

# **TIBCO ActiveMatrix<sup>®</sup> Adapter Service Engine for Siebel**

## **Examples**

*Software Release 6.0  
April 2010*

## 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, TIBCO ActiveMatrix, 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, TIBCO ActiveEnterprise, 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 © 2008-2010 TIBCO Software Inc. ALL RIGHTS RESERVED.

TIBCO Software Inc. Confidential Information

# Contents

<b>Tables</b>	<b>v</b>
<b>Preface</b>	<b>vii</b>
Related Documentation	viii
TIBCO ActiveMatrix Adapter for Siebel Documentation	viii
Other TIBCO Product Documentation	ix
Third-Party Documentation	ix
Typographical Conventions	x
Terminology and Acronyms	xii
How to Contact TIBCO Support	xiii
<b>Chapter 1 Introduction</b>	<b>1</b>
Overview	2
Prerequisites	3
Using TIBCO ActiveMatrix BusinessWorks Service Engine	3
Using TIBCO ActiveMatrix Administrator	3
Configuring the Environment for TIBCO ActiveMatrix	4
Importing the Projects into TIBCO Business Studio	6
<b>Chapter 2 Publication Service Example</b>	<b>7</b>
Overview	8
Setting Up the Example	9
Running the Example	17
Expected Results	21
<b>Chapter 3 Subscription Service Example</b>	<b>23</b>
Overview	24
Setting Up the Example	25
Running the Example	33
Expected Results	35
<b>Chapter 4 RPC Service Example</b>	<b>36</b>
Overview	37

Setting Up the Example ..... 38

Running the Example ..... 45

Expected Results ..... 47

**Chapter 5 RPCC Service Example ..... 48**

Overview ..... 49

Setting Up the Example ..... 50

Running the Example ..... 58

Expected Results ..... 62

**Index ..... 63**

# Tables

Table 1      General Typographical Conventions ..... x



# Preface

This document describes some examples demonstrating how to configure services and run processes in TIBCO ActiveMatrix Adapter for Siebel.

## Topics

---

- [Related Documentation, page viii](#)
- [Typographical Conventions, page x](#)
- [Terminology and Acronyms, page xii](#)
- [How to Contact TIBCO Support, page xiii](#)

## Related Documentation

---

This section lists documentation resources you may find useful.

### TIBCO ActiveMatrix Adapter for Siebel Documentation

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

- *TIBCO ActiveMatrix Adapter Service Engine for Siebel Installation* Read this manual to learn how to install TIBCO ActiveMatrix Adapter Service Engine for Siebel.
- *TIBCO ActiveMatrix Adapter Service Engine for Siebel Configuration and Deployment* Read this manual for instructions on how to create, configure, and deploy adapter projects.
- *TIBCO ActiveMatrix Adapter Service Engine for Siebel Examples* Read this manual to work through the examples provided with the adapter.
- *TIBCO ActiveMatrix Adapter Service Engine for Siebel Release Notes* Read this document for information about new features, deprecated features, and known and closed issues.

Before TIBCO ActiveMatrix Adapter for Siebel can be installed and used, you have to install TIBCO ActiveMatrix Adapter for Siebel. The following documents form the TIBCO ActiveMatrix Adapter for Siebel documentation set:

- *TIBCO ActiveMatrix Adapter for Siebel Concepts* Read this manual to familiarize yourself with the product and its uses.
- *TIBCO ActiveMatrix Adapter for Siebel Installation* Read this manual to learn how to install TIBCO ActiveMatrix Adapter for Siebel.
- *TIBCO ActiveMatrix Adapter for Siebel Configuration and Deployment* Read this manual for instructions on how to create, configure, and deploy adapter projects.
- *TIBCO ActiveMatrix Adapter for Siebel Examples* Read this manual to work through the examples provided with the adapter.
- *TIBCO ActiveMatrix Adapter for Siebel 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® Administrator
- TIBCO ActiveMatrix BusinessWorks™
- TIBCO ActiveMatrix BusinessWorks™ Service Engine
- TIBCO Rendezvous®
- TIBCO Enterprise Message Service™
- TIBCO Hawk®
- TIBCO Adapter™ SDK
- TIBCO Runtime Agent™
- TIBCO Business Studio™

## Third-Party Documentation

You may also find it useful to read the *Siebel Bookshelf*, available from Siebel Systems Inc.


# Typographical Conventions

The following typographical conventions are used in this manual.

Table 1 General Typographical Conventions

Convention	Use
<i>TIBCO_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>TIBCO ActiveMatrix is installed into a directory inside <i>ENV_HOME</i>. This directory is referenced in documentation as <i>AMX_HOME</i>. The value of <i>AMX_HOME</i> depends on the operating system. For example, on Windows systems the default value is C:\tibco\amx. TIBCO ActiveMatrix Adapter for Siebel is installed in a directory inside <i>AMX_HOME</i>.</p> <p><i>EMS_HOME</i> is the directory where the TIBCO Enterprise Message Service server is installed. For example, if the TIBCO Enterprise Message Service server is installed at C:\tibco\ems on Windows systems.</p>
<i>ENV_HOME</i>	
<i>AMX_HOME</i>	
<i>EMS_HOME</i>	
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>
<b>bold code font</b>	<p>Bold code font is used in the following ways:</p> <ul style="list-style-type: none"><li>• In procedures, to indicate what a user types. For example: Type <b>admin</b>.</li><li>• In large code samples, to indicate the parts of the sample that are of particular interest.</li><li>• In command syntax, to indicate the default parameter for a command. For example, if no parameter is specified, MyCommand is enabled: MyCommand [<b>enable</b>   disable]</li></ul>

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"><li>• To indicate a document title. For example: See <i>TIBCO ActiveMatrix BusinessWorks Concepts</i>.</li><li>• To introduce new terms. For example: A portal page may contain several portlets. <i>Portlets</i> are mini-applications that run in a portal.</li><li>• To indicate a variable in a command or code syntax that you must replace. For example: <code>MyCommand <i>PathName</i></code></li></ul>
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>
	<p>The note icon indicates information that is of special interest or importance, for example, an additional action required only in certain circumstances.</p>

# Terminology and Acronyms

The following acronyms are used in this manual:

Acronym	Meaning
API	Application Programming Interface
GUI	Graphical User Interface
RV	Refers to TIBCO Rendezvous reliable message quality of service, as opposed to certified message
RPC	Remote Procedural Call
TRA	TIBCO Runtime Agent
JMS	Java Message Service
CI	Component Interface
IB	Integration Broker

## 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      **Introduction**

This chapter contains an overview of the examples and lists the prerequisites needed to run them.

### Topics

---

- [Overview, page 2](#)
- [Prerequisites, page 3](#)
- [Configuring the Environment for TIBCO ActiveMatrix, page 4](#)
- [Importing the Projects into TIBCO Business Studio, page 6](#)

## Overview

---

The examples in this guide demonstrate how to configure services and run processes for TIBCO ActiveMatrix Adapter for Siebel.

The following four examples are provided in this guide:

- [Chapter 2, Publication Service Example, page 7](#)
- [Chapter 3, Subscription Service Example, page 23](#)
- [Chapter 4, RPC Service Example, page 36](#)
- [Chapter 5, RPCC Service Example, page 48](#)



## Prerequisites

---

Before starting the pre-configured examples, ensure that the following software has been installed and is operating correctly:

- TIBCO Rendezvous
- TIBCO ActiveMatrix BusinessWorks
- TIBCO Enterprise Message Service
- TIBCO ActiveMatrix Adapter for Siebel
- TIBCO Hibernate
- TIBCO ActiveMatrix Adapter Service Engine for Siebel
- TIBCO Designer Add-in for TIBCO Business Studio (BWSE example only)
- TIBCO ActiveMatrix BusinessWorks Service Engine (BWSE example only)

For detailed information about required software, refer to *TIBCO ActiveMatrix Adapter Service Engine for Siebel Installation*.

### Using TIBCO ActiveMatrix BusinessWorks Service Engine

When running the examples with TIBCO ActiveMatrix BusinessWorks Service Engine, you need to install TIBCO ActiveMatrix BusinessWorks Service Engine before deploying and running the example. See TIBCO ActiveMatrix BusinessWorks Service Engine documentation for details about how to install TIBCO ActiveMatrix BusinessWorks Service Engine.

### Using TIBCO ActiveMatrix Administrator

TIBCO ActiveMatrix Administrator is installed with TIBCO ActiveMatrix Service Grid and is used to deploy and run the examples.

Before deploying and running the examples, ensure that you have set up and configured TIBCO ActiveMatrix Administrator correctly. See TIBCO ActiveMatrix Service Grid documentation for details.

## Configuring the Environment for TIBCO ActiveMatrix

---

Before configuring and running the examples in this manual, if the environment for TIBCO ActiveMatrix has not been configured, follow these steps:

1. Start HSQLDB.
  - Run `AMX_HOME\amx\hsqldb\bin\amx-db.exe`
  - Or
  - (Windows only) Select **start > All Programs > TIBCO > TIBCO ActiveMatrix <version number>> Start HSQLDB Server.**
2. If this is the first time you have configured the environment, create a TIBCO ActiveMatrix Administrator Server with Admin Server Creation Wizard.
3. Start TIBCO ActiveMatrix Administrator.
  - Run `TIBCO_HOME\amxadministrator\<version number>\bin\amx_admin.bat`



If ActiveMatrix Service Grid is installed within TIBCO Runtime Agent, the `AMX_HOME` should be `TIBCO_HOME`.

4. Start the TIBCO ActiveMatrix Administrator Server in a web browser:
  - Run `AMX_HOME\amxadministrator\data\bootstrap.html`
  - Or
  - (Windows only) Select **start > All Programs > TIBCO > TIBCO ActiveMatrix <version number>> Administrator Servers.**

After starting the TIBCO ActiveMatrix Administrator Server, create your admin environment and node with Administrator Server Creation Wizard or in a web browser. The following steps show how to do this in a web browser.

