

PeopleSoft®

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Testing Utilities and Tools

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Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Testing Utilities and Tools

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About This PeopleBook

PeopleBooks provide you with the information that you need to implement and use PeopleSoft applications.

This preface discusses:

- PeopleSoft application prerequisites.
- PeopleSoft application fundamentals.
- Related documentation.
- Typographical conventions and visual cues.
- Comments and suggestions.
- Common elements in PeopleBooks.

Note. PeopleBooks document only page elements that require additional explanation. If a page element is not documented with the process or task in which it is used, then either it requires no additional explanation or it is documented with common elements for the section, chapter, PeopleBook, or product line. Elements that are common to all PeopleSoft applications are defined in this preface.

PeopleSoft Application Prerequisites

To benefit fully from the information that is covered in these books, you should have a basic understanding of how to use PeopleSoft applications.

See *Enterprise PeopleTools 8.45 PeopleBook: Using PeopleSoft Applications*.

You might also want to complete at least one PeopleSoft introductory training course.

You should be familiar with navigating the system and adding, updating, and deleting information by using PeopleSoft windows, menus, and pages. You should also be comfortable using the World Wide Web and the Microsoft Windows or Windows NT graphical user interface.

These books do not review navigation and other basics. They present the information that you need to use the system and implement your PeopleSoft applications most effectively.

PeopleSoft Application Fundamentals

Each application PeopleBook provides implementation and processing information for your PeopleSoft database. However, additional, essential information describing the setup and design of your system appears in a companion volume of documentation called the application fundamentals PeopleBook. Each PeopleSoft product line has its own version of this documentation.

The application fundamentals PeopleBook consists of important topics that apply to many or all PeopleSoft applications across a product line. Whether you are implementing a single application, some combination of applications within the product line, or the entire product line, you should be familiar with the contents of this central PeopleBook. It is the starting point for fundamentals, such as setting up control tables and administering security.

Related Documentation

This section discusses how to:

- Obtain documentation updates.
- Order printed documentation.

Obtaining Documentation Updates

You can find updates and additional documentation for this release, as well as previous releases, on the PeopleSoft Customer Connection website. Through the Documentation section of PeopleSoft Customer Connection, you can download files to add to your PeopleBook Library. You'll find a variety of useful and timely materials, including updates to the full PeopleSoft documentation that is delivered on your PeopleBooks CD-ROM.

Important! Before you upgrade, you must check PeopleSoft Customer Connection for updates to the upgrade instructions. PeopleSoft continually posts updates as the upgrade process is refined.

See Also

PeopleSoft Customer Connection, <https://www.peoplesoft.com/corp/en/login.jsp>

Ordering Printed Documentation

You can order printed, bound volumes of the complete PeopleSoft documentation that is delivered on your PeopleBooks CD-ROM. PeopleSoft makes printed documentation available for each major release shortly after the software is shipped. Customers and partners can order printed PeopleSoft documentation by using any of these methods:

- Web
- Telephone
- Email

Web

From the Documentation section of the PeopleSoft Customer Connection website, access the PeopleBooks Press website under the Ordering PeopleBooks topic. The PeopleBooks Press website is a joint venture between PeopleSoft and MMA Partners, the book print vendor. Use a credit card, money order, cashier's check, or purchase order to place your order.

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Contact MMA Partners at 877 588 2525.

Email

Send email to MMA Partners at peoplesoftpress@mmapartner.com.

See Also

PeopleSoft Customer Connection, <https://www.peoplesoft.com/corp/en/login.jsp>

Typographical Conventions and Visual Cues

This section discusses:

- Typographical conventions.
- Visual cues.
- Country, region, and industry identifiers.
- Currency codes.

Typographical Conventions

This table contains the typographical conventions that are used in PeopleBooks:

Typographical Convention or Visual Cue	Description
Bold	Indicates PeopleCode function names, method names, language constructs, and PeopleCode reserved words that must be included literally in the function call.
<i>Italics</i>	Indicates field values, emphasis, and PeopleSoft or other book-length publication titles. In PeopleCode syntax, italic items are placeholders for arguments that your program must supply. We also use italics when we refer to words as words or letters as letters, as in the following: Enter the letter <i>O</i> .
KEY+KEY	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For ALT+W, hold down the ALT key while you press the W key.
Monospace font	Indicates a PeopleCode program or other code example.
“ ” (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meanings.
. . . (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe ().

Typographical Convention or Visual Cue	Description
[] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	<p>When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object.</p> <p>Ampersands also precede all PeopleCode variables.</p>

Visual Cues

PeopleBooks contain the following visual cues.

Notes

Notes indicate information that you should pay particular attention to as you work with the PeopleSoft system.

Note. Example of a note.

If the note is preceded by *Important!*, the note is crucial and includes information that concerns what you must do for the system to function properly.

Important! Example of an important note.

Warnings

Warnings indicate crucial configuration considerations. Pay close attention to warning messages.

Warning! Example of a warning.

Cross-References

PeopleBooks provide cross-references either under the heading “See Also” or on a separate line preceded by the word *See*. Cross-references lead to other documentation that is pertinent to the immediately preceding documentation.

Country, Region, and Industry Identifiers

Information that applies only to a specific country, region, or industry is preceded by a standard identifier in parentheses. This identifier typically appears at the beginning of a section heading, but it may also appear at the beginning of a note or other text.

Example of a country-specific heading: “(FRA) Hiring an Employee”

Example of a region-specific heading: “(Latin America) Setting Up Depreciation”

Country Identifiers

Countries are identified with the International Organization for Standardization (ISO) country code.

See *About These PeopleBooks*, “ISO Country and Currency Codes,” ISO Country Codes.

Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in PeopleBooks:

- Asia Pacific
- Europe
- Latin America
- North America

Industry Identifiers

Industries are identified by the industry name or by an abbreviation for that industry. The following industry identifiers may appear in PeopleBooks:

- USF (U.S. Federal)
- E&G (Education and Government)

Currency Codes

Monetary amounts are identified by the ISO currency code.

See Appendix B, “ISO Country and Currency Codes,” ISO Currency Codes.

Comments and Suggestions

Your comments are important to us. We encourage you to tell us what you like, or what you would like to see changed about PeopleBooks and other PeopleSoft reference and training materials. Please send your suggestions to:

PeopleSoft Product Documentation Manager PeopleSoft, Inc. 4460 Hacienda Drive Pleasanton, CA 94588

Or send email comments to doc@peoplesoft.com.

While we cannot guarantee to answer every email message, we will pay careful attention to your comments and suggestions.

Common Elements in These PeopleBooks

As of Date	The last date for which a report or process includes data.
Business Unit	An ID that represents a high-level organization of business information. You can use a business unit to define regional or departmental units within a larger organization.
Description	Enter up to 30 characters of text.
Effective Date	The date on which a table row becomes effective; the date that an action begins. For example, to close out a ledger on June 30, the effective date for the ledger closing would be July 1. This date also determines when

you can view and change the information. Pages or panels and batch processes that use the information use the current row.

Once, Always, and Don't Run

Select Once to run the request the next time the batch process runs. After the batch process runs, the process frequency is automatically set to Don't Run.

Select Always to run the request every time the batch process runs.

Select Don't Run to ignore the request when the batch process runs.

Report Manager

Click to access the Report List page, where you can view report content, check the status of a report, and see content detail messages (which show you a description of the report and the distribution list).

Process Monitor

Click to access the Process List page, where you can view the status of submitted process requests.

Run

Click to access the Process Scheduler request page, where you can specify the location where a process or job runs and the process output format.

Request ID

An ID that represents a set of selection criteria for a report or process.

User ID

An ID that represents the person who generates a transaction.

SetID

An ID that represents a set of control table information, or TableSets. TableSets enable you to share control table information and processing options among business units. The goal is to minimize redundant data and system maintenance tasks. When you assign a setID to a record group in a business unit, you indicate that all of the tables in the record group are shared between that business unit and any other business unit that also assigns that setID to that record group. For example, you can define a group of common job codes that are shared between several business units. Each business unit that shares the job codes is assigned the same setID for that record group.

Short Description

Enter up to 15 characters of text.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler

Enterprise PeopleTools 8.45 PeopleBook: Using PeopleSoft Applications

PeopleSoft Integration Testing Utilities and Tools Preface

This preface provides a general overview of the contents discussed in the Integration Testing Utilities and Tools PeopleBook.

Integration Testing Utilities and Tools

This PeopleBook describes how to use the Send Master utility, the Simple Post utility, the EIP test automation tools, and the Transformation Test utility. These tools and utilities are delivered with PeopleTools and are frequently used in conjunction with PeopleSoft Integration Broker.

CHAPTER 1

Getting Started with PeopleSoft Integration Testing Utilities and Tools

This chapter discusses implementing utilities and tools for testing integrations.

PeopleSoft Integration Testing Utilities and Tools Overview

This PeopleBook describes the following integration testing utilities and tools:

Send Master utility

The Send Master utility enables you to test PeopleSoft Integration Broker messaging interactions with PeopleSoft and third-party web servers, application servers, and integration gateways. It can test listening connector functionality, target connector functionality, connector introspection and transactions.

Send Master enables you to post any data format, including the PeopleSoft MIME message format, to web and application servers over HTTP(S). You can also use Send Master to simultaneously test groups of different types of messages, as well as stress test your system.

Send Master also enables you to perform Get functions and ping application messaging gateways and third-party servers.

Simple Post utility

The Simple Post utility enables you to use shell scripts or a Java API to post XML messages from third-party systems to the integration gateway. The utility wraps the incoming messages in the PeopleSoft XML wrapper format and posts them to the HTTP listening connector.

The Simple Post utility reads ASCII, UTF-8 and UTF-16 file formats for incoming messages and converts them to UTF-8 to send to the integration gateway.

EIP test automation tools

PeopleSoft provides a means for automated enterprise integration point (EIP) testing. You can perform automated EIP testing as a means to unit test, perform cross-application business process testing, or regression test EIPs.

Automated EIP testing is suitable for testing EIPs between PeopleSoft systems, PeopleSoft systems and third-party systems, and PeopleSoft systems and open interfaces.

You can use automated EIP testing with the following PeopleSoft integration technologies:

- Messaging, including asynchronous and synchronous publishing and subscribing.
- Component interfaces.

- Flat files.
- Staging tables.

Transformation Test utility PeopleSoft Integration Broker provides the Transform Test utility that you can use to test Application Engine transform programs without actually sending a message, and with minimal development effort.

See Also

PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker

Implementing PeopleSoft Integration Testing Utilities and Tools

The utilities and tools discussed in this PeopleBook are automatically installed with PeopleTools.

In the planning phase of your implementation, take advantage of all PeopleSoft sources of information, including the installation guides, release notes, and PeopleBooks, including the *PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker*.

Moreover, review the information provided in this section for additional requirements, prerequisites and considerations.

Implementing the Send Master Utility

To use the Send Master utility you should have an basic understanding PeopleSoft Integration Broker fundamentals, including:

- Integration Gateway functionality.
- Target and listening connectors.
- Integration messaging formats, including:
 - Extensible Markup Language (XML)
 - Multipurpose Internet Mail Extensions (MIME)

Prior to using the Send Master utility verify that the following are set up:

- Integration Gateway, including security and logging settings.
- Integration meta data, including:
 - Messages
 - Nodes
 - Transactions

Implementing the Simple Post Utility

To use the Simple Post utility, you should have an understanding of the same Integration Broker fundamentals described in the previous section, Implementing the Send Master Utility. You should also verify that the Integration Gateway is set up, as well as integration meta data.

Implementing EIP Test Automation Tools

Before using the EIP test automation tools:

- Identify the integrations you want to test.
- If testing HTTPS:
 - Set up a certificate repository.
 - Set up server-side certificates.
 - Set up external remote nodes.

Implementing the Transformation Test Utility

PeopleSoft provides a sample project called PT_IBTRANSFORM_TEST that you can use to run a sample test using the utility. You can also use the utility to test transformation programs that you have developed.

Other Sources of Information

In addition to implementation considerations presented in this section, take advantage of all PeopleSoft sources of information, including the installation guides, release notes, PeopleBooks and curriculum.

See Also

[“PeopleSoft Integration Testing Utilities and Tools Preface,” page xv](#)

Enterprise PeopleTools 8.45 PeopleBook: Getting Started with Enterprise PeopleTools

CHAPTER 2

Using the Send Master Utility

This chapter discusses the Send Master utility and describes how to:

- Start Send Master.
- Navigate in Send Master.
- Set display preferences.
- Set HTTP proxy and keystore options.
- Create Send Master projects.
- Add input files to projects.
- Enter HTTP, connector and IBInfo header information into projects.
- Use input file projects.
- Use Integration Broker projects.
- Use EIP Test (Batch EIP) projects.
- Use MQSeries projects.
- Work with groups of projects.
- Ping remote nodes.
- View processing performance statistics.
- Export request messages for viewing.
- Allocate additional memory to accommodate posting large files.

Understanding Send Master

The Send Master utility enables you to test PeopleSoft Integration Broker messaging interactions with PeopleSoft and third-party web servers, application servers, and integration gateways. It can test listening connector functionality, target connector functionality, connector introspection and transactions.

Send Master enables you to post any data format, including the PeopleSoft MIME message format, to web and application servers over HTTP(S). You can also use Send Master to simultaneously test groups of different types of messages, as well as stress test your system.

Send Master also enables you to perform Get functions and ping application messaging gateways and third-party servers.

Starting Send Master

Send Master is installed with the PeopleSoft Pure Internet Architecture on Windows and UNIX systems and is delivered as part of the Integration Broker Connector SDK.

Send Master is also delivered as a Windows stand-alone batch file. The stand alone version enables you to use the utility without having to install an integration gateway.

Starting Send Master from the Integration Broker SDK

The location of Send Master in the Integration Broker SDK is <PS_HOME>\webserv\<DOMAIN>.

The name of the Send Master startup script on Windows is StartSendMaster.bat; the name of the script on UNIX is StartSendMaster.sh.

Starting the Stand-Alone Version of Send Master

The standalone version of Send Master is located in the <PS_HOME>\Sendmaster folder and is named StartSendMaster.bat. If you attempt to launch the batch file and Send Master does not open, you most likely need to set PS_HOME in the environment variables on your machine.

To set PS_HOME in the environment variables:

1. Close any DOS windows that might be open.
2. Right-click My Computer and click Properties. The System Properties dialog displays.
3. Click the Advanced tab.
4. In the Environment Variables section, click Environment Variables.
5. In the User variables for <user name> section, click New. A New User Variable dialog box displays.
6. In the Variable Name field enter *PS_HOME*.
7. In the Variable Value field, enter the path to your <PS_HOME> directory (for example, c:\PT845).
8. Click OK. The PS_HOME variable name and value appears in the User variables for <user name> section.
9. Click OK again and navigate to the stand alone version of Send Master and double-click the StartSendMaster.bat file.

Navigating in Send Master

Send Master features drop-down menus that you use to create, save and delete projects, and to change your user and display preferences. It also features Project and Batch Processing workspaces where you specify project parameters, view output and so on.

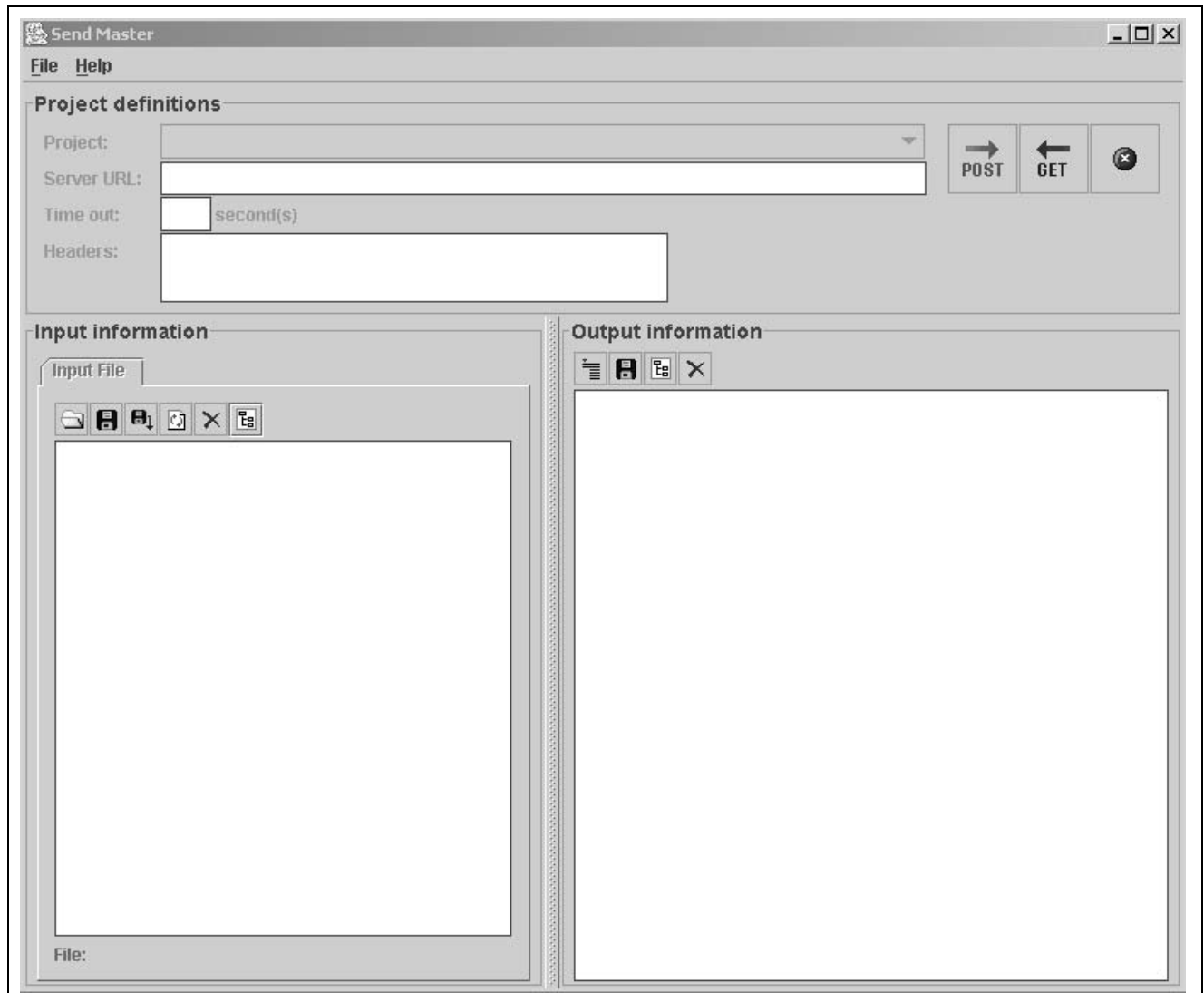
Using Send Master Menus

Send Master features two menus.

Menu	Menu Option	Shortcut	Action
File	New Project	ALT + N	Creates a new projects.
File	Save Project	ALT + S	Saves the current project.
File	Delete Project	ALT + D	Deletes the current project.
File	Batch Processing	ALT + B	Opens the Batch Processing workspace.
File	Preferences	ALT + P	Opens the Preferences dialog box used to: <ul style="list-style-type: none"> • change user preferences, • Specify proxy and keystore information. • Specify the output directory and preferences for batch processing output.
File	Export IRequest	ALT + E	Exports a message request to a file.
File	Exit	CTRL + E	Closes Send Master.
Help	About Send Master...	None	Displays Send Master version information.

Using the Project Workspace

When you open Send Master, the Project workspace displays. You use the Project workspace to define, modify and test a Send Master project.



Project workspace

The Send Master Project workspace features the Project Definitions section, the Input Information section and the Output Information section. No fields or buttons are enabled until you define or select a project.

Project Definition Section

The Project Definition section is the area where you add and define a new Send Master project. The information you specify in this section includes the web server URL where you POST or GET messages.

Input Information Section

Depending on the type of task you are performing with Send Master, the Input Information section enables you to create and format MIME messages, as well as specify input files, destination nodes and more.

You need to know the message format that the connectors, application servers, and so forth are expecting and incorporate the appropriate tags and components into the message body. For example, to communicate with PeopleSoft systems, you must specify the message name and requesting node.

This section features a toolbar with the following buttons:



Click the Open File button to open an existing file and display it in the Input Information area.



Click the Save File button to save the contents displayed in the Input Information area, using a filename and location that you specify.



Click the Save File As button to save the currently displayed file, using another name and/or location that you specify.



Click the Refresh the Current File button to reload and display the last saved version of the current file.



Click the Remove File Reference button to delete the contents of the Input Information area.



Click the If Valid XML, Format button to format the code displayed in the section to make it more readable. The formatting done includes indenting lines, and so forth. This button is valid only if the file displayed is an XML file.

Output Information Section

The Output Information section displays information returned when you perform a GET or POST on a web server.

When you work with MIME messages, you can use the provided View drop-down list to choose to view the entire raw message response, message meta data, or individual sections of the response.

When you are working with message types other than MIME, you can view the raw message response only.

This section features a toolbar with the following buttons:



Click the View Header Information button to display the HTTP headers returned during a POST or GET.



Click the Save Output button to save the information in the Output Information section using a filename and location that you specify.



