

TIBCO ActiveMatrix[®] Adapter for PeopleSoft

Configuration and Deployment

*Software Release 6.0
December 2009*

Important Information

SOME TIBCO SOFTWARE EMBEDS OR BUNDLES OTHER TIBCO SOFTWARE. USE OF SUCH EMBEDDED OR BUNDLED TIBCO SOFTWARE IS SOLELY TO ENABLE THE FUNCTIONALITY (OR PROVIDE LIMITED ADD-ON FUNCTIONALITY) OF THE LICENSED TIBCO SOFTWARE. THE EMBEDDED OR BUNDLED SOFTWARE IS NOT LICENSED TO BE USED OR ACCESSED BY ANY OTHER TIBCO SOFTWARE OR FOR ANY OTHER PURPOSE.

USE OF TIBCO SOFTWARE AND THIS DOCUMENT IS SUBJECT TO THE TERMS AND CONDITIONS OF A LICENSE AGREEMENT FOUND IN EITHER A SEPARATELY EXECUTED SOFTWARE LICENSE AGREEMENT, OR, IF THERE IS NO SUCH SEPARATE AGREEMENT, THE CLICKWRAP END USER LICENSE AGREEMENT WHICH IS DISPLAYED DURING DOWNLOAD OR INSTALLATION OF THE SOFTWARE (AND WHICH IS DUPLICATED IN LICENSE.PDF) OR IF THERE IS NO SUCH SOFTWARE LICENSE AGREEMENT OR CLICKWRAP END USER LICENSE AGREEMENT, THE LICENSE(S) LOCATED IN THE "LICENSE" FILE(S) OF THE SOFTWARE. USE OF THIS DOCUMENT IS SUBJECT TO THOSE TERMS AND CONDITIONS, AND YOUR USE HEREOF SHALL CONSTITUTE ACCEPTANCE OF AND AN AGREEMENT TO BE BOUND BY THE SAME.

This document contains confidential information that is subject to U.S. and international copyright laws and treaties. No part of this document may be reproduced in any form without the written authorization of TIBCO Software Inc.

TIB, TIBCO, TIBCO Adapter, Predictive Business, Information Bus, The Power of Now, TIBCO ActiveMatrix BusinessWorks, TIBCO Rendezvous, TIBCO Administrator, TIBCO Designer, TIBCO Runtime Agent, TIBCO Hawk, TIBCO Enterprise Message Service, TIBCO Designer Add-in for TIBCO Business Studio, TIBCO ActiveMatrix Service Grid, TIBCO ActiveMatrix Service Bus, TIBCO ActiveMatrix BusinessWorks Service Engine, and TIBCO Business Studio are either registered trademarks or trademarks of TIBCO Software Inc. in the United States and/or other countries.

EJB, Java EE, J2EE, and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries.

All other product and company names and marks mentioned in this document are the property of their respective owners and are mentioned for identification purposes only.

THIS SOFTWARE MAY BE AVAILABLE ON MULTIPLE OPERATING SYSTEMS. HOWEVER, NOT ALL OPERATING SYSTEM PLATFORMS FOR A SPECIFIC SOFTWARE VERSION ARE RELEASED AT THE SAME TIME. SEE THE README.TXT FILE FOR THE AVAILABILITY OF THIS SOFTWARE VERSION ON A SPECIFIC OPERATING SYSTEM PLATFORM.

THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

THIS DOCUMENT COULD INCLUDE TECHNICAL INACCURACIES OR TYPOGRAPHICAL ERRORS. CHANGES ARE PERIODICALLY ADDED TO THE INFORMATION HEREIN; THESE CHANGES WILL BE INCORPORATED IN NEW EDITIONS OF THIS DOCUMENT. TIBCO SOFTWARE INC. MAY MAKE IMPROVEMENTS AND/OR CHANGES IN THE PRODUCT(S) AND/OR THE PROGRAM(S) DESCRIBED IN THIS DOCUMENT AT ANY TIME.

THE CONTENTS OF THIS DOCUMENT MAY BE MODIFIED AND/OR QUALIFIED, DIRECTLY OR INDIRECTLY, BY OTHER DOCUMENTATION WHICH ACCOMPANIES THIS SOFTWARE, INCLUDING BUT NOT LIMITED TO ANY RELEASE NOTES AND "READ ME" FILES.

Copyright © 1999-2009 TIBCO Software Inc. ALL RIGHTS RESERVED.

TIBCO Software Inc. Confidential Information

Contents

Figures	ix
Tables	xi
Preface	xv
Related Documentation	xvi
TIBCO ActiveMatrix Adapter for PeopleSoft Documentation	xvi
Other TIBCO Product Documentation	xvi
Third-Party Documentation	xvii
Typographical Conventions	xviii
Terminology and Acronyms	xx
How to Contact TIBCO Support	xxii
Chapter 1 Preparing PeopleSoft	1
Overview	2
Preparing PeopleSoft Component Interfaces	3
Procedure	3
CI Publication Service	5
Preparing PeopleSoft Application Messages	8
Loading Gateway Connectors	8
Defining Messages	11
Defining Message Queues	12
Defining Services	12
Defining Service Operations	13
Defining Nodes	14
Defining Routings	16
Check Configurations	17
Configuration Procedure for Adapter Services	18
Chapter 2 Working with TIBCO ActiveMatrix BusinessWorks	38
Overview	39
Starting TIBCO Designer	40
TIBCO Designer Interface	40
Creating a Project	41

Configuring an Adapter Instance	43
Creating a Process	44
Publish to Adapter	44
Adapter Subscriber	45
Adapter Request-Response Server	45
Invoke an Adapter Request-Response Server	45
Respond to Adapter Request	46
Testing the Process	47
Chapter 3 Getting Started	49
Prerequisites	50
Configuring an Adapter Instance	51
Starting TIBCO Designer	51
Creating a Project	51
Creating and Configuring a PeopleSoft Adapter Configuration	52
Adding and Configuring a PeopleSoft Adapter Service	53
Starting the Adapter	55
Starting the Adapter with the Adapter Tester	55
Starting the Adapter from the Command line with a Repository File	55
Chapter 4 Configuring an Adapter Instance	57
Creating an Adapter Instance	58
Configuring an Adapter Instance	60
Configuration Tab	60
Design-time Connection Tab	61
Runtime Connection Tab	62
Adapter Services Tab	63
General Tab	64
Logging Tab	64
Startup Tab	66
Monitoring Tab	66
Saving the Project	68
Testing the Adapter	69
Chapter 5 Configuring Adapter Services	71
Creating an Adapter Service	72
CI Publication Service	74
Configuration Options	74
Configuration Task Sequence	78
Message Publication Service	81
Configuration Options	81

Configuration Task Sequence	84
CI Subscription Service	86
Configuration Options	86
Configuration Task Sequence	89
Message Subscription Service	90
Configuration Options	90
Configuration Task Sequence	93
Request-Response Service	95
Configuration Options	95
Configuration Task Sequence	98
Request-Response Invocation Service	100
Configuration Options	100
Configuration Task Sequence	103
Common Configuration Options for Adapter Services	105
Transport Type	105
Quality of Service	105
Wire Format	106
Connection Factory Type	107
Delivery Mode	107
Chapter 6 Deploying and Starting an Adapter Using TIBCO Administrator	109
Creating an EAR File in TIBCO Designer	110
Deploying the Project	111
Starting or Stopping the Adapter	113
Monitoring the Adapter	114
Chapter 7 Configuring Advanced Settings	115
Password Handling	116
Modifying DTA Rendezvous Connection Parameters	117
Modifying Palette Rendezvous Connection Parameters	118
Modifying the DTA JMS Connection Parameters	119
Modifying the Properties File	119
Modifying the DAT File	119
Defining a TIBCO Hawk Session	120
Using Global Variables	122
Changing Global Variable Values at Runtime	123
Predefined Global Variables	124
Setting Encoding Options	127
Configuring a Remote Adapter	128
Running Multiple Design-Time Adapters	129

Multi-threading and Deployment	130
Using the Operation Code Feature	131
Using the Adapter with a Revision Control System.	132
Implementation of Keys in the TIBCO Adapter for PeopleSoft	135
FINDKEYS	135
GETKEYS	135
CREATEKEYS	136
Valid Operation Codes for the Adapter	136
Chapter 8 Monitoring the Adapter Using TIBCO Hawk.	139
Overview	140
Starting TIBCO Hawk Software	141
The Auto-Discovery Process.	142
Invoking Microagent Methods	143
Available Microagents	146
activateTraceRole()	149
deactivateTraceRole()	150
getActivityStatistics()	151
getActivityStatisticsByOperation()	152
getActivityStatisticsByService()	153
getAdapterServiceInformation()	154
getComponents()	155
getConfig()	156
getConfigProperties()	157
getConnectionStatistics()	158
getQueueStatistics()	159
getRvConfig()	160
getStatus()	162
getThreadStatistics()	163
getTraceSinks()	164
getVersion()	165
_onUnsolicitedMsg()	166
preRegisterListener()	167
resetConnectionStatistics()	168
resetThreadStatistics()	169
reviewLedger()	170
setTraceSinks()	172
stopApplicationInstance()	173
unRegisterListener()	174
getActivityStatisticsBySchemaName()	175
getPerfMonSetting()	176
getPollingInterval()	177

setPollingInterval()	178
Appendix A Frequently Asked Questions	179
Frequently Asked Questions	180
What is the TIBCO Runtime Agent?	180
Can TIBCO Designer be brought from a UNIX command-line?	180
Why does the connection to the Design-Time Adapter fail?	180
When starting the adapter, what if the repository is not found?	180
Why does the adapter startup fail?	180
Why does the adapter startup fail, even after specifying the appropriate DAT file?	181
When saving an adapter configuration to the project, if an error occurs where is it logged?	181
When an error occurs in a Subscription Service adapter service, where is it displayed?	181
Why does the adapter fail to respond to a request?	181
Why does the adapter fail to respond to a request after successfully receiving it?	181
Appendix B Trace Messages	183
Overview	184
Trace Message Fields	186
Status Messages	189
Appendix C Troubleshooting	235
Running adpsft8.exe failed.	236
Clicking on the Fetch Interface button returns an MTimeoutException	241
When the adapter is running there is a registration collision	242
The adapter prints a stacktrace at each polling interval.	243
The adapter is not publishing data that has been entered.	244
The adapter printed an error message immediately after receiving a business event.	245
While processing, the adapter failed to set a value in the date field	246
Data processing caused a GetComponent() API message error.	247
Data successfully received and processed is not reflected in the table	248
A successfully processed record has extra rows in the database	250
The palette cannot connect to the DTA	251
Connection to PeopleSoft failed.	252
'Method not found' error displayed by the Adapter	254
Appendix D Migrating PeopleSoft Data for Adapter Configuration	255
Migrating PeopleSoft Data for Adapter Configuration	256
Script File Location	256
Adapter Configuration Migration	256

Index 261

Figures

Figure 1	Build PeopleSoft API Bindings	4
Figure 2	The Open Definition Dialog	6
Figure 3	The Gateways Pane.	9
Figure 4	Gateway Information	9
Figure 5	Gateway Connectors	10
Figure 6	The Message Builder Pane	12
Figure 7	Service Information	13
Figure 8	Node Definitions.	15
Figure 9	Routing Definitions	17
Figure 10	COUNTRY_SYNC Message	19
Figure 11	COUNTRY_SYNC Service.	20
Figure 12	Service Operation for Message Publication Service	21
Figure 13	CURRENCY_SYNC Message	25
Figure 14	CURRENCY_SYNC Service	26
Figure 15	Service Operation for Message Subscription Service	27
Figure 16	COUNTRY_SYNC_RPCC Service	33
Figure 17	Service Operation for Request-Response Invocation Service	34
Figure 18	The TIBCO Designer Window	40
Figure 19	Create a Project	41
Figure 20	Save Project.	42
Figure 21	Create a PeopleSoft Adapter Configuration.	58
Figure 22	Available Adapter Services shown in TIBCO Designer	72
Figure 23	CI Publication Service - Schema Tab.	77
Figure 24	TIBCO Hawk Enterprise Monitor	142
Figure 25	Microagents, Methods and Arguments Dialog	143
Figure 26	Select Microagent and Method	144
Figure 27	Invocation Result Dialog	145

Tables

Table 1	General Typographical Conventions	xviii
Table 2	TIBCOTARGET Connector Properties	10
Table 3	HTTPTARGET Connector Properties for Message Publication Service	18
Table 4	HTTPTARGET Connector Properties for Message Subscription Service	23
Table 5	JMSTARGET Connector Properties for Message Subscription Service	24
Table 6	Configuration Tab	60
Table 7	Design-time Configuration Tab	61
Table 8	Runtime Connection Tab	62
Table 9	Adapter Services Tab	63
Table 10	General Tab	64
Table 11	Logging Tab	64
Table 12	Startup Tab	66
Table 13	Monitoring Tab	66
Table 14	CI Publication Service Configuration - Configuration Tab	74
Table 15	CI Publication Service Configuration - Schema Tab	77
Table 16	CI Publication Service Configuration - Advanced Tab	78
Table 17	Message Publication Service Configuration - Configuration Tab	81
Table 18	Message Publication Service Configuration - Schema Tab	83
Table 19	Message Publication Service Configuration - SubscriberOptions Tab	83
Table 20	Message Publication Service Configuration - Advanced Tab	84
Table 21	Subscription Service Configuration - Configuration Tab	86
Table 22	Subscription Service Configuration - Schema Tab	87
Table 23	Subscription Service Configuration - Advanced Tab	88
Table 24	Message Subscription Service Configuration - Configuration Tab	90
Table 25	Message Subscription Service Configuration - Schema Tab	91
Table 26	Message Subscription Service Configuration - SubscriberOptions Tab	92
Table 27	Message Publication Service Configuration - Advanced Tab	93
Table 28	Request-Response Service Configuration - Configuration Tab	95

Table 29	Request-Response Service Configuration - Schema Tab	97
Table 30	Request-Response Service Configuration - Advanced Tab	98
Table 31	Request-Response Invocation Service Configuration - Configuration Tab	100
Table 32	Request-Response Invocation Service Configuration - Inbound Message Tab	101
Table 33	Request-Response Invocation Service Configuration - Outbound Message Tab	102
Table 34	Request-Response Invocation Service Configuration - SubscriberOptions Tab	102
Table 35	Request-Response Invocation Service Configuration - Advanced Tab	103
Table 36	Predefined Global Variables	124
Table 37	Standard Microagent Methods	147
Table 38	Class Microagent Methods	148
Table 39	Input parameters of activateTraceRole()	149
Table 40	Input parameters of deactivateTraceRole()	150
Table 41	Input parameter of getActivityStatistics()	151
Table 42	Returns of getActivityStatistics()	151
Table 43	Input parameter of getActivityStatisticsByOperation()	152
Table 44	Returns of getActivityStatisticsByOperation()	152
Table 45	Input parameter of getActivityStatisticsByService()	153
Table 46	Returns of getActivityStatisticsByService()	153
Table 47	Input parameter of getAdapterServiceInformation()	154
Table 48	Returns of getAdapterServiceInformation()	154
Table 49	Input parameters of getComponents()	155
Table 50	Returns of getComponents()	155
Table 51	Returns of getConfig()	156
Table 52	Input parameter of getConfigProperties()	157
Table 53	Returns of getConfigProperties()	157
Table 54	Returns of getConnectionStatistics()	158
Table 55	Returns of getQueueStatistics()	159
Table 56	Input parameter of getRvConfig()	160
Table 57	Returns of of getRvConfig()	160
Table 58	Returns of getStatus()	162
Table 59	Returns of getThreadStatistics()	163
Table 60	Input parameters of getTraceSinks()	164

Table 61	Returns of getTraceSinks()	164
Table 62	Returns of getVersion()	165
Table 63	Input parameters of preRegisterListener()	167
Table 64	Input parameters of reviewLedger()	170
Table 65	Returns of reviewLedger()	170
Table 66	Input parameters of setTraceSinks()	172
Table 67	Input parameters of unregisterListener()	174
Table 68	Input parameter of getActivityStatisticsBySchema()	175
Table 69	Returns of getActivityStatisticsBySchema()	175
Table 70	Returns of getPerfMonSetting()	176
Table 71	Return of getPollingInterval()	177
Table 72	Input parameters of setPollingInterval()	178
Table 73	Tracing Fields.	186

Preface

TIBCO ActiveMatrix Adapter for PeopleSoft is a bi-directional gateway between the PeopleSoft application and applications configured for the TIBCO environment. It is assumed that you are familiar with the basic concepts of the TIBCO environment and PeopleSoft technology.

Topics

- [Related Documentation, page xvi](#)
- [Typographical Conventions, page xviii](#)
- [Terminology and Acronyms, page xx](#)
- [Terminology and Acronyms, page xx](#)

Related Documentation

This section lists documentation resources you may find useful.

TIBCO ActiveMatrix Adapter for PeopleSoft Documentation

The following documents form the TIBCO ActiveMatrix Adapter for PeopleSoft documentation set:

- TIBCO ActiveMatrix Adapter for PeopleSoft *Concepts* Read this manual to gain an understanding of the product so that you can apply it to the various tasks you may undertake.
- TIBCO ActiveMatrix Adapter for PeopleSoft *Installation* Read this manual to learn how to install TIBCO ActiveMatrix Adapter for PeopleSoft.
- TIBCO ActiveMatrix Adapter for PeopleSoft *Configuration and Deployment* Read this manual for instructions on how to create and configure adapter projects. Information on deploying adapter projects is also included.
- TIBCO ActiveMatrix Adapter for PeopleSoft *Examples* Read this manual to work through the examples provided with the adapter.
- TIBCO ActiveMatrix Adapter for PeopleSoft *Release Notes* Read this document for information about new features, deprecated features, and known and closed issues.

Other TIBCO Product Documentation

You may find it useful to read the documentation for the following TIBCO products:

- TIBCO Designer™
- TIBCO Administrator™
- TIBCO ActiveMatrix BusinessWorks™
- TIBCO ActiveMatrix BusinessWorks™ Service Engine
- TIBCO Rendezvous®
- TIBCO Enterprise Message Service™
- TIBCO Hawk®
- TIBCO Adapter™ SDK
- TIBCO Runtime Agent™

- TIBCO ActiveMatrix® Service Grid
- TIBCO ActiveMatrix® Service Bus
- TIBCO Business Studio™

Third-Party Documentation

You may also find it useful to read the following documentation:

- *"Integration Tools: PeopleSoft Component Interfaces"* in the *PeopleTools PeopleBook*. Topics include an explanation of Component Interfaces, how to create them, how to test them using PeopleTools, and how to validate that a Component Interface is compatible with the underlying component.
- *"PeopleSoft Integration Broker"* in the *PeopleTools PeopleBook*. Topics include an explanation of Integration Broker, the components involved, and how to use the components in Application Messaging.
- *"PeopleSoft Platforms"* link in the PeopleSoft Customer Connection Website found at <http://www.peoplesoft.com>, for specific versions of the PeopleSoft supported databases.
- *"PeopleSoft Internet Architecture Administrating"* link in *"Peoplebook-PeopleTools-Administration Tools"* found at <http://www.peoplesoft.com>, for configuring a JOLT Listener port.




Typographical Conventions

The following typographical conventions are used in this manual.

Table 1 General Typographical Conventions

Convention	Use
<i>TIBCO_HOME</i> <i>ENV_HOME</i> <i>PS_HOME</i>	<p>Many TIBCO products must be installed within the same home directory. This directory is referenced in documentation as <i>TIBCO_HOME</i>. The value of <i>TIBCO_HOME</i> depends on the operating system. For example, on Windows systems, the default value is C:\tibco.</p> <p>Other TIBCO products are installed into an installation environment. Incompatible products and multiple instances of the same product are installed into different installation environments. The directory into which such products are installed is referenced in documentation as <i>ENV_HOME</i>. The value of <i>ENV_HOME</i> depends on the operating system. For example, on Windows systems the default value is C:\tibco.</p> <p><i>PS_HOME</i> is the directory where the PeopleSoft Application server is installed. For example, if the PeopleSoft Application server is installed at C:\PT8.49 on Windows systems, the value of <i>PS_HOME</i> is C:\PT8.49</p>
code font	<p>Code font identifies commands, code examples, filenames, pathnames, and output displayed in a command window. For example:</p> <p>Use MyCommand to start the foo process.</p>
bold code font	<p>Bold code font is used in the following ways:</p> <ul style="list-style-type: none">• In procedures, to indicate what a user types. For example: Type admin.• In large code samples, to indicate the parts of the sample that are of particular interest.• In command syntax, to indicate the default parameter for a command. For example, if no parameter is specified, MyCommand is enabled: MyCommand [enable disable]

Table 1 General Typographical Conventions (Cont'd)

Convention	Use
<i>italic font</i>	<p>Italic font is used in the following ways:</p> <ul style="list-style-type: none"> • To indicate a document title. For example: See <i>TIBCO ActiveMatrix BusinessWorks Concepts</i>. • To introduce new terms. For example: A portal page may contain several portlets. <i>Portlets</i> are mini-applications that run in a portal. • To indicate a variable in a command or code syntax that you must replace. For example: <code>MyCommand PathName</code>
Key combinations	<p>Key name separated by a plus sign indicate keys pressed simultaneously. For example: Ctrl+C.</p> <p>Key names separated by a comma and space indicate keys pressed one after the other. For example: Esc, Ctrl+Q.</p>
	The note icon indicates information that is of special interest or importance, for example, an additional action required only in certain circumstances.
	The tip icon indicates an idea that could be useful, for example, a way to apply the information provided in the current section to achieve a specific result.
	The warning icon indicates the potential for a damaging situation, for example, data loss or corruption if certain steps are taken or not taken.

Terminology and Acronyms

The following acronyms are used in this manual:

Acronym	Meaning
API	Application Programming Interface
QOS	TIBCO Rendezvous quality of service
GUI	Graphical User Interface
RV	Refers to TIBCO Rendezvous reliable message quality of service, as opposed to certified message
RVCM	Refers to TIBCO Rendezvous certified message quality of service
RVDQ	Refers to TIBCO Rendezvous distributed queue
RPC	Remote Procedural Call
TRA	TIBCO Runtime Agent
JMS	Java Message Service
Component Interface (CI)	A Component Interface is a PeopleTools object that you create in PeopleSoft Application Designer. It exposes a PeopleSoft component for synchronous access from another application. External applications need not be concerned with the details of page structures and component definitions in order to access the underlying data and business logic through Component Interfaces.
TIB Work Page	This page is bundled with the TIB_PS8_ADAPTER project. It implements the logic for capturing desired fields for publication at runtime. The page must be attached to the component from which data is captured.
Inbound	Events coming into the adapter. It refers to the inflow of data into the PeopleSoft application. It is applicable to Subscription and Request-Response services.
Outbound	Events going out from the adapter. It refers to data being captured from the PeopleSoft application and being sent out. It is applicable to the Publication Service.
PIA	PeopleSoft Internet Architecture

Acronym	Meaning
IB	Integration Broker
VPD	Vital Product Database

How to Contact TIBCO Support

For comments or problems with this manual or the software it addresses, please contact TIBCO Support as follows.

- For an overview of TIBCO Support, and information about getting started with TIBCO Support, visit this site:
<http://www.tibco.com/services/support>
- If you already have a valid maintenance or support contract, visit this site:
<https://support.tibco.com>
- Entry to this site requires a user name and password. If you do not have a user name, you can request one.

Chapter 1

Preparing PeopleSoft

This chapter explains how to prepare PeopleSoft Component Interfaces and messages in your PeopleSoft system, and also how to prepare PeopleSoft components for publishing through the adapter. Information is also provided that you should have ready before starting adapter configuration.



The explanations in this manual are based on PeopleTools 8.49. If you use a PeopleTools product other than PeopleTools 8.49 in a project, some of the explanations provided in this documentation may not work.

For TIBCO ActiveMatrix Adapter for PeopleSoft, IB Services are only supported for PeopleTools 8.49 and above.

Topics

- [Overview, page 2](#)
- [Preparing PeopleSoft Component Interfaces, page 3](#)
- [Preparing PeopleSoft Application Messages, page 8](#)

Overview

PeopleSoft is a leading provider of ERP software solutions that meet the changing business needs of enterprises worldwide. It offers a complete suite of enterprise solutions for accounting, material management, distribution, manufacturing, and human resources.

The internet architecture introduced with PeopleSoft supports powerful functionality for internet access, integration of external applications with PeopleSoft applications, and the integration of both into the enterprise.

One aspect of PeopleSoft integration technology, that PeopleSoft internet architecture makes use of, is Component Interfaces. These are object-oriented software devices that allow external applications to invoke PeopleSoft business logic. Component Interfaces are ideal for use in PeopleSoft environments that require tightly coupled integration, where data must be transmitted in real time. For more information on Component Interface, see *TIBCO ActiveMatrix Adapter for PeopleSoft Concepts*, PeopleSoft Component Interfaces.

Another robust part of the PeopleSoft internet architecture is the Integration Broker that uses the Application Messaging technology to integrate with third party applications. For more information on Integration Broker, see *TIBCO ActiveMatrix Adapter for PeopleSoft Concepts*, PeopleSoft Integration Broker.

Preparing PeopleSoft Component Interfaces

TIBCO ActiveMatrix Adapter for PeopleSoft uses PeopleSoft Component Interfaces as schemas and as APIs for formatting and processing data between a PeopleSoft application and the TIBCO environment. PeopleSoft Component Interfaces must be prepared so the design-time adapter can download them to the adapter's configuration tool, TIBCO Designer.



- You should use the Test Component Interface tool in the PeopleTools Application Designer to determine which fields are required and what values are valid for sending into PeopleSoft.
- Eliminate any unnecessary records and fields from a Component Interface. The simpler the Component Interface, the easier it is to set up and test the adapter. Component interfaces containing fields from derived records are likely to cause errors.
- The preparation steps given under Procedure assume you know PeopleSoft procedures. For complete information about creating Component Interfaces and making them available, go to the PeopleSoft website and follow the Peoplebook-PeopleTools link to "Integration Tools: PeopleSoft Component Interfaces."

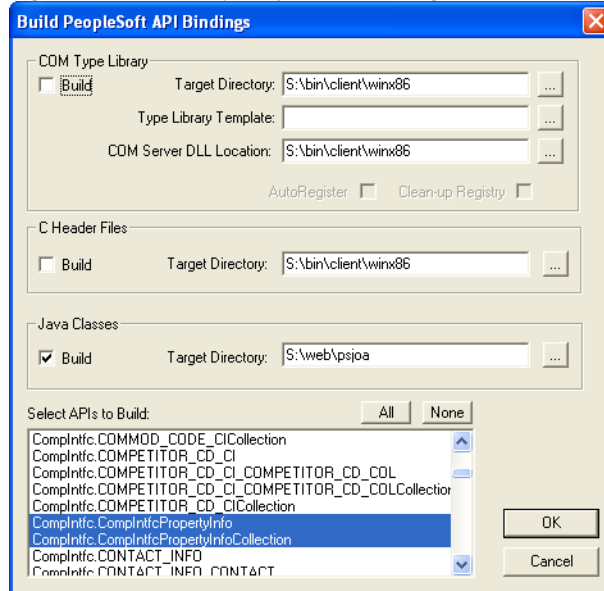
Procedure

Before configuring the adapter, do the following in your PeopleSoft system:

1. Configure a PeopleSoft Application Server for the adapter to use. Make sure that a JOLT Listener is configured and running.
2. Create or change the required Component Interfaces using PeopleTools Application Designer.
 - a. Make sure the Component Interfaces have all the records and fields you need for the type of data the adapter will be processing.
 - b. Open the Component Interface you want to use from PeopleSoft Application Designer.
 - c. On Microsoft Windows, from the menu, select **Build > PeopleSoft APIs** to generate the Java classes. Make sure the destination for the Java files points to %PS_HOME%\web\extapi.

Select the **Build Java Classes** check box. Select the PeopleSoft API's `CompIntfc.CompIntfcPropertyInfo` and `CompIntfc.CompIntfcPropertyInfoCollection` along with the required CI's, as shown in [Figure 1](#).

Figure 1 Build PeopleSoft API Bindings



On UNIX, FTP the generated Java source files to the `TIBCO_HOME/adapter/adpsft8/version_number/psftapi/PeopleSoft/Generated/CompIntfc` directory.

- d. On Microsoft Windows, compile the Java classes by running `BUILDCI.bat` from the `TIBCO_HOME\adapter\adpsft8\version_number\bin` directory.

On UNIX, compile the Java source by running `BUILDCI.sh` from the `TIBCO_HOME/adapter/adpsft8/version_number/bin` directory.

- e. On Microsoft Windows, verify that the built java classes are available in `TIBCO_HOME\adapter\adpsft8\version_number\lib\ext\PeopleSoft\Generated\CompIntfc`.

On UNIX, verify that the built java class files are in `$TIBCO_ADPSFT8_HOME/lib/ext`.

- f. Use the PeopleSoft Maintain Security screen to grant full access permission to the Component Interface operator class that the adapter will use. For more information on granting permissions to CIs, refer to *PeopleBooks*.

If you are applying a PeopleSoft Component Interface to a Subscription Service or a Request-Response Service in the adapter, set up the fields in the CREATEKEYS, GETKEYS, and FINDKEYS folders in every Component Interface as shown in the following table. Remember, PeopleSoft Component Interfaces become schemas in the adapter.

PeopleSoft Mode	CREATEKEYS Fields	GETKEYS Fields
Add	Must fill in	Fill-in optional
Correction	Fill-in optional	Must fill in

To insert data into the PeopleSoft system make sure that both the CREATEKEYS and GETKEYS fields are filled in, regardless of whether it is new or recently updated. For more information on the CREATEKEYS, GETKEYS, and FINDKEYS, refer to [Implementation of Keys in the TIBCO Adapter for PeopleSoft on page 135](#).



The maximum number of records returned by the adapter's Request-Response Service is limited to 300. This is due to a limitation built into PeopleSoft which restricts the number of records resulting from a FIND query on a Component Interface.

The adapter provides the FINDKEYS functionality of PeopleSoft Component Interface technology as a feature which can be used with the adapter's Request-Response Service. The adapter fetches the schema for a particular Component Interface at design-time. In addition to the CREATEKEYS and GETKEYS schemas, the adapter now fetches the FINDKEYS schema as well. Hence, at runtime, if the FINDKEYS values are specified in the incoming request, they take precedence over any GETKEYS or CREATEKEYS values specified. The adapter's Request-Response Service uses the same FINDKEYS values to query PeopleSoft and returns, as a reply, a sequence of FINDKEY values, which satisfy the query criterion.

CI Publication Service

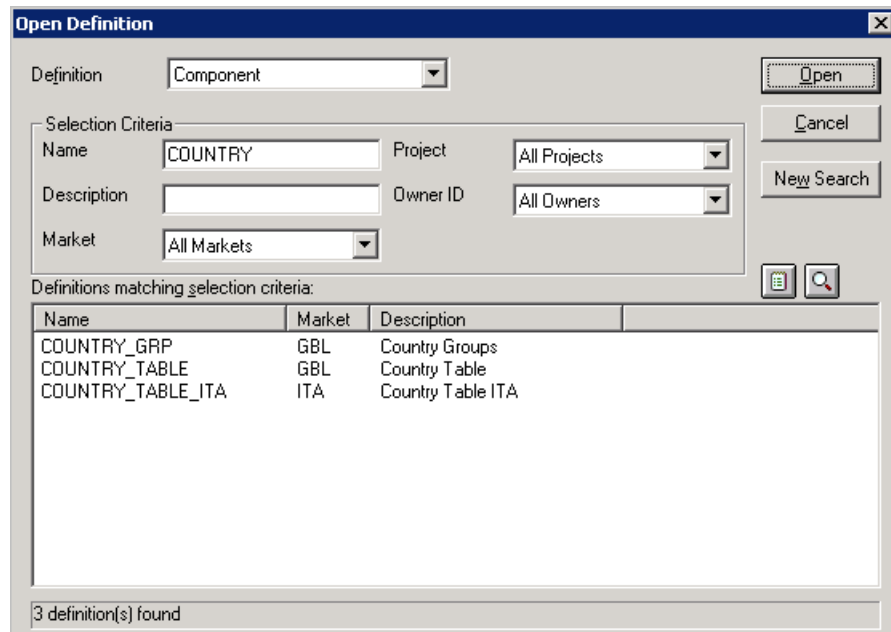
Every PeopleSoft component to be processed by a CI Publication Service of the adapter must have a shadow page (formerly “panel”) embedded in the component. Embedding is done in the PeopleTools Application Designer *after* you have configured the adapter in TIBCO Designer but *before* starting the adapter.

The shadow work page, `TIB_CI_ADAPTER_WRK`, is shipped with the adapter. It contains configuration-driven PeopleCode that extracts data from the component based on the adapter configuration settings.

To embed the shadow work page into a component:

1. Log on to PeopleTools Application Designer.
2. Select **File > Open**. The Open Definition dialog appears.
3. Select **Component** from the Definition drop-down list. In the Selection Criteria group, enter the name of the component in the Name box.
4. Click the **Open** button, all components matching the specified selection criteria are shown in the lower part of the dialog, as shown in [Figure 2](#).

Figure 2 The Open Definition Dialog



5. Select the specified component matching the selection criteria and click the **OK** button again. The component information appears on the right upper pane in the Application Designer window.
6. Select **Insert > Page Into Component...** The Insert Page dialog appears.
7. Enter **TIB_CI_ADAPTER_WRK** in the Name field, and then click the **Insert** button to add the TIB_CI_ADAPTER_WRK page into the component.
8. Click **File > Save** to save the component.
9. Log on to the PeopleSoft application.
10. Navigate to **PeopleTools > Security > Permissions & Roles > Permission Lists** on the **Menu** navigation frame. The **Permission Lists** pane appears on the right.

11. Select the suitable Permission List.
12. Click the **Component Interfaces** tab. If the CI you used is not listed in the Component Interface list, add it to the Component Interface list. Click **Edit** and give the **Full Access (All)** permission to your CI.
13. Click the **Pages** tab, and then select the suitable Menu. Click **Edit Components** to find your CI in the Component list. Click **Edit Pages** and then check the **Authorized?** checkbox for the TIB_CI_ADAPTER_WRK page.
14. When using the CI for CI services, click the **Save to PeopleSoft** button.

Preparing PeopleSoft Application Messages

TIBCO ActiveMatrix Adapter for PeopleSoft uses PeopleSoft application messages as schemas for formatting and processing data between a PeopleSoft application and the TIBCO environment. PeopleSoft application messages must be prepared so the design-time adapter can download them to the adapter's configuration tool, TIBCO Designer.



The following list will help you set up the PeopleSoft environment.

- Check the Message definition in PIA to determine the required fields and valid values to be sent to PeopleSoft.
- Eliminate any unnecessary records and fields from the message. The simpler the message, the easier it is to set up and test the adapter.
- The preparation steps given in this chapter assume you know PeopleSoft procedures. For complete information about creating messages and making them available, go to the PeopleSoft website and follow the Peoplebook-PeopleTools link to "Integration Tools: PeopleSoft Integration Broker."

Before configuring the adapter, you must set up the Integration Broker based on the services you will configure in the TIBCO environment.

The following steps are involved in setting up the Integration Broker for PeopleTools 8.48 and 8.49:

1. [Loading Gateway Connectors, page 8](#)
2. [Defining Messages, page 11](#)
3. [Defining Message Queues, page 12](#)
4. [Defining Services, page 12](#)
5. [Defining Service Operations, page 13](#)
6. [Defining Nodes, page 14](#)
7. [Defining Routings, page 16](#)
8. [Check Configurations, page 17](#)

Loading Gateway Connectors

For all PeopleSoft versions, follow these steps:

1. Log on to the PeopleSoft application.

2. Navigate to **PeopleTools > Integration Broker > Configuration > Gateways** on the **Menu** navigation frame. The Gateways pane appears on the right.

Figure 3 The Gateways Pane

Gateways

[Find an Existing Value](#) [Add a New Value](#)

Integration Gateway ID:

[Find an Existing Value](#) | [Add a New Value](#)

3. Click the **Add a New Value** tab on the Gateways pane. In the Integration Gateway ID field, enter **TIB_LOCAL**, and then click the **Add** button. The information for **TIB_LOCAL** Gateway needs to be filled in, as shown in Figure 4.

Figure 4 Gateway Information

Gateways

Gateway ID: TIB_LOCAL

☒ Local Gateway ☐ Load Balancer

URL:

[Gateway Setup Properties](#)

Connectors			Customize Find	First	1 of 1	Last
Connector ID	Description	Connector Class Name				
1	<input type="text"/>	<input type="text"/>	Properties			

4. Click the **Ping Gateway** button to make sure that PeopleSoft Listening Connector is *active*. In the URL field, enter the specified URL from where Gateway Connectors will be loaded, and then click the **Load Gateway Connectors** button. All loaded Gateway Connectors are shown in the Connectors area, as shown in Figure 5.

Figure 5 Gateway Connectors

Gateways

Gateway ID: TIB_LOCAL

☐ Local Gateway☐ Load Balancer

URL:

Ping Gateway

[Gateway Setup Properties](#)

Load Gateway Connectors

Connectors

Customize | Find |

First 1-12 of 12 Last

	Connector ID	Description	Connector Class Name	Properties	+	-
1	<input type="text" value="EXAMPLE2"/>	<input type="text"/>	<input type="text" value="TibcoTargetConnector"/>	Properties	<input type="button" value="+"/>	<input type="button" value="-"/>
2	<input type="text" value="EXAMPLE1"/>	<input type="text"/>	<input type="text" value="TibcoTargetConnector"/>	Properties	<input type="button" value="+"/>	<input type="button" value="-"/>
3	<input type="text" value="SMTPTARGET"/>	<input type="text"/>	<input type="text" value="SMTPTargetConnector"/>	Properties	<input type="button" value="+"/>	<input type="button" value="-"/>
4	<input type="text" value="FILEOUTPUT"/>	<input type="text"/>	<input type="text" value="SimpleFileTargetConnector"/>	Properties	<input type="button" value="+"/>	<input type="button" value="-"/>
5	<input type="text" value="PSFTTARGET"/>	<input type="text"/>	<input type="text" value="PeopleSoftTargetConnector"/>	Properties	<input type="button" value="+"/>	<input type="button" value="-"/>
6	<input type="text" value="LDAPTARGET"/>	<input type="text"/>	<input type="text" value="LDAPTargetConnector"/>	Properties	<input type="button" value="+"/>	<input type="button" value="-"/>
7	<input type="text" value="JMSTARGET"/>	<input type="text"/>	<input type="text" value="JMSTargetConnector"/>	Properties	<input type="button" value="+"/>	<input type="button" value="-"/>
8	<input type="text" value="HTTPTARGET"/>	<input type="text"/>	<input type="text" value="HttpTargetConnector"/>	Properties	<input type="button" value="+"/>	<input type="button" value="-"/>
9	<input type="text" value="GETMAILTARGET"/>	<input type="text"/>	<input type="text" value="GetMailTargetConnector"/>	Properties	<input type="button" value="+"/>	<input type="button" value="-"/>
10	<input type="text" value="FTPTARGET"/>	<input type="text"/>	<input type="text" value="FTPTargetConnector"/>	Properties	<input type="button" value="+"/>	<input type="button" value="-"/>
11	<input type="text" value="AS2TARGET"/>	<input type="text"/>	<input type="text" value="AS2TargetConnector"/>	Properties	<input type="button" value="+"/>	<input type="button" value="-"/>
12	<input type="text" value="PSFT81TARGET"/>	<input type="text"/>	<input type="text" value="ApplicationMessagingTargetConnector"/>	Properties	<input type="button" value="+"/>	<input type="button" value="-"/>

Save

Return to Search

5. Add an entry with the following details, and then click the **Save** button.
- a. Connector ID: **TIBCOTARGET**
- b. Connector Class Name: **TibcoTargetConnector**
6. Click the **Properties** link for **TIBCOTARGET** Connector to open the **Connector Properties** pane and add the properties listed in Table 2 for the connector.

Table 2 TIBCOTARGET Connector Properties

Property ID	Property Name	Value
HEADER	sendUncompressed	Y
TIBCOTARGET	JMSQueue	TEST.QUEUE

Table 2 TIBCOTARGET Connector Properties

Property ID	Property Name	Value
TIBCOTARGET	JMSTopic	TEST.CLIENT
TIBCOTARGET	JMSUrl	JMS_Server:port_no For example 127.0.0.1:7222
TIBCOTARGET	serviceType	RPCCLIENT or PUBLISHER



HTTPTARGET connector can be used by IB Publication Service, IB Subscription Service and Request-Response Invocation service.

JMSTARGET connector can be used by IB Subscription Service.

TIBCOTARGET connector can be used by IB Publication and Request-Response Invocation Service.

Defining Messages

Message definitions provide the physical description of the data that is being sent, including fields, field types, and field lengths. Refer to *PeopleTools PeopleBook* for more information.

Follow these steps to define a message:

1. Log on to the PeopleSoft application.
2. Navigate to **PeopleTools > Integration Broker > Integration Setup > Messages** on the Menu navigation frame. The Message Builder pane appears on the right.
3. Click the **Find an Existing Value** tab on the Message Builder pane. For example, if you want to find a message whose name begins with COUNTRY, enter **COUNTRY** in the Message Name: begins with field, as shown in [Figure 6](#). If you can not find the desired message, create a new message in the Adding a New Value tab. Refer to *PeopleTools PeopleBook* for more information.

