

HP

Business Process Insight

For the Windows® Operating System

Software Version: 7.50

Installation Guide

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1 Overview

Business Process Insight (HPBPI) is an HP solution that enables business managers to understand the business impact of system failures, and degraded service performance, on their operations and on their customers.

For an overview of HPBPI refer to the *Business Process Insight Concepts Guide* and for a more detailed description of each component refer to the architecture chapter of the *Business Process Insight Reference Guide*.

There are a number of separate installation procedures provided with HPBPI. These installation procedures enable you to install all the HPBPI components that you need to make up the HPBPI machine. The core components of HPBPI are installed on a Microsoft Windows platform; however, some of the adapters for other HP BTO Software components can be installed on alternative platform. Full details of the system and software requirements for all the HPBPI components are provided in [Chapter 2, Before Starting the Installation](#).

HPBPI can also be integrated with HP TransactionVision. There are no additional installation requirements on the HPBPI machine to enable this integration; instructions for enabling the integration are provided in the *Business Process Insight Reference Guide*.

This chapter covers the following topics:

- The different types of installation provided; see section [Options for Installing HPBPI Components Using the HPBPI Installation Procedure](#) on page 17
- Details of the HPBPI licensing requirement; see section [Licensing](#) on page 19
- Database requirements for HPBPI; see section [HPBPI and Database Usage](#) on page 21

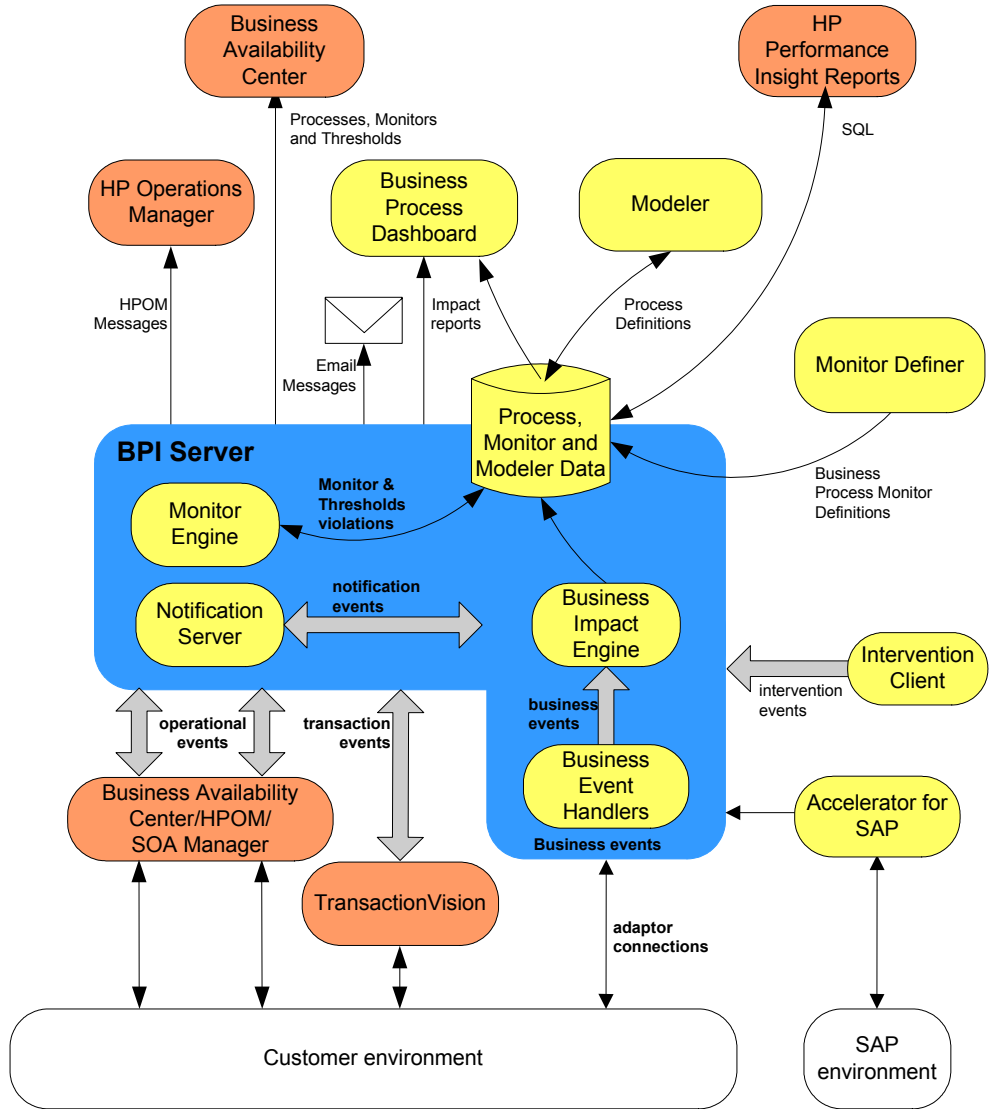
- Deployment options; see section [Distributing HPBPI Installation Components](#) on page 23
- Microsoft Server Cluster support; see section [High Availability Using Microsoft Server Clusters](#) on page 26.

If you want to skip the preliminary descriptions and see a summary of the installation steps for each of the installation options, continue at section [Summary of Installation Steps](#) on page 27.

HPBPI Components

The following is a high level diagram of the HPBPI components that you are installing and their connectivity to other components.

Figure 1 HPBPI Components



In addition to the HPBPI components, some third-party products are installed with HPBPI, one of which is the Tomcat Servlet Engine. Tomcat is used to manage the Java Server Pages (JSPs), which provide the dynamic web content for some of the HPBPI clients.

A more detailed description of the HPBPI components and their relationships is given in the *Business Process Insight Reference Guide*.

HPBPI Installation Program

HPBPI has the following installation programs:

- HPBPI installation program:
 - Server and Modeler
 - Server Only
 - Modeler Only
 - HPOM Adapter
 - Dashboards Only

Section [Options for Installing HPBPI Components Using the HPBPI Installation Procedure](#) on page 17 describes the installation options available for these HPBPI components.

- HPOM Adapter for HP-UX

The HPOM Adapter installation for HP-UX is required if you intend to access HPOM services on HP-UX (through Service Navigator).

You need only install the HPOM Adapter if you intend to configure your HPBPI machine to receive operational events from Service Navigator on HP-UX. You should install the HPOM Adapter for HP-UX on the machine where Service Navigator is also installed. This document provides the instructions for installing the HPOM Adapter for HP-UX.

- HP SOA Manager Adapter

There is an HP SOA Manager Adapter zip archive file, which contains the files required to install and configure the SOA Manager adapter on a Windows machine. This document provides the instructions for installing the HP SOA Manager adapter.

- HPBPI Accelerator for SAP

There is an installation file for the HPBPI Accelerator for SAP, which contains the files and information required to install the Accelerator. Refer to the *HP Business Process Insight Accelerator for SAP Guide* for details of installing and using the Accelerator.

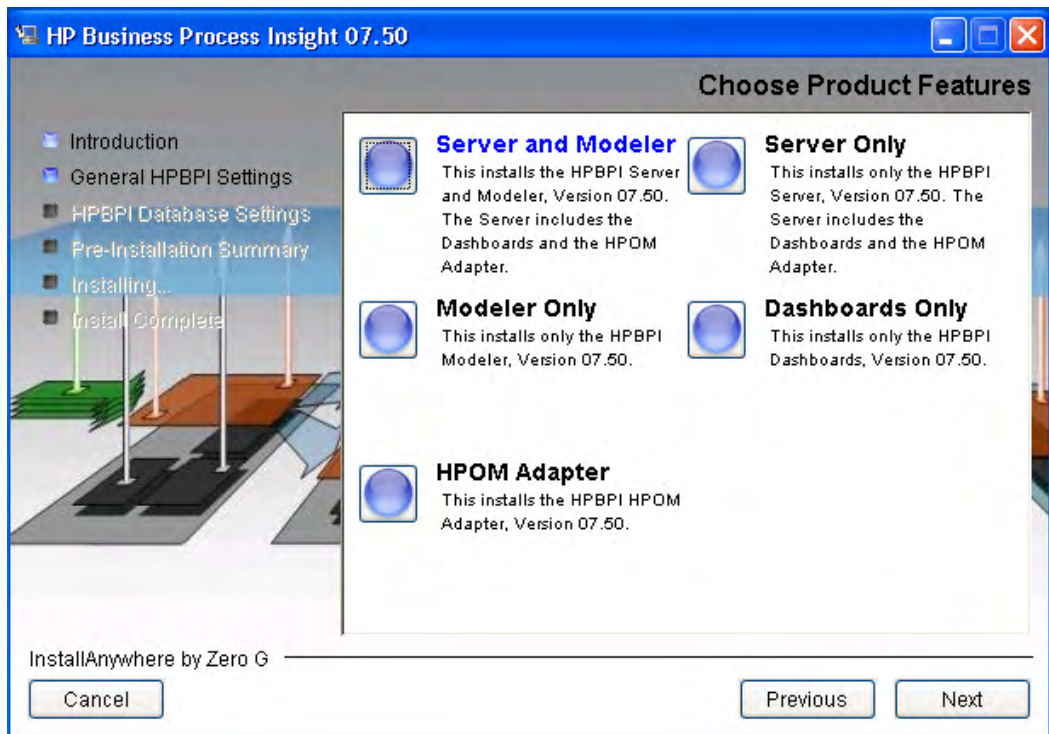


Note that only one copy of the HPBPI Server can be run on any one machine. You cannot install and run multiple copies of the HPBPI Server component, or any install option that contains the Server component.

In the case of the adaptors and Accelerator installations, the order of installation is not important; however, the HPBPI Server needs to be installed and running before you can use any of the adaptors or the Accelerator.

Figure 2 shows the installation options that are available to you from the HPBPI installation program

Figure 2 Business Process Insight Installation Program.



The questions asked during the installation programs are detailed in [Chapter 3, Installing HPBPI](#).

Options for Installing HPBPI Components Using the HPBPI Installation Procedure

The following are the options available when you run the HP Business Process Insight Installation procedure.

- Server and Modeler

Use this option to install all the Windows-based HPBPI components.

- Server Only

Use this option to install only the HPBPI Server. This is required in cases where you want to install the HPBPI Modeler on a Windows machine that is remote from the HPBPI Server.

- Modeler Only

Use this option if you want to install the HPBPI Modeler on a Windows machine that is separate from the HPBPI Server machine. Use this option in conjunction with the Server Only option. Selecting the Server and Modeler option installs the Modeler on the same machine as the HPBPI Server.

- HPOM Adapter

Use this option to install the HPOM Adapter in order to access HPOM services on either HP-UX or Windows. This installation option is required only where you want to link your business processes to HP Operations Manager services. You install the HPOM Adapter for HP-UX on the machine where HP Operations Manager (HPOM) is installed. You install the HPOM Adapter for Windows on the machine where HPOM for Windows is installed.

- Dashboards Only

Use this option if you want to install one or more additional HPBPI Business Process Dashboards on different Windows machines. You might want to install a Dashboard on a different machine in order to reduce the load on the HPBPI Server machine. Launching the HPBPI Dashboard from a remote machine through a URL to the HPBPI Server machine does not achieve this as the database access overhead for the HPBPI Dashboard is still on the HPBPI Server machine. By installing the HPBPI

Dashboard on a separate machine, the database access is managed from the remote machine, thus reducing the load on the HPBPI Server machine.

Using the HP Business Process Insight Installation procedure, you can also:

- Re-install the existing version of HPBPI

You can re-install HPBPI version 07.50 components over an existing installation of the same (or similar) type. For further information on re-installing HPBPI components, refer to [Chapter 5, Re-installing HPBPI Components](#).

- Uninstall the existing version of HPBPI

You can remove all the HPBPI components from your machine. The uninstall instructions are provided in [Chapter 6, Uninstalling HPBPI Components](#).

- Upgrade from an earlier version of HPBPI

You can upgrade your HPBPI installation from version 02.0n, or later, to version 07.50 as described in [Chapter 7, Upgrading to HPBPI Version 7.50](#).

Licensing

You must have a license key password to use HPBPI. Following your initial installation, you are automatically assigned a 60-day trial license. This license covers both the HPBPI and the HPBPI Accelerator for SAP applications. Within this 60 day period, you must obtain either a trial license extension, or a permanent license key password for the HPBPI.

HPBPI uses a Nodelocked license based on the short hostname (not the fully-qualified hostname) of the machine where the HPBPI Server is installed. You must supply a short hostname for the machine where you intend to run HPBPI when completing your license request form. You can obtain the short hostname using the following command from a Windows Command Prompt:

```
hostname
```



Do not supply an IP Address when applying for your license key as you will not be able to use the generated password to unlock your HPBPI installation.

The following is an example of a short host name:

```
server1
```

The following is an example of a fully-qualified hostname:

```
server1.hp.com
```

The following is an example of an IP Address:

```
111.111.222.222
```

Trial License Extension

If you need to request an trial (or evaluation) license extension, access the HP BTO Software license and password delivery web site and navigate to the page for evaluation extension licenses.

<http://www.webware.hp.com>

Be aware that evaluation license extensions are granted only once, after which time a permanent license must be purchased. Full details of the process can be found on the Web site.

Permanent License Key Password

If you have purchased the HPBPI software and received your entitlement certificate, you need enter your permanent license key password into the licensing configuration software. The licensing configuration utility is installed as part of the HPBPI server as an option on the HPBPI Administration Console. Section [When the partitioning is complete, restart the HPBPI components using the Administration Console.](#) on page 92 explains how to access this utility following a successful HPBPI Server installation.

HPBPI and Database Usage

HPBPI uses a database to store information relating to the active processes that it is processing. The databases that are supported for use with HPBPI are:

- Microsoft SQL Server 2005
- Oracle9i Enterprise Edition Release 9.2.0.7
- Oracle Database 10g Enterprise Edition Release 10.2.0.3

The database can be installed on the same machine as the HPBPI Server, or on a different machine. A fully configured and operational database is a prerequisite for the following HPBPI installation options:

- Server and Modeler
- Server Only

HPBPI's use of the database is such that you are recommended to use Oracle 10g in preference to Oracle 9i, where you have the choice.

The database must be installed and running before starting an HPBPI installation in cases where you are selecting either of these installation options. Any database configuration requirements that are specific to HPBPI are provided in section [HPBPI Server Database Requirements](#) on page 53.



You are strongly advised not to modify any of the data in the HPBPI database tables as HPBPI relies on this data being internally consistent in order to operate. Changing the values in the database tables will impact the behavior and operation of your HPBPI machine.

If you need to make changes to processes, you can use the Intervention Client to modify the properties of a Data definition, or progress a business process instance manually.

Oracle Database Table and Index Partitioning

Oracle provides a number of features that you can take advantage of to improve the performance of your HPBPI implementation, one of these is database table and index partitioning.

If you are upgrading from HPBPI version 02.20, refer to section [HPBPI and Oracle Database Table and Index Partitioning](#) on page 175, which contains important information relating to HPBPI and using of Oracle Database table and index partitioning.

If you are not upgrading from HPBPI version 02.20, you can enable Oracle Database table and index partitioning for the HPBPI database tables, when you have completed the HPBPI installation, this is provided that you have the appropriate Oracle license.

