

You can configure PeopleSoft 8.1 to send an asynchronous outbound message to the Simple File Handler.

To configure application messaging in PeopleSoft 8.1:

1. Create and configure a new Message Node.

2. Ensure the message is active and is routed to the proper Message Channel.

3. Configure the Message Channel.

4. Configure the Simple File Handler in the Gateway.

These tasks are described in detail in the following procedures.

*Procedure:* **How to Create and Configure a New Message Node**

To create and configure a new Message Node:

1. From the File menu, select *New* and click *Message Node*.

The Message Node window opens and contains three options: Insert Location, Find Object References, and Delete as shown in the following image.
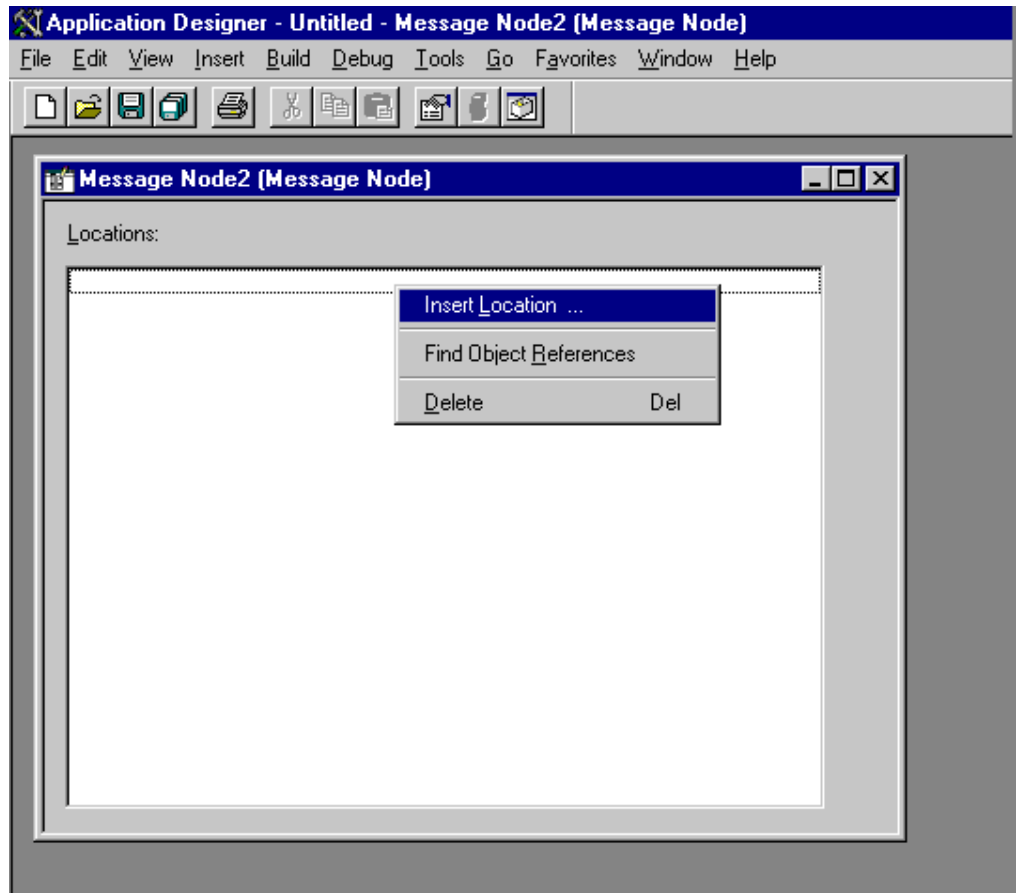


2. Right-click anywhere inside the white space and select *Insert Location*.

The Location URL box opens where you type the URL for the location as shown in the following image.
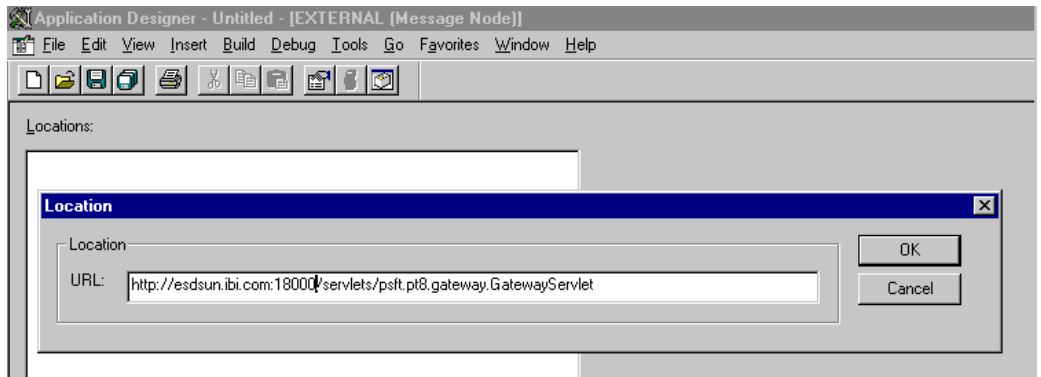


3.  Type the following URL for the PeopleSoft Application Gateway (handler directory):

    *machine-name:port*/servlets/psft.pt8.gateway.GatewayServlet

    where:

    *machine-name*

    Is the URL of your PeopleSoft web server.

    *port*

    Is the socket on which the server is listening.

    The characters you type after machine-name must be case-sensitive.