Figure 6 The Message Builder Pane

Message Builder

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

Find an Existing Value

Add a New Value

Message Name:

begins with

COUNTRY

Message Version:

begins with

☐ Case Sensitive

Search

Clear

Basic Search

Save Search Criteria

Search Results

View All

First1-7 of 7Last

Message Name	Message Version
COUNTRY_FULLSYNC	VERSION_1
COUNTRY_FULLSYNC	VERSION_2
COUNTRY_RPCC	VERSION_2
COUNTRY_SYNC	VERSION_1
COUNTRY_SYNC	VERSION_2
COUNTRY_SYNC	VERSION_2
COUNTRY_SYNC_RPCC_1	VERSION_2

Defining Message Queues

A Message Queue isolates different groups of service operations from each other. It needs to be created exclusively to handle messages meant for the adapter. You can also choose an existing Message Queue. If a message does not exist for a record from which data is to be exported, it needs to be created. Modifications to the existing Messages might be required.

Defining Services

PeopleSoft Integration Broker enables you to take an existing component interface and create a service which can be used to invoke the component interface.

To define a service, follow these steps:

1. Log on to the PeopleSoft application.
2. Navigate to **PeopleTools > Integration Broker > Integration Setup > Services** on the Menu navigation frame. The Services page appears on the right.
3. Click the **Add a New Value** tab on the Services page. Enter the Service name, and then click the **Add** button. The service information needs to be filled in, as shown in [Figure 7](#).

Figure 7 Service Information

Services

Service: TIB_SERVICE

Description:

Comments:

Service Alias:

Object Owner ID:

Namespace:

[View WSDL](#)

Service Operations

Service Operation:

Operation Type:

4. Enter the Description for the Service. To learn how to define Service Operations for the service, refer to [Defining Service Operations on page 13](#). See *PeopleTools PeopleBook* for more information.
5. Click the **Save** button to save the changes. The specified service is created.

Defining Service Operations

A service operation definition consists of general information about an operation, such as its name, description, and so on. It also specifies an operation type, which determines how the operation is to be processed, synchronously or asynchronously. In addition, it contains routings which determine the direction, inbound or outbound, of the service operation. A service operation has one or more handlers, which contain and run the programming logic for sending or receiving the message, manipulating message content, and other functions.

After defining a service, you need to define service operations for the service.

To define a service operation for the service, follow these steps:

1. Log on to the PeopleSoft application.

2. Navigate to **PeopleTools > Integration Broker > Integration Setup > Service Operations** on the **Menu** navigation frame.
3. Click the **Add Service Operation** tab on the right page. Enter the Service name and the Service Operation name in the corresponding fields. Next, select an operation type from the Operation Type drop-down list, and then click the **ADD** button. The information for the service operation needs to be filled in on the next page. Refer to *PeopleTools PeopleBook* for more information..



If using the Message Subscription Service and Message Publication Service, select **Asynchronous - One Way** as the Operation Type.

If using the Message Request Response Invocation Service, select **Synchronous** as the Operation Type.



If using the Message Subscription Service and Message Publication Service, select **Asynchronous - One Way** as the Operation Type.

If using the Message Request Response Invocation Service, select **Synchronous** as the Operation Type.

Defining Nodes

Nodes represent any organization, application or system that will play a part in integrations. For example, nodes can represent customers, business units, suppliers, other trading partners, external or third-party software systems, and so on. Node definitions define the locations to or from which messages can be routed. Because an application can send messages to itself, a default local node definition that represents the application is delivered as part of the integration engine. Each PeopleSoft installation must have one, and only one, default local node.

To define a node, follow these steps:

1. Log on to the PeopleSoft application.
2. Navigate to **PeopleTools > Integration Broker > Integration Setup > Nodes** on the Menu navigation frame.
3. Click the **Add a New Value** tab on the right page. Enter the Node Name, and then click the **Add** button to open the next page.
4. Click the **Node Definitions** tab to define the node, as shown in [Figure 8](#). Refer to *PeopleTools PeopleBook* for more information.

Figure 8 Node Definitions

Node Definitions | [Connectors](#) | [Portal](#) | [WYS Security](#) | [Routings](#)

Node Name: TIB_NODE Copy Node

Description: Sample Node Rename Node

Node Type: PIA Delete Node

Authentication Option: None

☐ Default Local Node

☐ Local Node

☒ Active Node

☐ Non-Repudiation

☐ Segment Aware

Default User ID: PS

Hub Node:

Master Node:

Company ID:



IB Throttle Threshold:

Image Name:

Code Set Group Name:

[Contact/Notes](#) [Properties](#)

Save Return to Search

5. Click the **Connectors** tab and define the connectors.
 - a. Specify the Gateway ID or click the  button to look up the Gateway ID.
 - b. Specify the Connector ID or click the  button to look up the Connector ID.



The steps to define a connector are the same for all adapter services. However, the Connector ID will change depending on the adapter service selected. Refer to [Configuration Procedure for Adapter Services on page 18](#) for detailed information.

Based on the adapter service selected, choose the appropriate Target Connector. The Integration Broker allows you to customize target connectors. TIBCOTARGET Connector is a connector defined by TIBCO that is installed on the Integration Gateway. TIBCOTARGET Connector facilitates the exchange of JMS messages between PeopleSoft and the adapter.



While installing the adapter, you need to use an unzip utility, such as Winzip or WinRAR, to extract the `TIBCOTARGETConnector.jar` file, and then copy the extracted `*.class` files from the directory

`Adapter_HOME\data\TibcoTargetConnector\com\peoplesoft\pt\integrationgateway\targetconnector` to the following location in the Web Server:

`PS_HOME\webserve\peoplesoft\applications\peoplesoft\PSIGW\WEB-INF\classes\com\peoplesoft\pt\integrationgateway\targetconnector`.

Copy `tibjms.jar` from the `TIBCO_HOME\ems\clients\java` directory to

`PS_HOME\webserve\peoplesoft\applications\peoplesoft\PSIGW\WEB-INF\lib`.

The JRE version used by the `tibjms.jar` file must be equal or lower than the JRE version used by PeopleSoft, otherwise, PeopleSoft application cannot send to or receive messages from TIBCO EMS QUEUE or TOPIC.

Defining Routings

Routing definitions determine the sender and receiver of an integration. Routing definitions allow you to specify inbound and outbound transformations that enable you to transform data structures into those that the sending or receiving systems can understand.

Follow these steps to configure a routing.

1. Log on to the PeopleSoft application.
2. Navigate to **PeopleTools > Integration Broker > Integration Setup > Routings** on the Menu navigation frame.
3. Click the **Add a New Value** tab on the right page. Enter the Routing Name, and then click the **Add** button to open the next page.
4. Click the **Routing Definitions** tab and define the routing, as shown in [Figure 9](#). Refer to *PeopleTools PeopleBook* for more information.

Figure 9 Routing Definitions

The screenshot shows the 'Routing Definitions' form. The 'Routing Name' field is populated with 'TIB_ROUTING'. The 'Service Operation' field is empty. The 'Version' field is empty. The 'Description' field is populated with 'TIB_ROUTING'. The 'Comments' field is an empty text area. The 'Sender Node' and 'Receiver Node' fields are empty. The 'Routing Type' field is a dropdown menu. The 'Object Owner ID' field is empty. There are checkboxes for 'Active' (checked) and 'System Generated' (unchecked). A 'Save' button is located at the bottom left of the form.

5. Click the **Save** button to save the definition.

Check Configurations

After performing the above operations, you need to check your configurations.

1. Navigate to **PeopleTools > Integration Broker > Configuration > Quick Configuration** on the Menu navigation frame. The Integration Broker Quick Configuration pane appears on the right.
 - a. Make sure that the Gateway URL shown in the Local Gateway area is valid.
 - b. Make sure that the Integration Broker Domain status for the current PeopleSoft version is *Active*.
2. Navigate to **PeopleTools > Integration Broker > Configuration > Service Configuration** on the Menu navigation frame and then make sure that the value in the Target Location field is valid.

Configuration Procedure for Adapter Services

The basic steps listed in [Preparing PeopleSoft Application Messages, page 8](#) is the same for all adapter services, but the values assigned to certain parameters will differ based on the adapter services configured. Detailed information for each adapter service will be introduced in this section.

You may select one of the following transport types for each adapter service.

- HTTP transport
- JMS transport

Message Publication Service

If you have selected a subscriber transport type while configuring the adapter, you may perform the following procedure:

1. Log on to the PeopleSoft application.
2. Load Gateway connectors. Refer to [Loading Gateway Connectors on page 8](#) for detailed information.
 - a. If you have selected HTTP transport type in the adapter, you may use the default gateway **LOCAL**, and then add a connector entry **HTTPTARGET** into it. Click the **Properties** link for HTTPTARGET Connector to open the Connector Properties pane and add the properties listed in Table 3 for the connector.

Table 3 HTTPTARGET Connector Properties for Message Publication Service

Property ID	Property Name	Value
HEADER	sendUncompressed	Y
HEADER	version	VERSION_1
HTTPPROPERTY	Method	POST
PRIMARYURL	URL	HTTP_Server:port_no For example, http://127.0.0.1:2002

- b. If you have selected JMS transport type, you may use the default gateway **LOCAL** and then add a connector entry **TIBCOTARGET** into it. Click **Properties** of TIBCOTARGET Connector to open the Connector Properties pane and add the properties listed in Table 2 for the connector.
3. To define a message, refer to [Defining Messages on page 11](#). For example, if you have defined a message named **COUNTRY_SYNC** for the service, you can click on it to see its definition, as shown in [Figure 10](#). Or, you can just use the pre-defined message.

Figure 10 COUNTRY_SYNC Message

Message Definition **Schema**

Status: ⚠ Message cannot be changed. Message referenced in runtime tables.

Message: COUNTRY_SYNC **Schema Exists:** No

Version: VERSION_2 ☐ **Part Message**

Description: Country Table Sync.

Owner ID: Enterprise Components

Comments: Country Table Sync.

Message Type

☒ Rowset-based
☐ Nonrowset-based
☐ Container

[Service Operation References](#) Add Record to Root

Left | Right

COUNTRY_SYNC
 COUNTRY_TBL

4. To define services, refer to [Defining Services on page 12](#). If you have defined the COUNTRY_SYNC message from step 3, then you can defined a service based on it, as shown in [Figure 11](#). Or, you can just use the pre-defined message and the related service that PeopleSoft delivered, such as COUNTRY_SYNC service.

Figure 11 COUNTRY_SYNC Service

Service: COUNTRY_SYNC

Description: Country Table Sync.

Comments: Country Table Sync.

Service Alias:

Object Owner ID: Enterprise Components

Namespace: http://xmlns.oracle.com/Enterprise/HCM/services

[View WSDL](#)

Service Operations

Service Operation:

Operation Type:

ADD

Existing Operations

Customize | Find | View All | First 1 of 1 Last

Operation Message Links

Operation	Default Version	Description	Active	Operation Type
COUNTRY_SYNC.VERSION_2		Country Table Sync.	<input checked="" type="checkbox"/>	Asynch

Save

5. To define service operations, refer to [Defining Service Operations on page 13](#). If you have defined COUNTRY_SYNC service in step 4, enter a service operation name, such as COUNTRY_SYNC, in the Service Operation name and select **Asynchronous - One Way** from the Operation Type drop-down list. Click the **ADD** button to create the new service operation, as shown in [Figure 12](#).

Figure 12 Service Operation for Message Publication Service

Service Operation: COUNTRY_SYNC
Service: COUNTRY_SYNC
Operation Type: Asynchronous - One Way
Operation Description: Country Table Sync. ☐ User Password Required
Operation Comments:
Object Owner ID: PeopleTools
Operation Alias: [Service Operation Security](#)

Default Service Operation Version
 *Version: VERSION_2 ☒ Default ☒ Active
 Version Description: Country Table Sync.
 Version Comments:
☐ Non-Repudiation
☐ Runtime Schema Validation
[Inspection](#)

Routing Status
 Any-to-Local: Does not exist
 Local-to-Local: Does not exist
Routing Actions Upon Save
☐ Generate Any-to-Local
☐ Generate Local-to-Local

Message Information
 Type: Request
 Message.Version: COUNTRY_SYNC.VERSION_2 [View Message](#)
 *Queue Name: ENTERPRISE_SETUP [View Queue](#) [Add New Queue](#)

Non-Default Versions [Customize](#) | [Find](#) | [First](#) | [1 of 1](#) | [Last](#)

Version	Description	Active
VERSION_1	Country Table Sync.	<input type="checkbox"/>

[Save](#) [Return to Search](#) [Add Version](#)

[General](#) | [Handlers](#) | [Routings](#)

6. To define a node, for example TIB_NODE, enter the following Connection Properties. Refer to [Defining Nodes on page 14](#) for more information.
 - a. If you have selected HTTPTARGET in the previous step, modify the following properties:

PRIMARYURL: Specify the URL for the HTTP Listening Connector of the adapter. For example, `http://127.0.0.1:2002`
 - b. If you have selected TIBCOTARGET in the previous step, modify the following properties:

JMSQueue: Use this property only if you have selected Queue to be the Connection Factory Type in the SubscriberOptions tab of the adapter in

TIBCO Designer. Enter the `Subscriber Subject` that was entered in [SubscriberOptions Tab on page 83](#).

JMSTopic: Use this property only if you have selected `Topic` to be the `ConnectionFactoryType` in the `SubscriberOptions` tab of the adapter. The value of `JMSTopic` in PIA should match the subscriber subject under the `SubscriberOptions` tab in TIBCO designer.

JMSUrl: Enter the URL for the TIBCO Enterprise Message Server (EMS). For example, `127.0.0.1:7222`

serviceType: `Publisher`



The value of `JMSTopic` or `JMSQueue` should already exist in TIBCO EMS.

7. To define routings, refer to [Defining Routings on page 16](#).

To configure routings, you need to correctly set the sender node and the receiver node. For example, the sender node can be `PSFT_HR` in PeopleTools 8.49 and the receiver node can be `TIB_NODE` defined in the previous step.

Operations on PeopleSoft Application Designer

After performing the configuration for the adapter in PeopleSoft Application, you need to follow these steps in PeopleSoft Application Designer.

1. Open PeopleSoft Application Designer.
2. Select **File > Open** to open the Open Definition dialog, and then select **Component** from the Definition drop-down list. Type the component name, such as `COUNTRY_TABLE` in the Name field and then click the **Open** button to open the component definition pane.
3. With the component definition open, select **View > View PeopleCode**.
4. When the PeopleCode Editor appears, leave the component name as is in the left hand side drop-down list and select the **SavePostChange** event from the right hand side drop-down list.
5. In the PeopleCode Editor, paste the PeopleCode given below. If there are any existing lines of PeopleCode, you should comment them first and then append the code given below.

Replace the `%message_name%` with the corresponding message name without any quotes. (This PeopleCode will go into the `SavePostChange` event for the required Component)

```
Local Message &msg;
Local Message &msg1;
```

```

Local Rowset &rowSet;
Local XmlDoc &xmlDoc;
Local string &xmlString;
Local XmlNode &rootNode;
Local XmlNode &actionNode;
&rowSet = GetLevel0();
&msg = CreateMessage(Message.%message_name%);
&msg1 = CreateMessage(Message.%message_name%);
&msg.CopyRowset(&rowSet);
&xmlString = &msg.GenXMLString();
&xmlDoc = CreateXmlDoc(&xmlString);
&rootNode = &xmlDoc.DocumentElement;
&actionNode =
&rootNode.FindNode("MsgData/Transaction/PSCAMA/AUDIT_ACTN");
&actionNode.NodeValue = %Mode;
&xmlString = &xmlDoc.GenXmlString();
&msg1.LoadXMLString(&xmlString);
&msg1.Publish();

```

6. Save the component definition.

Message Subscription Service

If you have selected a transport while configuring the adapter, you may perform the following procedure:

1. Log on to the PeopleSoft application.
2. Load Gateway connectors. Refer to [Loading Gateway Connectors on page 8](#) for detailed information.
 - a. If you have selected HTTP as the subscriber transport type in TIBCO Designer, you may use the default gateway **LOCAL**, and then add a connector entry **HTTPTARGET** into it. Click the **Properties** link for HTTPTARGET Connector to open the Connector Properties pane and add the properties listed in Table 4 for the connector.

Table 4 *HTTPTARGET Connector Properties for Message Subscription Service*

Property ID	Property Name	Value
HEADER	sendUncompressed	Y
HEADER	version	VERSION_1
HTTPPROPERTY	Method	GET

Table 4 HTTPTARGET Connector Properties for Message Subscription Service

Property ID	Property Name	Value
PRIMARYURL	URL	HTTP_Server:port_no For example, http://127.0.0.1:2002

- b. If you have selected JMS as the subscriber transport type in TIBCO Designer, you may use the default gateway **LOCAL**, and then add a connector entry **JMSTARGET** into it. Click **Properties** of TIBCOTARGET Connector to open the Connector Properties pane and configure the properties listed in Table 5 for the connector. The JMSQueue name **IBSUB.QUEUE** should differ with the queue name of the Message Subscription Service in TIBCO designer.

Table 5 JMSTARGET Connector Properties for Message Subscription Service

Property ID	Property Name	Value
HEADER	sendUncompressed	Y
JMSTARGET	JMSAcknowledgement	AUTO_ACKNOWLEDGE
JMSTARGET	JMSDeliveryMode	NON_PERSISTENT
JMSTARGET	JMSFactory	QueueConnectionFactory
JMSTARGET	JMSMessageTimeToLive	0
JMSTARGET	JMSMessafeType	Text
JMSTARGET	JMSPriority	0
JMSTARGET	JMSProvider	Tibco
JMSTARGET	JMSQueue	IBSUB.QUEUE Note: Ensure that you have created a queue IBSUB.QUEUE in your adapter.
JMSTARGET	JMSReplyTo	FALSE
JMSTARGET	JMSUrl	TIBCO_EMS_Server:port_no For example 127.0.0.1:7222

3. To define a message, refer to [Defining Messages on page 11](#). For example, if you have defined a message named **CURRENCY_SYNC** for the service, you can click on it to see its definition, as shown in [Figure 13](#).

Figure 13 CURRENCY_SYNC Message

Message Definition **Schema**

Message: CURRENCY_SYNC

Version: VERSION_1

Description: Currency Tbl Incremental Synch

Owner ID: Enterprise Components

Comments: Incremental synchronization of PS_CURRENCY_TBL

Schema Exists: Yes

☐ Part Message

Message Type

☒ Rowset-based

☐ Nonrowset-based

☐ Container

[Service Operation References](#)

[Add Record to Root](#)

Left | Right

CURRENCY_SYNC

CURRENCY_CD_TBL

4. To define services, refer to [Defining Services on page 12](#). If you have defined a message named CURRENCY_SYNC in step 3, now define a service named CURRENCY_SYNC, as shown in [Figure 14](#).

Figure 14 CURRENCY_SYNC Service

Services

Service:

CURRENCY_SYNC

Description:

Currency Tbl Incremental Synch

Comments:

Incremental synchronization of
PS_CURRENCY_TBL

Service Alias:

Object Owner ID:

Enterprise Components

Namespace:

http://xmlns.oracle.com/Enterprise/HCM/services

[View WSDL](#)

[Provide Web Service](#)

Service Operations

Service Operation:

Operation Type:

ADD

Existing Operations

Customize | Find | View All | First 1 of 1 Last

Operation

Message Links

Operation.Default Version	Description	Active	Operation Type
CURRENCY_SYNC.VERSION 1	Currency Tbl Incremental Synch	<input checked="" type="checkbox"/>	Asynch

Save

5. Define service operations. If you have defined CURRENCY_SYNC service in step 4, enter a service operation name, such as **CURRENCY_SYNC**, in the Service Operation name and select **Asynchronous - One Way** from the Operation Type drop-down list. Click the **ADD** button to create the new service operation, as shown in Figure 15.



Your service operation name has to be the same as your message name. For example, if your message name is CURRENCY_SYNC, your service operation name must also be CURRENCY_SYNC.

Figure 15 Service Operation for Message Subscription Service

General **Handlers** Routings

Service Operation: CURRENCY_SYNC

Service: CURRENCY_SYNC

Operation Type: Asynchronous - One Way

Operation Description: Currency Tbl Incremental Synch ☐ User/Password Required

Operation Comments:

Object Owner ID: Enterprise Incentive Mgmt

Operation Alias: [Service Operation Security](#)

Default Service Operation Version

Version: VERSION_1 ☒ Default ☒ Active

Version Description: Currency Tbl Incremental Synch

Version Comments:

☐ Non-Repudiation ☐ Runtime Schema Validation

[Introspection](#)

Routing Status

Any-to-Local: Exists

Local-to-Local: Exists

Routing Actions Upon Save

☐ Regenerate Any-to-Local ☐ Regenerate Local-to-Local

Message Information

Type: Request

Message.Version: CURRENCY_SYNC.VERSION_1 [View Message](#)

Queue Name: ENTERPRISE_SETUP [View Queue](#) [Add New Queue](#)

Save [Return to Search](#) [Add Version](#)

[General](#) | [Handlers](#) | [Routings](#)

6. To define a node, for example TIB_NODE, enter the following Connection Properties. You can also refer to [Defining Nodes on page 14](#).
 - a. If you have selected HTTPTARGET in the previous step, modify the following properties:

PrimaryURL: Specify the URL for the HTTP Listening Connector of the adapter. For example, `http://127.0.0.1:2002`
 - b. If you have selected JMSTarget in the previous step, modify the following properties:

JMSFactory: QueueConnectionFactory or TopicConnectionFactory depending on the Connection Factory Type that you selected in the

SubscriberOptions Tab of the message subscription service in TIBCO Designer.

JMSProvider: TIBCO

JMSUrl: Enter the URL of the TIBCO Enterprise Message Server (EMS). For example, **tcp://EMS_Server:7222**

7. To define routings, refer to [Defining Routings on page 16](#).

To configure routings, you need to correctly set the sender node and the receiver node. For example, the sender node can be TIB_NODE as defined in the previous step and the receiver node, which must be a LOCAL node, can be PSFT_HR.

Operations on PeopleSoft Application Designer

After performing the configuration for the adapter in PeopleSoft Application, you need to follow these steps in PeopleSoft Application Designer:

1. Open PeopleSoft Application Designer.
2. Select **File > Open** to open Open Definition dialog, and then select **Message** from the Definition drop-down list. Type the message name, such as **CURRENCY_SYNC** in the Name field and then click the **Open** button to open the message definition pane.
3. Click the node under the Message Subscriptions node and then select **View > View PeopleCode**.
4. When the PeopleCode Editor appears, leave the message name as is in the left hand side drop-down list and select the **Subscription** event from the right hand side drop-down list.
5. In the PeopleCode Editor, paste the PeopleCode given below. If there are any existing lines of PeopleCode, you should comment them first and then append the code given below. (This PeopleCode will go into the Subscription event of the PeopleCode for the required Component.)

```
Local Message &MSG;
Local Rowset &LEVEL0;
Local Record &rLocation, &REC;
&MSG = GetMessage();
&rLocation = CreateRecord(Record.CURRENCY_CD_TBL);
&LEVEL0 = &MSG.GetRowset();
/* Multiple level 0 rows may exist in AE batch programs,
   but not with online panel processing... */
&REC = &LEVEL0(1).CURRENCY_CD_TBL;
&MSG.ExecuteEdits();
```

```

If &MSG.IsEditError Then
/*Specific error will be visible in App Msg Monitor */
  Exit (1);
Else
  &AUDIT_ACTN = &MSG.GetRowset()(1).PSCAMA.AUDIT_ACTN.Value;
Evaluate &AUDIT_ACTN
  When = "C"
    /* Data from publishing node was changed */
    &REC.CopyFieldsTo(&rLocation);
    &RES = &rLocation.Update();
    /* If update failed, it is probably because the data in
       the two databases hasn't been synchronized.
       Try insert action as a last resort. */
    If &RES = False Then
      &rLocation.Insert();
    End-If;
    Break;
  When = "A"
    /* New high order key inserted in publishing node */
    &REC.CopyFieldsTo(&rLocation);
    &rLocation.Insert();
    Break;
  When = "D"
    /* High order key was deleted in publishing node */
    &REC.CopyFieldsTo(&rLocation);
    &rLocation.Delete();
    Break;
  End-Evaluate;
End-If;

```

6. Save the component definition and restart JMS Listener.

Modifying Files for PeopleSoft Web Server

After performing the configuration for the adapter in PeopleSoft Application, you need to modify the content of some files to ensure the adapter works.

1. Modify the `integrationGateway.Properties` file located in `PS_HOME\webserv\peoplesoft\applications\peoplesoft\PSIGW\WEB-INF`.
 - a. In the file, replace the `%user_name%`, `%password%`, `%PeopleSoft_server_name:port_number%`, and

`%EMS_server_name:port_number%` with the corresponding value without any quotes.

- b. Search the following string:

```
## JOLT connect string setting for optional Default
Application Server. Do NOT specify a NODENAME.
```

- c. Add the following lines below the string:

```
ig.isc.serverURL=%PeopleSoft_server_name:port_number%. For
example, //10.97.97.222:9000.
ig.isc.userid=%user_name%
#Use the supplied "Password Encryption Utility" to generate
an encrypted password for the next entry.
ig.isc.password=%password%
ig.isc.toolsRel=8.49
```

- d. If you want to use JMS in the Queue mode, add the following lines:

```
# Enter the number of Queue listeners to instantiate
ig.jms.Queues=1
# For each queue specify the following properties
#   Name
#   Provider
#   JMSFactory name (which is binded to the JNDI)
#   MessageSelector (optional Message Filter)
#   JNDI System File URL
#   JMS User
#   JMS Password
ig.jms.Queue1=TEST_QUEUE_SUB
ig.jms.Queue1.Provider=Tibco
ig.jms.Queue1.JMSFactory=QueueConnectionFactory
ig.jms.Queue1.MessageSelector=
ig.jms.Queue1.Url=%EMS_server_name:port_number%. For
example, tcp://127.0.0.1:7222.
ig.jms.Queue1.User=admin
# Use the supplied encryption utility to provide an encrypted
password for the entry below
ig.jms.Queue1.Password=%password%
```

- e. If you want to use JMS in the Topic mode, replace the lines in [step d](#) with the following:

```
# Enter the number of Topic Subscribers to instantiate
ig.jms.Topics=1
# For each Topic specify the following properties
#   Name
```

```
# Provider
# JMSFactory name (which is binded to the JNDI)
# MessageSelector (optional Message Filter)
# JNDI System File URL
# JMS User
# JMS Password
ig.jms.Topic1=TEST_QUEUE_SUB
ig.jms.Topic1.Provider=Tibco
ig.jms.Topic1.JMSFactory=QueueConnectionFactory
ig.jms.Topic1.MessageSelector=
ig.jms.Topic1.Url=%EMS_server_name:port_number%. For
example, tcp://127.0.0.1:7222.
ig.jms.Topic1.User=admin
# Use the supplied encryption utility to provide an encrypted
password for the entry below
ig.jms.Topic1.Password=%password%
```



You should ensure that:

- `ig.jms.Queue1.URL` has the same value as the URL specified in the JNDI URL field in the SubscriberOptions tab in the adapter.
- The subject name contained in `ig.jms.Queue1` is the same as the name entered in the IB Subscriber Subject field in the adapter.

To generate the password, run the utility program `PSCipher` located in `PS_HOME\webserv\peoplesoft`.

2. Modify the `web.xml` file located in

`PS_HOME\webserv\peoplesoft\applications\peoplesoft\PSIGW\WEB-INF`.

```
<servlet>
    <servlet-name>JMSListeningConnectorAdministrator</servlet-na
    me>
    <servlet-class>com.peoplesoft.pt.integrationgateway.listenin
    gconnector.JMSListeningConnectorAdministrator
    </servlet-class>
</servlet>
<servlet-mapping>
    <servlet-name>JMSListeningConnectorAdministrator</servlet-na
    me>
    <url-pattern>/JMSListeningConnectorAdministrator/*</url-patt
    ern>
</servlet-mapping>
```

3. Restart PIA.

4. Open your web browser and input the following URLs.
 - To stop listening or subscribing the event from the JMS Queue, input
`http://ip_address/PSIGW/JMSListeningConnectorAdministrator?Activity=STOP`
 - To start to listen or subscribe to the event from the JMS Queue, input
`http://ip_address/PSIGW/JMSListeningConnectorAdministrator?Activity=START`

Request-Response Invocation Service

If you have selected a transport while configuring the adapter, you may perform the following procedure:

1. Log on to the PeopleSoft application.
2. Load Gateway connectors. Refer to [Loading Gateway Connectors on page 8](#) for detailed information.
 - a. If you selected HTTP as the subscriber transport type, use the default gateway **LOCAL**, and then add a connector entry **HTTPTARGET** into it. Click the **Properties** link for HTTPTARGET Connector to open the Connector Properties pane and add the properties listed in Table 3 for the connector.
 - b. If you selected JMS as the subscriber transport type, use the default gateway **LOCAL** and then add a connector entry **TIBCOTARGET** to it. Click the **Properties** link for TIBCOTARGET Connector to open the Connector Properties pane and add the properties listed in Table 2 to the connector.
3. To define message, refer to [Defining Messages on page 11](#). For example, you have defined a message named **COUNTRY_SYNC** for the service, click on it to see its definition, as shown in [Figure 10](#).
4. To define services, refer to [Defining Services on page 12](#). If you defined the **COUNTRY_SYNC** message from step 3, then you can now define a service, such as **COUNTRY_SYNC_RPCC** service defined here, as shown in [Figure 16](#).

Figure 16 COUNTRY_SYNC_RPCC Service

Services

Service: COUNTRY_SYNC_RPCC
 Description: COUNTRY_SYNC_RRI
 Comments:
 Service Alias:
 Object Owner ID: PeopleTools
 Namespace: http://xmlns.oracle.com/Enterprise/HCM/services
[View WSDL](#)

Service Operations

Service Operation:
 Operation Type:
 ADD

Existing Operations Customize | Find | View All | First 1-5 of 5 Last

Operation	Message Links	
Operation, Default Version	Description	Active Operation Type

Save

[Return to Search](#) [Add](#) [Update/Display](#)

5. To define service operations, refer to [Defining Service Operations on page 13](#).
 - a. If you defined a service, such as the COUNTRY_SYNC_RPCC service in step 4, in the General tab, enter a service operation name, such as COUNTRY_RPCC, in the Service Operation name and select **Synchronous** from the Operation Type drop-down list. Click the **ADD** button to create the new service operation, as shown in [Figure 17](#).

Figure 17 Service Operation for Request-Response Invocation Service

General

Handlers

Routing

Service Operation:

COUNTRY_RPCC

Service:

COUNTRY_SYNC_RPCC

Operation Type:

Synchronous

Operation Description:

COUNTRY_SYNC_RPCC

Operation Comments:

Object Owner ID:

Enterprise Components

Operation Alias:

User/Password Required

Service Operation Security

Default Service Operation Version

Version:

VERSION_2

Version Description:

COUNTRY_SYNC_RPCC

Version Comments:

Non-Repudiation

Runtime Schema Validation

Introspection

Add Fault Type

Default

Active

Routing Status

Any-to-Local:

Does not exist

Local-to-Local:

Does not exist

Routing Actions Upon Save

Generate Any-to-Local

Generate Local-to-Local

Message Information

Type:

Request

Message.Version:

COUNTRY_SYNC.VERSION_2

View Message

Type:

Response

Message.Version:

COUNTRY_SYNC.VERSION_2

View Message

Save

Return to Search

Add Version

- b. Configure the handler of the service operation in the Handlers tab.
6. To define a node, such as TIB_NODE, enter the following Connection Properties. Refer to [Defining Nodes on page 14](#) for detailed information.
- a. If you selected HTTPTARGET in the previous step, modify the following properties:
- PrimaryURL: Specify the URL of the HTTP Listening Connector. For example, `http://127.0.0.1:2002`.
- b. If you selected TIBCOTARGET in the previous step, modify the following properties:
- JMSQueue: Use this property only if you have selected Queue to be the Connection Factory Type in the SubscriberOptions tab of the adapter. Enter the Subscriber Subject in SubscriberOptions that corresponds to the value

of the JMSQueue defined in TIBCOTARGET Connector Properties, refer to Table 2.

JMSTopic: Use this property only if you have selected Topic to be the Connection Factory Type in the SubscriberOptions tab of the adapter. Enter the Subscriber Subject that was entered in the [SubscriberOptions Tab on page 102](#).

JMSUrl: Enter the URL of the TIBCO Enterprise Message Server (EMS). For example, `127.0.0.1:7222`

serviceType: RPCCLIENT



The value of JMSTopic or JMSQueue should already exist in TIBCO EMS.

7. To define routings, refer to [Defining Routings on page 16](#).

To configure routings, you need to correctly set the sender node and the receiver node. For example, the sender node can be `PSFT_HR` that must be a LOCAL node, and the receiver node can be `TIB_NODE` defined in the previous step.

Operations on PeopleSoft Application Designer

After performing the configuration for the adapter in PeopleSoft Application, you need to follow these steps in PeopleSoft Application Designer:

1. Open PeopleSoft Application Designer.
2. Select **File > Open** to open the Open Definition dialog and then select **Component** from the Definition drop-down list. Type the component name, such as `COUNTRY_TABLE`, in the Name field and then click the **Open** button to open the component definition pane.
3. With the component definition open, select **View > View PeopleCode**.
4. When the PeopleCode Editor appears, leave the component name as is in the left hand side drop-down list and select the **SavePostChange** event from the right hand side drop-down list.
5. In the PeopleCode Editor, paste the PeopleCode given below. If there are any existing lines of PeopleCode, you should comment them first and then append the code given below.

Replace the `%service_operation_name%` with the corresponding message name without any quotes. (This PeopleCode will go into the SavePostChange event of the PeopleCode for the required Component.)

```
Local Message &msg;
```

```

Local Message &msg1;
Local Rowset &rowSet;
Local XmlDoc &xmlDoc;
Local string &xmlString;
Local XmlNode &rootNode;
Local XmlNode &actionNode;

&rowSet = GetLevel0();
&msg = CreateMessage(Operation.%service_operation_name%);
&msg1 = CreateMessage(Operation.%service_operation_name%);
&msg.CopyRowset(&rowSet);
&xmlString = &msg.GenXMLString();
&xmlDoc = CreateXmlDoc(&xmlString);
&rootNode = &xmlDoc.DocumentElement;
&actionNode =
&rootNode.FindNode("MsgData/Transaction/PSCAMA/AUDIT_ACTN");
&actionNode.NodeValue = %Mode;
&xmlString = &xmlDoc.GenXmlString();
&msg1.LoadXMLString(&xmlString);
&response = %IntBroker.SyncRequest(&msg1);

If (&response.ResponseStatus = 0) Then
    &XML_STRING = &response.GenXMLString();
    &SUCCESS_FILE = GetFile("c:\temp\sync0.txt", "w", "a",
%FilePath_Absolute);
    &SUCCESS_FILE.WriteLine(&XML_STRING);
    &SUCCESS_FILE.Close();
    MessageBox(0, "", 2, 0, "success");
Else
    MessageBox(0, "", 2, 0, "error");
End-If

```



If Request-Response Invocation Service succeeds, the text file will be generated and the response message appears in the file under the following directory specified in the above PeopleCode: c:\temp\sync0.txt.

6. Save the component definition.

Chapter 2 **Working with TIBCO ActiveMatrix BusinessWorks**

This chapter introduces how to create a project, define business processes, and execute the processes in TIBCO ActiveMatrix BusinessWorks.

Topics

- [Overview, page 39](#)
- [Starting TIBCO Designer, page 40](#)
- [Creating a Project, page 41](#)
- [Configuring an Adapter Instance, page 43](#)
- [Creating a Process, page 44](#)
- [Testing the Process, page 47](#)

Overview

TIBCO ActiveMatrix BusinessWorks is a scalable, extensible, and easy to use integration platform that allows you to develop and test integration projects. TIBCO ActiveMatrix BusinessWorks includes a graphical user interface, TIBCO Design, for defining business processes and an engine that executes the process.

TIBCO Designer is also used to configure TIBCO ActiveMatrix Adapter for PeopleSoft instances. Refer to [Chapter 4, Configuring an Adapter Instance, on page 57](#) for details.

In enterprise applications, you may need to manipulate different adapter services. TIBCO ActiveMatrix BusinessWorks facilitates your deployment and configuration process with easy drag, drop, and link operations for complex services transactions.

In TIBCO ActiveMatrix BusinessWorks, adapters provide services to activities inside the business process. The business process can communicate with adapters by using activities found in the adapter palette. These activities interact with each of the standard adapter services.

For more information about business processes and activities, see the TIBCO ActiveMatrix BusinessWorks documentation.

Starting TIBCO Designer

To start TIBCO Designer, execute one of the following platform-specific commands to open the TIBCO Designer window.

- On Microsoft Windows

From the Start menu, select **All Programs > TIBCO > TIBCO Designer *n.n* > Designer *n.n***.

or

From the command line, run

```
TIBCO_HOME\designer\%n.n%\bin\designer.exe
```

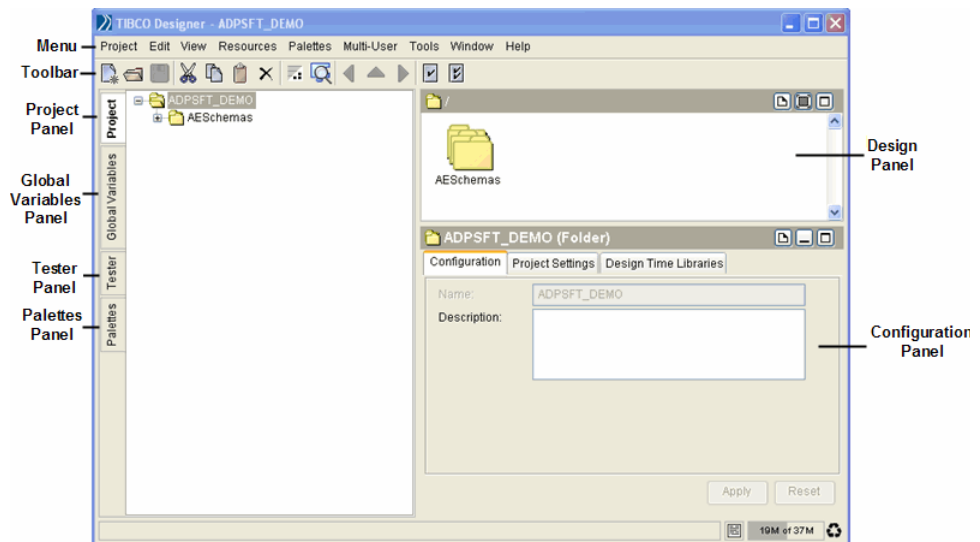
- On UNIX

```
TIBCO_HOME/designer/%n.n%/bin/designer.sh
```

TIBCO Designer Interface

The TIBCO Designer window contains the following areas: Menu, Toolbar, Project Panel, Global Variables Panel, Tester Panel, Palettes Panel, Design Panel, and Configuration Panel, as shown in [Figure 18](#). For detailed information, refer to **Help > Designer Help**.

Figure 18 The TIBCO Designer Window

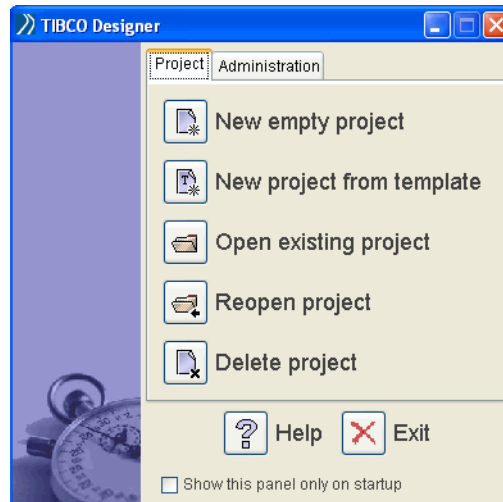


Creating a Project

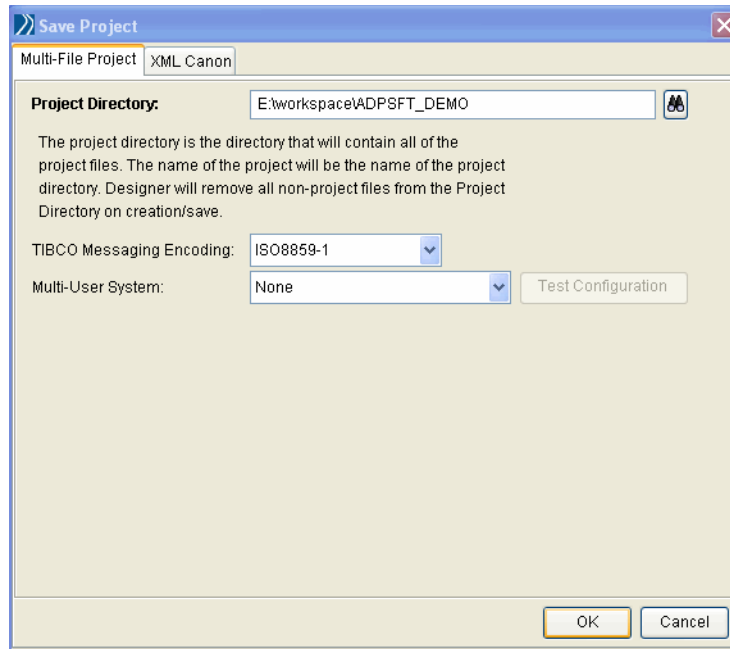
To create a project in TIBCO Designer, follow these steps:

1. Start TIBCO Designer.
2. Click the **New empty project** button in the TIBCO Designer dialog.

Figure 19 Create a Project



3. Select the **Multi-File Project** tab in the Save Project dialog. Click the **Browse** button to save the newly created project in the desired location or type the path in the Project Directory field.
For example, type **E:\workspace\ADPSFT_DEMO** in the Project Directory field, as shown in [Figure 20](#).