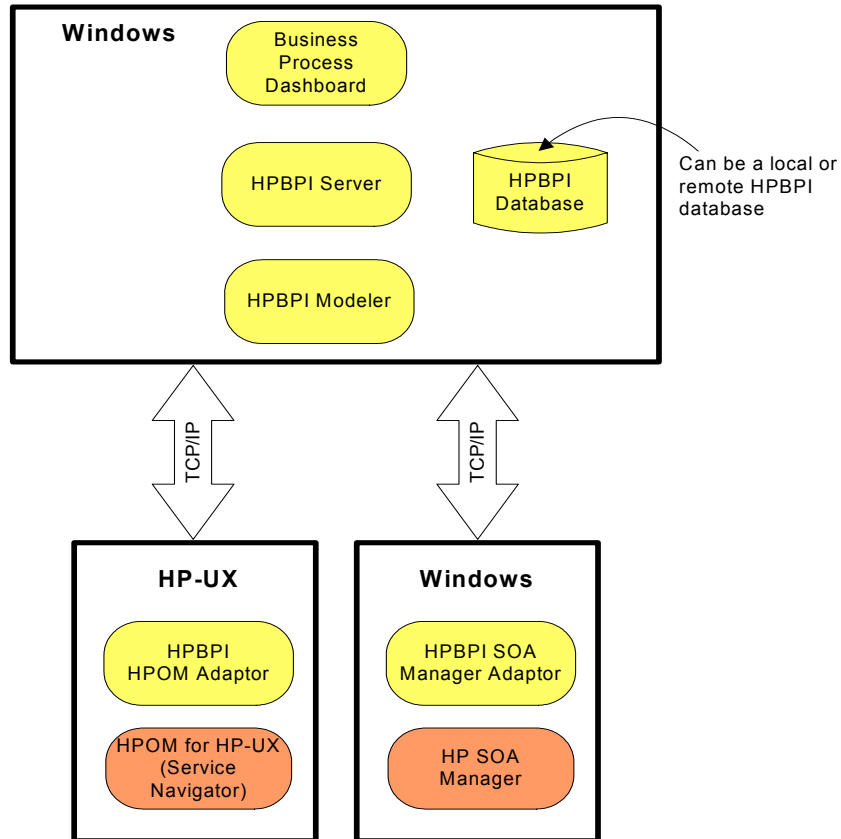


You must make sure that you have the appropriate license if you decide to enable Oracle Database table and index partitioning.

Distributing HPBPI Installation Components

The following diagram shows an example of a single Windows machine installation.

Figure 3 Example HPBPI Distribution Scenario



The database can be installed on the same machine as the HPBPI Server or on a different machine. You give HPBPI the details of the location of the database as part of the HPBPI installation.

In addition to the Windows installation of HPBPI, you can have:

- an HPOM Adapter installation. This installation is for either of:

- HP-UX

The HP-UX installation of the HPOM Adapter must be installed on the same machine as HP Operations Manager (Service Navigator).

- Windows

The Windows installation of the HPOM Adapter can be installed on the same machine as HP Operations Manager for Windows or on the machine where the HPBPI Server is installed.

You cannot install the HPOM Adapter for HP-UX and for Windows and use them in the same HPBPI implementation. You can import services either from HPOM for HP-UX or from HPOM for Windows, but not both.

- A Windows installation of the HPBPI Business Process Dashboard on a different machine to the HPBPI Server. This is different scenario to accessing the Business Process Dashboard installed on the same machine as the HPBPI Server.
- a SOA Manager adapter installation. The SOA Manager adapter can be installed on any Windows machine.

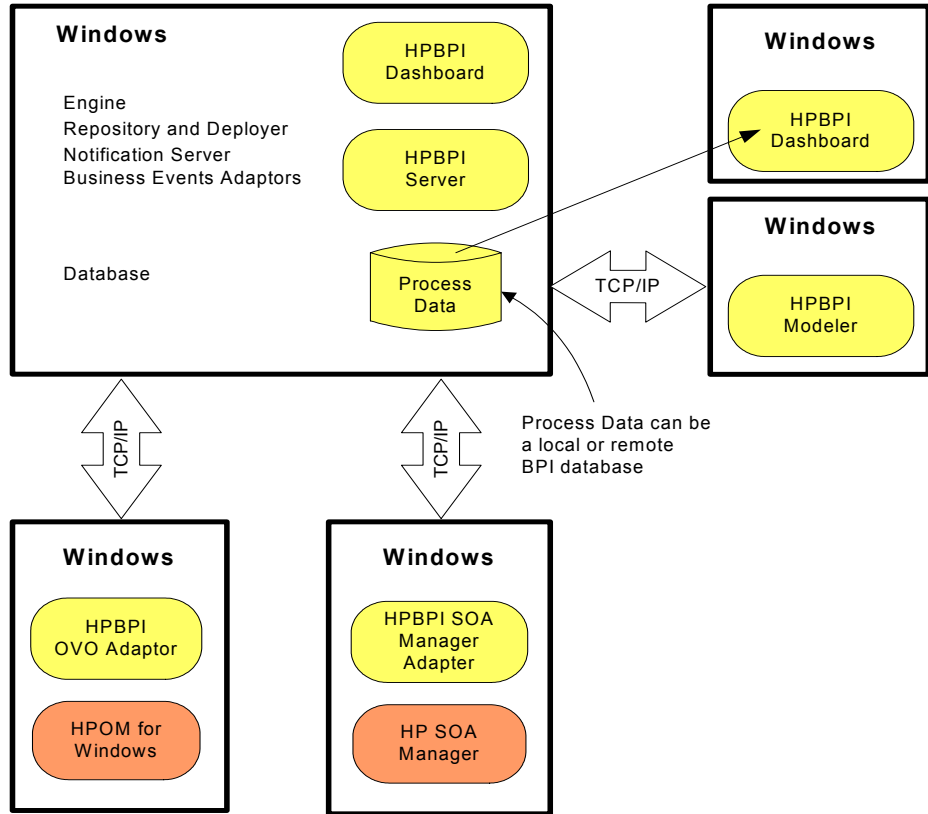
You can access the HPBPI Web clients from any machine running an Internet Explorer Web browser and that has network access to the machine where the HPBPI Server is running.

Figure 4 on page 25 shows an HPBPI Server, with an HPBPI Business Process Dashboard on one Windows machine and the HPBPI Modeler on another Windows machine. The same combinations of the HPOM Adapter installation and SOA Manager Adapter installation apply, as described above.



You can have only one HPBPI Modeler connected to an HPBPI Server, or specifically, the Model Repository component.

Figure 4 HPBPI Server with Remote Modeler and Remote Dashboard



In this deployment example, the Web browser where you are running the HPBPI Business Process Dashboard can be on any Windows machine. You need to provide the URL that is appropriate to the machine where the Business Process Dashboard that you want to use is located.

These are example distribution options. In all cases the important point to note is that the individual HPBPI Server components cannot be distributed.

High Availability Using Microsoft Server Clusters

You can install HPBPI in a Microsoft Server Cluster environment in order to provide a high-availability solution for any of the HPBPI components that can be installed on a Microsoft Windows platform. When using HPBPI within a Microsoft Cluster, HPBPI must be deployed in Active/Passive mode.

By supporting Microsoft Server Clusters in an Active/Passive mode, HPBPI components are automatically restarted on an alternative node in the cluster, if the node they are currently running on fails for any reason.

Information about how to configure your HPBPI machine to operate within a Microsoft Server Cluster environment is provided in the *Business Process Insight Administration Guide*. If you intend to operate HPBPI within a Microsoft Server Cluster environment, you must read the information provided in the *Business Process Insight Administration Guide* before starting the HPBPI installation. This Installation Guide makes no reference to the cluster environment when installing the HPBPI components for the first time.

Summary of Installation Steps

The following sections provide a summary of the installation steps for the different installation options available for HPBPI. These sections are summaries of new installations, they are not appropriate for upgrade or reinstallation. If you are reinstalling or upgrading follow the instructions appropriate to these tasks; see [Chapter 5, Re-installing HPBPI Components](#) and [Chapter 7, Upgrading to HPBPI Version 7.50](#) respectively.

This summary provides pointers to sections later in the guide where the full instructions for the specified installation type are described.

Installation Summary - Server and Modeler or Server Only

The following list provides a summary of the steps required to install a `Server` and `Modeler` or the `Server Only` installation type:

1. Check the HPBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.
2. Verify all the hardware and software requirements for this installation type; see section [HPBPI Server and Modeler and Server Only Installation Requirements](#) on page 36.
3. Ensure that the database you are planning to use for HPBPI is correctly configured and is running and accessible to the machine where HPBPI is to be installed; see section [HPBPI Server Database Requirements](#) on page 53.
4. Collect the data that you need for the installation; see the section appropriate to the installation type as follows:
 - section [Information Required for a Server and Modeler Installation](#) on page 67
 - section [Information Required for a Server Only Installation](#) on page 72
5. Install the `Server` and `Modeler` or the `Server Only`; see the section appropriate to the installation type as follows:
 - section [Server and Modeler Installation on Windows](#) on page 81
 - section [Server Only Installation on Windows](#) on page 95

6. Start the HPBPI Server; see section [Starting HPBPI Server Components on Windows](#) on page 90.

If you have installed the Server Only option, you need to continue at section [Installation Summary - Modeler Only](#) on page 28 to install the HPBPI Modeler on another machine.

If you have installed the Server and Modeler Installation type, continue at the next step.

7. Install a valid license key for HPBPI; see section [When the partitioning is complete, restart the HPBPI components using the Administration Console.](#) on page 92.
8. Run the verification procedure to check the installation as described in [Chapter 4, Verifying the Installation.](#)

Installation Summary - Modeler Only

The following list provides a summary of the steps required to install a Modeler only installation type:

1. Check the HPBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.
2. Verify all the hardware and software requirements for this installation type; see section [HPBPI Modeler Installation Requirements](#) on page 40.
3. Collect the data that you need for the installation; see the section [Information Required for a Modeler Only Installation](#) on page 73
4. Install the Modeler installation as described in section [Modeler Only Installation](#) on page 97.
5. Make sure that the HPBPI Server is running; see section [Starting HPBPI Server Components on Windows](#) on page 90.

Installation Summary - Dashboards Only

The following list provides a summary of the steps required to install a Dashboards Only installation type:

1. Check the HPBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.
2. Verify all the hardware and software requirements for this installation type; see section [HPBPI Dashboard Only Installation Requirements](#) on page 42.
3. Collect the data that you need for the installation; see the section [Information Required for a Dashboards Only Installation](#) on page 73
4. Make sure that the HPBPI Server is running; see section [Starting HPBPI Server Components on Windows](#) on page 90.

The HPBPI Server does not need to be running for the installation to complete; however, you cannot configure the database details through the installation procedure if it is not. You will have to complete them after the installation using the HPBPI Administration Console.

5. Install the Dashboard installation as described in section [Dashboards Only Installation](#) on page 100.

Installation Summary - HPOM Adapter for Windows

The HPOM Adapter for Windows needs to be installed only if you intend to use HP Operations Manager (HPOM) for Windows as a source of operation events. You can install the HPOM Adapter for Windows on the same machine as the HPBPI Server, or on a different machine.

The HPOM Adapter for Windows is silently installed with the HPBPI Server, HPBPI so no further installation steps are required; however, you need to add the adapter to your configuration in order to use it.

The following list provides a summary of the steps required to install the HPOM Adapter on a Windows machine other than the machine where the HPBPI Server is installed:

1. Check the HPBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.
2. Verify all the hardware and software requirements for this installation type; see section [HPOM Adapter Installation Requirements](#) on page 44.
3. Collect the data that you need for the installation; see the section [Information Required for an HPOM Adapter Installation](#) on page 76
4. Install the HPOM Adapter for windows as described in section [HPOM Adapter Installation](#) on page 104.

Installation Summary - HPOM Adapter for HP-UX

The HPOM Adapter for HP-UX needs to be installed only if you intend to use HP Operations Manager for HP-UX (Service Navigator) as a source of operation events.

You must install the HPOM Adapter on the HPOM machine where the services you want to link to are defined.

The following list provides a summary of the steps required to install the HPOM Adapter on an HP-UX machine:

1. Check the HPBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.
2. Verify all the hardware and software requirements for this installation type; see section [HPOM Adapter Installation Requirements](#) on page 44.
3. Collect the data that you need for the installation; see the section [Information Required for an HPOM Adapter Installation](#) on page 76.
4. Install the HPOM Adapter as described in section [HPOM Adapter Installation](#) on page 104.

Installation Summary - HP SOA Manager Adapter

The SOA Manager Adapter is not one of the components installed as part of the HPBPI installation procedure. The SOA Manager Adapter is provided on the media as a zip archive file that can be copied to the Windows machine where you want to install it.

The following list provides a summary of the steps required to install the SOA Manager Adapter:

1. Check the HPBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.
2. Verify all the hardware and software requirements for this installation type; see section [HP SOA Manager Adapter Installation Requirements](#) on page 47.
3. Collect the data that you need for the installation; see the section [Information Required for a SOA Manager Adapter Installation](#) on page 77.
4. Install the SOA Manager Adapter as described in section [HP SOA Manager Adapter Installation and Configuration](#) on page 111.

What to do Next

Read the chapter appropriate to the task that you want to complete:

- [Chapter 2, Before Starting the Installation](#) describes the tasks that you need to complete before starting a new, or an upgrade installation.
- [Chapter 3, Installing HPBPI](#) provides details of the tasks to install Business Process Insight for the first time.
- [Chapter 4, Verifying the Installation](#) describes how to verify that the Business Process Insight components are installed correctly following a new installation.
- [Chapter 5, Re-installing HPBPI Components](#) describes the tasks that you need to complete to re-install Business Process Insight components.
- [Chapter 6, Uninstalling HPBPI Components](#) describes the tasks that you need to complete to remove the Business Process Insight components from your machines.
- [Chapter 7, Upgrading to HPBPI Version 7.50](#) describes how to upgrade from HPBPI version 02.0*n*, or later, to HPBPI version 07.50.
- [Chapter 8, Reporting Problems to Hewlett-Packard](#) describes how to report problems to Hewlett-Packard.

List of HPBPI Guides

The following HPBPI guides are available on the distribution media, in both PDF and HTML format:

- *Business Process Insight Quick Start Guide*
- *Business Process Insight Concepts Guide*
- *Business Process Insight Installation Guide*
- *Business Process Insight System Administration Guide*
- *Business Process Insight Reference Guide*
- *Business Process Insight Problem Solving Guide*
- *Business Process Insight Accelerator for SAP Guide*
- *Business Process Insight Integration Training Guide - Business Events*
- *Business Process Insight Integration Training Guide - Modeling Processes*
- *Business Process Insight Integration Training Guide - Defining Business Monitors*
- *Business Process Insight Integration Training Guide - Importing BPEL*
- *Business Process Insight Release Notes*

2 Before Starting the Installation

This chapter describes the tasks that you must complete in order to install the HPBPI components. These tasks must be completed before running the appropriate HPBPI installation process:

- HPBPI Server and Modeler installation; see section [HPBPI Server and Modeler and Server Only Installation Requirements](#) on page 36.
- HPBPI Server Only installation; see section [HPBPI Server and Modeler and Server Only Installation Requirements](#) on page 36.
- HPBPI Modeler Only installation; see section [HPBPI Modeler Installation Requirements](#) on page 40.
- HPBPI Dashboards Only installation; see section [HPBPI Dashboard Only Installation Requirements](#) on page 42
- HPOM Adapter installation; see section [HPOM Adapter Installation Requirements](#) on page 44.
- HP SOA Manager Adapter; see section [HP SOA Manager Adapter Installation Requirements](#) on page 47.

In addition to the information relating to these installation options, there is also information that you need about the requirements that HPBPI has on the database installation. These requirements are described in section [HPBPI Server Database Requirements](#) on page 53.