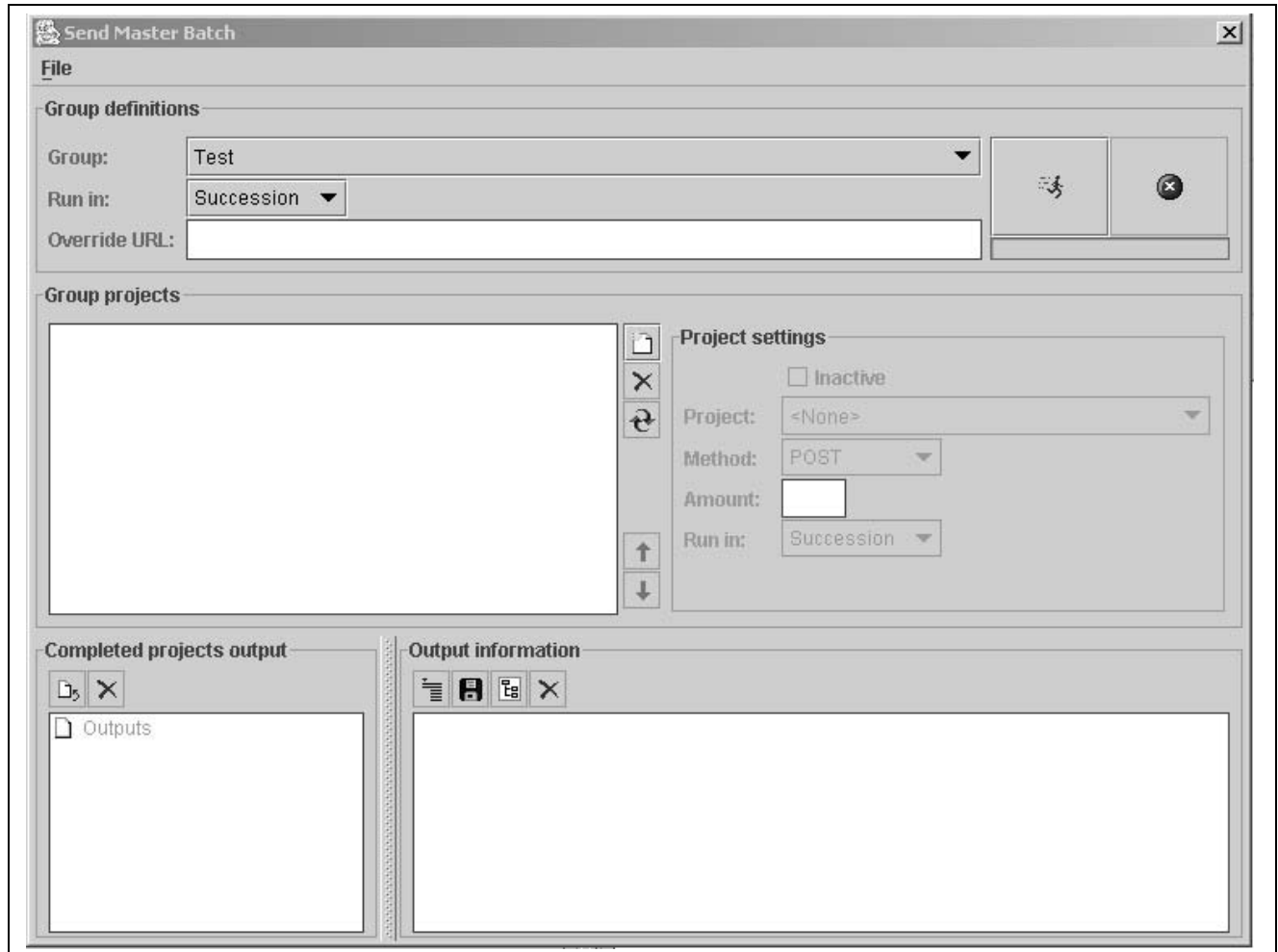
Click the If Valid XML, Format button to format the code displayed in the section to make it more readable. The formatting done includes indenting lines, and so forth. This button is valid only if the file displayed is an XML file.



Click the Clear Output button to delete the contents of the Output Information area.

Using the Send Master Batch Workspace

The Send Master Batch workspace enables you to test groups of projects, as well as stress test a project or group of projects. You can access the Batch Processing workspace by starting Send Master and selecting File, Batch Processing.



Batch Processing workspace

The Batch Processing workspace features a Group Definition section, a Group Projects section, a Completed Projects Output section and an Output Information section.

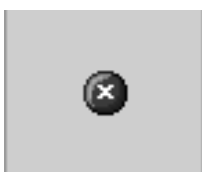
Group Definitions Section

You use the Group Definitions section to create, select or delete a group of projects. You can also use this section to choose to run the projects in the group all at once, in sequence, or at intervals you specify.

This section features two buttons:



Click the Start Projects button to start processing for the defined group.



Click the Stop Projects button to stop processing of the defined groups.

Group Projects Section

You use the Group Projects section to add, remove and arrange projects in a group. For each project you add to a group you can select the method to invoke, such as GET or POST. You can also specify the number of times to run each project, and specify to run project instances all at once, in sequence, or at defined intervals.

This section features a toolbar with the following buttons:



Click the Add a New Project button to add a project to the group.



Click the Delete Selected Project button to delete the selected project from the group.



Click the Update Selected Project button to update the selected project with changes and modifications made to it since it was added to the group.



Click the Move Selected Project Up button to move the selected project up in the order sequence of projects in the group.



Click the Move Selected Project Down button to move the selected project down in the order sequence of projects in the group.

Completed Projects Output Section

The Completed Projects Output section provides processing information for each project in a group, including the number of project instances processed, total time to process all project instances, the average amount of time to process a project instance, and more.

This section features a toolbar with the following buttons:



Click the Export Results to File button to display a text file that contains processing information about the completed project, such number of messages processed, the total time to process the messages, the average time to process a message, and so forth.



Click the Clear Results button to clear the contents currently displayed in the area.

Output Information Section

The Output Information section displays information returned when you perform a GET or POST on a web server.

When you work with MIME messages, you can use the provided View drop-down list to choose to view the entire raw message response, message meta data, or individual sections of the response.

When you are working with message types other than MIME, you can view the raw message response only.

This section features a toolbar with the following buttons:



Click the View Header Information button to display only the contents within the header tags of the selected message.



Click the Save Output button to save the contents of the Output Information area, using a filename and location that you specify.



Click the If Valid XML, Format button to format the code displayed in the section to make the contents more readable. The formatting includes indenting lines, and so forth. This button is valid only if the file displayed is an XML file.

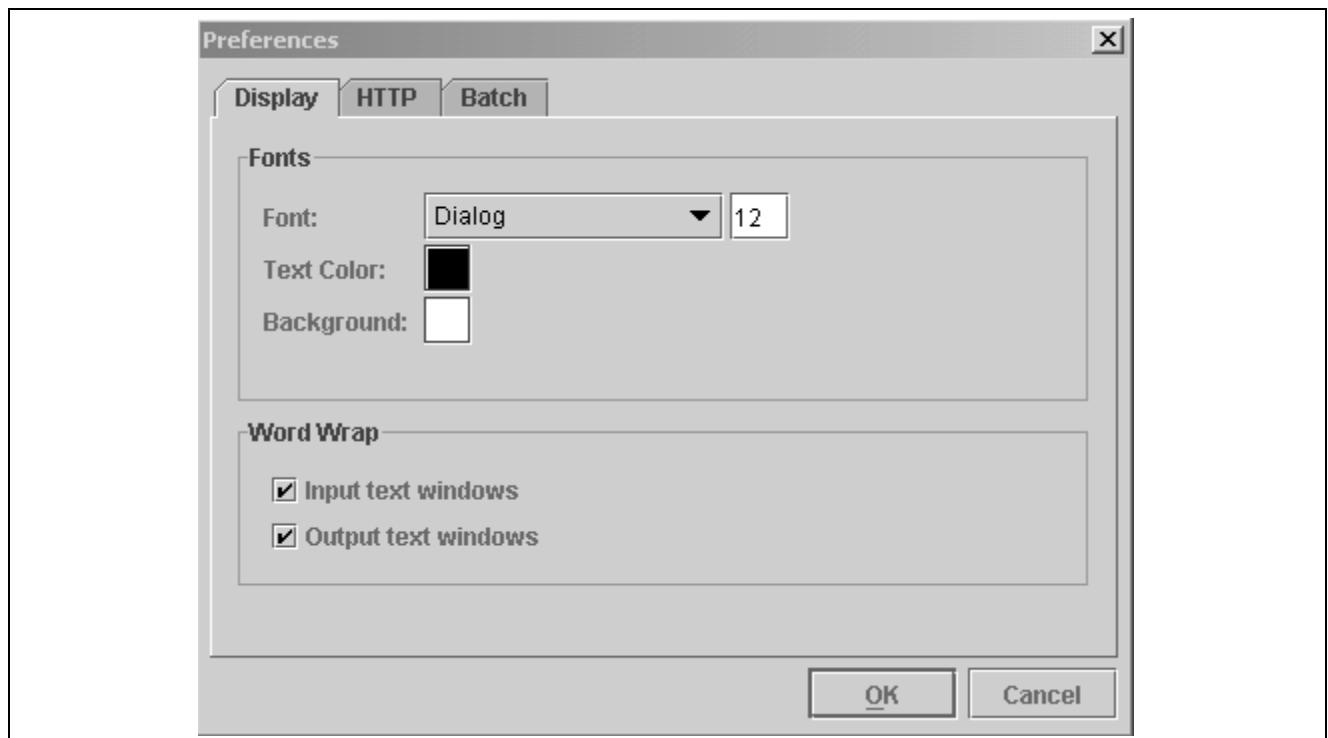


Click the Clear Output button to delete the contents of the Output Information area.

Setting Display Preferences

You can set display preferences for Send Master, such as the display font, the screen background color, and word-wrapping options.

To set display preferences, use the Display tab of the Preferences dialog box. To access this box, select File, Preferences and click the Display tab.



Display tab of the Preference dialog box

Setting the Display Font, Size and Color

To set the display font, size and color:

1. Access the Preferences dialog box and click the Display tab.
2. Set the display font, size and color.
 - To set the display font, in the Fonts section, from the Font drop-down list, select a font style.

- To set the font size, in the box next to the font style, enter a font size.
 - To set the text color, in the Text Color field, click the color block. The Choose the Text Color box displays. Select a color for the font and click OK.
3. Click OK to save the changes.

Setting the Background Color

This section describes how to set the background color of Send Master workspaces and sections.

To set the background color:

1. Access the Preferences dialog box and click the Display tab.
2. In the Font section, in the Background Color field, click the color block. The Choose the Text Background Color box displays. Select a background color and click OK.
3. Click OK to save the changes.

Setting Word Wrapping Options

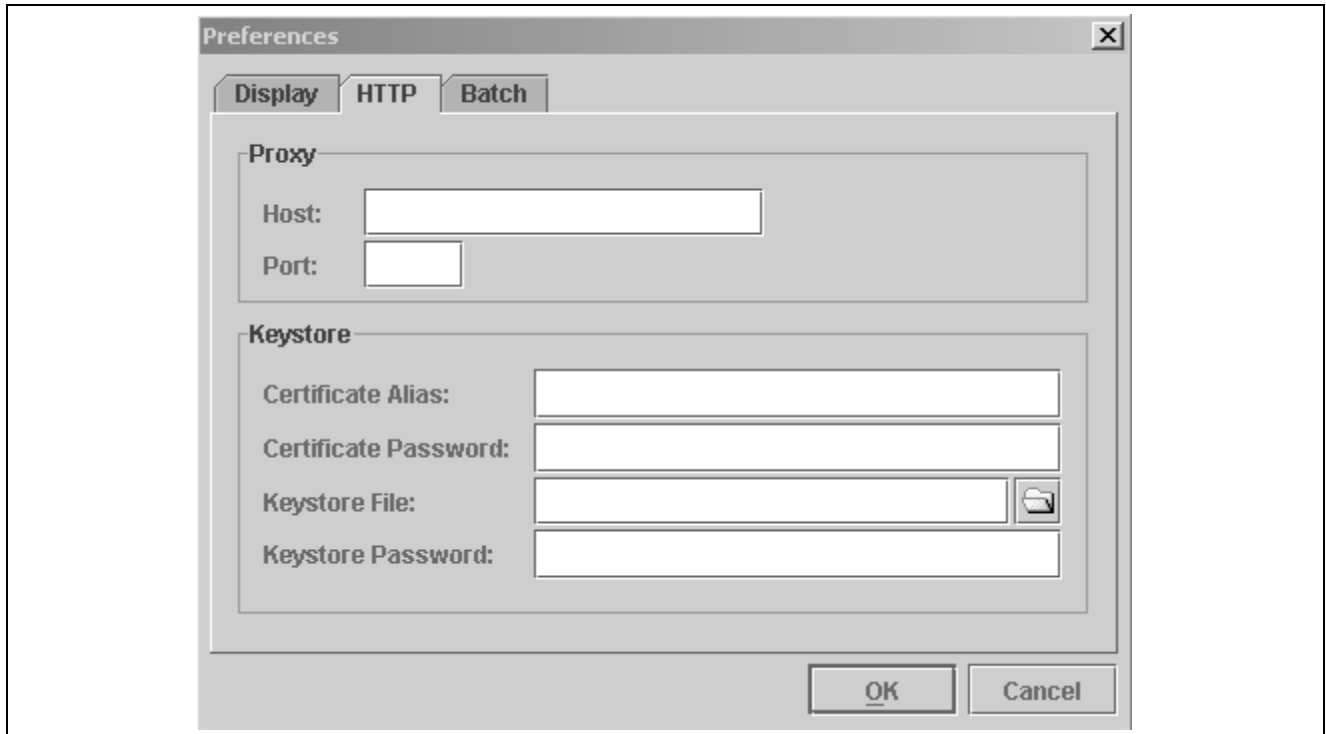
You can set preferences to enable or disable word wrapping in Send Master input and output sections.

To set word wrapping options:

1. Access the Preferences dialog box and click the Display tab.
2. In the Word Wrap section, enable or disable word wrapping.
 - To enable word wrapping in input windows, check the Input Text Windows option. Check the box again to disable this option.
 - To enable word wrapping in output windows, check the Output Text Windows option. Check the box again to disable this option.
3. Click OK to save the changes.

Setting HTTP Proxy and Keystore Options

You can set up HTTP proxy and keystore options for use with Send Master. You set these options in on the HTTP tab of the Preferences dialog box. To access the dialog box, select File, Preferences and click the HTTP tab.



HTTP tab of the Preference dialog box

Specifying HTTP Proxy Settings

To specify HTTP proxy settings for Send Master:

1. Access the Preferences dialog box and click the HTTP tab.
2. In the Proxy section of the dialog box specify the following information:
 - a. In the Host field enter the name of the proxy host.
 - b. In the Port field, enter the appropriate port number.
3. Click the OK button.

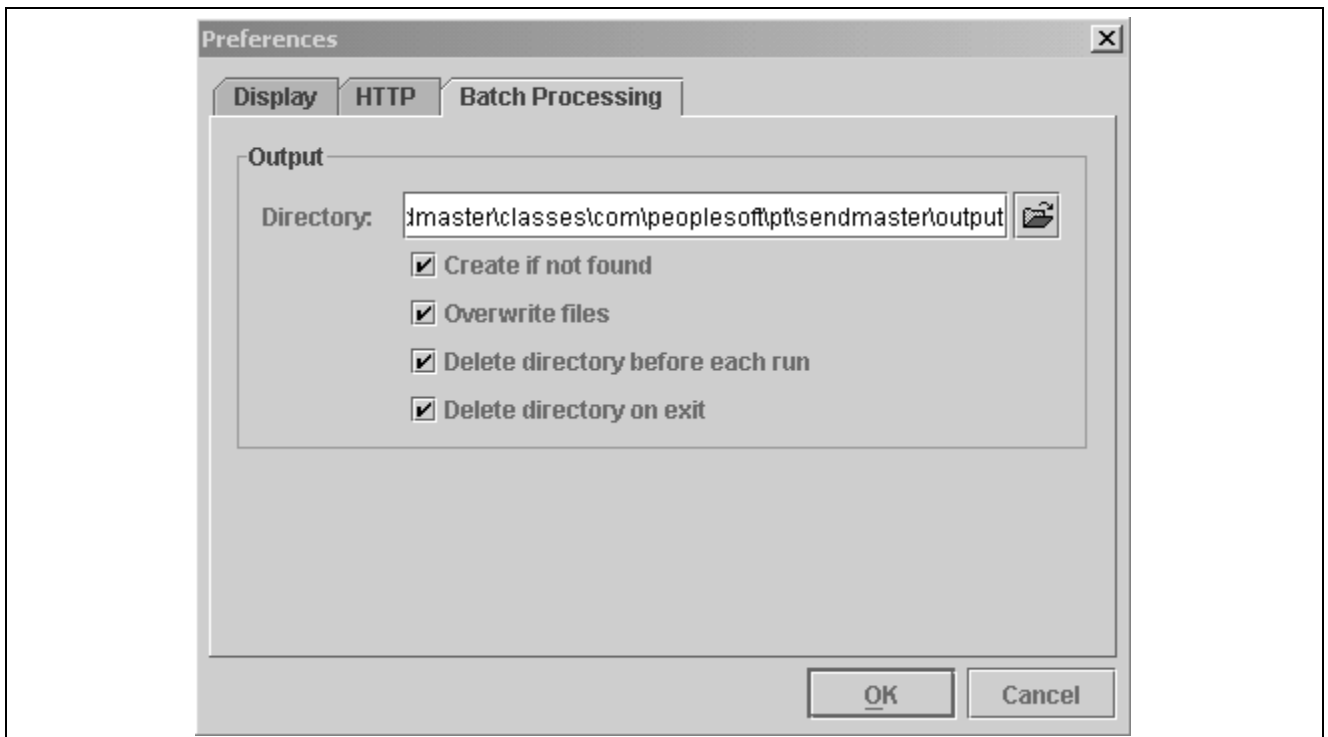
Specifying Keystore Settings

To specify keystore settings for Send Master:

1. Access the Preferences dialog box and click the HTTP tab.
2. In the Keystore section of the dialog box specify the following information:
 - a. In the Certificate Alias field, enter the certificate alias.
 - b. In the Certificate Password field, enter the encrypted certificate password.
 - c. In the Keystore File field, click the folder icon to specify a keystore file.
 - d. In the Keystore Password field, enter the encrypted password for the keystore.
3. Click the OK button.

Setting Batch Processing Options

You use the Batch Processing tab to set output directory options related to the projects with which you work in the Batch workspace.



Batch Processing tab of the Preferences dialog box

Directory	Specify the output directory for Batch project results.
Create if not found	Check this box to create the directory specified in the Directory field if that directory does not exist.
Overwrite files	Check this box to overwrite same-named files in the output directory.
Delete directory before each run	Check this box to delete the contents of the directory before you run each batch project.
Delete directory on exit	Check this box to delete the contents of the directory each time you exit the Batch workspace.

Creating Send Master Projects

To test message and connector processing using Send Master, you use Send Master projects.

A Send Master project is a collection of message components, values and parameters that defines what you want to test and how you want to test it.

Understanding Send Master Project Types

This section describes Send Master project types and the best project type to use based on the type of message you are testing or the task that you want to perform.

Input File	The Input File project type enables you to test servers that are expecting XML data over HTTP(S).
8.4 Integration Broker (MIME)	<p>The 8.4 Integration Broker (MIME) project type enables you to test servers that are expecting MIME data over HTTP(S). Use this project type to test message and connector processing using the PeopleSoft listening connector and for integrations with systems that expect MIME data.</p> <p>This project type is referenced as the Integration Broker (MIME) project type throughout this chapter.</p>
8.4 Integration Broker (XML)	<p>The 8.4 Integration Broker (XML) project type enables you to test servers that expect XML data in PeopleSoft format over HTTP(S). Use this project type to test message and connector processing using the HTTP listening connector and for integrations with systems that expect IBRequest XML—formatted data.</p> <p>This project type is referenced as the Integration Broker (XML) project type throughout this chapter.</p>
8.4 EIP Testing (Batch EIP)	<p>The 8.4 EIP Testing (Batch EIP) project type enables you to test batches of messages from a file directory that you specify for automation testing, and allows for the testing of different transaction values.</p> <p>This project type is referenced as the EIP Testing project type throughout this chapter.</p>
8.4 MQSeries	<p>The 8.4 MQSeries project type enables you to test and post synchronous and asynchronous messages to MQSeries queues.</p> <p>This project type is referenced as the MQSeries project type throughout this chapter.</p>

The following table describes the type of project to use based on the type of communication you want to test.

Project Type	Usage
Input File	<p>Uses include:</p> <ul style="list-style-type: none"> • Perform GETs to ensure URLs are valid. • Send non-PeopleSoft-formatted XML or MIME messages to web servers. • Test SOAP messages with the HTTP listening connector. • Test inbound and outbound transformations by posting non-XML data into PeopleSoft. • Test integration points with PeopleSoft 8.1x systems as well as those systems that do not adhere to the PeopleSoft message format.
Integration Broker (MIME)	<p>Uses include:</p> <ul style="list-style-type: none"> • Test People Soft Integration Broker. <p>After you create relationships, node transactions, message channels, messages and PeopleCode, you can quickly add a few required fields and test the EIP. Instead of setting up another PeopleSoft system, you can interact with Send Master to shorten development time.</p> <ul style="list-style-type: none"> • Test messaging PeopleCode such as subscriptions, OnRequest events, OnRouteReceive events, and so on. • Test target connectors on the integration gateway, including specifying connector overrides. <p>For example, you can test an integration that needs to perform normal Integration Broker processing, but also output the file out to disk. You can override the target connector and test the file creation process.</p>
Integration Broker (XML)	<p>Uses include:</p> <ul style="list-style-type: none"> • Mimic an external system to test message processing using the HTTP listening connector. • Export data into the PeopleSoft XML IBRequest format to provide samples of data that PeopleSoft Integration Broker expects in request messages.

Project Type	Usage
EIP Testing	<p>You can use this project type to send a directory of MIME-formatted messages into PeopleSoft Integration Broker.</p> <p>This project type enables you to override requesting and destination nodes without having to alter every message.</p>
MQSeries	<p>Use this project type to POST messages to an MQSeries queue. This project type does not use the HTTP protocol, so no URL will be provided.</p>

Creating Send Master Projects

To create a Send Master project:

1. Launch Send Master.
2. Select File, New Project.
3. In the Project Name field, enter a name for the project.
4. From the Project Type drop-down list, select one of the following options:
 - Input File
 - 8.4 Integration Broker (MIME)
 - 8.4 Integration Broker (XML)
 - 8.4 EIP Testing (Batch EIP)
 - 8.4 MQSeries

5. Click the OK button.

The Input Information section populates with various tabs, based on the project type you selected.

6. In the Server URL field, enter the server URL of the server with which to communicate.

Note. This field is not used for MQSeries projects.

7. In the Time Out field, enter a timeout value. The default is 0 (zero), meaning there is no timeout.

The timeout value determines the amount of time Send Master attempts to process a message. If the request does not complete in the time specified, processing stops. Usual timeout is about 60 seconds.

8. In the Headers box, enter pertinent HTTP header information for the message.
9. Select File, Save Project.

Note. This field is not used for MQSeries projects.