Figure 20 Save Project

4. Click the **OK** button to open the TIBCO Designer window.

Configuring an Adapter Instance

After creating a project in TIBCO Designer, you need to create an adapter instance and configure it to access the PeopleSoft application server. Refer to [Chapter 4, Configuring an Adapter Instance, on page 57](#) for details.

Creating a Process

After creating the adapter instance, you may need to create a process to deal with workflow.



Make sure you have added services into the adapter instance before configuring a process.

For detailed information about creating and configuring a process, refer to *TIBCO Designer User's Guide*.

To create a process, follow these steps:

1. Select your project in the Project Panel.
2. Expand the Process palette in the Palettes Panel and drag a **Process Definition** resource into the Design Panel on the right.
3. Double-click the Process Definition button in the Design Panel to open the ActiveEnterprise Adapter Palette under the Project Panel.
4. Drag one or more the following activities into the Process Definition Design Panel, and configure the activities under the Configuration Panel.
 - [Publish to Adapter, page 44](#)
 - [Adapter Subscriber, page 45](#)
 - [Adapter Request-Response Server, page 45](#)
 - [Invoke an Adapter Request-Response Server, page 45](#)
 - [Respond to Adapter Request, page 46](#)

For detailed information about configuring the above activities, refer to the TIBCO ActiveMatrix BusinessWorks documentation.

5. Click the **Apply** button to save the configuration.

Publish to Adapter

The Publish to Adapter activity publishes a message that can be received by an adapter subscription service.

Subscription services are configured during the adapter configuration, and the activity uses the information configured in the adapter configuration to fill in most of the fields of this activity.

[CI Subscription Service](#) and [Message Subscription Service](#) are two subscription services available in TIBCO ActiveMatrix Adapter for PeopleSoft. Refer to [Adding and Configuring a PeopleSoft Adapter Service on page 53](#) for detailed information.

Adapter Subscriber

The Adapter Subscriber activity starts a process based on the receipt of a message from the publication service of the specified adapter.

Publication services are configured during adapter configuration, and the activity uses the information configured in the adapter configuration to fill in most of the fields of this activity.

[CI Publication Service](#) and [Message Publication Service](#) are the two publication services available in TIBCO ActiveMatrix Adapter for PeopleSoft. Refer to [Adding and Configuring a PeopleSoft Adapter Service on page 53](#) for detailed information.

Adapter Request-Response Server

The Adapter Request-Response Server starts a process based on the receipt of a request from an adapter. The adapter sends a request using a preconfigured request-response invocation service, and the process that is started acts as the implementation of the request. The process sends any required responses back to the adapter service using the Respond to Adapter Request activity.

Adapter request-response invocation services are configured during adapter configuration, and the activity uses the information configured in the adapter configuration to fill in most of the fields of this activity.

[Request-Response Invocation Service](#) is available in TIBCO ActiveMatrix Adapter for PeopleSoft. Refer to [Adding and Configuring a PeopleSoft Adapter Service on page 53](#) for detailed information.

Invoke an Adapter Request-Response Server

The Invoke an Adapter Request-Response Service activity is used to communicate with an adapter request-response service. This service invokes an operation with input and output by way of the adapter.

Request-response services are configured during adapter configuration, and the activity uses the information configured in the adapter configuration to fill in most of the fields of this activity.

[Request-Response Service](#) is available in TIBCO ActiveMatrix Adapter for PeopleSoft. Refer to [Adding and Configuring a PeopleSoft Adapter Service on page 53](#) for detailed information.

Respond to Adapter Request

The Respond to Adapter Request activity is used to send a response to an adapter for a previously received request. For example, you may have a Wait for Adapter Request activity in a process definition. The incoming adapter request may require a response from your process. The Respond to Adapter Request is used to send that response.

Testing the Process

After creating and configuring a process, you can test it with TIBCO Designer. This allows you to make sure the process works correctly before you deploy it.

Refer to *TIBCO BusinessWorks Process Design Guide* for detailed information about using test mode.

Chapter 3 **Getting Started**

This chapter describes the basic steps to configure and run TIBCO ActiveMatrix Adapter for PeopleSoft. Details for each step described here are provided later in the manual.

Topics

- [Prerequisites, page 50](#)
- [Configuring an Adapter Instance, page 51](#)
- [Adding and Configuring a PeopleSoft Adapter Service, page 53](#)
- [Starting the Adapter, page 55](#)

Prerequisites

Before starting the configuration, ensure that all required software has been installed and is operating correctly. For detailed information about required software, refer to *TIBCO ActiveMatrix Adapter for PeopleSoft Installation*.

You should know how to drag and drop icons in TIBCO Designer and be familiar with saving projects. If you are not familiar with these topics, refer to the documentation for TIBCO Designer, which can be accessed from the **Help > Designer Help** menu option in TIBCO Designer.

If your installation is standalone, verify that a repository server is up and running (see the TIBCO Designer Help menu: **Help > Help For > Repository**).

See [Chapter 1, Preparing PeopleSoft, on page 1](#) for information about preparing the PeopleSoft application to work with the adapter.

Configuring an Adapter Instance

Each project contains one or more instances of the adapter configuration. This configuration is accessed whenever an adapter application is started.

A typical sequence of creating a project and configuring an adapter instance is as follows:

1. [Starting TIBCO Designer, page 51](#)
2. [Creating a Project, page 51](#)
3. [Creating and Configuring a PeopleSoft Adapter Configuration, page 52](#)

Starting TIBCO Designer

To start TIBCO Designer, execute one of the following platform-specific commands to open the TIBCO Designer window.

- On Microsoft Windows

From the Start menu, select **All Programs > TIBCO > TIBCO Designer *n.n* > Designer *n.n***.

or

From the command line, run

`TIBCO_HOME\designer\n.n\bin\designer.exe`

- On UNIX

`TIBCO_HOME/designer/n.n/bin/designer.sh`

For detailed information about starting TIBCO Designer, refer to [Starting TIBCO Designer on page 40](#).

Creating a Project

To create a project in TIBCO Designer, follow these steps:

1. Start TIBCO Designer.
2. Click the **New empty project** button in the TIBCO Designer dialog.
3. Select the **Multi-File Project** tab (if it is not already selected) in the Save Project dialog. Type `E:\workspace\ADPSFT_DEMO` in the Project Directory field.
4. Click the **OK** button to open the TIBCO Designer window.

For detailed information about creating a new project, refer to [Creating a Project on page 41](#).

Creating and Configuring a PeopleSoft Adapter Configuration

To create and configure a PeopleSoft adapter configuration, follow these steps:

1. Click to open the ADPSFT_DEMO project in the Project Panel.
2. Expand the **PeopleSoft Adapter** palette in the Palettes Panel, and drag the PeopleSoft Adapter Configuration icon to the Design Panel on the right.



If the PeopleSoft Adapter palette does not appear in the Palette Panel, Select **Palettes > Adapters > PeopleSoft Adapter** from the Menu.

3. Click the **PeopleSoftAdapterConfiguration** icon in the Design Panel. The PeopleSoft Adapter Configuration Panel appears.

In the **Configuration** tab:

- Specify the instance name. The default name is `PeopleSoftAdapterConfiguration`.
- Specify the PeopleTools version as 8.41 and above.
- Click the **Apply** button to save your configuration.

In the **Design-Time Connection** tab:

- Specify the necessary information to access the PeopleSoft system. The login ID and password you specify are PeopleSoft, not TIBCO.
- Specify the necessary information to connect to the PeopleSoft Application Server from where the Component Interfaces are downloaded. Port must specify the JOLT listener port, not the application server port.
- Click the **Connect...** button. This opens communication between TIBCO Designer and the PeopleSoft Application Server. When the connection is successful message appears, click the **OK** button.
- Click the **Apply** button to save your configuration.

4. Save your project.

For detailed information about creating and configuring a PeopleSoft Adapter Configuration, refer to [Configuring an Adapter Instance on page 60](#).

Adding and Configuring a PeopleSoft Adapter Service

After creating a PeopleSoft Adapter Configuration, add and configure the adapter services in the adapter.

The following six adapter services can be added:

- [CI Publication Service, page 74](#)
- [Message Publication Service, page 81](#)
- [CI Subscription Service, page 86](#)
- [Message Subscription Service, page 90](#)
- [Request-Response Service, page 95](#)
- [Request-Response Invocation Service, page 100](#)

For detailed information about adding and configuring a PeopleSoft adapter service, refer to [Chapter 5, Configuring Adapter Services, on page 71](#).

To add and configure a CI Publication Service, follow these steps:

1. In the Project Panel, expand the adapter instance folder which is, by default, `PeopleSoftAdapterConfiguration`.
2. Click **Adapter Services** in the project panel.
3. Drag a **CI Publication Service** icon to the Design Panel.
4. Specify options in the **Configuration** tab. Refer to [Configuration Options on page 74](#) for more information.
 - Specify the `Component Interface Name` and click **Fetch Interface...** . This returns a list of the available Component Interfaces from PeopleSoft with a matching name. Choose the Component Interface.
 - Click the **Apply** button. This generates a unique endpoint with a TIBCO Rendezvous subject name. The adapter automatically enters this information in the **Advanced** tab.



Rendezvous is selected as the default `Transport Type`. If you select JMS as the `Transport Type`, a unique endpoint with the destination name will be generated.

- Click the **Get Schema** button. This downloads the Component Interface schema from PeopleSoft to TIBCO Designer.
- Click the **Save to PeopleSoft** button. This will save the details required in the PeopleSoft database to trigger the Publication Service.

5. Save your project.

Starting the Adapter

After configuring the adapter with Publication, Subscription and Request-Response Services, you can start the adapter.

This section describes three ways to start the adapter:

- [Starting the Adapter with the Adapter Tester, page 55](#)
- [Starting the Adapter from the Command line with a Repository File, page 55](#)

You can also deploy the adapter with TIBCO Administrator. For more information, see [Chapter 6, Deploying and Starting an Adapter Using TIBCO Administrator, on page 109](#).

Starting the Adapter with the Adapter Tester

To start the adapter with the Adapter Tester, the adapter and TIBCO Designer must be installed on the same machine.

1. Start TIBCO Designer.
2. Select **Tools > Show Adapter Tester** on the Menu
3. In the left pane, select the adapter instance that you want to start.
4. Click the **Run Settings** tab. In the Working Directory field, enter a directory to place running files.
5. In the Adapter Executable field, select the executable. For example, TIBCO Adapter for PeopleSoft 6.0 (adpsft8.exe).
6. Click the **Apply** button.
7. Click the **Start** button. To view the output messages, click the **Console** tab.

Starting the Adapter from the Command line with a Repository File

To start the adapter from the command line with a repository file, the project must be run as a local repository and saved in DAT (repository) format.

Task A Convert the Project to a Repository File

To export the project to a local repository:

1. Start TIBCO Designer.
2. Select **Project > Export Full Project...** on the Menu. The Export Project dialog appears.

3. Click the **Local Repository** tab and enter the project name and the output directory in the Export Project dialog. Click the **OK** button.
4. In the Create Project dialog, select File Type and TIBCO Messaging Encoding. Click the **Yes** button.

Task B Start the Adapter

The adapter can be run by specifying the path of the DAT file in the repo URL, in the properties file or TIBCO Runtime Agent.

1. At the command prompt, go to the *PS_HOME\bin* directory, which hosts the adapter executable.
2. Enter the following command to start the adapter:

```
adpsft8.exe -system:repourl repository_file_url -system:configurl  
configuration_url
```

For example,

```
adpsft8.exe -system:repourl D:\example\pub.dat  
-system:configurl PeopleSoftAdapterConfiguration
```

Chapter 4 **Configuring an Adapter Instance**

This chapter explains how to create and configure an adapter instance. All the tasks are performed using TIBCO Designer

Topicsc

- [Creating an Adapter Instance, page 58](#)
- [Configuring an Adapter Instance, page 60](#)
- [Saving the Project, page 68](#)
- [Testing the Adapter, page 69](#)

Creating an Adapter Instance

After creating a project in TIBCO Designer, you need to create an adapter instance and configure it to access the PeopleSoft application server.

For detailed information about creating a project in TIBCO Designer, refer to [Creating a Project on page 41](#).

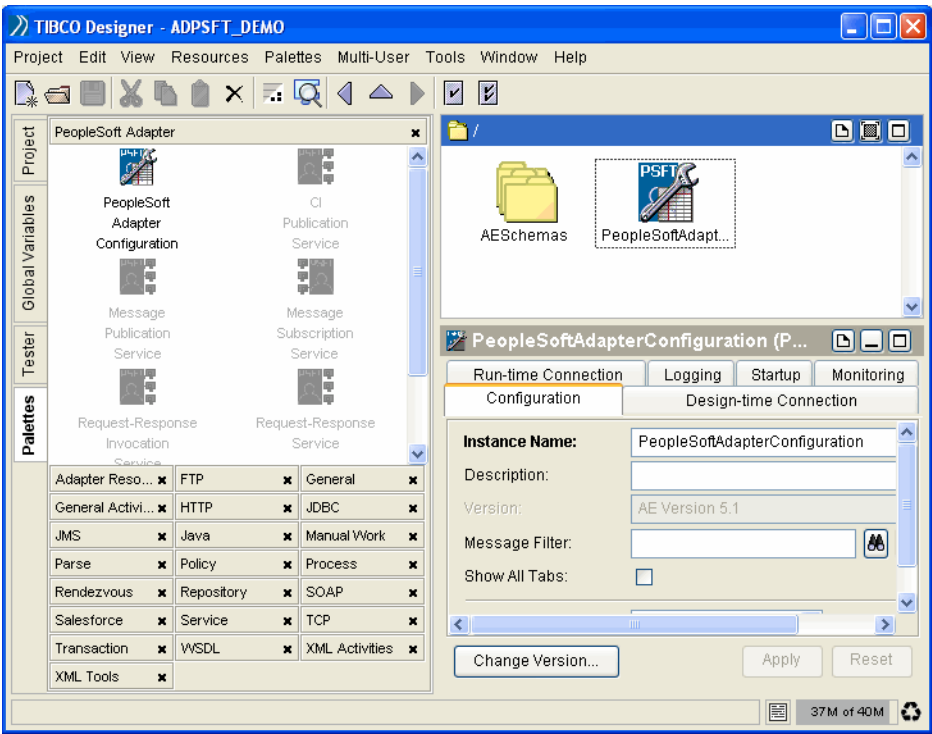
To create an adapter instance, follow these steps:

- 1. Click to open the newly created project in the Project Panel.
- 2. Expand the **PeopleSoft Adapter** palette in the Palettes Panel, and drag the PeopleSoft Adapter Configuration icon to the Design Panel on the right, as shown in [Figure 21](#).



If the PeopleSoft Adapter palette does not appear in the Palette Panel, Select **Palettes > Adapters > PeopleSoft Adapter** from the Menu.

Figure 21 Create a PeopleSoft Adapter Configuration



3. Click the **PeopleSoftAdapterConfiguration** icon in the Design Panel. The PeopleSoft Adapter Configuration Panel appears.
4. Click the **Save** button to save your project.

Configuring an Adapter Instance

Configure an adapter instance in the following tabs in the Configuration Panel:

- [Configuration Tab, page 60](#)
- [Design-time Connection Tab, page 61](#)
- [Runtime Connection Tab, page 62](#)
- [Adapter Services Tab, page 63](#)
- [General Tab, page 64](#)
- [Logging Tab, page 64](#)
- [Startup Tab, page 66](#)
- [Monitoring Tab, page 66](#)

Configuration Tab

The Configuration tab contains the following fields, as shown in [Table 6](#).

Table 6 Configuration Tab

Field	Description
Instance Name	The name of the adapter instance. Use the default name or replace it with a name of your choice. See Guidelines for Choosing an Instance Name on page 61 for more information.
Description	(Optional) A short description of the adapter instance.
Version	The version string indicates the ActiveEnterprise (AE) format in which the adapter instance is saved. When a new adapter instance is created in TIBCO Designer 5.x, the version string is set to AE Version 5.1. To change versions, click the Change Version... button. An adapter instance can be saved in AE 4.0 or AE 5.0 format.
Message Filter	Specify a message filter, if you have configured a message filter resource for use with the adapter. The filter allows you to manipulate incoming and outgoing data before sending it on the network or handing it to the target application. Filters can be written using the TIBCO Adapter SDK. See <i>TIBCO Adapter SDK Programmer's Guide</i> for information about writing a message filter.
Show All Tabs	Select this checkbox to display the Adapter Services tab and General tab for advanced options configuration.

Table 6 Configuration Tab

Field	Description
PeopleTools Version	From the drop-down list, select the version of PeopleTools that you will use.

Guidelines for Choosing an Instance Name

- An instance name must use alphanumeric characters. An underscore (_) character can be used. The entire instance name must be less than 80 characters. The space character cannot be used in an instance name.
- An instance name cannot use global variables.
- An instance name must be unique with respect to other adapter instances for the same adapter in the project. The same instance name can be used to name an adapter instance for a different adapter in the same project. For example, a PeopleSoft adapter instance named TEST and a Siebel adapter instance named TEST can coexist in the same project.
- Each instance name must be unique per adapter within a project even if each instance is defined in a different folder. That is, configuring same-named adapter instances in different folders will not make their names unique.

When you create an adapter instance, the palette automatically creates several resources for it. The names of these resources derive from the name of the instance they belong to. Changing the adapter instance name results in an automatic regeneration of the resources names. If you manually modify any resource name, that particular name will *not* be automatically regenerated next time you rename the adapter instance.

Design-time Connection Tab

Many of the fields listed in [Table 7](#) make use of global variables. Click the **Global Variables** tab in the project panel to enter a value for a global variable.

Table 7 Design-time Configuration Tab

Field	Description
Application Server Name	The host name or IP address of the machine that hosts the PeopleSoft Application Server.
Port	The port number that the PeopleSoft Application Server is configured to. Note: this is the JOLT Listener port (the default is 9000) not the Workstation Listener port (default is 7000).

Table 7 Design-time Configuration Tab

Field	Description
Login	The username used to log in to the PeopleSoft Application Server.
Password	The password associated with the username that is used to log in to the PeopleSoft Application Server.
Remember Password	If this checkbox is not checked (by default), the password must be entered each time the project is opened. If it is checked, the password will be stored in the project repository.
Use Design-time Connection For Runtime	If this checkbox is checked (by default), all values specified in the Design-time Connections tab apply to runtime connections. If it is checked, you can enter different runtime connection parameters.
DTA Transport	Select the transport to be used by the design-time adapter, JMS or Rendezvous.

Connect... Button

The Connect... button allows you to test whether the specified configuration fields result in a valid connection to the PeopleSoft Application Server.

Runtime Connection Tab

If you have checked the **Use Design-Time Connection For Run-time** checkbox in the Design-time Connection tab, most options in the Run-time Connection tab will inherit the design-time configuration and cannot be changed.

Table 8 Runtime Connection Tab

Field	Description
Application Server Name	The host name or IP address of the machine that hosts the PeopleSoft Application Server.
Port	The port number that the PeopleSoft Application Server is configured to. Note: this is the JOLT Listener port (the default is 9000) not the Workstation Listener port (default is 7000).
Login	The username used to log in to the PeopleSoft Application Server.
Password	The password associated with the username that is used to log in to the PeopleSoft Application Server.

Table 8 Runtime Connection Tab

Field	Description
Maximum Number of Reconnect Attempts	Specify the total number of reconnection attempts to make before the runtime adapter or adapter service is stopped. A value of -1 means reconnection attempts will continue indefinitely.
Number of Reconnect Attempts Before Suspending Impacted Service(s)	Specify the number of reconnection attempts to make before suspending a runtime adapter or adapter service. The value of the Adapter Termination Criteria field determines whether the adapter or an adapter service is stopped.
Interval between Reconnect Attempts (milliseconds)	Specify the time interval in milliseconds to elapse between each reconnection attempt.
Adapter Termination Criteria (after max number of reconnect attempts)	This field is disabled.

Adapter Services Tab

This tab is visible only when you check the **Show All Tabs checkbox** in the Configuration tab.

Specify common parameters to one or more types of services.

Table 9 Adapter Services Tab

Field	Description
Publisher Polling Interval	This parameter determines how often the adapter will read from its queue table (TIB_CI_MQUEUE). The default setting is 5000 milliseconds (5 seconds) Note: This field is applicable only for the CI Publication Service.

For detailed information about creating and configuring adapter services, refer to [Chapter 5, Configuring Adapter Services, on page 71](#).

General Tab

This tab is visible only when you check the **Show All Tabs checkbox** in the Configuration tab.

Table 10 General Tab

Field	Description
Termination Subject or Topic	<p>A message sent on the termination subject (if Rendezvous is the transport) or topic (if JMS is the transport) stops the adapter. In most cases, you should use the default value.</p> <p>See <i>TIBCO Rendezvous Concepts</i> for information about specifying subject names. See the <i>TIBCO Enterprise Message Service User's Guide</i> for information about publishing on a topic.</p>
Number of Threads	<p>The number of connections to be opened with the PeopleSoft application server by the adapter.</p>

Logging Tab

The Logging tab specify the output destination (sinks) for the trace messages and set the tracing level for the roles selected.

Table 11 Logging Tab

Field	Description
Use Advanced Logging	<p>If the checkbox is not checked (by default), you can set two standard output destinations (sinks) for trace messages and set the tracing level for the roles selected.</p> <p>If the checkbox is checked, you have complete control on selecting the destinations and associating desired roles with each of the destinations.</p> <p>To create and configure sinks, refer to Guidline for Creating and Configuring the Sinks on page 65.</p>
Log to Standard I/O	<p>(STDIO Sink) If the checkbox is checked, trace messages are displayed in the command prompt window where the adapter is started. If the checkbox is not checked, trace messages do not display in the window.</p>
Log File	<p>Specify the name of the log file (log sink) to which trace messages are written. Global variables can be used to specify the location of the log file. Refer to Using Global Variables on page 122 for more information.</p> <p>The roles available are Info, Debug, Warning, and Error messages. The trace message generated depends on the roles selected. Turning on the roles can affect the performance of the adapter. Therefore, it is recommended that you turn on the required roles only.</p>

Table 11 Logging Tab

Field	Description
Log Info Messages	The roles available are Info, Debug, Warning, and Error messages. The trace message generated depends on the roles selected. Turning on the roles can affect the performance of the adapter. Therefore, it is recommended that you turn on the required roles only.
Log Debug Messages	Trace messages of the selected level(s) will be collected in the named log sink. You can configure what levels of trace messages you want logged, and where trace messages are sent. There are three types of logs (log sinks) that you can configure to hold trace messages, corresponding to three levels (roles) of trace messages, Information, Warning and Error. A fourth level of trace messages, Debug, is reserved and should not be enabled unless requested by the TIBCO Product Support Group. This option writes a lot of information to the log file and significantly reduces the speed of the adapter.
Log Warning Messages	
Log Error Messages	

Guildline for Creating and Configuring the Sinks

To create and configure the sinks, follow these steps:

1. Check the **Use Advanced Logging** checkbox in the Logging Tab.
2. Expand *ProjectName* > *PeopleSoftAdapterConfiguration* > **Advanced** > **Log Sinks** in the Project Panel.
3. Drag the **Generic Log Sink** palette from the Palettes panel to the Design panel, and then select a **Sink Type** in the Configuration tab. Click the **Apply** button. For detailed information about Sink Types, refer to [Sink Types on page 65](#).
4. For all the sinks, optionally the name and description can be provided.
5. Select a sink displayed in the Design Panel and configure it in the Configuration Panel. There are two predefined sinks in the adapter instance, `fileSink` and `stdioSink`.

Sink Types

There are four sink types available: File, Hawk, Network, and STDIO. Each of them has certain configuration options:

- For the File sink, the file limit, file count, and the option to append or overwrite can be specified. When created by default, this is set to 30000 bytes, 3 and append mode respectively.

- For the `STDIO` sink, the option to write to `stdout` or `stderr` can be selected. When created by default, `stdout` is selected.
- The Hawk sink uses the hawk session, created and used by the adapter for monitoring purposes, to send tracing messages to the TIBCO Hawk monitor or Display.
- For details on Hawk sessions, refer to [Using Global Variables on page 122](#). The configuration for the Hawk sink involves specifying the `MicroAgent Name` that must be specified in the configuration panel.
- The Network sink is used to publish tracing message on TIBCO Rendezvous. The configuration for the network sink involves specifying the session, and the subject on which the trace messages needs to be published.

Startup Tab

The Startup tab contains the following fields, as shown in [Table 12](#).

Table 12 Startup Tab

Field	Description
Show Startup Banner	<p>If the checkbox is checked (by default), the startup banner displays the runtime adapter version, the infrastructure version on which the adapter is built, and copyright information in the console window when the adapter is started.</p> <p>The content of the start banner is predefined and cannot be changed.</p>
Metadata Search URL	<p>Specifies the location where the adapter searches for base schemas. The adapter searches for any schema that has been defined and saved at this location, and that should be loaded at startup.</p> <p>This field is predefined and cannot be changed.</p>

Monitoring Tab

Many of the fields listed in make use of global variables. Click the **Global Variables** tab in the project panel to enter a value for a global variable.

Table 13 Monitoring Tab

Field	Description
Enable Standard Microagent	<p>Allows you to turn on or off the standard TIBCO Hawk Microagent.</p> <p>Clicking the Globe icon, you can switch the way of configuration between a standard checkbox and text value (true or false).</p>

Table 13 *Monitoring Tab*

Field	Description
Standard Microagent Name	<p>The name for the standard microagent that will be registered with the TIBCO Hawk system.</p> <p>In most cases the default value is used. The <code>InstanceId</code> variable need not be set because it is automatically set at run time by the runtime adapter.</p>
Standard MicroAgent Timeout (ms)	<p>The timeout value for the standard microagent in milliseconds.</p> <p>The default value is 10000.</p>
Enable Standard Microagent	<p>Allows you to turn on or off the standard TIBCO Hawk Microagent.</p> <p>Clicking the Globe icon, you can switch the way of configuration between a standard checkbox and text value (true or false).</p>
Class Microagent Name	<p>The name for the class microagent that will be registered with the TIBCO Hawk system.</p> <p>In most cases the default value is used.</p>
Class MicroAgent Timeout (ms)	<p>The timeout value for the class microagent in milliseconds.</p> <p>The default value is 10000.</p>
Default Microagent Session	<p>Specify the name of the TIBCO Rendezvous session that will be used by the standard, class, and custom microagents.</p> <p>The session name and the corresponding session are automatically generated by TIBCO Designer. Do not change the session name or the session. However, you can modify the session parameters if required. Navigate to the <code>Sessions</code> folder under the <code>Advanced</code> folder to modify the session parameters.</p> <p>Make sure you have set the correct parameter value for the global variables that correspond to the TIBCO Hawk configuration. If the session parameters are not set properly, the microagents will not display in TIBCO Hawk Display.</p> <p>For a list of all supported microagents, refer to Chapter 8, Monitoring the Adapter Using TIBCO Hawk, on page 139.</p>

Saving the Project

Adapter configuration information and all other parameter settings related to the adapter configuration are saved in a TIBCO Designer project. You can save the project that represents it, at any time while configuring the adapter. Each time you save a project, any configuration information you have entered is saved as a repository instance.

For the saving procedure and more information about the repository choices, see the *TIBCO Designer User's Guide*.

Testing the Adapter

Before testing the adapter, refer to [Chapter 1, Preparing PeopleSoft, page 1](#) to set up the PeopleSoft environment. To test the adapter, start it after configuring and check for correct messaging. In this method, you can configure the adapter as required, then start it. If your preparations and configurations are successful, the adapter will connect to PeopleSoft and messaging will indicate no errors.

Configuring Adapter Services

This chapter explains how to create and configure adapter services for an adapter instance. All the tasks are performed using TIBCO Designer.

Topics

- [Creating an Adapter Service, page 72](#)
- [CI Publication Service, page 74](#)
- [Message Publication Service, page 81](#)
- [CI Subscription Service, page 86](#)
- [Message Subscription Service, page 90](#)
- [Request-Response Service, page 95](#)
- [Request-Response Invocation Service, page 100](#)

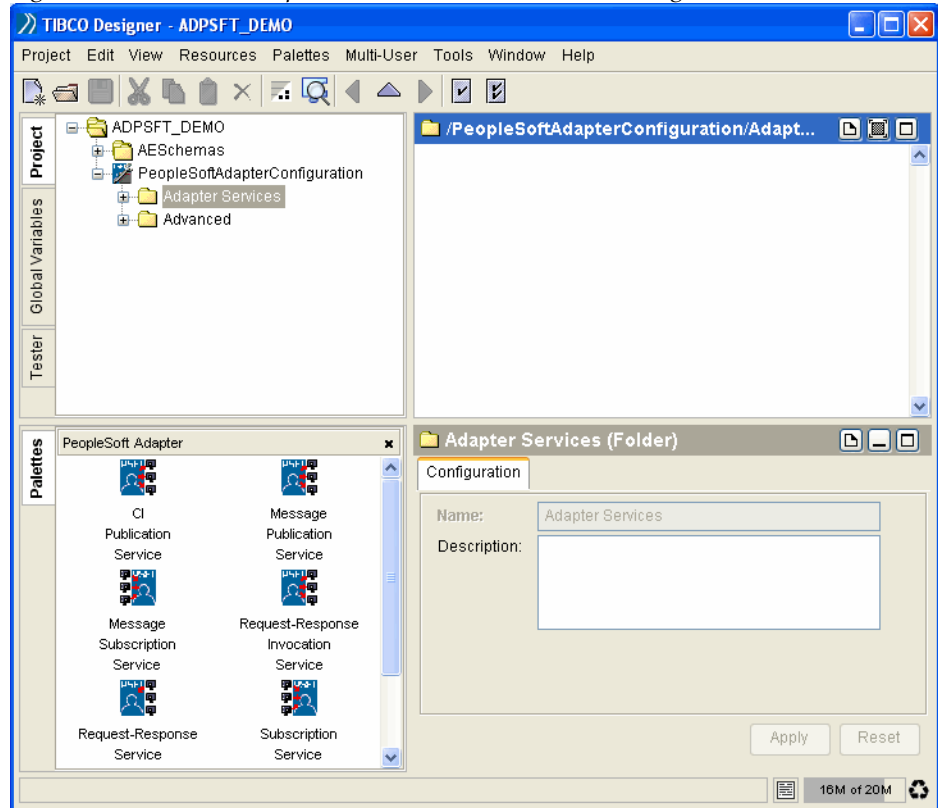
Creating an Adapter Service

After configuring an adapter instance, create one or multiple adapter services for it. For detailed information about configuring an adapter instance, refer to [Chapter 4, Configuring an Adapter Instance, on page 57](#).

To create an adapter service, follow these steps:

1. Expand *ProjectName* > *PeopleSoftAdapterConfiguration* in the Project Panel, and then click the **Adapter Services** folder. All the available services for the adapter appears in the Palettes Panel, as shown in [Figure 22](#).

Figure 22 Available Adapter Services shown in TIBCO Designer



If you cannot see the Project Panel and the palettes Panel in the same TIBCO Designer window, select **Edit > Preferences** on the Menu to open the TIBCO Designer Preferences dialog. Under the View tab, click the **Use tabs** radio button in the Layout pane.

2. Drag a service icon in the Palettes Panel to the Design Panel.
3. Specify configuration options for the created service in the Configuration Panel.
 - [CI Publication Service, page 74](#)
 - [Message Publication Service, page 81](#)
 - [CI Subscription Service, page 86](#)
 - [Message Subscription Service, page 90](#)
 - [Request-Response Service, page 95](#)
 - [Request-Response Invocation Service, page 100](#)
4. Click the **Save** button to save your configuration.

CI Publication Service

When running as a CI Publication Service, the adapter uses PeopleCode embedded in a TIBCO page to persist data entered by PeopleSoft users into a queue table. The runtime CI Publication Service polls that queue table. If an unprocessed event is found, it sends the message out to the TIBCO environment and stamps the queue entry as processed.



For a CI Publication Service to work, a shadow page (formerly “panel”) named TIB_CI_ADAPTER_WRK must be embedded in any component that will be published. For instructions on how to do this, see [CI Publication Service on page 5](#).

- [Configuration Options, page 74](#)
- [Configuration Task Sequence, page 78](#)

Configuration Options

Configure a CI Publication Service under the following tabs in the Configuration Panel.

- [Configuration Tab, page 74](#)
- [Schema Tab on page 76](#)
- [Advanced Tab on page 78](#)

Configuration Tab

The Configuration tab contains the following fields:

Table 14 CI Publication Service Configuration - Configuration Tab

Field	Description
Name	The name of the Component Interface stored in the PeopleSoft database. It matches the Component Interface Name and is automatically filled in by TIBCO Designer.

Table 14 CI Publication Service Configuration - Configuration Tab

Field	Description
Component Interface Name	<p>TIBCO Designer automatically supplies this name when you click the Fetch Interface... button and select a Component Interface. When starting the adapter, it uses this name to find the Component Interface in PeopleSoft. You can enter a partial string in this field to filter the Component Interfaces that are presented in the drop-down list when you click the Fetch Interface... button.</p> <p>For example, entering p would narrow the drop-down list to only Component Interface names beginning with p.</p>
Publish On:	<p>This field determines which PeopleSoft modes will cause a Publish to occur.</p> <p>Note: After saving the configuration settings to the PeopleSoft database if you modify the Publish on settings, you must once again click the Apply button, and then click the Get Schema button, and finally click the Save to PeopleSoft button.</p>
Add	Add mode allows the input of new records, for example a new PRODUCT.
Update	Update mode is used to view current data and modify future data.
Update All	Update all is used to view history, current and future data but only modify future data.
Correction	Correction is used to view history, current and future data, and correct all records.
Publish Current Record	<p>Check this checkbox to publish the current record (for Effective Dated records only).</p> <p>Note: The adapter will consider a record as Effective Dated if the effective date field in that record starts with EFFDT.</p>
Transport Type	The transport to be used by the runtime adapter, JMS or Rendezvous. Refer to Transport Type on page 105 for details.
JMS	
Connection Factory Type	Available only for the JMS transport. It can be Topic or Queue. Refer to Connection Factory Type on page 107 for details.
Delivery Mode	Available only for the JMS transport. It can be Persistent or Non-Persistent. See Delivery Mode on page 107 for details.
Wire Format	Services must use the same wire format to exchange data. It is XML Message. Refer to Wire Format on page 106 for details.
Rendezvous	

Table 14 CI Publication Service Configuration - Configuration Tab

Field	Description
Quality of Service	Available only for the Rendezvous transport. It can be Certified or Reliable. Reform to Quality of Service on page 105 for details.
Wire Format	Services must use the same wire format to exchange data. It can be XML Message or ActiveEnterprise Message. Refer to Wire Format on page 106 for details.

Save to PeopleSoft

Click the **Save to PeopleSoft** button to save the configuration to the Peoplesoft application server.



If a copied instance containing a CI Publication Service is used with different connection parameters, ensure that the **Save To PeopleSoft** button is clicked after changing the parameters.

Get Schema

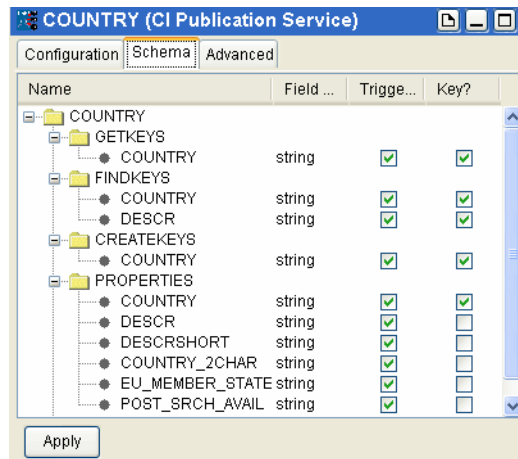
Click the **Get Schema** button to list the fields of the fetched schema in the [Schema Tab](#).

If you have changed any configuration, either on the service level or on the instance level, click the **Get Schema** button to ensure that the modification is reflected in the service at runtime.

Schema Tab

In the **Schema** tab you can view all elements but change only the trigger settings, as shown in [Figure 23](#).

Figure 23 CI Publication Service - Schema Tab



To view schema elements, click on the folders to expand them. It is not necessary to click the **Apply** button.

To change the trigger setting, follow these steps:

1. Expand the **PROPERTIES** folder until the **Triggers** column is populated.
2. Check or uncheck the **Trigger?** checkbox required. If checked, an update to this field will trigger a publish.
3. Click the **Apply** button, and then click the [Save to PeopleSoft](#) button in the Configuration tab.

The Schema tab contains the following fields:

Table 15 CI Publication Service Configuration - Schema Tab

Field	Description
Name	This column shows a field name if the schema attribute is a field or the record name if the schema attribute is a record. You can expand folders in this column to display triggers for PROPERTIES fields. When the adapter publishes data, the governing schema puts data only in the PROPERTIES node.
Field Type	This column applies only if a field is shown. Note: The values are TIBCO field-types and not PeopleSoft field-types.

Table 15 CI Publication Service Configuration - Schema Tab

Field	Description
Trigger?	This column indicates whether a change in the field will cause PeopleCode to store an entry into the queue table. By default, a trigger is enabled for all fields so that a change in any field will trigger an event. To disable the trigger for a field, uncheck the checkbox.
Key?	This column indicates whether the field is a key in a PeopleSoft database. Note: The values are TIBCO field-types and not PeopleSoft field-types.

Advanced Tab

The Advanced tab contains the following fields:

Table 16 CI Publication Service Configuration - Advanced Tab

Field	Description
Destination	Available only for the JMS transport. By default, a dynamic destination is generated using the Domain and Deployment global variables, the adapter acronym, the adapter instance name, and the service name. If you use this default dynamic destination, ensure that the values for Domain and Deployment are not empty. You can override the default dynamic destination by specifying the static destination in this field. The static destination <i>must</i> be defined on the EMS server before it can be used by the runtime adapter. See the <i>TIBCO Enterprise Message Service User's Guide</i> for information about destinations.
Message Subject	Available only for the Rendezvous transport. By default, a service uses a message subject that is generated using the Domain and Deployment global variables, the adapter acronym, the adapter instance name and the service name. If you use this default subject, make sure the values for Domain and Deployment are not empty. You can type a TIBCO Rendezvous subject name different from the default in this field. See <i>TIBCO Rendezvous Concepts</i> for information about specifying subject names.
Endpoint Reference	The location in TIBCO Repository where the endpoint information will be stored (default). Endpoints store information such as message subject, endpoint type, and startup state.
Schema Reference	A link to a location for the defined PeopleSoft adapter schema.

Configuration Task Sequence

To configure a CI Publication Service, follow these steps:

1. In the Project Panel, expand the adapter instance folder (by default, `PeopleSoftAdapterConfiguration`).
2. Click **Adapter Services** in the project panel.
3. Drag a **CI Publication Service** icon to the Design Panel.
4. Specify options in the **Configuration** tab. Refer to [Configuration Options on page 74](#) for more information.
5. Click the **Apply** button. This generates a unique endpoint with a TIBCO Rendezvous subject name. The adapter automatically enters this information in the **Advanced** tab.



Rendezvous is selected as the default Transport Type. If you select JMS as the Transport Type, a unique endpoint with the destination name will be generated.

6. Enter the name for the Component Interface and click the **fetch interface** button to fetch the component interface.
7. Click the **Get Schema** button. This downloads the Component Interface schema from PeopleSoft to TIBCO Designer.
8. Click the **Save to PeopleSoft** button. This will save the details required in the PeopleSoft database to trigger the Publication Service.
9. Save your project.



When a publication service is deleted, the corresponding entry in the PeopleSoft database is not automatically deleted. You must delete the entry in the PeopleSoft database using the SQL script that is generated in the following location:

`TIBCO_HOME\adapter\adpsft8\version_number\scripts`

On deleting a Publication Service do the following in the PeopleSoft system:

- Detach the Work Panel for the Component Interface associated with the Publication Service instance.
- Locate the SQL script in the `scripts` directory and run it to delete the entry in the PeopleSoft database. The name of the script file is *Component Interface Name_Adapter Configuration Name*.sql. For example, if an adapter configuration called `pub`, created for the Component Interface `ACTIVITY`, is deleted, the .sql file generated will be named `ACTIVITY_pub.sql`.



In a scenario where two Publication Services are associated with the same Component Interface, for example Publication Services A and B, which are both associated with ACTIVITY CI. If you delete Publication Service A, do not detach the Work Panel for the ACTIVITY CI. Detaching the Work Panel in this scenario will disable Publication Service B as well.

Message Publication Service

When running as a Message Publication Service, the adapter uses PeopleCode provided with the adapter to capture data from PeopleSoft into a PeopleSoft message and send it over HTTP or JMS to the adapter. The runtime Message Publication Service receives the message, processes it and publishes it out to the TIBCO environment. It then sends back an acknowledgement to the PeopleSoft system.

For the Message Publication service to work, the PeopleCode provided with the installation needs to be copied in the SavePostChange event of the component from which the data has to be published out.

- [Configuration Options, page 81](#)
- [Configuration Task Sequence, page 84](#)

Configuration Options

Configure a Message Publication Service under the following tabs in the Configuration Panel.