4.  Click *OK*.

The Message Node Properties dialog box opens. It contains a Local Node check box and PeopleTools Version, Application Version, Password, Re-verify Password, and Distinguished Name fields.
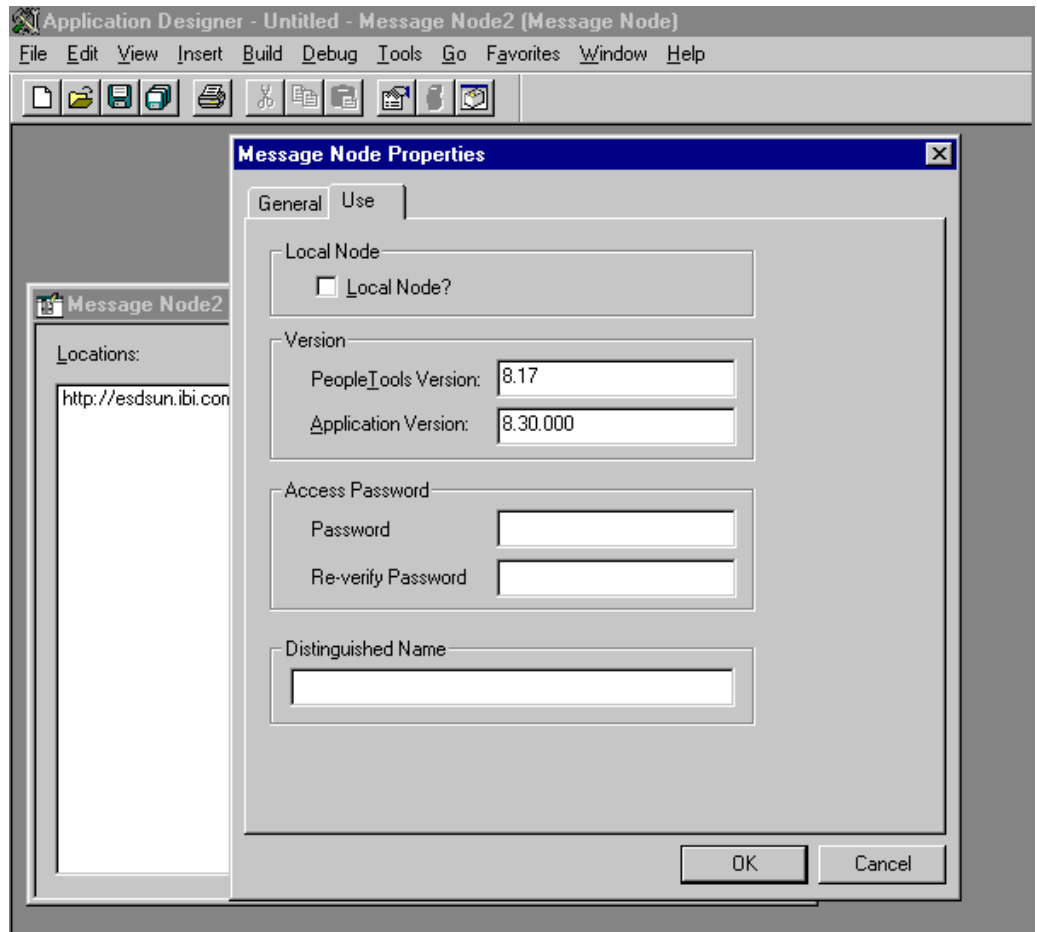


a. Select the *Use* tab.

b. In the text fields, type the PeopleTools and Application Version numbers.

5. Click *OK*.

The following image shows the Save As dialog box with a Save Name As field.
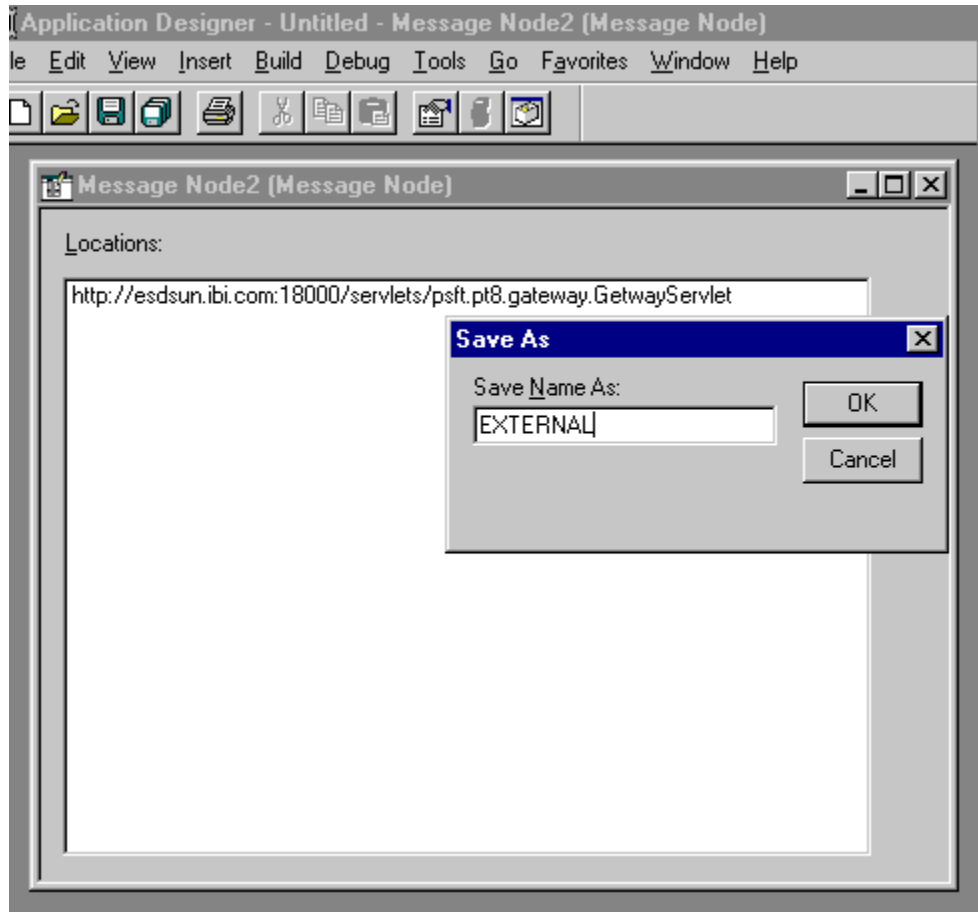


6. To save the Message Node, click *OK*.

   It is recommended that you name your first (trial) message node *EXTERNAL*. After successfully configuring and sending messages using this node, you can create additional message nodes with names appropriate for your application.

   If you intend to migrate this message node to a different PeopleSoft environment (for example, from Test to QA), you can create a PeopleSoft Project and insert the Message Node into the Project.

You have finished creating and configuring the message node.

***Procedure:*** **How to Ensure That the Message Is Active and Is Routed Correctly**

To ensure that the message is active and is routed to the proper message channel:

1. Open Application Designer.

2. On the File menu, point to *Open*, click *Message*, and open the *LOCATION_SYNC* message to view the fields that are included in the message, highlight *LOCATION_TBL*.