5. Create an Environment in a web browser:
  - a. Click **Perspective** and select **Configure Enterprise Assets**.
  - b. Click **New** to create a new Environment.
  - c. Click on the new environment, and then click **Messaging Bus**.
  - d. Click **Add** to create a Messaging Server for each node.
  - e. Click **Machines** to associate this environment with a machine.
  - f. Verify that the containers in the Machines area include the following six types: SOAP, Service Bus Mediation, JMS, Adapter for Siebel, Java, and .NET.
6. Create a Node for the Environment in a web browser:
  - a. Click **Perspective** and select **Configure an Environment**.
  - b. Choose the desired Environment.
  - c. Click **New** to create a new node. Enter relational information for the node. The highlighted text boxes are mandatory.
  - d. Click **Default Connector** to modify the connector port.
  - e. Verify the container for the node.
  - f. Click **Install**.

## Importing the Projects into TIBCO Business Studio

---

The pre-configured examples are located in the `AMX_HOME\extensions\adsblse\version_number\samples` directory. The directory contains executable files for Windows and Unix platforms. This guide describes how to run the examples on a Microsoft Windows platform.

To view the configuration of the examples, you need to import the `Siebel_Adapter_Service_Engine_Samples.zip` archive file to your workspace in TIBCO Business Studio.

To import the projects, follow these steps:

1. Start TIBCO Business Studio.
2. Select **File > Import...** from the Menu to open the Import dialog.
3. Select **General > Existing Projects into Workspace** in the Select page, and then click the **Next** button.
4. Select a directory or an archive file to search in for the existing projects from another workspace, and then click the **Next** button.
  - Choose between Select root directory and Select archive file and click the **Browse...** button to navigate to the folder where the project is located or select the archive containing the projects, then click the **OK** button.
  - In the Projects pane, check the checkbox for the project you want to import as well as the services contained in that project.
  - Check the Copy projects into workspace checkbox if you want to copy the projects into the current workspace.
5. Click the Finish button to import the projects.

## Chapter 2      **Publication Service Example**

This chapter provides exercises that demonstrate how to use the adapter's Publication Service.

### Topics

---

- [Overview, page 8](#)
- [Setting Up the Example, page 9](#)
- [Running the Example, page 17](#)
- [Expected Results, page 21](#)

## Overview

---

The adapter Publication Service supports publication of the following components.

- Siebel Business Components — The adapter queries the Siebel Business Components based on the search criteria specified and publishes them on appropriate configured subject names.
- Non-Siebel Business Components — The adapter publishes the data that comes from the Siebel application, which invokes the adapter, without querying Siebel.
- Siebel Integration Components — The adapter queries the Siebel Integration Components based on the search criteria specified and publishes them on appropriate configured subject names.
- Send Complete Integration Object — The adapter publishes the complete integration object received from the Siebel application in the form of an http request, without querying Siebel.

The example shown in this chapter includes four exercises that demonstrates these different publication types.

## Setting Up the Example

---

To set up the environment for the example, you need to complete the following tasks:

- [Task A, Configuring the Environment for TIBCO ActiveMatrix, page 9](#)
- [Task B, Importing the Adapter Project, SOA Project, and TIBCO Designer Project, page 9](#)

To create a new SOA project instead of using the pre configured one, proceed with [Task C](#) through .

- [Task C, Creating an SOA Project, page 10](#)
- [Task D, Creating a TIBCO Designer Project, page 10](#)
- [Task E, Generating the Adapter WSDL, page 10](#)
- [Task G, Configuring the SOA Project, page 11](#)
- [Task H, Configure the BusinessWorks Process in the TIBCO Designer Project, page 14](#)
- [Task I, Creating the Service Assembly, page 16](#)

### **Task A Configuring the Environment for TIBCO ActiveMatrix**

For detailed information about configuring the Environment for TIBCO ActiveMatrix, refer to [Configuring the Environment for TIBCO ActiveMatrix on page 4](#).

### **Task B Importing the Adapter Project, SOA Project, and TIBCO Designer Project**

To import the Adapter project, the SOA project, and the TIBCO Designer project into the TIBCO Business Studio, refer to [Importing the Projects into TIBCO Business Studio on page 6](#).

The Adapter project `SBLAdapterPubSample`, the SOA project `SBLAdapterPubSOASample`, and the TIBCO Designer project `SBLAdapterPubBWSample` must be imported into your workspace for this example.

If you want to create a new SOA project and a new TIBCO Designer project instead of using the pre configured ones, proceed with the following tasks.

### Task C Creating an SOA Project

To create a new SOA project, follow these steps:

1. Start TIBCO Business Studio.
2. Select **File > New > Project...** from the Menu to open the New Project dialog.
3. Expand **TIBCO ActiveMatrix > ActiveMatrix SOA Project**, and then click the **Next** button.
4. Type **SiebelAdapterPubSOASample** in the Project name field, and then click the **Next** button.
5. Click the **Finish** button.

### Task D Creating a TIBCO Designer Project

To create a TIBCO Designer Project, follow these steps:

1. Select **File > New > Project** from the Menu to open the New Project dialog.
2. Select **TIBCO Designer > TIBCO Designer Project** in the Select a wizard page, and then click the **Next** button.
3. Type **SiebelAdapterPubBWSample** in the Project name field, and select the **Create new project in the workspace** radio button.
1. Click the **Finish** button.

### Task E Generating the Adapter WSDL

Before performing this task, make sure all the settings for the `SiebelAdapterPubSample` project are correct.

To generate the adapter WSDL file, follow these steps:

1. In the Project Explorer Panel, right-click `SiebelAdapterConfiguration.adsblmodel` under the imported Adapter project `SiebelAdapterPubSample`.
2. Select **Generate Adapter WSDL** from the pop-up menu.
3. In the Target Project dialog, select `SiebelAdapterPubSOASample` as the matching resource.
4. Click the **OK** button.

### Task F Importing Resources to the TIBCO Designer Project

To import resources to the newly created TIBCO Designer Project, follow these steps:



1. In the Project Explorer Panel, select the newly created TIBCO Designer project `SiebelAdapterPubBWSample`.
2. Select **File > Import...** from the Menu to open the Import dialog.
3. Expand the **General folder** and select **File System**, and then click the **Next** button.
4. Click the **Browse** button to locate the SOA project `SiebelAdapterPubSOASample` in the From directory drop-down list, and check the **schema** checkbox in the left pane.
5. Click the **Finish** button.

### Task G Configuring the SOA Project

To configure the SOA project, follow these steps:

1. In the Project Explorer Panel, select the SOA project `SiebelAdapterPubSOASample`, expand the **Composites** folder, and then double-click `SiebelAdapterPubSOASample.composite` to launch the Composite Editor on the right.

2. Create a `SiebelAdapter` component.

Drag the **SiebelAdapter** component from the Palette to the Components column and enter **SiebelAdapter** as the component name.

3. Configure the `SiebelAdapter` component

In the Properties view, click the **Services** tab and then click the **Add** button to open the Resource Picker dialog. Expand the tree in the left pane to select the appropriate adapter endpoint, and then click the **Add** button to add it into the Selected Adapter Endpoint pane on the right. Click the **OK** button and the added service will appear under the Services tab. The services pre-configured in the Adapter project `SBLAdapterPubSample` are as follows:

`pubBusComp` — Siebel Business Components

`pubIntComp` — Siebel Integration Components

`pubIntObj` — Siebel Complete Integration Object

`pubNSBusComp` — Non Siebel Business Components

4. To configure publication of different components, proceed with the following steps.

### Publication of Siebel Business Components

- a. Create and configure a BusinessWorks component.
  - Drag the **BusinessWorks** component from the Palette to the Components column and enter **BWComponent** as the component name.
  - Click the **Implementation** tab and click the **Browse** button next to the **BW Project** field to select the SiebelAdapterPubBWSample.
  - Click the **Reference** tab in the Properties view.  
Click **Add** to open the Add Partner Dialog. Expand the SiebelAdapterPubBWSample tree and select the pubBusComp under SiebelAdapterConfiguration.wsdl. Click **Finish** to add it.  
Click the radio button next to SiebelAdapter->PubBusComp to draw a wire between the BWComponent component and the SiebelAdapter component.
  - A BusinessWorks process  
SiebelAdapterConfiguration\_pubBusComp.process is automatically created under the TIBCO Designer project SiebelAdapterPubBWSample.

### Publication of Siebel Integration Components

- a. In the Project Explorer Panel, right-click the **Shared Resources** folder under the SiebelAdapterPubSOASample project, select **New > EMS** from the pop-up menu and then click the **Finish** button.
- b. Add the Shared Resource to the composite.
  - Double click SiebelAdapterPubSOASample.composite under the Composite folder.
  - Click the canvas in the Composite Editor to open the Composite Properties Views panel which will appear under the Composite Editor.
  - Click the **Shared Resource Profiles** tab to add the shared resource.
  - Click the **Save** button to save your configuration.
- c. Create and configure a JMS service.
  - Drag a **JMS Service** from the Palette to the Services column and name it PubIntCompJMSService.
  - Click the **Target** tab and click the radio button next to SiebelAdapter->pubIntComp to draw a wire between the PubIntCompJMSService service and the SiebelAdapter component.
  - Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

## Publication of Siebel Complete Integration Object

- a. In the Project Explorer Panel, right-click the **Shared Resources** folder under the `SiebelAdapterPubSOASample` project, select **New > EMS** from the pop-up menu and then click the **Finish** button.
- b. Add the Shared Resource to the composite.
  - Double click `SiebelAdapterPubSOASample.composite` under the Composite folder.
  - Click the canvas in the Composite Editor to open the Composite Properties Views panel which will appear under the Composite Editor.
  - Click the **Shared Resource Profiles** tab to add the shared resource.
  - Click the **Save** button to save your configuration.
- c. Create and configure a JMS service.
  - Drag a **JMS Service** from the Palette to the Services column and name it `PubIntObjJMSService`.
  - Click the **Target** tab and click the radio button next to `SiebelAdapter->pubIntObj` to draw a wire between the `PubIntObjJMSService` service and the `SiebelAdapter` component.
  - Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

### Publication of Non Siebel Business Components

- a. In the Project Explorer Panel, right-click the **Shared Resources** folder under the `SiebelAdapterPubSOASample` project, select **New > EMS** from the pop-up menu and then click the **Finish** button.
- b. Add the Shared Resource to the composite.
  - Double click `SiebelAdapterPubSOASample.composite` under the Composite folder.
  - Click the canvas in the Composite Editor to open the Composite Properties Views panel which will appear under the Composite Editor.
  - Click the **Shared Resource Profiles** tab to add the shared resource.
  - Click the **Save** button to save your configuration.
- c. Create and configure a JMS service.
  - Drag a **JMS Service** from the Palette to the Services column and name it `PubNSBusCompJMSService`.
  - Click the **Target** tab and click the radio button next to `SiebelAdapter->pubNSBusComp` to draw a wire between the `PubNSBusCompJMSService` service and the `SiebelAdapter` component.
  - Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

### Task H Configure the BusinessWorks Process in the TIBCO Designer Project

For different publication types, proceed with the following steps.