- [Configuration Tab, page 81](#)
- [Schema Tab, page 82](#)
- [SubscriberOptions Tab, page 83](#)
- [Advanced Tab, page 84](#)

Configuration Tab

The Configuration tab contains the following fields:

Table 17 Message Publication Service Configuration - Configuration Tab

Field	Description
Name	The name of the Message stored in the PeopleSoft database. It matches the Message Name and is automatically filled in by TIBCO Designer.
Message Name	<p>TIBCO Designer automatically supplies this name when you click the Fetch Message... button and select a Message. When starting the adapter, it uses this name to find the Message in PeopleSoft. You can enter a partial string in this field to filter the Messages that are presented in the drop-down list when you click the Fetch Message... button.</p> <p>For example, entering p would narrow the drop-down list to only Message names beginning with p.</p>

Table 17 Message Publication Service Configuration - Configuration Tab

Field	Description
Publish Current Record	Check this checkbox to publish the current record (for Effective Dated records only). Note: The adapter will consider a record as Effective Dated if the effective date field in that record starts with EFFDT.
Transport Type	The transport to be used by the runtime adapter, JMS or Rendezvous. Refer to Transport Type on page 105 for details.
JMS	
Connection Factory Type	Available only for the JMS transport. It can be Topic or Queue. Refer to Connection Factory Type on page 107 for details.
Delivery Mode	Available only for the JMS transport. It can be Persistent or Non-Persistent. See Delivery Mode on page 107 for details.
Wire Format	Services must use the same wire format to exchange data. It is XML Message. Refer to Wire Format on page 106 for details.
Rendezvous	
Quality of Service	Available only for the Rendezvous transport. It can be Certified or Reliable. Refer to Quality of Service on page 105 for details.
Wire Format	Services must use the same wire format to exchange data. It can be XML Message or ActiveEnterprise Message. Refer to Wire Format on page 106 for details.

Get Schema

Click the **Get Schema** button to list the fields of the fetched schema in the [Schema Tab](#).

If you have changed any configuration, either on the service level or on the instance level, click the **Get Schema** button to ensure that the modification is reflected in the service at runtime.

Schema Tab

In the **Schema** tab you can view all elements.

To view schema elements, click on the folders to expand them. It is not necessary to click the **Apply** button.

The Schema tab contains the following fields:

Table 18 Message Publication Service Configuration - Schema Tab

Field	Description
Name	This column shows a field name if the schema attribute is a field or the record name if the schema attribute is a record.
Field Type	This column applies only if a field is shown. Note: The values are TIBCO field-types and not PeopleSoft field-types.

SubscriberOptions Tab

The SubscriberOptions tab contains the following fields:

Table 19 Message Publication Service Configuration - SubscriberOptions Tab

Field	Description
Subscriber Subject	Enter the subject on which the adapter should subscribe for messages from PeopleSoft. The Subscriber Subject should be the same as the one mentioned in Defining Nodes on page 14 .
Client TimeOut (in millisec)	The time taken by the Client to time out. By default, it is 5000 milliseconds.
Subscriber Transport Type	The Transport Type used by the adapter to send messages to the PeopleSoft Integration Broker. The Transport Type can be JMS or HTTP.
JMS	
Connection Factory Type	Available only for the JMS transport. It can be Topic or Queue. Refer to Connection Factory Type on page 107 for details.
Delivery Mode	Available only for the JMS transport. It can be Persistent or Non-Persistent. See Delivery Mode on page 107 for details.
HTTP	
HTTP Port	Available only for the HTTP transport. The port at which the adapter waits for HTTP messages. By default, the adapter listens at port 2002 for IB messages.

Advanced Tab

The Advanced tab contains the following fields:

Table 20 Message Publication Service Configuration - Advanced Tab

Field	Description
Destination	<p>Available only for the JMS transport.</p> <p>By default, a dynamic destination is generated using the Domain and Deployment global variables, the adapter acronym, the adapter instance name, and the service name.</p> <p>If you use this default dynamic destination, ensure that the values for Domain and Deployment are not empty. You can override the default dynamic destination by specifying the static destination in this field. The static destination <i>must</i> be defined on the EMS server before it can be used by the runtime adapter. See the <i>TIBCO Enterprise Message Service User's Guide</i> for information about destinations.</p>
Message Subject	<p>Available only for the Rendezvous transport.</p> <p>By default, a service uses a message subject that is generated using the Domain and Deployment global variables, the adapter acronym, the adapter instance name and the service name.</p> <p>If you use this default subject, make sure the values for Domain and Deployment are not empty. You can type a TIBCO Rendezvous subject name different from the default in this field. See <i>TIBCO Rendezvous Concepts</i> for information about specifying subject names.</p>
Endpoint Reference	<p>The location in TIBCO Repository where the endpoint information will be stored (default). Endpoints store information such as message subject, endpoint type, and startup state.</p>
Schema Reference	<p>A link to a location for the defined PeopleSoft adapter schema.</p>

Configuration Task Sequence

To configure a Message Publication Service, follow these steps:

1. In the Project Panel, expand the adapter instance folder (by default, PeopleSoftAdapterConfiguration).
2. Click **Adapter Services** in the project panel.
3. Drag a **Message Publication Service** icon to the Design Panel.
4. Specify options in the **Configuration** tab. Refer to [Configuration Tab on page 81](#) for more information.

5. Click the **Apply** button. This generates a unique endpoint with a TIBCO Rendezvous subject name. The adapter automatically enters this information in the **Advanced** tab.



Rendezvous is selected as the default Transport Type. If you select JMS as the Transport Type, a unique endpoint with the destination name will be generated.

6. Click the **Get Schema** button. This downloads the Message schema from PeopleSoft to TIBCO Designer.
7. Save your project.

CI Subscription Service

When running as a Subscription Service the adapter receives messages from the TIBCO Environment and inserts the message data into a PeopleSoft database through Component Interface APIs.

- [Configuration Options, page 86](#)
- [Configuration Task Sequence, page 89](#)

Configuration Options

Configure a Subscription Service under the following tabs in the Configuration Panel.

- [Configuration Tab, page 86](#)
- [Schema Tab, page 87](#)
- [Advanced Tab, page 88](#)

Configuration Tab

The Configuration tab contains the following fields:

Table 21 Subscription Service Configuration - Configuration Tab

Field	Description
Name	The name of the Component Interface stored in the PeopleSoft database. It matches the Component Interface Name and is automatically filled in by TIBCO Designer.
Component Interface Name	TIBCO Designer automatically supplies this name when you click the Fetch Interface... button and select a Component Interface. When starting the adapter, it uses this name to find the Component Interface in PeopleSoft. You can enter a partial string in this field to filter the Component Interfaces that are presented in the drop-down list when you click the Fetch Interface... button. For example, entering p would narrow the drop-down list to only Component Interface names beginning with p.
Transport Type	The transport to be used by the runtime adapter, JMS or Rendezvous. Refer to Transport Type on page 105 for details.
JMS	

Table 21 Subscription Service Configuration - Configuration Tab

Field	Description
Connection Factory Type	Available only for the JMS transport. It can be Topic or Queue. Refer to Connection Factory Type on page 107 for details.
Delivery Mode	Available only for the JMS transport. It can be Durable or Non Durable. Refer to Delivery Mode on page 107 for details.
Wire Format	Services must use the same wire format to exchange data. It is XML Message. Refer to Wire Format on page 106 for details.
Rendezvous	
Quality of Service	Available only for the Rendezvous transport. It can be Certified, Reliable or Distributed Queue. Refer to Quality of Service on page 105 for details.
Wire Format	Services must use the same wire format to exchange data. It can be XML Message or ActiveEnterprise Message. Refer to Wire Format on page 106 for details.

Get Schema

Click the **Get Schema** button to list the fields of the fetched schema in the [Schema Tab](#).

If you have changed any configuration, either on the service level or on the instance level, click the **Get Schema** button to ensure that the modification is reflected in the service at runtime.

Schema Tab

In the **Schema** tab you can view all elements.

To view schema elements, click on the folders to expand them. It is not necessary to click the **Apply** button.

The Schema tab contains the following fields:

Table 22 Subscription Service Configuration - Schema Tab

Field	Description
Name	This column shows a field name if the schema attribute is a field, or shows a record name if the schema attribute is a record.
Field Type	This column applies only if a field is shown. Note: The values are TIBCO field-types and not PeopleSoft field-types.

Table 22 Subscription Service Configuration - Schema Tab

Field	Description
Key?	This column indicates whether the field is a key in a PeopleSoft database. Note: The values are TIBCO field-types and not PeopleSoft field-types.

Advanced Tab

The Advanced tab contains the following fields:

Table 23 Subscription Service Configuration - Advanced Tab

Field	Description
Destination	Available only for the JMS transport. By default, a dynamic destination is generated using the Domain and Deployment global variables, the adapter acronym, the adapter instance name, and the service name. If you use this default dynamic destination, ensure that the values for Domain and Deployment are not empty. You can override the default dynamic destination by specifying the static destination in this field. The static destination <i>must</i> be defined on the EMS server before it can be used by the runtime adapter. See the <i>TIBCO Enterprise Message Service User's Guide</i> for information about destinations.
Message Subject	Available only for the Rendezvous transport. By default, a service uses a message subject that is generated using the Domain and Deployment global variables, the adapter acronym, the adapter instance name and the service name. If you use this default subject, make sure the values for Domain and Deployment are not empty. You can type a TIBCO Rendezvous subject name different from the default in this field. See <i>TIBCO Rendezvous Concepts</i> for information about specifying subject names.
Endpoint Reference	The location in TIBCO Repository where the endpoint information will be stored (default). Endpoints store information such as message subject, endpoint type, and startup state.
Schema Reference	A link to a location for the defined PeopleSoft adapter schema.

Operation Code

The input data received by the Subscription Service contains a field called operation code (OPRN_CODE) if the Component Interface associated with the service contains records that are level 1 and above. The value in the operation code field determines the mode of update carried out on child records in the target PeopleSoft database. The values that can be specified in the input data for OPRN_CODE are:

- I - If the incoming row(s) is present insert it.
- U - If the incoming row(s) is present, update it.
- R - Replace existing row(s) with the incoming row(s). (Deprecated)
- D - If the incoming row(s) is present delete it.
- Null - If no operation code is specified an update is carried out.

Refer to [Implementation of Keys in the TIBCO Adapter for PeopleSoft on page 135](#) for more information on the operation codes.

Configuration Task Sequence

To configure a Subscription Service, follow these steps:

1. In the Project Panel, expand the adapter instance folder (by default, PeopleSoftAdapterConfiguration).
2. Click **Adapter Services** in the project panel.
3. Drag a **Subscription Service** icon to the Design Panel.
4. Specify options in the **Configuration** tab. Refer to [Configuration Tab on page 86](#) for more information.
5. Click the **Apply** button. This generates a unique endpoint with a TIBCO Rendezvous subject name. The adapter automatically enters this information in the **Advanced** tab.



Rendezvous is selected as the default Transport Type. If you select JMS as the Transport Type, a unique endpoint with the destination name will be generated.

6. Click the **Get Schema** button. This downloads the Component Interface schema from PeopleSoft to TIBCO Designer.
7. Save your project.

Message Subscription Service

When running as a Subscription Service the adapter receives messages from the TIBCO Environment and inserts the message data into a PeopleSoft database using the Integration Broker.

- [Configuration Options, page 90](#)
- [Configuration Task Sequence, page 93](#)

Configuration Options

Configure a Message Subscription Service under the following tabs in the Configuration Panel.

- [Configuration Tab, page 90](#)
- [Schema Tab, page 91](#)
- [SubscriberOptions Tab, page 92](#)
- [Advanced Tab, page 93](#)

Configuration Tab

The Configuration tab contains the following fields:

Table 24 Message Subscription Service Configuration - Configuration Tab

Field	Description
Name	The name of the Message stored in the PeopleSoft database. It matches the Message Name and is automatically filled in by TIBCO Designer.
Message Name	<p>TIBCO Designer automatically supplies this name when you click the Fetch Message... button and select a Message. When starting the adapter, it uses this name to find the Message in PeopleSoft. You can enter a partial string in this field to filter the Messages that are presented in the drop-down list when you click the Fetch Message... button.</p> <p>For example, entering p would narrow the drop-down list to only Message names beginning with p.</p>
Transport Type	The transport to be used by the runtime adapter, JMS or Rendezvous. Refer to Transport Type on page 105 for details.
JMS	

Table 24 Message Subscription Service Configuration - Configuration Tab

Field	Description
Connection Factory Type	Available only for the JMS transport. It can be Topic or Queue. Refer to Connection Factory Type on page 107 for details.
Delivery Mode	Available only for the JMS transport. It can be Durable or Non Durable. Refer to Delivery Mode on page 107 for details.
Wire Format	Services must use the same wire format to exchange data. It is XML Message. Refer to Wire Format on page 106 for details.
Rendezvous	
Quality of Service	Available only for the Rendezvous transport. It can be Certified, Reliable or Distributed Queue. Refer to Quality of Service on page 105 for details.
Wire Format	Services must use the same wire format to exchange data. It can be XML Message or ActiveEnterprise Message. Refer to Wire Format on page 106 for details.

Get Schema

Click the **Get Schema** button to list the fields of the fetched schema in the [Schema Tab](#).

If you have changed any configuration, either on the service level or on the instance level, click the **Get Schema** button to ensure that the modification is reflected in the service at runtime.

Schema Tab

In the **Schema** tab you can view all elements.

To view schema elements, click on the folders to expand them. It is not necessary to click the **Apply** button.

The Schema tab contains the following fields:

Table 25 Message Subscription Service Configuration - Schema Tab

Field	Description
Name	This column shows a field name if the schema attribute is a field or the record name if the schema attribute is a record. You can expand folders in this column to display triggers for PROPERTIES fields. When the adapter publishes data, the governing schema puts data only in the PROPERTIES node.

Table 25 Message Subscription Service Configuration - Schema Tab

Field	Description
Field Type	This column applies only if a field is shown. Note: The values are TIBCO field-types and not PeopleSoft field-types.

SubscriberOptions Tab

The SubscriberOptions tab contains the following fields:

Table 26 Message Subscription Service Configuration - SubscriberOptions Tab

Field	Description
Requesting Node	Enter the name of the Requesting Node. The Requesting Node mentioned in the Node definition in PeopleSoft should be the same as the one mentioned here.
Node Password	The Node Password is the same as the Password specified in the Node definition in PeopleSoft.
Client TimeOut (in millisec)	The time taken by the Client to time out. By default, it is 5000 milliseconds.
Subscriber Transport Type	The Transport Type used by the adapter to send messages to the PeopleSoft Integration Broker. The Transport Type can be JMS or HTTP.
JMS	
Connection Factory Type	Available only for the JMS transport. It can be Topic or Queue. Refer to Connection Factory Type on page 107 for details.
Delivery Mode	Available only for the JMS transport. It can be Persistent or Non-Persistent. See Delivery Mode on page 107 for details.
IB Subscriber Subject	Available only for the JMS transport. The subject on which IB subscribes for messages from the adapter. The subject name entered here should be the same as the one entered in the <code>integrationGateway.properties</code> file
User Name	Available only for the JMS transport. The user name used to connected to the TIBCO Enterprise Message Server (EMS).
Password	Available only for the JMS transport. The password used to connect to the TIBCO Enterprise Message Server (EMS).
JNDI URL	Available only for the JMS transport. The URL of the TIBCO Enterprise Message Server (EMS).
HTTP	

Table 26 Message Subscription Service Configuration - SubscriberOptions Tab

Field	Description
HTTP Port	Available only for the HTTP transport. The port at which the adapter waits for HTTP messages. By default, the adapter listens at port 2002 for IB messages.

Advanced Tab

The Advanced tab contains the following fields:

Table 27 Message Publication Service Configuration - Advanced Tab

Field	Description
Destination	<p>Available only for the JMS transport.</p> <p>By default, a dynamic destination is generated using the <code>Domain</code> and <code>Deployment</code> global variables, the adapter acronym, the adapter instance name, and the service name.</p> <p>If you use this default dynamic destination, ensure that the values for <code>Domain</code> and <code>Deployment</code> are not empty. You can override the default dynamic destination by specifying the static destination in this field. The static destination <i>must</i> be defined on the EMS server before it can be used by the runtime adapter. See the <i>TIBCO Enterprise Message Service User's Guide</i> for information about destinations.</p>
Message Subject	<p>Available only for the Rendezvous transport.</p> <p>By default, a service uses a message subject that is generated using the <code>Domain</code> and <code>Deployment</code> global variables, the adapter acronym, the adapter instance name and the service name.</p> <p>If you use this default subject, make sure the values for <code>Domain</code> and <code>Deployment</code> are not empty. You can type a TIBCO Rendezvous subject name different from the default in this field. See <i>TIBCO Rendezvous Concepts</i> for information about specifying subject names.</p>
Endpoint Reference	<p>The location in TIBCO Repository where the endpoint information will be stored (default).</p> <p>Endpoints store information such as message subject, endpoint type, and startup state.</p>
Schema Reference	A link to a location for the defined PeopleSoft adapter schema.

Configuration Task Sequence

To configure a Subscription Service, follow these steps:

1. In the Project Panel, expand the adapter instance folder (by default, `PeopleSoftAdapterConfiguration`).
2. Click **Adapter Services** in the project panel.

3. Drag a **Message Subscription Service** icon to the Design Panel.
4. Specify options in the **Configuration** tab. Refer to [Configuration Tab on page 90](#) for more information.
5. Click the **Apply** button. This generates a unique endpoint with a TIBCO Rendezvous subject name. The adapter automatically enters this information in the **Advanced** tab.



Rendezvous is selected as the default Transport Type. If you select JMS as the Transport Type, a unique endpoint with the destination name will be generated.

6. Click the **Get Schema** button. This downloads the message schema from PeopleSoft to TIBCO Designer.
7. Specify options in the **SubscriberOptions** tab. Refer to [SubscriberOptions Tab on page 92](#) for more information.
8. Click the **Apply** button.
9. Save your project.

Request-Response Service

This service is often called a Request Reply Server or RPC (Remote Procedural Call) Server. When running as a Request-Response Service, the adapter receives requests from the TIBCO environment, parses them, calls the appropriate Component Interface API to set the input fields, then calls another set of Component Interface APIs to get the output fields. The output fields are wrapped in a schema and sent back to the caller.

- [Configuration Options, page 95](#)
- [Configuration Task Sequence, page 93](#)

Configuration Options

Configure a Request-Response Service under the following tabs in the Configuration Panel.

- [Configuration Tab, page 95](#)
- [Schema Tab, page 96](#)
- [Advanced Tab, page 98](#)

Configuration Tab

The Configuration tab contains the following fields:

Table 28 Request-Response Service Configuration - Configuration Tab

Field	Description
Name	The name of the Component Interface stored in the PeopleSoft database. It matches the Component Interface Name and is automatically filled in by TIBCO Designer.
Component Interface Name	<p>TIBCO Designer automatically supplies this name when you click the Fetch Interface... button and select a Component Interface. When starting the adapter, it uses this name to find the Component Interface in PeopleSoft. You can enter a partial string in this field to filter the Component Interfaces that are presented in the drop-down list when you click the Fetch Interface... button.</p> <p>For example, entering p would narrow the drop-down list to only Component Interface names beginning with p.</p>
Transport Type	The transport to be used by the runtime adapter, JMS or Rendezvous. Refer to Transport Type on page 105 for details.

Table 28 Request-Response Service Configuration - Configuration Tab

Field	Description
JMS	
Connection Factory Type	Available only for the JMS transport. It can be Topic or Queue. Refer to Connection Factory Type on page 107 for details.
Delivery Mode	Available only for the JMS transport. It can be Durable or Non Durable. Refer to Delivery Mode on page 107 for details.
Wire Format	Services must use the same wire format to exchange data. It is XML Message. Refer to Wire Format on page 106 for details.
Rendezvous	
Quality of Service	Available only for the Rendezvous transport. It can be Certified, Reliable or Distributed Queue. Refer to Quality of Service on page 105 for details.
Wire Format	Services must use the same wire format to exchange data. It can be XML Message or ActiveEnterprise Message. Refer to Wire Format on page 106 for details.

Get Schema

Click the **Get Schema** button to list the fields of the fetched schema in the [Schema Tab](#).

If you have changed any configuration, either on the service level or on the instance level, click the **Get Schema** button to ensure that the modification is reflected in the service at runtime.

Schema Tab

- In this tab you can view all schema elements and change `Direction`.
- To view schema elements, click on the folders to expand them. It is not necessary to click the **Apply** button.
- To change the `Direction`, follow these steps:
1. Expand the required folder until the `Direction` column is populated.
 2. Click on the direction of the required field and then select the new direction from the drop-down list.
 3. Click the **Apply** button.

The Schema tab contains the following fields:

Table 29 Request-Response Service Configuration - Schema Tab

Field	Description
Name	This column shows a field name if the schema attribute is a field, or shows a record name if the schema attribute is a record.
Field Type	This column applies only if a field is shown. Note: The values are TIBCO field-types and not PeopleSoft field-types.
Direction	The valid values for <code>Direction</code> are: <ul style="list-style-type: none">• <code>In</code> — This field is read from the incoming request but not set in the outgoing reply. Indicates the <code>PROPERTIES</code> field is used as an input field.• <code>Out</code> — This field is not read from the incoming request but set in the outgoing reply. Indicates the <code>PROPERTIES</code> field is used as an output field.• <code>InOut</code> — This field is read from the incoming request and set in the outgoing reply. Indicates the <code>PROPERTIES</code> field is used in both directions. When a field direction is <code>INOUT</code>, the field value is used in the request sent to PeopleSoft as well as retrieved from PeopleSoft and sent back to the request as part of the reply.
Key?	This column indicates whether the field is a key in a PeopleSoft database. Note: The values are TIBCO field-types and not PeopleSoft field-types.

Operation Code

The input data received by the Request-Response Service contains a field called operation code (`OPRN_CODE`) if the Component Interface associated with the service contains records that are level 1 and above. The value in the operation code field determines the mode of update carried out on child records in the target PeopleSoft database. The values that can be specified in the input data for `OPRN_CODE` are:

- `I` — If the incoming row(s) is present insert it.
- `U` — If the incoming row(s) is present update it.
- `R` — Replace existing row(s) with the incoming row(s).
- `D` — If the incoming row(s) is present delete it.
- `Null` — If no operation code is specified an update is carried out.

Refer to [Implementation of Keys in the TIBCO Adapter for PeopleSoft on page 135](#) for more information on the operation codes.

Advanced Tab

The Advanced tab contains the following fields:

Table 30 Request-Response Service Configuration - Advanced Tab

Field	Description
Destination	<p>Available only for the JMS transport.</p> <p>By default, a dynamic destination is generated using the Domain and Deployment global variables, the adapter acronym, the adapter instance name, and the service name.</p> <p>If you use this default dynamic destination, ensure that the values for Domain and Deployment are not empty. You can override the default dynamic destination by specifying the static destination in this field. The static destination <i>must</i> be defined on the EMS server before it can be used by the runtime adapter. See the <i>TIBCO Enterprise Message Service User's Guide</i> for information about destinations.</p>
Message Subject	<p>Available only for the Rendezvous transport.</p> <p>By default, a service uses a message subject that is generated using the Domain and Deployment global variables, the adapter acronym, the adapter instance name and the service name.</p> <p>If you use this default subject, make sure the values for Domain and Deployment are not empty. You can type a TIBCO Rendezvous subject name different from the default in this field. See <i>TIBCO Rendezvous Concepts</i> for information about specifying subject names.</p>
Endpoint Reference	<p>The location in TIBCO Repository where the endpoint information will be stored (default). Endpoints store information such as message subject, endpoint type, and startup state.</p>
Schema Reference	<p>A link to a location for the defined PeopleSoft adapter schema.</p>

Configuration Task Sequence

To configure a Request-Response Service, follow these steps:

1. In the Project Panel, expand the adapter instance folder (by default, `PeopleSoftAdapterConfiguration`).
2. Click **Adapter Services** in the project panel.
3. Drag a **Request-Response Service** icon to the Design Panel.
4. Specify options in the **Configuration** tab. Refer to [Configuration Tab on page 95](#) for more information.

5. Click the **Apply** button. This generates a unique endpoint with a TIBCO Rendezvous subject name. The adapter automatically enters this information in the **Advanced** tab.



Rendezvous is selected as the default Transport Type. If you select JMS as the Transport Type, a unique endpoint with the destination name will be generated.

6. Click the **Get Schema** button. This downloads the Component Interface schema from PeopleSoft to TIBCO Designer.
7. Click the **Apply** button.
8. Save your project.

Request-Response Invocation Service

The Request-Response invocation service uses the Integration Gateway to transfer HTTP or JMS messages. When you save a message in PeopleSoft, the `SavePostChange` method gets executed and the message is converted to XML and published to a Message Channel residing on the PeopleSoft Application Server. When the Integration Engine finds a new message in the Message Channel, it looks for an active node associated with the Message Channel. On finding the node, based on the Target Connector, the Integration Engine builds the request and sends it to the PeopleSoft adapter. On receiving the request, the adapter processes the requests and sends the response back to PeopleSoft.

For the Request-Response Invocation service to work, the PeopleCode provided with the installation needs to be copied in the `SavePostChange` event of the component from which the data has to be sent out. For instructions on how to do this, see [Preparing PeopleSoft Application Messages on page 8](#).

- [Configuration Options, page 95](#)
- [Configuration Task Sequence, page 93](#)

Configuration Options

Configure a Request-Response Invocation Service under the following tabs in the Configuration Panel.

- [Configuration Tab, page 100](#)
- [Inbound Message Tab, page 101](#)
- [Outbound Message Tab, page 102](#)
- [SubscriberOptions Tab, page 102](#)
- [Advanced Tab, page 103](#)

Configuration Tab

The Configuration tab contains the following fields:

Table 31 Request-Response Invocation Service Configuration - Configuration Tab

Field	Description
Name	The name of the Message stored in the PeopleSoft database. It matches the Message Name and is automatically filled in by TIBCO Designer.

Table 31 Request-Response Invocation Service Configuration - Configuration Tab

Field	Description
Message Name	<p>TIBCO Designer automatically supplies this name when you click the Fetch Message... button and select a Message. When starting the adapter, it uses this name to find the Message in PeopleSoft. You can enter a partial string in this field to filter the Messages that are presented in the drop-down list when you click the Fetch Message... button.</p> <p>For example, entering p would narrow the drop-down list to only Message names beginning with p.</p>
Publish Current Record	<p>Check this checkbox to publish the current record (for Effective Dated records only).</p> <p>Note: The adapter will consider a record as Effective Dated if the effective date field in that record starts with EFFDT.</p>
Transport Type	The transport to be used by the runtime adapter, JMS or Rendezvous . Refer to Transport Type on page 105 for details.
JMS	
Connection Factory Type	Available only for the JMS transport. It can be Topic or Queue . Refer to Connection Factory Type on page 107 for details.
Delivery Mode	Available only for the JMS transport. It can be Persistent or Non Persistent . Refer to Delivery Mode on page 107 for details.
Wire Format	Services must use the same wire format to exchange data. It is XML Message . Refer to Wire Format on page 106 for details.
Rendezvous	
Quality of Service	Available only for the Rendezvous transport. It can be Certified , Reliable or Distributed Queue . Refer to Quality of Service on page 105 for details.
Wire Format	Services must use the same wire format to exchange data. It can be XML Message or ActiveEnterprise Message . Refer to Wire Format on page 106 for details.

Inbound Message Tab

The Inbound Message tab contains the following fields:

Table 32 Request-Response Invocation Service Configuration - Inbound Message Tab

Field	Description
Name	This column shows a list of field names available in the schema.

Table 32 Request-Response Invocation Service Configuration - Inbound Message Tab

Field	Description
Field Type	This column shows the datatype corresponding to the fields in the schema.

Outbound Message Tab

The Outbound Message tab contains the following fields:

Table 33 Request-Response Invocation Service Configuration - Outbound Message Tab

Field	Description
Name	This column shows a list of field names available in the schema.
Field Type	This column shows the datatype corresponding to the fields in the schema.

SubscriberOptions Tab

The SubscriberOptions tab contains the following fields:

Table 34 Request-Response Invocation Service Configuration - SubscriberOptions Tab

Field	Description
Subscriber Subject	Enter the subject on which the adapter should subscribe for messages from PeopleSoft. The Subscriber Subject should be the same as the one mentioned in Defining Nodes on page 14 .
Client TimeOut (in millisec)	The time taken by the Client to time out. By default, it is 5000 milliseconds.
Subscriber Transport Type	The Transport Type used by the adapter to send messages to the PeopleSoft Integration Broker. The Transport Type can be JMS or HTTP.
JMS	
Connection Factory Type	Available only for the JMS transport. It can be Topic or Queue. Refer to Connection Factory Type on page 107 for details.
Delivery Mode	Available only for the JMS transport. It can be Persistent or Non-Persistent. See Delivery Mode on page 107 for details.
HTTP	
HTTP Port	Available only for the HTTP transport. The port at which the adapter waits for HTTP messages. By default, the adapter listens at port 2002 for IB messages.

Advanced Tab

The Advanced tab contains the following fields:

Table 35 Request-Response Invocation Service Configuration - Advanced Tab

Field	Description
Destination	<p>Available only for the JMS transport.</p> <p>By default, a dynamic destination is generated using the <code>Domain</code> and <code>Deployment</code> global variables, the adapter acronym, the adapter instance name, and the service name.</p> <p>If you use this default dynamic destination, ensure that the values for <code>Domain</code> and <code>Deployment</code> are not empty. You can override the default dynamic destination by specifying the static destination in this field. The static destination <i>must</i> be defined on the EMS server before it can be used by the runtime adapter. See the <i>TIBCO Enterprise Message Service User's Guide</i> for information about destinations.</p>
Message Subject	<p>Available only for the Rendezvous transport.</p> <p>By default, a service uses a message subject that is generated using the <code>Domain</code> and <code>Deployment</code> global variables, the adapter acronym, the adapter instance name and the service name.</p> <p>If you use this default subject, make sure the values for <code>Domain</code> and <code>Deployment</code> are not empty. You can type a TIBCO Rendezvous subject name different from the default in this field. See <i>TIBCO Rendezvous Concepts</i> for information about specifying subject names.</p>
Endpoint Reference	<p>The location in TIBCO Repository where the endpoint information will be stored (default).</p> <p>Endpoints store information such as message subject, endpoint type, and startup state.</p>
Schema Reference	<p>A link to a location for the defined PeopleSoft adapter schema.</p>

Configuration Task Sequence

To configure a Request-Response Invocation Service, follow these steps:

1. In the Project Panel, expand the adapter instance folder (by default, `PeopleSoftAdapterConfiguration`).
2. Click **Adapter Services** in the project panel.
3. Drag a **Request-Response Invocation Service** icon to the Design Panel.
4. Specify options in the **Configuration** tab. Refer to [Configuration Tab on page 100](#) for more information.

5. Click the **Apply** button. This generates a unique endpoint with a TIBCO Rendezvous subject name. The adapter automatically enters this information in the **Advanced** tab.



Rendezvous is selected as the default Transport Type. If you select JMS as the Transport Type, a unique endpoint with the destination name will be generated.

6. Click the **Get Schema** button. This downloads the Message schema from PeopleSoft to TIBCO Designer.
7. Specify options in the **SubscriberOptions** tab. Refer to [SubscriberOptions Tab on page 102](#) for more information.
8. Save your project.

Common Configuration Options for Adapter Services

This section explains the following common configuration options for adapter services:

- [Transport Type, page 105](#)
- [Quality of Service, page 105](#)
- [Wire Format, page 106](#)
- [Connection Factory Type, page 107](#)
- [Delivery Mode, page 107](#)

The transport type (Rendezvous or JMS) you select for the runtime adapter determines transport specific service options. Only options that are compatible with a service's transport type will be available in the Configuration Panel.

Transport Type

There are two transport types available for the runtime adapter, namely JMS and Rendezvous. After selecting the transport type, you can configure the transport specific options. Only options that are compatible with the service's transport type appear in the Configuration Panel.

The transport can be configured to use a trusted store and identity resource for use in SSL (Secure Sockets Layer) configurations. TIBCO Rendezvous sessions and JMS topics have an SSL configuration field which uses a dialog to perform SSL configuration.

To enable and configure SSL:

1. In the Project Panel, select the adapter instance.
2. Expand **Advanced > Sessions**, and then select the TIBCO Rendezvous session or JMS session.
3. Check the **Use SSL?** checkbox in the Configuration Panel.
4. Click the **Configure SSL...** button to do further configuration.

The SSL configuration options are explained in the online help associated with the session dialog.

Quality of Service

If you have selected Rendezvous as the transport type, then select Quality of Service.

Certified

Guarantees that every certified message reaches its intended recipient in the order sent. The message can be sent across network boundaries and, if a network fails, delivery attempts continue until it succeeds or the message times out. This is called certified message delivery.

If certified message delivery is used, data is stored in a ledger file. The size of the ledger depends on several factors, the most important one is the retention rate of stored data. That is, the ledger grows fastest in response to the cumulative length of undeliverable messages. Ensure that sufficient disk space is available for the expected size of the ledger.

Reliable

Ensures that each multicast or broadcast message is received as long as the physical network and packet recipients are working. It also ensures that the loss of a message is detected.

This option can compensate for brief network failures because it can retransmit a message on request if the first attempt failed. This choice is appropriate when message delivery is expected but some loss can be tolerated.

Distributed Queue

Distributed Queue delivers a message to one-of-many service listeners (workers). It contains features of both Certified Messaging and Fault Tolerance.

Wire Format**XML Message**

The XML Message wire format conforms to specifically constructed and fully compliant XML Schema (XSD) based on the existing definition of the ActiveEnterprise schema.



For the XML Message wire format, when carriage returns are passed through the adapter, they are converted to line feeds. This behavior is as per the W3C specifications.

ActiveEnterprise Message

The ActiveEnterprise Message is available only for the Rendezvous transport.

Control information for validation is sent in the message. If no control information is included, an exception is returned to the subscription service. ActiveEnterprise standard wire format provides class information and packing rules for the TIBCO Adapter SDK set of data types. This format allows ActiveEnterprise components to perform extra validation on messages sent or received.

See *TIBCO Adapter SDK Programmer's Guide* for details about the control information generated and sent with ActiveEnterprise messages.

Connection Factory Type

For JMS transport, there are two kinds of connection factories.

Topic

A message published to a topic is broadcast to one or more subscribers. All messages published to the topic are received by all services that have subscribed to the topic. This messaging model is known as publish-subscribe.

Queue

A message sent to a queue is consumed by one and only one receiver. Each message has only one receiver though multiple receivers may connect to the queue. The first receiver to access the queue gets the message. The other receivers do not. This messaging model is known as point-to-point.

Delivery Mode

For JMS transport, there are two groups of delivery modes.

CI Publication Service, IB Publication Service, and Request-Response Invocation Service

- **Persistent** — In general, a message marked as persistent will be available to a JMS client even if the EMS server goes down.

Messages sent with the persistent delivery mode are always written to persistent storage, except when they are published to a topic that has no durable subscribers. When a topic has no durable subscribers, there are no subscribers that need messages resent in the event of a server failure. Therefore, messages do not need to be saved, and performance is improved because disk I/O is not required.

- Non-Persistent — A message marked as non-persistent will not be available to a JMS client if the EMS server goes down.

Subscription Service, Message Subscription Service, and Request-Response Service

- Durable — In general, a message marked as durable will be available to a JMS client even if the EMS server goes down.
- Non-Durable — A message marked as non-durable will not be available to a JMS client if the EMS server goes down.

See *TIBCO Enterprise Message Service User's Guide* for more information about the semantics for this field.

Chapter 6

Deploying and Starting an Adapter Using TIBCO Administrator

This chapter provides an overview about deploying, starting, stopping, and monitoring adapter services using the TIBCO Administrator.

Topics

- [Creating an EAR File in TIBCO Designer, page 110](#)
- [Deploying the Project, page 111](#)
- [Starting or Stopping the Adapter, page 113](#)
- [Monitoring the Adapter, page 114](#)

Creating an EAR File in TIBCO Designer

The Enterprise Archive file (EAR) contains information on what you wish to deploy. This could be one or more adapter services, one or more TIBCO ActiveMatrix BusinessWorks process engines, or both.



Building an archive creates the EAR file, which you can then deploy from TIBCO Administrator. If you make changes to the business processes or adapter services included in the archive, you need to rebuild the archive. Saving the project does not affect the archive.

To create an EAR file in TIBCO Designer, follow these steps:

1. Configure the adapter services.
2. Select the project in the Project Panel.
3. Drag the **Enterprise Archive** icon from the General Palettes Panel to the Design Panel.
4. Select the Enterprise Archive you have just created in the Project Panel.

If there are any configured adapter services in your project, an Adapter Archive resource becomes available in the Palettes panel.

5. Drag the **Adapter Archive** icon from the Palettes panel to the Design Pane.
6. Configure the adapter archive in the Configuration Panel. Click the **Browse resources** button to select the adapter instance in the Adapter field and then click the **Apply** button.
7. Select the Enterprise Archive in the Project Panel, and then click the **Build Archive** button in the Configuration Panel to create the archive file.

See Also

See the *TIBCO Designer User's Guide* for more information about this procedure. The guide is available from the Designer **Help** menu.

Deploying the Project

Before deploying a project, the machine on which the adapter is installed must be part of a TIBCO administration domain. After you have installed the TIBCO Administration Server, any machine on which you install TIBCO Runtime Agent (required by an adapter) can be added to the administration domain. The TIBCO software installed on the machine is then visible and accessible via the TIBCO Administrator GUI.

When you deploy a project, startup scripts and other information about the different components are sent to the machines to which the components were assigned. The project data store and TIBCO Administration Server are updated with the deployed components.

To deploy a project:

1. Import the EAR file into TIBCO Administrator.
 - a. Start TIBCO Administrator. Log into the domain.
 - b. In the left panel, select **Application Management**.
 - c. Click the **New Application** button.
 - d. In the Upload EAR File dialog, browse to select the EAR file. Click the **OK** button.
2. Assign adapter archives in the EAR file to adapters installed in the administration domain and likewise assign process archives to process engines.
3. In the New Application Configuration dialog, uncheck the **Quick Configure** checkbox, and then click the **Save** button.
4. Specify startup options for each adapter service.
5. In the Configuration Builder, click the top level application name, and then perform following tasks:
 - a. Change the values in the Advanced tab if necessary.
 - b. Click the **Save** button.
 - c. In the Configuration Builder, select the adapter archive, and then click the **Add to Additional Machines** button.
 - d. Select the machine and click the **OK** button.
 - e. Click the **Save** button.
6. In the Configuration tab, click the **Deploy** button, and then click the **OK** button.

7. Once the deployment is complete, click the **Application Processes** button under the application. Select the adapter and the TIBCO ActiveMatrix BusinessWorks engine and click the **Start Selected** button.

See Also

See the *TIBCO Administrator User's Guide* for an introduction to the TIBCO administration domain and detailed information about the above steps.

See the *TIBCO Administrator Server Configuration Guide* for fault tolerance information.

Starting or Stopping the Adapter

The TIBCO Administrator *Application Management* module allows you to start, and stop deployed applications.

Starting the Adapter

To start an adapter service from the module:

1. In the Administrator GUI left-hand pane, expand **Application Management** > *ApplicationName* > **Service Instances**.
2. In the Service Instance panel, check the checkbox next to the adapter service.
3. Click the **Start Selected** button.

The status changes from *Stopped* to *Starting* up to *Started*.

Stopping the Adapter

To stop the adapter service, click the **Stop Selected** button.

See Also

See the *TIBCO Administrator User's Guide* for more information.

Monitoring the Adapter

TIBCO Administrator offers a number of monitoring options.

- Specify alerts and TIBCO Hawk rulebases for each machine in the domain.
- Specify alerts and Hawk rulebases for each adapter service.
- View the log for each adapter service.

See Also

See the *TIBCO Administrator User's Guide* for information about configuring the above monitoring options.

Chapter 7

Configuring Advanced Settings

This chapter describes advanced settings such as modifying connection parameters, defining a TIBCO Hawk session and setting encoding options among others.

Topics

- [Password Handling, page 116](#)
- [Modifying DTA Rendezvous Connection Parameters, page 117](#)
- [Modifying Palette Rendezvous Connection Parameters, page 118](#)
- [Modifying the DTA JMS Connection Parameters, page 119](#)
- [Defining a TIBCO Hawk Session, page 120](#)
- [Using Global Variables, page 122](#)
- [Setting Encoding Options, page 127](#)
- [Configuring a Remote Adapter, page 128](#)
- [Running Multiple Design-Time Adapters, page 129](#)
- [Multi-threading and Deployment, page 130](#)
- [Using the Operation Code Feature, page 131](#)
- [Using the Adapter with a Revision Control System, page 132](#)
- [Implementation of Keys in the TIBCO Adapter for PeopleSoft, page 135](#)

Password Handling

At design-time, the adapter uses a password to connect to the backend application and fetch metadata. At runtime, the adapter uses a password to connect to the back-end application and interoperate with it.

If you plan to run the adapter locally, define the runtime password value to be a global variable. Before starting the adapter, include the runtime password as client variable in the adapter's `.tra` file and obfuscate it using obfuscate tool. For example, if the password value is defined as `%%myPassword%%`, create a global variable named `myPassword` in the global variables section with no value and include the following entry in the adapter's `.tra` file:

```
tibco.clientVar.myPassword
```

If you plan to deploy the adapter using TIBCO Administrator 5.1, check the Service property of the global variable in the global variables section. Before deploying the adapter, go to the **Advanced** tab of the adapter archive and set the password value under the Run-Time Variables section.



Do not set the password to type Password in the global variables section for Version AE Version 4.0 or AE Version 5.0 or any intermediate version.

Regeneration differences between adapters:

- Default subjects are not regenerated to reflect the new instance name when a service is moved.
- Manually changed certified messaging and certified messaging queue ledger file names are regenerated to defaults when a service is moved, or copied and pasted to a new instance.
- If a service associated with a custom session is moved, or copied and pasted, the custom session is not moved, or copied and pasted. The session is regenerated as a default session.