   The following image shows the LOCATION_TBL field, selected in the left pane. The message field names appear in a column with corresponding columns for the field alias and a check box indicating whether to include the field.
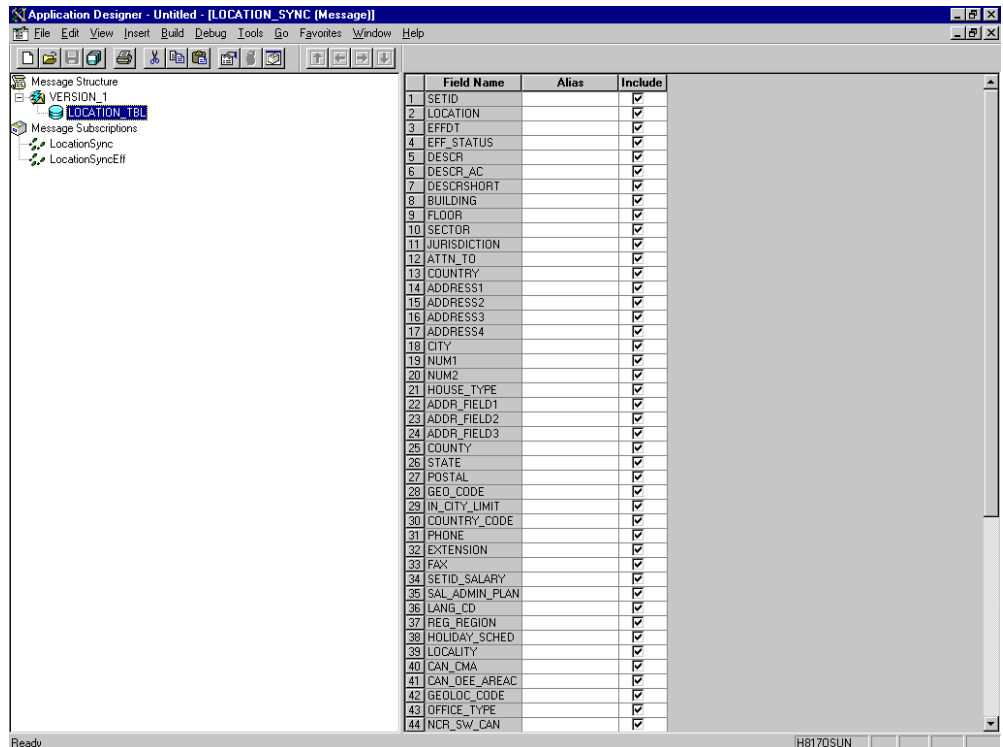


3. Right-click *LOCATION_TBL* and select *Properties*.

The Message Properties dialog box opens as shown in the following image and includes Non-Repudiation and Status check boxes, Message Channel and Default Version lists, and Use Message Monitor Dialog and Use Page options.
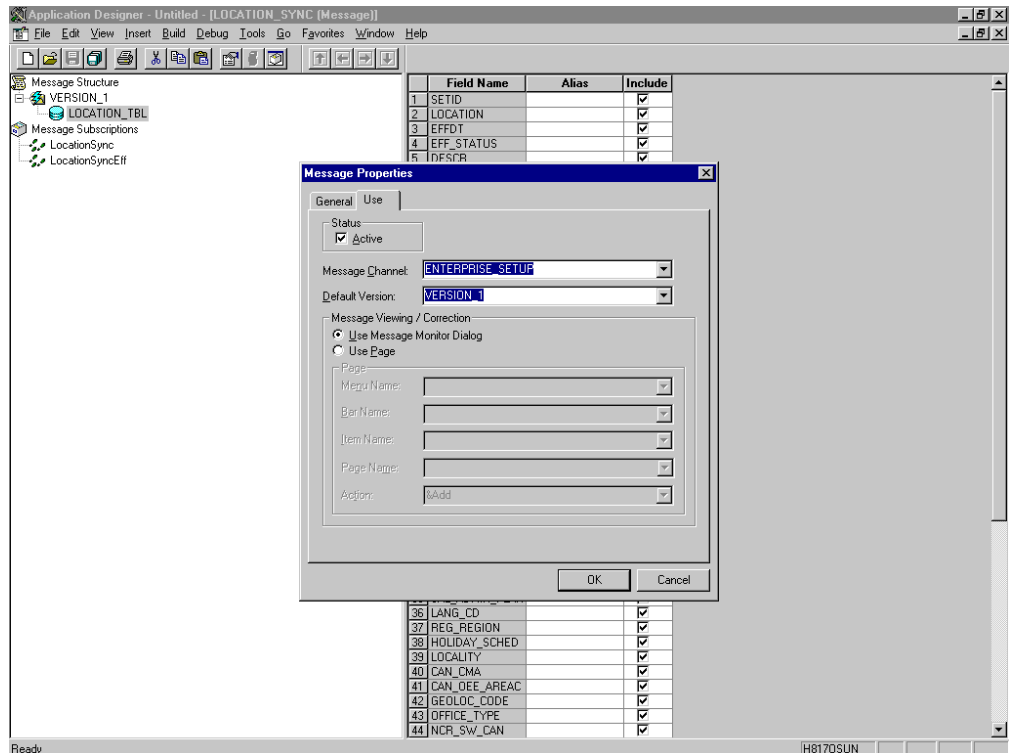


a.  Select the *Use* tab.

b.  Ensure the *Status* check box is selected, indicating that the message is active.

c.  From the Message Channel drop-down list, select *ENTERPRISE_SETUP*.

d.  From the Default Version drop-down list, select *VERSION_1* (messages can have multiple versions).

4.  Click *OK*.

5.  Save the message.

*Procedure:* **How to Configure the Message Channel**

To configure the Message Channel:

1.  Open the *ENTERPRISE_SETUP* Message Channel.

2. Right-click *ENTERPRISE_SETUP* and select *Properties*.

   The Message Channel properties dialog box opens as shown in the following image. It contains Message Channel Status and Quality of Service options and an Archive Messages? check box.
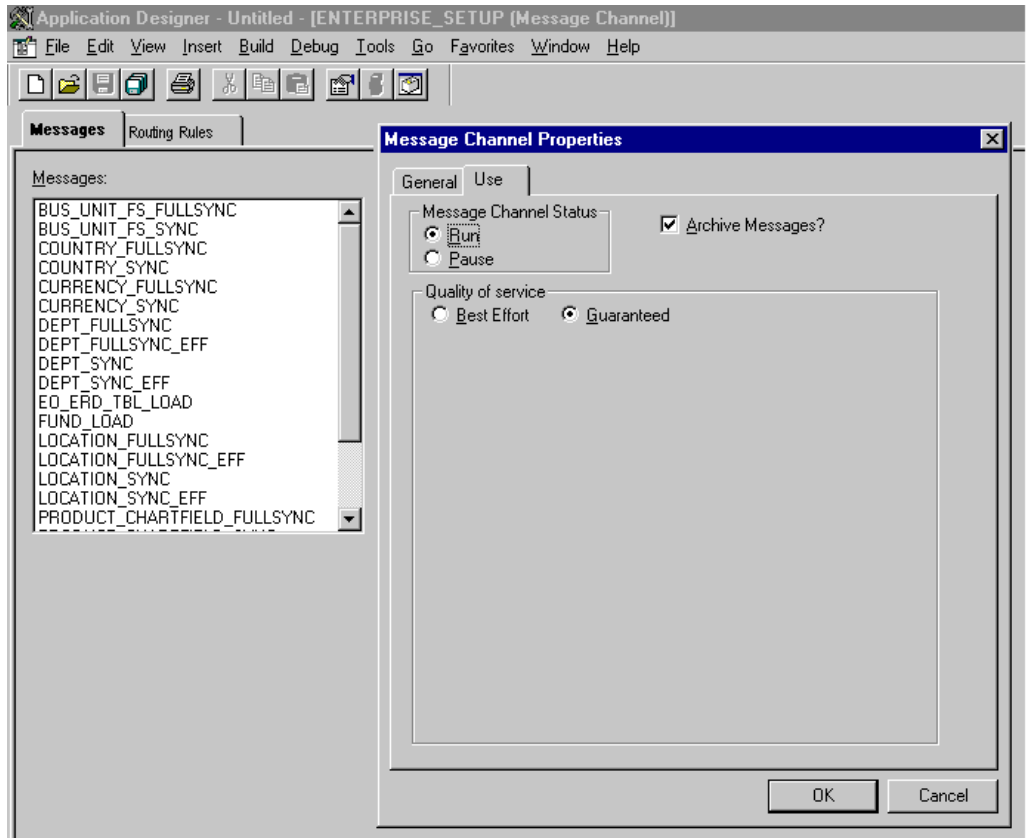


   a. Select the *Use* tab.

   b. Ensure that Message Channel status is set to *Run*.

   c. Click *OK*.

      You are returned to Application Designer.

3. From the left pane, select the *Routing Rules* tab.

4. Right-click the pane and select *Insert Message Node*.

The Insert Message Node dialog box opens, as shown in the following image with a list of objects that match the selection criteria.



a. Select the message node, for example, EXTERNAL, that you created in *How to Create and Configure a New Message Node* on page 178.

b. Click *Insert*.

5. Click *Cancel*.

You are returned to the routing Rules tab where you can select from expanding menus as shown in the following image.
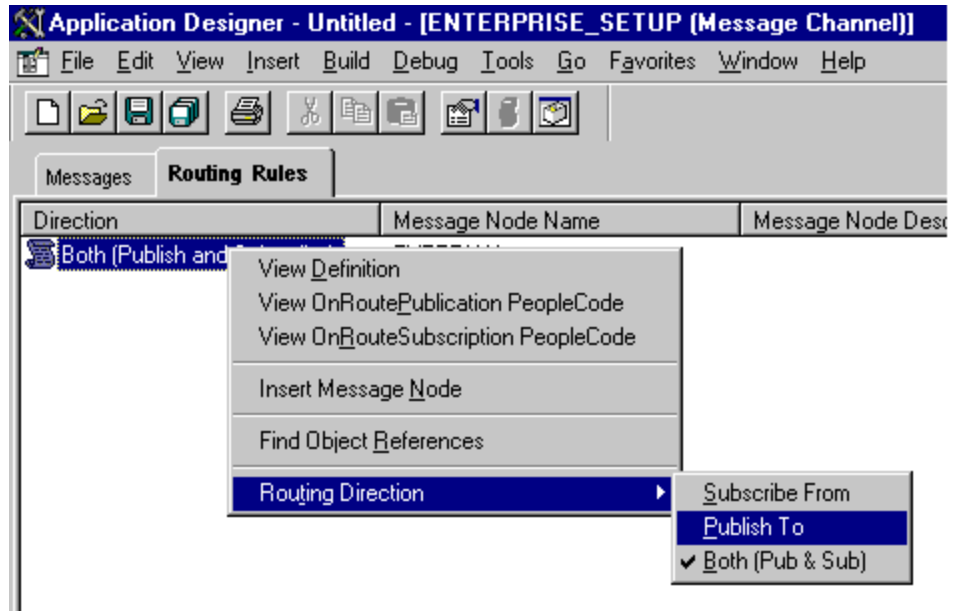


a. Right-click the message node and point to *Routing Direction*.

b. From the Routing Direction menu, select *Publish To*.

6. Save the Message Channel, and if you require it, place it in your Project.

You have finished configuring the Message Channel.

*Procedure:* **How to Configure the Simple File Handler in the Gateway**

To configure the Simple File Handler in the Gateway:

1. In a web browser, launch the PeopleSoft 8.1 configuration servlet interface (also known as the server gateway) by typing the following URL:

   `machine-name:port/servlets/gateway.administration`

   where:

   `machine-name`

   Is the name of the application server where PeopleSoft is hosted.

   `port`

   Is the port number on which the application server is listening.

The Handler Directory window opens, as shown in the following image.
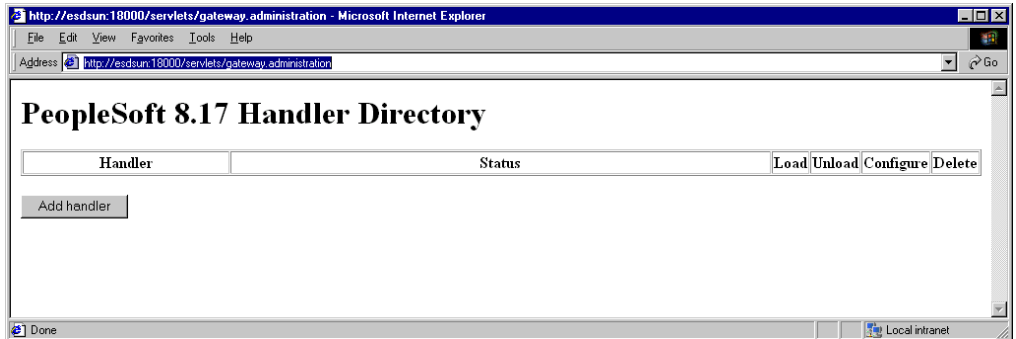