### Publication of Siebel Business Components

In [Task F](#), the BusinessWorks process, `SiebelAdapterConfiguration_pubBusComp.process`, was generated in the TIBCO Designer project.

To configure the BusinessWorks process, follow these steps:

1. Double-click `SiebelAdapterConfiguration_pubBusComp.process` to open the Editor View on the right pane.

2. Change the Start activity to the **Receive Partner Notification** activity.
  - a. Right-click the Editor View pane and select **Add Resource > Service > Receive Partner Notification** from the pop-up menu. Ensure that the default Start activity has been changed, otherwise, it will not work.
  - b. Click the **Receive Partner Notification** activity to open the Configuration View panel. Configure **Partner** and **Operation** in this panel.
3. Create a Write File activity for the process.
  - a. Drag a **Write File** activity from the Palettes panel into the process.
  - b. Configure **Input** in this panel.
4. Connect the Receive Partner Notification, Write File and End activities.

### Publication of Siebel Integration Components

1. Create a process `JMS_pubIntComp.process` under the TIBCO Designer project `SiebelAdapterPubBWSample`.
2. Double click `JMS_pubIntComp.process`. Change the start activity to **JMS Queue Receiver** and connect it to the **End** activity.
3. Click the **JMS Queue Receiver** activity to open the Configuration View panel. Configure **JMS Connection** and **Destination Queue** in this panel.
4. Click the **Save** button to save your configuration.

### Publication of Siebel Complete Integration Object

1. Create a process `JMS_pubIntObj.process` under the TIBCO Designer project `SiebelAdapterPubBWSample`.
2. Double click `JMS_pubIntObj.process`. Change the start activity to **JMS Queue Receiver** and connect it to the **End** activity.
3. Click the **JMS Queue Receiver** activity to open the Configuration View panel. Configure **JMS Connection** and **Destination Queue** in this panel.
4. Click the **Save** button to save your configuration.

### Publication of Non Siebel Business Components

1. Create a process `JMS_pubNBBusComp.process` under the TIBCO Designer project `SiebelAdapterPubBWSample`.
2. Double click `JMS_pubNBBusComp.process`. Change the start activity to **JMS Queue Receiver** and connect it to the **End** activity.

3. Click the **JMS Queue Receiver** activity to open the Configuration View panel. Configure **JMS Connection** and **Destination Queue** in this panel.
4. Click the **Save** button to save your configuration.

### Task I Creating the Service Assembly

To create the service assembly, follow these steps:

1. In the Project Explorer, select the `SiebelAdapterPubSOASample` project.
2. Right-click the composite file `SiebelAdapterPubSOASample.composite`, and then select **Service Assembly** from the pop-up menu. Save the composite if prompted.
3. Expand the **Deployment Packages** folder, right-click `SiebelAdapterPubSOASample.saf`, and then select **Build Archive** from the pop-up menu. Save the file if prompted.

After completing the building process, you can see a `SiebelAdapterPubSOASample.zip` file which has been created in the `Deployment packages` folder. This is the SA Project to be deployed to TIBCO ActiveMatrix Administrator.

## Running the Example

---

To run the example, you need to complete the following tasks:

- [Task A, Starting TIBCO Enterprise Message Service Server, page 17](#)
- [Task B, Deploying an SA File, page 17](#)
- [Task C, Starting the Node and Installing the Shared Resources, page 18](#)
- [Task D, Deploying and Starting the SA Project, page 18](#)
- [Task E, Running the Process in Siebel Call Center, page 18](#)
- [Task F, Running the Process Included in the Project, page 20](#)

### Task A Starting TIBCO Enterprise Message Service Server

To start TIBCO Enterprise Message Service Server:

1. Go to the `EMS_HOME\bin` directory.
2. Run the following command in the command prompt:  
`tibemsd.exe`

### Task B Deploying an SA File



Before proceeding, ensure that the HSQLDB, TIBCO ActiveMatrix Administrator, and TIBCO ActiveMatrix Administrator Server are running in a web browser.

To deploy the SA project (the ZIP file) in TIBCO ActiveMatrix Administrator:

1. Select the **Deploy to an Environment** perspective.
2. Choose the Environment, and then click the **Upload Service Assembly** button.
3. Enter a name for the SA in the Name field.
4. Click the **Browse** button to select the archived ZIP file (the SA project) which was generated in TIBCO Business Studio.
5. Click the **OK** button.
6. In the Service Assemblies panel, select the service assembly.
7. Click the **Service Units** button.

8. For each service unit in the service assembly, follow these steps:
  - a. Select a service unit in the Service Units table.
  - b. In the Node Mapping tab, select the nodes which you want to deploy the service unit to from the Available Nodes list, and then click the right arrow button. The nodes will appear in the Mapped Nodes list.
  - c. Click the **Save** button.

### Task C Starting the Node and Installing the Shared Resources

If an ActiveMatrix Service (JMS, SOAP, or AMX) is included in the SA project, you need to install the corresponding Shared Resource for the appropriate node.

1. In the web browser, select **Configure an Environment** in the Perspective drop-down list, and then select the appropriate Environment.
2. In the Nodes table, select the appropriate node, then click **Start**.
3. In the Node Detail panel, select **Shared Resources**.
4. Enable the corresponding shared resource **EMS Shared Resource** and install it.

### Task D Deploying and Starting the SA Project

1. Select the SA Project in TIBCO ActiveMatrix Administrator, and then click **Deploy**.
2. Start the ActiveMatrix Node that is pre-created with the TIBCO ActiveMatrix Administrator Server.
3. Ensure that the status of the SA project is set to deployed. Select the SA project, and then click **Start**.

### Task E Running the Process in Siebel Call Center

1. Start Siebel Call Center and navigate to Service Simulator.
2. For different publication types, proceed with the following steps.

### Publication of Siebel Business Components

- a. In the Simulator panel, upload  
`7HTTPAgentSimulateMethodInvokeSend.xml` from  
`TIBCO_HOME\adapter\<version number>\examples\service.`
- b. In the Input Arguments panel, upload  
`7HTTPAgentSimulateMethodInvokeSendinput.xml` from



*TIBCO\_HOME\adapter\<version number>\examples\service*. Configure **AgentHTTPServer**, **KeyValue**, and **EventName** in this panel.

- c. Run the service.

### Publication of Siebel Integration Components

- a. In the Simulator panel, upload *7HTTPAgentSimulateMethodInvokeSend.xml* from *TIBCO\_HOME\adapter\<version number>\examples\service*.
- b. In the Input Arguments panel, upload *7HTTPAgentSimulateMethodInvokeSendinput.xml* from *TIBCO\_HOME\adapter\<version number>\examples\service*. Configure **AgentHTTPServer**, **KeyValue**, and **EventName** in this panel.
- c. Run the service.

### Publication of Siebel Complete Integration Object

- a. In the Simulator panel, upload *HTTPAgentSimulateMethodInvokeSend.xml* from *TIBCO\_HOME\adapter\<version number>\examples\service*.
- b. In the Input Arguments panel, upload *HTTPAgentSimulateMethodInvokeSendCompleteIntObjInput.xml* from *TIBCO\_HOME\adapter\<version number>\examples\service*. Configure **AgentHTTPServer** in this panel.
- c. Run the service.

### Publication of Non Siebel Business Components

- a. In the Simulator panel, upload *HTTPAgentSimulateMethodInvokeSend.xml* from *TIBCO\_HOME\adapter\<version number>\examples\service*.
- b. In the Input Arguments panel, upload *HTTPAgentSimulateMethodInvokeSendNonSiebelBusCompInput.xml* from *TIBCO\_HOME\adapter\<version number>\examples\service*. Configure **AgentHTTPServer** in this panel.
- c. Run the service.

### **Task F Running the Process Included in the Project**

1. In TIBCO Business Studio, double click the process in the SiebelAdapterPubBWSample project.
2. Select **Window > Show view > Tester View** from the Menu.
3. Run the process.

## Expected Results

---

The process defined in the TIBCO Designer Project should be working properly. For different publication types, the expected results are as follows:

### **Publication of Siebel Business Components**

All the Accounts that match the keyvalue of the Input Arguments Property are displayed in the Output Tab.

### **Publication of Siebel Integration Components**

All the Accounts that match the keyvalue of the Input Arguments Property are displayed in the Output Tab.

### **Publication of Siebel Complete Integration Object**

The keyvalue of the Input Arguments Property are displayed in the Output Tab.

### **Publication of Non Siebel Business Components**

The keyvalue of the Input Arguments Property are displayed in the Output Tab.



## Chapter 3      **Subscription Service Example**

This chapter provides exercises that demonstrate how to use the adapter's Subscription Service.

### Topics

---

- [Overview, page 24](#)
- [Setting Up the Example, page 25](#)
- [Running the Example, page 33](#)
- [Expected Results, page 35](#)

## Overview

---

The adapter Subscription Service supports the subscription of:

- Siebel Business Components — The adapter inserts or updates Siebel Business Components when it receives a message on a subject.
- Siebel Integration Components — The adapter inserts or updates Siebel Integration Components when it receives a message on a subject.
- Invoke Siebel Workflow — The adapter invokes the Siebel Workflow when it receives a message on a subject.
- Invoke Siebel Business Service — The adapter invokes the Siebel Business Service when it receives a message on a subject.