Before completing any of the tasks described in this chapter, read the *Business Process Insight Release Notes* to check if there are additional requirements for your installation. The release notes are available on your distribution media.

If you are re-installing the HPBPI components, follow the instructions in [Chapter 5, Re-installing HPBPI Components](#).

If you are upgrading from HPBPI version 02.0*n*, follow the instructions in [Chapter 7, Upgrading to HPBPI Version 7.50](#).

HPBPI Server and Modeler and Server Only Installation Requirements

The following sections describe the system, database and software requirements for an HPBPI Server and Modeler Installation or an HPBPI Server Only installation.

- Note that the exact system requirements depend on the number of processes that you need to define, the business process monitors that you define and the load on your system. This section provides the minimum system requirements.

System Requirements

The following table lists the minimum system requirements for the HPBPI Server and Modeler installation and HPBPI Server Only installation on Windows.

- The HPBPI Server and Modeler and Server Only installations can be installed on a Windows machine only.

Table 1 Minimum System Requirements for an HPBPI Server and Modeler and Server Only Installation on Windows

Requirement	Value	How to Check
System Processor	Intel (at least 2Ghz)	Use: Programs > Accessories > System Tools > System Information
Windows version	<ul style="list-style-type: none">• Windows 2003 Server, plus SP2• Windows XP Professional, plus SP2	
Physical memory	1024MB	
Virtual memory	1536MB	

Disk Space Requirements

The following table describes the disk space requirements.

Table 2 HPBPI Server and Modeler and Server Only Installation Disk Space Requirements

Installation Type	Free Disk Space	How to Check
Server and Modeler Installation	1GB for static data, plus an allocation for dynamic data; see the note below.	Use My Computer to check disk space. Click on the drive name where you intend to install HPBPI and check the available capacity.
Server Only Installation	1GB for static data, plus an allocation for dynamic data; see the note below.	

Note:

In addition to the disk space requirements for the HPBPI components, you need to take into account the disk space required for the database files and log files. 6GB (Server Only Installation) and 7GB (Server and Modeler Installation) is the initial recommendation for the dynamic data.

Software Requirements

The HPBPI Server and Modeler, and Server Only installations require the following software versions to be installed before the installation is started.

Table 3 HPBPI Server and Modeler, and Server Only Software Requirements

Software Component	Version
J2SE	<p>Sun J2SE/JDK 5.0. This version of the J2SE can also be described as JDK version 1.5 and jdk1.5.0.</p> <p>You can download the correct version of the JDK from the following location:</p> <p>http://java.sun.com/products/archive/</p>
Databases:	
<ul style="list-style-type: none"> • Microsoft SQL Server • Oracle Server 	<p>Microsoft SQL Server 2005 standard edition, plus SP2.</p> <p>You must configure Microsoft SQL Server to use static port numbers with HPBPI and not dynamic port numbers.</p> <ul style="list-style-type: none"> • Oracle9i Enterprise Edition Release 9.2.0.7 • Oracle Database 10g Enterprise Edition Release 10.2.0.3
HP Operations Manager for HP-UX ^a	<ul style="list-style-type: none"> • HPOM version 8.20 for HP-UX • HPOM version 8.27 for HP-UX
HP Operations Manager for Windows ^b	<ul style="list-style-type: none"> • HPOM 7.5 for Windows • HPOM 8.0 for Windows
HP SOA Manager ^c	<ul style="list-style-type: none"> • SOA Manager 2.10
HP Select Access ^d	Select Access 6.2

Table 3 HPBPI Server and Modeler, and Server Only Software Requirements

Software Component	Version
HP Operations Dashboard	<ul style="list-style-type: none">• HPOD 2.0, plus OVDRHVNT_00002• HPOD 2.1
HP Business Availability Centre	HP Business Availability Center 7.5
HP Performance Insight	HPPI 5.30 HPPI 5.31
Tomcat ^e	5.0.19
Internet Explorer	6 or 7

- This HP BTO Software product is required only if you want to receive operational events from HP Operations Manager on HP-UX (Service Navigator). This also requires the HPOM Adapter for HP-UX to be installed and configured on the HPOM for HP-UX system.
- This HP BTO Software product is required only if you want to receive operational events from HP Operations Manager (HPOM) on Windows. This also requires the HPOM Adapter for Windows to be installed and configured.
- This HP BTO Software product is required only if you want to integrate with HP SOA Manager. This also requires the HP SOA Manager Adapter to be installed and configured.
- This HP BTO Software product is required only if you want to authenticate the HPBPI components using Select Access.
- Tomcat is installed as part of the HPBPI Server component.

In addition to the above, you need access to an SMTP Server in order to be notified of HPBPI violations through email.

See also section [J2SE](#) on page 49 for information about setting up J2SE.

HPBPI Modeler Installation Requirements

The following sections describe the system, database and software requirements for an HPBPI Modeler Only installation.

System Requirements

The following table lists the minimum system requirements for the HPBPI Modeler Only installation on Windows.



The HPBPI Modeler Only installation is available on Windows only.

Table 4 Minimum System Requirements for an HPBPI Modeler Installation on Windows

Requirement	Value	How to Check
System Processor	Intel (at least 2Ghz)	Use: Programs > Accessories > System Tools > System Information
Windows version	<ul style="list-style-type: none">• Windows 2003 Server, plus SP2• Windows XP Professional, plus SP2	
Physical Memory	512MB	
Virtual memory	768MB	

Disk Space Requirements

The following table describes the disk space requirements for the Modeler.

Table 5 HPBPI Modeler Disk Space Requirements

Installation Type	Free Disk Space	How to Check
Modeler Installation	512MB for static data, plus 1GB for dynamic data. ^a	Use My Computer to check disk space.

- a. In addition to the disk space requirements for HPBPI, you need to take into account the disk space required for log files and trace files; 0.5GB is the recommendation for this dynamic data.

Software Requirements

The HPBPI Modeler installation requires the following software versions to be installed before the installation is started.

Table 6 HPBPI Modeler Installation Software Requirements

Software Component	Version
J2SE	Sun J2SE/JDK 5.0. This version of the J2SE can also be described as JDK version 1.5, and jdk1.5.0. You can download the correct version of the JDK from the following location: http://java.sun.com/products/archive/

See also section [J2SE](#) on page 49 for information about setting up your J2SE.

HPBPI Dashboard Only Installation Requirements

The following sections describe the system, database and software requirements for an HPBPI Dashboards Only installation.

System Requirements

The following table lists the minimum system requirements for the HPBPI Dashboards Only installation on Windows.



The HPBPI Dashboards Only installation is available on Windows only.

Table 7 Minimum System Requirements for an HPBPI Dashboard Installation on Windows

Requirement	Value	How to Check
System Processor	Not applicable	Use: Programs > Accessories > System Tools > System Information
Windows version	<ul style="list-style-type: none">• Windows 2003 Server, plus SP2• Windows XP Professional, plus SP2	
Physical Memory	Not applicable	
Virtual memory	Not applicable	

Software Requirements

The HPBPI Dashboards Only installation requires the following software versions to be installed before the installation is started.

Table 8 HPBPI Dashboard Installation Software Requirements

Software Component	Version
J2SE	Sun J2SE/JDK 5.0. This version of the J2SE can also be described as JDK version 1.5, and jdk1.5.0. You can download the correct version of the JDK from the following location: http://java.sun.com/products/archive/
Tomcat ^a	5.0.19
Internet Explorer	6 or 7

a. Tomcat is installed as part of the Dashboards Only installation.

See also section [J2SE](#) on page 49 for information about setting up your J2SE.

HPOM Adapter Installation Requirements

The following sections describe the system, database and software requirements for the HP Operations Manager (HPOM) Adapter on HP-UX and Windows.

System Requirements

The following table lists the system requirements for the HPOM Adapter. Note that the only requirement listed is the platform versions. The HPOM Adapter has few system requirements and those already required by Operations Manager are also suitable for the adapter.

Table 9 Minimum System Requirements for HPOM Adapter Installation on HP-UX

Requirement	Value	How to Check
Hardware	HP 9000 Technical Workstation and HP 9000 Enterprise Server	
HP-UX version	<ul style="list-style-type: none">• 11.11 (PA RISC)• 11.23 (Itanium)• 11.31	<code>/usr/bin/uname -rs</code>

Table 10 Minimum System Requirements for HPOM Adapter Installation on Windows

Requirement	Value	How to Check
Windows version Intel (at least 2Ghz)	<ul style="list-style-type: none">• Windows 2003 Server, plus SP2• Windows XP Professional, plus SP2	Use: Programs > Accessories > System Tools > System Information

Disk Space Requirements

The following table describes the disk space requirements for the adapter.

Table 11 HPOM Adapter Disk Space Requirements

Installation Type	Directory	Free Disk Space	How to Check
HPOM Adapter Installation for HP-UX	/opt/hp (HP-UX)	100MB for static data and 1GB for dynamic data 150MB available in a temporary directory for the installation procedure.	Verify the available disk space for your system using the following command: /bin/df -k
HPOM Adapter Installation for Windows		100MB for static data and 1GB for dynamic data	Use My Computer to check disk space.

Software Requirements

The HPOM Adapter installation requires the following software versions to be installed before the installation is started.

Table 12 HPOM Adapter Software Requirements

Software Component		Version
J2SE		Sun J2SE/JDK 5.0. This version of the J2SE can also be described as JDK version 1.5, and jdk1.5.0. You can download the correct version of the JDK from the following location: http://java.sun.com/products/archive/
<i>either</i>	HP Operations Manager for HP-UX (Service Navigator) ^a	<ul style="list-style-type: none">• Version 8.20 for HP-UX• Version 8.27 for HP-UX
<i>or</i>	HP Operations Manager for Windows	<ul style="list-style-type: none">• Version 7.5 for Windows• Version 8.0 for Windows

- a. This component is part of HP Operations Manager and is installed on an HP-UX system remote from the HPBPI Server and Modeler or Server Only installation.

See also section [J2SE](#) on page 49 for information about setting up your J2SE.

HP SOA Manager Adapter Installation Requirements

The following sections describe the system, database and software requirements for the HP SOA Manager Adapter.

System Requirements

The HP SOA Manager Adapter has few system requirements.

Table 13 Platform Requirements for HPBPI SOA Manager Adapter Installation

Requirement	Value
Hardware platform ^a	<ul style="list-style-type: none">Microsoft Windows 2003 Server

- a. The adapter runs only on Windows; however it can connect remotely to a SOA Manager system running on any SOA Manager supported platform.

Disk Space Requirements

The disk space requirements for the SOA Manager Adapter are not significant.

The Adapter requires approximately 10MB for the installation and approximately 1GB for dynamic data, for example, log files. The actual amount will vary according to the amount of data created and the level of logging that you have set.

Software Requirements

The HP SOA Manager Adapter installation requires the following software versions to be installed before the installation is started.

Table 14 HP SOA Manager Adapter Software Requirements

Software Component	Version
J2SE	Sun J2SE/JDK 5.0. This version of the J2SE can also be described as JDK version 1.5, and jdk1.5.0. You can download the correct version of the JDK from the following location: http://java.sun.com/products/archive/
HP SOA Manager	<ul style="list-style-type: none">• Version 2.1

J2SE

This component is required by HPBPI to run the java classes and to compile the business processes. It is also required by the installation procedure on the HP-UX system where the HPOM Adapter is installed. You must use the Sun version of the JDK with HPBPI.



Make sure that `%JAVA_HOME%\bin` is added to your system path before running HPBPI.

If JDK version 1.5 is already installed on your system, and you have multiple versions of the J2SE, you must make sure that the prerequisite version of the J2SE is the first one on your system environment variable `PATH` list. To check that this is the case, in a command window, enter the following command to check that the correct version is on your system `PATH`:

```
java -version
```

Possible sources for the versions of the J2SE that are required for HPBPI (both HP-UX and Windows) are as follows:

- <http://www.hp.com/products1/unix/java/>
- <http://java.sun.com/products/archive/>

HP Operations Manager Service Status Information

HP Operations Manager is required if you want to receive operational impact information from HP Operations Manager for HP-UX or for Windows. The HPOM Adapter accepts messages from HPOM and sends them on to HPBPI as Service events. HPOM needs to be installed and running before the HPOM Adapter is installed.

HP SOA Manager Service Status Information

SOA Manager is required if you want HPBPI to report on business service status information from SOA Manager. The HP Operations Dashboard Web Services Adapter polls SOA Manager for impact events and makes them available as Web Services to HPBPI Server.

You can also configure HPBPI to receive business events from SOA Manager, which can then be used to progress your HPBPI business processes.

SMTP Mail Server

Access to an SMTP mail server is required for the Notification Server component of HPBPI. This component is responsible for sending business violations as email messages to the users who are configured to receive them.

Select Access

HP Select Access is required if you want to have the HPBPI clients authorized using Select Access policies. Select Access is part of the HP Identity Management suite of products; it provides policy-based authentication and authorization for your applications

Business Availability Center

HPBPI can integrate with Business Availability Center (BAC) in one or more of the following ways:

- HPBPI deployed Process definitions (including Steps and Monitors) can be represented as configuration items within the BAC Business Processes View.
- HPBPI can send data samples to BAC. These data samples provide data relating to the Business Processes, Steps and Monitors defined for the Processes.
- You can configure BAC portlet servers (My BAC). My BAC is a portal that you can customize to display specific content that is relevant to you, in this case, HPBPI Business Process information.

TransactionVision

HPBPI can integrate with TransactionVision to view the life cycle and associated data for specific business transactions within your organization. TransactionVision discovers transaction flows within your business, analyses the steps within these flows and the displays reports based on the results of the analysis.

Email Client

An email client is required in order that the users configured to receive email notifications can access them.

Web Browser

An Internet Explorer browser is required for:

- using the Monitor Definer to create and modify business process monitors.
- configuring notification request for the HPBPI Notification Server.
- viewing information through the HPBPI Dashboard.
- using the Repository Explorer to view and manipulate design-time process data in the Model Repository database tables.
- using the Intervention Client to manage active process instances.

There are no HPBPI specific configuration requirements for the Web browser, with the exception of the need for the Web Browser to be able to run JavaScript. As an example, the ability to run Javascript is enabled through the following menu option for Internet Explorer version 6.0:

Tools|Internet Options|Security

From the Security tab, select Local intranet and Custom Level to access the Scripting options. Make sure that all the Scripting options are enabled.

You might also need to set the Scripting options for Trusted sites in the same way, depending on your configuration.

The Web server used by HPBPI is Tomcat.

HPBPI Server Database Requirements

HPBPI uses a database to store data for processes and for administration. This database information needs to be accessible to the HPBPI Server and can be configured to be either Microsoft SQL Server or Oracle.

The following sections describe some topics that you need to be aware of that relate to the HPBPI use of the database. You are advised to read these sections and use the information to tailor your database configuration if appropriate. Some of the tasks described must be completed before you start the HPBPI installation.

The following sections describe what you need to consider for the HPBPI use of the database and includes:

- Configuration requirements for the Microsoft SQL Server database, which are specific to HPBPI; see section [Microsoft SQL Server Database Configuration](#) on page 55.
- Configuration requirements for the Oracle Server database, which are specific to HPBPI; see section [Oracle Database Configuration](#) on page 60.

Installation Type and Database Requirement

The following table shows where a database is required for each installation option.