2. Click *Add handler*.

The Add Handler window opens, as shown in the following image.
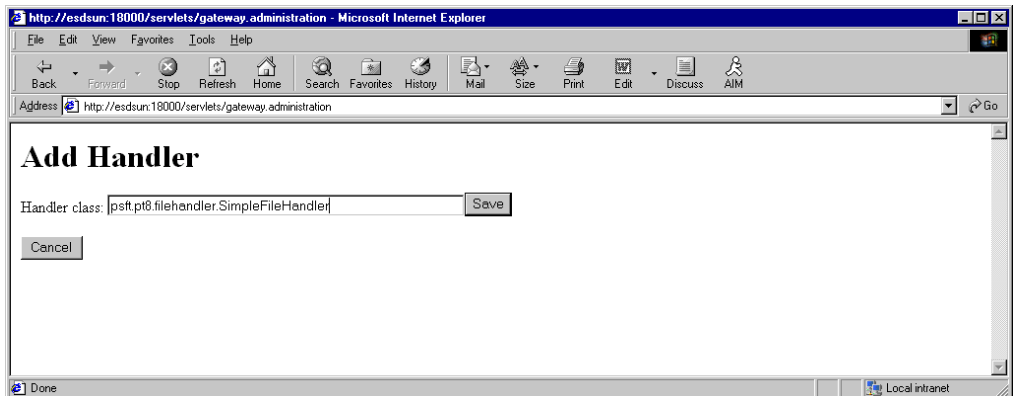


3. Type the following full name of the Simple File Handler class:

   `psft.pt8.filehandler.SimpleFileHandler`

   **Note:** The name is case-sensitive.

4. Click *Save*.

The Handler Directory window reopens, as shown in the following image.
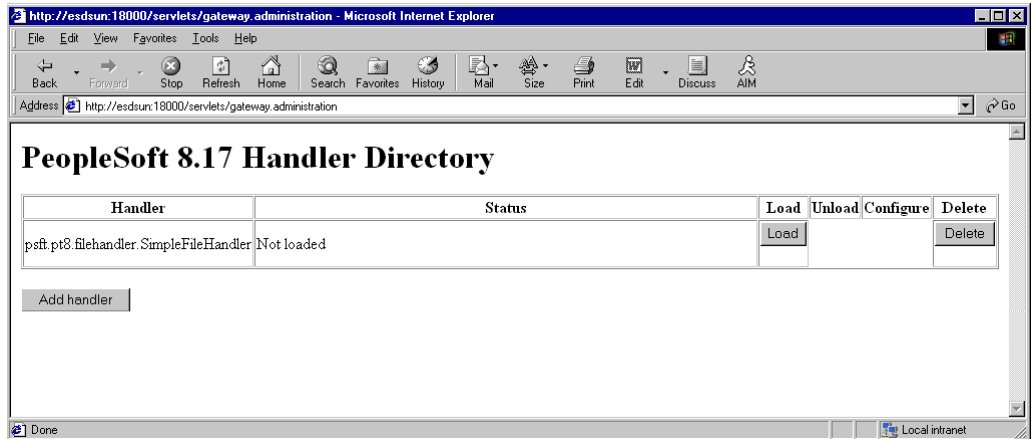


5. To load the handler, click *Load*.

   After the handler loads, "Loaded successfully" appears in the Status column.

6. Click *Configure*.

   The Simple File Handler Directory window opens, as shown in the following image.
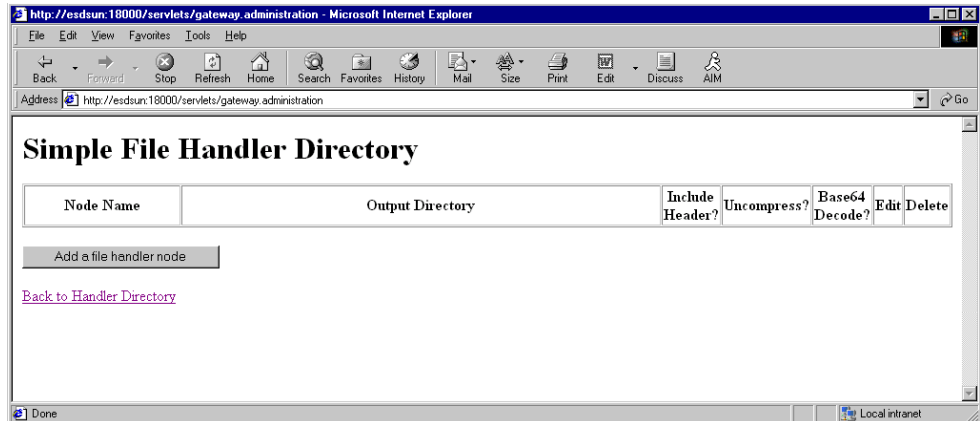


7. Click *Add a file handler node*.

The Add File Handler window opens, as shown in the following image.



a.  In the Node Name field, type the name of the Message Node, for example, EXTERNAL, that you created in *How to Create and Configure a New Message Node* on page 178.

b.  Select an output directory appropriate for your server environment.

    The example illustrated in the previous image runs under UNIX. The default directory under Windows NT is c:\\temp\\file. (The double slashes may not be required for your environment.)

c.  Select the desired output file properties.

8.  Click *Save*.

You have finished configuring the Simple File Handler.

## Viewing the PeopleCode for a Message

Messages are initiated by the PeopleCode that is attached to a record. Usually, this record is one of the records associated with the message itself.

### *Procedure:* How to View the PeopleCode for a Message

To view the PeopleCode for a message:

1.  Open Application Designer.

The following image shows an open Application Designer which contains a list of field names with their corresponding types and other information.



2. Select the *Record Fields* tab.

   a. Select the *LOCATION_TBL* record.

   b. Select the PeopleCode display option.