Modifying DTA Rendezvous Connection Parameters

You can modify the TIBCO Rendezvous connection properties used by the design-time adapter. The properties can be modified in the `adpsft8DTA.tra` properties file *or* in the `adpsft8DTA.dat` project. Both files are located in the `bin` directory.

Modifying the Properties File

The `adpsft8DTA_RV.tra` properties file contains properties that specify, for example, the pathname to the project where configuration information for the design-time adapter is defined, the location of the directories where trace files and the certified messaging ledger file are stored, and so on. Properties specified in the `adpsft8DTA_RV.tra` properties file overwrite the same properties specified in the project.

Use the following steps to specify custom Rendezvous connection properties for the design-time adapter.

1. Change directory to the `bin` directory. For example, on Microsoft Windows:
`cd C:\tibco\adapter\adpsft8\version_number\bin`
2. Using a text editor, open the `adpsft8DTA_RV.tra` properties file.
3. Add or edit the following properties:

```
tibco.clientVar.RvDaemon  
tibco.clientVar.RvNetwork  
tibco.clientVar.RvService
```

See the TIBCO Rendezvous documentation for correct values to use for the parameters.

4. Restart the design-time adapter after making these modifications. The changes are not applied until the design-time adapter is restarted.

Modifying Palette Rendezvous Connection Parameters

Use the following steps to modify TIBCO Rendezvous connection parameters for the palette.

1. Open TIBCO Designer.
2. Open an existing project or a new project.
3. Drag and drop the **PeopleSoft Adapter Configuration** icon from the palette panel to the design panel.
4. Click **Global Variables** tab.
5. To modify TIBCO Rendezvous parameters with which the palette connects to the design-time adapter server,
 - Select the required parameters (`adpsft8DTARvDaemon`, `adpsft8DTARvNetwork`, `adpsft8DTARvService`) in the Name list.
 - Enter the value in the `Value` field and click the **Enter** button.

All subsequent interactions between TIBCO Designer and the design-time adapter will be on these set parameters. See the TIBCO Rendezvous documentation for correct values to use for the parameters.

Modifying the DTA JMS Connection Parameters

You can modify the JMS connection properties used by the design-time adapter. The properties can be modified in the `adpsft8DTA_JMS.tra` properties file or by modifying the global variables for an adapter instance. The `adpsft8DT_JMS.tra` file is located in the bin directory.

Modifying the Properties File

The `adpsft8DTA_JMS.tra` properties file contains properties that specify, for example, the pathname to the project where configuration information for the design-time adapter is defined, the location of the directories where trace files and the certified messaging ledger file are stored, and so on. Properties specified in the `adpsft8DTA_JMS.tra` properties file overwrite the same properties specified in the project.

Use the following steps to specify custom TIBCO JMS connection properties for the design-time adapter.

1. Change directory to the bin directory. For example, on Microsoft Windows:
`cd TIBCO_HOME\adapter\adpsft8\version_number\bin`
2. Using a text editor, open the `adpsft8DTA_JMS.tra` properties file. Add or edit the following properties:
`tibco.clientVar.JmsProviderUrl value`
`tibco.clientVar.TerminateSubject value`
 where *value* is a valid JMS Server Provider url or Terminate Subject to stop the DTA. See the *TIBCO Enterprise Message Service Documentation* for correct values to use for the parameters.
3. Restart the design-time adapter after making these modifications. The changes are not applied until the design-time adapter is restarted.

Modifying the DAT File

If you enable the EMS authorization, you **MUST** add the username and the password in the `adpsft8DTA.dat` file, otherwise the JMS design time adapter can not be started successfully.

You should set following values in the file: (Note: there are 2 places in the file)

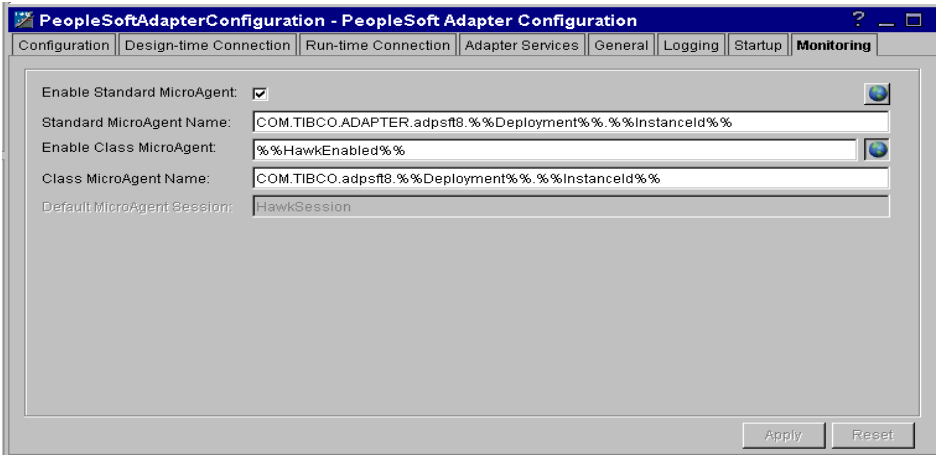
```
<string name="connUsername" value=""/>
<string name="connPassword" value=""/>
```

Defining a TIBCO Hawk Session

To use TIBCO Hawk to monitor the adapter you must first define a TIBCO Rendezvous session. A pre configured default Hawk session is available. You can modify the settings of the pre configured session provided or define a new one. Use the following steps to create a session:

1. In the project tree panel, click the **PeopleSoft Adapter Configuration** icon defined for your adapter configuration.
2. In the **Configuration** tab click the Show All tabs check box, then click the **Monitoring** tab.
3. Use default setting for all fields.
4. Click the **Apply** button.

The next diagram shows the definition for a **Monitoring** tab. The pre configured session called HawkSession is displayed in this screen.



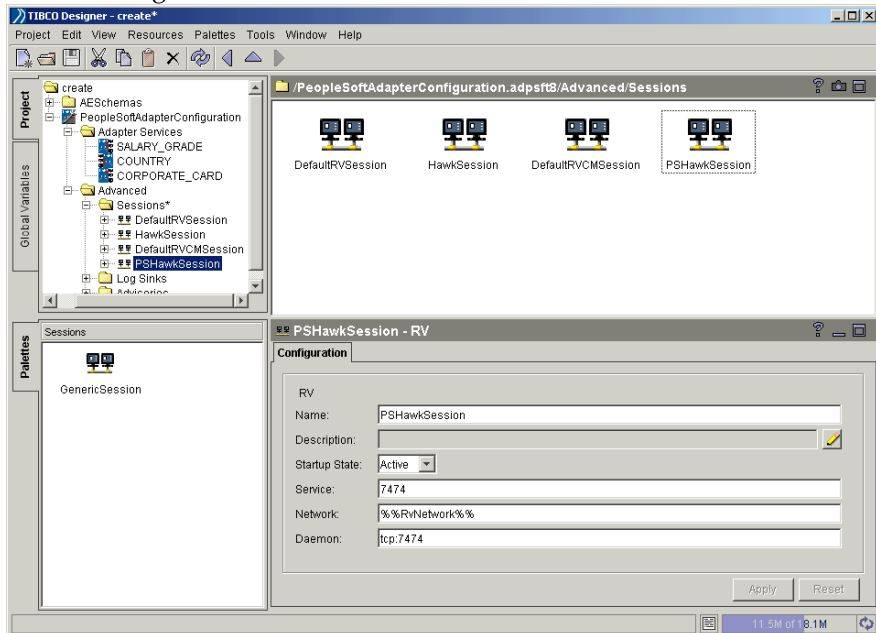
5. Open the Advanced folder for the adapter configuration. Highlight the Sessions folder by clicking on it.
6. Drag the GenericSession icon from the palettes panel to the design panel.
7. In the Session Type field, click the drop-down arrow and choose RV. Click the **Apply** button.
8. In Name, type the name previously assigned in the Default MicroAgent Session field under the **Monitoring** tab.
9. In Service, type 7474 (the default used by TIBCO Hawk).
10. In Daemon, type tcp:7474 (the default used by TIBCO Hawk).

11. Click the **Apply** button and save the project.



To modify the parameters of the pre configured session, select HawkSession from the Advanced folder in the project panel and modify parameters as required.

The next diagram shows a new hawk session defined.



Using Global Variables

The variable substitution mechanism can override global variables predefined in the project in a restricted manner. Predefined variables can be viewed and set in TIBCO Designer. Variables are specified as %%VARNAME%% and cannot contain any white space.

Variable substitution allows you to accomplish the following.

- Substitute string variables specified in the project at startup time.
- Locally define the value for a variable for a specific project. The local value takes precedence over any global value.
- Specify the value for a variable in a properties file. This overrides the project repository and values set in code, but not variables set on the command line.
- Enforce the pre-defined variables listed in [Predefined Global Variables on page 124](#).

Variables can be used anywhere in the configuration and will be replaced by the locally-defined adapter instance.

Specifying Variables Using TIBCO Designer

Global variables provide an easy way to set defaults for use throughout your project. There are several ways in which they can be used:

- Define a variable using TIBCO Designer, then override the value for individual applications at deployment time using TIBCO Administrator. You can also override values for predefined variables, unless the GUI does not allow you to make set them later.
- Predefine a variable using TIBCO Designer, then override the value for individual services (for example, publication service or TIBCO ActiveMatrix BusinessWorks process) at deployment time using TIBCO Administrator. The values you specify are then used at runtime. You can also override values for predefined variables, unless the GUI does not allow you to set them later.

For example, you could assign the value 7474 to the predefined global variable RvDaemon. You can then use the variable in different sessions in your adapter. If you wish to change the TIBCO Rendezvous daemon for your adapter, you can globally set it to a different value or override it from the command line.

To use global variables in your project, follow these steps:

1. In the project panel, select the **Global Variables** tab.

The project panel is updated to display all currently defined global variables. Click Open Advanced Editor (pencil icon at the top left corner). You now have these choices:

- To assign or change a variable value, select that region and triple-click the variable. The variable expands so you can change either the variable name or the variable value. Press Enter when you're done.
- To add a new global variable group, click the left most icon at the bottom of the dialog box. Specify the name of the group, then press Enter. With the group icon selected, you can click the abc icon to add variables to the group.
- To add a global variable, click the abc icon. A new global variable item is added to the bottom of the list. Supply the variable name and, optionally, the value. Press Enter when you're done.

The global variable is now displayed in the global variables list.

2. When you want to use the global variable in the fields of a resource, enter the variable name surrounded by %% on both sides.

When the project is deployed and the configured components are run, all occurrences of the global variable name are replaced with the global variable value (unless it was overridden in a way that had higher precedence).

A number of global variables are predefined. See [Predefined Global Variables on page 124](#) for information. You may add definitions of any variables you need to the predefined variables.

Changing Global Variable Values at Runtime

You can change the value of a global variable when you deploy your project in TIBCO Administrator. See the section on modifying runtime variables in the *TIBCO Administrator User's Guide* for more information on using TIBCO Administrator.

You can also specify values for global variables when starting a process engine on the command line. To do this, specify the following as a command line argument when starting the process engine:

```
-tibco.clientVar.variablePathAndName value
```

where *variablePathAndName* is the name of the variable you wish to set, including the path to the variable if it is contained in a folder. *value* is the value you wish to set the variable to. For example, if you have a global variable named `item1` contained in a folder named `myGroup` and you wish to set its value to 500, add the following argument to the command line when starting the process engine:

```
-tibco.clientVar.myGroup/item1 500
```

Predefined Global Variables

The next table lists and explains the predefined global variables. Some global variables are automatically used within the system when an adapter instance is configured.

Table 36 *Predefined Global Variables*

Variable	Description
Deployment	Defaults to the TIBCO Designer project name. This global variable is used by the system to partially define the subject name defined for a service.
DirLedger	Used by the system when defining the path name of the TIBCO Rendezvous certified messaging ledger file. The default is root installation directory.
DirTrace	Used by the system to partially create the path name for log file used by the adapter. The default is the root installation directory.
Domain	The default value is MyDomain. This value can be any string value. This global variable is used by the system to partially define the subject name defined for a service.
Env	Included for backward compatibility. Do not use.
HawkEnabled	Used by the system to indicate whether TIBCO Hawk is used to monitor the adapter. True indicates that a Hawk microagent is defined for the adapter. False indicates the microagent is not to be used.
JmsProviderUrl	Tells applications where the JMS daemon is located. Setting this value mostly makes sense in early stages of a project, when only one JMS daemon is used.
JmsSslProviderUrl	Specifies where the JMS SSL daemon is located.
RemoteRvDaemon	Used by the system to identify the TIBCO Rendezvous routing daemon. See <i>TIBCO Rendezvous Administration</i> for details about specifying the routing daemon name.

Table 36 Predefined Global Variables

Variable	Description
RvDaemon	Used by the system to identify the TIBCO Rendezvous daemon parameter. The parameter instructs the transport object about how and where to find the Rendezvous daemon and establish communication. The default value is 7500, which is the default value used by the Rendezvous daemon. See <i>TIBCO Rendezvous Concepts</i> for details about specifying the daemon parameter.
RvNetwork	Used by the system to identify the TIBCO Rendezvous network parameter. Every network transport communicates with other transports over a single network interface. On computers with more than one network interface, the network parameter instructs the TIBCO Rendezvous daemon to use a particular network for all outbound messages from this transport. See <i>TIBCO Rendezvous Concepts</i> for details about specifying the network parameter.
RvService	Used by the system to identify the TIBCO Rendezvous service parameter. The Rendezvous daemon divides the network into logical partitions. Each transport communicates on a single service; a transport can communicate only with other transports on the same service. See <i>TIBCO Rendezvous Concepts</i> for details about specifying the service parameter.
RvaHost	Used by the system to identify the computer on which the TIBCO Rendezvous agent runs. See <i>TIBCO Rendezvous Administration</i> for details about specifying the rva parameters.
RvaPort	Used by the system to identify the TIBCO Rendezvous agent TCP port where the agent listens for client connection requests. See <i>TIBCO Rendezvous Administration</i> for details about specifying the rva parameters.
TIBHawkDaemon	Used by the system to identify the TIBCO Hawk daemon parameter. See the <i>TIBCO Hawk Installation and Configuration</i> manual for details about this parameter.

Table 36 Predefined Global Variables

Variable	Description
TIBHawkNetwork	Used by the system to identify the TIBCO Hawk network parameter. See the <i>TIBCO Hawk Installation and Configuration</i> manual for details about this parameter.
TIBHawkService	Used by the system to identify the TIBCO service parameter. See the <i>TIBCO Hawk Installation and Configuration</i> manual for details about this parameter.
adpsft8DTARvDaemon	Used by the system to identify the TIBCO Rendezvous daemon parameter to connect to the design-time adapter. The parameter instructs the transport object about how and where to find the Rendezvous daemon and establish communication. See <i>TIBCO Rendezvous Concepts</i> for details about specifying the daemon parameter.
adpsft8DTARvNetwork	Used by the system to identify the TIBCO Rendezvous network parameter to connect to the design-time adapter. Every network transport communicates with other transports over a single network interface. On computers with more than one network interface, the network parameter instructs the TIBCO Rendezvous daemon to use a particular network for all outbound messages from this transport. See <i>TIBCO Rendezvous Concepts</i> for details about specifying the network parameter.
adpsft8DTARvService	Used by the system to identify the TIBCO Rendezvous service parameter used to connect to the design-time adapter. The Rendezvous daemon divides the network into logical partitions. Each transport communicates on a single service; a transport can communicate only with other transports on the same service. See <i>TIBCO Rendezvous Concepts</i> for details about specifying the service parameter.

Setting Encoding Options

See the *TIBCO Adapter Concepts* book for an introduction to Internationalization topics such as Unicode and how adapters handle it.

Complete the following step prior to running the adapter so it can handle files in different encoding.

1. Configure inter-communication encoding.

The wire format encoding used for communication between adapters and TIBCO applications is determined by the encoding property set in the project.

The adapter configuration can be saved in a local or repository server-based project.

- If the adapter configuration is saved in a repository server-based project, inter-communication encoding is determined by `repo.encoding` property in the server's `config` file. Each adapter or TIBCO application that uses the repository server for storing and retrieving configuration data from a project uses this encoding setting when communicating. This assures that all components (including adapters and other TIBCO applications) that use the same repository also use the same encoding value to communicate. The `repo.encoding` property value can be ISO8859-1 (the default) or UTF-8. If English or other Latin-1 language data is transmitted between adapters, ISO8859-1 should be used. Otherwise use UTF-8.
- If an adapter configuration is saved in a local project, the inter-communication encoding is determined by the encoding property of the local project file. To communicate with other adapters using the same encoding, all adapters and applications must set their local project file encoding property identical. Use the `Repository Finder` in TIBCO Designer to set the encoding property for a local project. The default encoding is `Latin-1`.

When a local project is later promoted to a repository server-based project, the encoding property set in the project file is superseded by the server's encoding property.

The encoding property discussed above is the encoding used by the communication between adapters and applications, not the encoding used for the persistent storage of the project files. Project files are always saved using UTF-8.

Configuring a Remote Adapter

If only TIBCO Designer is installed on your computer but the adapter is installed on a remote computer, you can still configure the adapter from your computer, as long as the remote computer has a PeopleSoft client. To do this:

1. Copy the two TIBCO ActiveMatrix Adapter for PeopleSoft palette files (`adpsft8palette.dat` and `adpsft8palette.jar`), located in `TIBCO_HOME\adapter\adpsft8\version_number\lib\palettes`, from the remote computer to your computer. Do this in a command prompt window.
 - a. Go to the `TIBCO_HOME\Designer\version_number\bin` directory and open the `designer.tra` file. Modify the path specified for the property that enables Designer to find the adapter's palette as shown:

```
#application.args -d
java.property.palettePath

install_path/tibco/adapter/adpsft8/version_number/lib/palettes
```
 - b. Save and close the `designer.tra` file.
 - c. Open the project in TIBCO Designer. In the project tree panel, select the **PeopleSoft Adapter Configuration** icon and configure it as required. This icon represents the remote adapter configuration.

Running Multiple Design-Time Adapters

A single design-time adapter can support multiple simultaneous connections to the PeopleSoft Application Server and can serve multiple TIBCO Designers simultaneously. If, however, your circumstances require multiple design-time adapters to be running, you can modify adapter software so that another design-time adapter can run using another TIBCO Rendezvous port (for the DTA using TIBCO Rendezvous) or another JMS Provider url (for the DTA using TIBCO JMS).

To do this:

1. If the design-time adapter is running, stop it.
2. Edit the design-time adapter properties file to set the required connection parameters. For details on setting design-time adapter connection parameters see, *Modifying DTA Rendezvous Connection Parameters*, page 180 or *Modifying the DTA JMS Connection Parameters*, page 182.
3. Open the required project in TIBCO Designer, select the **Global Variables** tab and set the values of the following predefined global variables to those specified in the design-time adapter properties file:
 - adpsft8DTARvDaemon
 - adpsft8DTARvNetwork
 - adpsft8DTARvService
4. Start the design-time adapter and proceed with project configuration on TIBCO Designer using the new instance of design-time adapter.

Multi-threading and Deployment

The adapter maintains a pool of threads allowing the adapter to respond to and process multiple events simultaneously, thereby improving the performance of the adapter. The threads are shared across all the services configured in a particular instance. Each thread creates its own session with the PeopleSoft Application Server. The number of connections can be configured using the `Number of Threads` field (see, [General Tab, page 64](#)).



PeopleSoft's Component Interfaces are thread-safe but not instance-safe. Hence, it is advisable not to use multiple threads or run multiple instances of the subscriber or request-response service if the incoming messages would insert/update the same record.

Do not run more than one adapter instance configured for publication against the same PeopleSoft database. Note that a single adapter instance can contain multiple publication services.

Using the Operation Code Feature

The adapter, running as a Publication Service, is capable of capturing the mode of operation of the outbound transaction. This mode is published out as a property of the outgoing schema. The name of the property is `OpCode` and its valid values are:

A — Add

U — Update

L — Update All

C — Correction

In a typical business scenario, if a record is updated in a PeopleSoft system A, this update needs to be replicated in another PeopleSoft system B. The `OpCode` property is published out as a part of the outbound schema from the adapter for System A. The mapping component (TIBCO IntegrationManager, etc.) is used to map the `OpCode` properties of the inbound and outbound schemas. The adapter for System B, running as a Subscription Service, uses this property as an input for processing the inbound transaction.



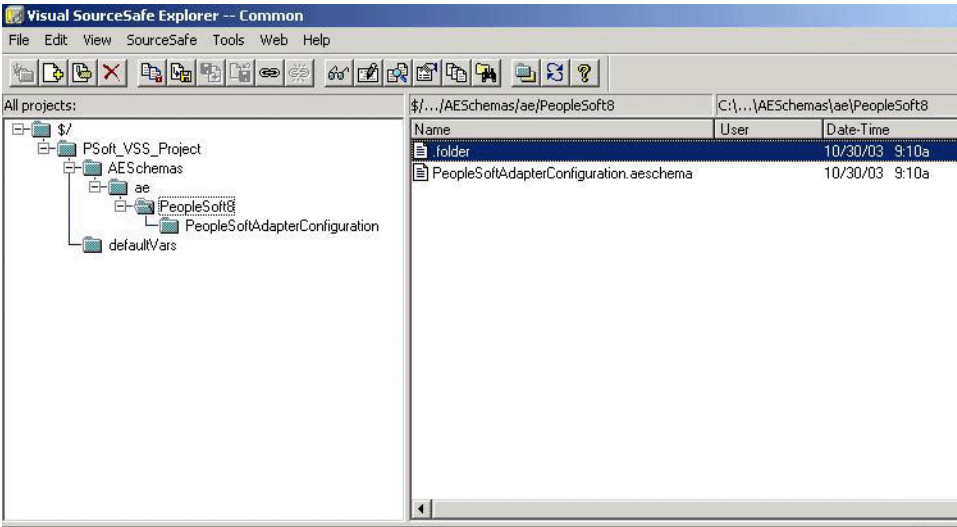
The Operation Code feature is not available for the 4.x adapter. However its presence in the configuration will not affect 4.x adapter functionality.

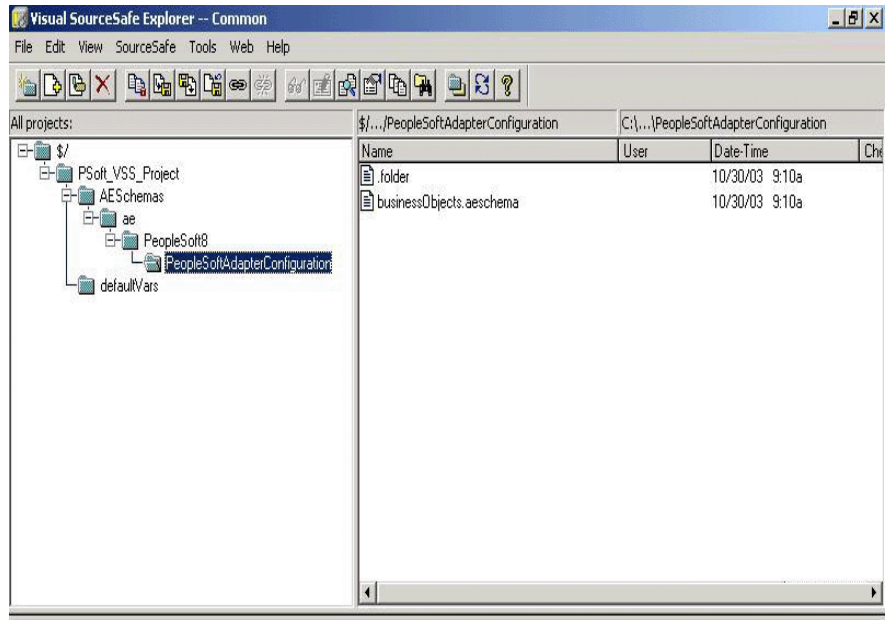
Using the Adapter with a Revision Control System

TIBCO Designer supports revision control systems such as Microsoft Visual SourceSafe and Perforce. If you are using a revision control system, you must manually add some configured resources to the revision control system and check in the resources when completing the instance configuration.

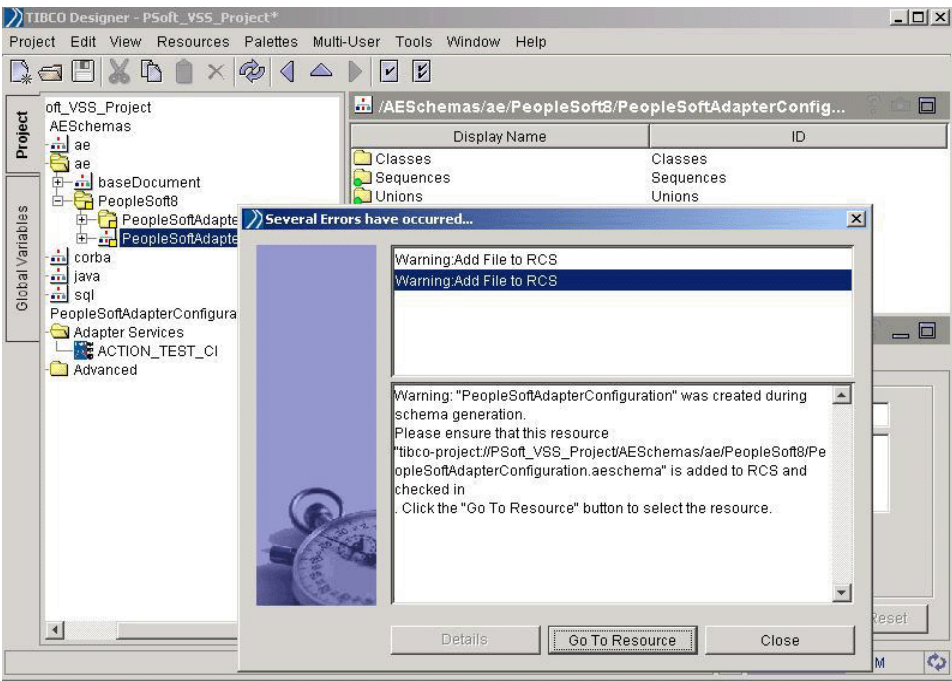
As part of service configuration, the adapter creates schema files in `root/AESchemas/ae/PeopleSoft`. For example, if you configure a service in an adapter configuration `Instance1`, the following files are created:

```
Project_root/AESchemas/ae/PeopleSoft/Instance1.aeschema
Project_root/AESchemas/ae/PeopleSoft/Instance1/businessObjects.aeschema
```





When the project is saved and a revision control system has been specified, the adapter displays a warning that additional files were created and should be added to the revision control system. This warning appears only when the files are created for the first time. The warning displays a **Go To Resource** button that helps in navigating to the resource. You should use the **Multi-User>Add Resources to RCS** menu command to add these files to the revision control system.



For information about how to use the Multi-User feature in TIBCO Designer, refer to the *TIBCO Designer User's Guide*.

Copy, Cut, Paste and Move Operations

To successfully copy and paste a service from adapter *Instance1* to *Instance2*, the adapter configuration and schema files for the *Instance2* must be checked out.

To successfully cut and paste a service from adapter *Instance1* to *Instance2*, the adapter configuration and schema files for both *Instance1* and *Instance2* must be checked out.

To successfully move a service from adapter *Instance1* to *Instance2*, the adapter configuration and schema files for both *Instance1* and *Instance2* must be checked out.

Implementation of Keys in the TIBCO Adapter for PeopleSoft

PeopleSoft Component Interfaces become schemas in the adapter. When applying a PeopleSoft Component Interface to a Subscription Service or a Request-Response Service in the adapter, the fields in the CREATEKEYS (if applicable), GETKEYS and FINDKEYS buckets in every Component Interfaces definition hold a special significance as described below.

FINDKEYS

The adapter exposes the FINDKEYS functionality of PeopleSoft Component Interface technology as a feature which can be used with the adapter's Request-Response Service. If the FINDKEYS values are specified in the incoming request, they take precedence over any GETKEYS or CREATEKEYS values specified. The adapter's Request-Response Service uses the same to query PeopleSoft and return a sequence of FINDKEY keys with values, which satisfy the query criterion, as a reply. Please note that any other part of the incoming request (GETKEYS, CREATEKEYS or PROPERTIES) is ignored.

Fields in FINDKEYS should be a superset of fields in GETKEYS () as the fields under these will decide the query criterion.

GETKEYS

The adapter primarily uses GETKEYS to update a particular record in PeopleSoft. For Request-Response Service, if the FINDKEYS values are not specified in the incoming request, the adapter looks for GETKEYS values. For a Subscription service, the adapter by default looks for GETKEYS and ignores the FINDKEYS completely.

If the GETKEYS values are specified (if not specified, refer to [CREATEKEYS on page 136](#)), the adapter queries PeopleSoft to check if the record exists. If the record exists, the adapter updates that record in PeopleSoft fields with values specified under the PROPERTIES keys.

The GETKEYS keys should be a subset of the FINDKEYS keys. This is to avoid an error scenario wherein the adapter is trying to search a record with a key which is not a part of FINDKEYS in the CI definition.

If the record does not exist, the adapter looks for CREATEKEYS (in such a scenario refer to [CREATEKEYS on page 136](#)).

CREATEKEYS

The adapter primarily uses CREATEKEYS to create a record in PeopleSoft. If neither GETKEYS nor FINDKEYS are specified in the incoming requests (or due to the conditions arising out of the two scenarios described in GETKEYS), the adapter looks for CREATEKEYS in the incoming request.

If specified, the adapter queries PeopleSoft to check if the record already exists. If the record is not found, the adapter creates a new record with the CREATEKEYS fields as primary fields and PROPERTIES keys as values for the non-primary fields. If the record already exists, an error is thrown by the adapter saying CREATEKEYS failed.

The CREATEKEYS should be a subset of the FINDKEYS keys. This is to avoid an error scenario wherein the adapter is trying to search a record with a key which is not a part of FINDKEYS in the CI definition.

Each CI can have multiple levels up to Level 3. In this case, the adapter mandates the occurrence of key fields at all levels in this scenario for performing the CREATE, UPDATE, DELETE or FIND operations successfully at all levels.

In case of the Publication Service (CI based as well as Application Messaging based), the adapter populates the PROPERTIES with the values extracted from the parsed XML (obtained from the TIB_CI_MQUEUE table). The GETKEYS, CREATEKEYS or FINDKEYS hold no significance whatsoever.

Valid Operation Codes for the Adapter

Peoplesoft Component Interface can have multiple levels up to Level 3. The adapter can INSERT, UPDATE or DELETE the records at all these levels. In these case, the key fields should be present at all levels and the user needs to provide the operation code at all levels.

Valid values for OPRN_CODE for CREATEKEYS and GETKEYS scenario are:

- UPDATE — U
- INSERT — I
- DELETE — D

CREATEKEYS Scenarios

For all CREATEKEYS scenarios, specify I as the value for OPRN_CODE for all the records in the request.

GETKEYS Scenarios

1. To update details of an existing record, specify U as the value for OPRN_CODE at all levels.
2. To insert a new record under an existing record, specify I as the OPRN_CODE for the record to be inserted. If the new record to be inserted is not a Level1 record, specify U as the OPRN_CODE for the parent record(s) under which the new record is inserted in the following format:

```
Level1 record    - 'U'
  Level2 record  - 'I'
```

3. To delete a record under an existing record, specify D as the OPRN_CODE for the record to be deleted. If the record to be deleted is not a Level1 record, specify U as the OPRN_CODE for the parent record(s) from which the record is to be deleted in the following format:

```
Level1 record    - 'U'
  Level2 record  - 'D'
```

4. While inserting a new Level1 record with Level2 and Level3 records under it, specify the value for the OPRN_CODE in the following format:

```
Level1 record    - 'I'
  Level2 record  - 'I'
    Level3 record - 'I'
```

For some CIs, PeopleSoft by default creates child records while inserting a new record. For example, while inserting a new Level1 record for some CIs, PeopleSoft creates Level2 and Level3 records by default. In such a scenario specify the value for the OPRN_CODE in the following format:

```
Level1 record    - 'I'
  Level2 record  - 'U'
    Level3 record - 'U'
```


Chapter 8

Monitoring the Adapter Using TIBCO Hawk

This chapter explains how to use TIBCO Hawk microagents to monitor and manage the adapter.

Topics

- [Overview, page 140](#)
- [Starting TIBCO Hawk Software, page 141](#)
- [The Auto-Discovery Process, page 142](#)
- [Invoking Microagent Methods, page 143](#)
- [Available Microagents, page 146](#)

Overview

TIBCO Hawk is a sophisticated tool for enterprise-wide monitoring and managing of all distributed applications and systems. System administrators can use it to monitor adapters in a wide area network of any size. TIBCO Hawk can be configured to monitor system and adapter parameters and to take actions when predefined conditions occur. These actions include: sending alarms that are graphically displayed in TIBCO Hawk Display, sending email, paging, running executables, or modifying the behavior of a managed adapter.

Unlike other monitoring applications, TIBCO Hawk relies on a purely distributed intelligent agent architecture using Publication or Subscription to distribute alerts. TIBCO Hawk uses TIBCO Rendezvous for all messaging and thus gains the benefits and scalability from the TIBCO Rendezvous features of Publication or Subscription, subject name addressing, interest-based routing, and reliable multicast.

TIBCO Hawk is a purely event-based system that uses alerts. The agents are configured with rules that instruct them on everything from what and how to monitor to what actions to take when problems are discovered. Thus the workload is fully distributed throughout the enterprise. Every agent is autonomous in that it does not depend on other components to perform its functions.

TIBCO Hawk Enterprise Monitor consists of the following components:

The TIBCO Hawk Enterprise Monitor consists of following components:

- **Display** GUI front end that displays alarms and provides editors to create rule bases, create tests, view messages, and invoke microagents to request information or initiate an action.
- **Agents** Intelligent processes that perform monitoring and take actions as defined in rules.
- **Rulebases** Rules that are loaded by agents to determine agent behavior.
- **Application Management Interface (AMI)** Manages network applications via TIBCO Rendezvous and supports communication between a network application and monitoring TIBCO Hawk agents, including the ability to examine application variables, invoke methods, and monitor system performance.
- **Microagents** Feed information back to TIBCO Hawk and expose action methods to rulebases.

Starting TIBCO Hawk Software

The TIBCO Hawk agent can be configured to start automatically during the system boot cycle. See the *TIBCO Hawk Installation and Configuration* guide for information about starting TIBCO Hawk.

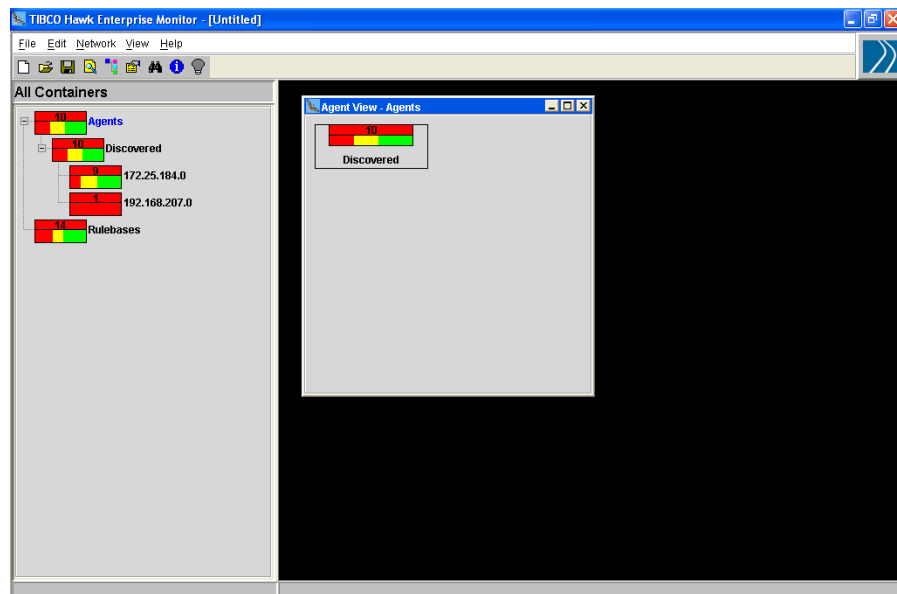
TIBCO Hawk Administrator's Guide explains how to start TIBCO Hawk Display.

The Auto-Discovery Process

After you start an instance of TIBCO Hawk Display, it continually discovers machines running TIBCO Hawk Agents on your network. Container icons are created for each agent, and arranged hierarchically in clusters. By default, agent icons are clustered according to subnets.

At first, the Agents container is empty. Its counter displays a value of zero and, on the right, the Discovered counter is also at zero. Both icons are initially green in color to show that no alerts, or warning messages, are in effect. As agents are discovered, the counters increment to reflect the current number of discovered agents:

Figure 24 TIBCO Hawk Enterprise Monitor



Monitored network nodes are arranged in a hierarchical tree of containers. Clicking a container in the left panel displays nested items on the right.

Icon colors change to reflect the highest level of alert found on discovered agents. For explanations of icon elements and characteristics, see *TIBCO Hawk Administrator's Guide*.

Invoking Microagent Methods

A set of default microagents, platform-specific and platform-independent, is loaded when a TIBCO Hawk Agent is started. When you install and start the TIBCO ActiveMatrix Adapter for PeopleSoft, microagents for the adapter are dynamically added to the local agent.

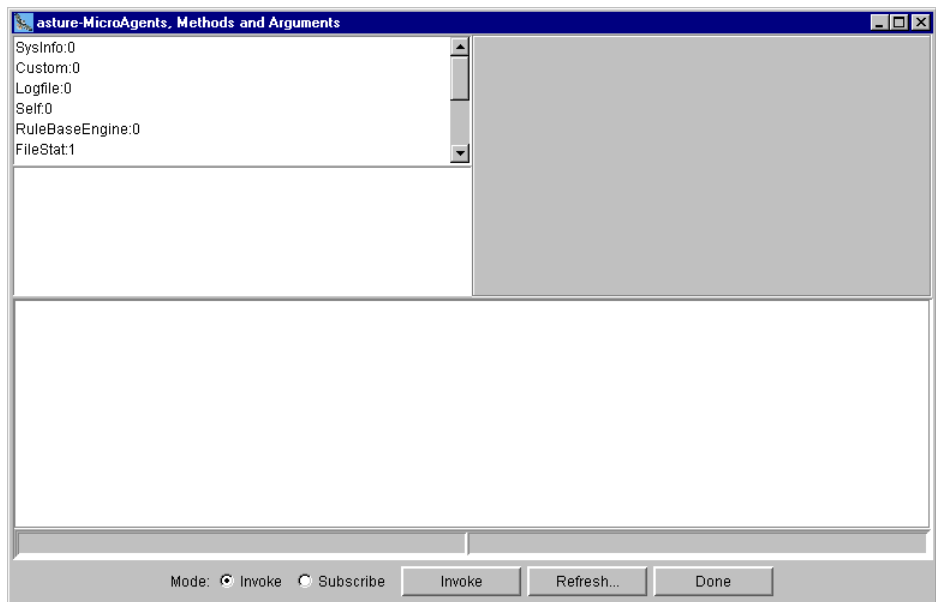
To invoke a microagent method on a TIBCO Hawk Agent, follow these steps:

1. In TIBCO Hawk Display, right-click on the agent icon and select **Get Microagents**.

If TIBCO Hawk security is implemented on your system and you do not have access to microagents on this agent, an error dialog displays. Select another agent, or contact your system administrator to obtain access.

2. The Microagents, Methods and Arguments dialog displays. The panel on the upper left lists microagents you can access on the current agent.

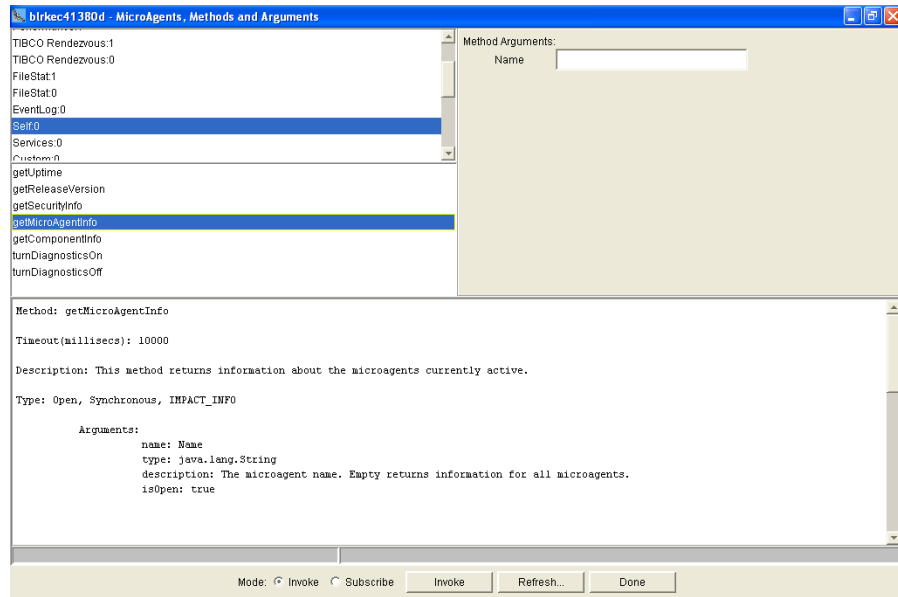
Figure 25 *Microagents, Methods and Arguments Dialog*



This dialog has two modes, Invoke and Subscribe. Invoking a method immediately returns a single set of current results. Subscribing provides updates of current results at regular intervals. Radio buttons at the bottom of the dialog control these modes.