Table 15 Installation Type and Database Requirement

Installation Option	Database access required?
Server and Modeler Installation on Windows	Yes
Server Only Installation on Windows	Yes
Dashboards Only Installation	Yes
HPOM Adapter Installation (HP-UX or Windows)	No
Modeler Only Installation on Windows	No

You must ensure that the database is installed and configured before you select the following HPBPI installation options:

- HPBPI Server and Modeler installation
- HPBPI Server Only installation

The Dashboards Only installation requires a database, however, it is not needed for the installation to complete successfully. The database details can be configured at a later time.

It is strongly recommended that you allow the HPBPI installer to create a new database user (and a new database in the case of Microsoft SQL Server) rather than using an existing User or Database. In the case of Microsoft SQL Server, the Database should then be reserved for the exclusive use of HPBPI. In the case of an Oracle Server, the User should be reserved for the exclusive use of HPBPI.

There are a number of reasons for this:

- it removes the possibility of name clashes for tables that HPBPI needs to create in the database.
- it enables you to backup and recover the HPBPI database tables in isolation from other data in the database, if required.
- you can copy (archive) the HPBPI data independently of other data in the database.
- if there is a problem with the installation, you can clean out the Microsoft SQL Server Database or Oracle User data and restart the procedure without impacting data for other database applications.

The HPBPI installation assumes that the Microsoft SQL Server Database and Oracle User are exclusive to HPBPI, and therefore the installer can safely delete and recreate database schema objects, including tables, views, stored procedures. If this is not the case, there is a risk that existing database objects could be overwritten by HPBPI and their contents lost. [Appendix A, Database Tables Defined for HPBPI](#) lists all the database tables used by HPBPI.

Microsoft SQL Server Database Configuration

The following sections describe the HPBPI requirements on the Microsoft SQL Server database that you need to be aware of before starting the HPBPI installation. These requirements need to be addressed before installing any of the HPBPI components that use the HPBPI database.

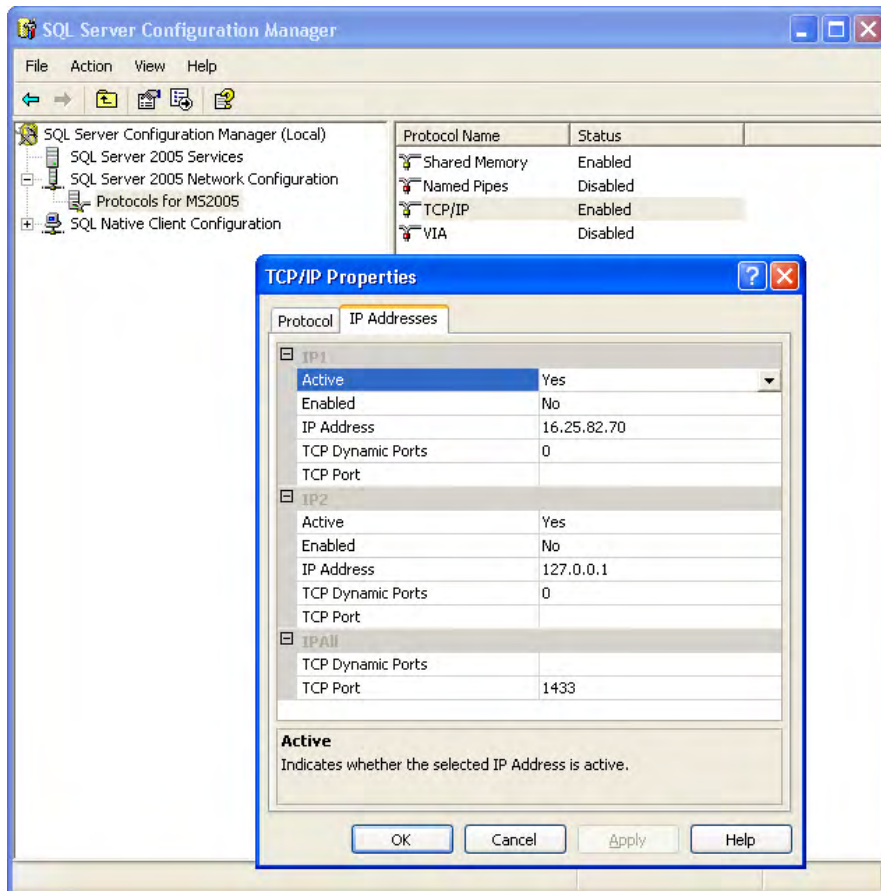
If you plan to use Oracle as your database, refer to section [Oracle Database Configuration](#) on page 60.

Static Port Number Required for Use with HPBPI

When installing and configuring Microsoft SQL Server for use with HPBPI, you must configure it to use a static and not a TCP dynamic port. If you configure a dynamic port for SQL Server, it can result in a different port number being assigned each time SQL Server is started. You cannot change the port number used by HPBPI following the initial installation, therefore, dynamic port numbers cannot be used.

You configure the port number used by Microsoft SQL Server using the SQL Server Configuration Manager as shown in [Figure 5](#).

Figure 5 SQL Server Static Port Configuration



Restricting the Size of the Transaction Log File

You might also need to limit the size of the database transaction log files as these can get very large. By default, the transaction log files are not restricted to a particular size. To modify the settings for the transaction log file, select the `Transaction Log` tab from the database `Properties` option.



The size of the transaction log files need to be large enough to accept the largest possible transaction that HPBPI can generate, in order to ensure that you can recover data following a failure. Refer to the *Business Process Insight System Management Guide* for details of the backup and recovery considerations that you need to be aware of for HPBPI and how these impact the size of the transaction log.

Database Case Sensitivity

If you intend to allow the HPBPI installer to create the HPBPI database instance it requires, you do not need to read this section. When the HPBPI installer creates its database instance, it creates an instance with the characteristics that it requires, including the case sensitivity setting.

If you intend to use an existing instance of the SQL Server database and then provide the details of this database instance to the HPBPI installer, you need to be aware that the SQL Server database can be set up to be case insensitive or case sensitive. HPBPI does not operate with a database that is case sensitive and if you attempt to install HPBPI using a case sensitive database instance, the installation fails and reports the following error:

```
The database specified cannot be used for HPBPI data as it
does not have case-insensitive collation set. You must
reconfigure the specified database for case-insensitive
collation, or select a different database that is already
case-insensitive.
```

If you are creating the database instance for HPBPI data, you must create the instance with the `Collation Name` set to `Case Insensitive`.

If your database instance has already been created, you can find out whether it is case insensitive or case sensitive by checking the properties of the database instance from within SQL Server Enterprise Manager. The Collation Name property contains a string, which is one way of identifying the case sensitivity of the database instance, as follows:

- `_CI`, if the database instance is configured to be Case Insensitive.
- `_CS`, if the database instance is configured to be Cases Sensitive.
- `_BIN`, if the database instance is configured for a binary collation, which is always case sensitive.

If there is no Collation value set for the database instance, the database instance inherits its Collation from the Database Server settings. If the Database Server Collation is set to be case insensitive, the HPBPI installation can proceed. If the Database Server Collation is set to be case sensitive, the HPBPI installation fails and reports the error shown above. The inherited collation is shown through the Collation Name parameter as described above.

Database Authentication Mode

When using Microsoft SQL Server with HPBPI, you need to ensure that when prompted (during the SQL Server installation) for the Authentication Mode to use within SQL Server that you select the option for SQL Server and Windows Authentication mode, and not Windows Authentication Mode. This is because the JDBC interface needs the SQL Server Authentication Mode activated.

You can modify the authentication mode from Windows Authentication to be SQL Server and Windows Authentication without affecting other applications that use the database.

Check the authentication mode for your installation of Microsoft SQL Server as follows:

1. Start SQL Server Management Studio and log on using your Windows account details. The Windows account that you use must have SQL Server Administrator rights.
2. Select the appropriate server, and then click `Properties`. (make sure you select the server and not the database from the navigation pane).
3. From the Server Properties dialog, select the Security page. There is a Server authentication option where you can check which authentication mode is being used.

4. If SQL Server and Windows Authentication mode is not set, you can change the selection in this dialog and click OK. If your configuration is correct, you can exit from the Management Studio without making any changes.
5. If you do change the configuration, click OK when prompted to restart SQL Server.

SQL Server Database User Properties

The HPBPI installation procedure creates a database user, with all the correct properties; however, if you have an existing database user that you want to use for the HPBPI database, you can do this. You are strongly advised to let the installation procedure create the database user that is specific to HPBPI.

If you allow the installation procedure to create the database User, you do not need to take any action as the database User is created with all the required roles. If you intend to specify an already defined User for HPBPI within the installation procedure, you need to ensure that the following are completed before starting the HPBPI installation:

- the existing database User has access to the database where the HPBPI tables are created.
- the database used by HPBPI should ideally be the default database for machine; this is not mandatory, but preferred.
- the following database roles are permitted for the HPBPI database User:
 - public
 - db_ddladmin
 - db_datareader
 - db_datawriter
- the following database roles are not permitted for the HPBPI database User:
 - db_denydatareader
 - db_denydatawriter

When you run the HPBPI installation procedure and specify the database User, the installation procedure then configures the User to be a member of the following database roles:

- public
- db_ddladmin
- db_datareader
- db_datawriter

If you create your own database user, you are advised to check for the following log file after the HPBPI installation is complete to make sure that the SQL Server database tables have all been created correctly:

hpbpi-install-dir\HP_Business_Process_Insight_DbSetupLog.log

This file is created when there are errors to report after HPBPI has made a successful connection to the database. If there are errors reported in the file, you need to investigate them and make any necessary corrections. You must then uninstall and reinstall HPBPI to reconfigure the database options.

If this log file does not exist, there are no errors.

Oracle Database Configuration

The following sections describe the HPBPI requirements on the Oracle database that you need to be aware of before starting the HPBPI installation. These requirements need to be understood before installing any of the HPBPI components that use the HPBPI database.

- [Configuring an Oracle Database Server on an HP-UX System](#) on page 60
- [Character Set for Oracle Database](#) on page 61
- [Oracle Server Database User Permissions](#) on page 62

If you plan to use a Microsoft SQL Server database, refer to section [Microsoft SQL Server Database Configuration](#) on page 55.

Configuring an Oracle Database Server on an HP-UX System

If you intend to use an Oracle Database Server that is installed on an HP-UX system, you must create an Oracle User for HPBPI before starting the installation. If you do not, the HPBPI installation fails.

The Oracle User that you create must be configured to have both a default and a temporary tablespace. You are strongly advised to assign a default tablespace that is specific to HPBPI and not shared by other applications.

In addition, you need to make sure that an `INDX` tablespace is assigned to the Oracle User that you create for HPBPI. Depending on the version of Oracle that you are using, you might have to create this `INDX` tablespace.

There are also permission requirements for the Oracle User that you create; these are described in section [Oracle Server Database User Permissions](#) on page 62.

Character Set for Oracle Database

HPBPI does not have any specific requirements for a database character set; however, if you want to support multiple languages simultaneously, from the same data, you are recommended to use a Unicode standard for the encoding form in the Oracle Database. UTF8 is the recommendation for HPBPI.

Using other database character sets can result in characters being lost during conversion between the user input and how the data is stored in the database; For example, using a database character set of ISO Latin1, does not enable you to store Korean language characters in the database. Using a character set such as UTF8 does enable you to store Korean characters in the database.

In addition:

- the HPBPI database clients use JDBC; therefore using UTF8 as the database character set has performance benefits as it reduces the amount of conversion between character sets.
- the Oracle database drivers always convert between character sets using UTF8.

If your database currently uses a form of encoding other than UTF8, then you need to make yourself aware of the restrictions of the encoding method and any potential loss of characters during conversion.

Oracle Server Database User Permissions

The HPBPI installation procedure creates a database user, with the correct profile, however, if you have an existing database user that you want to use for the HPBPI database, you can specify this User during the HPBPI installation.

Where possible, you are advised to let the installation procedure create the database user, unless there is a strong reason for using your own defined database user.

If you allow the installation procedure to create the Oracle User, you do not need to take any action as the database User is created with all the required privileges. If you intend to specify an already defined User for HPBPI within the installation procedure, you need to ensure that the following are completed before starting the HPBPI installation:

- the User has `QUOTA UNLIMITED` defined on its default tablespace (this is the tablespace where the HPBPI data is created).
- the User has the `CREATE SESSION` privilege granted.

When you run the HPBPI installation, the installation procedure then completes the following for the User that you specify:

- defines `QUOTA UNLIMITED` for the `INDX` tablespace. HPBPI uses the `INDX` tablespace to hold indexes for some of the tables in the HPBPI User's default tablespace. This is done for reasons of performance.
- grants the following privileges to the User:
 - `CREATE SESSION`
 - `CREATE SEQUENCE`
 - `CREATE TABLE`
 - `CREATE VIEW`
 - `CREATE PROCEDURE`
 - `CREATE TRIGGER`
 - `CREATE ANY INDEX`
- creates a role called `OA_HOSPITAL_ACCESS_ROLE` and grants itself this role.

If you create your own database user, you are advised to check for the following log file following the HPBPI installation to make sure that the Oracle database tables have all been created correctly:

`hpbpi-install-dir\HP_Business_Process_Insight_DbSetupLog.log`

This file is created when there are errors to report after HPBPI has made a successful connection to the database. If there are errors reported in the file, you need to investigate them and make any necessary corrections. You must then uninstall and reinstall HPBPI to reconfigure the database options.

If this file does not exist, there are no errors with the connection.

What to do Next

When you have completed all the checks and tasks listed in this chapter, continue at [Chapter 3, Installing HPBPI](#) to install the HPBPI components.

3 Installing HPBPI

This chapter describes how to install HPBPI and covers the following installation options:

- Server and Modeler installation
- Server Only installation
- Modeler Only installation
- Dashboards Only installation
- HPOM Adapter installation
- SOA Manager Adapter installation

The following topics are covered in this chapter:

- Tasks to complete before starting the installation; see section [Collecting Required Information for Installer](#) on page 66
- The location of the HPBPI installation log files; see section [Installation Log Files](#) on page 79
- [Server and Modeler Installation on Windows](#) on page 81
- [Server Only Installation on Windows](#) on page 95
- [Modeler Only Installation](#) on page 97
- [Dashboards Only Installation](#) on page 100.
- [HPOM Adapter Installation](#) on page 104
- [HP SOA Manager Adapter Installation and Configuration](#) on page 111

Collecting Required Information for Installer

Before starting the installation, make sure that you have completed the following steps:

- Checked the *Business Process Insight Release Notes* for any additional tasks that you need to complete before and after the installation. The Release Notes are located on the distribution media.
- Worked through the required preinstallation checks listed in [Chapter 2, Before Starting the Installation](#).
- Checked that the Database Server that you plan to use for HPBPI is configured and running (Microsoft SQL Server or Oracle Enterprise Server). The database can be on the same machine as the HPBPI Server or on a different machine.
- Made a note of the information that you need during the installation as follows. There is a column for you to note the relevant information in the tables in each of the following sections:
 - [Information Required for a Server and Modeler Installation](#) on page 67.
 - [Information Required for a Server Only Installation](#) on page 72
 - [Information Required for a Modeler Only Installation](#) on page 73
 - [Information Required for a Dashboards Only Installation](#) on page 73
 - [Information Required for an HPOM Adapter Installation](#) on page 76
 - [Information Required for a SOA Manager Adapter Installation](#) on page 77

Information Required for a Server and Modeler Installation

The information in this section describes what you need to supply for the HPBPI Server and Modeler Installation option.

Table 16 lists the general information requested by the HPBPI Server and Modeler Installation.