The example shown in this chapter includes four exercises that demonstrates these different subscription types.

## Setting Up the Example

---

To set up the environment for the example, you need to complete the following tasks:

- [Task A, Configuring the Environment for TIBCO ActiveMatrix, page 25](#)
- [Task B, Importing the Adapter Project, SOA Project, and TIBCO Designer Project, page 25](#)

To create a new SOA project instead of using the pre configured one, proceed with [Task C](#) through [Task I](#).

- [Task C, Creating an SOA Project, page 26](#)
- [Task D, Creating a TIBCO Designer Project, page 26](#)
- [Task E, Generating the Adapter WSDL, page 26](#)
- [Task F, Importing Resources to the TIBCO Designer Project, page 26](#)
- [Task G, Configuring the SOA Project, page 27](#)
- [Task H, Configuring the BusinessWorks Process in the TIBCO Designer Project, page 30](#)
- [Task I, Creating the Service Assembly, page 32](#)

### **Task A Configuring the Environment for TIBCO ActiveMatrix**

For detailed information about configuring the Environment for TIBCO ActiveMatrix, refer to [Configuring the Environment for TIBCO ActiveMatrix on page 4](#).

### **Task B Importing the Adapter Project, SOA Project, and TIBCO Designer Project**

To import the Adapter project, the SOA project, and the TIBCO Designer project into the TIBCO Business Studio, refer to [Importing the Projects into TIBCO Business Studio on page 6](#).

The Adapter project `SBLAdapterSubSample`, the SOA project `SBLAdapterSubSOASample`, and the TIBCO Designer project `SBLAdapterSubBWSample` must be imported into your workspace for this example.

If you want to create a new SOA project and a new TIBCO Designer project instead of using the pre configured ones, proceed with the following tasks.

### Task C Creating an SOA Project

To create a new SOA project, follow these steps:

1. Start TIBCO Business Studio.
2. Select **File > New > Project...** from the Menu to open the New Project dialog.
3. Expand **TIBCO ActiveMatrix > ActiveMatrix SOA Project**, and then click the **Next** button.
4. Type **SiebelAdapterSubSOASample** in the Project name field, and then click the **Next** button.
5. Click the **Finish** button.

### Task D Creating a TIBCO Designer Project

To create a TIBCO Designer Project, follow these steps:

1. Select **File > New > Project** from the Menu to open the New Project dialog.
2. Select **TIBCO Designer > TIBCO Designer Project** in the Select a wizard page, and then click the **Next** button.
3. Type **SiebelAdapterSubBWSample** in the Project name field, and select the **Create new project in the workspace** radio button.
1. Click the **Finish** button.

### Task E Generating the Adapter WSDL

Before performing this task, make sure all the settings for the `SiebelAdapterSubSample` project are correct.

To generate the adapter WSDL file, follow these steps:

1. In the Project Explorer Panel, right-click `SiebelAdapterConfiguration.adsblmodel` under the imported Adapter project `SiebelAdapterSubSample`.
2. Select **Generate Adapter WSDL** from the pop-up menu.
3. In the Target Project dialog, select `SiebelAdapterSubSOASample` as the matching resource.
4. Click the **OK** button.

### Task F Importing Resources to the TIBCO Designer Project

To import resources to the newly created TIBCO Designer Project, follow these steps:



1. In the Project Explorer Panel, select the newly created TIBCO Designer project `SiebelAdapterSubBWSample`.
2. Select **File > Import...** from the Menu to open the Import dialog.
3. Expand the **General folder** and select **File System**, and then click the **Next** button.
4. Click the **Browse** button to locate the SOA project `SiebelAdapterSubSOASample` in the From directory drop-down list, and check the **schema** checkbox in the left pane.
5. Click the **Finish** button.

### Task G Configuring the SOA Project

To configure the SOA project, follow these steps:

1. In the Project Explorer Panel, select the SOA project `SiebelAdapterSubSOASample`, expand the **Composites** folder, and then double-click `SiebelAdapterSubSOASample.composite` to launch the Composite Editor on the right.

2. Create a `SiebelAdapter` component.

Drag the **SiebelAdapter** component from the Palette to the Components column and enter **SiebelAdapterComp** as the component name.

3. Configure the `SiebelAdapter` component

In the Properties view, click the **Services** tab and then click the **Add** button to open the Resource Picker dialog. Expand the tree in the left pane to select the appropriate adapter endpoint, and then click the **Add** button to add it into the Selected Adapter Endpoint pane on the right. Click the **OK** button and the added service will appear under the Services tab. The services pre-configured in the Adapter project `SBLAdapterSubSample` are as follows:

`sub_buscomp` — Siebel Business Components

`sub_intcomp` — Siebel Integration Components

`sub_workflow` — Invoke Siebel Workflow

`sub_businessService` — Invoke Siebel Business Service

4. To configure a subscription using different components, proceed with the following steps.

### Subscription of Siebel Business Components

- a. Create and configure a BusinessWorks component.
  - Drag the **BusinessWorks** component from the Palette to the Components column and enter **BWComp** as the component name.
  - Click the **Implementation** tab and click **Browse** next to the **BW Project** field to select the `SiebelAdapterSubBWSample`.
  - Click the **Reference** tab in the Properties view.  
Click **Add** to open the Add Partner Dialog. Expand the `SiebelAdapterSubBWSample` tree and select the `sub_buscomp` under `SiebelAdapterConfiguration.wsdl`. Click **Finish** to add it.  
Click the radio button next to `SiebelAdapterComp->sub_buscomp` to draw a wire between the `BWComponent` component and the `SiebelAdapterComp` component.
  - A BusinessWorks process `SiebelAdapterConfiguration_sub_buscomp.process` is automatically created under the TIBCO Designer project `SiebelAdapterSubBWSample`.

### Subscription of Siebel Integration Components

- a. In the Project Explorer Panel, right-click the **Shared Resources** folder under the `SiebelAdapterSubSOASample` project, select **New > EMS** from the pop-up menu and then click the **Finish** button.
- b. Add the Shared Resource to the composite.
  - Double click `SiebelAdapterSubSOASample.composite` under the Composite folder.
  - Click the canvas in the Composite Editor to open the Composite Properties Views panel which will appear under the Composite Editor.
  - Click the **Shared Resource Profiles** tab to add the shared resource.
  - Click the **Save** button to save your configuration.
- c. Create and configure a JMS service.
  - Drag a **JMS Service** from the Palette to the Services column and name it `JMS_sub_intcomp`.
  - Click the **Target** tab and click the radio button next to `SiebelAdapterComp->sub_intcomp` to draw a wire between the `JMS_sub_intcomp` service and the `SiebelAdapterComp` component.
  - Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

## Subscription of Siebel Workflow

- a. In the Project Explorer Panel, right-click the **Shared Resources** folder under the `SiebelAdapterSubSOASample` project, select **New > EMS** from the pop-up menu and then click the **Finish** button.
- b. Add the Shared Resource to the composite.
  - Double click `SiebelAdapterSubSOASample.composite` under the Composite folder.
  - Click the canvas in the Composite Editor to open the Composite Properties Views panel which will appear under the Composite Editor.
  - Click the **Shared Resource Profiles** tab to add the shared resource.
  - Click the **Save** button to save your configuration.
- c. Create and configure a JMS service.
  - Drag a **JMS Service** from the Palette to the Services column and name it `JMS_sub_workflow`.
  - Click the **Target** tab and click the radio button next to `SiebelAdapterComp->sub_workflow` to draw a wire between the `JMS_sub_workflow` service and the `SiebelAdapterComp` component.
  - Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

### Subscription of Siebel Business Service

- a. In the Project Explorer Panel, right-click the **Shared Resources** folder under the `SiebelAdapterSubSOASample` project, select **New > EMS** from the pop-up menu and then click the **Finish** button.
- b. Add the Shared Resource to the composite.
  - Double click `SiebelAdapterSubSOASample.composite` under the Composite folder.
  - Click the canvas in the Composite Editor to open the Composite Properties Views panel which will appear under the Composite Editor.
  - Click the **Shared Resource Profiles** tab to add the shared resource.
  - Click the **Save** button to save your configuration.
- c. Create and configure a JMS service.
  - Drag a **JMS Service** from the Palette to the Services column and name it `sub_businessService`.
  - Click the **Target** tab and click the radio button next to `SiebelAdapterComp->sub_businessService` to draw a wire between the `sub_businessService` service and the `SiebelAdapterComp` component.
  - Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

### Task H Configuring the BusinessWorks Process in the TIBCO Designer Project

For Subscription of different components, proceed with the following steps.

### Subscription of Siebel Business Components

In [Task F](#), the BusinessWorks process, `SiebelAdapterConfiguration_sub_buscomp.process`, was generated in the TIBCO Designer project.

To configure the BusinessWorks process, follow these steps:

1. Double-click `SiebelAdapterConfiguration_sub_buscomp.process` to open the Editor View on the right pane.

2. Change the Start activity to the **HTTP Receiver** activity.
  - a. Create an **HTTP Connection** and configure **Port** in the Configuration Panel.
  - b. Right-click the Editor View pane and select **Add Resource > Service > HTTP Receiver** from the pop-up menu. Ensure that the default Start activity has been changed, otherwise, it will not work.
  - c. Click the **HTTP Receiver** activity to open the Configuration View panel. Configure **HTTP Connection**, **name** and **location** for **Parameters** in this panel.
3. Create an Invoke Partner activity for the process.
  - a. Drag a **Invoke Partner** activity from the Palettes panel into the process.
  - b. Configure **Partner** and **Operation** in this panel.
4. Connect the HTTP Receive, Invoke Partner, and End activities.