3. Select the *Save Post Change (SPo)* box for the LOCATION field.

The PeopleCode that initiates a LOCATION_SYNC message appears, as shown in the following image.
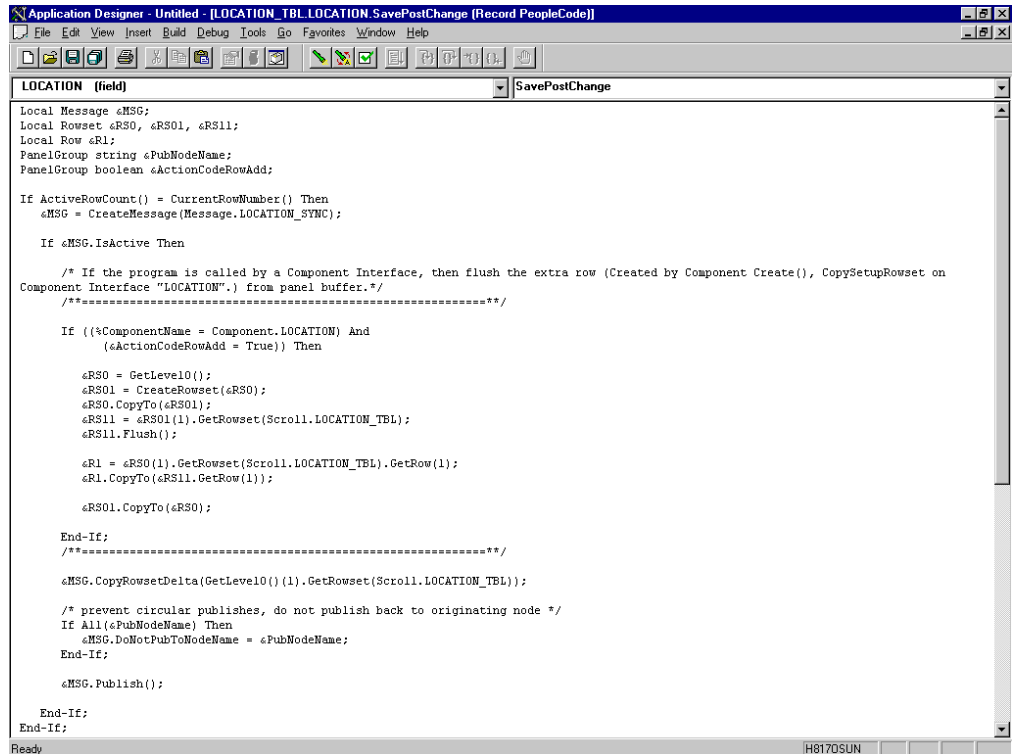


For more information about PeopleCode, consult your PeopleSoft Online Library.

You have viewed the PeopleCode for a message. You can now test Integration Broker (in PeopleSoft 8.4) or Application Messaging (in PeopleSoft 8.1).

## Testing the Integration Broker

To test the Integration Broker by generating a message, you can navigate to the Location Transaction window and add, update, or delete a location entry in your application. Depending on your application, the way you navigate varies.

The following image shows a Financials 8.4 application with the Location Definition tab selected. A new location with a SetID of SHARE and a Location Code of TEST001 was added.

The following image shows a portion of the XML output from a test message.
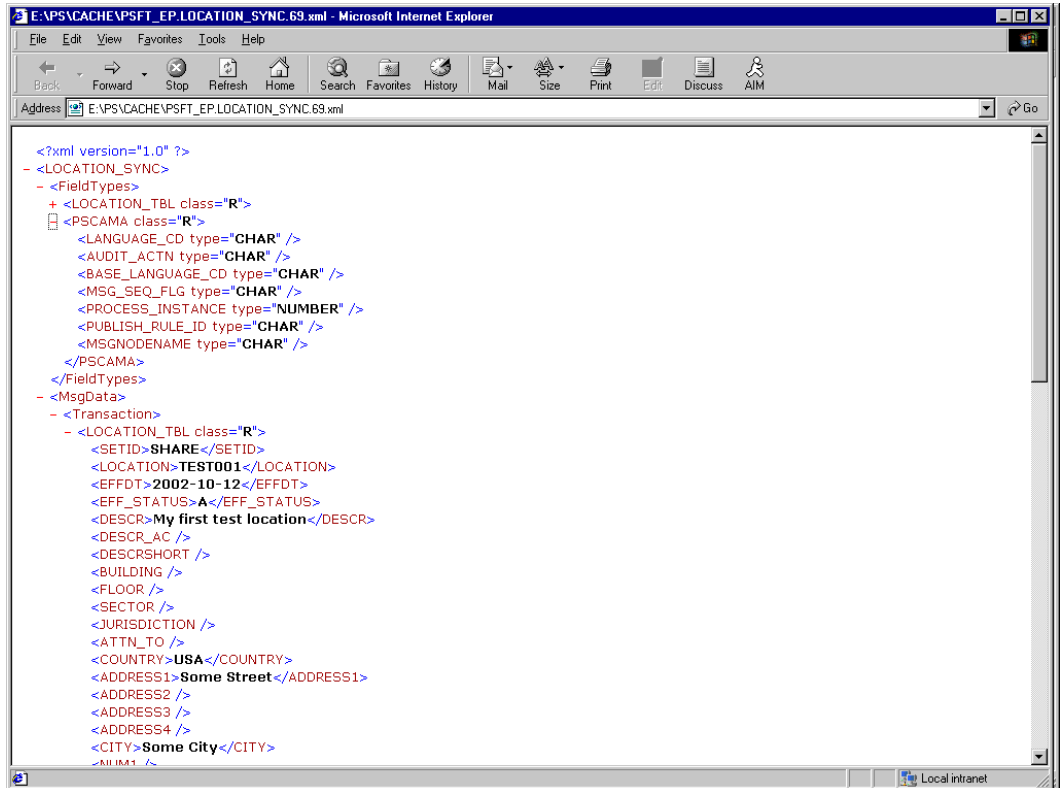


**Note:** The name of the file is PSFT_EP.LOCATION_SYNC.69.xml, which is the concatenation of PSFT_EP (the local Publishing Node), the name of the message, and the number of the Publication ID.

If you cannot send a message successfully, PeopleSoft provides a set of tools for monitoring the progress of your messages. In Release 8.1, you use a tool called the Application Messaging Monitor. In Release 8.4, you use the Monitor menu in the Integration Broker.

For a complete description on how to isolate and resolve problems with your messaging environment, consult you PeopleSoft Online Library. If you still cannot send your XML file, the PeopleSoft Customer Connection can help solve your problem.

# Using Outbound Synchronous Messages

Starting with PeopleTools 8.4, you can send outbound synchronous messages. From a high-level point of view, the primary difference between outbound synchronous and asynchronous is that with outbound asynchronous, the transaction is completed whether or not the message is actually sent or received.

For synchronous outbound messages:

❑ The transaction must wait for a response from the external system before continuing.