The project name appears in the Project field and the type of the project displays in parentheses next to the project name. The content of the workspace varies, based on the project type selected.

See Also

[Chapter 2, “Using the Send Master Utility,” Understanding Send Master Project Types, page 16](#)

[Chapter 2, “Using the Send Master Utility,” Using Input File Projects, page 21](#)

[Chapter 2, “Using the Send Master Utility,” Using Integration Broker Projects, page 21](#)

[Chapter 2, “Using the Send Master Utility,” Using EIP Testing Projects, page 28](#)

[Chapter 2, “Using the Send Master Utility,” Using MQSeries Projects, page 31](#)

Entering Header Information in Send Master Projects

Send Master enables you to specify HTTP, IBInfo and connector headers. These headers are used in association with the following project types: Input File, Integration Broker (MIME), Integration Broker (XML) and MQSeries project types.

Use the following information as a guide for entering header information in Send Master.

Header Type	Project Type	Location	Description
HTTP header	<ul style="list-style-type: none"> Input File Integration Broker (XML) <p>Note. An HTTP header field is present when working with EIP Testing projects, however it is usually not used since you are using the PeopleSoft listening connector.</p>	Project Definition section, Headers box.	<p>Use to provide HTTP protocol header information about the message at the server level and relates to how you are sending an entire message.</p> <p>Here you can specify cookies, content-type, encoding, sending program information, and so forth.</p>

Header Type	Project Type	Location	Description
Connector header	Integration Broker (MIME)	Input Information section, Connector tab.	<p>Use to provide required and optional headers that connectors need to pass information and process message requests.</p> <p>Here you can specify information such as message compression, encoding, and so forth.</p> <p>You can specify connector header information only while editing connector information in an Integration Broker (MIME) project type.</p>
IBInfo header	<ul style="list-style-type: none"> • Integration Broker (MIME) • Integration Broker (XML) 	Input Information section, Header Information and Additional Header Cont. tabs.	Contains the information required to route messages through PeopleSoft Integration Broker, including message name, message type, requesting node, and so on.

Adding Input Files to Projects

The information in this section applies to all project types except for the EIP Testing project type.

When working with EIP Testing projects, you specify file input and file output directories.

See [Chapter 2, “Using the Send Master Utility,” Specifying File Input and File Output Directories, page 28.](#)

To add an input file to a project

1. In the Input Information section, click the Input File tab (if necessary).
2. (Optional) Select the Base64 encode/compress box to enable base64 encoding and compression.
This option is not available when working with MQSeries projects.
3. (Optional) Select the Non Repudiation box to enable nonrepudiation
Note that this option is not available when working with MQSeries projects.
4. In the text box you can compose the content of the message in the area provided, or import a file.
To import a file, click the Open File button and select a file. The name of the imported file displays under the Input Information section.
5. Modify the message, if necessary.
6. Click the Save button on the toolbar within the Input Information section.

7. Select File, Save Project.

After you create an input file you can modify and format message content. Use the following tips when you work with input files. Note that all buttons referenced appear on the toolbar located within the Input Information section.

- Use the Refresh button to revert to the last saved version of the input file.
- If the message content is XML, use the Format button to indent lines of code.
- Use the Delete button, to delete the contents of the section.

Using Input File Projects

This section describes using Input File projects and describes how to:

- Create an Input File project.
- Add or create an input file for the project.
- Post the Input File project to a web server.

See Also

[Chapter 2, “Using the Send Master Utility,” Understanding Send Master Project Types, page 16](#)

Creating Input File Project Types

The first step to using an input file project is creating the Input File project type. The steps to accomplish this task are described earlier in this chapter.

See [Chapter 2, “Using the Send Master Utility,” Creating Send Master Projects, page 18](#).

Creating and Adding Input Files to Input File Projects

Information for creating and adding an input file to a project is described earlier in this chapter.

See [Chapter 2, “Using the Send Master Utility,” Adding Input Files to Projects, page 20](#).

Posting Input File Projects to Web Servers

After you create the Input File project type, add the input file to the project, click the Post button to post the file to the server.

Any server response to the message you post displays in the Output Information section.

Using Integration Broker Projects

This section describes how to:

- Create Integration Broker project types. (MIME and XML)

- Add header information to the project.
- Add an input file to the project.
- Specify connector information for the project.
- Post the project data to a web server.

Understanding Integration Broker Project Types

You can create two types of Integration Broker project; an Integration Broker MIME project or an Integration Broker XML project.

When you create Integration Broker MIME projects, you use the Input Information section of the workspace to supply Send Master with information to build the IBInfo section of the message. In addition, you also use the section to specify connector information, add cookie information, specify destination nodes, and more. PeopleSoft Integration Broker uses the information to build the MIME structure in messages that is required to communicate with the PeopleSoft listening connector

In the case of Integration Broker XML projects, Integration Broker uses the information to build the IBRequest.

See Also

[Chapter 2, “Using the Send Master Utility,” Understanding Send Master Project Types, page 16](#)

Understanding Input Information for Integration Broker Projects

This section discusses the options you can define when working with Integration Broker MIME and Integration Broker XML project types.

Header Information Tab

Use the Header Information tab to create message headers. The tab features the following controls:

Requesting Node	Identifies the name of the node that is making the request.
Message Name	Identifies the name of the message.
Message Type	Identifies the message type. Values are: <ul style="list-style-type: none"> • <i>Sync</i>: Specifies that the message you are testing is synchronous. • <i>Async</i>: Specifies that the message you are testing is asynchronous. • <i>Ping</i>: Tests the application server to make sure it is available and accepting requests.
Message Version	Indicates the version of the message.
Password	(Optional) Identifies the password as entered in the node definition, If password authentication is used. This entry allows password authentication to allow processing of the message.
Originating Node	(Optional) Identifies the name of the node that started the process.
Originating Process	(Optional) Identifies the name of the process where the publish originated. For example, a message published from the Inventory definitions page would have a process name of <i>INVENTORY DEFIN</i> .

Originating User	(Optional) Identifies the user ID login where the message was initially generated.
Channel	(Optional) Identifies the name of the PeopleSoft channel expecting the message.
Sub Channel	(Optional) Identifies sub processes for the channel.
Visited Nodes (Integration Broker MIME project type only)	(Optional) Identifies nodes through which the message has passed. Separate by semicolons. Enables you to mimic visited node information populated when sending PeopleSoft messages through PeopleSoft Integration Broker
Destination Nodes	(Optional) Identifies destination nodes for the message.
Final Destination Node	(Optional) Identifies the final destination node. Check to specify the selected node as the final destination. Use this option when working with a hub configuration.
External Message ID	(Optional) A unique ID to eliminate duplicate messages from being delivered to PeopleSoft Integration Broker. The maximum length is 70 characters.

Headers Cont. Tab

You can work with the following controls on this tab.

Note. This tab displays only when you are working with Integration Broker MIME projects.

Cookies	(Optional) Identifies cookies that the server may require. Separate multiple cookies with a semicolon.
Gather Statistics	Check this box to gather statistics about system performance when posting messages using Send Master. See Chapter 2, “Using the Send Master Utility,” Viewing Send Master Processing Performance Statistics, page 37.

Input File Tab

You use this tab to add input files. You can also use this tab to apply nonrepudiation, and base64 encoding and compression. This section describes the controls featured on this tab. Controls that appear on this tab that are not described in this section are documented earlier in this chapter.

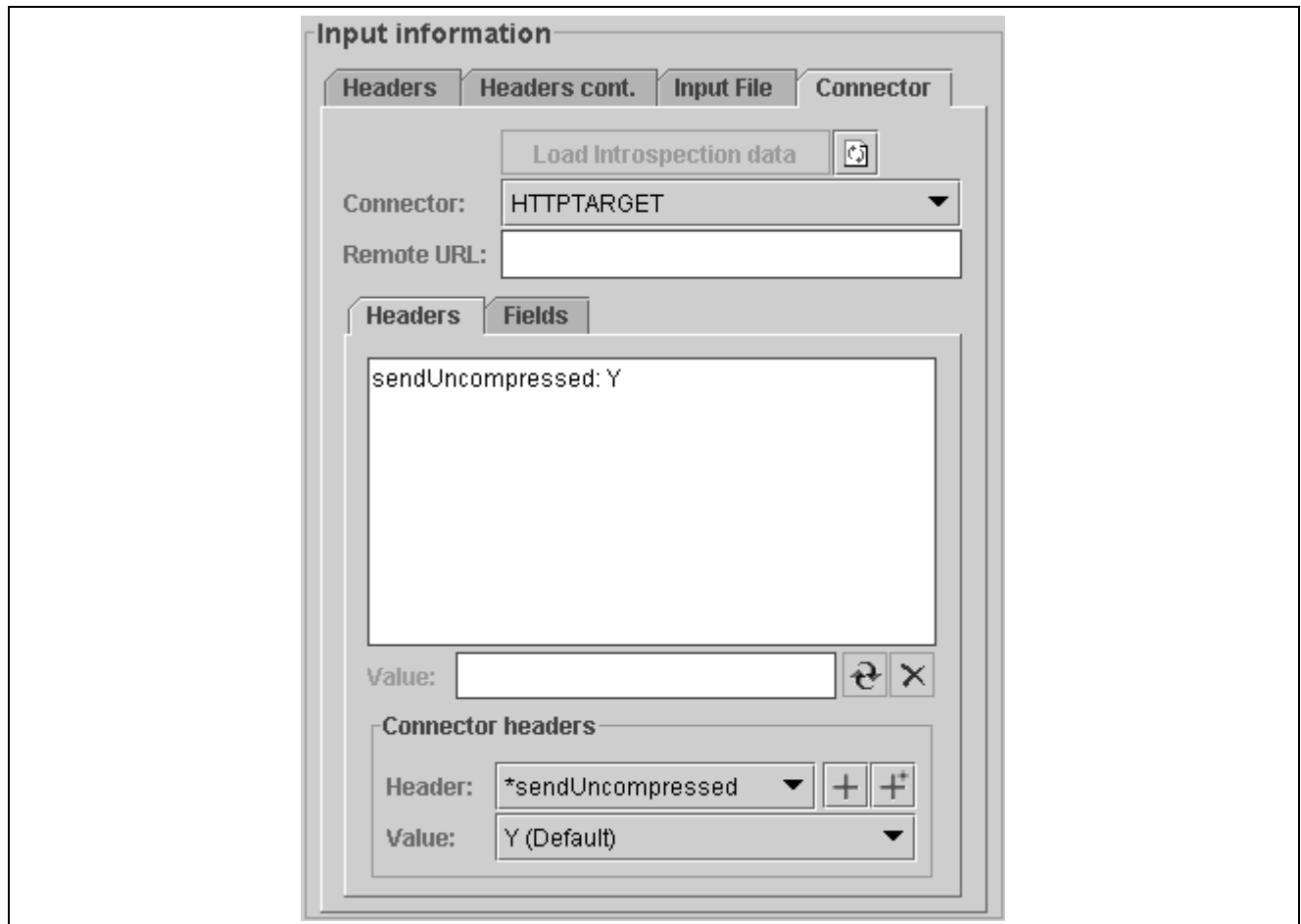
See [Chapter 2, “Using the Send Master Utility,” Navigating in Send Master, page 6.](#)

This tab features the following controls

Base 64 Encode/ Compress	(Optional) Check the box to apply base64 encoding and compression to the message.
Non-repudiation	(Optional) Check the box to apply nonrepudiation to the message.

Connector Tab

This tab displays only when you are working with the Integration Broker MIME project type.



Connector tab

The Connector tab enables you to perform connector introspection on the integration gateway so you can select from all target connectors loaded on the integration gateway.

No fields or controls are active on this tab until you introspect connector data and select a target connector with which to work.

Once you select a target connector, you can select specific target connector properties to use and define those property values. In addition, you can specify and define headers and fields that a selected connector needs to pass information and process message requests.

Note. Header properties with which you work on this tab correspond to properties with the property IDHeaders in PeopleSoft Pure Internet Architecture. Field properties with which you work on this tab correspond to any property ID *other* than Header in PeopleSoft Pure Internet Architecture.

The Connector tab features the following controls:

 Load Introspection data

Click the Load Introspection Data button to load all target connectors currently installed on the integration gateway.



Click the Refresh button to apply and make available in Send Master any changes you make to target connector properties on the integration gateway.

Connector

Select a connector from the drop-down list with which to work.

The default is *<None>*.

You must first click the Load Introspection Data button for any connectors to appear in the list.

Remote URL

Enter a URL to redirect message to different URL that is specified in the Server URL field in the Project Definitions section.

Headers Box

Area that displays the headers, and the current values assigned to them, that you have selected for the target connector.

Field Box

Area that displays the fields, and the current values assigned to them, that you have selected for the target connector.

Value

Enter the value for the selected header or field.



Click the Update Selected Header/Field Value in List button to apply the value in the Value field to the selected field or header in the Headers or Field box.



Click the Delete button to delete the header or field that is selected in the Headers or Fields box.

Value

Default header and field values display in this field.

Enter the desired value for the selected header or field in the Headers or Fields box.



Click the Add Selected Header/Field and Value button to add the header that is displaying in the Header field and its default value to the Headers box, or to add the field that is displaying in the Field field and its default value to the Fields box.



Click the Add All Required Headers/Fields and Their Default Values button to add all required headers or fields for the selected target connector and their default values to the Headers box or Fields box.

Header

Use the Header drop-down list to select from all defined headers for the selected target connector.

When you select a header from the list, its default value, if one exists, displays in the Value field.

The Header drop-down list displays only when you work with the Headers subtab.

Field

Use the Field drop-down list to select from all defined fields for the selected target connector.

When you select a field from the list, its default value, if one exists, displays in the Value field.

The Field drop-down list displays only when you work with the Fields subtab.

Value

The Value field display the default value, if one exists, for any selected header or field.

Use the drop-down list to view and select header and field values.

After you select a value in the list, click the Add Header button or Add Field button to change the value in the value text box, or reenter the value you want to apply in the box.

Creating Integration Broker Project Types

The first step to using Integration Broker project is creating the Integration Broker project type. The steps to accomplish this task are described earlier in this chapter.

See [Chapter 2, “Using the Send Master Utility,” Creating Send Master Projects, page 18.](#)

Adding PeopleSoft Header Information to Integration Broker Projects

To add PeopleSoft header information to the project:

1. In the Input Information section, click the Header Information tab, if not already selected:
2. Select or enter values for the following required fields:
 - Requesting Node
 - Message Name
 - Message Type
3. Enter values in any of the remaining optional fields as appropriate for your project.
4. (Optional) Click the Headers Cont. tab to add cookie information or to gather messaging statistics.

See Also

[Chapter 2, “Using the Send Master Utility,” Entering Header Information in Send Master Projects, page 19](#)

Adding Input Files to Integration Broker Projects

Information for creating and adding an input file to a project is described earlier in this chapter.

See [Chapter 2, “Using the Send Master Utility,” Adding Input Files to Projects, page 20.](#)

Specifying Connector Information for Integration Broker Projects

This section discusses how to specify connector information for Integration Broker MIME projects.

To specify connector information for a project, use the Connector tab in the Input Information section of the Project workspace. No fields or controls are active on the tab until you introspect target connector data and select a target connector with which to work.

As noted earlier in this section, header properties with which you work on the Connector tab correspond to properties with the property IDHeaders in the PeopleSoft Pure Internet Architecture. Field properties with which you work on this tab correspond to any property ID *other* than Header in the PeopleSoft Pure Internet Architecture.

Selecting Target Connectors

To select a target connector:

1. From an open Integration Broker MIME project, in the Input Information section, click the Connector tab.
2. Click the Load Introspection Data button.
3. From the Connector drop-down list, select a connector.

4. (Optional) In the Remote URL field, enter a URL to redirect the message to a different URL than that specified in the Server URL field in the Project Definitions section.

Adding Connector Header Properties

To add connector headers properties:

1. Click the Headers subtab under the Remote URL field.
2. To add all required header properties for the selected connector, click the Add All Required Headers and Their Default Values button.
All required header properties and their default values, if they exist, display in the Headers box.
3. To add additional header properties:
 - a. In the Connector Header section, from the Header drop-down list, select a header property and click the Add Selected Header and Default Value button.
When you select a header property from the list, its default value, if any, displays in the Value field. Click the Value drop-down list to view all possible values for the property.
 - b. Click the Add Selected Header and Default Value button to add the property. The header property and its default value, if any, display in the Headers box.
4. To change the value of a header property:
 - a. In the Headers box, select the header property whose value you want to change.
 - b. In the Value field, enter the new value to assign.
Use the Value drop-down list in the Connector Headers section to view possible values and verify the format to enter.
 - c. Click the Update Selected Value in List button to apply the new value.
5. To delete a header property, in the Headers box, select the property to delete and click the Delete button.
6. Save the project.

Adding Connector Field Properties

To add connector field properties:

1. Click the Fields subtab under the Remote URL field.
2. To add all required field properties for the connector, click the Add All Required Fields and Their Default Values button.
All required field properties and their default values, if they exist, display in the Fields box.
3. To add additional field properties:
 - a. In the Connector Fields section, from the Field drop-down list, select a field property and click the Add Selected Fields and Default Value button.
When you select a property from the drop-down list, its default value, if any, displays in the Value field. Click the Value drop-down list to view all possible values for the property.
 - b. Click the Add Selected Field and Default Value button to add the property. The field property and its default value, if any, display in the Fields box.
4. To change the value of a field property:
 - a. In the Fields box, select the field property whose value you want to change.

- b. In the Value field, enter the new value to assign.
Use the Value drop-down list in the Connector Fields section to view possible values and verify the format to enter.
 - c. Click the Update Selected Value in List button to apply the new value.
5. To delete a field property, in the Fields box, select the property to delete and click the Delete button.
 6. Save the project.

Posting Integration Broker Projects

To post Integration Broker MIME or Integration Broker XML projects to web servers, click the Post button.

Viewing Output from Integration Broker Projects

When you POST a message using the Integration Broker project type, a MIME response message is returned. If you POST data to a PeopleSoft listening connector, the MIME response displays in the Output Information section of the Project Workspace.

Using EIP Testing Projects

This section describes how to:

- Create EIP Testing projects.
- Specify file input and output directories.
- Override requesting and destination nodes.
- Start batch processing.
- Use the Batch Project Executor Command Line Tool

Creating EIP Testing Project Types

The first step to using an EIP Testing project is creating the EIP Testing (Batch EIP) project type. To create a project, select File, New Project. Complete information on how to accomplish this task is described earlier in this chapter.

See [Chapter 2, “Using the Send Master Utility,” Creating Send Master Projects, page 18.](#)

Specifying File Input and File Output Directories

To add input files to this project type, you specify the directory location where the files reside.

To specify input files for EIP Testing projects:

1. In the Input Information section, in the Input Directory field, select the location of the input files.
2. In the Output Directory field, select the location where the output files should be written.
3. (Optional) Check the Create If Not Found box to create the input and output directories, if they do not exist. Clear the box to disable this option.

4. (Optional) Check the Overwrite File box for Send Master to overwrite any output files that exist with the same names.
5. Select File, Save Project.

Overriding Requesting and Destination Nodes

Send Master reads the request and destination node information from the input files. However, You can override the node information:

To override the requesting and destination node information specified in the input files:

1. Open an EIP Testing project.
2. In the Input Information section, in the Optional Overrides section, in the Requesting Node field, enter a new requesting node name.
3. To override the destination node , in the Optional Overrides section, in the Destination Node field, enter a new destination node name.
4. Select File, Save Project.

Posting EIP Testing Projects

To post the files in an EIP Testing project, open the project and click the Post button.

Viewing Output from EIP Testing Projects

To view the output from EIP Testing projects, navigate to the output directory you specified on the Headers tab in the Input Information section. You can also view output in Send Master in the Output Information section of the Project workspace.

Using the Batch Project Executor

The Batch Project Executor enables you to use the functionality of the EIP Testing project type from a command line tool. This section discusses the Batch Project Executor tool, including its:

- Usage
- Syntax
- Parameters

Usage

The standard usage of the Batch Project Executor command line tool is:

```
BatchProjectExecutor [-options]
```

Syntax

The syntax for executing a batch project is:

```
BatchProjectExecutor -in "C:\temp\input" -out
"C:\temp\output" -url "http://localhost/PSIGW
/PeopleSoftListeningConnector" -result "C:\temp
\output\result.txt"
```

Parameters

The following table describes the parameters you can pass to the Batch Project Executor.

Parameter	Description
-in	Certification directory that contains the raw request files.
-out	Output directory to store all of the response files.
-url	Server URL to send all of the requests to during processing.
-result	Name of the file that will contain the results during batch execution. The contents of this file will be represented as XML.
-ow	(Optional) Overwrite files if they already exist.
-cd	(Optional) Create the output directory if not found.
-rn	(Optional) Override the requesting node found in the IBInfo section.
-dn	(Optional) Override the destination node found in the IBInfo section.
-? -help	(Optional) Show the Help menu.

Sample Output

The following example shows successful output:

```
<?xml version="1.0"?>
<success>
  <request elapse="1.953 (s)" end="02:33:55.177" filename=
    "20030519T130405.request" id="1" start="02:33:53.224"
    success="true"/><request elapse="0.201 (s)" end="02:33:55.408"
    filename="20030519T150417.request" id="2" start="02:33:55.207"
    success="true"/>
  <request elapse="0.220 (s)" end="02:33:55.638" filename="20030520T150406.
    request" id="3" start="02:33:55.418" success="true"/>
  <request elapse="0.190 (s)" end="02:33:55.828" filename=
    "20030519T150406.request" id="4" start="02:33:55.638" success="false">
    <![CDATA[Error communicating with server: Connection refused: connect]]>
  </request>
</success>
```

The following example shows a failure:

```
<?xml version="1.0"?>
```

```
<failure>
  <![CDATA[Error while initializing: Invalid output directory:
    C:\temp\output]]>
```

Using MQSeries Projects

This section discusses how to:

- Create MQSeries projects.
- Add header information to MQSeries projects.
- Add input files MQSeries projects.
- Post MQSeries projects to queues.

Understanding MQSeries Projects

You can use Send Master to create MQSeries project types and test posting synchronous and asynchronous messages to MQSeries queues.