### Subscription of Siebel Integration Components

1. Create a process `JMS_sub_intcomp.process` under the TIBCO Designer project `SiebelAdapterSubBWSample`.
2. Double click `JMS_sub_intcomp.process` and create a **JMS Queue Sender** activity for the process.
3. Click the **JMS Queue Sender** activity to open the Configuration View panel. Configure **JMS Connection** and **Destination Queue** in this panel.
4. Connect the Start, **JMS Queue Sender**, and End activities.

### Subscription of Siebel Workflow

1. Create a process `JMS_sub_workflow.process` under the TIBCO Designer project `SiebelAdapterSubBWSample`.
2. Double click `JMS_sub_workflow.process` and create a **JMS Queue Sender** activity for the process.
3. Click the **JMS Queue Sender** activity to open the Configuration View panel. Configure **JMS Connection** and **Destination Queue** in this panel.
4. Connect the Start, **JMS Queue Sender**, and End activities.

### Subscription of Siebel Business Service

1. Create a process `JMS_sub_businessService.process` under the TIBCO Designer project `SiebelAdapterSubBWSample`.

2. Double click `JMS_sub_businessService.process` and create a **JMS Queue Sender** activity for the process.
3. Click the **JMS Queue Sender** activity to open the Configuration View panel. Configure **JMS Connection** and **Destination Queue** in this panel.
4. Connect the **Start**, **JMS Queue Sender**, and **End** activities.

### Task I Creating the Service Assembly

To create the service assembly, follow these steps:

1. In the Project Explorer, select the `SiebelAdapterSubSOASample` project.
2. Right-click the composite file `SiebelAdapterSubSOASample.composite`, and then select **Service Assembly** from the pop-up menu. Save the composite if prompted.
3. Expand the **Deployment Packages** folder, right-click `SiebelAdapterSubSOASample.saf`, and then select **Build Archive** from the pop-up menu. Save the file if prompted.

After completing the building process, you can see an `SiebelAdapterSubSOASample.zip` file which has been created in the `Deployment packages` folder. This is the SA Project to be deployed to TIBCO ActiveMatrix Administrator.

## Running the Example

---

To run the example, you need to complete the following tasks:

- [Task A, Starting TIBCO Enterprise Message Service Server, page 17](#)
- [Task B, Deploying an SA File, page 17](#)
- [Task C, Starting the Node and Installing the Shared Resources, page 18](#)
- [Task D, Deploying and Starting the SA Project, page 18](#)
- [Task E, Running the Process in Siebel Call Center, page 18](#)
- [Task F, Running the Process Included in the Project, page 20](#)

### Task A Starting TIBCO Enterprise Message Service Server

To start TIBCO Enterprise Message Service Server:

1. Go to the `EMS_HOME\bin` directory.
2. Run the following command in the command prompt:  
`tibemsd.exe`

### Task B Deploying an SA File



Before proceeding, ensure that the HSQLDB, TIBCO ActiveMatrix Administrator, and TIBCO ActiveMatrix Administrator Server are running in a web browser.

To deploy the SA project (the ZIP file) in TIBCO ActiveMatrix Administrator:

1. Select the **Deploy to an Environment** perspective.
2. Choose the Environment, and then click the **Upload Service Assembly** button.
3. Enter a name for the SA in the Name field.
4. Click the **Browse** button to select the archived ZIP file (the SA project) which was generated in TIBCO Business Studio.
5. Click the **OK** button.
6. In the Service Assemblies panel, select the service assembly.
7. Click the **Service Units** button.

8. For each service unit in the service assembly, follow these steps:
  - a. Select a service unit in the Service Units table.
  - b. In the Node Mapping tab, select the nodes which you want to deploy the service unit to from the Available Nodes list, and then click the right arrow button. The nodes will appear in the Mapped Nodes list.
  - c. Click the **Save** button.

### Task C Starting the Node and Installing the Shared Resources

If an ActiveMatrix Service (JMS, SOAP, or AMX) is included in the SA project, you need to install the corresponding Shared Resource for the appropriate node.

1. In the web browser, select **Configure an Environment** in the Perspective drop-down list, and then select the appropriate Environment.
2. In the Nodes table, select the appropriate node, then click **Start**.
3. In the Node Detail panel, select **Shared Resources**.
4. Enable the corresponding shared resource **EMS Shared Resource** and install it.

### Task D Deploying and Starting the SA Project

1. Select the SA Project in TIBCO ActiveMatrix Administrator, and then click **Deploy**.
2. Start the ActiveMatrix Node that is pre-created with the TIBCO ActiveMatrix Administrator Server.
3. Ensure that the status of the SA project is set to deployed. Select the SA project, and then click **Start**.

### Task E Running the Process Included in the Project

1. In TIBCO Business Studio, double click the process in the `SiebelAdapterSubBWSample` project.
2. Select **Window > Show view > Tester View** from the Menu.
3. Run the process.
4. Send an HTTP request, for example,  
`http://localhost:port/?name=yourname&location=yourlocation`



## Expected Results

---

The process defined in the TIBCO Designer Project should be working properly. For different subscription types, the expected results are as follows:

### **Subscription of Siebel Business Components**

An account with the name of *yourname* is upserted in to Siebel.

### **Subscription of Siebel Integration Components**

An account with the name of *tibcoCDC* is upserted in to Siebel.

### **Subscription of Siebel Workflow**

An account with the name of *sub\_workflow* is upserted in to Siebel.

### **Subscription of Siebel Business Service**

An account with the name of *sub\_businessService* is upserted in to Siebel.

## Chapter 4      **RPC Service Example**

This chapter provides exercises that demonstrate how to use the adapter's RPC Service.

### Topics

---

- [Overview, page 37](#)
- [Setting Up the Example, page 38](#)
- [Running the Example, page 45](#)
- [Expected Results, page 47](#)

## Overview

---

The adapter's RPC Service allows an external application to:

- Query Siebel Business Components
- Insert or Update Siebel Business Components
- Query Siebel Integration Components
- Insert or Update Siebel Integration Components
- Invoke Siebel Workflow
- Invoke Siebel Business Service

The example shown in this chapter includes six exercises that demonstrates these different RPC service types.

## Setting Up the Example

---

To set up the environment for the example, you need to complete the following tasks:

- [Task A, Configuring the Environment for TIBCO ActiveMatrix, page 38](#)
- [Task B, Importing the Adapter Project, SOA Project, and TIBCO Designer Project, page 38](#)

To create a new SOA project instead of using the pre configured one, proceed with [Task C](#) through .

- [Task C, Creating an SOA Project, page 39](#)
- [Task D, Creating a TIBCO Designer Project, page 39](#)
- [Task E, Generating the Adapter WSDL, page 39](#)
- [Task F, Importing Resources to the TIBCO Designer Project, page 39](#)
- [Task G, Configuring the SOA Project, page 40](#)
- [Task H, Configure the BusinessWorks Process in the TIBCO Designer Project, page 42](#)
- [Task I, Creating the Service Assembly, page 44](#)

### **Task A Configuring the Environment for TIBCO ActiveMatrix**

For detailed information about configuring the Environment for TIBCO ActiveMatrix, refer to [Configuring the Environment for TIBCO ActiveMatrix on page 4](#).

### **Task B Importing the Adapter Project, SOA Project, and TIBCO Designer Project**

To import the Adapter project, the SOA project, and the TIBCO Designer project into the TIBCO Business Studio, refer to [Importing the Projects into TIBCO Business Studio on page 6](#).

The Adapter project `SBLAdapterRPCSample`, the SOA project `SBLAdapterRPCSOASample`, and the TIBCO Designer project `SBLAdapterRPCBWSample` must be imported into your workspace for this example.

If you want to create a new SOA project and a new TIBCO Designer project instead of using the pre configured ones, proceed with the following tasks.

### Task C Creating an SOA Project

To create a new SOA project, follow these steps:

1. Start TIBCO Business Studio.
2. Select **File > New > Project...** from the Menu to open the New Project dialog.
3. Expand **TIBCO ActiveMatrix > ActiveMatrix SOA Project**, and then click the **Next** button.
4. Type **SiebelAdapterRPCSOASample** in the Project name field, and then click the **Next** button.
5. Click the **Finish** button.

### Task D Creating a TIBCO Designer Project

To create a TIBCO Designer Project, follow these steps:

1. Select **File > New > Project** from the Menu to open the New Project dialog.
2. Select **TIBCO Designer > TIBCO Designer Project** in the Select a wizard page, and then click the **Next** button.
3. Type **SiebelAdapterRPCBWSample** in the Project name field, and select the **Create new project in the workspace** radio button.
1. Click the **Finish** button.

### Task E Generating the Adapter WSDL

Before performing this task, make sure all the settings for the `SiebelAdapterRPCSample` project are correct.

To generate the adapter WSDL file, follow these steps:

1. In the Project Explorer Panel, right-click `SiebelAdapterConfiguration.adsblmodel` under the imported Adapter project `SiebelAdapterRPCSample`.
2. Select **Generate Adapter WSDL** from the pop-up menu.
3. In the Target Project dialog, select `SiebelAdapterRPCSOASample` as the matching resource.
4. Click the **OK** button.

### Task F Importing Resources to the TIBCO Designer Project

To import resources to the newly created TIBCO Designer Project, follow these steps:

1. In the Project Explorer Panel, select the newly created TIBCO Designer project `SiebelAdapterRPCBWSample`.
2. Select **File > Import...** from the Menu to open the Import dialog.
3. Expand the **General folder** and select **File System**, and then click the **Next** button.
4. Click the **Browse** button to locate the SOA project `SiebelAdapterRPCSOASample` in the From directory drop-down list, and check the **schema** checkbox in the left pane.
5. Click the **Finish** button.

### Task G Configuring the SOA Project

To configure the SOA project, follow these steps:

1. In the Project Explorer Panel, select the SOA project `SiebelAdapterRPCSOASample`, expand the **Composites** folder, and then double-click `SiebelAdapterRPCSOASample.composite` to launch the Composite Editor on the right.

2. Create a `SiebelAdapter` component.

Drag the **SiebelAdapter** component from the Palette to the Components column and enter **SiebelAdapter** as the component name.