Table 16 General Information Required for a Server and Modeler Installation

Information	Notes	Values
Name of HPBPI installation directory	A default is offered by the installer, which you can override.	
Name of the directory where the J2SE is installed.	The installer offers a location. You need to check that it is correct.	

Table 17 lists the information related to the Microsoft SQL Server Database Server.

If you plan to configure HPBPI to use an Oracle Server, you can skip this table and continue at Table 18 on page 70.

Table 17 Microsoft SQL Server Information Required for a Server and Modeler Installation

Information	Notes	Values
Database type	This defines the database that you plan to use for HPBPI process data. It is either, Oracle Server or Microsoft SQL Server.	Microsoft SQL Server
Hostname of the machine where the database is running. This can be a local or remote machine.	The default of localhost is offered by the installer. Accept the default if you are using a local database, or enter the fully-qualified domain name of the machine where the database is running if you are using a remote database.	
SQL Server Database Port Number	This is the static port number that Microsoft SQL Server uses to communicate with applications; by default this is port 1433. You must configure Microsoft SQL Server to use static port numbers with HPBPI and not dynamic port numbers.	
User name and password for a database user that has permission to create schemas and users, plus assign privileges to users.	The HPBPI schema is created as part of the installation process, as is the database user. The installer needs a user with sufficient privileges to create the schema and the new database user. Obtain the credentials for a suitable user from your database administrator. By default the installer offers the sa account.	

Table 17 Microsoft SQL Server Information Required for a Server and Modeler Installation

Information	Notes	Values
Name for the SQL Server database	<p>This is the name of the SQL Server database created for HPBPI. By default you are offered the name <code>hpbpi.schema</code>. If you want a different name, you can replace the default offered during installation.</p> <p>You are strongly recommended to assign a database name that is specific to HPBPI.</p>	
User name and password details of the HPBPI database user.	<p>The HPBPI machine needs a database account that it can use to create and modify the HPBPI database tables. This might be a user that you have already created through SQL Server, in which case you need to enter the correct credentials. Alternatively, you can provide a new user name and the installation procedure will create the user.</p> <p>If you have created a user, you need to make sure that the user has the correct permissions set; see SQL Server Database User Properties on page 59.</p> <p>The database username must be between 1 and 128 characters and comprise letters, digits, and the underscore character (<code>_</code>); it must start with either a letter, or the underscore character.</p> <p>Make sure that the password obeys the password policy for the database. As an example, Microsoft SQL Server 2005 requires a password to include some numbers. The install fails if the password policy is not adhered to.</p>	

Table 17 Microsoft SQL Server Information Required for a Server and Modeler Installation

Information	Notes	Values
Directory where the database data files are stored	The installation needs to know where to create the database files. A default is offered by the HPBPI installation. If the location of the database files has not been changed within SQL Server, accept the default.	

Table 18 lists the information related to the Oracle Database Server. If you plan to configure HPBPI to use an Microsoft SQL Server, refer to the questions listed in Table 17 on page 68.

Table 18 Oracle Server Information Required for a Server and Modeler Installation

Information	Notes	Values
Database type	This defines the database that you plan to use for HPBPI process data. It is either, Oracle Server or Microsoft SQL Server.	Oracle
Hostname of the machine where the database is running. This can be a local or remote machine.	The default of localhost is offered by the installer. Accept the default if you are using a local database, or enter the fully-qualified domain name of the machine where the database is running if you are using a remote database.	
Oracle Server Database Port Number	This is the port number that the Oracle Server uses to communicate with applications. By default it uses port 1521.	
Oracle database instance identifier	The installation requests a value for the Oracle database instance identifier (SID), which is where the HPBPI tables are created. Check with your database administrator for the correct value of the SID for HPBPI. There might be a SID that is specific to HPBPI.	

Table 18 Oracle Server Information Required for a Server and Modeler Installation

Information	Notes	Values
<p>User name and password for a database user that has permission to create the tablespace and user for HPBPI.</p>	<p>The HPBPI tablespace is created as part of the installation process, as is the database user. The user name entered to create these needs the privileges to: create the HPBPI schema, create the HPBPI user and set up permission to read from the System tables. Obtain the credentials for a suitable user from your database administrator.</p> <p>You are strongly recommended to assign a User that is specific to HPBPI.</p>	
<p>User name and password details of the HPBPI database user.^a</p>	<p>The HPBPI machine needs a database account that it can use to create and modify the HPBPI database tables. This might be a user that you have already created through Oracle Server, in which case you need to enter the correct credentials. Alternatively, you can provide a new user name and the installation procedure creates the user.</p> <p>If you have created a user, you need to make sure that the user has the correct permissions; see Oracle Server Database User Permissions on page 62.</p> <p>The database username must be between 1 and 27 characters and can comprise letters, digits and the underscore (_) character; it must start with either a letter or the underscore character.</p> <p>The database password must be between 1 and 30 characters and can comprise letters, digits and any punctuation characters, with the exception of the space () and the brace ({}) characters.</p>	

Table 18 Oracle Server Information Required for a Server and Modeler Installation

Information	Notes	Values
Directory where the database data files are stored	The installation needs to know where to create the database files. A default is offered by the HPBPI installation, but you need to check with your database administrator for confirmation about where the database files should be created.	

- a. If you intend to use an Oracle Database Server that is installed on an HP-UX machine, you must create a database user for HPBPI before starting the installation; if you do not, the installation cannot proceed. Refer to section [HPBPI Server Database Requirements](#) on page 53 for more details.

You enter the database details when you install HPBPI; however, once HPBPI is installed and configured with these details, none of the database details can be changed, with the exception of the password for the HPBPI Database or User. The database configuration details are shown through the HPBPI Administration console for your reference, however, you cannot modify them.

Details of how to configure your HPBPI machine to integrate with email and HP Operations Manager following a successful installation are provided in the *Business Process Insight Reference Guide*.

Information Required for a Server Only Installation

The information required for a Server Only installation is the same as that required for a Server and Modeler installation. Make sure that you have the information listed in [Table 16](#) to [Table 18](#) available before starting the installation.

Information Required for a Modeler Only Installation

The HPBPI Modeler can be installed on the same machine as the HPBPI Server, or on a machine remote from the HPBPI Server.

The HPBPI Modeler needs to connect to the Model Repository, which is part of the HPBPI Server. You should therefore install the HPBPI Server before you use the HPBPI Modeler.

Before starting an HPBPI Modeler installation, make sure that you have the following information available.

Table 19 Information Required for an HPBPI Modeler Installation

Information	Notes	Values
Name of HPBPI installation directory	A default is offered by the installer that you can override.	
Name of the directory where the J2SE is installed.	The installer offers a location, you need to check that it is correct.	

Information Required for a Dashboards Only Installation

The HPBPI Dashboards installation can be used to install the Business Process Dashboard on a machine that is remote from the HPBPI Server.

[Table 20](#), [Table 21](#) and [Table 22](#) list the information requested by the HPBPI Dashboards Only Installation.

Table 20 General Information Required for a Dashboards Only Installation

Information	Notes	Values
Name of HPBPI installation directory	A default is offered by the installer that you can override.	
Name of the directory where the J2SE is installed.	The installer offers a location, you need to check that it is correct.	

Table 21 lists the information related to the Microsoft SQL Server Database Server. If you have configured your HPBPI Server to use an Oracle Server, you can skip this table and continue at Table 18 on page 70.

Table 21 Microsoft SQL Server Information Required for a Dashboards Only Installation

Information	Notes	Values
Database type	This defines the database that is configured for the HPBPI process data. Select either, Oracle Server or Microsoft SQL Server.	Microsoft SQL Server
Hostname of the machine where the database is running. This can be a local or remote machine.	The default of localhost is offered by the installer. Enter the fully-qualified domain name of the machine where the database is running.	
SQL Server Database Port Number	This is the port number that Microsoft SQL Server uses to communicate with applications; by default this is port 1433. You must configure Microsoft SQL Server to use static port numbers with HPBPI and not dynamic port numbers.	
Name for the SQL Server database	This is the name of the SQL Server database created for HPBPI.	
User name and password details of the HPBPI database user.	The HPBPI database user and password details for accessing the HPBPI database tables. The need to match those used for creating the tables when you installed the HPBPI Server.	

Table 22 lists the information related to the Oracle Database Server connection details. If you have configured HPBPI to use an Microsoft SQL Server, refer to the questions listed in Table 21 on page 74.

Table 22 Oracle Server Connection Details for a Dashboards Only Installation

Information	Notes	Values
Database type	This defines the database that you have configured for your HPBPI process data.	Oracle
Hostname of the machine where the database is running. This can be a local or remote machine.	The default of localhost is offered by the installer. Enter the fully-qualified domain name of the machine where the database is running.	
Oracle Server Database Port Number	This is the port number that the Oracle Server uses to communicate with applications. By default it uses port 1521.	
Oracle database instance identifier	The installation requests a value for the Oracle database instance identifier (SID), which is where the HPBPI tables are created.	
User name and password details of the HPBPI database user	The HPBPI database user and password details for accessing the HPBPI database tables. The need to match those used for creating the tables when you installed the HPBPI Server.	

Details of how to re-configure your HPBPI machine after it is installed are provided in the *Business Process Insight System Administration Guide*.

Information Required for an HPOM Adapter Installation

The HPBPI OM Adapter for HP-UX need only be installed if you plan to use Service Navigator as a source for operational events. The HPOM Adapter for HP-UX must be installed on the same machine as Service Navigator.

The HPOM Adapter for Windows can be run on the same machine as the HPBPI Server or on a different machine. The adapter is silently installed with the HPBPI Server, so no further installation steps are required. If you want to use the HPOM Adapter for Windows on a different machine, you need to install it as described in this section.

Before starting an HPOM Adapter installation, make sure that you have the following information available.

Table 23 Information Required for an HPOM Adapter Installation

Information	Notes	Values
Name for HPBPI installation directory	A default is offered by the installer that you can override.	
Name of the directory where the J2SE is installed	The installer offers a location, you need to check that it is correct.	

Details of how to configure your HPBPI machine after the adapter is installed are provided in the *Business Process Insight System Administration Guide*.

Information Required for a SOA Manager Adapter Installation

The SOA Manager adapter need be installed only if you want to use SOA Manager as a source of operational events. The adapter can be installed on any Windows machine and configured to access the machine where SOA Manager is running.

You install the SOA Manager Adapter files from the zip archive provided on the HPBPI distribution media.



You can configure and start only one instance of the SOA Manager adapter for each installation. Starting multiple instances of the adapter from the same installation can have unpredictable results.

If you want to run multiple instances of the adapter on one machine, you can achieve this by installing the adapter multiple times and starting one adapter instance from each installation.

You need the following information available to install and set up the adapter on the SOA Manager machine.

Table 24 Information Required for an SOA Manager Adapter Installation

Information	Notes	Values
The name of the SOA Manager Web Service that contains the catalog of Web Services that it exposes	<p>This is the SOA Manager Web Service that starts with the following string: <code>WsmfServiceCatalog...</code></p> <p>The SOA Manager Web services are listed at: <code>http://hostname:port/wsmf/services</code> where:</p> <ul style="list-style-type: none"> • <i>hostname</i>, is the host name of the machine where SOA Manager is running. This is described as the next parameter in this table. • <i>port</i>, is the port number used by SOA Manager to publish its Web Services. This is described more fully later in this table. 	
Hostname of the machine where SOA Manager is running	If no hostname is specified, a value of <code>localhost</code> is assumed.	
Port number used by SOA Manager to publish its Web Services	If no port number is specified, a value of <code>5002</code> is used.	
Port Number used to publish the SOA Manager adapter as a Web Service. This is the Axis port number as installed with the adapter.	If no port number is specified, a value of <code>18097</code> is used.	

Installation Log Files

The following sections describe the installation log files that are created when the HPBPI components are installed.

HPBPI Installation Log Files

The log file for the HPBPI installation is located in the HPBPI root installation directory as follows:

- `hpbpi-install-dir\HP_Business_Process_Insight_InstallLog.log` (Windows)
- `hpbpi-install-dir/HP_Business_Process_Insight_InstallLog.log` (HP-UX)

Database Log Files

The installation is also creates a log file created for problems encountered by the HPBPI installer when creating, or migrating, the database, database user and database tables. This file is called:

`hpbpi-install-dir\HP_Business_Process_Insight_DBSetupLog.log`

This file is created when there are errors to report after HPBPI has made a successful connection to the database. This log file contains errors relating to the SQL scripts that the HPBPI installer runs, and not database connection errors.

If there are no problems encountered, this log file is not created.

SOA Manager Adapter Installation Log

All information related to unpacking the archive zip file and starting the SOA Manager adapter is reported directly to the Window where you are executing the commands.

Installing the HPBPI Components

The following sections describe the installation process for each of the following installation options:

- [Server and Modeler Installation on Windows](#) on page 81.
- [Server Only Installation on Windows](#) on page 95.
- [Modeler Only Installation](#) on page 97.
- [Dashboards Only Installation](#) on page 100
- [HPOM Adapter Installation](#) on page 104.

Server and Modeler Installation on Windows

This section describes the steps for installing the all the HPBPI components on a Windows machine. Before starting the installation, make sure that you have:

- shut down all applications that use HP License Manager (Autopass) on the machine where you intend to install HPBPI. If you do not, you might not be able to use these applications or HPBPI following the HPBPI installation.
- read section [Information Required for a Server and Modeler Installation](#) on page 67
- the system environment variable for `JAVA_HOME` is set.

If you intend to use an Oracle Database Server that is installed on an HP-UX machine, you must create a Database User for HPBPI before starting the installation; if you do not, the installation fails. Refer to section [HPBPI Server Database Requirements](#) on page 53 for more details.

Complete the steps described in the following sections to install all the HPBPI components for the first time. The steps are subdivided into logical areas so they are easier to follow. You need to complete the steps that are related to the choices that you make during the installation.

Introduction

Starting the installation:

1. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

```
cd-drive\i386\hpbpi-install.exe
```

You are presented with an introduction to the installation. Click `Next` to start the installation.

Alternatively, you can follow the link from the `readme` file presented when you insert the CD into the CD drive.

If you see an error message indicating that you have not installed the correct version of the J2SE, you need to stop the installation and make sure that the correct version of the J2SE is installed. You also need to make sure that the system environment is set up as described in section [J2SE](#) on page 49. If this does not resolve the problem, you need to remove all older versions of the J2SE from your machine.

When you have corrected the problem, restart the installation.

General HPBPI Settings

Answer the following questions relating to installation directory, installation type and J2SE location:

1. From the `Choose Install Folder` dialog, click `Next` to accept the default installation directory, or select `Choose`, to navigate to a directory of your choice. There might be a short delay before a navigation window is presented. Click `Next` to continue.



You can install only one HPBPI Server on each machine. You must not install and configure multiple HPBPI Servers on a single machine.

2. From the `Choose Product Features` dialog, select `Server` and `Modeler Installation` and click `Next`.

If the installer detects one or more HP BTO Software products that use the HP License Manager (Autopass) are installed (including a previous version of HPBPI), it displays a `Warning` message. Select `Next` to confirm that you have shutdown all other HP BTO Software products, or select `Cancel` to abort the installation.

3. From the `JDK Home` dialog, click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory. Click `Next` to continue.

Section [HPBPI Database Settings](#) on page 84 describes the questions relating the database that you intend to use to use to store the HPBPI process data.

HPBPI Database Settings

HPBPI uses a database to store its process definitions and process status information. You need to answer questions relating to the configuration of the database as part of the installation.

1. From the HPBPI Database Type dialog, select the database type that you intend to configure for HPBPI. This can be either Microsoft SQL Server or Oracle.