Before you attempt to post messages to an MQSeries queue, verify that the following Java Archive (JAR) files are installed and that you have added them to the CLASSPATH in the StartSendMaster.bat file or the StartSendMaster.sh file. These files are installed as part of the MQSeries installation. For more information, refer to the IBM MQSeries documentation.

- com.ibm.mq.iiop.jar
- com.ibm.mq.jar
- com.ibm.mqbind.jar
- com.ibm.mqjms.jar
- fscontext.jar
- jms.jar
- jndi.jar
- providerutil.jar

Understanding Input Information for MQSeries Projects

This section discusses the options you can define when working with an MQSeries project type.

Headers Tab

Use the Headers tab to specify header information for MQSeries messages.

JMS Provider

Indicates the name of the JMS provider. Valid options are:

- iPlanet
- MQSeries (default)
- WebLogic

JMS Queue	Indicates the queue to which the messages will post.
JMS Factory	Indicates the factory to which the queue in the JMS Queue field belongs.
JMS URL	Indicates the LDAP directory or local file system address.
JMS User	(Optional) Indicates the name of the JMS user.
JMS Password	(Optional) Indicates the name of the JMS user's password.
Requesting Node	Indicates the name of the requesting node.
Message Name	Indicates the name of the message.
Message Type	Indicates the message type. The valid options are: <ul style="list-style-type: none"> • Async (asynchronous) • Sync (synchronous)
Node Password	(Optional) Indicates the requesting node password, if applicable.
Destination Nodes	Indicates the name of the destination node. Use a semicolon to separate multiple destination nodes.
Final Destination Node	Indicates the name of the final destination node.

Creating MQSeries Project Types

The first step to using an MQSeries project is creating the MQSeries project type. To create a project, from the Send Master menu, select File, New Project. Complete information on how to accomplish this task is described earlier in this chapter.

See [Chapter 2, "Using the Send Master Utility," Creating Send Master Projects, page 18.](#)

Adding Header Information to MQSeries Projects

To add header information to the project:

1. In the Input Information section, click the Header Information tab, if not already selected:
2. Select or enter values for the following required fields:
 - JMS Provider
 - JMS Queue
 - JMS Factory
 - JMS URL
 - Requesting Node
 - Message Name
 - Message Type
3. Enter values in any of the remaining optional fields as appropriate for your project.
4. Select File, Save Project.

Adding Input Files to MQSeries Projects

Information for creating and adding an input file to a project is described earlier in this chapter.

See [Chapter 2, “Using the Send Master Utility,” Adding Input Files to Projects, page 20.](#)

Posting MQSeries Projects

To post an MQSeries project to a queue, click the Post button.

Viewing Output from MQSeries Projects

If you are working with a synchronous message, the Output Information area displays response information from the target system. If you are working with an asynchronous message, no response information is received.

Working With Groups of Projects

This section describes how to:

- Create groups of projects.
- Manage groups of projects.
- Test groups of projects.
- View test output.
- Share groups and projects.

Creating Groups of Projects

To create a group of projects:

1. Launch Send Master and select File, Batch Processing.
2. Select File, New Group.
3. Enter a name for the new group.
4. Define the project group:
 - a. From the Run In drop-down list, select one of the following options. The options determine how the projects in the group run.

Parallel	Run all projects in the group at the same time.
Succession	Run projects in the group in succession.
Time Lapse	Run projects in the group in the interval you specify in the Delay field.
 - b. (Optional) In the Override URL field, enter a URL to override the one specified in the Server URL field in the Project workspace.
5. Add projects to the group.
 - a. In the Group Projects section, from the Projects drop-down list, select a project.

- b. Click the Add a new project button to add the project to the group.
- c. From the Method drop-down list, select an HTTP method.
- d. In the Amount field, enter the number of instances of the project to include in the group.
- e. From the Run In drop-down list, select one of the following options. These options determine how the projects run among themselves.

Parallel Run all instances of the project at the same time. There are only so many available ports open as well as system resources, so you must determine the optimal number of projects to run at a single time. Start at a number such as 10 and slowly add to it to see how many concurrent requests the system can process.

Succession Run instances of the project in succession, one after another.

Time Lapse Run instances of the project in the interval you specify in the Delay field.

- f. Repeat Steps a through e to add additional projects to the group.

6. Select File, Save Group.

Managing Groups of Projects

There may be occasions when you need make changes to the projects you have added to a group. The following information will help you manage groups of projects:

- To change the order of a project in a group, in the Group Projects section use the arrow buttons to move the project up or down in the list.
- To temporarily inactivate a project in a group, in the Project Settings section select the Inactive check box. To reactivate the project, clear the box.
- To remove a project from a group, in the Group Projects section select the file and click the Delete button.

Testing Groups of Projects

After you have created a group of projects, you can start testing them.

To test a groups of projects:

1. Open Send Master and select File, Batch Processing.
2. In the Group Definitions section, from the Group drop-down list, select group to test. The projects in the group display in the Group Projects section.
3. Make any needed adjustments to the group, such as change the order of projects in the group, inactive or active projects, and so forth.
4. Click the Start Projects button to run the test of projects in the group.

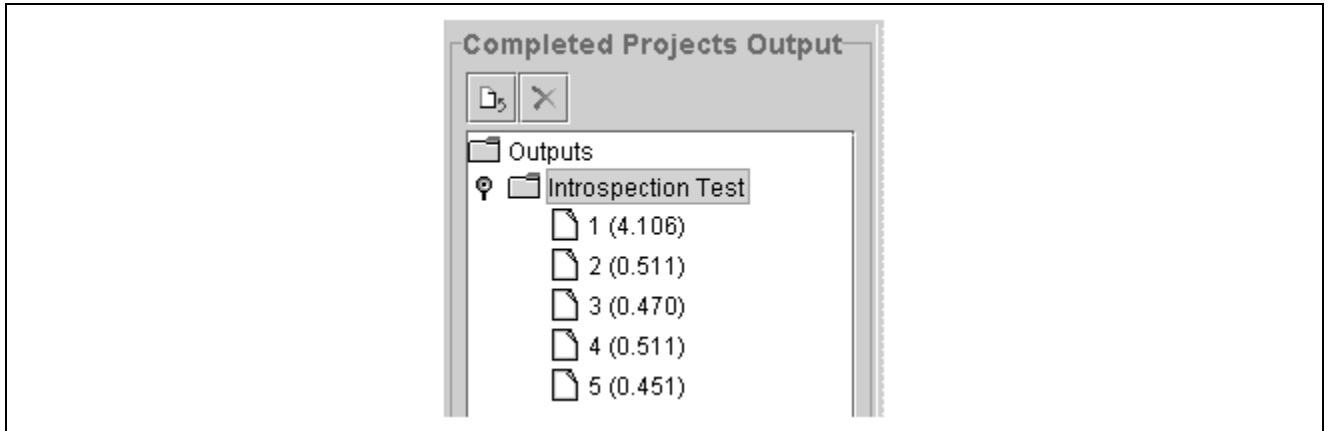
Viewing Test Output

After you run a test on a group of projects, you can view processing information as well as response information for any project in the group.

Viewing Processing Information

After you run a group of projects, the Completed Projects Output section displays all of the projects in the group and the instances for each project, in a hierarchical tree format. To expand and collapse a project folder, click the icon to the left of a folder.

When you expand a project folder, the instances for the project display as shown in the following graphic.



Output for the Introspection Test project

Each page icon represents a project instance. The number in parenthesis represents the amount of time elapsed to process the project instance.

To view more detailed processing information about the entire group of projects, select a project, click the Export the Results to File button and save the contents as a text file. You can then open the text file and view information, such as the total number of project instances in the group, the total time to process all project instances, processing start and end times, and more. The following example shows the type of output you can view using the Export feature.

```

Count                : 5

Round-trip times
  Total              : 0.961 (s)
  Minimum            : 0.180 (s) [2]
  Maximum            : 0.200 (s) [3]
  Average            : 0.192 (s)
  Process per second : 5.203

[1]
  Request            : 0.191 (s) [start = 10:19:20.095, end = 10:19:20.286]
  Response           : 200 - OK

[2]
  Request            : 0.180 (s) [start = 10:19:20.296, end = 10:19:20.476]
  Response           : 200 - OK

[3]
  Request            : 0.200 (s) [start = 10:19:20.486, end = 10:19:20.686]
  Response           : 200 - OK

[4]
  Request            : 0.190 (s) [start = 10:19:20.696, end = 10:19:20.886]
  Response           : 200 - OK

[5]
  
```

```
Request           : 0.200 (s) [start = 10:19:21.017, end = 10:19:21.217]
Response          : 200 - OK
```

Viewing Response Information for a Project Instance

Send Master enables you to view response information for any project instance in a group of projects.

To view response information for a project instance:

1. Select a project instance in the Completed Projects Output section.
2. Click a project instance. Response information displays in the Output Information section.

Sharing Projects and Groups

When you create projects and groups, all data is stored in the Send Master properties file. The location of this file is <PS_HOME>\webserv\<DOMAIN>\applications\peoplesoft\PSIGW\WEB-INF\classes\com\peoplesoft\pt\sendmaster\sendmasterproperties.xml. This file is not created until you use Send Master.

You can share and reuse projects and groups that you or others have created for other versions of Send Master or that have been used on other workstations, by copying sendmasterproperties.xml into the Send Master directory. You must rename or delete the existing properties file before you copy the new file into the directory.

After you copy the sendmasterproperties.xml file into the Send Master directory, you can access the project and groups in the normal fashion, by accessing them from the Project drop-down list in the Project workspace, or from the Group drop-down list in the Batch Processing workspace.

Using Send Master to Ping Remote Nodes

To ping a remote node from the Send Master you post a dummy message to the node's application server using an Integration Broker (MIME) or Integration Broker (XML) project that specifies a ping Message Type.

You then use the Post button to post the message to the message to the application server

The following table describes the type of response returned based on project type.

Project Type	Response
Integration Broker (MIME)	A MIME response message is returned in the Output Information section of the Project workspace. If you post data to a PeopleSoft listening connector, the MIME response displays in the Output Information section of the Project Workspace. A message with the content <StatusCode>0</StatusCode> means the ping was successful.
Integration Broker (XML)	An HTTP response of 404 with data in the response is returned in the Output Information section of the Project workspace.

You can also use Integration Broker Monitor and the Simple Post utility to ping remote nodes.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker, “Using Integration Broker Monitor,” Pausing, Testing, and Pinging Nodes

[Chapter 3, “Using the Simple Post Utility ,” Pinging Remote Nodes, page 47](#)

Viewing Send Master Processing Performance Statistics

When working with Integration Broker MIME projects you can gather processing performance statistics.

Enabling the Send Master Statistics Feature

To enable the Send Master processing performance feature, check the Gather Statistics box on the Headers Cont. tab.

Accessing Send Master Processing Statistics

When the Gather Statistics feature is enabled, Send Master returns processing statistics in the Output Information section after a Post.

To access statistics information returned, from the View drop-down list, select Meta Data and then click the If Valid XML, Format button.

The data is contained in the following tag:

```
<IBProfileInformation>
```

Interpreting Send Master Processing Statistics

Send Master returns statistics relating to processing on the application server and gateway, as well as response processing.

Note. All values returned are in milliseconds.

Send Master returns the following statistics related to processing on the application server.

Statistic	Description
TransformInbound	Amount of time to process any inbound transformations.
OnRoutePeopleCode	Amount of time to execute OnRoute PeopleCode.
OnRequestPeopleCode	Amount of time to execute OnRequest PeopleCode.
TransformOutbound	Amount of time to process any outbound transformations.
DataBase	Amount of time for processing on the database.

Statistic	Description
AppServerSendTime	Amount of time to send the request to the application server. However, this value is not applicable in Send Master, since Send Master is sending the request, not the application server.
AppServerRecvTime	Amount of processing time on the application server.

Send Master returns the following statistics related to processing on the integration gateway.

Statistics	Description
Connector	Amount of time processing took place on the connector.
Transform	Amount of time performing gateway transformations.
GatewayTime	Total amount of time for processing on the integration gateway.

Send Master returns the following statistics related to processing the response message.

Statistics	Description
Transform	Amount of time performing transformation on the response.
GatewayTime	Total amount of time for processing the response on the integration gateway.

Statistics Example

The following code shows a sample of statistics that Send Master returns.

```
<?xml version="1.0"?>
<IBInfo>
  <TransactionID>
    <![CDATA[QE_UNDERDOG.QE_SALES_ORDER_SYNC_CHNL.af21859e-f5e7-11d7-
      b7f0-88b716eecd9a]]>
  </TransactionID>
  <Status>
    <StatusCode>0</StatusCode>
    <MsgSet>158</MsgSet>
    <MsgID>10000</MsgID>
  </Status>
  <ContentSections>
    <ContentSection>
      <ID>ContentSection0</ID>
      <NonRepudiation>N</NonRepudiation>
      <Headers>
        <version>
          <![CDATA[VERSION_1]]>
        </version>
      </Headers>
    </ContentSection>
  </ContentSections>
</IBInfo>
```

```

</ContentSections>
<IBProfileInformation>
  <AppServer>
    <TransformInbound>0</TransformInbound>
    <OnRoutePeopleCode>0</OnRoutePeopleCode>
    <OnRequestPeopleCode>0</OnRequestPeopleCode>
    <TransformOutbound>0</TransformOutbound>
    <DataBase>0</DataBase>
    <AppServerSendTime>0</AppServerSendTime>
    <AppServerRecvTime>0</AppServerRecvTime>
  </AppServer>
  <GatewayRequest>
    <Connector>24844</Connector>
    <Transform>0</Transform>
    <GatewayTime>651</GatewayTime>
  </GatewayRequest>
  <GatewayResponse>
    <Transform>0</Transform>
    <GatewayTime>211</GatewayTime>
  </GatewayResponse>
</IBProfileInformation>

</IBInfo>

```

Using Send Master to Export Request Messages

When working with Integration Broker MIME or Integration Broker XML project types, you can use Send Master to export a request message to a text file to examine the raw data that gets sent during a transaction.

Exporting Request Messages

To export a request message:

1. Open an Integration Broker MIME or Integration Broker XML project.
2. Select File, Export IBRequest. A Save dialog box displays.
3. Enter the location to save the file.

You can also view the raw data for a message in the integration gateway message log.

Allocating Additional Memory to Accommodate Posting Large Files

When posting files that are five megabytes (MB) or larger to the integration gateway you should allocate additional random access memory (RAM) in Send Master to handle larger file sizes.

If Send Master does not have enough memory for a task, an Out of Memory error can occur.

To allocate additional RAM in Send Master:

1. Close Send Master.
2. Open StartSendMaster.bat (Windows) or StartSendMaster.sh (UNIX).
3. Add the `-XmxZZm` parameter, where `ZZ` equals the amount of RAM, in megabytes, to allocate.
4. Save the file.
5. Re-open Send Master.

For example, the value `-Xmx128m` indicates to allocate 128 MB of RAM. The following example shows how to add the parameter in the StartSendMaster.bat file:

```
cd "applications\peoplesoft\PSIGW\WEB-INF\classes\com\peoplesoft\pt\sendmaster\"
java -Xmx128m -classpath "c:\ptdvl\webserv\peoplesoft\applications\
peoplesoft\PSIGW\WEB-INF\lib\xalan.jar;c:\ptdvl\webserv\peoplesoft\applications\
peoplesoft\PSIGW\WEB-INF\lib\xerces.jar;c:\ptdvl\webserv\peoplesoft\applications\
peoplesoft\PSIGW\WEB-INF\classes;c:\ptdvl\webserv\peoplesoft\applications\peoplesoft\
PSIGW\WEB-INF\lib\mail.jar;c:\ptdvl\webserv\peoplesoft\applications\peoplesoft\PSIGW\
WEB-INF\lib\activation.jar;c:\ptdvl\webserv\peoplesoft\applications\peoplesoft\PSIGW\
WEB-INF\lib\jmq.jar;c:\ptdvl\webserv\peoplesoft\applications\peoplesoft\PSIGW\WEB-INF\
lib\jms.jar;c:\ptdvl\webserv\peoplesoft\applications\peoplesoft\PSIGW\WEB-INF\lib\
jndi.jar" com.peoplesoft.pt.sendmaster.SendMaster
```

You can increase the amount of memory in Send Master to any value you wish, as long as your machine has the RAM to support the value you choose.

CHAPTER 3

Using the Simple Post Utility

This chapter discusses using the Simple Post utility to post third-party messages to integration gateways, and discusses how to:

- Access the Simple Post utility.
- Use the Simple Post class.
- Use the Simple Post utility via a Java API.
- Post third-party XML messages to the integration gateway.
- Ping remote nodes.
- Increase the Java heap size to accommodate posting large files.

Understanding the Simple Post Utility

The Simple Post utility enables you to use shell scripts or a Java API to post XML messages from third-party systems to the integration gateway. The utility wraps the incoming messages in the PeopleSoft XML wrapper format and posts them to the HTTP listening connector.

The Simple Post utility reads ASCII, UTF-8 and UTF-16 file formats for incoming messages and converts them to UTF-8 to send to the integration gateway.

Prerequisites

This section describes the prerequisites for using the Simple Post utility.

Software Requirements

To use the utility you must have the Java Runtime Environment (JRE) installed.

Setting Environment Variables

To use the Simple Post utility, must perform one of the following actions:

- Modify the CLASSPATH to include the location of the Simple Post utility.
- Pass the location of the PeopleSoft classes when you call the Simple Post class. For example:

```
java -cp "<PS_HOME>\webserv\<DOMAIN>\applications\peoplesoft\PSIGW\WEB-INF\classes
```

```
" com.peoplesoft.pt.simplepost.SimplePost ...
```

Accessing the Simple Post Class

The Simple Post utility is a Java class with the package name `com.peoplesoft.pt.simplepost.SimplePost`.

The location of the utility is `<PS_HOME>\websrv\<DOMAIN>\applications\peoplesoft\PSIGW\WEB-INF\classes\com\peoplesoft\pt\simplepost`.

Using the Simple Post Class

This section provides an overview of the Simple Post class, including its:

- Usage
- Syntax
- Parameters

Usage

The standard usage of the Simple Post class is:

```
com.peoplesoft.pt.simplepost.SimplePost [-options]
```

Syntax

The syntax for sending an XML message from a third-party system to the integration gateway is:

```
com.peoplesoft.pt.simplepost.SimplePost -reqnode
<requesting node> -msgname <message name>
-url <destination server URL. This is always
the HTTP listening connector> -infile <input file
name and path> -outfile <output file name and path>
-msgtype <message type> -msgver
<message version> -destnode <destination node name(s)>
-v <Display debugging output> -to
<timeout value> -?-help <Display help>
```

Note that you enter the syntax as a single line.

Parameters

The Simple Post utility parameters you can pass are shown in the following table.

Parameter	Description
-reqnode	Identifies the requesting node name.
-msgname	Identifies the name of the message you are sending.
-url	Identifies the destination server URL.
-infile	Identifies the path and file name to send. The root node must be name of the message. For example, if the name of the message is <i>SYNC_TEST</i> , the root node of the XML input file must be <code><SYNC_TEST></code> .
-outfile	Identifies the path and filename where the utility generates the response from the server.
-msgtype	(Optional) Identifies the message type. Values are: <ul style="list-style-type: none"> • <i>sync</i>: The message is synchronous. • <i>async</i>: The message is asynchronous. • <i>ping</i>: Tests the application server to make sure it is available and accepting requests.
-msgver	(Optional) A value that identifies the version number to apply to the message. For example, <i>VERSION_1</i> .
-destnode	(Optional) Identifies the destination node name.
-v	(Optional) Displays any debugging output.
-en	(Optional) Compresses and base64 encodes the data. When this command line option is located on the Simple Post call, the logic compresses and base64 encodes the data, places it into the Data node, and then adds the required headers into the request.
-to	(Optional) Identifies the timeout value. This integer value that determines the amount of time, in seconds, that the Simple Post class will wait for a response from the server.
-pwd	(Optional) Identifies the password for the destination node. This parameter is optional, unless the destination node requires a password.
-ou	(Optional) Identifies the ID of the originating user.

Parameter	Description
<i>-on</i>	(Optional) Identifies the name of the originating node.
<i>-op</i>	(Optional) Identifies the name of the originating process.
<i>-fdn</i>	(Optional) Identifies the name of the final destination node.
<i>-emid</i>	(Optional) Applies a unique external message ID to a message to ensure no duplicate messages are sent to PeopleSoft Integration Broker. The ID cannot exceed 70 characters.
<i>-nr</i>	(Optional) Specifies whether to turn on nonrepudiation. The valid values are: <ul style="list-style-type: none"> • <i>Y</i>: Turn on nonrepudiation. • <i>N</i>: Turn off nonrepudiation. (Default)
<i>-h</i>	(Optional). Specifies an HTTP header. For example: <code>SOAPAction: #MsgNm#RqNde#RqNdePwd#DstNde</code> There can be one:many <i>-h</i> parameter invocations. For example: <code>com.peoplesoft.pt.simplepost.SimplePost -reqnode QE_UNDERDOG -msgname QE_SYNC_MSG -url "http://jfranco040303/PSIGW /HttpListeningConnector" -infile "C:\UserMy DocumentsQE_ SYNC_MSGQE_SYNC_MSG.xml" -outfile "C:\Documents and SettingsDesktopout.txt" -h "SOAPAction: #QE_SYNC_MSG#QE_ UNDERDOG##QE_LOCAL" -h "test2:Joe_User"</code> Note. When Simple Post encounters an HTTP header name of SOAPAction, the content of the input file is not wrapped into IBRequest XML format and no IBInfo data is built. The IBInfo data, such as message name, requesting node, requesting node password, destination node, and so on, can be pulled from the SOAPAction field.
<i>-?-help</i>	(Optional) Displays a list of the Simple Post utility parameters.

Using the Simple Post Utility via a Java API

You can use the Simple Post utility via a Java API.

This section provides code examples that show how to:

- Construct a Java file that contains the parameter names and value pairs that the Simple Post utility requires.
- Compile the Java file.

- Run the test program.