3. Click a microagent name, such as **Self**, to display a list of associated methods and text descriptions in the panels below.
4. Click the name of the method to invoke, such as `getMicroAgentInfo`, as shown in [Figure 26](#).

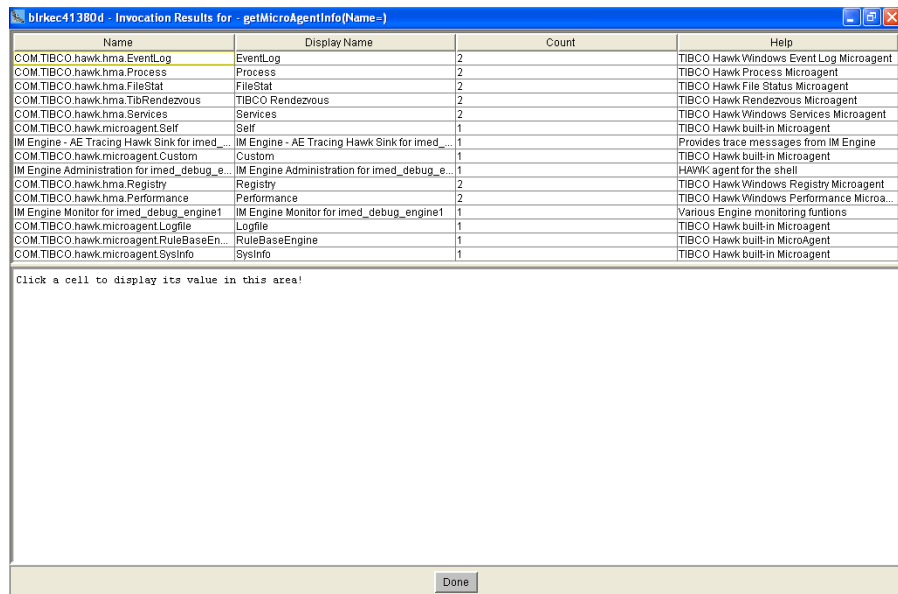
Figure 26 Select Microagent and Method



If the method accepts arguments, fields for each argument display in the upper right panel. Detailed help text displays in the lower panel.

5. Specify any arguments for the method invocation.
6. Verify that the **Invoke** radio button is selected.
7. Click the **Invoke** button to invoke the selected method. The Invocation Results dialog displays the results returned by the method, as shown in [Figure 27](#).

Figure 27 Invocation Result Dialog



Name	Display Name	Count	Help
COM.TIBCO.hawk.hma.EventLog	EventLog	2	TIBCO Hawk Windows Event Log Microagent
COM.TIBCO.hawk.hma.Process	Process	2	TIBCO Hawk Process Microagent
COM.TIBCO.hawk.hma.FileStat	FileStat	2	TIBCO Hawk File Status Microagent
COM.TIBCO.hawk.hma.TibRendezvous	TIBCO Rendezvous	2	TIBCO Hawk Rendezvous Microagent
COM.TIBCO.hawk.hma.Services	Services	2	TIBCO Hawk Windows Services Microagent
COM.TIBCO.hawk.microagent.Self	Self	1	TIBCO Hawk built-in Microagent
IM Engine - AE Tracing Hawk Sink for imed...	IM Engine - AE Tracing Hawk Sink for imed...	1	Provides trace messages from IM Engine
COM.TIBCO.hawk.microagent.Custom	Custom	1	TIBCO Hawk built-in Microagent
IM Engine Administration for imed_debug_e...	IM Engine Administration for imed_debug_e...	1	HAWK agent for the shell
COM.TIBCO.hawk.hma.Registry	Registry	2	TIBCO Hawk Windows Registry Microagent
COM.TIBCO.hawk.hma.Performance	Performance	2	TIBCO Hawk Windows Performance Microa...
IM Engine Monitor for imed_debug_engine1	IM Engine Monitor for imed_debug_engine1	1	Various Engine monitoring funtions
COM.TIBCO.hawk.microagent.Logfile	Logfile	1	TIBCO Hawk built-in Microagent
COM.TIBCO.hawk.microagent.RuleBaseEn...	RuleBaseEngine	1	TIBCO Hawk built-in MicroAgent
COM.TIBCO.hawk.microagent.SysInfo	SysInfo	1	TIBCO Hawk built-in Microagent

Click a cell to display its value in this area!

Done

8. Click the **Done** button to close the dialog.

These steps describe how to interactively invoke a microagent method and receive a single set of results in TIBCO Hawk Display. You can also use a microagent method as the data source of a TIBCO Hawk rule. Rules automatically receive method results, apply tests to evaluate them, then take action if necessary. For more information on building TIBCO Hawk rules and rule bases, see your *TIBCO Hawk Administrator's Guide*.

Available Microagents

Each adapter has two microagents, a standard TIBCO Hawk microagent named `COM.TIBCO.ADAPTER.xyz` where `xyz` is the adapter configuration name and a custom microagent.

The microagents provide:

- Business level statistics—statistics that report the progress of the adapter as it interacts with PeopleSoft. For example, in a database adapter such statistics might indicate whether objects were successfully or unsuccessfully inserted, updated, or deleted in the database.
- Queries that return information about the state of the adapter. This can be an important tool for seeing the internals of an adapter and debugging it if something appears wrong. For example, methods can return information about threads, internal queues, or connections to the target system. Using these methods, one might be able to identify certain bottlenecks or gauge how successfully an adapter is scaling with respect to the current environment.
- Updates of the adapter runtime parameters. This includes retrieving the current runtime parameters and setting new runtime parameters without restarting the adapter. An example of this is getting and setting the polling interval. Updating a runtime parameter through the Hawk microagent only affects the setting of the instance that is running. It does not make a permanent change of the setting in either the repository or the `.tra` file.

By default, all microagents are available at runtime.



Custom microagents are deprecated in this release. All business statistics related methods which were part of the custom microagent are now available in the class microagent.

`perfMon` property value set in the adapter’s property file affects the business statistics related methods. If this property is set to `on`, the adapter does all the performance related calculations. When you invoke the methods, if the `perfMon` property is set to `off`, default values are displayed and not the valid values.

You can disallow adding custom methods to the class microagent when deploying the adapter by changing the `addCustomHawkMethodstoClassMAgent` property value in the adapter’s property file. If this property is set to `on`, custom methods are added to the class microagents. If set to `off`, these methods are not visible.

Table 37 lists each standard method available for the adapter..

Table 37 Standard Microagent Methods

Method	Description
<code>activateTraceRole()</code>	Activates a mapping of a role to a sink at runtime.
<code>deactivateTraceRole()</code>	Deactivates a mapping of a roles to sinks at runtime.
<code>getAdapterServiceInformation()</code>	Returns information about the services implemented by this adapter.
<code>getComponents()</code>	Returns information about the publisher, subscriber and IODescriptor.
<code>getConfig()</code>	Returns basic configuration information. More specific information is accessed by the more specific methods.
<code>getConfigProperties()</code>	Returns all attributes and elements for the given repository object.
<code>getRvConfig()</code>	Returns information about all TIBCO Rendezvous sessions defined.
<code>getStatus()</code>	Returns general status information, such as the number of TIBCO Rendezvous messages received and published, the number of errors since the last call, the PID of the application, and more.
<code>getTraceSinks()</code>	Returns information about sinks to which traces currently go.
<code>getVersion()</code>	Returns the configuration ID, application name, version, and date for this adapter instance.
<code>_onUnsolicitedMsg()</code>	Displays alert messages sent to the current adapter.
<code>preRegisterListener()</code>	Preregisters an anticipated listener.
<code>resetConnectionStatistics()</code>	Resets all the counts for the connection statistics.
<code>resetThreadStatistics()</code>	Resets all the counts for the thread statistics.
<code>reviewLedger()</code>	Returns information retrieved from the ledger file of a certified messaging session for a publisher adapter.
<code>setTraceSinks()</code>	Adds a role or changes the file limit of a previously specified sink.

Table 37 Standard Microagent Methods (Cont'd)

Method (Cont'd)	Description (Cont'd)
<code>stopApplicationInstance()</code>	Stops the running adapter instance.
<code>unRegisterListener()</code>	Unregisters a currently preregistered listener.

Table 38 Class Microagent Methods

Method	Description
<code>getActivityStatisticsBySchemaName()</code>	Returns the total number of objects processed for the given schema by each service that uses the schema.
<code>getActivityStatistics()</code>	Returns the total number of objects processed for all the schemas.
<code>getActivityStatisticsByOperation()</code>	Returns the total number of objects processed for all the schemas by each service that is associated with a specified operation.
<code>getActivityStatisticsByService()</code>	Returns information about the services implemented by this adapter.
<code>getConnectionStatistics()</code>	Returns the state and statistics for all the current connections used by the adapter.
<code>getPerfMonSetting()</code>	Returns the setting of the perfMon option.
<code>getQueueStatistics()</code>	Returns the current count of elements in any internal queue used by the adapter.
<code>getThreadStatistics()</code>	Returns the operation counts of the current threads
<code>getPollingInterval()</code>	Returns the current polling interval setting.
<code>setPollingInterval()</code>	Sets the polling interval for the publication service.

activateTraceRole()

Purpose Activates a mapping of a role to a sink at runtime. This replaces the now-deprecated `setTraceSink()` TIBCO Hawk method.

Parameters

Table 39 Input parameters of activateTraceRole()

Input Parameters	Type	Description
roleName	string	Name of the role to activate.
sinkName	string	Name of the sink for which to activate the role.

deactivateTraceRole()

Purpose Deactivates a mapping of a roles to sinks at runtime.

Parameters

Table 40 Input parameters of deactivateTraceRole()

Input Parameters	Type	Description
roleName	string	Name of the role to deactivate.
sinkName	string	Name of the sink for which to deactivate the role.

getActivityStatistics()

Purpose Returns the total number of objects processed for all the schemas, based on the request type. Also, returns the number of success and error objects.

Parameters

Table 41 Input parameter of getActivityStatistics()

Input Parameter	Type	Description
GetSubTotalBy	string	Indicates how to group the subtotals, by Service or Operation.

Returns

Table 42 Returns of getActivityStatistics()

Returns	Type	Description
Name	string	Service name or All Services which represents the final tally of all the services.
Total	integer	Total number of objects processed including both success and failures.
Success	integer	Total number of objects successfully processed.
Failure	integer	Total number of objects that caused an error during processing.
MeasurementInterval	integer	Displays the time (in seconds) since last time the adapter was reset, or if never reset, since the adapter started.

getActivityStatisticsByOperation()

Purpose Returns statistics about one operation.

Parameters

Table 43 Input parameter of getActivityStatisticsByOperation()

Input Parameter	Type	Description
Operation	string	Name of the operation.

Returns

Table 44 Returns of getActivityStatisticsByOperation()

Returns	Type	Description
Operation	string	Name of the operation.
Service Name	string	Name of the service.
Total	integer	Total number of objects processed, both success and failures.
Success	integer	Total number of objects successfully processed.
Failure	integer	Total number of objects that caused an error during processing.
MeasurementInterval	integer	Displays the time (in seconds) since last time the adapter was reset, or if never reset, since the adapter started.
LineIndex	string	Concatenated string of Service Name and Operation separated by a comma.

getActivityStatisticsByService()

Purpose Returns statistics about the data handled by a given adapter service or all adapter services since the time the adapter was started.

Parameters

Table 45 Input parameter of getActivityStatisticsByService()

Input parameter	Type	Description
Service Name	string	Name of service to get the statistics for. If no service name is given, performance statistics for all services is returned.

Returns

Table 46 Returns of getActivityStatisticsByService()

Returns	Type	Description
Service Name	string	Service name.
Schema Name	string	Name of top level schema processed by this service.
Operation	string	Type of operation this service provides.
Total	integer	Total number of objects processed, both success and failures.
Success	integer	Total number of objects successfully processed.
Failure	integer	Total number of objects that caused an error during processing.
MeasurementInterval	integer	Displays the time (in seconds) since last time the adapter was reset, or if never reset, since the adapter started.
LineIndex	string	Concatenated string of Service Name and Operation separated by a comma.

getAdapterServiceInformation()

Purpose Returns information about the services implemented by this adapter. The information is a summary of available adapter services.

Parameters

Table 47 Input parameter of getAdapterServiceInformation()

Input Parameter	Type	Description
serviceName	string	Name of the service from which to get information. Default is ALL.

Returns

Table 48 Returns of getAdapterServiceInformation()

Returns	Type	Description
Line	integer	Sequential row number.
ServiceName	string	Name of the service as defined at design-time.
EndpointName	string	Name of the endpoint used for this service.
Type	string	Type of the endpoint, for example, publisher or subscriber.
Quality of Service	string	Quality of service for the endpoint. For example, RVCM or JMS Persistent.
Subject	string	Subject defined for this endpoint.
Class	string	Class associated with the endpoint.
Number of Messages	integer	Number of messages processed for this endpoint.

getComponents()

Purpose Returns information about the currently active TIBCO Hawk components such as publishers, subscribers, or timers.

Parameters

Table 49 Input parameters of getComponents()

Input Parameters	Type	Description
Component Name	string	Name of the component. If no value is provided, all components are displayed.
Component Type	string	Any of Publisher, Subscriber, Timer, or IODescriptor. The default value is All.

Returns

Table 50 Returns of getComponents()

Returns	Type	Description
Instance ID	string	Name of this adapter instance as defined at design time.
Adapter Name	string	Name of the adapter.
Component Name	string	Name of the component.
Component Type	string	The name of the TIBCO Adapter SDK class for this component, such as MPublisher, MSubscriber, or MIODescriptorSource. For more information about the class, see your TIBCO Adapter SDK documentation.
Session Name	string	Name of the session.
Description	string	Information about this component, for example, time interval, signal type, validating the publisher or subscriber.

getConfig()

Purpose Retrieves generic configuration information. More specific configuration information is accessed through separate methods.

Returns

Table 51 Returns of getConfig()

Returns	Type	Description
Instance ID	string	Configuration ID of this adapter.
Adapter Name	string	Name of the adapter.
Repository Connection	string	URL of the repository used for adapter instance.
Configuration URL	string	Location of the adapter project; either a file name or configuration URL.
Command	string	Command line arguments used to start the adapter.

getConfigProperties()

Purpose Returns all attributes and elements for the given repository object.

Parameters

Table 52 Input parameter of getConfigProperties()

Input Parameter	Type	Description
Property	string	Name of the property for which elements (tags) and attributes are desired. For example, agentone/startup. If no value is given, all properties are returned.

Returns

Table 53 Returns of getConfigProperties()

Returns	Type	Description
Element Name	string	Repository directory for the property.
Attribute Name	string	Name of the repository object attribute.
Attribute Value	string	Value of the repository object attribute.
Line	integer	Line number in which this property is defined in the project file.

getConnectionStatistics()

Purpose Returns the state and statistics for all the current connections used by the adapter.

Returns

Table 54 Returns of getConnectionStatistics()

Returns	Type	Description
Connection ID	string	Unique identification of a particular connection.
Connection Type	string	Type or key that will match this connection to a thread or queue.
State	string	Current state: UP, RETRYING, POLLING, DOWN, or UNKNOWN. The UNKNOWN state is returned when the perfMon property is set to OFF.
NumRetries	integer	Total number of times this connection had to be reestablished.
TotalNumOperations	integer	Total number of operations processed by this connection since the adapter started.
CurrentNumOperations	integer	Total number of operations processed by this connection since the last reconnection.
NumLostConnections	integer	Total amount of time that this connection has been lost.
MeasurementInterval	integer	Displays the time (in seconds) since last time the adapter was reset, or if never reset, since the adapter started.

getQueueStatistics()

Purpose Returns the current count of elements in any internal queue used by the adapter. This includes the TIBCO Rendezvous event queues automatically spawned by Rendezvous for each adapter.

Returns

Table 55 Returns of getQueueStatistics()

Returns	Type	Description
QueueID	string	Unique identification of a particular queue.
QueueType	string	Type or key that will match this queue to a thread or connection.
QueueCount	integer	Current number of elements in the queue.
MaxQueueSize	integer	Maximum number of elements in the queue.
MeasurementInterval	integer	Displays the time (in seconds) since last time the adapter was reset, or if never reset, since the adapter started.

Returns the current count of elements in any internal queue used by the adapter. This includes the TIBCO Rendezvous event queues automatically spawned by Rendezvous for each adapter.

getRvConfig()

Purpose Returns information about the TIBCO Rendezvous session defined by this adapter.

Parameters

Table 56 Input parameter of getRvConfig()

Input Parameter	Type	Description
Session Name	string	Name of the TIBCO Rendezvous session for which configuration is required. If not given, information about all currently defined sessions is returned. The default is all.

Returns

Table 57 Returns of of getRvConfig()

Returns	Type	Description
Instance ID	string	The configuration ID of this adapter.
Adapter Name	string	Name of the adapter.
Session Name	string	Name of the session.
Service	string	Service parameter for this session.
Daemon	string	Daemon parameter for this session.
Network	string	Network parameter for this session.
Synchronous	boolean	Returns 1 if this is a synchronous session, 0 otherwise.
Session Type	string	Type of session; one of M_RV, M_RVCM, or M_RVCMQ.
Certified Name	string	Name of this certified session.
Ledger File	string	Ledger file for this certified messaging session. Returns the empty string for sessions that are not certified messaging sessions.

Table 57 Returns of of getRvConfig() (Cont'd)

Returns	Type	Description
CM Timeout	string	Timeout for this certified messaging session. Returns the empty string for sessions that are not certified messaging sessions.

getStatus()

Purpose Retrieves basic status information about the adapter.

This information is fairly limited. Additional methods are provided in [getConfig\(\)](#) on page 156 and [getRvConfig\(\)](#) on page 160.

Returns

Table 58 Returns of getStatus()

Returns	Type	Description
Instance ID	string	Configuration ID for this adapter instance.
Adapter Name	string	Name of the adapter.
Uptime	integer	Number of seconds since startup.
Messages Received	integer	Number of TIBCO Rendezvous messages received.
Messages Sent	integer	Number of TIBCO Rendezvous messages published.
New Errors	integer	Number of errors since the last call to this method.
Total Errors	integer	Total number of errors since startup.
Process ID	integer	Process ID of the application.
Host	string	Name of host machine on which this adapter is running.

getThreadStatistics()

Purpose Returns the operation counts of the current threads.

Returns

Table 59 Returns of getThreadStatistics()

Returns	Type	Description
ThreadID	string	Unique identification of a particular thread.
ThreadType	string	Type that tells what part of the adapter this thread belongs to. Valid types include "Publisher", "Subscriber", "RPC", or "Connection".
TaskType	string	One-word description of the tasks this thread processes.
TaskCount	integer	Number of tasks processed by this thread.
MeasurementInterval	integer	Displays the time (in seconds) since last time the adapter was reset, or if never reset, since the adapter started.

getTraceSinks()

Purpose Returns information about sinks to which traces currently go.

Parameters

Table 60 Input parameters of getTraceSinks()

Input Parameters	Type	Description
Sink Name	string	Name of the sink for which you need information. If no name is specified, information about all sinks is returned. Default is all.
Role Name	string	Name of the role for which you need information for the specified sink or sinks. Default is all.

Returns

Table 61 Returns of getTraceSinks()

Returns	Type	Description
Instance ID	string	Name of this adapter instance as a string.
Adapter Name	string	Name of the application for this sink.
Sink Name	string	Name of the sink.
Sink Type	string	Type of this sink. One of fileSink, rvSink, hawkSink, stderrSink.
Roles	string	Roles this sink supports, as a string. For example “warning, error, debug”.

getVersion()

Purpose Retrieves version information for the current application. Two lines may be returned, one for the TIBCO Adapter SDK, one for the adapter.

Returns

Table 62 *Returns of getVersion()*

Returns	Type	Description
Instance ID	string	The configuration ID as a string, for example SDK.
Adapter Name	string	Name of the adapter as a string, for example agent one.
Version	string	Version number as a string, for example 1 . 1.

`_onUnsolicitedMsg()`

Purpose Displays all alert messages sent from the adapter or an error if not successful.

preRegisterListener()

Purpose Preregisters an anticipated listener. Some sending applications can anticipate requests for certified delivery even before the listening applications start running. In such situations, the sender can preregister listeners, so TIBCO Rendezvous software begins storing outbound messages in the sender’s ledger. If the listening correspondent requires old messages, it receives the backlogged messages when it requests certified delivery.

Parameters

Table 63 Input parameters of preRegisterListener()

Input Parameters	Type	Description
Session Name	string	Name of the session that anticipates the listener.
Publisher Name	string	Name of the component for which the listener should be preregistered.
Listener Session Name	string	Name of the listener to preregister.

Returns OK if the listener was preregistered successfully, false otherwise.

resetConnectionStatistics()

Purpose Resets all the counts for the activity statistics.

resetThreadStatistics()

Purpose Resets all the counts for the thread statistics.

reviewLedger()

Purpose Returns information retrieved from the ledger file of a TIBCO Rendezvous certified messaging session.

Before invoking this method, ensure that the certified messaging publisher adapter has established a certified delivery agreement with its subscriber agents.

Parameters

Table 64 Input parameters of reviewLedger()

Input Parameters	Type	Description
Session Name	string	Name of the TIBCO Rendezvous session for which ledger information is desired (default is all).
Subject	string	Name of the subject for which ledger information is desired.

Returns

Table 65 Returns of reviewLedger()

Return	Type	Description
Session Name	string	Name of the TIBCO Rendezvous CM session to which this information applies.
Subject	string	Subject name for this session.
Last Sent Message	integer	Sequence number of the most recently sent message with this subject name.
Total Messages	string	Total number of pending messages with this subject name.
Total Size	integer	Total storage (in bytes) occupied by all pending messages with this subject name. If the ledger contains ten messages with this subject name, then this field sums the storage space over all of them.
Listener Session Name	string	Within each listener submessage, the Listener Session Name field contains the name of the delivery-tracking listener session.

Table 65 Returns of reviewLedger() (Cont'd)

Return	Type	Description
Last Confirmed	string	Within each listener submessage, the Last Confirmed field contains the sequence number of the last message for which this listener session confirmed delivery.
Line	integer	Row number in ledger file.
UnacknowledgedMessages	integer	Number of RVCM messages pending for this listener. The value is computed by subtracting the last sent sequence number from the last acknowledged sequence number.

setTraceSinks()

Purpose Adds a role or changes the file limit of a previously specified sink.

Parameters

Table 66 Input parameters of setTraceSinks()

Input Parameters	Type	Description
Sink Name	string	Name of the sink for which you want to add a role or change the file limit.
Role Name	string	Name of the role you want to add to this sink (warning, error, debug, or user defined). Default is all.
File Size	integer	Maximum file size for this sink. This parameter is ignored if the sink specified by sinkName is not a file sink.

Returns OK if successful or an error if not successful.

stopApplicationInstance()

- Purpose** Stops the specified adapter by calling the internal `stop()` method.
- Returns** OK if successful or an error if not successful.

unRegisterListener()

Purpose Unregisters a currently preregistered listener.

Parameters

Table 67 Input parameters of *unRegisterListener()*

Input Parameters	Type	Description
Session Name	string	Name of the session that anticipates the listener.
Publisher Name	string	Name of the component for which the listener should be preregistered.
Listener Session Name	string	Name of the listener to unregister.

Returns True if the listener was unregistered successfully, false otherwise.

getActivityStatisticsBySchemaName()

Purpose Returns the total number of objects processed for the given schema by each service that uses the schema. Also, returns the number of success and error objects.

Parameters

Table 68 Input parameter of getActivityStatisticsBySchema()

Input Parameter	Type	Description
Schema Name	string	Name of the schema.

Returns

Table 69 Returns of getActivityStatisticsBySchema()

Returns	Type	Description
Service Name	string	Name of the service that is associated with the specified schema.
Total	string	Total number of objects processed for this schema for a Publication Service. Total number of objects received for this schema for a Subscription Service.
Success	string	Number of objects that were successfully identified for this schema, which will be published or written to a file.
Failure	string	Number of objects that were identified for this schema but were not published because the header of the schema failed validation for a Publication Service, or was written to a file because the schema was not associated with a subscriber for a Subscription Service.

getPerfMonSetting()

Purpose Returns the setting of the perfMon option.

Returns

Table 70 Returns of getPerfMonSetting()

Returns	Type	Description
Setting	string	Value of the perfMon option.

getPollingInterval()

Purpose Returns the current polling interval setting.

Returns

Table 71 Return of getPollingInterval()

Return	Type	Description
PollingInterval	integer	Polling interval in milliseconds.

setPollingInterval()

Purpose Sets the polling interval for the Publication Service.

Parameters

Table 72 Input parameters of setPollingInterval()

Input Parameters	Type	Description
PollingInterval	integer	Polling interval in milliseconds.
ServiceName	string	Name of service where the polling interval is set.

Appendix A **Frequently Asked Questions**

This appendix lists answers to the frequently asked questions.

Topics

- [Frequently Asked Questions, page 180](#)

Frequently Asked Questions

The frequently asked questions are listed in this section.

What is the TIBCO Runtime Agent?

The TIBCO Runtime Agent provides the runtime environment for TIBCO ActiveEnterprise components, that is, all the shared libraries including third-party libraries.

Can TIBCO Designer be brought from a UNIX command-line?

No. TIBCO Designer is a GUI based tool and a UNIX GUI environment is mandatory to run it. It cannot be brought up from a terminal.

Why does the connection to the Design-Time Adapter fail?

Ensure that the Design-Time Adapter has been started. Check the Design -Time Connection parameters specified.

When starting the adapter, what if the repository is not found?

Start the repository server before starting the adapter. If you are starting a remote repository ensure that repository server is installed on the remote location. Ensure that a properly configured `.dat` file is available in the path specified (local or remote). Ensure that the `repourl` has been specified accurately in the adapter's `.tra` file.

Why does the adapter startup fail?

Either the repository file (`.dat`) is not placed in the `install_path\tibco\repository\remoterepos` directory, or the `.dat` file is not properly configured. Ensure that the `repourl` syntax has been specified accurately in the adapter's `.tra` file. Ensure that the path specified for the `.tra` file is correct.

Why does the adapter startup fail, even after specifying the appropriate DAT file?

You must start the repository server before you start the adapter. If it is a remote repository ensure that the `repour1` syntax has been specified accurately in the adapter's `.tra` file. Ensure that the path specified for the `.tra` file is correct.

When saving an adapter configuration to the project, if an error occurs where is it logged?

TIBCO Designer error messages are logged to the files `stderr.log` and `designer.log` under the `TIBCO_HOME\Designer\ver\logs` directory.

When an error occurs in a Subscription Service adapter service, where is it displayed?

Errors that occur in a request-response operation are sent to the client. Errors that occur in a subscription operation are logged to a trace file. The log file path and name is set in the `.tra` file corresponding to the adapter instance. All logs are sent to `install_path\adapter\adapter name\version\logs` unless otherwise specified.

Why does the adapter fail to respond to a request?

The subject name may be inconsistent. The subject name to which the adapter listens may be different from that of the subject name of the client.

Why does the adapter fail to respond to a request after successfully receiving it?

The adapter may fail to respond due to various reasons like errors resulting from class mismatch, records not being available in the target application or, connectivity problems with the target application.

Appendix B **Trace Messages**

This appendix explains the trace messages that are logged to a location specified at configuration time.

Topics

- [Overview, page 184](#)
- [Trace Message Fields, page 186](#)
- [Status Messages, page 189](#)

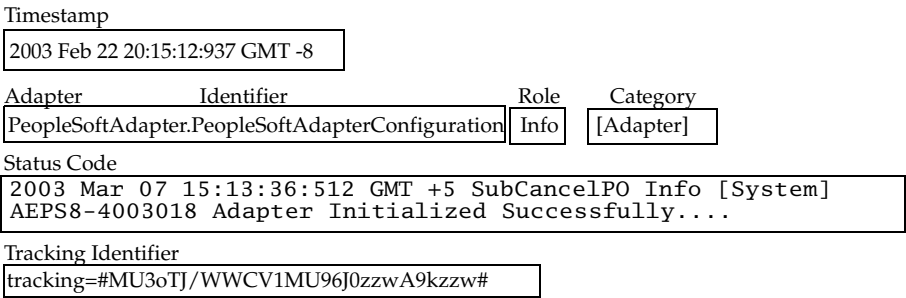
Overview

Trace messages provide information about adapter activities. The messages are logged to the console where the runtime adapter was started and to a log file. Trace messages can also be redirected to TIBCO Hawk Display, or sent to other applications using the TIBCO Rendezvous transport.

Each trace message can include the following fields:

<Timestamp> <Adapter Identifier> <Role> <Category> <Status Code>
<Tracking Identifier>

The above fields are explained in [Trace Message Fields, page 186](#). The following diagram shows an example trace message and calls out the fields.



Example Trace Messages

The following trace messages were written during a session where TIBCO ActiveMatrix Adapter for PeopleSoft received an object from TIBCO Adapter for R/3 and then processed the object.

The first message indicates that TIBCO Adapter for PeopleSoft has started successfully. The timestamp indicates when the adapter started, and the role indicates that the trace message is informational, which means the activity is normal for the adapter. The category is identified, and the corresponding status code is displayed.

2003 Mar 07 15:13:36:512 GMT +5 SubCancelPO Info [System]
AEPS8-4003018 Adapter Initialized Successfully....

The second trace message indicates that the adapter received an object (in this case a Business Event).

2003 Mar 07 15:52:24:740 GMT +5 SubCancelPO Info [Adapter]
AEPS8-4003005 Received an Event.

The third trace message indicates that the adapter is processing the event with the name FROM_SAP_CANCEL_PO.

```
2003 Mar 07 15:52:25:501 GMT +5 SubCancelPO Info [Adapter]  
AEPS8-4003006 Processing Business Event FROM_SAP_CANCEL_PO.
```

The fourth trace message indicates that the adapter has successfully processed the event FROM_SAP_CANCEL_PO.

```
2003 Mar 07 15:52:33:833 GMT +5 SubCancelPO Info [Adapter]  
AEPS8-4003031 Finished Processing...: FROM_SAP_CANCEL_PO.
```

Trace Message Fields

Each trace message includes the following fields:

Table 73 Tracing Fields

Field Name	Description
Timestamp	Timestamp of occurrence. For example, 2003 Feb 22 20:14:51:718 GMT -8.
Adapter Identifier	Name of the adapter that wrote the trace message. This is a combination of the adapter acronym and adapter configuration name. For example, the application identifier, adpsft8.publisher1 identifies a TIBCO Adapter for PeopleSoft service named publisher1.
Role	<p>A role can be:</p> <ul style="list-style-type: none">• Info. Indicates normal adapter operation. No action is necessary. A tracing message tagged with Info indicates that a significant processing step was reached and has been logged for tracking or auditing purposes. Only info messages preceding a tracking identifier are considered significant steps.• Warn. An abnormal condition was found. Processing will continue, but special attention from an administrator is recommended.• Error. An unrecoverable error occurred. Depending on the error severity, the adapter may continue with the next operation or may stop altogether.• Debug. A developer-defined tracing message. In normal operating conditions, debug messages should not display. <p>When configuring the adapter you define what roles should or should not be logged. For example, you may decide not to log Info roles to increase performance.</p>

Table 73 Tracing Fields

Field Name	Description
Category	<p>One of the following:</p> <ul style="list-style-type: none"> • Adapter. The adapter is processing an event. • Application. The adapter is interacting with PeopleSoft. • Configuration. The adapter is reading configuration information. • Database. The adapter is interacting with a database. • DTA. (Design-time adapter) The trace message if from the DTA. • Metadata. The adapter is retrieving metadata from PeopleSoft. • Palette. The adapter is interacting with the palette. • Publisher Service. The publication service is reporting this trace message. • Request-Response Client Service. The request-response invocation service is reporting this trace message. • Request-Response Server. The request-response service is reporting this trace message. • Shutdown. The adapter is shutting down. • Startup. The adapter is starting. • Subscription Service. The subscription service is reporting this trace message. • System. This category is not linked to a specific event process. The trace message may be related to a Microsoft Windows service related messages, memory allocation, file system error, and so on. • TibRvComm. The adapter is communicating with TIBCO Rendezvous. • XML. The adapter is parsing XML documents.
Status Code	<p>Unique code for the message and description. Status codes are identified by a unique number and description. If a trace message includes an error or warn role, the status code documentation includes a resolution. See Status Messages on page 189 for details.</p>

Table 73 Tracing Fields

Field Name	Description
Tracking Identifier	<p>A unique identifier that is "stamped" on each message by the originating adapter. The tracking identifier remains in effect from a message's beginning to its completion as it is exchanged by TIBCO applications. If the adapter is the termination point of the message, the tracking identifier is not displayed in the trace message.</p> <p>You cannot modify the tracking identifier format or configure what information is displayed.</p>
Application Information	<p>Application-specific information added to the tracking info to trace the message back to its source. Set initially by the originating adapter and carried forward. It is augmented by each intermediate component.</p>

Status Messages

In environments where multiple applications are used simultaneously, the possible status of messages increases as well. This chapter lists the various messages in numerical order.



Resolutions are provided wherever possible for error and warning messages. If there is no resolution provided, or if you need additional help, contact TIBCO Support at <http://support.tibco.com>.

Message	Category	Resolution
AEPS8-3400100	PSDTA ready to serve requests from Designer...	
	Information Metadata	Indicates normal adapter operation. No action necessary.
AEPS8-3400101	Established connection to application server with parameters: opr %1, server %2.	
	Information Metadata	Indicates normal adapter operation. No action necessary.
AEPS8-3400102	Sending discovery message to find other running instances of PSDTA on subject %1, service %2.	
	Information Metadata	Indicates normal adapter operation. No action necessary.
AEPS8-3400103	Assuming master status.	
	Information Metadata	Indicates normal adapter operation. No action necessary.
AEPS8-3400104	Received Reply to Discovery Request.	
	Information Metadata	Indicates normal adapter operation. No action necessary.

Message		Category	Resolution
AEPS8-3400105	SaveOperation successfully saved %1 publication service to PeopleSoft database.		
	Information	Metadata	Indicates normal adapter operation. No action necessary.
AEPS8-3400106	Advisory Message %1		
	Information	Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-3400107	The current adapter instance skipped the event %1 with sequence number %2 as it is locked		
	Information	Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-3400200	An instance of PSDTA is already available on %1.		
	Error	Metadata	Change DTA RV Service value
AEPS8-3400400	Connection to the app server failed with the following parameters : ID %1, server and port %2.		
	Error	Metadata	Check connection parameters to the application server
AEPS8-3400401	Invalid Parameter used with reply.set or request.get		
	Error	Metadata	Make sure the schemas in the repository are configured properly.
AEPS8-3400403	Error while getting the list of CIs, check PeopleSoft Project'		
	Error	Metadata	Check permissions to TIB CIs
AEPS8-3400404	Error while appending Business component name to sequence.		
	Error	Metadata	Make sure the Design-time adapter is up.
AEPS8-3400405	Connection params %1 may be invalid or appserver may be down.		
	Error	Metadata	Check connection parameters to the application server

Message	Category	Resolution
AEPS8-3400406	PeopleSoft generated a JOAException	
Error	Metadata	Check if the PeopleSoft Application Server and the database are up.
AEPS8-3400407	Error while getting the list CI fields, check PeopleSoft Project.	
Error	Metadata	Check PeopleSoft project
AEPS8-3400408	SDK operation error in getCIIImpl.java.	
Error	Metadata	Make sure that the Design Time Adapter is up.
AEPS8-3400409	A Component Interface does not exist for specified name %1.	
Error	Metadata	Check if specified CI exists in PeopleSoft system
AEPS8-3400410	SDK operation error in saveOperation.java.	
Error	Metadata	Make sure that the Design Time Adapter is up.
AEPS8-4001015	No Record Exists for the Specified Get Keys.	
Information	Application	Indicates normal adapter operation. No action necessary.
AEPS8-4001016	Record Exists for the Specified Create Keys.	
Information	Application	Indicates normal adapter operation. No action necessary.
AEPS8-4003000	Initializing Adapter....	
Information	System	Initializing Adapter....
AEPS8-4003001	Loading Information From Repository.	
Information	Configuration	Loading Information From Repository...
AEPS8-4003002	Connecting to Application Server.	
Information	Application	Connecting to Application Server.

Message	Category	Resolution
AEPS8-4003003	Registering hawk methods.	
	Information Configuration	Registering hawk methods.
AEPS8-4003004	Shutting down Adapter.	
	Information System	Shutting down Adapter.
AEPS8-4003005	Received an Event.	
	Information Adapter	Received an Event.
AEPS8-4003006	Processing Business Event %1	
	Information Adapter	Processing Business Event
AEPS8-4003007	Processing Event[TEST MODE] %1	
	Information Adapter	Processing Event[TEST MODE]
AEPS8-4003008	Received an RPC event.	
	Information Adapter	Received an RPC event.
AEPS8-4003009	Processing an RPC event %1.	
	Information Adapter	Processing an RPC event %1.
AEPS8-4003010	Incoming Business event has both GET and CREATE Keys specified, GETKEYS will take precedence.	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003011	No Records Found For GETKEY Value(s), will Create Record using CREATEKEY Value(s).	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003012	Successfully Created Keys.	
	Information Adapter	Indicates normal adapter operation. No action necessary.

Message	Category	Resolution
AEPS8-4003013	Calling Set Data for %1 and value is %2	
Information	Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003014	Retrieving Base Configuration Parameters.	
Information	Configuration	Indicates normal adapter operation. No action necessary.
AEPS8-4003015	Connection to Application Server succeeded with the following parameters :%1: %2,oprID : %3	
Information	Application	Indicates normal adapter operation. No action necessary.
AEPS8-4003016	Re-establishing connection to Application Server due to a previous error.	
Information	Application	Indicates normal adapter operation. No action necessary.
AEPS8-4003018	Adapter Initialized Successfully....	
Information	System	Indicates normal adapter operation. No action necessary.
AEPS8-4003019	Adapter Initialized Successfully in Test Mode.....	
Information	Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003050	Processing for the event %1 failed due to unavailability of JMS session.	
Information	Adapter	Check if the JMS server is up
AEPS8-4003051	Established connection to app server with parameters - server : %1, oprId : %2 for Publisher.	
Information	Application	Indicates normal adapter operation. No action necessary.

Message	Category	Resolution
AEPS8-4003052	Re-Established connection to app server with parameters - server : %1,oprId : %2 for Publisher.	
	Information Application	Indicates normal adapter operation. No action necessary.
AEPS8-4003053	Processing the event %1 with tracking Id %2	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003054	Processing of the data for the event %1 failed. Mqueue record status has NOT been set to E.	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003055	Processing of the data for the event %1 failed. Mqueue record status has been set to E.	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003056	Event %1 with tracking Id %2 was processed successfully. The record status has been set to P	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003057	Processing of the event %1 with sequence number %2 failed. The record has been stamped with guide %3 and record status has been set to E.	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003058	Queue Poller Polled Successfully...	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003059	Parsing the XML data from Mqueue table : Key name is %1 And Key Value is %2	
	Information Xml	Indicates normal adapter operation. No action necessary.

Message	Category	Resolution
AEPS8-4003061	The timer interval is %1	
	Information Configurati on	Indicates normal adapter operation. No action necessary.
AEPS8-4003062	0 is an invalid value for timer interval, overriding the same with %1	
	Information Configurati on	Indicates normal adapter operation. No action necessary.
AEPS8-4003063	Registering %1 as Publisher...	
	Information Configurati on	Indicates normal adapter operation. No action necessary.
AEPS8-4003064	No CI publishers found....	
	Information Configurati on	Indicates normal adapter operation. No action necessary.
AEPS8-4003065	Disconnected from Application Server.	
	Information Application	Indicates normal adapter operation. No action necessary.
AEPS8-4003066	%1 %2	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003067	No AM publishers found....	
	Information Configurati on	Indicates normal adapter operation. No action necessary.
AEPS8-4003020	Retrieving Subscriber Component Parameters	
	Information Configurati on	Indicates normal adapter operation. No action necessary.
AEPS8-4003021	Registering %1 as Subscriber	
	Information Configurati on	Indicates normal adapter operation. No action necessary.

Message		Category	Resolution
AEPS8-4003022	Registering %1 as RPC Server		
	Information	Configurati on	Indicates normal adapter operation. No action necessary.
AEPS8-4003023	Sending Data on Explicit Subject: %1		
	Information	Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003024	Registering hawk methods.		
	Information	Configurati on	Indicates normal adapter operation. No action necessary.
AEPS8-4003025	Retrieving List of BusinessEvent subscriptions.		
	Information	Configurati on	Indicates normal adapter operation. No action necessary.
AEPS8-4003026	No Events Configured For this Subscriber.		
	Information	Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003027	Send Reply to RPC Event... %1		
	Information	Adapter	Send Reply to RPC Event.
AEPS8-4003028	Send Reply to RPC Event[TEST MODE]... %1		
	Information	Adapter	Send Reply to RPC Event[TEST MODE]...
AEPS8-4003029	Hawk Agents registered Successfully		
	Information	Configurati on	Indicates normal adapter operation. No action necessary.
AEPS8-4003030	No Hawk agent in the repository		
	Information	Adapter	Indicates normal adapter operation. No action necessary.