For Microsoft SQL Server, select Microsoft SQL Server, click Next and continue at section [Microsoft SQL Server Database](#) on page 84.

For an Oracle Server, select Oracle, click Next and continue at section [Oracle Server Database](#) on page 87.

Microsoft SQL Server Database

The following questions relate to the Microsoft SQL Server database questions for HPBPI. These questions relate to values that you have entered when installing the Microsoft SQL Server. If you do not know the answers to these questions, talk to the person who installed Microsoft SQL Server for the information that you need.

1. From the Microsoft SQL Server connection details dialog, enter the details for the Microsoft SQL Server database as follows:
 - MS SQL Server host
Enter the fully qualified domain name of the machine where the Microsoft SQL Server database is installed. You can use localhost to specify the machine name if appropriate.
 - MS SQL Server port
Enter the port number for the database if the default offered is not correct.

- Admin username

Enter the login username for a database user that has permission to create the HPBPI database, and where appropriate the HPBPI user; for example, the system administrator user (*sa*).

- Admin password

Enter the password for the database user specified in the previous step.

When you have entered all the required information, click **Next**.

2. From the **Microsoft SQL Server user details** dialog, enter the details to create the HPBPI database tables as follows:

- Database name

Enter the name that you want to give to the HPBPI database, or accept the default name offered.

- Username

Enter the username that HPBPI can use to log into the database to access its tables. A default name is offered for the username, which you can accept.

- Password

Enter a password for the user entered in the previous step.

- Confirm password

Reenter the password for the user as confirmation.

Make sure that you remember these user name and password details as you will need them in the future.

- Database file directory

Enter the location of the database directory files. The installer offers a directory name based on the location following a default Microsoft SQL Server installation. Check the directory details are correct (that the directory exists and has the correct permissions set) and either accept the directory offered, or enter new directory details. If you enter new directory details and they are incorrect, the installation will fail at a later stage.

When you have entered all the required information, click **Next**; you are then presented with the pre-installation summary.

If you are presented with a warning dialog labeled **Database Tables Exist**, the installer has detected database tables already defined in the database with the same names as the tables it needs to create for HPBPI. This message is also displayed in the case for other database functions, such as Views, Stored Procedure, Triggers and so on.

These database functions might be left from a previous installation, where you have uninstalled HPBPI and selected not to remove the HPBPI data; they could be tables from another application that have the same name as the default HPBPI tables; or they could be user-defined.

If you click **Delete**, the installer continues with the installation and deletes and recreates the all the database functions that HPBPI requires. Alternatively, you can click **Back** and:

- Enter an alternative database name.

Click **New Database User** to dismiss the error dialog and the installer returns you to the **Microsoft SQL Server user details** dialog where you can enter a different name for the database.

- Cancel the installation, remove or rename the HPBPI tables that already exist and then restart the installation.

Select either **Delete** or **Back** and you will then either restart the installation, or continue at section [Pre-Installation Summary](#) on page 89 as appropriate.

If you are presented with an error indicating that the database collation setting is incorrect, you need to exit from the installation and refer to section [Database Case Sensitivity](#) on page 57. When you have resolved the problem, you can restart the installation.

Oracle Server Database

The following questions relate to the Oracle Server database that you have configured for HPBPI. These questions relate to values that you have entered when installing the Oracle Server. If you do not know the answers to these questions, talk to the person who installed the Oracle Server for the information that you need.

1. From the Oracle connection details dialog, enter the following database details:
 - Oracle host
Enter the fully qualified domain name of the machine where the Oracle server is installed. You can use `localhost` to specify the machine name if appropriate.
 - Oracle port
Enter the port number for the database if the default offered is not correct. The default offered is the standard port number used by Oracle, you do not need to change this unless you have configured Oracle to use an alternative port number.
 - Oracle SID
Enter the SID that you want to use for the HPBPI database tables.
 - Admin username
Enter the login username for a database user that has permission to create the HPBPI database, and where appropriate the HPBPI user; for example, the system user (`system`).
 - Admin password
Enter the password for the database user specified in the previous step.

When you have entered all the required information, click `Next`.

2. From the Oracle user details dialog, enter the details to create the HPBPI database tables as follows:

- Username

Enter the username that HPBPI can use to log into the database to access its tables. A default name is offered for the username, which you can accept.

- Password

Enter a password for the user entered in the previous step.

- Confirm password

Reenter the password for the user as confirmation.

Make sure that you remember these user name and password details as you will need them in the future.

- Database file directory

Enter the location of the database directory files. The installer offers a directory name based on the location following a default Oracle Server installation. Check the directory details are correct and either accept the directory offered, or enter new directory details. If you enter new directory details and they are incorrect, the installation will fail at a later stage.

When you have entered all the required information, click **Next**.

If you are presented with an error dialog labeled *Database Tables Exist*, the installer has detected database tables already defined in the database with the same names as the tables it needs to create for HPBPI. This message is also displayed in the case for other database functions, such as Views, Stored Procedure, Triggers and so on.

These database functions might be left from a previous installation, where you have uninstalled HPBPI and selected not to remove the HPBPI data; they could be tables from another application that have the same name as the default HPBPI tables; or they could be user-defined.

If you click `Delete`, the installer continues with the installation and deletes and recreates the tables that HPBPI requires. Alternatively, you can click `Back` and:

- Enter an alternative database name.

Click `New Database User` to dismiss the error dialog. The installer returns you to the `Oracle user details` dialog where you can enter a different name for the database.

- Cancel the installation, remove or rename the HPBPI tables that already exist and then restart the installation.

Select either `Delete` or `Back` and you will then either restart the installation, or continue at section [Pre-Installation Summary](#) on page 89 as appropriate.

Pre-Installation Summary

From the `Pre-Installation Summary` dialog, check the details on the summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and installs the HPBPI directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Starting HPBPI Server Components on Windows

You can start the HPBPI components in one of two ways:

- Using the HPBPI Administration console:
 - a. Start the HPBPI components using the HPBPI Administration Console by selecting:
`Start|Programs|HP|Business Process Insight|Administration`
 - b. Click the `Start All` button to start all the HPBPI server components.
- From the Services option from the Control Panel:

- a. Select:

`Start|Control Panel|Administrative Tools|Services`

The HPBPI Server components are listed as the following Windows services:

- OVBPIAdminServer
- OVBPIBACDataSamplesProvider
- OVBPIEngine
- OVBPIEventHandler
- OVBPIJmsEventHandler
- OVBPIMetricEngine
- OVBPIModelRepository
- OVBPINotificationServer
- OVBPIServiceAdapters
- OVBPIServletEngine
- OVBPIWebServicesProvider

- b. Start all the HPBPI Services in the usual way.

You can also configure further properties for these HPBPI Services, which are specific for your implementation. As an example, you can configure the Windows Service to restart automatically following a failure. As installed, the Services do not restart following a failure.

If you are using an Oracle Server it can take a minute or so for HPBPI components to make a connection (on some systems). There is a retry mechanism for connecting to an Oracle Server when HPBPI is starting, but this retry interval eventually times out. In this case, you might need to have a second attempt at starting some of the HPBPI components that use the database.

When you have successfully completed the installation and started the HPBPI components, you need to check you license status and enter your permanent license key password as described in section [When the partitioning is complete, restart the HPBPI components using the Administration Console](#) on page 92.

Enabling Oracle Database Table and Index Partitioning

When you have completed the HPBPI installation, you can enable database table and index partitioning for the HPBPI database tables.

Some of the HPBPI database tables and indexes are designed to enable you to take advantage of Oracle partitioning; however, you can do this only if you have purchased a suitable Oracle License.

If you have a license to use Oracle Database and Index Partitioning, and you consider that your database performance can be improved by using it with HPBPI, you can configure HPBPI to make use of this Oracle feature.

If you do have the correct license terms, you can enable Oracle Database table and index partitioning for HPBPI as follows:

1. From the Administration Console, stop all the HPBPI components.
2. Open a Command Prompt Window.
3. Change directory to:

```
bpi-install-dir\bin
```

4. Run the following script:

```
OraclePartitioningSwitcher switch
```

where *switch* can be either `true` or `false`.

`true` enables partitioning for some HPBPI database tables and indexes and `false` disables any partitioning for HPBPI.

Be aware that when you enable Oracle partitioning, there can be a significant delay while Oracle makes the required changes. The delay depends on the size of the database tables and indexes that are being partitioned and can be more than one hour.

5. When the partitioning is complete, restart the HPBPI components using the Administration Console.



You must make sure that you have the appropriate license if you decide to enable Oracle Database table and index partitioning.

License Key Password Redemption

When initially installed, HPBPI is running under a 60-day Instant On license. You need to obtain your permanent password before the 60-day period has expired. To obtain your permanent password, you need to access the Autopass License Management utility, which is available through the HPBPI Administration Console.

HPBPI uses a Nodelocked license based on the fully qualified hostname of the machine where the HPBPI Server is installed. Do not request your permanent password using the IP address of the machine where HPBPI is installed; if you do, HPBPI is not able to start.

When you purchased HPBPI you received one, or more, entitlement certificates. An entitlement certificate is issued for each licensed product that you purchase, for example:

```
BB185AA           HP BPI Enterprise Foundation LTU
BB186AA           HP BPI 1 Process SW LTU
```

Use the information on your entitlement certificates and the Autopass License Management utility to retrieve and install the software license keys for HPBPI. The following are the instructions for accessing the Autopass License Management utility for HPBPI:

1. Open the HPBPI Administration Console
2. Select the following menu option:

```
Admin | License Manager
```

The Autopass License Management Retrieve/Install License Key pane is displayed.

3. Follow the License Management instructions for retrieving and installing your license key. You need to make sure that you have the information from your entitlement certificates when answering the licensing questions.

For detailed information about using HP License Manager (Autopass), refer to the License Management online help.

If you have any difficulty with HP License Manager, use the contact details on your License Entitlement Certificate. You can also access the HP Password delivery service at the following URL:

<http://www.webware.hp.com>

When you have installed your permanent license, continue and verify your HPBPI installation as described in [Chapter 4, Verifying the Installation](#). You can complete the verification using the 60-day Instant On license if you prefer and install the permanent license at a later date.

If you do not want to verify your installation, you have completed the installation.

Server Only Installation on Windows

Complete the following steps to install the HPBPI Server without the HPBPI Modeler component on a Windows machine. You might do this because you want to use the HPBPI Modeler from another machine.

Before starting the installation, make sure that you have read section [Information Required for a Server Only Installation](#) on page 72 and that the system environment variable for `JAVA_HOME` is set.

Introduction

This section of the installation introduces the installation process for HPBPI.

1. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

```
cd-drive\i386\hpbpi-install.exe
```

You are presented with the introduction for the installation. Click `Next` to start the installation.

Alternatively, you can follow the link from the `readme` file presented when you insert the CD into the CD drive.

If you see an error message indicating that you have not installed the correct version of the J2SE, you need to stop the installation and make sure that the correct version of the J2SE is installed. You also need to make sure that the system environment is set up as described in section [J2SE](#) on page 49. If this does not resolve the problem, you need to remove all older versions of the J2SE from your system.

When you have corrected the problem, restart the installation.

General HPBPI Settings

Answer the following questions relating to installation directory, installation type and J2SE location:

1. From the `Choose Install Folder` dialog, click `Next` to accept the default installation directory, or select `Choose`, to navigate to a directory of your choice. There might be a short delay before a navigation window is presented. Click `Next` to continue.



You can install only one HPBPI Server on each machine. You must not install and configure multiple HPBPI Servers on a single machine.

If the installer detects one or more HP BTO Software products that use the HP License Manager (Autopass) are installed (including a previous version of HPBPI), it displays a Warning message. Select `Next` to confirm that you have shutdown all other HP BTO Software products, or select `Cancel` to abort the installation.

2. From the `Choose Product Features` dialog, select `Server Only` as the installation option and click `Next`.

Continue at step 3 in section [General HPBPI Settings](#) on page 83 to complete the `Server Only` installation.

When you have completed the `Server Only` installation and started HPBPI, continue at section [When the partitioning is complete, restart the HPBPI components using the Administration Console.](#) on page 92.

Modeler Only Installation

Complete the following steps to install the HPBPI Modeler component on a Windows machine. You might do this because you want to use the HPBPI Modeler from a different machine.



The HPBPI Modeler needs to connect to the Model Repository, which is part of the HPBPI Server. You should therefore make sure that the HPBPI Server is installed and started, before starting the HPBPI Modeler following its installation.

Before starting the installation, make sure that you have read section [Information Required for a Modeler Only Installation](#) on page 73 and that the system environment variable for `JAVA_HOME` is set.

Introduction

Complete the following steps to install the HPBPI Modeler for the first time.

1. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

```
cd-drive\i386\hpbpi-install.exe
```

You are presented with an introduction to the installation. Click **Next** to start the installation.

Alternatively, you can follow the link from the `readme` file presented when you insert the CD into the CD drive.

If you see an error message indicating that you have not installed the correct version of the J2SE, you need to stop the installation and make sure that the correct version of the J2SE is installed. You also need to make sure that the system environment is set up as described in section [J2SE](#) on page 49. If this does not resolve the problem, you need to remove all older versions of the J2SE from your system.

When you have corrected the problem, restart the installation.

General HPBPI Settings

Answer the following questions relating to installation type, installation directory and J2SE locations.

1. From the `Choose Installation Folder` dialog, click `Next` to accept the default installation directory, or select `Choose`, to navigate to a directory of your choice. There might be a short delay before a navigation window is presented.
2. From the `Choose Product Features` dialog, select `Modeler Only` as the installation option and click `Next`.
3. From the `JDK Home` dialog, click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory. Click `Next` to continue.
4. From the `Pre-Installation Summary` dialog, check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and installs the HPBPI Modeler directories and files. When the installation is complete, you can exit the installation procedure.

You have now completed the `Modeler Only` installation.

Starting the HPBPI Modeler

Start the HPBPI Modeler as follows:

1. Make sure that the Model Repository component is started on the HPBPI Server using the HPBPI Administration Console.

2. Select the following option from the Start menu:

Start | Programs | HP | HP Business Process Insight | Modeler

You are presented with an HPBPI Modeler dialog, where you enter details of the location of the Model Repository.

3. Enter details of the username and password to connect to the Model Repository. On a new installation, the username is `admin` and the password is `hpbpi`.

Details of changing the user name and password for the HPBPI Modeler are provided in the *Business Process Insight System Administration Guide*.

4. Click OK, and the HPBPI Modeler opens.

Dashboards Only Installation

Complete the following steps to install the HPBPI Dashboard component on a Windows machine.

Before starting the installation, make sure that you have read section [Information Required for a Dashboards Only Installation](#) on page 73 and that the system environment variable for `JAVA_HOME` is set.

Introduction

Complete the following steps to install the HPBPI Dashboard for the first time.

1. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

```
cd-drive\i386\hpbpi-install.exe
```

You are presented with an introduction to the installation. Click `Next` to start the installation.

Alternatively, you can follow the link from the `readme` file presented when you insert the CD into the CD drive.

If you see an error message indicating that you have not installed the correct version of the J2SE, you need to stop the installation and make sure that the correct version of the J2SE is installed. You also need to make sure that the system environment is set up as described in section [J2SE](#) on page 49. If this does not resolve the problem, you need to remove all older versions of the J2SE from your system.

When you have corrected the problem, restart the installation.

General HPBPI Settings

Answer the following questions relating to installation type, installation directory and J2SE locations.