Constructing a Java File Containing Simple Post Parameters

The following example shows a submission via a Java API.

```
// Import the SimplePost API
import com.peoplesoft.pt.simplepost.SimplePost;

/** Test class to use SimplePost functionality */
public class TestSimplePost {

    /** Constructor */
    public TestSimplePost() {}

    public static void main (String argv []) {

        // Create the SimplePost object
        SimplePost mainSPObj = new SimplePost();

        // Turn on printouts
        mainSPObj.setVerbose(true);

        // Use this function to see the output stream,
        // defaulted to System.out
        // mainSPObj.setOutputPrintStream(<PrintStream>);

        // Turn on Encoding for 8.4.3
        mainSPObj.setEncoding(true);

        // SET THE REQUIRED DATA

        // Requesting Node
        mainSPObj.setRequestingNode("QE_UNDERDOG");

        // Message Name
        mainSPObj.setMessageName("QE_SYNC_MSG");

        // Server URL, must be the HttpListeningConnector or a
        //connector that can accept an IBRequest XML message
        mainSPObj.setServerURL("http://localhost/PSIGW/
HttpListeningConnector");

        // Input file name, root node name must be the name of the message
        mainSPObj.setInputFileName("c:\\temp\\
QE_SYNC_MSG.xml");

        /* // Optional data
        mainSPObj.setMessageVersion("VERSION_1");
        mainSPObj.setMessageType(MESSAGE_TYPE_SYNC);
```

```

        mainSPObj.setDestinationNode("QE_LOCAL");
        mainSPObj.setTimeout(2.5);
        mainSPObj.setPassword("");
        mainSPObj.setOriginatingUser("");
        mainSPObj.setOriginatingNode("");
        mainSPObj.setOriginatingProcess("");
        mainSPObj.setSubChannel("");
        mainSPObj.setFinalDestinationNode("");
    */

    // Post the data
    boolean returnValue = mainSPObj.post();

    // Check the return value
    if (!returnValue) {

        // False, printout the error message
        System.out.println(mainSPObj.getMessage());

    } else {

        // Success!

        // Printout the return code and server message
        System.out.println("\n" + mainSPObj.getResponseCode() + " - " +
            mainSPObj.getResponseMessage());

        // Printout the headers
        System.out.print("\n" + mainSPObj.getResponseHeaders() + "\n");

        // Printout the data
        System.out.print("\n" + mainSPObj.getResponseData());
    }
}
}
}

```

Compiling the Java File

The following example shows a command line of compiling the Java file. In this example, the Java file name is *TestSimplePost.java*.

```

javac -classpath "C:\beawls61sp4\wlserver6.1\config\peoplesoft\applications
\PSIGW\WEB-INF\classes;." TestSimplePost.java

```

Running the Program

The following example shows how to invoke the test program.

```

java -classpath "C:\beawls61sp4\wlserver6.1\config\peoplesoft\applications
\PSIGW\WEB-INF\classes;." TestSimplePost

```

Posting Third-Party XML Messages to the Integration Gateway

This section provides step-by-step instructions for using the Simple Post utility to post XML messages from third-party systems to the integration gateway.

Posting Messages to the Integration Gateway

To post a third-party XML message to the integration gateway

1. Access the Simple Post utility.

In the Windows environment, open a Windows command prompt. Navigate to the utility as described earlier in this section.

In the UNIX environment, open a terminal window or shell window. Navigate to the utility location, as described earlier in this section.

2. Enter the following command followed by parameter name and value pairs.

```
java com.peoplesoft.pt.simplepost.SimplePost
```

You must enter parameter name and value pairs for:

- -reqnode
- -msgname
- -url
- -infile
- -outfile

3. Press ENTER.

Simple Post Submission Examples

The following is a Windows-based submission example:

```
java com.peoplesoft.pt.simplepost.SimplePost -reqnode KACNODE -msgname
QE_F18_ASYNC -url http://intgateway01/PSIGW/HttpListeningConnector
-infile C:\temp\QE_F18_ASYNC.xml -outfile C:\temp\out.xml -msgtype
async -msgver VERSION_1 -destnode UNDERDOG -v
```

The following is a UNIX-based submission example:

```
java com.peoplesoft.pt.simplepost.SimplePost -reqnode KACNODE -msgname
QE_F18_ASYNC -url http://intgateway01/PSIGW/HttpListeningConnector
-infile /temp/QE_F18_ASYNC.xml -outfile /temp/out.xml -msgtype async
-msgver VERSION_1 -destnode UNDERDOG -v
```

Pinging Remote Nodes

You can use the Simple Post utility to ping remote nodes.

Following is an example of a Simple Post command line ping. Notice that `-msgtype` parameter is set to `ping`:

```
java com.peoplesoft.pt.simplepost.SimplePost -reqnode JRHOME -msgname
JR_COUNTRY_MSG -infile c:\temp\pingin.xml -outfile c:\temp\pingout.txt
-msgtype ping -url http://jrunstad040102/PSIGW/HttpListeningConnector
```

Here's the result of a successful ping, pingout.txt:

```
<?xml version="1.0"?>
<IBResponse type = "success">
  <DefaultTitle>Integration Broker Response</DefaultTitle>
  <StatusCode>0</StatusCode>
  <TransactionID>null</TransactionID>
</IBResponse>
```

Increasing the Java Heap Size to Accommodate Posting Large Files

Understanding Increasing the Java Heap Size

When posting files that are five megabytes (MB) or larger to the integration gateway you should increase the Java heap size in the Simple Post Utility to handle larger file sizes. If the Simple Post Utility does not have enough memory for a task, an Out of Memory error can occur.

You can increase the heap size to any value you wish, as long as your machine has the RAM to support the value you choose.

The steps to increase the JVM heap size depend on the web server.

Increasing the Java Heap Size on BEA WebLogic Web Servers

When using a WebLogic web server, you increase the JVM heap size in the setenv.cmd file.

To increase the Java heap size on a BEA WebLogic web server:

1. Use a text editor to open the setenv.cmd file. The file is located via the following path: <PS_HOME>\webserv\peoplesoft.
2. Locate the SET JAVA_OPTIONS parameter.
3. Change or add the -XmxZZm parameter, where ZZ equals the amount of RAM, in megabytes, to the amount of memory to allocate.

The following example shows the parameter set to a maximum of 128 MB.

```
SET JAVA_OPTIONS=-hotspot -ms1m -mx128m
```

4. Save the changes.

When you invoke the Simple Post utility, you must specify the maximum Java heap size that you specified. For example, if you set the JAVA_OPTIONS parameter in the setenv.cmd file to 128 MB, when invoking the Simple Post utility you must add the following argument to the command line:

-Xmx1.28m

More information concerning BEA WebLogic tuning is located on the BEA WebLogic web site.

See <http://edocs.bea.com/wls/docs60/perform/JVMTuning.html#1104303>

Increasing the Java Heap Size on IBM WebSphere Web Servers

If your web server is IBM WebSphere, the JVM heap size is most likely set to a minimum heap size of 64 MB and a maximum size of 256 MB. Setting the JVM heap size to a larger minimum value (preferably one that equals the maximum value) avoids a compromise in performance incurred by dynamically growing the JVM and improves predictability; it also lessens the frequency for JVM garbage collection.

PeopleSoft recommends that if you use IBM WebSphere that you increase the JVM heap size to 256 MB.

To increase the Java heap size on an IBM WebSphere web server:

1. Stop and restart the web server using the following commands:
 - Stop the web server: `WAS_HOME/bin> stopServer.bat(sh) <serverName>`
 - Start the web server: `WAS_HOME/bin> startServer.bat(sh) <serverName>`
2. Open the Admin console at `http://<machine-name>:9090/admin`, where *9090* refers to the default Admin console port.
3. Login as any user.
4. Expand Servers, Application Servers, server, Process Definition, Java Virtual Machine.
5. Enter values for Initial Heap and Max Heap.
6. Save the configuration and logout.
7. Restart the web server.

CHAPTER 4

Using Automated EIP Testing

PeopleSoft provides a means for automated enterprise integration point (EIP) testing. You can perform automated EIP testing as a means to unit test, perform cross-application business process testing, or regression test EIPs. This chapter discusses:

- Uses for automated EIP testing.
- The processes for Automated EIP testing.
- Tools used for automated EIP testing.
- Setting up systems for automated EIP testing.
- Recording messages.
- Playing back messages.

Understanding Automated EIP Testing

Automated EIP testing is suitable for testing EIPs between PeopleSoft systems, PeopleSoft systems and third-party systems, and PeopleSoft systems and open interfaces.

You can use automated EIP testing with the following PeopleSoft integration technologies:

- Messaging, including asynchronous and synchronous publishing and subscribing.
- Component interfaces.
- Flat files.
- Staging tables.

Process Overview

The automated EIP testing process entails:

1. Recording messages.
2. Exporting messages.
3. Playing back messages.
4. Managing testing results.

Recording Messages

When using EIP test automation, PeopleSoft Integration Broker records message details as they go back and forth between PeopleSoft applications, as well as between PeopleSoft and third-party applications. This feature enables you to test integration when these systems are not available and then playback the messages at a later time to mimic integrating with them.

For synchronous transactions, PeopleSoft Integration Broker saves request and response messages as flat files, one file per message, in an EIP repository. For asynchronous transactions, only requests are saved.

Exporting Messages

PeopleSoft Integration Broker provides an export process that persists recorded request/response data as files to disk. After you export files, you can add them to your EIP certification repository.

To execute the export process, you use the Message Export command line tool.

Playing Back Messages

Message playback consists of outbound and inbound playback.

Outbound playback is testing from the source system when the target is not available. Inbound playback is testing the target system when the source is not available. In either case, you can use Send Master or the Batch Project Executor to act at the source system.

Managing Testing Results

The EIP test tool writes messages as files in directories to an EIP test data repository. After testing, these directories of message data need to be managed in a repository for subsequent use.

Uses for Automated EIP Testing

You can use automated EIP testing for the following levels of testing:

- Unit testing during EIP development.
- Cross-application business process testing.
- Regression testing.

Unit Testing EIPs

Unit testing occurs during EIP development, prior to cross-application business process testing. The components of an EIP that you can test include message publication and subscription PeopleCode, transformations and content-based routing logic. You can also test business logic in a component that will behave differently when accessed from a component interface than through a PeopleSoft Pure Internet Architecture page.

The process for unit testing EIPs is:

1. Build EIPs prior to cross-business business process testing.
2. Generate test data for the EIP test process.
3. Use the EIP test automation tools to test the EIP.
4. Validate results by looking at Integration Broker Monitor for both inbound and outbound messages. You can further verify inbound playback results by viewing the tables involved in the integration.
5. Validate dependent processes by running a process that depends on the data being integrated.
6. Submit 'bad' messages to test error handling.

7. Submit messages in bulk to volume test the EIP.

Cross-Application Business Process Testing

Business process testing involves testing EIPs in one application against a target application and version for which it was designed. As an example, you could test EIPs among two PeopleSoft applications.

The steps for cross-application business process testing are:

1. Set up multiple product lines in one test environment.
2. Manually enter data on PeopleSoft Pure Internet Architecture pages, or use an automated tool for doing so.
3. PeopleSoft Integration Broker records the EIP messages.
4. Run dependent processes on each side to validate the data.

Note. For full synchronous messaging testing it may not be practical to run dependent processes due to the large number of transactions involved. You can open the table records to verify that the data you are expecting is present, or use an automated database table compare tool.

5. Consolidate message data into a test repository for later use.

Regression Testing

Regression occurs after cross-application business process testing. You can minimize the need for regression testing by requiring users to test their code changes with the data captured during testing. This enables testing published interfaces in other applications against changes to EIPs in the application.

The process for regression testing is:

- Messages recorded during testing are played back to test EIPs.
- Dependent processes are run to validate results.

Understanding Tools Used in Automated EIP Testing

This section describes tools used in automated EIP testing.

EIP Data Repository

PeopleSoft Integration Broker builds the following EIP test data repository structure during the export process.

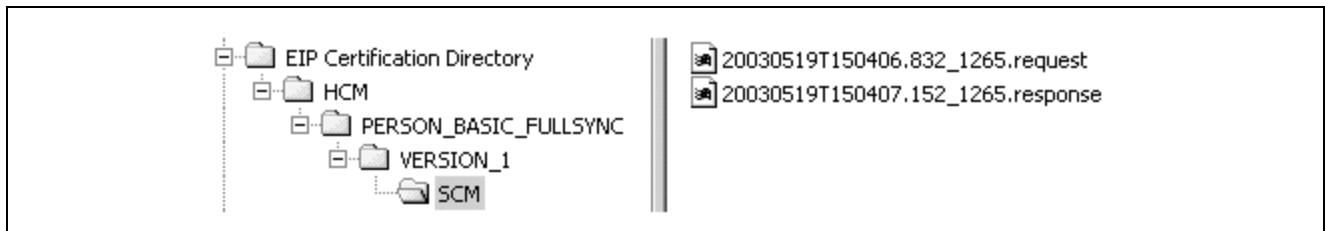
You specify the top-level directory for the repository in the integration gateway properties file using the `ig.EIPInputDirectory` property.

Warning! Do not change this directory structure. This structure is required for outbound playback. If you alter this structure, PeopleSoft Integration Broker cannot locate response files.

- **Source** application name and version (Requesting node)
 - **Message name**
 - **Message version**
 - **Target** application name and version (Destination node)
 - If synchronous
 - Request and response MIME files:
 - <time stamp>_<hash code>.request
 - <time stamp>_<hash code>.response
 - **Request** human readable "transaction data" files:
 - <index>.request
 - **Response** human readable "transaction data" files:
 - <index>.response
 - If asynchronous
 - Request files
 - <time stamp>.request
 - **Request** human readable "transaction data" files:
 - <index>.request

EIP test data repository structure

The following graphic shows what the structure might look like in Windows Explorer using real data.



Sample EIP test data repository structure in Windows Explorer

EIP Gateway Manager

When a synchronous request is received during testing, the gateway manager performs a lookup in the cached data gathered from EIP test message property file. If a match is found, the request XPath's are traversed to build the appropriate hash that can then be used to locate the corresponding response located within the EIP certification repository. The response file is loaded and passed back to the requestor.

For asynchronous requests an acknowledgement is generated as the response and passed back to the requestor.

In addition to returning the appropriate response files during outbound playback, the gateway manager acts as the request and response logging mechanism. When the appropriate flag is set in the integration gateway properties file, the gateway manager logs request and response files into the defined output directory. Response and request file have the following naming convention.

```
<time stamp>.<request or response>
```

For example:

```
220030519T150406.832.request
```

Integration Gateway Properties File

The integration gateway properties file contains an EIPTestTool Properties section where you set the following information for EIP test automation:

Property	Description
ig.gatewayManagerClass=com.peoplesoft.pt. integrationgateway.eiptesttool.EIPTestToolGatewayManager	Indicates the class name of the gateway manager to use during processing
ig.EIPLoopBack	Determines if the integration gateway should be in record or playback mode. Set this property equal to <i>True</i> for outbound playback, and set it equal to <i>False</i> for recording. The default is <i>True</i> .
ig.EIPOutputDirectory	Indicates the directory to store request and response files during recording. The default is <i>c:/temp/output</i> .
ig.EIPMsgProp.count	Indicates the number of EIP test message properties file that are in use for test automation. The default is 0 (zero).
ig.EIPInputDirectory	Indicates the location of the EIP test data repository that houses request and response data. The default is <i>c:\temp\input</i> .
ig.EIPMsgProp.N.propFile	Indicates the name and location of an EIP message properties file <i>N</i> denotes the index number for this property. The index starts at 1 and incrementally count up to the number specified by the <i>ig.EIPMsgProp.count</i> property.
ig.EIPMsgProp.N.inputDirectory	Indicates the input directory path for request or response data in situations where an EIP message property file uses a directory structure other than the default certification directory. Use as an override for the <i>ig.EIPInputDirectory</i> property.
ig.EIPNodeMap	Indicates the location and name of the node map file to use during outbound playback (Loop back) testing.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker, “Managing Integration Gateways,” Using the *integrationGateway.properties* File

EIP Test Message Properties File

EIP test message property files are XML files that contain synchronous EIP definitions broken down by product or sub-product and are used during message export and outbound playback.

Note. EIP test message properties files are required for synchronous messages only.

One EIP test message properties file must exist for each product line or sub-product.

EIP testing meta data is not contained in a single file, since it does not scale well and because this information needs to be cached and accessed quickly.

Each EIP entry is keyed by: requesting node, destination node, message name and message version.

You specify the location of the file in the integration gateway properties file using the `ig.EIPMsgProp.N.propFile` property.

The EIP test message properties file contains the following properties for synchronous EIPs:

- Requesting node.
- Destination node.
- Message name.
- Message version.
- XPath(s) to fields in the request to be used as the unique key. Leave this blank to use the entire contents as the hash key.
- Description.

The following example shows a sample EIP test message properties file.

```
<<?xml version="1.0"?>
<eips>
  <eip messagename="QE_SYNC_MSG" messageversion="VERSION_1"
    destinationnode="QE_LOCAL">
    <descr>
      <![CDATA[Outbound synchronous QE_SYNC_MSG from QE_UNDERDOG
        to QE_LOCAL]]>
    </descr>
    <xpath>MSGDATA/TRANSACTION/QE_SALES_ORDER/QE_ACCT_ID</xpath>
    <xpath>MSGDATA/TRANSACTION/QE_SALES_ORDER/QE_ACCOUNT_NAME</xpath>
  </eip>
</eips>
```

Send Master

The Send Master utility features an EIP Testing (Batch EIP) project type that enables you to test batches of MIME messages from a directory, and allows for the testing of different transaction values.

In addition to using the Send Master graphical user interface, you can also initiate automated testing through a Batch Project Executor command line tool.

See Also

[Chapter 2. "Using the Send Master Utility." Using EIP Testing Projects, page 28](#)

Message Export Command Line Tool

The Message Export command line tool is a batch file that extracts transaction data from request and response data and creates a hierarchical structure of source, message, message version and destination directories in the EIP test data repository.

The location of the Message Export command line tool is `<PS_HOME>\webserv\<domain>\MessageExport.bat`.

Usage

The standard usage of the Message Export tool is:

```
MessageExport [-options]
```

Syntax

The syntax for using the Message Export tool is:

```
MessageExport -in "C:\temp\input" -out
"C:\temp\output" -eip "V:/EIP;c:/temp/localtest"
-result "C:\temp\output\result.txt"
```

Parameters

The Message Export parameters you can pass are shown in the following table.

Parameter	Description
-in	Indicates the input directory used during recording that contains all of the request and response files generated from the EIP gateway manager.
-out	Indicates the location of the directory for the EIP test data repository.
-eip	Indicates the list of EIP message property files separated by the a semicolon. This parameter is not required for asynchronous EIPs.
-result	Indicates the name of the file that will contain the results of the export process. The contents of this file is represented as XML.
-ow	(Optional) Overwrite files if they already exist.
-cd	(Optional) Use this parameter to create the output directory if PeopleSoft Integration Broker does not find it.
-rn	(Optional) Specify the requesting node. You can specify one value only. All other requesting node values in the input directory will be ignored.
-dn	(Optional) Specify the destination node. You can specify one value only. All other destination node values in the input directory will be ignored.
-mn	(Optional) Specify the message name. You can specify one value only. All other message names in the input directory will be ignored.
-mv	(Optional) Specify the message version for the message name you selected. You can specify one value only. All other message versions for the selected message name in the input directory will be ignored.
-? -help	(Optional) Displays the Help menu.

Output

If an export is successful, the contents of the output file resembles the following.

```
<?xml version="1.0"?>
```

```

<success>
  <file path="c:\QE_SYNC_LOG\20030721T094609.877.request" success="true"/>
  <file path="c:\QE_SYNC_LOG\20030721T094609.877.response" success="true"/>
  <file path="c:\QE_SYNC_LOG\20030721T094618.470.request" success="true"/>
  <file path="c:\QE_SYNC_LOG\20030721T094618.470.response" success="true"/>
  <file path="c:\QE_SYNC_LOG\20030721T094622.476.request" success="true"/>
  <file path="c:\QE_SYNC_LOG\20030721T094622.476.response" success="true"/>
  <file path="c:\QE_SYNC_LOG\20030721T094626.231.request" success="false">
  <![CDATA[Could not create file: Do not have file permission.]]></file>
</success>

```

If an export is not successful, the contents of the output file resembles the following:

```

<?xml version="1.0"?>
<failure>
  <![CDATA[Invalid output directory: C:\Documents and Settings\Jfranco\
  Desktop\export]]>
</failure>

```

Hash Key Generator Command Line Tool

When you use the Message Export tool, PeopleSoft Integration Broker generates unique request and response pairs, as well as creates a unique hash key ID for the generated pair. The hash key is used by the integration gateway during playback to make sure proper correlation occurs between the request and response files.

If you bypass the export process and manually add files for testing, or you want to perform testing when the target or source systems are not available to perform proper recording, you must use generate a hash key. The Hash Key Generator is a command line tool that enables you to generate that hash key.

The location of the Hash Key Generator command line tool is <PS_HOME>\webserv\
<domain>\HashKeyGenerator.bat.

Usage

The standard usage for the Hash Key Generator is:

```
HashKeyGenerator [-options]
```

Syntax

The syntax for using the Hash Key Generator is:

```
HashKeyGenerator -in "C:\temp\input.txt"
```

```
HashKeyGenerator t -v 214 "John Doe" PeopleSoft
```

```
HashKeyGenerator -v Sally 1234 -t
```

Parameters

The Hash Key Generator parameters you can pass are described in the following table.

Parameter	Description
-in	Indicates the file name to be used as the hash value. When working with non-XML files, the entire value must be hashed.
-t	The returned hash value will prepend a timestamp value.
-v	Indicates values to use as the hash key. When this parameter is encountered, PeopleSoft Integration Broker uses all values specified in the hash key until it encounters the next “-” option.
-? -help	(Optional) Displays the Help menu.

Node Map Properties File

A Node Map properties file is an XML file that enables you to associate renamed or custom node names with actual shipped application node names. This enables you to use unique node names during testing.

This file is used during outbound playback.

You create this file and specify the shipped application node names and all custom node names in use for a specific node. You must specify the file name and location in the integration gateway properties file, using the `ig.EIPNodeMap` property.

The following example shows a node map properties file.

```
<?xml version="1.0"?>
<nodemap>
  <map name="PSFT_HR">
    <node name="HRTST01"/>
    <node name="HRTST02"/>
    <node name="HRTST03"/>
  </map>
  <map name="PSFT_CRM">
    <node name="CRMTST01"/>
    <node name="CRMTST02"/>
    <node name="CRMTST03"/>
  </map>
</nodemap>
```

In the highlighted portion of the example, the map name `PSFT_HR` corresponds to a delivered application node. The node names `HRTST01`, `HRTST02` and `HRTST03` correspond to custom nodes names in use.