3. Configure the `SiebelAdapter` component

In the Properties view, click the **Services** tab and then click the **Add** button to open the Resource Picker dialog. Expand the tree in the left pane to select the appropriate adapter endpoint, and then click the **Add** button to add it into the Selected Adapter Endpoint pane on the right. Click the **OK** button and the added service will appear under the Services tab. The services pre-configured in the Adapter project `SBLAdapterRPCSample` are as follows:

`rpcQueryBusComp` — Query Siebel Business Components

`rpcUPSERTBusComp` — Insert or Update Siebel Business Components

`rpcQueryIntComp` — Query Siebel Integration Components

`rpcUPSERTIntComp` — Insert or Update Siebel Integration Components

`rpcInvokeWorkflow` — Invoke Siebel Workflow

`rpcInvokeBusService` — Invoke Siebel Business Service

4. In the Project Explorer Panel, right-click the **Shared Resources** folder under the `SiebelAdapterRPCSOASample` project, select **New > EMS** from the pop-up menu, and then click the **Finish** button.

5. Add the Shared Resource to the composite.
  - a. Double click `SiebelAdapterRPCSOASample.composite` under the Composite folder.
  - b. Click the canvas in the Composite Editor to open the Composite Properties Views panel which will appear under the Composite Editor.
  - c. Click the **Shared Resource Profiles** tab to add the shared resource.
  - d. Click the **Save** button to save your configuration.
6. Create and configure a JMS service.  
To configure RPC Services of different types, proceed with the following steps.

### RPC Service of Query Siebel Business Components

- a. Drag a **JMS Service** from the Palette to the Services column and name it `RPCQueryBusCompSOAP`.
- b. Click the **Target** tab and click the radio button next to `SiebelAdapter->rpcQueryBusComp` to draw a wire between the `RPCQueryBusCompSOAP` service and the `SiebelAdapter` component.
- c. Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

### RPC Service of Insert or Update Siebel Business Components

- a. Drag a **JMS Service** from the Palette to the Services column and name it `RPCUPSERTBusCompSOAP`.
- b. Click the **Target** tab and click the radio button next to `SiebelAdapter->rpcUPSERTBusComp` to draw a wire between the `RPCUPSERTBusCompSOAP` service and the `SiebelAdapter` component.
- c. Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

### RPC Service of Query Siebel Integration Components

- a. Drag a **JMS Service** from the Palette to the Services column and name it `RPCQueryIntCompSOAP`.
- b. Click the **Target** tab and click the radio button next to `SiebelAdapter->rpcQueryIntComp` to draw a wire between the `RPCQueryIntCompSOAP` service and the `SiebelAdapter` component.
- c. Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

### RPC Service of Insert or Update Siebel Integration Components

- Drag a **JMS Service** from the Palette to the Services column and name it `RPCUPsertIntCompSOAP`.
- Click the **Target** tab and click the radio button next to `SiebelAdapter->rpcUPsertIntComp` to draw a wire between the `RPCUPsertIntCompSOAP` service and the `SiebelAdapter` component.
- Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

### RPC Service of Invoke Siebel Workflow

- Drag a **JMS Service** from the Palette to the Services column and name it `RPCInvokeWorkflowSOAP`.
- Click the **Target** tab and click the radio button next to `SiebelAdapter->rpcInvokeWorkflow` to draw a wire between the `RPCInvokeWorkflowSOAP` service and the `SiebelAdapter` component.
- Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

### RPC Service of Invoke Siebel Business Service

- Drag a **JMS Service** from the Palette to the Services column and name it `RPCInvokeBusServiceSOAP`.
- Click the **Target** tab and click the radio button next to `SiebelAdapter->rpcInvokeBusService` to draw a wire between the `RPCInvokeBusServiceSOAP` service and the `SiebelAdapter` component.
- Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

## Task H Configure the BusinessWorks Process in the TIBCO Designer Project

For different RPC service types, proceed with the following steps.

### RPC Service of Query Siebel Business Components

1. Create a process `SOAP_rpcQueryBusComp.process` under the TIBCO Designer project `SiebelAdapterRPCBWSample`.
2. Double click `SOAP_rpcQueryBusComp.process` and create a **SOAP Request Reply** activity for the process.



3. Click the SOAP Request Reply activity to open the Configuration View panel. Configure **Service** in this panel.
4. Connect the Start, SOAP Request Reply, and End activities.

### RPC Service of Insert or Update Siebel Business Components

1. Create a process `SOAP_rpcUPSERTBusComp.process` under the TIBCO Designer project `SiebelAdapterRPCBWSample`.
2. Double click `SOAP_rpcUPSERTBusComp.process` and create a **SOAP Request Reply** activity for the process.
3. Click the SOAP Request Reply activity to open the Configuration View panel. Configure **Service** in this panel.
4. Connect the Start, SOAP Request Reply, and End activities.

### RPC Service of Query Siebel Integration Components

1. Create a process `SOAP_rpcQueryIntComp.process` under the TIBCO Designer project `SiebelAdapterRPCBWSample`.
2. Double click `SOAP_rpcQueryIntComp.process` and create a **SOAP Request Reply** activity for the process.
3. Click the SOAP Request Reply activity to open the Configuration View panel. Configure **Service** in this panel.
4. Connect the Start, SOAP Request Reply, and End activities.

### RPC Service of Insert or Update Siebel Integration Components

1. Create a process `SOAP_rpcUPSERTIntComp.process` under the TIBCO Designer project `SiebelAdapterRPCBWSample`.
2. Double click `SOAP_rpcUPSERTIntComp.process` and create a **SOAP Request Reply** activity for the process.
3. Click the SOAP Request Reply activity to open the Configuration View panel. Configure **Service** in this panel.
4. Connect the Start, SOAP Request Reply, and End activities.

### RPC Invoke Siebel Workflow

1. Create a process `SOAP_rpcInvokeWorkflow.process` under the TIBCO Designer project `SiebelAdapterRPCBWSample`.

2. Double click `SOAP_rpcInvokeWorkflow.process` and create a **SOAP Request Reply** activity for the process.
3. Click the SOAP Request Reply activity to open the Configuration View panel. Configure **Service** in this panel.
4. Connect the Start, SOAP Request Reply, and End activities.

### RPC Invoke Siebel Business Service

1. Create a process `SOAP_rpcInvokeBusService.process` under the TIBCO Designer project `SiebelAdapterRPCBWSample`.
2. Double click `SOAP_rpcInvokeBusService.process` and create a **SOAP Request Reply** activity for the process.
3. Click the SOAP Request Reply activity to open the Configuration View panel. Configure **Service** in this panel.
4. Connect the Start, SOAP Request Reply and End activities.

### Task I Creating the Service Assembly

To create the service assembly, follow these steps:

1. In the Project Explorer, select the `SiebelAdapterRPCSOASample` project.
2. Right-click the composite file `SiebelAdapterRPCSOASample.composite`, and then select **Service Assembly** from the pop-up menu. Save the composite if prompted.
3. Expand the **Deployment Packages** folder, right-click `SiebelAdapterRPCSOASample.saf`, and then select **Build Archive** from the pop-up menu. Save the file if prompted.

After completing the building process, you can see a `SiebelAdapterRPCSOASample.zip` file which has been created in the Deployment packages folder. This is the SA Project to be deployed to TIBCO ActiveMatrix Administrator.

## Running the Example

---

To run the example, you need to complete the following tasks:

- [Task A, Starting TIBCO Enterprise Message Service Server, page 17](#)
- [Task B, Deploying an SA File, page 17](#)
- [Task C, Starting the Node and Installing the Shared Resources, page 18](#)
- [Task D, Deploying and Starting the SA Project, page 18](#)
- [Task E, Running the Process in Siebel Call Center, page 18](#)
- [Task F, Running the Process Included in the Project, page 20](#)

### Task A Starting TIBCO Enterprise Message Service Server

To start TIBCO Enterprise Message Service Server:

1. Go to the `EMS_HOME\bin` directory.
2. Run the following command in the command prompt:  
`tibemsd.exe`

### Task B Deploying an SA File



Before proceeding, ensure that the HSQLDB, TIBCO ActiveMatrix Administrator, and TIBCO ActiveMatrix Administrator Server are running in a web browser.

To deploy the SA project (the ZIP file) in TIBCO ActiveMatrix Administrator:

1. Select the **Deploy to an Environment** perspective.
2. Choose the Environment, and then click the **Upload Service Assembly** button.
3. Enter a name for the SA in the Name field.
4. Click the **Browse** button to select the archived ZIP file (the SA project) which was generated in TIBCO Business Studio.
5. Click the **OK** button.
6. In the Service Assemblies panel, select the service assembly.
7. Click the **Service Units** button.

8. For each service unit in the service assembly, follow these steps:
  - a. Select a service unit in the Service Units table.
  - b. In the Node Mapping tab, select the nodes which you want to deploy the service unit to from the Available Nodes list, and then click the right arrow button. The nodes will appear in the Mapped Nodes list.
  - c. Click the **Save** button.

### Task C Starting the Node and Installing the Shared Resources

If an ActiveMatrix Service (JMS, SOAP, or AMX) is included in the SA project, you need to install the corresponding Shared Resource for the appropriate node.

1. In the web browser, select **Configure an Environment** in the Perspective drop-down list, and then select the appropriate Environment.
2. In the Nodes table, select the appropriate node, then click **Start**.
3. In the Node Detail panel, select **Shared Resources**.
4. Enable the corresponding shared resource **EMS Shared Resource** and install it.

### Task D Deploying and Starting the SA Project

1. Select the SA Project in TIBCO ActiveMatrix Administrator, and then click **Deploy**.
2. Start the ActiveMatrix Node that is pre-created with the TIBCO ActiveMatrix Administrator Server.
3. Ensure that the status of the SA project is set to deployed. Select the SA project, and then click **Start**.

### Task E Running the Process Included in the Project

1. In TIBCO Business Studio, double click the process in the `SiebelAdapterRPCBWSample` project.
2. Select **Window > Show view > Tester View** from the Menu.
3. Run the process.