1. From the `Choose Installation Folder` dialog, click `Next` to accept the default installation directory, or select `Choose`, to navigate to a directory of your choice. There might be a short delay before a navigation window is presented.
2. From the `Choose Product Features` dialog, select `Dashboards Only` as the installation option and click `Next`.
3. From the `JDK Home` dialog, click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory. Click `Next` to continue.
4. From the `HPBPI Database Type` dialog, select either `Microsoft SQL Server` or `Oracle` as the database you have configured for HPBPI. If you have not yet installed the HPBPI and configured the database, you can still complete a `Dashboards Only` installation and complete the required details.

The installation procedure does not attempt to verify the data that you enter, and it can be modified following the installation. However, you need to make sure that you select the correct database type, so the correct parameters are available to edit through the Administration Console after the installation.

5. From the `Database Connection Details` dialog, complete the details of the database requested. The details requested vary according to the database type that you select.

If you receive a database connection error dialog, you can choose to ignore it at this stage and enter the correct connection details when you have them.

6. From the `Pre-Installation Summary` dialog, check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and installs the HPBPI Dashboard directories and files. When the installation is complete, you can exit the installation procedure.

You have now completed the `Dashboards Only` installation.

Starting the HPBPI Dashboard

Before starting the Business Process Dashboard, you need to make sure that the Servlet Engine is running. You can start the Servlet Engine using one of the following methods:

1. Using the HPBPI Administration Console by selecting:

Start|Programs|HP|Business Process Insight|Administration

Click the Start All button to start all the HPBPI components installed.

2. From the Services option from the Control Panel:

- a. Open the Windows Services dialog as follows:

Start|Control Panel|Administrative Tools|Services

You need to start the HPBPI Servlet Engine, which is listed as the following Windows service:

OVBPIServletEngine

- b. Start the OVBPIServletEngine service in the usual way.

You can now start the Dashboard by typing the following URL into a Web Browser windows:

`http://hostname:44080/hpbpi-bpd`

where:

- *hostname* is the fully qualified domain name of the machine where the HPBPI Dashboard is installed and running. You can use `localhost` as the hostname, if you are starting the Business Process Dashboard on the same machine as where the Dashboard components are installed and running.
- 44080 is the port number for the Servlet Engine, identified by the ServletEngine HTTP port number. Use the port number configured for the machine where the Dashboard is installed.

A browser window opens on the Business Health Scorecard page for the HPBPI Dashboard.

Managing a Dashboards Only Installation

When you have completed a Dashboards Only installation, you can manage your system using the Administration Console in the same way as you can for any other HPBPI installation type.

The Administration Console presents a subset of the configuration options for the Dashboards Only installation; that is, it presents only those options relevant to the Dashboards.

HPOM Adapter Installation

If you do not intend to use HP Operations Manager as a source of operation events, you do not need to install the HPOM Adapter.

If you do need to install the HPOM Adapter, make sure that you have read section [Information Required for an HPOM Adapter Installation](#) on page 76 and that the system environment variable is set for `JAVA_HOME`.

If you are installing the Adapter on an HP-UX system, complete the steps described in section [HP-UX](#) on page 104. If you are installing the Adapter on a Windows system, complete the steps described in section [Windows](#) on page 106.

HP-UX

Complete the following steps to install the OM Adapter on HP-UX:

1. Log on to an account with system administration (root) capability.
2. Check the disk space that is available in `/tmp`.

`InstallAnywhere` requires 150MB of disk space to be available in `/tmp`. If `/tmp` does not have sufficient disk space, set the following `InstallAnywhere` environment variable to a directory location where there is sufficient space.

```
IATEMPDIR
```

As an example, if you want to use `/var/tmp` as the temporary directory, set the environment variable as follows:

```
export IATEMPDIR=/var/tmp
```


3. Change directory to where the HPBPI install image is located and run the installation as follows:

```
sh ./hp-ux/hpbpi-om-adaptor-install.bin
```

When the installation image has been extracted, the installer GUI starts on the machine where the `DISPLAY` environment variable is configured to display.

If you see an error message indicating that you have not installed the correct version of the J2SE, you need to exit from the installation. You then need to make sure that the correct version of Java is defined in the system `PATH` environment variable and restart from step 2, or run the installer from the command line as follows:

- a. Change directory to where the installation image is located.
- b. Type the following command:

```
sh ./hp-ux/hpbpi-om-adaptor-install.bin LAX_VM Java 1.5  
Home Directory/bin/java
```

where *Java 1.5 Home Directory* is the home directory for the J2SE.

This forces the installer to use the correct J2SE. You can now continue with the installation.

4. The installation introduction screen is presented, click `Next` to continue.
5. Accept the default HPBPI installation directory offered, or enter a directory of your choice and click `Next`.
6. Select `HPOM Adapter` and click `Next`.
7. Accept the default home directory for the Java SDK, if it is correct, and click `Next`. If the default directory offered is incorrect, enter the correct directory and click `Next`.
8. Confirm the installation details on the summary page and complete the installation.
9. Click `Install` to start the installation.
10. Click `Done` when the installation is complete.

The adapter server is now running and ready to accept connections when you start up the HPBPI components on Windows, you can continue at section [Starting the HPOM Adapter On Windows](#) on page 107.

Windows

Before starting the installation, make sure that the Windows .NET Framework is installed on the machine where you intend to install the adapter on Windows; Windows .NET is installed as part of HP Operations Manager.

Complete the following steps to install the HPOM Adapter on Windows:

1. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

```
cd-drive\i386\hpbpi-install.exe
```

You are presented with an introduction to the installation. Click **Next** to start the installation.

Alternatively, you can follow the link from the `readme` file presented when you insert the CD into the CD drive.

If you see an error message indicating that you have not installed the correct version of the J2SE, you need to stop the installation and make sure that the correct version of the J2SE is installed. You also need to make sure that the system environment is set up as described in section [J2SE](#) on page 49. If this does not resolve the problem, you need to remove all older versions of the J2SE from your system.

When you have corrected the problem, restart the installation.

2. From the **Choose Install Folder** dialog, click **Next** to accept the default installation directory, or select **Choose**, to navigate to a directory of your choice. There might be a short delay before a navigation window is presented. Click **Next** to continue.
3. From the **Choose Product Features** dialog, select **HPOM Adapter** and click **Next**.

4. From the JDK Home dialog, click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory. Click `Next` to continue.
5. From the `Pre-Installation Summary` dialog, check the details on the summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and installs the Adapter directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Starting the HPOM Adapter On Windows

If you are running the HPOM Adapter on the same machine as the HPBPI Server, you need to add the adapter to your HPBPI configuration before you can start it:

1. Open the HPBPI Administration Console as follows:
`Start | Programs | HP | Business Process Insight | Administration`
2. Select the HPOM Adapter option from the list in the left-hand pane.
3. Select the checkbox `Add HPOM Adapter to the Status Page?`
This has the effect of adding an entry for the HPOM Adapter to the HPBPI component `Status Page`.
4. Click the `Apply` button to apply your changes.
5. Close and restart the System Administration console.

You need to close and restart the Administration Console, to refresh the Status pane. If you do not, the HPOM Adapter does not appear.

You can now continue and start the adapter in one of two ways:

1. Using the HPBPI Administration console:
 - a. If not already started, start the HPBPI components using the HPBPI Administration Console by selecting:
Start|Programs|HP|Business Process Insight|Administration
 - b. Click the Start All button to start all the HPBPI components installed.
2. From the Services option from the Control Panel:
 - a. Open the Windows Services dialog as follows:
Start|Control Panel|Administrative Tools|Services
The HPOM Adapter is listed as the following Windows service:
OVBPIOVOAdaptor
When you enable the HP Operations Manager Adapter component, the OVBPIOVOAdaptor service is set to be a Startup Type of Automatic.
 - b. Start the OVBPIOVOAdaptor service in the usual way.
You can also configure further properties for the OVBPIOVOAdaptor Service, which are specific for your implementation. As an example, you can configure the Windows Service to restart automatically following a failure. As installed, the Service does not restart following a failure.

You also need to configure the adapter as an operational service source for HPBPI. You do this using the Administration Console as described in the *Business Process Insight Administration Guide*. You are advised to configure the adapter as an operational service as soon as you can as the adapter reports errors in its log file until it is able to communicate with HPOM.

Starting the HPOM Adapter on HP-UX

If you have installed the HPOM Adapter on an HP-UX machine, you can start the adapter as follows:

1. Using the HPBPI Administration Console:
 - a. Add the following HPBPI directory to your system path:
`hpbpi-install-dir/bin`
By default `hpbpi-install-dir` is `/opt/hp/Business Process Insight`
 - b. Start the HPBPI Administration Console as follows:
`biaadmin.sh`
The HPBPI Administration Console is presented.
 - c. Click the `Start All` button to start all the HPBPI components installed.

2. Automatically as part of the HP-UX server startup process.

HPBPI creates the following scripts as part of the HPOM Adapter installation:

— `/sbin/init.d/ovbpi`

This script is used to start and stop all HPBPI components that are installed. These are the HPBPI Administration Console and the HPOM Adapter.

— `/sbin/rc2.d/K009ovbpi`

This is a symbolic link to `/sbin/init.d/ovbpi`

— `/sbin/rc3.d/S998ovbpi`

This is a symbolic link to `/sbin/init.d/ovbpi`

— `/etc/rc.config.d/ovbpi`

This is a configuration file used during startup and shutdown. As installed the HPBPI components are configured to start automatically when the HP-UX system is started. If you want to change this behavior, you need to modify the parameter settings in this configuration file.

If you want to restart the adapter automatically when it fails, you can modify the following control file:

```
lbin/bia/OVBPIOVOAdaptorControl.sh
```

Locate the following line in the file:

```
RESTART_ON_FAILURE=false
```

To modify the configuration to have the adapter restarted automatically, following a failure, change the line as follows:

```
RESTART_ON_FAILURE=true
```

You can also configure the time between attempts to start the adapter using the following parameter in the same file:

```
RETRY_PERIOD=60
```

The retry period units are specified in terms of seconds.



Be aware that when you reinstall HPBPI the control file is overwritten. You are advised to make a copy of your changes and you must reapply the changes to the file the reinstallation.

You also need to configure the adapter as an operational service source for HPBPI. You do this using the Administration Console as described in the *Business Process Insight Administration Guide*. You are advised to configure the adapter as an operational service as soon as you can as the adapter reports errors in its log file until it is able to communicate with HPOM.

HP SOA Manager Adapter Installation and Configuration

This section describes how to install, configure and start the HP SOA Manager Adapter. Before starting the installation, make sure that you have read section [Information Required for a SOA Manager Adapter Installation](#) on page 77.

Complete the following steps to install the adapter:

1. Locate the zip archive file on the HPBPI distribution media:
 - `cd-root\i386\soam-adaptor.zip`
2. Copy the zip archive file to the machine where you want to install the SOA Manager adapter.
3. Create a new directory for the SOA Manager Adapter zip archive file.
4. Unpack the zip archive file into the directory that you created in step 3.
5. Set the path for the Java Home directory for the adapter in the environment variable `SOAMADAPTER_JAVA_HOME`. To do this, open a Command Window and enter:

```
set SOAMADAPTER_JAVA_HOME=java-install-dir
```

where *java-install-dir* is the location of your Java installation, for example:

```
c:\program files\java\jdk1.5.0_12
```

6. From a Command Window, locate the directory where the following script is located. The script was one of the files that you unpacked from the zip archive file:

```
runAdapter.bat
```

7. Move to the directory where the script is located and run the following command in a new Command Window to configure and start the adapter:

```
start runAdapter -c soa-svs-catalog -h hostname -s wsvs-port -a adport
```

where:

- `-c soa-svs-catalog` (required parameter)
`-c` takes a parameter `soa-svs-catalog`, which is the name of the SOA Manager Web Services Catalog. This is the catalog name that you identified starting with the string `WsmfServiceCatalog`.
- `-h hostname` (optional parameter)
`-h` takes a parameter, which is the fully qualified host name of the machine where SOA Manager is running. This parameter is optional and if it is not specified, a value of `localhost` is assumed.
- `-s wsvs-port` (optional parameter)
`-s` takes a parameter, which is the port number used by SOA Manager to publish its web services. This parameter is optional and if it is not specified a value of `5002` is used.
- `-a adport` (optional parameter)
`-a` takes a parameter, which is the port number used by Axis to publish the SOA Manager Adapter as a Web Service. This parameter is optional and if it is not specified, a value of `18097` is used.

An instance of the SOA Manager Adapter is now installed, configured and started. Do not close the Command Window where you started the adapter, or you shut down this adapter instance.

You now need to use the Administration Console to configure the adapter as an operational service source for HPBPI. The SOAM Adapter configuration parameters are described in the *Business Process Insight Administration Guide*. Configuring the Adapter is described in the *Business Process Insight Integration Training Guide - Modeling Processes and Business Events*.

You can check that the adapter is configured and running at any time using the following URL:

`http://hostname:18097/axis/services/SOAMAdapter?wsdl`

where ***hostname*** is the name of the machine where the adapter is installed.

If the browser returns an error page, then the adapter is not running.

Stopping the SOA Manager Adapter

You stop the adapter using CTRL/C in the Command Window where you started the adapter.

SOA Manager Adapter Log Files

The SOA Manager Adapter logs errors and warnings in the following log file:

adapter-install-dir/data/log

What to do Next

When you have successfully completed the HPBPI installation, continue at [Chapter 4, Verifying the Installation](#) to verify your HPBPI Server installation.

Details of managing your system, including starting and stopping components and their configurations can be found in the *Business Process Insight System Administration Guide*.

4 Verifying the Installation

This chapter uses an example process to check that all the HPBPI files are installed correctly, and that your HPBPI machine is operating as it should be.

It is not possible to try all permutations for a business process; however, this chapter uses one of the contributed processes and the Process Simulator, which is also a contributed tool, to create a business process and simulate its progress through the Business Impact Engine.

The chapter describes how you deploy the process, plus the Data and Event definitions for the process. You then go on and use the Process Simulator to send simulated events into the Business Impact Engine and view the results through the HPBPI Business Process Dashboard. This then confirms that the Business Impact Engine is processing events and is therefore successfully installed.

The verification does not check all the aspects of creating and deploying a process. The *Business Process Insight Integration Training Guide - Modeling Processes* provides a more detailed example of creating a process including Data and Events.

Before using the verification process, make sure that you have installed, and started, the required HPBPI components. These are:

- HPBPI Server on Windows
- HPBPI Modeler on Windows

Importing an Example Process

This section describes how to import one of the example processes into the HPBPI Modeler.

Before you start, make sure that the HPBPI Server components are started and the HPBPI Modeler is started; see section [Starting HPBPI Server Components on Windows](#) on page 90 and section [Starting the HPBPI Modeler](#) on page 99.

Complete the following steps to import and deploy the Cell phone Provisioning process:

1. From the HPBPI Modeler select:

```
File|Import Definitions
```

You are presented with an `Import Definitions` dialog.

2. Use the `Browse` button to locate the example process, which is contained in a `.zip` file and located under the `MB_Mobile` directory as follows:

```
hpbpi-install-dir\contrib\DemoProcessLibrary\MB_Mobile  
\MB_Mobile.zip
```

Make sure that you select the file with the `.zip` extension from this directory and click `Open` to load the file into the Modeler.

3. Click `Next`.

All the definitions relating to the `MB_Mobile` process are listed.

4. Click `Import`, to import the process into the HPBPI Modeler.
5. When the import is complete, click `Close`.

The `MB_Mobile` process is now imported and can be viewed from within the Modeler.