Recording Messages

To record messages, all PeopleSoft systems involved in the integration must be configured and running to allow PeopleSoft Integration Broker to capture the exact structure of each integration point as they pass between the systems.

1. Set the following properties in the `EIPTestTool Properties` section in the integration gateway properties file:

- a. Set the gateway manager class to *EIP Gateway Manager*. To do so, uncomment the following line:

```
ig.gatewayManagerClass=com.peoplesoft.pt.integrationgateway.eiptesttool.
EIPTestToolGatewayManager
```

- b. Set loop back to *False*. To do so, uncomment the following line:

```
ig.EIPLoopBack=True
```

Change the parameter value to *False*.

- c. Set the log output directory. To do so, uncomment the following line:

```
ig.EIPOutputDirectory=c:/temp/output
```

You can change the directory location as appropriate.

- d. For synchronous messages, you must define the number of EIP test message properties in use for the test, specify define the necessary number of entries for the EIP test message properties file. To do so, uncomment the following line:

```
ig.EIPMsgProp.count
```

Set this property equal to the number of EIP test message properties files in use for the test. For example:

```
ig.EIPMsgProp.count=3
```

You must also specify the location of the EIP test message properties files for each file directory in use for testing. The number of files you specify should equal the value you specified for the `ig.EIPMsgProp.count` property.

To specify the EIP test message files for the test, uncomment the following line:

```
ig.EIPMsgPropN.propFile
```

Enter the name and location of each EIP test message properties file in use for the test.

For example:

```
ig.EIPMsgProp1.propFile=c:\temp\File_1.xml
```

2. Launch the necessary processes on the source system to invoke integration points with the target system.

To verify that recording took place, navigate to the output directory you specified earlier. The persisted request and response files use the following naming conventions.

```
<time stamp>.<request>
<time stamp>.<response>
```

Playing Back Messages

Playing back messages enables you to continue message testing as if the external system is up and running.

Inbound message playback enables you to simulate inbound asynchronous and synchronous message processing. Outbound playback enables you to simulate outbound asynchronous and synchronous message processing.

Inbound Playback

To perform inbound playback:

1. In the EIPTestTool properties section of the integration gateway properties file, set the gateway manager class to *EIP Gateway Manager*. To do so, uncomment the following line:

```
ig.gatewayManagerClass=com.peoplesoft.pt.integrationgateway.eiptesttool.  
EIPTestToolGatewayManager
```

2. Purge all message data in the system or the data specific to the EIP test.
3. Create and run a Send Master project of type EIP Testing (EIP Batch) for each message type to test.
4. Run the message export process on the response directory populated during testing.
5. Compare the transaction data returned by the export process to the data that is stored in the EIP test data repository.

See Also

[Chapter 2, “Using the Send Master Utility,” Using EIP Testing Projects, page 28](#)

Outbound Playback

To perform outbound playback:

1. Set the following properties in the EIPTestTool Properties section in the integration gateway properties file:
 - a. Set the gateway manager class to *EIP Gateway Manager*. To do so, uncomment the following line:

```
ig.gatewayManagerClass=com.peoplesoft.pt.integrationgateway.eiptesttool.  
EIPTestToolGatewayManager
```

- b. Set loop back to *True*. To do so, uncomment the following line:

```
ig.EIPLoopBack=True
```

Change the parameter value to *True*, if necessary.

- c. Set the location of the input file directory. To do so, uncomment the following line and set the value equal to the location of the directory.

```
ig.EIPInputDirectory=
```

- d. Set the log output directory. To do so, uncomment the following line:

```
ig.EIPOutputDirectory=c:/temp/output
```

You can change the directory location as appropriate.

- e. For synchronous messages, you must define the number of EIP test message properties in use for the test, specify define the necessary number of entries for the EIP test message properties file. To do so, uncomment the following line:

```
ig.EIPMsgProp.count
```

Set this property equal to the number of EIP test message properties files in use for the test. For example:

```
ig.EIPMsgProp.count=1
```

You must also specify the location of the EIP test message properties files for each file directory in use for testing. The number of files you specify should equal the value you specified for the `ig.EIPMsgProp.count` property.

To specify the EIP test message files for the test, uncomment the following line:

```
ig.EIPMsgPropN.propFile
```

Enter the name and location of each EIP test message properties file in use for the test.

For example:

```
ig.EIPMsgProp1.propFile=c:\temp\File_1.xml
```

2. Launch the necessary processes on the source system to invoke integration points with the target system.
3. Run the message export process on the log output directory used during testing to pull back the transaction data” for use in data comparison.
4. View the integration gateway logs or Integration Broker Monitor to verify that the inbound requests are valid and that PeopleSoft Integration Broker sending the proper responses from the repository.
5. Compare the transaction data returned by the export process to the data that is stored in the EIP test data repository to view expected versus actual results. You can accomplish this by manually reviewing the database tables or by using an automated database table compare tool.

See Also

[Chapter 4, “Using Automated EIP Testing,” Message Export Command Line Tool, page 56](#)

CHAPTER 5

Using the Transformation Test Utility

This chapter discusses how:

- Run the Transformation Test utility.
- Run the sample transformation test project.

Understanding the Transformation Test Utility

PeopleSoft Integration Broker provides the Transformation Test utility that you can use to test Application Engine transform programs without actually sending a message, and with minimal development effort. You use the Transformation Test component (IB_TRANSFORM_TEST) to access the utility.

The runtime Integration Broker messaging environment requires several development and administration activities to invoke an Application Engine transform program. At a minimum you must define a channel, a message, sending and receiving PeopleCode, source and destination nodes, sending and receiving transactions, a relationship, a transaction modifier, and the transform program. However, the Transformation Test utility greatly simplifies the process of testing and debugging your transform programs, because its requirements are minimal.

Prerequisites

If your transform program doesn't use codesets for data translation, you need only develop the program and provide an XML DOM-compliant file containing sample message data to be transformed.

If your transform program does use codesets, you must also define two nodes, their codeset groups, codesets, and codeset values that are invoked by the program.

Running the Transformation Test Utility

Select PeopleTools, Integration Broker, Utilities, Transformation Test to access the Transformation page.

Transformation Test

Project Name PT_IBTRANSFORM_TEST

***Program Name**

***Source Node Name**

***Destination Node Name**

***File Name**

Message Text

```
<?xml version="1.0"?>
<Success>Hello World!</Success>
```

Transformation Test page

Note. The project name you specify identifies the test you're applying, and is for your reference only. It has no significance outside of this utility.

Program Name	Select the name of the Application Engine transform program you want to test.
Source Node	Enter the name of the node whose codeset group defines the structure of the input data. This field is used for codeset-based data translation.
Dest Node	Enter the name of the node whose codeset group defines the structure of the output data. This field is used for codeset-based data translation.
File Name	Enter the full path and name of the sample input message file.
Transform	Click to apply the transform program to the sample input message.
Message Text	This field displays the output of the transform program.

Note. For the current release, even if you're not using codesets you still must enter values for the Source Node and Dest Node fields. You don't need to actually define any nodes; just enter a string that qualifies as a valid node name, for example "ANYNODE."

Running the Sample Transformation Test Project

PeopleSoft provides a sample project called PT_IBTRANSFORM_TEST that you can use to run a sample test using the utility.

To run the sample test:

1. Select PeopleTools, Integration Broker, Utilities, Transform Utility.
2. Select the PT_IBTRANSFORM_TEST project.
3. In the File Name field, modify the value with your PS_HOME directory where indicated.

Enter Your PS_HOME Path Here \sdk\pstransform\samples\TRANSFORMTST.xml

4. Click the Transform button.

The test is success when you see the following code in the Message Text box.

```
<?xml version="1.0"?>  
<Success>Hello World!</Success>
```


APPENDIX A

Using Send Master to Test Third-Party Messaging and Transform Legacy System Data

The appendix provides an example of using Send Master to simulate a legacy system sending data in comma separated value (CSV) format into PeopleSoft Integration Broker. This appendix discusses how to:

- Import the CSV transformation project.
- Configure the transformations.
- Set up Send Master for the integration.
- Launch the integration.

Understanding This Example

The appendix provides an example that demonstrates a legacy system sending comma separated value (CSV) data in a synchronous message into PeopleSoft Integration Broker.

In the example, Send Master serves as the legacy system that sends data to PeopleSoft Integration Broker.

PeopleTools 8.45 provides a PeopleSoft Application Designer project which contains the records, messages, application engine and other meta data needed to use the example.

Prerequisites

Before you can use the example, you must have PeopleSoft Integration Broker and the integration gateway configured and running.

Verify that the application server domain is active, the pub/sub servers are started, the integration gateway and the integrationGateway.properties file are configured.

Importing the CSV Transformation Project

The SENDMASTER_CSV_XRFM project adds field, record, application engine program, message, message node, and PeopleCode definitions to your system. Examining the project source code will illustrate the objects and code used to implement this example.

This section describes how to import the CSV transformation project and create the application database tables.

Understanding the CSV Transformation Project

The CSV transformation project delivered with this release of PeopleTools provides all the objects needed to run the example provided in this appendix.

The following table lists several of the objects included in the project.

Note. In the example presented in this appendix, Send Master serves as the legacy system.

Object Type	Object Name	Description
Node	SENDMASTER_TEST	A remote node representing the third-party/Send Master system.
Message	SENDMASTER_RQST	Inbound request message from the legacy system to PeopleSoft. In this project, the legacy system sends this request message, a transformation (CSV_IN) is applied to it, and it is consumed by PeopleSoft Integration Broker.
Message	SENDMASTER_RESP	Outbound response message from PeopleSoft to the legacy system. In this project, PeopleSoft sends this response message, a transformation (CSV_OUT) is applied to it, and it is consumed by the legacy system.
Application engine	CSV_IN	Request application engine transformation program which takes the original CSV data and transforms it into the PeopleSoft message format.
Application engine	CSV_OUT	Response application engine transformation program transformation which takes the response data in the PeopleSoft message format and transforms it back to the CSV file format so the legacy system can read the data.

The project also includes several fields and records used in the request and response messages and messaging PeopleCode. It also includes transformation PeopleCode and XSLT.

After you import the project into PeopleSoft Application Designer, use the Upgrade tab in the project view to display all project objects, including those created in the PeopleSoft Pure Internet Architecture.

Importing the Project

To import the project:

1. Open PeopleSoft Application Designer.
2. Select Tools, Copy Project, From File . . .
3. Browse to the location of the project and click Open. The location of the project is:

```
<PS_HOME>/sdk/pssendmaster/samples/SENDMASTER_CSV_XFRM/SENDMASTER_CSV_XFRM.ini
```

The Copy From File dialog box displays. In the Definitions Type(s) section, all of the following definitions should be selected: records, fields, application engine programs, application engine sections, message, message nodes, message PeopleCode, application engine PeopleCode, and XSLT.

4. Click the Copy button.

Creating Application Database Tables

To create the application database table:

1. Open PeopleSoft Application Designer.
2. Select Build, Project. The Build dialog box displays.
3. In the Build Options section, select the Create Tables option.
4. In the Build Execute Options section, select the Execute SQL Now option.
5. Click the Build button.
The Build Process dialog box displays.
6. When the process is completed, click the Close button.

Configuring the Transformation

This section describes how to configure the transformations used in this example. In configuring the transformations, you create a relationship on the SENDMASTER_TEST node that will execute the inbound and outbound message transformations.

To create a relationship for the SENDMASTER_TEST node:

1. In the PeopleSoft Pure Internet Architecture, select PeopleTools, Integration Broker, Relationships.
The Relationships page displays.
2. Click the Add a New Value tab.
3. In the Relationship ID field, enter *SENDMASTER_TEST*, and click the Add button
.
4. In the Description field, enter *Send Master Test*.
5. Verify that the Relationship Status is Active.
6. In both Node Name fields, select SENDMASTER_TEST.
7. Click the Save button.
8. Click the Transaction Modifiers tab, and click the Add Transaction Modifier button at the bottom of the page. The Relationship Transactions page displays.
9. Enter the following field values on the Relationship Transaction page:

Field	Value
Initial Node	<i>SENDMASTER_TEST</i>
Request Message Name	<i>SENDMASTER_RQST</i>
Source Request Message Version	<i>VERSION_1</i>

Field	Value
Transaction Type	<i>InSync</i> (Inbound Synchronous)
Result Node	<i>SENDMASTER_TEST</i>
Request Message Name	<i>SENDMASTER_RESP</i>
Target Request Message Version	<i>VERSION_1</i>

10. Click the Add button.

The Relationship-Transaction Modifiers page displays.

11. In the Result section, from the Transaction Type dropdown list, select IS.

12. In the Transformation section:

- a. In the Request field, select *CSV_IN*.
- b. In the Response field, select *CSV_OUT*.

13. Click the Save button.

Setting Up Send Master for the Integration

To set up Send Master for the integration:

1. Launch Send Master from the following location.

```
<PS_HOME>\webserv\peoplesoft\StartSendMaster.bat(.sh)
```

2. Create an Input File project type.

Name the project as you wish.

3. In the Server URL field enter the following.

```
http://localhost/PSIGW/HttpListeningConnector?From=SENDMASTER_TEST&To=DEFAULT_
LOCAL_NODE&MessageName=SENDMASTER_RQST&MessageVersion=VERSION_1
```

Replace *DEFAULT_LOCAL_NODE* with the default local node name for your system.

4. In the Headers field, enter *Content-type: text/plain; charset=UTF8*.

5. In the Input Information section, enter the following:

```
1234,Robert Smith,4411 PeopleSoft Parkway
5678,Jane Doe,345 W. Easland
```

Verify that the last character in the file is the "d" in "Easland." An extra line feed will cause the transform to fail.

The next section describes how to launch the integration.

Launching the Integration

To launch the integration, after you set up the input file project in Send Master described in the previous section, click the Post button.

The Output Information section in Send Master displays *1234,5678*, which is the output of the response message.

APPENDIX B

ISO Country and Currency Codes

PeopleBooks use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

This appendix discusses:

- ISO country codes.
- ISO currency codes.

See Also

“About These PeopleBooks Preface,” Typographical Conventions and Visual Cues

ISO Country Codes

This table lists the ISO country codes that may appear as country identifiers in PeopleBooks:

ISO Country Code	Country Name
ABW	Aruba
AFG	Afghanistan
AGO	Angola
AIA	Anguilla
ALB	Albania
AND	Andorra
ANT	Netherlands Antilles
ARE	United Arab Emirates
ARG	Argentina
ARM	Armenia
ASM	American Samoa
ATA	Antarctica

ISO Country Code	Country Name
ATF	French Southern Territories
ATG	Antigua and Barbuda
AUS	Australia
AUT	Austria
AZE	Azerbaijan
BDI	Burundi
BEL	Belgium
BEN	Benin
BFA	Burkina Faso
BGD	Bangladesh
BGR	Bulgaria
BHR	Bahrain
BHS	Bahamas
BIH	Bosnia and Herzegovina
BLR	Belarus
BLZ	Belize
BMU	Bermuda
BOL	Bolivia
BRA	Brazil
BRB	Barbados
BRN	Brunei Darussalam
BTN	Bhutan
BVT	Bouvet Island
BWA	Botswana
CAF	Central African Republic
CAN	Canada
CCK	Cocos (Keeling) Islands

ISO Country Code	Country Name
CHE	Switzerland
CHL	Chile
CHN	China
CIV	Cote D'Ivoire
CMR	Cameroon
COD	Congo, The Democratic Republic
COG	Congo
COK	Cook Islands
COL	Colombia
COM	Comoros
CPV	Cape Verde
CRI	Costa Rica
CUB	Cuba
CXR	Christmas Island
CYM	Cayman Islands
CYP	Cyprus
CZE	Czech Republic
DEU	Germany
DJI	Djibouti
DMA	Dominica
DNK	Denmark
DOM	Dominican Republic
DZA	Algeria
ECU	Ecuador
EGY	Egypt
ERI	Eritrea
ESH	Western Sahara

ISO Country Code	Country Name
ESP	Spain
EST	Estonia
ETH	Ethiopia
FIN	Finland
FJI	Fiji
FLK	Falkland Islands (Malvinas)
FRA	France
FRO	Faroe Islands
FSM	Micronesia, Federated States
GAB	Gabon
GBR	United Kingdom
GEO	Georgia
GHA	Ghana
GIB	Gibraltar
GIN	Guinea
GLP	Guadeloupe
GMB	Gambia
GNB	Guinea-Bissau
GNQ	Equatorial Guinea
GRC	Greece
GRD	Grenada
GRL	Greenland
GTM	Guatemala
GUF	French Guiana
GUM	Guam
GUY	Guyana
GXA	GXA - GP Core Country

ISO Country Code	Country Name
GXB	GXB - GP Core Country
GXC	GXC - GP Core Country
GXD	GXD - GP Core Country
HKG	Hong Kong
HMD	Heard and McDonald Islands
HND	Honduras
HRV	Croatia
HTI	Haiti
HUN	Hungary
IDN	Indonesia
IND	India
IOT	British Indian Ocean Territory
IRL	Ireland
IRN	Iran (Islamic Republic Of)
IRQ	Iraq
ISL	Iceland
ISR	Israel
ITA	Italy
JAM	Jamaica
JOR	Jordan
JPN	Japan
KAZ	Kazakstan
KEN	Kenya
KGZ	Kyrgyzstan
KHM	Cambodia
KIR	Kiribati
KNA	Saint Kitts and Nevis

ISO Country Code	Country Name
KOR	Korea, Republic of
KWT	Kuwait
LAO	Lao People's Democratic Rep
LBN	Lebanon
LBR	Liberia
LBY	Libyan Arab Jamahiriya
LCA	Saint Lucia
LIE	Liechtenstein
LKA	Sri Lanka
LSO	Lesotho
LTU	Lithuania
LUX	Luxembourg
LVA	Latvia
MAC	Macao
MAR	Morocco
MCO	Monaco
MDA	Moldova, Republic of
MDG	Madagascar
MDV	Maldives
MEX	Mexico
MHL	Marshall Islands
MKD	Fmr Yugoslav Rep of Macedonia
MLI	Mali
MLT	Malta
MMR	Myanmar
MNG	Mongolia
MNP	Northern Mariana Islands

ISO Country Code	Country Name
MOZ	Mozambique
MRT	Mauritania
MSR	Montserrat
MTQ	Martinique
MUS	Mauritius
MWI	Malawi
MYS	Malaysia
MYT	Mayotte
NAM	Namibia
NCL	New Caledonia
NER	Niger
NFK	Norfolk Island
NGA	Nigeria
NIC	Nicaragua
NIU	Niue
NLD	Netherlands
NOR	Norway
NPL	Nepal
NRU	Nauru
NZL	New Zealand
OMN	Oman
PAK	Pakistan
PAN	Panama
PCN	Pitcairn
PER	Peru
PHL	Philippines
PLW	Palau

ISO Country Code	Country Name
PNG	Papua New Guinea
POL	Poland
PRI	Puerto Rico
PRK	Korea, Democratic People's Rep
PRT	Portugal
PRY	Paraguay
PSE	Palestinian Territory, Occupie
PYF	French Polynesia
QAT	Qatar
REU	Reunion
ROU	Romania
RUS	Russian Federation
RWA	Rwanda
SAU	Saudi Arabia
SDN	Sudan
SEN	Senegal
SGP	Singapore
SGS	Sth Georgia & Sth Sandwich Is
SHN	Saint Helena
SJM	Svalbard and Jan Mayen
SLB	Solomon Islands
SLE	Sierra Leone
SLV	El Salvador
SMR	San Marino
SOM	Somalia
SPM	Saint Pierre and Miquelon
STP	Sao Tome and Principe

ISO Country Code	Country Name
SUR	Suriname
SVK	Slovakia
SVN	Slovenia
SWE	Sweden
SWZ	Swaziland
SYC	Seychelles
SYR	Syrian Arab Republic
TCA	Turks and Caicos Islands
TCD	Chad
TGO	Togo
THA	Thailand
TJK	Tajikistan
TKL	Tokelau
TKM	Turkmenistan
TLS	East Timor
TON	Tonga
TTO	Trinidad and Tobago
TUN	Tunisia
TUR	Turkey
TUV	Tuvalu
TWN	Taiwan, Province of China
TZA	Tanzania, United Republic of
UGA	Uganda
UKR	Ukraine
UMI	US Minor Outlying Islands
URY	Uruguay
USA	United States

ISO Country Code	Country Name
UZB	Uzbekistan
VAT	Holy See (Vatican City State)
VCT	St Vincent and the Grenadines
VEN	Venezuela
VGB	Virgin Islands (British)
VIR	Virgin Islands (U.S.)
VNM	Viet Nam
VUT	Vanuatu
WLF	Wallis and Futuna Islands
WSM	Samoa
YEM	Yemen
YUG	Yugoslavia
ZAF	South Africa
ZMB	Zambia
ZWE	Zimbabwe

ISO Currency Codes

This table lists the ISO country codes that may appear as currency identifiers in PeopleBooks:

ISO Currency Code	Description
ADP	Andorran Peseta
AED	United Arab Emirates Dirham
AFA	Afghani
AFN	Afghani
ALK	Old Lek
ALL	Lek
AMD	Armenian Dram

ISO Currency Code	Description
ANG	Netherlands Antilles Guilder
AOA	Kwanza
AOK	Kwanza
AON	New Kwanza
AOR	Kwanza Reajustado
ARA	Austral
ARP	Peso Argentino
ARS	Argentine Peso
ARY	Peso
ATS	Schilling
AUD	Australian Dollar
AWG	Aruban Guilder
AZM	Azerbaijani Manat
BAD	Dinar
BAM	Convertible Marks
BBD	Barbados Dollar
BDT	Taka
BEC	Convertible Franc
BEF	Belgian Franc
BEL	Financial Belgian Franc
BGJ	Lev A/52
BGK	Lev A/62
BGL	Lev
BGN	Bulgarian LEV
BHD	Bahraini Dinar
BIF	Burundi Franc
BMD	Bermudian Dollar