## Expected Results

---

The process defined in the TIBCO Designer Project should be working properly. For different RPC service types, the expected results are as follows:

### **RPC Service of Query Siebel Business Components**

All the accounts, whose name starts with k, will be displayed in the Output Tab.

### **RPC Service of Insert or Update Siebel Business Components**

The account with the name of van gogh will be upserted into Siebel and displayed in the Output Tab.

### **RPC Service of Query Siebel Integration Components**

All the accounts, whose name starts with k, will be displayed in the Output Tab.

### **RPC Service of Insert or Update Siebel Integration Components**

The account with the name of van gogh will be upserted into Siebel and displayed in the Output Tab.

### **RPC Service of Invoke Siebel Workflow**

The account with the name of van gogh will be upserted into Siebel and displayed in the Output Tab.

### **RPC Service of Invoke Siebel Business Service**

The account with the name of van gogh will be deleted from Siebel and displayed in the Output Tab.

## Chapter 5 **RPCC Service Example**

This chapter provides exercises that demonstrate how to use the adapter's RPCC Service.

### Topics

---

- [Overview, page 49](#)
- [Setting Up the Example, page 50](#)
- [Running the Example, page 58](#)
- [Expected Results, page 62](#)

## Overview

---

The adapter's RPCC Service allows an external application to:

- Query Siebel Business Components — The adapter queries Siebel Business Component data and generates a request to the external application.
- Query Non Siebel Business Component — The adapter generates the request to the external application with the data from the Siebel application that invokes the adapter, without querying Siebel.
- Query Siebel Integration Components — The adapter queries Siebel Integration Component data and generates a request to the external application.
- Query Siebel Complete Integration Object— The adapter queries Siebel Complete Integration Object data and generates a request to the external application.

The example shown in this chapter includes four exercises that demonstrates these different RPCC service types.

## Setting Up the Example

---

To set up the environment for the example, you need to complete the following tasks:

- [Task A, Starting TIBCO Enterprise Message Service Server, page 45](#)
- [Task B, Importing the Adapter Project, SOA Project, and TIBCO Designer Project, page 50](#)

To create a new SOA project instead of using the pre configured one, proceed with [Task C](#) through [Task I](#).

- [Task C, Creating an SOA Project, page 51](#)
- [Task D, Creating a TIBCO Designer Project, page 51](#)
- [Task E, Generating the Adapter WSDL, page 51](#)
- [Task F, Importing Resources to the TIBCO Designer Project, page 51](#)
- [Task G, Configuring the SOA Project, page 52](#)
- [Task H, Configure the BusinessWorks Process in the TIBCO Designer Project, page 54](#)
- [Task I, Creating the Service Assembly, page 56](#)

### **Task A Configuring the Environment for TIBCO ActiveMatrix**

For detailed information about configuring the Environment for TIBCO ActiveMatrix, refer to [Configuring the Environment for TIBCO ActiveMatrix on page 4](#).

### **Task B Importing the Adapter Project, SOA Project, and TIBCO Designer Project**

To import the Adapter project, the SOA project, and the TIBCO Designer project into the TIBCO Business Studio, refer to [Importing the Projects into TIBCO Business Studio on page 6](#).

The Adapter project `SBLAdapterRPCCSample`, the SOA project `SBLAdapterRPCCSOASample`, and the TIBCO Designer project `SBLAdapterRPCCBWSample` must be imported into your workspace for this example.

If you want to create a new SOA project and a new TIBCO Designer project instead of using the pre configured ones, proceed with the following tasks.



### Task C Creating an SOA Project

To create a new SOA project, follow these steps:

1. Start TIBCO Business Studio.
2. Select **File > New > Project...** from the Menu to open the New Project dialog.
3. Expand **TIBCO ActiveMatrix > ActiveMatrix SOA Project**, and then click the **Next** button.
4. Type **SiebelAdapterRPCCSOASample** in the Project name field, and then click the **Next** button.
5. Click the **Finish** button.

### Task D Creating a TIBCO Designer Project

To create a TIBCO Designer Project, follow these steps:

1. Select **File > New > Project** from the Menu to open the New Project dialog.
2. Select **TIBCO Designer > TIBCO Designer Project** in the Select a wizard page, and then click the **Next** button.
3. Type **SiebelAdapterRPCCBWSample** in the Project name field, and select the **Create new project in the workspace** radio button.
1. Click the **Finish** button.

### Task E Generating the Adapter WSDL

Before performing this task, make sure all the settings for the `SiebelAdapterRPCCSample` project are correct.

To generate the adapter WSDL file, follow these steps:

1. In the Project Explorer Panel, right-click `SiebelAdapterConfiguration.adsblmodel` under the imported Adapter project `SiebelAdapterRPCCSample`.
2. Select **Generate Adapter WSDL** from the pop-up menu.
3. In the Target Project dialog, select `SiebelAdapterRPCCSOASample` as the matching resource.
4. Click the **OK** button.

### Task F Importing Resources to the TIBCO Designer Project

To import resources to the newly created TIBCO Designer Project, follow these steps:

1. In the Project Explorer Panel, select the newly created TIBCO Designer project `SiebelAdapterRPCCBWSample`.
2. Select **File > Import...** from the Menu to open the Import dialog.
3. Expand the **General folder** and select **File System**, and then click the **Next** button.
4. Click the **Browse** button to locate the SOA project `SiebelAdapterRPCCSOASample` in the From directory drop-down list, and check the **schema** checkbox in the left pane.
5. Click the **Finish** button.

### Task G Configuring the SOA Project

To configure the SOA project, follow these steps:

1. In the Project Explorer Panel, select the SOA project `SiebelAdapterRPCCSOASample`, expand the **Composites** folder, and then double-click `SiebelAdapterRPCCSOASample.composite` to launch the Composite Editor on the right.

2. Create a SiebelAdapter component.

Drag the **SiebelAdapter** component from the Palette to the Components column and enter **SiebelAdapter** as the component name.

3. Configure the SiebelAdapter component

In the Properties view, click the **Services** tab and then click the **Add** button to open the Resource Picker dialog. Expand the tree in the left pane to select the appropriate adapter endpoint, and then click the **Add** button to add it into the Selected Adapter Endpoint pane on the right. Click the **OK** button and the added service will appear under the Services tab. The services pre-configured in the Adapter project `SBLAdapterRPCCSample` are as follows:

`rpccBusComp` — Query Siebel Business Components

`rpccNSBusComp` — Query Non Siebel Business Component

`rpccIntComp` — Query Siebel Integration Components

`rpccIntObj` — Query Siebel Complete Integration Object

4. In the Project Explorer Panel, right-click the **Shared Resources** folder under the `SiebelAdapterRPCCSOASample` project, select **New > EMS** from the pop-up menu, and then click the **Finish** button.

5. Add the Shared Resource to the composite.
  - a. Double click `SiebelAdapterRPCCSOASample.composite` under the Composite folder.
  - b. Click the canvas in the Composite Editor to open the Composite Properties Views panel which will appear under the Composite Editor.
  - c. Click the **Shared Resource Profiles** tab to add the shared resource.
  - d. Click the **Save** button to save your configuration.
6. Create and configure a JMS service.

To configure RPCC Services of different types, proceed with the following steps.

### **RPCC Service of Query Siebel Business Components**

- a. Drag a **JMS** Service from the Palette to the Services column and name it `RPCCBusCompJMS`.
- b. Click the **Target** tab and click the radio button next to `SiebelAdapter->rpccBusComp` to draw a wire between the `RPCCBusCompJMS` service and the `SiebelAdapter` component.
- c. Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

### **RPCC Service of Query Siebel Integration Components**

- a. Drag a **JMS** Service from the Palette to the Services column and name it `RPCCIntCompJMS`.
- b. Click the **Target** tab and click the radio button next to `SiebelAdapter->rpccIntComp` to draw a wire between the `RPCCIntCompJMS` service and the `SiebelAdapter` component.
- c. Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

### RPCC Service of Query Non Siebel Business Component

- a. Drag a **JMS Service** from the Palette to the Services column and name it **RPCCNSBusCompJMS**.
- b. Click the **Target** tab and click the radio button next to **SiebelAdapter->rpccNSBusComp** to draw a wire between the **RPCCNSBusCompJMS** service and the **SiebelAdapter** component.
- c. Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

### RPCC Service of Query Siebel Complete Integration Object

- a. Drag a **JMS Service** from the Palette to the Services column and name it **RPCCIntObjJMS**.
- b. Click the **Target** tab and click the radio button next to **SiebelAdapter->rpccIntObj** to draw a wire between the **RPCCIntObjJMS** service and the **SiebelAdapter** component.
- c. Click the **Binding** tab to add the shared resource profile in the Endpoint pane.

## Task H Configure the BusinessWorks Process in the TIBCO Designer Project

For different RPCC service types, proceed with the following steps.

### RPCC Service of Query Siebel Business Components

1. Create a process **JMS\_rpccBusComp.process** under the TIBCO Designer project **SiebelAdapterRPCCBWSample**.
2. Double-click **JMS\_rpccBusComp.process** to open the Editor View on the right pane.
3. Change the Start activity to the **JMS Queue Receiver** activity.
  - a. Right-click the Editor View pane and select **Add Resource > Service > JMS Queue Receiver** from the pop-up menu. Ensure that the default Start activity has been changed, otherwise, it will not work.
  - b. Click the **JMS Queue Receiver** activity to open the Configuration View panel. Configure **JMS Connection** and **Destination Queue** in this panel.

4. Create a **Reply to JMS Message** activity for the process.
  - a. Drag a **Reply to JMS Message** activity from the Palettes panel into the process.
  - b. Configure **Reply to** and **Message Type** in the configuration tab
  - c. Configure the schema for the **Reply to JMS Message** activity.
5. Connect the JMS Queue Receive, Reply to JMS Message and End activities.