Message	Category	Resolution
AEPS8-4003031	Finished Processing..: %1	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003032	Processing %1 Failed	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4003033	Caught Base Error %1	
	Information Application	Indicates normal adapter operation. No action necessary.
AEPS8-4003034	Received shutdown event	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4002000	Failed to find Error Message %1 in %2	
	Warning Configuration	Unjar the package that has the message bundle to see if the message code is there
AEPS8-4002001	Business Event%1 is not Configured.	
	Error Adapter	Configure a service for the event
AEPS8-4002002	Incoming Business event in has no Tracking Info.	
	Warning Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4002003	Advisory Message %1	
	Warning Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4001000	Instance Name is Null.	
	Error System	Unjar the package that has the message bundle to see if the message code is there

Message		Category	Resolution
AEPS8-4001001	Could not load information from Repository.		
	Error	System	Make sure that the repository is not corrupt. Use the 'Validate for deployment' option in the TIBCO Designer to validate the sanctity of the repository.
AEPS8-4001002	Could not establish connection to CI Agent.		
	Error	System	Check connection parameters to the application server
AEPS8-4001004	Could not Create Event Processor		
	Error	System	Make sure that the repository is not corrupt. Use the 'Validate for deployment' option in the TIBCO Designer to validate the sanctity of the repository.
AEPS8-4001005	Failed to Create MInstance from incoming Event.		
	Error	Adapter	Ensure that Message Conversion/Wire Format is set to AEMessage.
AEPS8-4001006	Incoming Message has its BusinessEvent Name as NULL.		
	Error	Adapter	Specify Event name in the message
AEPS8-4001007	Sending Data on Reply Address %1 Failed.		
	Error	Adapter	Check if the Reply Address specified in the request is correct.
AEPS8-4001008	Sending Data on Error Address %1 Failed.		
	Error	Adapter	Check if the Reply Address specified in the request is correct.
AEPS8-4001009	Failed to Create Reply Business Document.		
	Error	Adapter	Check if the Reply Address specified in the request is correct.

Message	Category	Resolution
AEPS8-4001010	Incoming Message is not in the Expected format.	
Error	Adapter	Check message format
AEPS8-4001011	The %1 is not in the CLASSPATH	
Error	Application	Ensure that Component Interface class is generated using buildCI.bat, and the files are in CLASSPATH
AEPS8-4001012	An Error has Occurred while invoking API GetComponent() on CI %1	
Error	Application	This error could be due to one of the following
AEPS8-4001013	Primary Key field %1 cannot be NULL	
Error	Adapter	Specify the key values in the message
AEPS8-4001014	A call to Find() method before %1 operation failed.	
Error	Application	Check permissions on the Component Interfaces included with TIB Project.
AEPS8-4001017	CREATE KEYS failed.	
Error	Application	Check if a record already exists for the given Create Keys, or if the data provided for creation is invalid.
AEPS8-4001018	Neither GET/CREATE Keys is Specified in the message.	
Error	Application	Specify GET/CREATE keys in the message
AEPS8-4001019	Find operation Failed on %2	
Error	Application	Test the above operation for the CI in PeopleSoft TestCI tool.
AEPS8-4001020	getPropertyByName(%1) operation Failed on %2	
Error	Application	Test the above operation for the CI in PeopleSoft TestCI tool.

Message		Category	Resolution
AEPS8-4001021	%1 operation Failed on %2		
	Error	Application	Test the above operation for the CI in PeopleSoft TestCI tool.
AEPS8-4001022	getPropertyByName (%1) operation Failed on %2		
	Error	Application	Test the above operation for the CI in PeopleSoft TestCI tool.
AEPS8-4001023	%1 operation Failed on %2		
	Error	Application	Test the above operation for the CI in PeopleSoft TestCI tool.
AEPS8-4001024	%1 operation Failed on %2		
	Error	Application	Test the above operation for the CI in PeopleSoft TestCI tool.
AEPS8-4001025	*****Error*****		
	Error	Application	Check the permissions granted to Component Interfaces imported with TIB Project.
AEPS8-4001028	Stack Trace %1		
	Error	Adapter	Tracing out an exception.
AEPS8-4001030	User Id cannot be NULL.		
	Error	Application	Specify a valid PeopleSoft User Id in the configuration
AEPS8-4001032	Server Name cannot be NULL.		
	Error	Application	Specify a valid PeopleSoft server name in the configuration
AEPS8-4001033	Port Number cannot be NULL.		
	Error	Application	Specify a valid port number in the configuration

Message		Category	Resolution
AEPS8-4001034	Operator Password cannot be NULL		
	Error	Application	Specify a valid PeopleSoft password in the configuration.
AEPS8-4001035	Incoming Message has PROPERTIES field as NULL.		
	Error	Application	Check the Properties value in the message.
AEPS8-4001036	Caught MException in PS8Adapter::main().		
	Error	Application	The adapter could not start up. See the accompanying stack trace.
AEPS8-4001037	Caught Exception in PS8Adapter::main().		
	Error	Application	The adapter could not start up. See the accompanying stack trace.
AEPS8-4001038	Failed to Disconnect from application server.		
	Error	Application	Check if the PeopleSoft Application Server is up.
AEPS8-4001039	Disconnected from Application Server.		
	Information	Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4001040	Error Creating %11		
	Error	Application	Check if the service has been configured properly.
AEPS8-4001041	Error Creating %1		
	Error	APPLICATION	Check if the service has been configured properly.
AEPS8-4001042	Error Creating %1		
	Error	APPLICATION	Check if the service has been configured properly.
AEPS8-4001043	%1 is a KEY field and cannot be NULL		
	Error	Application	Specify a valid value for the field.

Message		Category	Resolution
AEPS8-4001044	Method not Found %1.%2(%3)		
	Error	Application	Check the generated PeopleSoft APIs.
AEPS8-4001045	Failed to Connect to Appserver with Following Parameters %1:%2, OprID %3		
	Error	Application	Check connection parameters to the application server.
AEPS8-4001046	%1.. %2		
	Error	Adapter	Could not confirm the Data Event. Please restart the adapter.
AEPS8-4001047	%1.%2(%3) in setProperty(), unknown Data Type %3		
	Error	Adapter	Check the type of attributes in the incoming message.
AEPS8-4001048	Field/Direction Info is not loaded for Record %1		
	Error	Adapter	Please mention the direction info for all fields in the RPC Service schema.
AEPS8-4001049	[%2]Error Occurred While Loading Direction Information for Record %1		
	Error	Adapter	Please mention the direction information for all fields in the RPC Service schema.
AEPS8-4001051	User Id cannot be null		
	Error	Application	Specify valid user id in the configuration.
AEPS8-4001052	Password cannot be null		
	Error	Application	Specify valid password in the configuration.
AEPS8-4001053	Application server port cannot be null		
	Error	Application	Specify valid port in the configuration.
AEPS8-4001054	PeopleSoft application server name cannot be null		
	Error	Application	Specify valid server name in the configuration.

Message	Category	Resolution
AEPS8-4001055	Could not connect to app server with parameters - server : %1,oprId : %2 for Publisher.	
Error	Application	Check connection parameters to the application server.
AEPS8-4001056	Could not establish session with the application server	
Error	Application	Check application server.
AEPS8-4001057	Failed to disconnect from the application server with parameters - server : %1,oprId : %2 for Publisher.	
Error	Application	Check if the PeopleSoft Application Server is up.
AEPS8-4001059	Processing of the event %1 failed.	
Error	Adapter	Please check if the Publication Service is configured properly and the PeopleSoft Application Server and the Database are up.
AEPS8-4001060	Configuration for the publisher %1 doesn't exist in the repository'	
Error	Adapter	Check the publisher configuration
AEPS8-4001061	Exception occurred in loadCIClass: %1	
Error	Adapter	Ensure that the services are configured properly in the repository.
AEPS8-4001062	Exception occurred in loadClass: %1	
Error	Adapter	Ensure that the services are configured properly in the repository.
AEPS8-4001063	NullPointerException occurred in loadData for the class %1. The error message is : %2	
Error	Adapter	Ensure that the services are configured properly in the repository.
AEPS8-4001064	Exception occurred in getpsRepositoryInterface: %1	
Error	Adapter	Please make sure that the repository is not corrupt. Reconfigure if required.

Message		Category	Resolution
AEPS8-4001065	Function get(): Key cannot be null		
	Error	Adapter	Please make sure that the repository is not corrupt. Reconfigure if required.
AEPS8-4001066	Exception occurred in startTestTimer: %1		
	Error	Adapter	Ensure that the Publication Service is configured properly.
AEPS8-4001067	Exception occurred in startTimer: %1		
	Error	Adapter	Ensure that the Publication Service is configured properly.
AEPS8-4001068	Exception occurred while updating the Tib Status : %1		
	Error	Adapter	Ensure that the PeopleSoft Application Server and Database are up.
AEPS8-4001069	Exception occurred in getEventsFromQueue : %1		
	Error	Adapter	Ensure that the PeopleSoft Application Server and Database are up.
AEPS8-4001070	Error occurred while trying to update the event: %1 with sequence number : %2 with transition status. The error message is : %3		
	Error	Adapter	Ensure that the PeopleSoft Application Server and Database are up.
AEPS8-4001071	Dump of tracking information for the exception		
	Error	Adapter	Used for tracking.
AEPS8-4001072	Advisory Message %1		
	Error	Adapter	Used to trace out advisories.
AEPS8-4001073	No subscribers found...		
	Information	Configuration	Indicates normal adapter operation. No action necessary.

Message		Category	Resolution
AEPS8-4001074	The XML string data is malformed. Error : %1		
	Error	Adapter	Check if the XML string in the TIB_CI_MQUEUE table is intact.
AEPS8-4001075	Could not create PROPERTIES MInstance.		
	Error	Adapter	Ensure that the service is configured properly.
AEPS8-4001076	Could not create XML parser.		
	Error	Adapter	Make sure the memory allocated to the JVM is sufficient.
AEPS8-4001077	The incoming request has MInstance as null.		
	Error	Adapter	Check incoming request
AEPS8-4001078	%1		
	Error	Application	Used to trace out PeopleSoft errors.
AEPS8-4001079	Exception occurred in loadMSGClass: %1		
	Error	Adapter	Ensure that the services are configured properly in the repository
AEPS8-4001080	Exception occurred in startAppMsgPub: %1		
	Error	Adapter	Ensure that the services are configured properly in the repository
AEPS8-4001081	HTTP Listener for Application Messaging Publisher started on port %1...		
	Information	Configuration	Indicates normal adapter operation. No action necessary.
AEPS8-4001082	Received a message post from PeopleSoft...		
	Information	Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4001083	Received a ping from PeopleSoft...		
	Information	Adapter	Indicates normal adapter operation. No action necessary.

Message	Category		Resolution
AEPS8-4001084	Received an invalid request...		
	Information	Adapter	Indicates normal adapter operation. No action necessary.
AEPS8-4001085	The HTTP Listener could not be started as the port %1 is already in use		
	Error	Adapter	Change the port in the repository and restart the adapter.
AE_ADPSFT8_C ONN_1	Reconnect attempt %1.		
	Information	Application	Indicates normal adapter operation. No action necessary.
AE_ADPSFT8_C ONN_2	Reconnect succeeded on attempt %1.		
	Information	Application	Indicates normal adapter operation. No action necessary.
AE_ADPSFT8_C ONN_3	The request received could not be processed due to connection errors. Error reply sent back.		
	Error	Adapter	Ensure that the PeopleSoft Application Server and Database are up.
AE_ADPSFT8_C ONN_4	Adapter stopping due to persistent connection errors. Please check the PeopleSoft Application Server and restart adapter.		
	Error	Adapter	Ensure that the PeopleSoft Application Server and Database are up.
AE_ADPSFT8_C ONN_5	Subscription services suspended due to reconnect failure.		
	Information	Adapter	Indicates normal adapter operation. No action necessary.
AE_ADPSFT8_C ONN_6	Connection re-established; suspended services reactivated.		
	Information	Adapter	Indicates normal adapter operation. No action necessary.

Message	Category	Resolution
AE_ADPSFT8_C ONN_7	Operation did not succeed due to connection error in service %1. The operation will be reattempted.	
	Information Adapter	Indicates normal adapter operation. No action necessary.
AEADPSFT8-960 005	DTA connection error has occurred. Authentication failed for app server with connection parameters : ID %1, server and port %2.	
	Error Metadata	Recheck authentication parameters. Also, verify that the target system supports the requested authentication mechanism. Please refer to User Guide for details on the specification of connection parameters.
AEADPSFT8-960 006	DTA error. An error %1 has occurred while interfacing with target application %2	
	Error Metadata	Please verify whether the server is running.
AEADPSFT8-960 008	DTA error. Request received from DTA client. Not able to download requested schema %1 from target application PS	
	Error Metadata	Please check memory, disk space and other resources that target application API may be dependent on.
AEADPSFT8-960 009	DTA error. Request received from DTA client. Not able to download requested schema %1 from target application PeopleSoft AppServer.	
	Error Metadata	Check to see whether the data/schema exists on target application or server.
AEADPSFT8-960 017	DTA error. Shutdown of DTA caused exception %1.	
	Error Adapter	Please contact customer support for further assistance.
AEADPSFT8-960 014	DTA error. Received discovery request but missing attribute(s): %1.	
	Error Adapter	Please check if the palette and DTA are of the same version. Contact customer support for further assistance.

Message		Category	Resolution
AEADPSFT8-910011	Startup Error. Duplicate instance %1 detected.	Error	Adapter
			Please verify your repository settings for duplicate adapter instance name. Refer to User Guide.
AEADPSFT8-910010	Startup Error. Failed to load properties file from path %1 for Application %2 Error Message %3.	Error	Adapter
			Please verify that the locale is set to en_US on your m/c.
AEADPSFT8-910008	Startup Error. Received target application error with the target application PeopleSoft. The Connection pool size is %1	Error	Adapter
			Please verify your repository settings for validity of connection parameters. Refer to User Guide.
AEADPSFT8-910005	Startup Error. Unable to create a connection with the target application using connection parameters : ID %1, server and port %2.	Error	Adapter
			Please verify your repository settings. Refer to User's Guide.
AEADPSFT8-930001	Publication error. Publication service %1 with publishing on subject %2 encountered connection error while trying to connect to target application PeopleSoft Appserver. Connection parameters are Appserver= %3 port= %4 userid= %5 password= %6, and the number of retry efforts is %7.	Error	Adapter
			Check the target application and make sure it is up and running. Check the connection parameters for right syntax and values. Please refer to user guide for details on how to specify connection parameters.

Message	Category	Resolution
AEADPSFT8-930003	Publication error. Publication service %1 with publishing subject as %2 received event from target application PeopleSoft Appserver. It failed while converting event to Minstance as it could not get the class description for %3. Repository URL is %4 and the Configuration URL is %5.	
Error	Adapter	Please verify the configuration of the publication service and check that the schema/class definitions are present in the repository. Please refer to User Guide for details on how to configure a Publication service
AEADPSFT8-930007	Publication error. Publication service %1 with publication subject %2 received event from target application but could not create the business document %3. The target application is PeopleSoft Appserver, the Repository URL is %4 and the Configuration URL is %5	
Error	Adapter	Verify the configuration of the publication service and check that the schema definition for the MbusinessDocument maps properly to the event received from the target application. Please refer to User Guide for details on how to configure a Publication service
AEADPSFT8-930008	Publication error. Publication service %1 with publication subject %2 received SDK Exception %3 while converting the event received from target application to Business Document. The exception occurred while setting the attribute %4 with value of %5 for Business Document %6. The target application is PeopleSoft AppServer, the Repository URL is %7 and Configuration URL is %8.	
Error	Adapter	Please verify the configuration of the publication service and check that the schema definition for the MbusinessDocument maps properly to the event received from the target application. Please refer to User Guide for details on how to configure a Publication service

Message	Category	Resolution
AEADPSFT8-930014	Publication error. Publication service %1 with publication subject %2 received error while sending event over the wire. The Publish endpoint details are %3	
Error	Adapter	Please verify the configuration of the publication service and check that the schema definition for the MbusinessDocument maps properly to the event received from the target application. Please refer to User Guide for details on how to configure a Publication service
AEADPSFT8-940001	Request-Response service %1 listening on %2 received an unexpected null incoming request. The Repository URL is %3 and the Configuration URL is %4.	
Error	Adapter	Please check the configuration of the application that is requesting the event and make sure that it matches the inbound event definition for the above Request-Response service. Please refer to User Guide for details on configuration of Request-Response service
AEADPSFT8-940005	Request-Response error. Request-Response service %1 failed to deserialize the received MServerRequest to MInstance: Received event on subject %2, SDK exception = %3. The Repository URL is %4 and the Configuration URL is %5	
Error	Adapter	Please check the configuration of the application that is requesting the event and make sure that it matches the inbound event definition for the above Request-Response service. Please refer to User Guide for details on configuration of Request-Response service.
AEADPSFT8-940007	Request-Response error. Error in incoming data for RPC service: %1 on subject: %2. Missing mandatory parameter %3 for RPC input class.	
Error	Adapter	Ensure that the incoming request has the "Name" specified.

Message	Category	Resolution
AEADPSFT8-940008	Request-Response error. Connection error in invocation of RPC service:%1 on subject:%2. Connection parameters are AppServerName=%3 ,Port=%4 , UserId=%5 ,Passwd=%6 .	
Error	Adapter	Check if the end application is up and running. Also verify the connection parameters that are specified in the repository.
AEADPSFT8-940009	Request-Response error. Request-Response failed due to target application invocation error.	
Error	Adapter	Please check the target application command and the parameters and make sure they are valid. Probably they can cut and paste the command on a target application GUI and verify that it succeeds. Please augment this paragraph depending on your target application.
AEADPSFT8-940010	Request-Response error. Request-Response service %1 listening on subject %2 failed to create Reply Business Object Error %3.	
Error	Adapter	Check the target application command and the parameters and make sure they are valid. Probably they can cut and paste the command on a target application GUI and verify that it succeeds. Please augment this paragraph depending on your target application. Please check the connection time out parameter in configuration file.
AEADPSFT8-990001	Shutdown error. Failed to deactivate the %1 timer. SDK exception = %2	
Error	Adapter	Restart the adapter.
AEADPSFT8-990002	Shutdown error. SDK cleanup exception = %1	
Error	Adapter	Check the configuration of the application that is publishing the event and make sure that it matches the inbound event definition for the above subscription service. Please refer to User Guide for details on configuration of subscription service

Message	Category	Resolution
AEADPSFT8-990005	Shutdown error. Error in disconnecting from target application.	
Error	Adapter	Ensure that the PeopleSoft Application Server and the database are up.
AEADPSFT8-920001	Subscription error. Subscription service %1 listening on subject %2 received an unexpected event. The Repository URL is %3 and the Configuration URL is %4.	
Error	Adapter	Check the configuration of the application that is publishing the event and make sure that it matches the inbound event definition for the above subscription service. Please refer to User Guide for details on configuration of subscription service.
AEADPSFT8-920002	Subscription error. Subscription service %1 listening on subject %2 failed to deserialize the event received. The Repository URL is %3 and the Configuration URL is %4.	
Error	Adapter	Check the configuration of the application that is publishing the event and make sure that it matches the inbound event definition for the above subscription service. Please refer to User Guide for details on configuration of subscription service.
AEADPSFT8-920003	Subscription error. Subscription service %1 listening on subject %2 received inbound event with null data. The Repository URL is %3 and the Configuration URL is %4.	
Error	Adapter	Make sure that the incoming event has data.
AEADPSFT8-920005	Subscription error. Subscription service %1 listening on subject %2 could not find the tracking data. The Repository URL is %3 and the Configuration URL is %4.	
Error	Adapter	Check the configuration of the application that is publishing the event and make sure that it matches the inbound event definition for the above subscription service. Please refer to User Guide for details on configuration of subscription service.

Message	Category	Resolution
AEADPSFT8-920007	Subscription error. Subscription service %1 listening on subject %2 could not get the class description. The Repository URL is %3 and the Configuration URL is %4.	
Error	Adapter	Please check the repository configuration for this service. Please refer to User Guide for details on how to configure, run and test the subscription service.
AEADPSFT8-920008	Subscription error. Subscription service %1 listening on subject %2 could not find the mandatory property %3. The Repository URL is %4 and the Configuration URL is %5.	
Error	Adapter	Check the configuration of the application that is publishing the event and make sure that it matches the inbound event definition for the above subscription service. Please refer to User Guide for details on configuration of subscription service.
AEADPSFT8-920010	Subscription error. Subscription service %1 listening on subject %2 received event with missing attributes in class. The Repository URL is %3 and the Configuration URL is %4.	
Error	Adapter	Check the configuration of the application that is publishing the event and make sure that it matches the inbound event definition for the above subscription service. Please refer to User Guide for details on configuration of subscription service.
AEADPSFT8-920014	Subscription error. Subscription service %1 listening on subject %2 could not process the inbound event due to connection error against target application PS.	
Error	Adapter	Check the target application and make sure it is up and running. Check the validity of the connection parameters. Please refer to User Guide for details on how to specify connection parameters. Please refer to User Guide for details on Connection Management.

Message	Category	Resolution
AEPS8-4001086	AEPS8_MORE_THAN_ONE_RECORD_EXISTS_FOR_GETKEYS. More than one record exists for the given GETKEYS.	
Error	Application	Specify the correct GETKEYS.
AEPSFT-100001	Palette error/Adapter Configuration names must have only alphanumeric characters with no embedded spaces and can be up to 80 characters long.	
Error	CONFIG	Please type in a valid name. Adapter Configuration names can only have alphanumeric characters and can be up to 80 characters long.
AEPSFT-100002	Palette error/The [%1] must be greater than [%2], and less than [%3].	
Error	CONFIG	The value specified must be greater than or equal to 0, and less than or equal to 65535.
AEPSFT-100003	Palette Error/Names of adapters of the same type must be unique.	
Error	CONFIG	Specify a unique name for the adapter instance
AEPSFT-100004	Connection Retry Mechanism Warning/This adapter version does not support connection retry mechanism. The values configured in the Runtime Connection tab will be ignored	
Warning	CONFIG	Indicates normal adapter operation. No action necessary.
AEPSFT-100005	Application Messaging Publisher/This adapter version %1 does not support Application Messaging, but an Application Messaging Publisher was found.	
Warning	CONFIG	Indicates normal adapter operation. No action necessary.
AEPSFT-100006	JMS Service Configured/This adapter version %1 does not support JMS services, but one was found.	
Warning	CONFIG	Indicates normal adapter operation. No action necessary.

Message	Category	Resolution
AEPSFT-100007	XML Wire Format found/This adapter version %1 does not support XML Wire Format	
	Warning CONFIG	XML wire format is supported by versions 5.x and above. In order to use it change version to 5.0 or 5.1
AEPSFT-100008	Mandatory Field Missing/The field [%1] is a mandatory field.	
	error CONFIG	Please specify a value for the field.
AEPSFT-100009	Palette error/The field [%1] must have only numeric values.	
	Error CONFIG	Specify a valid numeric value for the field.
AEPSFT-100010	Palette Error/Could not bind to PeopleSoft Application Server.The entered machine name %1'inthe'%2'fielddoesnotexist.'	
	Error CONFIG	Please enter a valid value for the field.
AEPSFT-100011	Invalid Service name:/Service name can only contain alphanumeric characters with no embedded spaces and cannot exceed maximum length of 80 characters.	
	Error CONFIG	Please type in a valid name. Adapter Configuration names can only have alphanumeric characters and can be up to 80 characters long.
AEPSFT-100012	Invalid Subject/The subject specified is invalid.	
	error CONFIG	Specify a valid subject name for the service.
AEPSFT-100013	Palette Error/Selected Reference does not refer an EndPoint.Please select a valid EndPoint Reference.	
	Error CONFIG	Select a valid endpoint reference.
AEPSFT-100014	Missing configuration data/No message has been selected.	
	Error CONFIG	Please select a Message using Fetch Message...

Message		Category	Resolution
AEPSFT-100015	Missing configuration data/No Component Interface has been selected.		
	Error	CONFIG	Please select a Component Interface using Fetch Interface...
AEPSFT-100016	Get Schema failed/The schema was not fetched for the service.Please ensure that the aeschema file is writable.		
	Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the Instance.aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100017	Cannot Delete/The resource could not be deleted.Please ensure that the aeschema file is writable.		
	Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the Instance.aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100018	Cannot Paste Service/The service could not be pasted.Please ensure that the aeschema file is writable.		
	Error	CONFIG	Ensure that the Schema folders for this instance in which this service is present are writable. Ensure that the Instance.aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100019	Cannot Rename/The adapter configuration could not be renamed.Please ensure that the aeschema file is writable.		
	error	CONFIG	Please select a Component Interface using Fetch Interface...
AEPSFT-100020	Global Variables File Read-Only		
	Error	CONFIG	Check out the Global variables file.
AEPSFT-100021	Global Variable files needs to be checked out in order to successfully create the adapter.		
	Error	CONFIG	Check out the Global variables file.

Message		Category	Resolution
AEPSFT-100022	Error During Rename: Read-Only File		
	Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the Instance.aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100023	The resource %1 could not be renamed. Rename requires the "%2" must be checked out. Please checkout the resource and try renaming again. You can select the resource to be checked out by clicking the "Go To Resource" button.		
	Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the Instance.aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100024	Error During Delete: Read-Only File		
	Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the Instance.aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100025	The resource "%1" could not be deleted. Delete requires that "%2" must be checked out. Please checkout the resource and try deleting again. You can select the resource to be checked out by clicking the "Go To Resource" button.		
	error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the Instance.aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100026	Error: Read-Only File		
	Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the Instance.aeschema and businessObjects.aeschema files for this instance are checked out.

Message	Category	Resolution
AEPSFT-100027	The operation on Resource " %1 " could not be completed.The operation requires that " %2 " must be checked out.Please ensure that the file is checked out.You can select the resource to be checked out by clicking the "Go To Resource" button	
Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the Instance.aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100028	Warning: Add File to RCS	
Warning	CONFIG	Ensure that the resources that are created on this operation are checked into the RCS.
AEPSFT-100029	Warning: "%1" was created during schema generation.	
Warning	CONFIG	Ensure that the resources that are created on this operation are checked into the RCS.
AEPSFT-100030	Error During Move: Read-Only File	
Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the Instance.aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100031	The resource %1 could not be moved. Move requires that " %2 " must be checked out. Please checkout the resource and try moving again. You can select the resource to be checked out by clicking the "Go To Resource" button.	
error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the Instance.aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100032	Invalid Value/Please specify a valid integer as value for the [%1] field.	
Error	CONFIG	Specify a valid integer as a value for the field.

Message	Category	Resolution
AEPSFT-100034	Could not bind to the PeopleSoft Application Server.The entered machine name in the "adpsft8.connection.appserver" global variable does not exist.\n The value entered will get reset to the original value only on save.	
Warning	CONFIG	Save the repository.
AEPSFT-110001	DTA Connection Failure/The Design Time Connection has failed.	
Error	DTA	Verify if the Design-time adapter is up and running
AEPSFT-110002	Class Not Found/Could not find the Class.Error: %1. Error during connection to DTA.	
Error	DTA	Ensure that the psjoa.jar is in the path and is compatible with the PeopleTools version being used.
AEPSFT-110003	DTA Connection Successful/The Design-Time Adapter Connection is successful.	
Information	DTA	Indicates normal adapter operation. No action necessary.
AEPSFT-110004	Connection Successful/Connection parameters are valid.A test connection is successful.	
Information	DTA	Indicates normal adapter operation. No action necessary.
AEPSFT-110005	Palette Error/Connection to Design-Time Adapter is not established.	
Warning	DTA	Ensure that the palette-DTA connection is established.
AEPSFT-110006	Save Failed/Publication Service : %1 could not be saved into PeopleSoft System.Error: %2.	
error	DTA	Ensure that the DTA and application server are up and running and that the user has full permissions on the CI's included with the Project.

Message	Category	Resolution
AEPSFT-110007	Palette Error/Unable to initialize DTA client.DTA client instance could not be initialized with repository file.Error: %1.	
Error	DTA	Ensure that the palette dat is in the lib/palettes directory.
AEPSFT-110008	Palette error/DTA client request has timed out.Please check whether DTA server is running.	
Error	DTA	Check whether the design-time adapter is running.
AEPSFT-110009	DTA DisConnection Failure/The Design Time disconnect has failed with the parameters: \nApplication Server: %1, User Id: %2, Port: %3.	
Error	DTA	Ensure that the parameters passed for the connection are valid.
AEPSFT-120001	Duplicate Service/There cannot be two services configured for the same Message [%1] in a PeopleSoftAdapterConfiguration resource.	
Error	SRVC	Configure the message under a different instance or configure a different message in this instance.
AEPSFT-120002	Duplicate Service/There cannot be two services configured for the same Component Interface [%1] in a PeopleSoftAdapterConfiguration resource.	
Error	SRVC	Configure the CI under a different instance or configure a different CI in this instance.
AEPSFT-120003	Palette Error/Get Schema Failed.%1.	
Error	SRVC	Ensure that the design-time adapter is running.
AEPSFT-120004	Invalid Service Name/The Message Name cannot be blank. Please select a valid Message by using Fetch Message.	
error	SRVC	Please select a valid message by using Fetch Message.

Message	Category		Resolution
AEPSFT-120005	Invalid Service name/For a given Adapter Configuration, only one Service can be created for a particular Message and the Message cannot be Blank		
Error	SRVC	Ensure that for a given Adapter Configuration, only one Service is created for a particular Message and the Message field is not blank.	
AEPSFT-120006	Invalid Message/The Message %1' does not exist in the PeopleSoft System. Please select Message by using Fetch Message.'		
Error	SRVC	Select a valid message by using the Fetch Message button.	
AEPSFT-120007	Invalid Message/Failed to Verify Message in PeopleSoft System. Please Check the Connection to the PeopleSoft System.		
Error	SRVC	Check the connection to PeopleSoft System. Ensure that the design-time adapter is up and running.	
AEPSFT-120008	Invalid Service Name/The Component Interface Name cannot be blank. Please select a valid Component Interface by using Fetch Interface.		
Error	SRVC	Select a valid CI by using the Fetch Interfaces button.	
AEPSFT-120009	Invalid Service name/For a given Adapter Configuration, only one Service can be created for a particular Component Interface and the Component Interface cannot be Blank		
Error	SRVC	Ensure that for a given adapter configuration, only one Service is created for a particular CI and the CI field is not blank.	
AEPSFT-120010	Invalid Component Interface / The CI %1' does not exist in the PeopleSoft System. Please select CI by using' Fetch Interface.'		
Error	SRVC	Please select a CI using the Fetch Interface button.	

Message	Category		Resolution
AEPSFT-120011	Invalid Component Interface/Failed to Verify Component Interface in PeopleSoft System. Please Check Connection to PeopleSoft System.		
	error	SRVC	Check the connection to the PeopleSoft System. Ensure that the design-time adapter is up and running.
AEPS8-4003050	AEPS8_PUB_JMS_SERVER_UNAVAILABLE. Processing for the event %1 failed due to unavailability of JMS session.		
	Information	Adapter	Bring up the JMS server and restart the adapter.
AEPSFT-100001	Palette error/Adapter Configuration names must have only alphanumeric characters with no embedded spaces and can be up to 80 characters long.		
	Error	CONFIG	Please type in a valid name.Adapter Configuration names can only have alphanumeric characters and can be up to 80 characters long.
AEPSFT-100002	Palette error/The [%1] must be greater than [%2], and less than [%3].		
	Error	CONFIG	The value specified must be greater than or equal to 0, and less than or equal to 65535.
AEPSFT-100003	Palette Error/Names of adapters of the same type must be unique.		
	Error	CONFIG	Specify a unique name for the adapter instance
AEPSFT-100004	Connection Retry Mechanism Warning/This adapter version does not support connection retry mechanism. The values configured in the Runtime Connection tab will be ignored		
	Warning	CONFIG	Indicates normal adapter operation. No action necessary.
AEPSFT-100005	Application Messaging Publisher/This adapter version %1 does not support Application Messaging, but an Application Messaging Publisher was found.		
	Warning	CONFIG	Indicates normal adapter operation. No action necessary.

Message	Category	Resolution
AEPSFT-100006	JMS Service Configured/This adapter version %1 does not support JMS services, but one was found.	
	Warning CONFIG	Indicates normal adapter operation. No action necessary.
AEPSFT-100007	XML Wire Format found/This adapter version %1 does not support XML Wire Format	
	Warning CONFIG	XML wire format is supported by versions 5.x and above. In order to use it change version to 5.0 or 5.1
AEPSFT-100008	Mandatory Field Missing/The field [%1] is a mandatory field.	
	Error CONFIG	Please specify a value for the field.
AEPSFT-100009	Palette error/The field [%1] must have only numeric values.	
	Error CONFIG	Specify a valid numeric value for the field.
AEPSFT-100010	Palette Error/Could not bind to PeopleSoft Application Server. The entered machine name %1'in the'%2'field does not exist.'	
	Error CONFIG	Please enter a valid value for the field.
AEPSFT-100011	Invalid Service name:/Service name can only contain alphanumeric characters with no embedded spaces and cannot exceed maximum length of 80 characters.	
	Error CONFIG	Please type in a valid name.Adapter Configuration names can only have alphanumeric characters and can be up to 80 characters long.
AEPSFT-100012	Invalid Subject/The subject specified is invalid.	
	Error CONFIG	Specify a valid subject name for the service.
AEPSFT-100013	Palette Error/Selected Reference does not refer an EndPoint. Please select a valid EndPoint Reference.	
	Error CONFIG	Select a valid endpoint reference.

Message		Category	Resolution
AEPSFT-100014	Missing configuration data/No message has been selected.		
	Error	CONFIG	Please select a Message using Fetch Message...
AEPSFT-100015	Missing configuration data/No Component Interface has been selected.		
	Error	CONFIG	Please select a Component Interface using Fetch Interface...
AEPSFT-100016	Get Schema failed/The schema was not fetched for the service. Please ensure that the aeschema file is writable.		
	Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the instance .aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100017	Cannot Delete/The resource could not be deleted. Please ensure that the aeschema file is writable.		
	Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the instance .aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100018	Cannot Paste Service/The service could not be pasted. Please ensure that the aeschema file is writable.		
	Error	CONFIG	Ensure that the Schema folders for this instance in which the service is present, are writable. Ensure that the instance .aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100019	Cannot Rename/The adapter configuration could not be renamed. Please ensure that the aeschema file is writable.		
	Error	CONFIG	Please select a Component Interface using Fetch Interface...
AEPSFT-100020	Global Variables File Read-Only		
	Error	CONFIG	Check out the Global variables file.

Message	Category	Resolution
AEPSFT-100021	Global Variable files needs to be checked out in order to successfully create the adapter.	
Error	CONFIG	Check out the Global variables file.
AEPSFT-100022	Error During Rename: Read-Only File	
Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the instance .aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100023	The resource %1 could not be renamed. Rename requires the "%2" must be checked out. Please checkout the resource and try renaming again. You can select the resource to be checked out by clicking the "Go To Resource" button.	
Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the instance .aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100024	Error During Delete:Read-Only File	
Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the instance .aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100025	The resource "%1" could not be deleted. Delete requires that "%2" must be checked out. Please checkout the resource and try deleting again. You can select the resource to be checked out by clicking the "Go To Resource" button.	
Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the instance .aeschema and businessObjects.aeschema files for this instance are checked out.

Message		Category	Resolution
AEPSFT-100026	Error: Read-Only File		
	Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the instance .aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100027	The operation on Resource " %1 " could not be completed.The operation requires that " %2 " must be checked out.Please ensure that the file is checked out.You can select the resource to be checked out by clicking the "Go To Resource" button		
	Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the instance .aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100028	Warning: Add File to RCS		
	Warning	CONFIG	Ensure that the resources that are created on this operation are checked into the RCS.
AEPSFT-100029	Warning: "%1" was created during schema generation.		
	Warning	CONFIG	Ensure that the resources that are created on this operation are checked into the RCS.
AEPSFT-100030	Error During Move: Read-Only File		
	Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the instance .aeschema and businessObjects.aeschema files for this instance are checked out.
AEPSFT-100031	The resource %1 could not be moved. Move requires that " %2 " must be checked out. Please checkout the resource and try moving again. You can select the resource to be checked out by clicking the "Go To Resource" button.		
	Error	CONFIG	Ensure that the Schema folders for this instance are writable. Ensure that the instance .aeschema and businessObjects.aeschema files for this instance are checked out.

Message	Category	Resolution
AEPSFT-110001	DTA Connection Failure/The Design Time Connection has failed.	
Error	DTA	Verify if the Design-time adapter is up and running
AEPSFT-110002	Class Not Found/Could not find the Class.Error: %1. Error during connection to DTA.	
Error	DTA	Ensure that the psjoa.jar is in the path and is compatible with the PeopleTools version being used.
AEPSFT-110003	DTA Connection Successful/The Design-Time Adapter Connection is successful.	
Information	DTA	Indicates normal adapter operation. No action necessary.
AEPSFT-110004	Connection Successful/Connection parameters are valid. A test connection is successful.	
Information	DTA	Indicates normal adapter operation. No action necessary.
AEPSFT-110005	Palette Error/Connection to Design-Time Adapter is not established.	
Warning	DTA	Ensure that the palette-DTA connection is established.
AEPSFT-110006	Save Failed/Publication Service : %1 could not be saved into PeopleSoft System.Error: %2.	
Error	DTA	Ensure that the DTA and application server are up and running and that the user has full permissions on the CI's included with the Project.
AEPSFT-110007	Palette Error/Unable to initialize DTA client. DTA client instance could not be initialized with repository file.Error: %1.	
Error	DTA	Ensure that the palette.dat is in the lib/palettes directory.

Message	Category	Resolution
AEPSFT-120001	Duplicate Service/There cannot be two services configured for the same Message [%1] in a PeopleSoftAdapterConfiguration resource.	
Error	SRVC	Configure the Message under a different instance or configure a different message in this instance.
AEPSFT-120002	Duplicate Service/There cannot be two services configured for the same Component Interface [%1] in a PeopleSoftAdapterConfiguration resource.	
Error	SRVC	Configure the CI under a different instance or configure a different CI in this instance.
AEPSFT-120003	Palette Error/Get Schema Failed.%1.	
Error	SRVC	Please ensure that the DTA is up and running.
AEPSFT-120004	Invalid Service Name/The Message Name cannot be blank. Please select a valid Message by using Fetch Message.	
Error	SRVC	Please select a valid Message by using Fetch Message.
AEPSFT-120005	Invalid Service name/For a given Adapter Configuration, only one Service can be created for a particular Message and the Message cannot be Blank	
Error	SRVC	Please ensure that for a given adapter configuration, only one Service is created for a particular Message and the Message field is not blank.
AEPSFT-120006	Invalid Message/The Message '%1' does not exist in the PeopleSoft System. Please select Message by using Fetch Message.'	
Error	SRVC	Please select a valid message by using the Fetch Message button.
AEPSFT-120007	Invalid Message/Failed to Verify Message in PeopleSoft System. Please Check the Connection to the PeopleSoft System.	
Error	SRVC	Check the connection to the PeopleSoft System. Ensure that the DTA is up and running.

Message	Category	Resolution
AEPSFT-120008	Invalid Service Name/The Component Interface Name cannot be blank. Please select a valid Component Interface by using Fetch Interface.	
Error	SRVC	Select a valid CI by using the Fetch Interface button.
AEPSFT-120009	Invalid Service name/For a given Adapter Configuration, only one Service can be created for a particular Component Interface and the Component Interface cannot be Blank	
Error	SRVC	Ensure that for a given Adapter Configuration, only one Service is created for a particular CI and the CI field is not blank.
AEPSFT-120010	Invalid Component Interface/The CI %1'does not exist in the PeopleSoft System. Please select CI by using 'FetchInterface.'	
Error	SRVC	Please select a CI using the Fetch Interface button.
AEPSFT-120011	Invalid Component Interface/Failed to Verify Component Interface in PeopleSoft System. Please Check Connection to PeopleSoft System.	
Error	SRVC	Check the Connection to the PeopleSoft System. Ensure that the DTA is up and running.
AEPS8-4001087	Startup Warning. Password decryption was unsuccessful.	
Warning	Adapter	Password could not be decrypted and hence will be used as-is. This is a warning. No action required.
AEPS8-4003050	AEPS8_PUB_JMS_SERVER_UNAVAILABLE. Processing for the event %1 failed due to unavailability of JMS session.	
Information	Adapter	Bring up the JMS server and restart the adapter.
AEPS8_620001	Activated Worker Threads for PeopleSoft IB Message processing.	
Information	Adapter	If any of the IB Services are configured, the Worker thread for processing IB message should be started.

Message	Category		Resolution
AEPS8_620002	Error while building PeopleSoft IB message.		
	Information	Adapter	Verify that Schema for the configured message is right.
AEPS8_620003	Java JNDI Naming Error for Message Subscriber.		
	Information	Adapter	Verify that the JNDI URL specified for Message Subscriber is correct.
AEPS8_620004	Unable to send Message over JMS.		
	Information	Adapter	Verify that the respective Topic or Queue is present in the JMS Server.
AEPS8_620005	Invalid HTTP Url please configure valid URL of PeopleSoft IB Subscriber.		
	Information	Adapter	Configure the valid HTTP URL for Message Subscriber.
AEPS8_620006	Invalid HTTP Network please check whether IB Server is up and running.		
	Information	Adapter	Check whether the IB Server is up and running.
AEPS8_620007	Error while reading and writing to the IO Stream.		
	Information	Adapter	The Subscriber must have been configured with a wrong HTTP URL. Provide the right URL and restart the adapter.
AEPS8_620008	Error Parsing HTTP Response XML.		
	Information	Adapter	The Subscriber must have been configured with a wrong HTTP URL. Provide the right URL and restart the adapter.
AEPS8_620009	%1 Service not interested in the message %2.		
	Information	Adapter	The message sent by IB is different from the one configured for Subscription. Send a message similar to the one configured.