ISO Currency Code	Description
BND	Brunei Dollar
BOB	Boliviano
BOP	Peso
BOV	Mvdol
BRB	Cruzeiro
BRC	Cruzado
BRE	Cruzeiro
BRL	Brazilian Real
BRN	New Cruzado
BRR	Brazilian Real Dollar
BSD	Bahamian Dollar
BTN	Ngultrum
BUK	N/A
BWP	Pula
BYB	Belarussian Ruble
BYR	Belarussian Ruble
BZD	Belize Dollar
CAD	Canadian Dollar
CDF	Franc Congolais
CHF	Swiss Franc
CLF	Unidades de fomento
CLP	Chilean Peso
CNX	Peoples Bank Dollar
CNY	Yuan Renminbi
COP	Colombian Peso
CRC	Costa Rican Colon
CSD	Serbia Dinar

ISO Currency Code	Description
CSJ	Krona A/53
CSK	Koruna
CUP	Cuban Peso
CVE	Cape Verde Escudo
CYP	Cyprus Pound
CZK	Czech Koruna
DEM	Deutsche Mark
DJF	Djibouti Franc
DKK	Danish Krone
DOP	Dominican Peso
DZD	Algerian Dinar
ECS	Sucre
ECV	Unidad de Valor
EEK	Kroon
EGP	Egyptian Pound
EQE	Ekwele
ERN	Nakfa
ESA	Spanish Peseta
ESB	Convertible Peseta
ESP	Spanish Peseta
ETB	Ethiopian Birr
EUR	euro
FIM	Markka
FJD	Fiji Dollar
FKP	Falklands Isl. Pound
FRF	French Franc
GBP	Pound Sterling

ISO Currency Code	Description
GEK	Georgian Coupon
GEL	Lari
GHC	Cedi
GIP	Gibraltar Pound
GMD	Dalasi
GNE	Syli
GNF	Guinea Franc
GNS	Syli
GQE	Ekwele
GRD	Drachma
GTQ	Quetzal
GWE	Guinea Escudo
GWP	Guinea-Bissau Peso
GYD	Guyana Dollar
HKD	Hong Kong Dollar
HNL	Lempira
HRD	Dinar
HRK	Kuna
HTG	Gourde
HUF	Forint
IDR	Rupiah
IEP	Irish Pound
ILP	Pound
ILR	Old Shekel
ILS	New Israeli Sheqel
INR	Indian Rupee
IQD	Iraqi Dinar

ISO Currency Code	Description
IRR	Iranian Rial
ISJ	Old Krona
ISK	Iceland Krona
ITL	Italian Lira
JMD	Jamaican Dollar
JOD	Jordanian Dinar
JPY	Yen
KES	Kenyan Shilling
KGS	Som
KHR	Riel
KMF	Comoro Franc
KPW	North Korean Won
KRW	Won
KWD	Kuwaiti Dinar
KYD	Cayman Islands dollar
KZT	Tenge
LAJ	Kip Pot Pol
LAK	Kip
LBP	Lebanese Pound
LKR	Sri Lanka Rupee
LRD	Liberian Dollar
LSL	Loti
LSM	Maloti
LTL	Lithuanian Litas
LTT	Talonas
LUC	Convertib Franc
LUF	Luxembourg Franc

ISO Currency Code	Description
LUL	Financial Franc
LVL	Latvian Lats
LVR	Latvian Ruble
LYD	Libyan Dinar
MAD	Moroccan Dirham
MAF	Mali Franc
MDL	Moldovan Leu
MGF	Malagasy Franc
MKD	Denar
MLF	Mali Franc
MMK	Kyat
MNT	Tugrik
MOP	Pataca
MRO	Ouguiya
MTL	Maltese Lira
MTP	Maltese Pound
MUR	Mauritius Rupee
MVQ	Maldiva Rupee
MVR	Rufiyaa
MWK	Malawian Kwacha
MXN	Mexican Peso
MXP	Mexican Peso
MXV	Mexican UDI
MYR	Malaysian Ringgit
MZE	Mozambique Escudo
MZM	Metical
NAD	Namibia Dollar

ISO Currency Code	Description
NGN	Naira
NIC	Cordoba
NIO	Cordoba Oro
NLG	Netherlands Guilder
NOK	Norwegian Krone
NPR	Nepalese Rupee
NZD	New Zealand Dollar
OMR	Rial Omani
PAB	Balboa
PEI	Inti
PEN	Nuevo Sol
PES	Sol
PGK	Kina
PHP	Philippine Peso
PKR	Pakistan Rupee
PLN	Zloty
PLZ	Zloty
PTE	Portuguese Escudo
PYG	Guarani
QAR	Qatari Rial
ROK	Leu A/52
ROL	Leu
RUB	Russian Ruble
RUR	Russian Federation Rouble
RWF	Rwanda Franc
SAR	Saudi Riyal
SBD	Solomon Islands

ISO Currency Code	Description
SCR	Seychelles Rupee
SDD	Sudanese Dinar
SDP	Sudanese Pound
SEK	Swedish Krona
SGD	Singapore Dollar
SHP	St Helena Pound
SIT	Tolar
SKK	Slovak Koruna
SLL	Leone
SOS	Somali Shilling
SRG	Surinam Guilder
STD	Dobra
SUR	Rouble
SVC	El Salvador Colon
SYP	Syrian Pound
SZL	Lilangeni
THB	Baht
TJR	Tajik Ruble
TJS	Somoni
TMM	Manat
TND	Tunisian Dinar
TOP	Pa'anga
TPE	Timor Escudo
TRL	Turkish Lira
TTD	Trinidad Dollar
TWD	New Taiwan Dollar
TZS	Tanzanian Shilling

ISO Currency Code	Description
UAH	Hryvnia
UAK	Karbovanet
UGS	Uganda Shilling
UGW	Old Shilling
UGX	Uganda Shilling
USD	US Dollar
USN	US Dollar (Next day)
USS	US Dollar (Same day)
UYN	Old Uruguay Peso
UYP	Uruguayan Peso
UYU	Peso Uruguayo
UZS	Uzbekistan Sum
VEB	Bolivar
VNC	Old Dong
VND	Dong
VUV	Vatu
WST	Tala
XAF	CFA Franc BEAC
XAG	Silver
XAU	GOLD
XBA	European Composite Unit
XBB	European Monetary Unit
XBC	European Unit of Account 9
XBD	European Unit of Account 17
XCD	East Caribbean Dollar
XDR	SDR
XEU	EU Currency (E.C.U)

ISO Currency Code	Description
XFO	Gold-Franc
XFU	UIC-Franc
XOF	CFA Franc BCEAO
XPD	Palladium
XPF	CFP Franc
XPT	Platinum
XTS	For Testing Purposes
XXX	Non Currency Transaction
YDD	Yemeni Din
YER	Yemeni Rial
YUD	New Yugoslavian Dinar
YUM	New Dinar
YUN	Yugoslavian Dinar
ZAL	Financial Rand
ZAR	Rand
ZMK	Zambian Kwacha
ZRN	New Zaire
ZRZ	Zaire
ZWC	Rhodesian Dollar
ZWD	Zimbabwe Dollar

Glossary of PeopleSoft Terms

absence entitlement	This element defines rules for granting paid time off for valid absences, such as sick time, vacation, and maternity leave. An absence entitlement element defines the entitlement amount, frequency, and entitlement period.
absence take	This element defines the conditions that must be met before a payee is entitled to take paid time off.
accounting class	In PeopleSoft Enterprise Performance Management, the accounting class defines how a resource is treated for generally accepted accounting practices. The Inventory class indicates whether a resource becomes part of a balance sheet account, such as inventory or fixed assets, while the Non-inventory class indicates that the resource is treated as an expense of the period during which it occurs.
accounting date	The accounting date indicates when a transaction is recognized, as opposed to the date the transaction actually occurred. The accounting date and transaction date can be the same. The accounting date determines the period in the general ledger to which the transaction is to be posted. You can only select an accounting date that falls within an open period in the ledger to which you are posting. The accounting date for an item is normally the invoice date.
accounting split	The accounting split method indicates how expenses are allocated or divided among one or more sets of accounting ChartFields.
accumulator	You use an accumulator to store cumulative values of defined items as they are processed. You can accumulate a single value over time or multiple values over time. For example, an accumulator could consist of all voluntary deductions, or all company deductions, enabling you to accumulate amounts. It allows total flexibility for time periods and values accumulated.
action reason	The reason an employee's job or employment information is updated. The action reason is entered in two parts: a personnel action, such as a promotion, termination, or change from one pay group to another—and a reason for that action. Action reasons are used by PeopleSoft Human Resources, PeopleSoft Benefits Administration, PeopleSoft Stock Administration, and the COBRA Administration feature of the Base Benefits business process.
action template	In PeopleSoft Receivables, outlines a set of escalating actions that the system or user performs based on the period of time that a customer or item has been in an action plan for a specific condition.
activity	<p>In PeopleSoft Enterprise Learning Management, an instance of a catalog item (sometimes called a class) that is available for enrollment. The activity defines such things as the costs that are associated with the offering, enrollment limits and deadlines, and waitlisting capacities.</p> <p>In PeopleSoft Enterprise Performance Management, the work of an organization and the aggregation of actions that are used for activity-based costing.</p> <p>In PeopleSoft Project Costing, the unit of work that provides a further breakdown of projects—usually into specific tasks.</p> <p>In PeopleSoft Workflow, a specific transaction that you might need to perform in a business process. Because it consists of the steps that are used to perform a transaction, it is also known as a step map.</p>

agreement	In PeopleSoft eSettlements, provides a way to group and specify processing options, such as payment terms, pay from a bank, and notifications by a buyer and supplier location combination.
allocation rule	In PeopleSoft Enterprise Incentive Management, an expression within compensation plans that enables the system to assign transactions to nodes and participants. During transaction allocation, the allocation engine traverses the compensation structure from the current node to the root node, checking each node for plans that contain allocation rules.
alternate account	A feature in PeopleSoft General Ledger that enables you to create a statutory chart of accounts and enter statutory account transactions at the detail transaction level, as required for recording and reporting by some national governments.
AR specialist	Abbreviation for <i>receivables specialist</i> . In PeopleSoft Receivables, an individual in who tracks and resolves deductions and disputed items.
arbitration plan	In PeopleSoft Enterprise Pricer, defines how price rules are to be applied to the base price when the transaction is priced.
assessment rule	In PeopleSoft Receivables, a user-defined rule that the system uses to evaluate the condition of a customer's account or of individual items to determine whether to generate a follow-up action.
asset class	An asset group used for reporting purposes. It can be used in conjunction with the asset category to refine asset classification.
attribute/value pair	In PeopleSoft Directory Interface, relates the data that makes up an entry in the directory information tree.
authentication server	A server that is set up to verify users of the system.
base time period	In PeopleSoft Business Planning, the lowest level time period in a calendar.
benchmark job	In PeopleSoft Workforce Analytics, a benchmark job is a job code for which there is corresponding salary survey data from published, third-party sources.
book	In PeopleSoft Asset Management, used for storing financial and tax information, such as costs, depreciation attributes, and retirement information on assets.
branch	A tree node that rolls up to nodes above it in the hierarchy, as defined in PeopleSoft Tree Manager.
budgetary account only	An account used by the system only and not by users; this type of account does not accept transactions. You can only budget with this account. Formerly called "system-maintained account."
budget check	In commitment control, the processing of source transactions against control budget ledgers, to see if they pass, fail, or pass with a warning.
budget control	In commitment control, budget control ensures that commitments and expenditures don't exceed budgets. It enables you to track transactions against corresponding budgets and terminate a document's cycle if the defined budget conditions are not met. For example, you can prevent a purchase order from being dispatched to a vendor if there are insufficient funds in the related budget to support it.
budget period	The interval of time (such as 12 months or 4 quarters) into which a period is divided for budgetary and reporting purposes. The ChartField allows maximum flexibility to define operational accounting time periods without restriction to only one calendar.
business event	In PeopleSoft Receivables, defines the processing characteristics for the Receivable Update process for a draft activity.

	In PeopleSoft Sales Incentive Management, an original business transaction or activity that may justify the creation of a PeopleSoft Enterprise Incentive Management event (a sale, for example).
business unit	A corporation or a subset of a corporation that is independent with regard to one or more operational or accounting functions.
buyer	In PeopleSoft eSettlements, an organization (or business unit, as opposed to an individual) that transacts with suppliers (vendors) within the system. A buyer creates payments for purchases that are made in the system.
catalog item	In PeopleSoft Enterprise Learning Management, a specific topic that a learner can study and have tracked. For example, "Introduction to Microsoft Word." A catalog item contains general information about the topic and includes a course code, description, categorization, keywords, and delivery methods. A catalog item can have one or more learning activities.
catalog map	In PeopleSoft Catalog Management, translates values from the catalog source data to the format of the company's catalog.
catalog partner	In PeopleSoft Catalog Management, shares responsibility with the enterprise catalog manager for maintaining catalog content.
categorization	Associates partner offerings with catalog offerings and groups them into enterprise catalog categories.
channel	In PeopleSoft MultiChannel Framework, email, chat, voice (computer telephone integration [CTI]), or a generic event.
ChartField	A field that stores a chart of accounts, resources, and so on, depending on the PeopleSoft application. ChartField values represent individual account numbers, department codes, and so forth.
ChartField balancing	You can require specific ChartFields to match up (balance) on the debit and the credit side of a transaction.
ChartField combination edit	The process of editing journal lines for valid ChartField combinations based on user-defined rules.
ChartKey	One or more fields that uniquely identify each row in a table. Some tables contain only one field as the key, while others require a combination.
checkbook	In PeopleSoft Promotions Management, enables you to view financial data (such as planned, incurred, and actual amounts) that is related to funds and trade promotions.
Class ChartField	A ChartField value that identifies a unique appropriation budget key when you combine it with a fund, department ID, and program code, as well as a budget period. Formerly called <i>sub-classification</i> .
clone	In PeopleCode, to make a unique copy. In contrast, to <i>copy</i> may mean making a new reference to an object, so if the underlying object is changed, both the copy and the original change.
collection	To make a set of documents available for searching in Verity, you must first create at least one collection. A collection is set of directories and files that allow search application users to use the Verity search engine to quickly find and display source documents that match search criteria. A collection is a set of statistics and pointers to the source documents, stored in a proprietary format on a file server. Because a collection can only store information for a single location, PeopleSoft maintains a set of collections (one per language code) for each search index object.

collection rule	In PeopleSoft Receivables, a user-defined rule that defines actions to take for a customer based on both the amount and the number of days past due for outstanding balances.
compensation object	In PeopleSoft Enterprise Incentive Management, a node within a compensation structure. Compensation objects are the building blocks that make up a compensation structure's hierarchical representation.
compensation structure	In PeopleSoft Enterprise Incentive Management, a hierarchical relationship of compensation objects that represents the compensation-related relationship between the objects.
condition	In PeopleSoft Receivables, occurs when there is a change of status for a customer's account, such as reaching a credit limit or exceeding a user-defined balance due.
configuration parameter catalog	Used to configure an external system with PeopleSoft. For example, a configuration parameter catalog might set up configuration and communication parameters for an external server.
configuration plan	In PeopleSoft Enterprise Incentive Management, configuration plans hold allocation information for common variables (not incentive rules) and are attached to a node without a participant. Configuration plans are not processed by transactions.
content reference	Content references are pointers to content registered in the portal registry. These are typically either URLs or iScripts. Content references fall into three categories: target content, templates, and template pagelets.
context	In PeopleCode, determines which buffer fields can be contextually referenced and which is the current row of data on each scroll level when a PeopleCode program is running. In PeopleSoft Enterprise Incentive Management, a mechanism that is used to determine the scope of a processing run. PeopleSoft Enterprise Incentive Management uses three types of context: plan, period, and run-level.
control table	Stores information that controls the processing of an application. This type of processing might be consistent throughout an organization, or it might be used only by portions of the organization for more limited sharing of data.
cost profile	A combination of a receipt cost method, a cost flow, and a deplete cost method. A profile is associated with a cost book and determines how items in that book are valued, as well as how the material movement of the item is valued for the book.
cost row	A cost transaction and amount for a set of ChartFields.
current learning	In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's in-progress learning activities and programs.
data acquisition	In PeopleSoft Enterprise Incentive Management, the process during which raw business transactions are acquired from external source systems and fed into the operational data store (ODS).
data elements	Data elements, at their simplest level, define a subset of data and the rules by which to group them. For Workforce Analytics, data elements are rules that tell the system what measures to retrieve about your workforce groups.
dataset	A data grouping that enables role-based filtering and distribution of data. You can limit the range and quantity of data that is displayed for a user by associating dataset rules with user roles. The result of dataset rules is a set of data that is appropriate for the user's roles.

delivery method	<p>In PeopleSoft Enterprise Learning Management, identifies the primary type of delivery method in which a particular learning activity is offered. Also provides default values for the learning activity, such as cost and language. This is primarily used to help learners search the catalog for the type of delivery from which they learn best. Because PeopleSoft Enterprise Learning Management is a blended learning system, it does not enforce the delivery method.</p> <p>In PeopleSoft Supply Chain Management, identifies the method by which goods are shipped to their destinations (such as truck, air, rail, and so on). The delivery method is specified when creating shipment schedules.</p>
delivery method type	In PeopleSoft Enterprise Learning Management, identifies how learning activities can be delivered—for example, through online learning, classroom instruction, seminars, books, and so forth—in an organization. The type determines whether the delivery method includes scheduled components.
directory information tree	In PeopleSoft Directory Interface, the representation of a directory's hierarchical structure.
document sequencing	A flexible method that sequentially numbers the financial transactions (for example, bills, purchase orders, invoices, and payments) in the system for statutory reporting and for tracking commercial transaction activity.
dynamic detail tree	A tree that takes its detail values—dynamic details—directly from a table in the database, rather than from a range of values that are entered by the user.
edit table	A table in the database that has its own record definition, such as the Department table. As fields are entered into a PeopleSoft application, they can be validated against an edit table to ensure data integrity throughout the system.
effective date	A method of dating information in PeopleSoft applications. You can predate information to add historical data to your system, or postdate information in order to enter it before it actually goes into effect. By using effective dates, you don't delete values; you enter a new value with a current effective date.
EIM ledger	Abbreviation for <i>Enterprise Incentive Management ledger</i> . In PeopleSoft Enterprise Incentive Management, an object to handle incremental result gathering within the scope of a participant. The ledger captures a result set with all of the appropriate traces to the data origin and to the processing steps of which it is a result.
elimination set	In PeopleSoft General Ledger, a related group of intercompany accounts that is processed during consolidations.
entry event	In PeopleSoft General Ledger, Receivables, Payables, Purchasing, and Billing, a business process that generates multiple debits and credits resulting from single transactions to produce standard, supplemental accounting entries.
equitization	In PeopleSoft General Ledger, a business process that enables parent companies to calculate the net income of subsidiaries on a monthly basis and adjust that amount to increase the investment amount and equity income amount before performing consolidations.
event	<p>A predefined point either in the Component Processor flow or in the program flow. As each point is encountered, the event activates each component, triggering any PeopleCode program that is associated with that component and that event. Examples of events are FieldChange, SavePreChange, and RowDelete.</p> <p>In PeopleSoft Human Resources, also refers to an incident that affects benefits eligibility.</p>
event propagation process	In PeopleSoft Sales Incentive Management, a process that determines, through logic, the propagation of an original PeopleSoft Enterprise Incentive Management event and creates a derivative (duplicate) of the original event to be processed by other objects.

	Sales Incentive Management uses this mechanism to implement splits, roll-ups, and so on. Event propagation determines who receives the credit.
exception	In PeopleSoft Receivables, an item that either is a deduction or is in dispute.
exclusive pricing	In PeopleSoft Order Management, a type of arbitration plan that is associated with a price rule. Exclusive pricing is used to price sales order transactions.
fact	In PeopleSoft applications, facts are numeric data values from fields from a source database as well as an analytic application. A fact can be anything you want to measure your business by, for example, revenue, actual, budget data, or sales numbers. A fact is stored on a fact table.
forecast item	A logical entity with a unique set of descriptive demand and forecast data that is used as the basis to forecast demand. You create forecast items for a wide range of uses, but they ultimately represent things that you buy, sell, or use in your organization and for which you require a predictable usage.
fund	In PeopleSoft Promotions Management, a budget that can be used to fund promotional activity. There are four funding methods: top down, fixed accrual, rolling accrual, and zero-based accrual.
generic process type	In PeopleSoft Process Scheduler, process types are identified by a generic process type. For example, the generic process type SQR includes all SQR process types, such as SQR process and SQR report.
group	In PeopleSoft Billing and Receivables, a posting entity that comprises one or more transactions (items, deposits, payments, transfers, matches, or write-offs). In PeopleSoft Human Resources Management and Supply Chain Management, any set of records that are associated under a single name or variable to run calculations in PeopleSoft business processes. In PeopleSoft Time and Labor, for example, employees are placed in groups for time reporting purposes.
incentive object	In PeopleSoft Enterprise Incentive Management, the incentive-related objects that define and support the PeopleSoft Enterprise Incentive Management calculation process and results, such as plan templates, plans, results data, user interaction objects, and so on.
incentive rule	In PeopleSoft Sales Incentive Management, the commands that act on transactions and turn them into compensation. A rule is one part in the process of turning a transaction into compensation.
incur	In PeopleSoft Promotions Management, to become liable for a promotional payment. In other words, you owe that amount to a customer for promotional activities.
item	In PeopleSoft Inventory, a tangible commodity that is stored in a business unit (shipped from a warehouse). In PeopleSoft Demand Planning, Inventory Policy Planning, and Supply Planning, a noninventory item that is designated as being used for planning purposes only. It can represent a family or group of inventory items. It can have a planning bill of material (BOM) or planning routing, and it can exist as a component on a planning BOM. A planning item cannot be specified on a production or engineering BOM or routing, and it cannot be used as a component in a production. The quantity on hand will never be maintained.
	In PeopleSoft Receivables, an individual receivable. An item can be an invoice, a credit memo, a debit memo, a write-off, or an adjustment.
KPI	An abbreviation for <i>key performance indicator</i> . A high-level measurement of how well an organization is doing in achieving critical success factors. This defines the data value or calculation upon which an assessment is determined.