### **RPCC Service of Query Siebel Integration Components**

1. Create a process JMS\_rpccIntComp.process under the TIBCO Designer project SiebelAdapterRPCCBWSample.
2. Double-click JMS\_rpccIntComp.process to open the Editor View on the right pane.
3. Change the Start activity to the **JMS Queue Receiver** activity.
  - a. Right-click the Editor View pane and select **Add Resource > Service > JMS Queue Receiver** from the pop-up menu. Ensure that the default Start activity has been changed, otherwise, it will not work.
  - b. Click the **JMS Queue Receiver** activity to open the Configuration View panel. Configure **JMS Connection** and **Destination Queue** in this panel.
4. Create a **Reply to JMS Message** activity for the process.
  - a. Drag a **Reply to JMS Message** activity from the Palettes panel into the process.
  - b. Configure **Reply to** and **Message Type** in the configuration tab
  - c. Configure the schema for the **Reply to JMS Message** activity.
5. Connect the JMS Queue Receive, Reply to JMS Message and End activities.

### **RPCC Service of Query Non Siebel Business Component**

1. Create a process JMS\_rpccNSBusComp.process under the TIBCO Designer project SiebelAdapterRPCCBWSample.
2. Double-click JMS\_rpccNSBusComp.process to open the Editor View on the right pane.

3. Change the Start activity to the **JMS Queue Receiver** activity.
  - a. Right-click the Editor View pane and select **Add Resource > Service > JMS Queue Receiver** from the pop-up menu. Ensure that the default Start activity has been changed, otherwise, it will not work.
  - b. Click the **JMS Queue Receiver** activity to open the Configuration View panel. Configure **JMS Connection** and **Destination Queue** in this panel.
4. Create a **Reply to JMS Message** activity for the process.
  - a. Drag a **Reply to JMS Message** activity from the Palettes panel into the process.
  - b. Configure **Reply to and Message Type** in the configuration tab
  - c. Configure the schema for the **Reply to JMS Message** activity.
5. Connect the JMS Queue Receive, Reply to JMS Message and End activities.

### RPCC Service of Query Siebel Complete Integration Object

1. Create a process `JMS_rpccIntObj.process` under the TIBCO Designer project `SiebelAdapterRPCCBWSample`.
2. Double-click `JMS_rpccIntObj.process` to open the Editor View on the right pane.
3. Change the Start activity to the **JMS Queue Receiver** activity.
  - a. Right-click the Editor View pane and select **Add Resource > Service > JMS Queue Receiver** from the pop-up menu. Ensure that the default Start activity has been changed, otherwise, it will not work.
  - b. Click the **JMS Queue Receiver** activity to open the Configuration View panel. Configure **JMS Connection** and **Destination Queue** in this panel.
4. Create a **Reply to JMS Message** activity for the process.
  - a. Drag a **Reply to JMS Message** activity from the Palettes panel into the process.
  - b. Configure **Reply to and Message Type** in the configuration tab
  - c. Configure the schema for the **Reply to JMS Message** activity.
5. Connect the JMS Queue Receive, Reply to JMS Message and End activities.

### Task I Creating the Service Assembly

To create the service assembly, follow these steps:

1. In the Project Explorer, select the `SiebelAdapterRPCCSOASample` project.

2. Right-click the composite file `SiebelAdapterRPCCSOASample.composite`, and then select **Service Assembly** from the pop-up menu. Save the composite if prompted.
3. Expand the **Deployment Packages** folder, right-click `SiebelAdapterRPCCSOASample.saf`, and then select **Build Archive** from the pop-up menu. Save the file if prompted.

After completing the building process, you can see an `SiebelAdapterRPCCSOASample.zip` file which has been created in the `Deployment packages` folder. This is the SA Project to be deployed to TIBCO ActiveMatrix Administrator.

## Running the Example

---

To run the example, you need to complete the following tasks:

- [Task A, Starting TIBCO Enterprise Message Service Server, page 17](#)
- [Task B, Deploying an SA File, page 17](#)
- [Task C, Starting the Node and Installing the Shared Resources, page 18](#)
- [Task D, Deploying and Starting the SA Project, page 18](#)
- [Task E, Running the Process in Siebel Call Center, page 18](#)
- [Task F, Running the Process Included in the Project, page 20](#)

### Task A Starting TIBCO Enterprise Message Service Server

To start TIBCO Enterprise Message Service Server:

1. Go to the *EMS\_HOME\bin* directory.
2. Run the following command in the command prompt:  
`tibemsd.exe`

### Task B Deploying an SA File



Before proceeding, ensure that the HSQLDB, TIBCO ActiveMatrix Administrator, and TIBCO ActiveMatrix Administrator Server are running in a web browser.

To deploy the SA project (the ZIP file) in TIBCO ActiveMatrix Administrator:

1. Select the **Deploy to an Environment** perspective.
2. Choose the Environment, and then click the **Upload Service Assembly** button.
3. Enter a name for the SA in the Name field.
4. Click the **Browse** button to select the archived ZIP file (the SA project) which was generated in TIBCO Business Studio.
5. Click the **OK** button.
6. In the Service Assemblies panel, select the service assembly.
7. Click the **Service Units** button.



8. For each service unit in the service assembly, follow these steps:
  - a. Select a service unit in the Service Units table.
  - b. In the Node Mapping tab, select the nodes which you want to deploy the service unit to from the Available Nodes list, and then click the right arrow button. The nodes will appear in the Mapped Nodes list.
  - c. Click the **Save** button.

### Task C Starting the Node and Installing the Shared Resources

If an ActiveMatrix Service (JMS, SOAP, or AMX) is included in the SA project, you need to install the corresponding Shared Resource for the appropriate node.

1. In the web browser, select **Configure an Environment** in the Perspective drop-down list, and then select the appropriate Environment.
2. In the Nodes table, select the appropriate node, then click **Start**.
3. In the Node Detail panel, select **Shared Resources**.
4. Enable the corresponding shared resource **EMS Shared Resource** and install it.

### Task D Deploying and Starting the SA Project

1. Select the SA Project in TIBCO ActiveMatrix Administrator, and then click **Deploy**.
2. Start the ActiveMatrix Node that is pre-created with the TIBCO ActiveMatrix Administrator Server.
3. Ensure that the status of the SA project is set to deployed. Select the SA project, and then click **Start**.

### Task E Running the Process in Siebel Call Center

1. Start Siebel Call Center and navigate to Service Simulator.
2. For different publication types, proceed with the following steps.

### RPCC of Siebel Business Components

- a. In Simulator panel, upload  
`HTTPAgentSimulateMethodInvokeSendReceive.xml` from  
`TIBCO_HOME\adapter\<version number>\examples\service.`
- b. In Input Arguments panel, upload  
`HTTPAgentSimulateMethodInvokeSendReceiveInput.xml` from

*TIBCO\_HOME\adapter\<version number>\examples\service*. Configure **AgentHTTPServer**, **KeyValue** and **EventName** in this panel.

- c. Run the service.

### Publication of Siebel Integration Components

- a. In Simulator panel, upload *HTTPAgentSimulateMethodInvokeSendReceive.xml* from *TIBCO\_HOME\adapter\<version number>\examples\service*.
- b. In Input Arguments panel, upload *HTTPAgentSimulateMethodInvokeSendReceiveInput.xml* from *TIBCO\_HOME\adapter\<version number>\examples\service*. Configure **AgentHTTPServer**, **KeyValue** and **EventName** in this panel.
- c. Run the service.

### Publication of Siebel Complete Integration Object

- a. In Simulator panel, upload *HTTPAgentSimulateMethodInvokeSendReceive.xml* from *TIBCO\_HOME\adapter\<version number>\examples\service*.
- b. In Input Arguments panel, upload *HTTPAgentSimulateMethodInvokeSendCompleteIntObjInput.xml* from *TIBCO\_HOME\adapter\<version number>\examples\service*. Configure **AgentHTTPServer** in this panel.
- c. Run the service.

### Publication of Non Siebel Business Components

- a. In Simulator panel, upload *HTTPAgentSimulateMethodInvokeSendReceive.xml* from *TIBCO\_HOME\adapter\<version number>\examples\service*.
- b. In Input Arguments panel, upload *HTTPAgentSimulateMethodInvokeSendNonSiebelBusCompInput.xml* from *TIBCO\_HOME\adapter\<version number>\examples\service*. Configure **AgentHTTPServer** in this panel.
- c. Run the service.

**Task F Running the Process Included in the Project**

1. In TIBCO Business Studio, double click the process in the SiebelAdapterRPCCBWSample project.
2. Select **Window > Show view > Tester View** from the Menu.
3. Run the process.

## Expected Results

---

The process defined in the TIBCO Designer Project should be working properly. For different RPCC service types, the expected results are as follows:

### **RPCC Service of Query Siebel Business Components**

All the Accounts that match the keyvalue of the Input Arguments Property are displayed in the Output Tab. The data named `aaaa` that is entered from the Input Tab of the BusinessWorks Process is returned to Child Type PropertySet in Siebel.

### **RPCC Service of Query Non Siebel Business Component**

All the Accounts that match the keyvalue of the Input Arguments Property are displayed in the Output Tab. The data named `rpccIntComp` that is entered from the Input Tab of the BusinessWorks Process is returned to Child Type PropertySet in Siebel.

### **RPCC Service of Query Siebel Integration Components**

The keyvalue of the Input Arguments Property is displayed in the Output Tab. The data named `rpccIntObj` that is entered from the Input Tab of the BusinessWorks Process is returned to Child Type PropertySet in Siebel.

### **RPCC Service of Query Siebel Complete Integration Object**

The keyvalue of the Input Arguments Property is displayed in the Output Tab. The data named `rpccNSBusComp` that is entered from the Input Tab of the BusinessWorks Process is returned to Child Type PropertySet in Siebel.

# Index

## A

API [xii](#)

## C

customer support [xiii](#)

## D

deploy the SA project [17](#), [33](#), [45](#), [58](#)

## E

Environment [5](#)

## I

Importing the Projects into TIBCO Business Studio [6](#)

## N

Node [5](#)

## O

Overview [2](#)

## P

Prerequisites [3](#)

## R

RV [xii](#), [xii](#)

## S

support, contacting [xiii](#)

## T

technical support [xiii](#)  
TIBCO\_HOME [x](#)

## U

Using TIBCO ActiveMatrix Administrator [3](#)