Message	Category	Resolution
AEPS8_620010	%1 Event Added on the worker queue.	
Information	Adapter	The Event received from PeopleSoft IB is added on the Queue for further processing.
AEPS8_620101	Registering %1 as RPC Client...	
Information	Adapter	If RPC Client is configured, the log should show that the Request-Response Invocation Service has been registered.
AEPS8_620102	Unhandled Exception while processing rpcclient.	
Information	Adapter	Could not handle the exception. Restart the adapter.
AEPS8_620103	Thread interrupted while putting the job on the Queue.	
Information	Adapter	Indicates normal adapter operation. No Action required.
AEPS8_620104	Ping executed with error for rpcclient.	
Information	Adapter	Could not confirm the Data Event. Restart the adapter.
AEPS8_620105	rpcclient timeout error.	
Information	Adapter	Change the timeout property in the SubscriberOptions tab, and check whether the RPC-Client process is up and running.
AEPS8_620106	Error while processing XML message for rpcclient.	
Information	Adapter	Verify that the right message structure has been sent to the RPC-Client Service. Monitor the message in PeopleSoft for more information.
AEPS8_620107	Error while sending reply for rpcclient.	
Information	Adapter	Verify whether the JMS Server is running.

Message		Category	Resolution
AEPS8_620108	Error while getting PeopleSoft IB Message for RPCClient.		
	Information	Adapter	Verify that the right message structure has been sent to the RPC-Client Service. Monitor the message in PeopleSoft for more information.
AEPS8_620152	Started processing for rpcclient.		
	Information	Adapter	Indicates normal adapter operation. No action required.
AEPS8_620153	Ended processing for rpcclient successfully.		
	Information	Adapter	Indicates normal adapter operation. No action required.
AEPS8_620154	Job added on the Queue for rpcclient.		
	Information	Adapter	Indicates normal adapter operation. No action required.
AEPS8_620301	Error sending IB Request xml data to PeopleSoft IB for messagesubscriber.		
	Information	Adapter	Could not confirm the Data Event. Verify that the JMS Server is running, and restart the adapter.
AEPS8_620302	UnHandled Exception while processing message subscriber.		
	Information	Adapter	Could not handle the exception. Restart the adapter.
AEPS8_620351	Started processing for message subscriber.		
	Information	Adapter	Indicates normal adapter operation. No action required.
AEPS8_620352	Ended processing for message subscriber successfully.		
	Information	Adapter	Indicates normal adapter operation. No action required.

Message	Category		Resolution
AEPS8_620501	UnHandled Exception while processing message publisher.		
	Information	Adapter	Could not handle the exception. Restart the adapter.
AEPS8_620551	Started processing for message publisher.		
	Information	Adapter	Indicates normal adapter operation. No action required.
AEPS8_620552	Ended processing for message publisher successfully.		
	Information	Adapter	Indicates normal adapter operation. No action required.

Appendix C Troubleshooting

This appendix lists troubleshooting information.

Topics

- [Running adpsft8.exe failed, page 236](#)
- [Clicking on the Fetch Interface button returns an MTimeoutException, page 241](#)
- [When the adapter is running there is a registration collision, page 242](#)
- [The adapter prints a stacktrace at each polling interval, page 243](#)
- [The adapter is not publishing data that has been entered, page 244](#)
- [The adapter printed an error message immediately after receiving a business event, page 245](#)
- [While processing, the adapter failed to set a value in the date field, page 246](#)
- [Data processing caused a GetComponent\(\) API message error, page 247](#)
- [Data successfully received and processed is not reflected in the table, page 248](#)
- [A successfully processed record has extra rows in the database, page 250](#)
- [The palette cannot connect to the DTA, page 251](#)
- [Connection to PeopleSoft failed, page 252](#)
- [‘Method not found’ error displayed by the Adapter, page 254](#)

Running adpsft8.exe failed

Symptom 1

When I run adpsft8.exe from a command prompt it returned an error stating "connection <n>.dat failed" as follows:

```
com.tibco.sdk.MException: Operation error: connection myRepo.dat
failed.
    at com.tibco.sdk.properties.MRepoPropertiesRegistry.<init>
(MRepoPropertiesRegistry.java:100)
    at com.tibco.sdk.properties.MRepoPropertiesRegistry.<init>
(MRepoPropertiesRegistry.java:51)
    at com.tibco.sdk.MApp.connectToRepo(MApp.java:363)
    at com.tibco.sdk.MDefaultApp.start(MDefaultApp.java:242)
    at com.tibco.sdk.MApp.start(MApp.java:191)
    at com.tibco.adapter.ps.PS8Adapter.main(PS8Adapter.java:37)
Caught MException in PS8Adapter::main().
```

Probable Cause

The connection to the specified repository failed because the adapter could not locate the repository.

Solution

If you specified a remote repository for the `tibco.repourl` property in the `.tra` file make sure the applicable repository server is up. If you specified a local repository file in the `<repositoryInstance>` parameter, make sure the path is correct and the file is not corrupted.

Symptom 2

When I run adpsft8.exe from a command prompt it returned an error stating "transport is null" as follows:

```
2001 Sep 20 17:16:23:922 ps8Adapter.inst Error [Adapter]
AEPS8-4001028 Stack Trace java.lang.IllegalArgumentException:
transport is null
    at com.tibco.tibrv.TibrvListener.init(TibrvListener.java:67)
    at com.tibco.tibrv.TibrvListener.<init>(TibrvListener.java:58)
    at com.tibco.tibrv.TibrvCmListener.<init>
(TibrvCmListener.java:37)
    at com.tibco.sdk.events.pubsub.MRvcSubscriber.listen
(MRvcSubscriber.java:173)
    at com.tibco.sdk.events.pubsub.MRvSubscriber.activate
(MRvSubscriber.java:125)
    at com.tibco.sdk.events.MSubscriber.activate
(MSubscriber.java:239)
    at com.tibco.sdk.internal.MStartup.activateComponent
(MStartup.java:148)
```

```

at com.tibco.sdk.MDefaultApp.activateComponents
(MDefaultApp.java:557)
at com.tibco.sdk.MDefaultApp.start(MDefaultApp.java:366)
at com.tibco.sdk.MApp.start(MApp.java:191)
at com.tibco.adapter.ps.PS8Adapter.main(PS8Adapter.java:37)

```

Probable Cause

The adapter failed during initialization when it was trying to set up the RVC transport. The failure occurred because the adapter was not able to create a ledger. This happens when another adapter configuration is running and has already locked a ledger file with the same name.

Solution

If you did not intend to have more than one adapter configuration running concurrently:

1. Start TIBCO Designer.
2. Open up the repository you have saved.
3. In the project tree panel, select the adapter configuration you are trying to start.
4. Change the ledger file name found under *Advanced/Sessions*.

If you do want to have more than one adapter configuration running concurrently, run the adapter configuration in another directory. For example, create a subdirectory under *TIBCO_HOME\adapter\adpsft8\version_number\bin* and call it *myInstance*. Copy *adpsft8.exe* and *adpsft8.tra* files. Modify the property application .args to reflect the correct path of the .tra file.

adpsft8.bat to
TIBCO_HOME\adapter\adpsft8\version_number\bin\myInstance and run the adapter from that location.

Symptom 3

When I run *adpsft8.exe* from a command prompt it returned an error stating "Failed to Connect to Appserver with Following Parameters" as follows:

```

2001 Sep 20 17:48:33:571 ps8Adapter.inst Info [Application]
AEPS8-4003002 Connecting to Application Server..
Jolt Session Pool cannot provide a connection to the appsever.
This appears to be because there is no available application
server domain.
Jolt Session Pool cannot provide a connection to the appsever.
This appears to be because there is no available application
server domain.

```

```
[Thu Sep 20 17:48:36 PDT 2001] bea.jolt.ServiceException: Invalid
Session
Application Server last connected
2001 Sep 20 17:48:36:856 ps8Adapter.inst Error [Adapter]
AEPS8-4001028 Stack Trace  com.tibco.sdk.MException: Failed to
Connect to Appserver with Following Parameters stan-dt:9050,
OprID VP1
    at com.tibco.adapter.ps.AdapterException.<init>
      (AdapterException.java:24)
    at com.tibco.adapter.ps.ComponentInterfaceAgent.<init>
      (ComponentInterfaceAgent.java:121)
    at com.tibco.adapter.ps.ComponentInterfaceAgent.getCIA
      (ComponentInterfaceAgent.java:69)
    at com.tibco.adapter.ps.JAdapterCore.onInitialization
      (JAdapterCore.java:105)
    at com.tibco.sdk.MDefaultApp.onInitialization
      (MDefaultApp.java:528)
    at com.tibco.sdk.MDefaultApp.start(MDefaultApp.java:346)
    at com.tibco.sdk.MApp.start(MApp.java:191)
    at com.tibco.adapter.ps.PS8Adapter.main(PS8Adapter.java:37)
2001 Sep 20 17:48:36:936 ps8Adapter.inst Error [Application]
AEPS8-4001036 Caught MException in PS8Adapter::main().
```

Probable Cause

The system is unable to locate a PeopleSoft Application Server domain. Either the application server is down or the TIBCO Repository stored an invalid application server host name and/or port number.

Solution

Double-check all the connection parameters (operator ID, password, application server name, and port number) in the repository. Verify that the database is up by login 2 tier using a PeopleSoft client. Verify that the application server is up and that the JSL process is alive and the JSL port matches the one stored in the repository.

Symptom 4

When I run adpsft8.exe from a command prompt it returned an error stating "Failed to Connect to Appserver with Following Parameters" as follows:

```
2001 Sep 20 17:58:00:346 ps8Adapter.inst Error [Adapter]
AEPS8-4001028 Stack Trace  com.tibco.sdk.MException: Failed to
Connect to Appserver with Following Parameters stan-dt:9050,
OprID VP2
    at com.tibco.adapter.ps.AdapterException.<init>
      (AdapterException.java:24)
    at com.tibco.adapter.ps.ComponentInterfaceAgent.<init>
      (ComponentInterfaceAgent.java:121)
    at com.tibco.adapter.ps.ComponentInterfaceAgent.getCIA
      (ComponentInterfaceAgent.java:69)
    at com.tibco.adapter.ps.JAdapterCore.onInitialization
```

```
(JAdapterCore.java:105)
at com.tibco.sdk.MDefaultApp.onInitialization
(MDefaultApp.java:528)
at com.tibco.sdk.MDefaultApp.start(MDefaultApp.java:346)
at com.tibco.sdk.MApp.start(MApp.java:191)
at com.tibco.adapter.ps.PS8Adapter.main(PS8Adapter.java:37)
2001 Sep 20 17:58:00:346 ps8Adapter.inst Error [Application]
AEPS8-4001036 Caught MException in PS8Adapter::main().
```

Probable Cause

The operator ID or password is invalid. A second possible cause is that the database is down but the PeopleSoft Application Server is up. A third possible cause is the wrong version of the PSJOA.JAR file is used. The PSJOA.JAR should belong to the same version of PeopleTools as the file being used by the BEA Tuxedo application server.

Solution

Double-check all the connection parameters (operator ID, password, application server name, and port number) in the repository. Verify that the database is up by login 2 tier using a PeopleSoft client. Verify that the application server is up and that the JSL process is alive and the JSL port matches the one stored in the repository.

Verify that the versions of the PeopleTools libraries being used by the adapter and the application server are the same.

Symptom 5

When I run adpsft8.exe from a command prompt it returned an error stating "NoClassDefFoundError: com/tibco/tibrv/*" as follows:

```
Exception in thread "main" java.lang.NoClassDefFoundError:
com/tibco/tibrv/TibrvException
at com.tibco.sdk.MApp.<init>(MApp.java:88)
at com.tibco.adapter.ps.JAdapterCore.<init>
(JAdapterCore.java:72)
at com.tibco.adapter.ps.PS8Adapter.main(PS8Adapter.java:35)
```

Probable Cause

The tibrvj.jar file is not correctly identified.

Solution

Add the path to tibrvj.jar to the environment variable CLASSPATH. By default this file is found in *TIBCO_HOME\tra\version_number*.

Symptom 6

When I run adpsft8.exe from a command prompt it returned an error stating "Substitution variable ... does not exist" as follows:

```
Processing /tibco/private/adapter/PeopleSoft/inst/ps8Adapter ...
com.tibco.sdk.MException: Invalid assoc key: startup.Substitution
variable HawkEnabled does not exist
    at com.tibco.sdk.properties.MRepoProperties.get
(MRepoProperties.java:242)
    at com.tibco.sdk.properties.MRepoProperties.get
(MRepoProperties.java:232)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.internalRead
(MPropertyBasedDeserializer.java:147)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.readOptional
(MPropertyBasedDeserializer.java:235)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.readOptional
(MPropertyBasedDeserializer.java:226)
    at com.tibco.sdk.serializer.MConfigDeserializer.readConfig
(MConfigDeserializer.java:49)
    at com.tibco.sdk.serializer.MConfigDeserializer.readAnySupportedType
(MConfigDeserializer.java:33)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.readAny
(MPropertyBasedDeserializer.java:202)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.deserialize
(MPropertyBasedDeserializer.java:33)
    at com.tibco.sdk.MDefaultApp.start(MDefaultApp.java:281)
    at com.tibco.sdk.MApp.start(MApp.java:191)
    Caught MException in PS8Adapter::main().
```

Probable Cause

The repository is missing a Hawk Enable global variable.

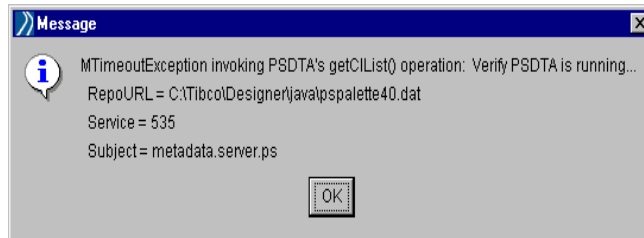
Solution

Start TIBCO Designer, then open the affected repository and add the missing global variable.

Clicking on the Fetch Interface button returns an MTimeoutException

Symptom

While configuring an adapter service, I clicked **Fetch Interface ...** and encountered following error:



Probable Cause

Either the TIBCO design-time adapter has not been started, or you have not granted permission to use TIB_CI_COMPINTFC.

Solution

1. Start the design-time adapter.
2. Log into PeopleSoft, go to the Maintain Security screen, and add TIB_CI_COMPINTFC to the list of Component Interfaces your operator class can use. Make sure full access is granted.

When the adapter is running there is a registration collision

Symptom

The following message appears on the adapter console:

```
{ADV_CLASS="ERROR" ADV_SOURCE="RVCM"  
ADV_NAME="REGISTRATION.COLLISION.PS8CM" name="PS8CM"  
confl_inbox="_INBOX.0A606495.1  
FD3BAA860E776030.1" confl_addr=10.96.100.149}
```

Probable Cause

Another TIBCO product is using the same RVCM name. As indicated in the message above, PS8CM is an RVCM name already being used on 10.96.100.149. An RVCM collision could cause thrashing (see TIBCO Rendezvous documentation) and compromise the quality of service.

Solution

Rename the RVCM session that the adapter configuration is using.

The adapter prints a stacktrace at each polling interval

Symptom

The following message repeats at each polling interval:

```
bea.jolt.ApplicationException: TPESVCFAIL - application level
service failure
    at bea.jolt.JoltRemoteService.decodeCALL(JoltRemoteService.java:405)
    at bea.jolt.JoltRemoteService.call(JoltRemoteService.java:323)
    at psft.pt8.net.NetReqRepSvc.sendRequest(NetReqRepSvc.java:376)
    at psft.pt8.net.NetService.requestService(NetService.java:144)
    at psft.pt8.joa.JOAService.joaRequestService(JOAService.java:49)
    at psft.pt8.joa.CISessionSvc.getComponent(CISessionSvc.java:31)
    at psft.pt8.joa.CI.getComponent(CI.java:29)
    at psft.pt8.joa.Session.getComponent(Session.java:46)
    at com.tibco.adapter.ps.PublisherEventHandler.getEventsfromQueue
(PublisherEventHandler.java:102)
    at com.tibco.adapter.ps.PublisherEventHandler.onEvent
(PublisherEventHandler.java:72)
    at com.tibco.sdk.events.EventHandoff.run(MEventSource.java:141)
    at java.lang.Thread.run(Unknown Source)
Cannot trace non MException or MRuntimeException class
2001 Sep 21 00:15:13:676 ps8Adapter.inst Info [Application]
AEPS8-4003052 "Re-Established connection to app server with
parameters - server : shsu-lt:9050,oprId : VP1 for Publisher."
```

Probable Cause

The adapter uses the TIB_MQUEUE_DATA_CI and TIB_MQUEUE_SRCH_CI Component Interface to poll the TIB_CI_MQUEUE table. If the login account has not been granted permission to use this Component Interface, then you will get this error. These objects can be found by using a PeopleSoft client and opening up the TIB_PS8_ADAPTER project.

Solution

1. Login to PeopleSoft.
2. Open the Maintain Security screen.
3. Select the operator class corresponding to the operator ID the adapter is using.
4. Add TIB_MQUEUE_DATA_CI and TIB_MQUEUE_SRCH_CI to the list of Component Interfaces.
5. Make sure full permission is granted, then save the changed list.

The adapter is not publishing data that has been entered

Symptom

After completing the configuration for an adapter configuration with a CI Publication Service, the configuration is saved to a repository instance. But when a PeopleSoft client is used to enter data, no entry is added to the `TIB_CI_MQUEUE` table. Thus the adapter configuration does not publish any data.

Probable Cause

While using TIBCO Designer to save the adapter configuration containing the CI Publication Service, it throws an error. When you save the configuration information to a TIBCO repository instance, a set of code checks to see if data needs to be saved to the PeopleSoft database. Saving data to the PeopleSoft database will need to be done if there is a CI PUBLICATION SERVICE configured. If the data is not saved to a PeopleSoft database, the publisher will not work correctly.

Solution

1. Check to see if permission has been granted to use the Component Interface you have configured, `TIB_PUB_COMPINTFC` (used by `saveOperation()` to save data to the PeopleSoft database), `TIB_MQUEUE_DATA_CI` (used by the publisher to retrieve queue records), `TIB_MQUEUE_SRCH_CI` (used by the publisher to retrieve queue records), and `TIB_CI_COMPINTFC` (used to read Component Interface definitions). Make sure the correct operator class is chosen and full access is granted.
2. Use TIBCO Designer and modify any parameter to cause the entire configuration to be "dirty".
3. Save the "dirty" configuration to the TIBCO Repository. If the data is correctly saved to PeopleSoft database you will see the following log message:

```
2001 Sep 21 00:43:17:607 psoftDesignTimeAdapter.psdt Info
[Metadata] AEPS8-3400
105 SaveOperation successfully saved ACCOUNT_TYPE publication
service to People Soft database
```
4. Make sure the `TIB_CI_ADAPTER_WRK` shadow work page has been inserted into the component the adapter will publish data in.

The adapter printed an error message immediately after receiving a business event

Symptom

As soon as the adapter receives a data message it prints out the following error message:

```
2001 Sep 21 01:09:09:131 ps8Adapter.sub Info [Adapter]
AEPS8-4003005 Received an Event.
com.tibco.sdk.MException: Incoming Message has its BusinessEvent
Name as NULL.
    at com.tibco.adapter.ps.AdapterException.<init>
      (AdapterException.java:22)
    at com.tibco.adapter.ps.SubscriberEventHandler.onEvent
      (SubscriberEventHandler.java:115)
    at com.tibco.sdk.events.pubsub.MRvDataReceiver.dispatch
      (MRvDataReceiver.java:292)
    at com.tibco.sdk.events.pubsub.MRvDataReceiver.onData
      (MRvDataReceiver.java:156)
    at com.tibco.sdk.events.pubsub.MBaseRvDataReceiver.onMsg
      (MBaseRvDataReceiver.java:81)
    at com.tibco.tibrv.TibrvEvent.invoke(TibrvEvent.java:160)
    at com.tibco.tibrv.TibrvImplQGroupC.natDispatch(Native Method)
    at com.tibco.tibrv.TibrvImplQGroupC.dispatch
      (TibrvImplQGroupC.java:67)
    at com.tibco.tibrv.TibrvQueueGroup.dispatch
      (TibrvQueueGroup.java:163)
    at com.tibco.sdk.MDefaultDispatcher.run(MDefaultDispatcher.java:26)
    at java.lang.Thread.run(Unknown Source)
```

Probable Cause

The name of the business event was left blank.

Solution

Fill in the business event name with the name of the Component Interface. If you do not use the Component Interface name as the business event name, the adapter will assume that your business event is not configured. Case matters: enter in the Component Interface name exactly as it appears in your schema or in PeopleSoft.

While processing, the adapter failed to set a value in the date field

Symptom

While the adapter was processing a message, no value was set in the date field, resulting in the following error message:

```

2001 Sep 21 01:16:37:216 ps8Adapter.sub Info [Adapter]
AEPS8-4003013 Calling Set Data for EFFDT and value is 1900/01/01
2001 Sep 21 01:16:37:446 ps8Adapter.sub Info [Application]
AEPS8-4003033 Caught Base Error TPESVCFail - application level
service failure
com.tibco.sdk.MException: setEffdt operation Failed on
PeopleSoft.Generated.CompIntfc.ProductProductTbl
    at com.tibco.adapter.ps.AdapterException.<init>
        (AdapterException.java:24)
    at com.tibco.adapter.ps.ComponentInterfaceAgent.setProperty
        (ComponentInterfaceAgent.java:245)
    at com.tibco.adapter.ps.PSEventProcessor.setProperties
        (PSEventProcessor.java:424)
    at com.tibco.adapter.ps.PSEventProcessor.setProperties
        (PSEventProcessor.java:561)
    at com.tibco.adapter.ps.PSEventProcessor.processMessage
        (PSEventProcessor.java:251)
    at com.tibco.adapter.ps.SubscriberEventHandler.onEvent
        (SubscriberEventHandler.java:159)
    at com.tibco.sdk.events.pubsub.MRvDataReceiver.dispatch
        (MRvDataReceiver.java:292)
    at com.tibco.sdk.events.pubsub.MRvDataReceiver.onData
        (MRvDataReceiver.java:156)
    at com.tibco.sdk.events.pubsub.MBaseRvDataReceiver.onMsg
        (MBaseRvDataReceiver.java:81)
    at com.tibco.tibrv.TibrvEvent.invoke(TibrvEvent.java:160)
    at com.tibco.tibrv.TibrvImplQGroupC.natDispatch(Native
Method)
    at com.tibco.tibrv.TibrvImplQGroupC.dispatch
        (TibrvImplQGroupC.java:67)
    at
com.tibco.tibrv.TibrvQueueGroup.dispatch(TibrvQueueGroup.java:163)
    at
com.tibco.sdk.MDefaultDispatcher.run(MDefaultDispatcher.java:26)
    at java.lang.Thread.run(Unknown Source)

```

Probable Cause

The message has the wrong date format.

Solution

The correct date format is MM/dd/YYYY.

Data processing caused a GetComponent() API message error

Symptom

While a message was being processed by the adapter, the following error message occurred:

```
2001 Sep 20 18:36:37:889 ps8Adapter.inst Info [Application]
AEPS8-4003033 Caught Base Error TPESVCFail - application level
service failure
com.tibco.sdk.MException: An Error has Occured while invoking API
GetComponent() on CI PRODUCT
    at com.tibco.adapter.ps.AdapterException.<init>
    (AdapterException.java:24)
    at com.tibco.adapter.ps.ComponentInterfaceAgent.getCIObject
    (ComponentInterfaceAgent.java:201)
    at com.tibco.adapter.ps.PSEventProcessor.processMessage
    (PSEventProcessor.java:840)
```

Probable Cause

Most likely permission has not been granted for the adapter to use the required Component Interface. Another probable cause is that the Component Interface does not exist in the database.

Solution

Use the PeopleTools Maintain Security function to grant the operator class the permission to use the Component Interface, in this case `PRODUCT`. Make sure full access is granted. The operator class should be the one the operator ID belongs to. For example, the operator class for VP1 is `ALLPNLS`.

Data successfully received and processed is not reflected in the table

Symptom

The adapter prints out an INFO message saying it has finished processing the event. Use a PeopleSoft client to check the new data, but it does not reflect what was sent in through the adapter.

Probable Cause

The record you are inserting the data into has a related language record and instead of the data going into the expected record it went into the related language record.

Solution

Check how the related language record is formatted and how it relates to the actual record. Open the actual record in PeopleSoft, then select **File > Object Properties**. Select the **Use** tab and blank out the related language record from the record definition, then save this change. For more important information about this solution, see your PeopleSoft documentation.

Check the applicable PeopleSoft documentation to understand how related language records are used. If you are certain that the related language record is not needed:

1. Login to PeopleSoft.
2. Select **File > Open** then open the record.
3. Select **File > Object Properties**, then select the **Use** tab.
4. Blank out the entry for the related language record.
5. Save the change.

If the audit options are turned ON, follow the steps mentioned below:

Open the actual record in PeopleSoft, then select **File > Object Properties**. Select the **Use** tab and blank out the related language record from the record definition, then save this change. For more important information about this solution, see your PeopleSoft documentation.

Check the applicable PeopleSoft documentation to understand how audit options are used. If you are certain that the audit records are not required follow the steps mentioned below:

1. Login to PeopleSoft.
2. Select **File > Open** then open the record
3. Select **File > Object Properties**, then select the **Use** tab.
4. Blank out the entry for **Add, Change** and **Delete** in Audit Options.
5. Save the change.

A successfully processed record has extra rows in the database

Symptom

The adapter successfully processes a message. The data appears correctly in the database. However, there is an extra row at the child level.

Probable Cause

The adapter does not trim the extra rows at the child level. Therefore, if a record has two rows at the child level but the incoming data has one row, then one row will be updated (as long as the keys match). When the user logs into PeopleSoft the user will still see two rows. The following example illustrates this situation:

Example Suppose a particular PRODUCT has two rows, one is effective dated with 01/01/1900, the other is effective dated with 09/24/2001. The incoming data specifies the same PRODUCT with only one child row effective dated with 09/24/2001. The data processes successfully and in the database you will see that PRODUCT with two effective dated rows.

Solution

If you want the remaining rows to be deleted, you need to issue a delete command with the keys for that row. Applying this requirement to the example above, you would specify EFFDT='01/01/1900' and set OPRN_CODE='D'.

The palette cannot connect to the DTA

Symptom

The palette cannot connect to the DTA after giving the various connection parameters and clicking **Connect**.

Probable Cause

The DTA is not up.

Or

The connection parameters given in the palette are incorrect.

Solution

In order to connect to the DTA, please ensure the following:

1. Ensure that the application server is running.
2. If the design-time adapter has been started successfully, the following would be displayed:


```
2002 Jun 25 10:27:47:995 GMT -8 psoftDesignTimeAdapter.psdta
Info [Metadata] AEPS8-3400100 PSDTA ready to serve requests from
Designer.... 2002 Jun 25 10:27:48:015 GMT -8
psoftDesignTimeAdapter.psdta Info [Metadata] AEPS8-3400102
Sending discovery message to find other running instances of
PSDTA on subject metadata.server.ps, service 12345. 2002 Jun 25
10:28:07:844 GMT -8 psoftDesignTimeAdapter.psdta Info
[Metadata] AEPS8-3400103 Assuming master status.
```
3. Check the Design-Time Connection parameters specified. Specify correct values for the following:
 - PeopleSoft operator ID
 - Password
 - PeopleSoft application server name
 - JOLT listener port number

Connection to PeopleSoft failed

Symptom

The adapter displays the following message and exits:

```
Processing /tibco/private/adapter/PeopleSoft/pub/ps8Adapter ...
com.tibco.sdk.MException: Invalid url: /startup/startComponent.
    at com.tibco.sdk.properties.MRepoProperties.getCount(MRepoProperties.java:283)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.readAllOfFrom(MPropertyBasedDeserializer.java:179)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.readAllOfFrom(MPropertyBasedDeserializer.java:171)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.readAllOf(MPropertyBasedDeserializer.java:165)
    at com.tibco.sdk.serializer.config.MStartupDeserializer.readStartup(MStartupDeserializer.java:45)
    at com.tibco.sdk.serializer.config.MStartupDeserializer.readAnySupportedType(MStartupDeserializer.java:25)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.readAny(MPropertyBasedDeserializer.java:201)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.deserialize(MPropertyBasedDeserializer.java:32)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.readAny(MPropertyBasedDeserializer.java:198)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.internalRead(MPropertyBasedDeserializer.java:157)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.readOptional(MPropertyBasedDeserializer.java:234)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.readOptional(MPropertyBasedDeserializer.java:225)
    at com.tibco.sdk.serializer.MConfigDeserializer.readConfig(MConfigDeserializer.java:49)
    at com.tibco.sdk.serializer.MConfigDeserializer.readAnySupportedType(MConfigDeserializer.java:33)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.readAny(MPropertyBasedDeserializer.java:201)
    at com.tibco.sdk.serializer.MPropertyBasedDeserializer.deserialize(MPropertyBasedDeserializer.java:32)
    at com.tibco.sdk.MDefaultApp.start(MDefaultApp.java:284)
    at com.tibco.sdk.MApp.start(MApp.java:184)
    at com.tibco.adapter.ps.PS8Adapter.main(PS8Adapter.java:43)
Caught MException in PS8Adapter::main().
```

Probable Cause

The PeopleSoft connection password has not been specified in the `adpsft8.tra` file.

Solution

Remove the comment the following line in the `adpsft8.tra` file:

```
#tibco.clientVar.adpsft8.connection.password <password>
```

and specify the PeopleSoft connection password in place of `<password>`.

'Method not found' error displayed by the Adapter

Symptom

The adapter displays the message `Method not found`

Probable Cause

The PeopleTools version mentioned in the adapter configuration is different from the PeopleTools version to which the adapter connects to.

Solution

Check if the version of Peopletools used, corresponds with the PeopleTools specified in the **Configuration** tab while configuring the adapter.

Appendix D **Migrating PeopleSoft Data for Adapter Configuration**

This appendix describes the procedure to migrate PeopleSoft data for an adapter configuration, from one database to another. Database migration scripts are provided with the installation to carry out the migration.

Topics

- [Migrating PeopleSoft Data for Adapter Configuration, page 256](#)

Migrating PeopleSoft Data for Adapter Configuration

Database migration scripts are provided to allow you to migrate PeopleSoft data for your adapter configuration, from one database to another. This utility allows you to maintain your configuration data in one repository and extract to other databases as required. For instance, you can migrate data from a development environment to a production environment instead of repeating the process of preparing PeopleSoft Component Interfaces and other adapter specific components in the production environment. The scripts provided migrate the following data:

- Component Interfaces
- Access Rights for the Component Interfaces
- PanelGroup Information (where Publisher Work Panel is attached)
- Access Rights for attached Work Panel
- TIB table entries for Publisher Services

The migration process broadly involves the following steps. An export script and an import script are provided along with the installation. Run the export script on the source database to extract data for a specified Operation Class Id and Component Interface(s). The output is generated in a .dat file, which is placed in a specified location. Login to the target database, and run the import script. The migration process is complete.



No migration is required for Application Messaging as there is no information persisted in the database.

Script File Location

The following database migration scripts and a sample export script are available in *TIBCO_HOME\adapter\adpsft8\version_number\scripts* directory:

```
tibexport.dms (Export Script)
tibimport.dms (Import Script)
tibexport_sample.dms (Sample Export Script)
```

Adapter Configuration Migration

The migration procedure can be divided into the following three parts:

Exporting Adapter Configuration Data

Use the following steps to carry out the export procedure:

1. Go to `TIBCO_HOME\adapter\adpsft8\version_number\scripts` directory and open the `tibexport.dms` script using a text editor like notepad.
2. Globally replace the following with appropriate values, enclosed in single quotes:



You can refer to the sample export script `tibexport_sample.dms` located in the `scripts` directory.

— `%CLASSID%`

This is the Operation Class Id. For example, replace `%CLASSID%` with `'ALLPNLS'`

— `%CI_NAME%`

This is the name of the Component Interface(s). For example replace `%CI_NAME%` with `'ACTIVITY','COUNTRY','PRODUCT_TBL'`



The values specified in the `tibexport.dms` script *must* be enclosed in single quotes. If data for multiple Component Interfaces is to be extracted use comma separators. Do not include spaces after the comma.

3. Set the name and location of the output `.dat` file generated by the `tibexport.dms` file in either of the following ways:
 - Modify the `SET OUTPUT` parameter in the `tibexport.dms` file
The default output file name is `tibmigration.dat`.
The default location is `%PS_HOME%\data` directory.
 - Use PeopleTools 8 Configuration Manager. To do this:
 - a. Open Configuration Manager, then click the **Profile** tab.
 - b. In the **Profile** tab, select the client configuration being used (usually named "default") then click the **Edit** button.
 - c. In the `Edit Profile` window select the **Common** tab. In the `Data Mover Directories` block specify the path for the output directory and the log file.



If the `SET OUTPUT` parameter has been modified in the `tibexport.dms` file. This setting will override the location specified in Configuration Manager. You can use Configuration Manager only to specify locations and not file names.

4. Modify the name and location of the log file, if required. You can do this in either of the following ways:
 - Modify the SET LOG parameter in the `tibexport.dms` file.
The default name is `tibmigration_export.log`.
The default location is
`TIBCO_HOME\adapter\adpsft8\version_number\scripts`.
 - Use PeopleTools 8 Configuration Manager to specify the location of the log file. For details see step 3.
5. Save the modified `tibexport.dms` script file with a new name. For example, `tibexport_new.dms`.
6. Launch PeopleSoft Data Mover and log into the source database.
7. Run the modified export script file, for example, `tibexport_new.dms` in PeopleSoft Data Mover.
8. A `.dat` file, `tibmigration.dat` containing the adapter configuration data is generated in the location specified in step 3.

Importing Adapter Configuration Data

Use the following steps to carry out the import procedure:

1. Set the name and location of the `.dat` file to be imported by the `tibimport.dms` file in either of the following ways:
 - Modify the SET INPUT parameter in the `tibimport.dms` file.
The default output file name is `tibmigration.dat`.
The default location is `%PS_HOME%\data` directory.
 - Use PeopleTools 8 Configuration Manager. To do this:
 - a. Open Configuration Manager, then select the **Profile** tab.
 - b. In the **Profile** tab, select the client configuration being used (usually named "default") then click the **Edit** button.
 - c. In the Edit Profile screen select the **Common** tab. In the Data Mover Directories block specify the path for the input directory and the log file.
2. Modify the name and location of the log file, if required. You can do this in either of the following ways:
 - Modify the SET LOG parameter in the `tibimport.dms` file.
The default name is `tibmigration_import.log`.
The default location is
`TIBCO_HOME\adapter\adpsft8\version_number\scripts`.

3. Use PeopleTools 8 Configuration Manager to specify the location of the log file.



If the SET INPUT parameter has been modified in the `tibimport.dms` file. This setting will override the location specified in Configuration Manager. You can use Configuration Manager only to specify locations and not file names.

4. Set the name and location of the log file if required. You can do this in either of the following ways:
 - Modify the SET LOG parameter.
The default name is `tibmigration_import.log`.
The default location is
`TIBCO_HOME\adapter\adpsft8\version_number\scripts`.
 - Use PeopleTools 8 Configuration Manager.
5. Go to `TIBCO_HOME\adapter\adpsft8\version_number\scripts` directory and run `tibimport.dms` script. The migration procedure is complete.

Verification

To verify that the migration has been successful do the following:

- Ensure that a `.dat` file, `tibmigration.dat` has been generated in the specified directory.
- Check the log files for errors. The default log files, `tibmigration_export.log` and `tibmigration_import.log` are located in `TIBCO_HOME\adapter\adpsft8\version_number\scripts` directory by default, unless you have specified otherwise.

Index

A

ActiveEnterprise Message [106](#)
 adapter
 component (operation) information through TIBCO Hawk [155](#)
 configuring a remote adapter [128](#)
 methods of testing [69](#)
 Adapter Name [155, 156, 160, 162, 164, 165](#)
 Adapter Request-Response Server [45](#)
 Adapter Subscriber [45, 45](#)
 agents [140](#)
 alerts [140](#)
 API [xx](#)
 Application Designer
 preparing PeopleSoft component interfaces [3](#)
 Attribute Name [157](#)
 Attribute Value [157](#)
 auto-discovery process, TIBCO Hawk [142](#)

C

Certified [106](#)
 Certified Name [160](#)
 Class Microagent Name field, adapter [67](#)
 CM Timeout [161](#)
 Command [156](#)
 command line arguments [156](#)
 component interface
 function [2](#)
 preparing components for publishing [5](#)
 Component Name [155](#)
 component preparation for publishing [5](#)
 Component Type [155](#)
 configuration properties, retrieving through TIBCO Hawk [156](#)
 Configuration URL [156](#)

conventions used in this manual [xvii](#)
 converting project to repository file [55](#)
 CREATEKEYS schema field requirement [5](#)
 customer support [xx](#)

D

Daemon [160](#)
 Description [155](#)
 design-time adapters, multiple [129](#)
 Distributed Queue [106](#)
 documents, related [xvii](#)
 Durable [108](#)

E

Element Name [157](#)
 examples
 publication service [50](#)

F

Failure [151, 152, 153](#)
 File Size [172](#)
 FINDKEYS schema field requirement [5, 5](#)

G

GETKEYS schema field requirement [5, 5](#)
 GetSubTotalBy [151](#)
 global variables [122, 122](#)

H

Hawk methods
 preRegisterListener() [167](#)
 Host [162](#)

I

Instance ID [155](#), [156](#), [160](#), [162](#), [164](#), [165](#)
 Invoke an Adapter Request-Response Server [45](#)

L

Last Confirmed [171](#)
 Last Sent Message [170](#)
 Ledger File [160](#)
 ledger files
 retrieving information through TIBCO Hawk [170](#)
 Line [157](#), [171](#)
 LineIndex [152](#), [153](#)
 Listener Session Name [167](#), [170](#), [174](#)

M

MaxQueueSize [159](#)
 MeasurementInterva [152](#)
 MeasurementInterval [151](#), [153](#), [159](#), [163](#)
 Messages Received [162](#)
 Messages Sent [162](#)
 microagent methods supported [146](#), [146](#)
 Microagent Session field, adapter [67](#)
 modes in PeopleSoft required for Subscription
 Service [5](#)
 Multi-threading and Deployment [130](#)

N

Name [151](#)
 Network [160](#)
 New Errors [162](#)
 Non Durable [108](#)
 Non Persistent [108](#)

O

Operation [152](#), [152](#), [153](#)

P

parameters
 design-time connection [61](#)
 logging [64](#)
 runtime connection [62](#)
 startup [66](#)
 Persistent [107](#)
 PollingInterval [177](#), [178](#)
 preRegisterListener()
 Hawk method [167](#)
 Process ID [162](#)
 Property [157](#)
 publication service example [50](#)
 Publish Current Record [76](#), [87](#), [96](#)
 Publisher Name [167](#), [174](#)
 publish-subscribe [107](#)

Q

QOS [xx](#)
 Queue [107](#)
 QueueCount [159](#)
 QueueID [159](#)
 QueueType [159](#)

R

- related documents [xvii](#)
- Reliable [106](#)
- remote adapter configuration [128](#)
- Repository Connection [156](#)
- repository file [55](#)
- Request [45](#)
- resetThreadStatistics() [178](#)
- Respond to Adapter Request [46](#)
- reviewLedger, TIBCO Hawk method [170](#)
- Role Name [164, 172](#)
- Roles [164](#)
- RV [xx, xx](#)
- RVCN [xx](#)
- RVDQ [xx](#)

S

- schema
 - field requirements for a Subscription Service [5](#)
- schema fields
 - CREATEKEYS [5, 5](#)
 - FINDKEYS [5, 5](#)
 - GETKEYS [5, 5](#)
- Schema Name [153](#)
- Service [160](#)
- Service Name [152, 153, 153](#)
- ServiceName [178](#)
- Session Name [155, 160, 160, 167, 170, 170, 174](#)
- Session Type [160](#)
- Setting [176](#)
- setting global variables [122](#)
- setTraceSink() [149](#)
- shadow work page for publishing [5](#)
- Show Startup Banner [66](#)
- Sink Name [164, 164, 172](#)
- Sink Type [164](#)
- Standard Microagent Name field, adapter [67](#)
- Subject [170, 170](#)
- substitution [122](#)
- Success [151, 152, 153](#)
- support, contacting [xx](#)

Synchronous? [160](#)

T

- tabs
 - Configuration [53, 73, 79, 84, 89, 94, 94, 98, 103](#)
 - Monitoring [66, 120](#)
 - Startup [66](#)
- TaskCount [163](#)
- TaskType [163](#)
- technical support [xx](#)
- testing
 - methods [69](#)
- ThreadID [163](#)
- ThreadType [163](#)
- TIB_CI_ADAPTER_WRK shadow work page [5, 6](#)
- TIBCO Hawk
 - enterprise monitor components [140, 140](#)
- TIBCO Hawk methods
 - getComponents [155](#)
 - getConfig [156](#)
 - getRvConfig [160](#)
 - getStatus [162](#)
 - reviewLedger [170](#)
- TIBCO Rendezvous, retrieving configuration through
 - TIBCO Hawk [160](#)
- TIBCO_HOME [xviii](#)
- tightly-coupled integration [2](#)
- Topic [107, 107, 107](#)
- Total [151, 152, 153](#)
- Total Errors [162](#)
- Total Messages [170](#)
- Total Size [170](#)
- Tracing Levels and Fields [186, 186](#)

U

- UnacknowledgedMessages [171](#)
- Uptime [162](#)

V

variable substitution [122](#)

variables [122](#)

variables, global [122](#)

Version [165](#)

X

XML Message [106](#)