❑ The transaction must process the response message.

❑ The external system must ensure that the response message is correctly formatted.

You can use an existing node, or you can create a new node to configure outbound synchronous messages. For information on creating and configuring a node, see *How to Create and Configure a New Gateway Node* on page 177. In either case, you must configure your outbound synchronous transaction.

The iWay Application Adapter for PeopleSoft can work with PeopleSoft outbound synchronous messages. Outbound synchronous messages involve additional configuration steps, both within PeopleSoft and in your application server.

**Note:** The instructions in this topic build upon the instructions for outbound asynchronous messages. It is strongly recommended that you familiarize yourself with outbound asynchronous messaging before attempting outbound synchronous. For more information on outbound asynchronous messages, see *Configuring Integration Broker in PeopleSoft Release 8.4 (PeopleTools Releases 8.40 - 8.47)* on page 172.

Ensure that both outbound and inbound messages are created and active. PeopleSoft provides template examples called IB_INST_VER_SYNC_MSG and IB_INST_VER_RESP_MSG. For information on examining these messages, see *How to Ensure the Message Is Active and Is Routed Correctly* on page 172.

*Example:* **Configuring an Outbound Synchronous Message**

The following example uses a node and transaction delivered by PeopleSoft. However, this example is for illustrative purposes only and does not work as delivered without additional steps. As of Financials Release 8.42, there are no pre-configured outbound synchronous transactions that you can use for testing purposes.

1. Navigate to the *Node Definitions* page and open the *PT_LOCAL* node.

2. Click the *Transactions* tab.

   The Transactions pane opens where you can edit transaction types and request messages as shown in the following image.
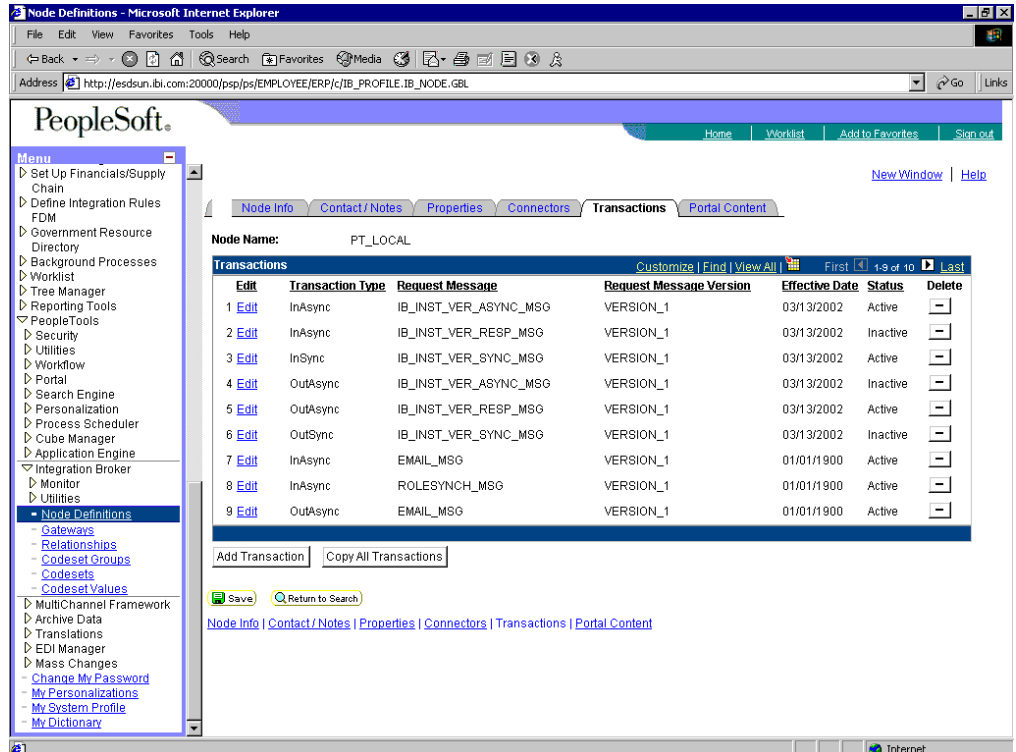


   One outbound synchronous message, IB_INST_VER_SYNC_MSG, appears in the Transaction Type list.

3. In the IB_INST_VER_SYNC_MSG row, click the *Edit* hyperlink.

The Transaction Detail and Messages tabs become available, as shown in the following image.
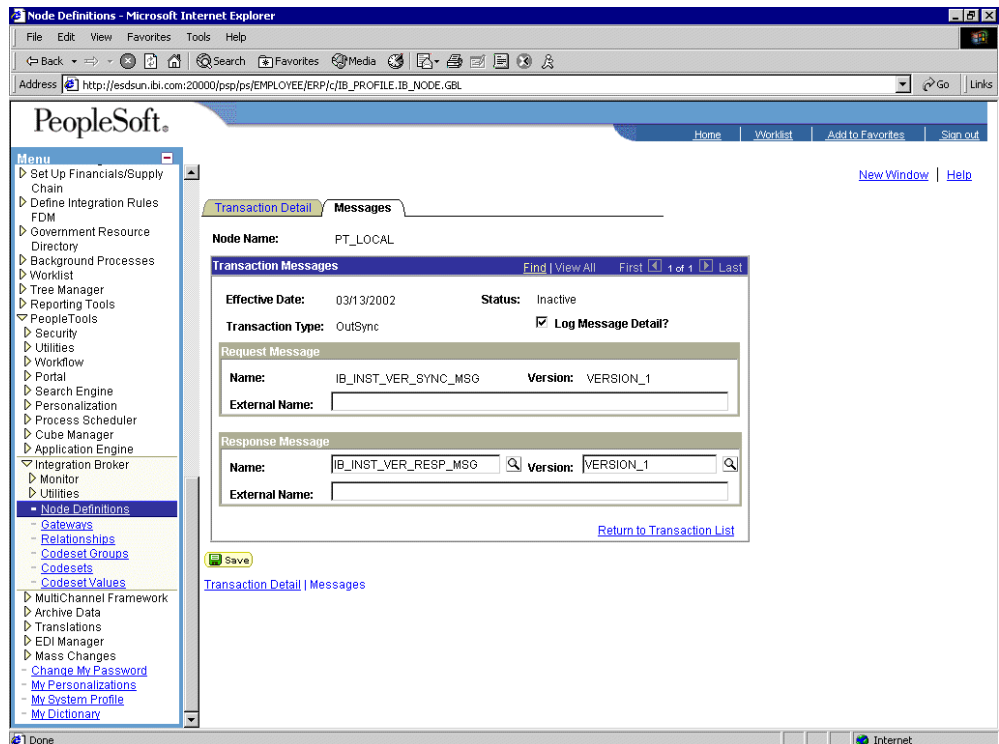


4. Click the *Messages* tab.

   Request and response messages appear. The target system must ensure that the response message follows the format of the request message. As the target system is your application server, you must transform the XML that is sent and returned from your final destination.