LDIF file	Abbreviation for <i>Lightweight Directory Access Protocol (LDAP) Data Interchange Format file</i> . Contains discrepancies between PeopleSoft data and directory data.
learner group	In PeopleSoft Enterprise Learning Management, a group of learners who are linked to the same learning environment. Members of the learner group can share the same attributes, such as the same department or job code. Learner groups are used to control access to and enrollment in learning activities and programs. They are also used to perform group enrollments and mass enrollments in the back office.
learning components	In PeopleSoft Enterprise Learning Management, the foundational building blocks of learning activities. PeopleSoft Enterprise Learning Management supports six basic types of learning components: web-based, session, webcast, test, survey, and assignment. One or more of these learning component types compose a single learning activity.
learning environment	In PeopleSoft Enterprise Learning Management, identifies a set of categories and catalog items that can be made available to learner groups. Also defines the default values that are assigned to the learning activities and programs that are created within a particular learning environment. Learning environments provide a way to partition the catalog so that learners see only those items that are relevant to them.
learning history	In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's completed learning activities and programs.
ledger mapping	You use ledger mapping to relate expense data from general ledger accounts to resource objects. Multiple ledger line items can be mapped to one or more resource IDs. You can also use ledger mapping to map dollar amounts (referred to as <i>rates</i>) to business units. You can map the amounts in two different ways: an actual amount that represents actual costs of the accounting period, or a budgeted amount that can be used to calculate the capacity rates as well as budgeted model results. In PeopleSoft Enterprise Warehouse, you can map general ledger accounts to the EW Ledger table.
library section	In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan (or template) and that is available for other plans to share. Changes to a library section are reflected in all plans that use it.
linked section	In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan template but appears in a plan. Changes to linked sections propagate to plans using that section.
linked variable	In PeopleSoft Enterprise Incentive Management, a variable that is defined and maintained in a plan template and that also appears in a plan. Changes to linked variables propagate to plans using that variable.
load	In PeopleSoft Inventory, identifies a group of goods that are shipped together. Load management is a feature of PeopleSoft Inventory that is used to track the weight, the volume, and the destination of a shipment.
local functionality	In PeopleSoft HRMS, the set of information that is available for a specific country. You can access this information when you click the appropriate country flag in the global window, or when you access it by a local country menu.
location	Locations enable you to indicate the different types of addresses—for a company, for example, one address to receive bills, another for shipping, a third for postal deliveries, and a separate street address. Each address has a different location number. The primary location—indicated by a <i>1</i> —is the address you use most often and may be different from the main address.
logistical task	In PeopleSoft Services Procurement, an administrative task that is related to hiring a service provider. Logistical tasks are linked to the service type on the work order so that different types of services can have different logistical tasks. Logistical tasks include both preapproval tasks (such as assigning a new badge or ordering a new

laptop) and postapproval tasks (such as scheduling orientation or setting up the service provider email). The logistical tasks can be mandatory or optional. Mandatory preapproval tasks must be completed before the work order is approved. Mandatory postapproval tasks, on the other hand, must be completed before a work order is released to a service provider.

market template	In PeopleSoft Enterprise Incentive Management, additional functionality that is specific to a given market or industry and is built on top of a product category.
match group	In PeopleSoft Receivables, a group of receivables items and matching offset items. The system creates match groups by using user-defined matching criteria for selected field values.
MCF server	Abbreviation for <i>PeopleSoft MultiChannel Framework server</i> . Comprises the universal queue server and the MCF log server. Both processes are started when <i>MCF Servers</i> is selected in an application server domain configuration.
merchandising activity	In PeopleSoft Promotions Management, a specific discount type that is associated with a trade promotion (such as off-invoice, billback or rebate, or lump-sum payment) that defines the performance that is required to receive the discount. In the industry, you may know this as an offer, a discount, a merchandising event, an event, or a tactic.
meta-SQL	Meta-SQL constructs expand into platform-specific Structured Query Language (SQL) substrings. They are used in functions that pass SQL strings, such as in SQL objects, the SQLExec function, and PeopleSoft Application Engine programs.
metastring	Metastings are special expressions included in SQL string literals. The metastings, prefixed with a percent (%) symbol, are included directly in the string literals. They expand at run time into an appropriate substring for the current database platform.
multibook	In PeopleSoft General Ledger, multiple ledgers having multiple-base currencies that are defined for a business unit, with the option to post a single transaction to all base currencies (all ledgers) or to only one of those base currencies (ledgers).
multicurrency	The ability to process transactions in a currency other than the business unit's base currency.
national allowance	In PeopleSoft Promotions Management, a promotion at the corporate level that is funded by nondiscretionary dollars. In the industry, you may know this as a national promotion, a corporate promotion, or a corporate discount.
node-oriented tree	A tree that is based on a detail structure, but the detail values are not used.
pagelet	Each block of content on the home page is called a pagelet. These pagelets display summary information within a small rectangular area on the page. The pagelet provide users with a snapshot of their most relevant PeopleSoft and non-PeopleSoft content.
participant	In PeopleSoft Enterprise Incentive Management, participants are recipients of the incentive compensation calculation process.
participant object	Each participant object may be related to one or more compensation objects. See also <i>compensation object</i> .
partner	A company that supplies products or services that are resold or purchased by the enterprise.
pay cycle	In PeopleSoft Payables, a set of rules that define the criteria by which it should select scheduled payments for payment creation.
pending item	In PeopleSoft Receivables, an individual receivable (such as an invoice, a credit memo, or a write-off) that has been entered in or created by the system, but hasn't been posted.

PeopleCode	PeopleCode is a proprietary language, executed by the PeopleSoft application processor. PeopleCode generates results based upon existing data or user actions. By using business interlink objects, external services are available to all PeopleSoft applications wherever PeopleCode can be executed.
PeopleCode event	An action that a user takes upon an object, usually a record field, that is referenced within a PeopleSoft page.
PeopleSoft Internet Architecture	The fundamental architecture on which PeopleSoft 8 applications are constructed, consisting of a relational database management system (RDBMS), an application server, a web server, and a browser.
performance measurement	In PeopleSoft Enterprise Incentive Management, a variable used to store data (similar to an aggregator, but without a predefined formula) within the scope of an incentive plan. Performance measures are associated with a plan calendar, territory, and participant. Performance measurements are used for quota calculation and reporting.
period context	In PeopleSoft Enterprise Incentive Management, because a participant typically uses the same compensation plan for multiple periods, the period context associates a plan context with a specific calendar period and fiscal year. The period context references the associated plan context, thus forming a chain. Each plan context has a corresponding set of period contexts.
plan	In PeopleSoft Sales Incentive Management, a collection of allocation rules, variables, steps, sections, and incentive rules that instruct the PeopleSoft Enterprise Incentive Management engine in how to process transactions.
plan context	In PeopleSoft Enterprise Incentive Management, correlates a participant with the compensation plan and node to which the participant is assigned, enabling the PeopleSoft Enterprise Incentive Management system to find anything that is associated with the node and that is required to perform compensation processing. Each participant, node, and plan combination represents a unique plan context—if three participants are on a compensation structure, each has a different plan context. Configuration plans are identified by plan contexts and are associated with the participants that refer to them.
plan template	In PeopleSoft Enterprise Incentive Management, the base from which a plan is created. A plan template contains common sections and variables that are inherited by all plans that are created from the template. A template may contain steps and sections that are not visible in the plan definition.
planned learning	In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's planned learning activities and programs.
planning instance	In PeopleSoft Supply Planning, a set of data (business units, items, supplies, and demands) constituting the inputs and outputs of a supply plan.
portal registry	In PeopleSoft applications, the portal registry is a tree-like structure in which content references are organized, classified, and registered. It is a central repository that defines both the structure and content of a portal through a hierarchical, tree-like structure of folders useful for organizing and securing content references.
price list	In PeopleSoft Enterprise Pricer, enables you to select products and conditions for which the price list applies to a transaction. During a transaction, the system either determines the product price based on the predefined search hierarchy for the transaction or uses the product's lowest price on any associated, active price lists. This price is used as the basis for any further discounts and surcharges.
price rule	In PeopleSoft Enterprise Pricer, defines the conditions that must be met for adjustments to be applied to the base price. Multiple rules can apply when conditions of each rule are met.

price rule condition	In PeopleSoft Enterprise Pricer, selects the price-by fields, the values for the price-by fields, and the operator that determines how the price-by fields are related to the transaction.
price rule key	In PeopleSoft Enterprise Pricer, defines the fields that are available to define price rule conditions (which are used to match a transaction) on the price rule.
process category	In PeopleSoft Process Scheduler, processes that are grouped for server load balancing and prioritization.
process group	In PeopleSoft Financials, a group of application processes (performed in a defined order) that users can initiate in real time, directly from a transaction entry page.
process definition	Process definitions define each run request.
process instance	A unique number that identifies each process request. This value is automatically incremented and assigned to each requested process when the process is submitted to run.
process job	You can link process definitions into a job request and process each request serially or in parallel. You can also initiate subsequent processes based on the return code from each prior request.
process request	A single run request, such as a Structured Query Report (SQR), a COBOL or Application Engine program, or a Crystal report that you run through PeopleSoft Process Scheduler.
process run control	A PeopleTools variable used to retain PeopleSoft Process Scheduler values needed at runtime for all requests that reference a run control ID. Do not confuse these with application run controls, which may be defined with the same run control ID, but only contain information specific to a given application process request.
product category	In PeopleSoft Enterprise Incentive Management, indicates an application in the Enterprise Incentive Management suite of products. Each transaction in the PeopleSoft Enterprise Incentive Management system is associated with a product category.
programs	In PeopleSoft Enterprise Learning Management, a high-level grouping that guides the learner along a specific learning path through sections of catalog items. PeopleSoft Enterprise Learning Systems provides two types of programs—curricula and certifications.
progress log	In PeopleSoft Services Procurement, tracks deliverable-based projects. This is similar to the time sheet in function and process. The service provider contact uses the progress log to record and submit progress on deliverables. The progress can be logged by the activity that is performed, by the percentage of work that is completed, or by the completion of milestone activities that are defined for the project.
project transaction	In PeopleSoft Project Costing, an individual transaction line that represents a cost, time, budget, or other transaction row.
promotion	In PeopleSoft Promotions Management, a trade promotion, which is typically funded from trade dollars and used by consumer products manufacturers to increase sales volume.
publishing	In PeopleSoft Enterprise Incentive Management, a stage in processing that makes incentive-related results available to participants.
record group	A set of logically and functionally related control tables and views. Record groups help enable TableSet sharing, which eliminates redundant data entry. Record groups ensure that TableSet sharing is applied consistently across all related tables and views.
record input VAT flag	Abbreviation for <i>record input value-added tax flag</i> . Within PeopleSoft Purchasing, Payables, and General Ledger, this flag indicates that you are recording input VAT

on the transaction. This flag, in conjunction with the record output VAT flag, is used to determine the accounting entries created for a transaction and to determine how a transaction is reported on the VAT return. For all cases within Purchasing and Payables where VAT information is tracked on a transaction, this flag is set to Yes. This flag is not used in PeopleSoft Order Management, Billing, or Receivables, where it is assumed that you are always recording only output VAT, or in PeopleSoft Expenses, where it is assumed that you are always recording only input VAT.

record output VAT flag	Abbreviation for <i>record output value-added tax flag</i> . See <i>record input VAT flag</i> .
reference data	In PeopleSoft Sales Incentive Management, system objects that represent the sales organization, such as territories, participants, products, customers, channels, and so on.
reference object	In PeopleSoft Enterprise Incentive Management, this dimension-type object further defines the business. Reference objects can have their own hierarchy (for example, product tree, customer tree, industry tree, and geography tree).
reference transaction	In commitment control, a reference transaction is a source transaction that is referenced by a higher-level (and usually later) source transaction, in order to automatically reverse all or part of the referenced transaction's budget-checked amount. This avoids duplicate postings during the sequential entry of the transaction at different commitment levels. For example, the amount of an encumbrance transaction (such as a purchase order) will, when checked and recorded against a budget, cause the system to concurrently reference and relieve all or part of the amount of a corresponding pre-encumbrance transaction, such as a purchase requisition.
regional sourcing	In PeopleSoft Purchasing, provides the infrastructure to maintain, display, and select an appropriate vendor and vendor pricing structure that is based on a regional sourcing model where the multiple ship to locations are grouped. Sourcing may occur at a level higher than the ship to location.
relationship object	In PeopleSoft Enterprise Incentive Management, these objects further define a compensation structure to resolve transactions by establishing associations between compensation objects and business objects.
remote data source data	Data that is extracted from a separate database and migrated into the local database.
REN server	Abbreviation for <i>real-time event notification server</i> in PeopleSoft MultiChannel Framework.
requester	In PeopleSoft eSettlements, an individual who requests goods or services and whose ID appears on the various procurement pages that reference purchase orders.
role	Describes how people fit into PeopleSoft Workflow. A role is a class of users who perform the same type of work, such as clerks or managers. Your business rules typically specify what user role needs to do an activity.
role user	A PeopleSoft Workflow user. A person's role user ID serves much the same purpose as a user ID does in other parts of the system. PeopleSoft Workflow uses role user IDs to determine how to route worklist items to users (through an email address, for example) and to track the roles that users play in the workflow. Role users do not need PeopleSoft user IDs.
roll up	In a tree, to roll up is to total sums based on the information hierarchy.
run control	A run control is a type of online page that is used to begin a process, such as the batch processing of a payroll run. Run control pages generally start a program that manipulates data.
run control ID	A unique ID to associate each user with his or her own run control table entries.

run-level context	In PeopleSoft Enterprise Incentive Management, associates a particular run (and batch ID) with a period context and plan context. Every plan context that participates in a run has a separate run-level context. Because a run cannot span periods, only one run-level context is associated with each plan context.
search query	You use this set of objects to pass a query string and operators to the search engine. The search index returns a set of matching results with keys to the source documents.
section	In PeopleSoft Enterprise Incentive Management, a collection of incentive rules that operate on transactions of a specific type. Sections enable plans to be segmented to process logical events in different sections.
security event	In commitment control, security events trigger security authorization checking, such as budget entries, transfers, and adjustments; exception overrides and notifications; and inquiries.
serial genealogy	In PeopleSoft Manufacturing, the ability to track the composition of a specific, serial-controlled item.
serial in production	In PeopleSoft Manufacturing, enables the tracing of serial information for manufactured items. This is maintained in the Item Master record.
session	In PeopleSoft Enterprise Learning Management, a single meeting day of an activity (that is, the period of time between start and finish times within a day). The session stores the specific date, location, meeting time, and instructor. Sessions are used for scheduled training.
session template	In PeopleSoft Enterprise Learning Management, enables you to set up common activity characteristics that may be reused while scheduling a PeopleSoft Enterprise Learning Management activity—characteristics such as days of the week, start and end times, facility and room assignments, instructors, and equipment. A session pattern template can be attached to an activity that is being scheduled. Attaching a template to an activity causes all of the default template information to populate the activity session pattern.
setup relationship	In PeopleSoft Enterprise Incentive Management, a relationship object type that associates a configuration plan with any structure node.
share driver expression	In PeopleSoft Business Planning, a named planning method similar to a driver expression, but which you can set up globally for shared use within a single planning application or to be shared between multiple planning applications through PeopleSoft Enterprise Warehouse.
single signon	With single signon, users can, after being authenticated by a PeopleSoft application server, access a second PeopleSoft application server without entering a user ID or password.
source transaction	In commitment control, any transaction generated in a PeopleSoft or third-party application that is integrated with commitment control and which can be checked against commitment control budgets. For example, a pre-encumbrance, encumbrance, expenditure, recognized revenue, or collected revenue transaction.
SpeedChart	A user-defined shorthand key that designates several ChartKeys to be used for voucher entry. Percentages can optionally be related to each ChartKey in a SpeedChart definition.
SpeedType	A code representing a combination of ChartField values. SpeedTypes simplify the entry of ChartFields commonly used together.
staging	A method of consolidating selected partner offerings with the offerings from the enterprise's other partners.

statutory account	Account required by a regulatory authority for recording and reporting financial results. In PeopleSoft, this is equivalent to the Alternate Account (ALTACCT) ChartField.
step	In PeopleSoft Sales Incentive Management, a collection of sections in a plan. Each step corresponds to a step in the job run.
storage level	In PeopleSoft Inventory, identifies the level of a material storage location. Material storage locations are made up of a business unit, a storage area, and a storage level. You can set up to four storage levels.
subcustomer qualifier	A value that groups customers into a division for which you can generate detailed history, aging, events, and profiles.
Summary ChartField	You use summary ChartFields to create summary ledgers that roll up detail amounts based on specific detail values or on selected tree nodes. When detail values are summarized using tree nodes, summary ChartFields must be used in the summary ledger data record to accommodate the maximum length of a node name (20 characters).
summary ledger	An accounting feature used primarily in allocations, inquiries, and PS/nVision reporting to store combined account balances from detail ledgers. Summary ledgers increase speed and efficiency of reporting by eliminating the need to summarize detail ledger balances each time a report is requested. Instead, detail balances are summarized in a background process according to user-specified criteria and stored on summary ledgers. The summary ledgers are then accessed directly for reporting.
summary time period	In PeopleSoft Business Planning, any time period (other than a base time period) that is an aggregate of other time periods, including other summary time periods and base time periods, such as quarter and year total.
summary tree	A tree used to roll up accounts for each type of report in summary ledgers. Summary trees enable you to define trees on trees. In a summary tree, the detail values are really nodes on a detail tree or another summary tree (known as the <i>basis</i> tree). A summary tree structure specifies the details on which the summary trees are to be built.
syndicate	To distribute a production version of the enterprise catalog to partners.
system function	In PeopleSoft Receivables, an activity that defines how the system generates accounting entries for the general ledger.
TableSet	A means of sharing similar sets of values in control tables, where the actual data values are different but the structure of the tables is the same.
TableSet sharing	Shared data that is stored in many tables that are based on the same TableSets. Tables that use TableSet sharing contain the SETID field as an additional key or unique identifier.
target currency	The value of the entry currency or currencies converted to a single currency for budget viewing and inquiry purposes.
template	A template is HTML code associated with a web page. It defines the layout of the page and also where to get HTML for each part of the page. In PeopleSoft, you use templates to build a page by combining HTML from a number of sources. For a PeopleSoft portal, all templates must be registered in the portal registry, and each content reference must be assigned a template.
territory	In PeopleSoft Sales Incentive Management, hierarchical relationships of business objects, including regions, products, customers, industries, and participants.
TimeSpan	A relative period, such as year-to-date or current period, that can be used in various PeopleSoft General Ledger functions and reports when a rolling time frame, rather

than a specific date, is required. TimeSpans can also be used with flexible formulas in PeopleSoft Projects.

trace usage	In PeopleSoft Manufacturing, enables the control of which components will be traced during the manufacturing process. Serial- and lot-controlled components can be traced. This is maintained in the Item Master record.
transaction allocation	In PeopleSoft Enterprise Incentive Management, the process of identifying the owner of a transaction. When a raw transaction from a batch is allocated to a plan context, the transaction is duplicated in the PeopleSoft Enterprise Incentive Management transaction tables.
transaction state	In PeopleSoft Enterprise Incentive Management, a value assigned by an incentive rule to a transaction. Transaction states enable sections to process only transactions that are at a specific stage in system processing. After being successfully processed, transactions may be promoted to the next transaction state and “picked up” by a different section for further processing.
Translate table	A system edit table that stores codes and translate values for the miscellaneous fields in the database that do not warrant individual edit tables of their own.
tree	The graphical hierarchy in PeopleSoft systems that displays the relationship between all accounting units (for example, corporate divisions, projects, reporting groups, account numbers) and determines roll-up hierarchies.
unclaimed transaction	In PeopleSoft Enterprise Incentive Management, a transaction that is not claimed by a node or participant after the allocation process has completed, usually due to missing or incomplete data. Unclaimed transactions may be manually assigned to the appropriate node or participant by a compensation administrator.
universal navigation header	Every PeopleSoft portal includes the universal navigation header, intended to appear at the top of every page as long as the user is signed on to the portal. In addition to providing access to the standard navigation buttons (like Home, Favorites, and signoff) the universal navigation header can also display a welcome message for each user.
user interaction object	In PeopleSoft Sales Incentive Management, used to define the reporting components and reports that a participant can access in his or her context. All Sales Incentive Management user interface objects and reports are registered as user interaction objects. User interaction objects can be linked to a compensation structure node through a compensation relationship object (individually or as groups).
variable	In PeopleSoft Sales Incentive Management, the intermediate results of calculations. Variables hold the calculation results and are then inputs to other calculations. Variables can be plan variables that persist beyond the run of an engine or local variables that exist only during the processing of a section.
VAT exception	Abbreviation for <i>value-added tax exception</i> . A temporary or permanent exemption from paying VAT that is granted to an organization. This terms refers to both VAT exoneration and VAT suspension.
VAT exempt	Abbreviation for <i>value-added tax exempt</i> . Describes goods and services that are not subject to VAT. Organizations that supply exempt goods or services are unable to recover the related input VAT. This is also referred to as exempt without recovery.
VAT exoneration	Abbreviation for <i>value-added tax exoneration</i> . An organization that has been granted a permanent exemption from paying VAT due to the nature of that organization.
VAT suspension	Abbreviation for <i>value-added tax suspension</i> . An organization that has been granted a temporary exemption from paying VAT.
warehouse	A PeopleSoft data warehouse that consists of predefined ETL maps, data warehouse tools, and DataMart definitions.

work order	In PeopleSoft Services Procurement, enables an enterprise to create resource-based and deliverable-based transactions that specify the basic terms and conditions for hiring a specific service provider. When a service provider is hired, the service provider logs time or progress against the work order.
worksheet	A way of presenting data through a PeopleSoft Business Analysis Modeler interface that enables users to do in-depth analysis using pivoting tables, charts, notes, and history information.
worklist	The automated to-do list that PeopleSoft Workflow creates. From the worklist, you can directly access the pages you need to perform the next action, and then return to the worklist for another item.
XML schema	An XML definition that standardizes the representation of application messages, component interfaces, or business interlinks.
yield by operation	In PeopleSoft Manufacturing, the ability to plan the loss of a manufactured item on an operation-by-operation basis.
zero-rated VAT	Abbreviation for <i>zero-rated value-added tax</i> . A VAT transaction with a VAT code that has a tax percent of zero. Used to track taxable VAT activity where no actual VAT amount is charged. Organizations that supply zero-rated goods and services can still recover the related input VAT. This is also referred to as exempt with recovery.

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