   **Note:** You must use the PeopleSoft-supplied HTTP target connector when you are working with synchronous outbound messages. You cannot use the TCPIP84TARGET connector for outbound synchronous messages.

*Example:*   **Viewing the PeopleCode for a Financials Synchronous Outbound Message**

   The sample PeopleCode in the following example is for a synchronous outbound message. It differs from asynchronous outbound in that it must handle a response message.

The following sample code is supplied with the Financials application and is associated with the two messages IB_INST_VER_SYNC_MSG and IB_INST_VER_RESP_MSG.

To view the PeopleCode:

1. From iWay Explorer, open the *PSINST_VER* record.

2. Select the *PeopleCode* display option.

3. Select the *Field Change (FCh)* box for the IB_SEND_SOS_BTN field.

   The following code appears as shown in the following image.
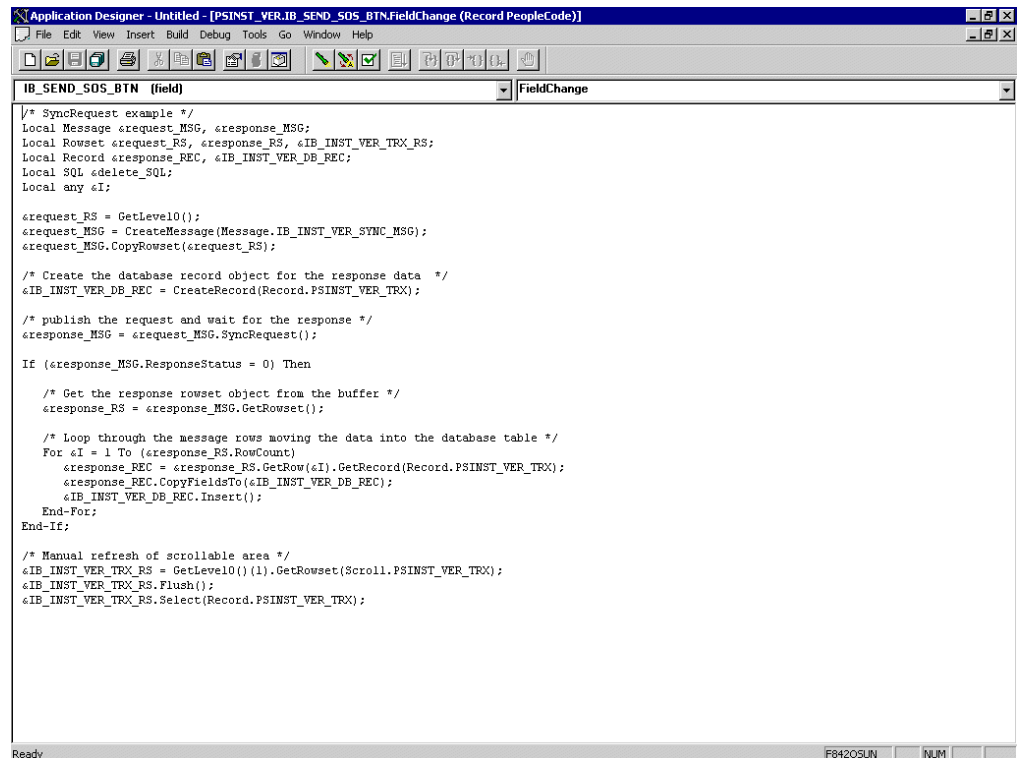
# PeopleTools Upgrade Considerations

This section provides upgrade considerations for PeopleTools.

**In this appendix:**

❏ Upgrading PeopleTools

## Upgrading PeopleTools

Ensure that the steps in this section are followed when upgrading PeopleTools.

*Procedure:* **How to Upgrade PeopleTools**

1. If you are upgrading from PeopleTools version 8.1 to version 8.4, then you must first refer to *Specifying the Version of PeopleSoft* on page 29 before proceeding.

2. Ensure that the Component Interfaces delivered through iWay are available in the new version of PeopleTools.

   If you are migrating from an older version of PeopleTools to a newer PeopleTools version, then PeopleSoft should automatically migrate them. Otherwise, you will have to reinstall the Component Interfaces that are delivered through iWay. For more information, see *Installing the Application Adapter for PeopleSoft Component Interfaces* on page 30.

3. Perform one of the following steps If you have installed the TCP/IP handler that is delivered through iWay in the current production version of PeopleTools:

   a. If the current PeopleTools version is 8.1 and if you are migrating to version 8.4, then iWay recommend that you use the HTTP connector that is delivered through PeopleSoft. For more information, see *Using PeopleSoft 8 Integration Broker* on page 157.

   b. If your current PeopleTools version is 8.4 and if you are using the TCP/IP handler, then iWay recommends that you use the HTTP connector that is delivered through PeopleSoft. For more information, see *Using PeopleSoft 8 Integration Broker* on page 157.

4. If you are using the PeopleSoft Integration Broker to publish messages to iWay Application Adapter for PeopleSoft, then refer to the PeopleTools release notes and user documentation for changes in the functionality of PeopleSoft Integration Broker.

5. Perform the following steps in the \lib subfolder where iWay Service Manager (iSM) is installed:

   a. Stop iSM.

   b. Create a backup of the current psjoa.jar and Component Interface API .jar files and then delete these files.

   c. Copy the new psjoa.jar and Component Interface API .jar files.

   For more information, see *Generating Component Interface APIs* on page 47.

   d. Start iSM.

6. Using iWay Explorer, change the connection parameters for any existing iWay Application Adapter for PeopleSoft targets and channels.

   **Note:** Existing adapter targets and channels will contain the old PeopleSoft server (old PeopleTools) information and must be changed to reflect the new version of PeopleSoft server (new PeopleTools).

7. If you are planning to create a new adapter target and channel, then your existing process flows and other processes must be changed to use the new adapter targets and channels.

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