6. Select the `MB_Mobile` process under `Processes` in the HPBPI Modeler Navigator pane.

7. Deploy the `MB_Mobile` process using the following menu option in the HPBPI Modeler:

File|Deploy

A dialog is presented that lists all the definitions that will be deployed.

8. Click `Deploy` to deploy the process.
9. Click `Close` when the process has been successfully deployed.

You can see that the status of the process has changed in the Summary window within the Modeler and the process is now confirmed as deployed.

Using the Process Simulator

The next step is to start the Process Simulator and run the test case for the `MB_Mobile` process. The simulator injects business events into the Business Impact Engine and as a result process instances are created and progressed. This enables you to confirm that the HPBPI installation is successful.

If you have upgraded from an earlier version of HPBPI to HPBPI version 07.50, you need to make sure that you are using the correct version of the test script with the correct version of the process. Do not mix a versions of test scripts for the Process Simulator.

To run the Process Simulator, complete the following steps:

1. Open a Command Prompt window.
2. Change directory to where the Process Simulator files are located:

```
hbbpi-install-dir\contrib\DemoProcessLibrary\MB_Mobile
```

3. Run `ProcessSimulator.bat`.

The Process Simulator opens and there are two tabbed windows on the left-hand pane:

- Test Case Editor
- Test Suite Runner

There is a list of test suites already defined for the `MB_Mobile` process, which you now need to import into the simulator.

4. From the Process Simulator, select `File|Open Test Suite`

5. Browse to the following directory:

`hpbpi-install-dir\contrib\DemoProcessLibrary\MB_Mobile`

The test suites are located with the contributed processes that they relate to.

6. Select the file `MB_Mobile.test`.
7. Click `Open`

The `MB_Mobile` test suite is loaded into the Process Simulator. There are four test cases listed within the Test Case Editor.

8. Move to the `Test Suite Runner` pane and click the `Start Suite` button.

The simulator is now injecting events for the `MB_Mobile` process. You can see these events on the `Status Bar` at the bottom of the `Process Simulator Window`.

Viewing the Process Using the HPBPI Dashboard

To check how the `MB_Mobile` process is progressing, start the HPBPI Dashboard and view the process summary for the process as follows:

1. From the machine where the HPBPI Server is installed, start the HPBPI Dashboard using the following URL:

```
http://localhost:44080/hpbpi-bpd
```

2. From the Business Health Scorecard page, select the `MB_Mobile` process from Business Process Summary.

Scroll to the bottom of the page and you can see a summary of the process instances and the numbers of process instances in each state. If there are values other than zero against one or more of the instances, the process is progressing and the installation is therefore successful. You can continue and navigate around the Dashboard to view the details of the process instances. When you have completed the verification, continue at section [What to do Next](#) on page 120.

If the values are zero, then the `MB_Mobile` process is not progressing as it should, and there is a potential problem with the installation. Initially, you can try refreshing the Dashboard Web Browser Window to make sure you are viewing the latest information. If the values are still zero, check that you have completed all the instruction in this chapter. If you have, then contact your support representative for assistance; see section [Support](#) on page 4.

What to do Next

You have now completed the HPBPI verification and the HPBPI installation. You need to shut down the test suite in the Process Simulator and close the remaining HPBPI components as follows:

1. To stop the test suite for the MB_Mobile process, click the Stop Suite button.
2. Close the Process Simulator.
3. Close the browser Window where the HPBPI Dashboard is running.
4. From the HPBPI Modeler, undeploy the MB_Mobile process, including all the associated Data and Event definitions. You can also delete the definitions related to the MB_Mobile process if you want to.
5. When you are more familiar with HPBPI, you can use the Intervention Client to remove the data for all the active instances for the MB_Mobile process from the database.

When you have finished cleaning up your machine following the verification, you are advised to change the passwords for the HPBPI clients as described in the *Business Process Insight System Administration Guide*.

5 Re-installing HPBPI Components

You can use the HPBPI reinstallation procedure to re-install existing HPBPI components, to install new components and replace missing or corrupt HPBPI software files. As an example, you might have completed a Server Only installation and you now want to install the HPBPI Modeler on the same machine. You can use the Installation Integrity Checker to determine if there are missing installation files.

If you want to replace HPBPI data files, you should recover these files from a backup. You cannot use the reinstallation program to change details of the database configuration for HPBPI.

If you want to upgrade from an HPBPI version 02.0*n*, or later, machine to an HPBPI version 07.50 machine, do not read this chapter, you must refer to [Chapter 7, Upgrading to HPBPI Version 7.50](#).

This chapter covers the following topics:

- [Options for Re-installing](#) on page 122
- [Before Starting the Re-installation Procedure](#) on page 124
- [Re-installing HPBPI Components](#) on page 125
- [HPOM Adapter Re-installation](#) on page 127
- [SOA Manager Adapter Re-Installation](#) on page 130

Options for Re-installing

This section describes the options available to you when re-installing HPBPI components.



If you want to create a new database for HPBPI and remove all the data associated with the current installation, use the uninstall instructions. This involves removing all the installed HPBPI components and deleting the database; see [Chapter 6, Uninstalling HPBPI Components](#). Be aware that by uninstalling HPBPI you are removing all your HPBPI files.

To reinstall existing components, refer the section appropriate to your installation type as follows:

- Any HPBPI component; see section [Re-installing HPBPI Components](#) on page 125.
- HPOM Adapter Installation; see section [HPOM Adapter Re-installation](#) on page 127.

You have the option to re-install a different installation type, provided the new install type includes the components that have already been installed; see [Table 25](#) on page 122.

Table 25 Re-Installation Options

Existing Installation Type	Possible New Re-Installation Types
Server and Modeler	Server and Modeler
Server Only	Server Only Server and Modeler
Dashboards Only	Dashboards Only Server Only Server and Modeler
Modeler Only	Modeler Only Server and Modeler

Table 25 Re-Installation Options

Existing Installation Type	Possible New Re-Installation Types
HPOM Adapter on HP-UX	HPOM Adapter on HP-UX
HPOM Adapter on Windows	HPOM Adapter on Windows Server Only Server and Modeler

Before Starting the Re-installation Procedure

Before starting the re-installation process make sure that you have taken a full backup of your machine, and make sure that it includes copies of any configuration files that you have modified for your current installation.

The reinstallation procedure will overinstall, makes copies of configuration files, or preserves relevant configuration changes as follows:

- changes made to configuration parameters through the Administration Console are preserved and are used to present the HPBPI configuration parameter values during the reinstallation.
- the HPBPI Dashboard configuration files.

The installed HPBPI Dashboard files are replaced by the re-installation process. When you re-install HPBPI version 07.50, copies are made of your existing Business Process Dashboard files and new files are installed in their place. The existing Dashboard files are located as follows:

```
bpi-install-dir\nonOV\jakarta-tomcat-5.0.19\webapps\  
hpbpi-bpd
```

The directory `hpbpi-bpd` is renamed to `hpbpi-bpd.bak.n`, where *n* starts at zero (0) and is incremented by one (1) for each reinstallation until it reaches a value of 19, at which point the numbering restarts at zero (0). After the numbering restarts at zero, the installer continues to use zero and does not increment *n*.

- other changed configuration files, you need make sure the files are copied and any changes are reapplied after the reinstallation is complete. Examples of files that you might have changed are the SQL script for archiving Active and Deleted instances, or the Tomcat configuration file (`server.xml`).

The instructions for re-installing are described in the following sections.

Re-installing HPBPI Components

This section covers the tasks that you need to complete to re-install any of the HPBPI components.

Stop HPBPI Components and Backup the Machine

Complete the following steps before running the installation script to re-install any HPBPI component:

1. Make sure that all the HPBPI components that are currently installed on the Windows machine are shut down, for example:
 - Close the HPBPI Modeler.
 - Close the HPBPI Metric definer.
 - Close the browser where you are running the HPBPI Business Process Dashboard.
 - Close the browser for the Notification Server Web Administration.
 - Close the browser for the Intervention Client.
 - Use the HPBPI Administration Console to shutdown all the HPBPI Server components.
 - Close the browser for the Repository Explorer.
 - Close the HPBPI Administration Console.

Alternatively, you can shut down the HPBPI components by stopping their Windows Services. Stopping the `OVBPiAdminServer` service stops all the HPBPI services running on the machine.

If the installer detects any of the HPBPI components still running, the installation is aborted until the components are stopped.

2. Make sure that you have shut down all applications that use HP License Manager (Autopass) on the machine where you intend to reinstall HPBPI. If you do not, you might not be able to use these applications or HPBPI following the HPBPI installation.

3. Complete a full backup the HPBPI installation directory and all the HPBPI database files.

You can now continue and start the installation.

4. From an account with Administrator privileges, run the installation procedure from the distribution media as follows:

```
cd-drive\i386\hpbpi-install.exe
```

You are presented with an installation GUI that leads you through the steps to install you HPBPI components.

5. Click `Next` to start the installation and then follow the instructions presented by the installation GUI.

The installation procedure continues and installs the HPBPI component directories and files. When the installation is complete, click `Done` to exit the installation procedure.

6. Reapply any changes that you made to the HPBPI configuration files that you saved before starting the reinstallation procedure.
7. Restart the HPBPI components that you stopped using the HPBPI Administration Console.

HPOM Adapter Re-installation

The steps for re-installing the HPOM Adapter vary according to the platform that you are installing on.

For HP-UX, refer to section [HP-UX](#) on page 127.

For Windows, refer to section [Windows](#) on page 129.

HP-UX

Complete the following steps to re-install the HPOM Adapter on HP-UX:

1. Log on with system administration (root) capability.
2. Stop the HPOM Adapter using the HPBPI Administration Console.
3. Close the HPBPI Administration Console.
4. Change directory to where the HPBPI installation image is located.
5. Run the installation as follows:

```
sh ./hp-ux/hpbpi-ovo-adaptor-install.bin
```

When the installation image has been extracted, the installer GUI starts on the machine where the `DISPLAY` environment variable is configured to display.

The installer informs you that the HPOM Adapter is already installed and you are prompted to confirm that this is a re-installation.

If you see an error message indicating that you have not installed the correct version of the J2SE, you need to exit from the installation. You then need to make sure that the correct version of Java is defined in the system `PATH` environment variable and restart from step 2, or run the installer from the command line as follows:

- a. Change directory to where the installation image is located.
- b. Type the following command:

```
sh ./hp-ux/hpbpi-ovo-adaptor-install.bin LAX_VM Java 1.5  
Home Directory/bin/java
```

where *Java 1.5 Home Directory* is the home directory for the J2SE.

This forces the installer to use the correct J2SE. You can now continue with the installation.

6. Click `OK` and then `Next` to continue with the re-installation. If you want to exit from the installation click `Cancel`.
7. Click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory. Click `Next` to continue.
8. Check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and re-installs the HPOM Adapter directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Windows

If you want to reinstall the HPOM Adapter on a machine where the HPBPI Server is installed, you need to reinstall the HPBPI Server. If you want to re-install the HPOM Adapter for Windows on a different machine to the HPBPI Server, complete the following steps:

1. Stop the HPBPI OM Adapter using the HPBPI Administration Console.
2. Close the HPBPI Administration Console.
3. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

```
cd-drive\i386\hpbpi-install.exe
```

You are presented with an installation GUI that leads you through the steps to install you HPBPI components. Click `Next` to start the installation.

You are presented with a message informing you that HPBPI is already installed. Click `Next` if you want to continue, or click `Cancel` to finish the installation immediately without re-installing.

4. From the `Choose Product Features` dialog, select `HPOM Adaptor` and click `Next`.
5. From the `JDK Home` dialog, click `Next` to accept the home directory where the `Java SDK` is installed, or select `Choose` to navigate to the correct directory and click `Next` to continue.
6. Check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and re-installs the HPOM Adapter directories and files. When the installation is complete, click `Done` to exit the installation procedure.

SOA Manager Adapter Re-Installation

As the SOA Manager adapter is installed from a zip archive, there are no special re-installation instructions. You can re-install the adapter at any time, by unpacking the zip archive into the same location and overwriting the files.

What to do Next

When you have re-installed HPBPI for any reason, and reapplied your changes, you have completed the re-installation tasks and you can continue using your HPBPI machine.

6 Uninstalling HPBPI Components

This chapter describes how to remove the HPBPI components from your Windows and HP-UX machines.

The chapter covers the following topics:

- Removing HPBPI Server components from a Windows machine; see section [Removing HPBPI Server Components from a Windows Machine](#) on page 133.
- Removing the HPOM Adapter; see section [Removing the HPOM Adapter](#) on page 137.
- Removing the HPBPI Modeler from a Windows machine where it has been installed using the `Modeler Only` installation option; see section [Removing the HPBPI Modeler](#) on page 140.
- Removing the HPBPI Dashboard from a Windows machine where it has been installed using the `Dashboards Only` installation option; see section [Removing the HPBPI Dashboard](#) on page 141.
- Removing the SOA Manager adapter from the SOA Manager machine; see section [Removing a SOA Manager Adapter Installation](#) on page 142.

You can choose to remove all the HPBPI schema objects, including the database tables, or you can preserve them. You might want to preserve them if they contain data that you want to use for other applications.

If you select to remove all the schema objects, the uninstall procedure deletes the table, but it does not delete:

- the tablespace (Oracle Server)
- Database (SQL Server)
- Database user

If you want to keep your data for reporting purposes, select the `Keep Data` option when you run the uninstall program. Keep the data and then move it to a suitable location when the uninstaller completes. When you have moved the

data, you must delete the HPBPI schema objects and database User using your database management tools. You also need to delete the HPBPI files under the installation directory when you have made a copy of the data that you need from them.

If you have enabled the integration with Business Availability Center and you have deployed processes, the HPBPI uninstall procedure does not delete any CIs, or other related data that was created within Business Availability Center. This data for BPI Processes, Steps, or Monitors needs to be manually deleted using the Business Availability Center management tools.

Removing HPBPI Server Components from a Windows Machine

You remove the HPBPI components from your machine using the Add/Remove Programs option from the Control Panel.

To remove the HPBPI components complete the following steps:

1. Make sure that all the HPBPI components on the Windows machine are shut down, for example:
 - a. Close the HPBPI Modeler.
 - b. Close the HPBPI Monitor definer.
 - c. Close the browser where you are running the HPBPI Business Process Dashboard, or the Web Business Console.
 - d. Close the browser for the Notification Server Web Administration.
 - e. Close the browser for the Intervention Client.
 - f. Use the HPBPI Administration Console to shutdown all the HPBPI Server components.
 - g. Close the HPBPI Administration Console.
2. Make sure that all the HPBPI Windows Services are stopped.
3. When all the HPBPI components are shut down and HPBPI Windows Services are stopped, you can continue and remove the HPBPI software as follows:

Select Start | Settings | Control Panel | Add/Remove Programs
4. Select HP Business Process Insight from the currently installed programs.
5. Click Change/Remove to start the uninstall program.

You are presented with an introduction screen labeled Uninstall HP Business Process Insight.
6. Click Next to continue.
7. You are asked to confirm that all the HPBPI components are shut down. Click Uninstall to continue, when the HPBPI components are shut down.

8. You are presented with the `Delete Data` dialog where you are asked if you want to delete the contents of the HPBPI database. (This question is not presented if this is an HPOM Adapter only uninstallation.)

Select the option to `Delete HPBPI data`, if you want to delete all the data from the database; otherwise, select the option to `Keep HPBPI data`.

If you choose to keep the HPBPI data, be aware that if you want to install another copy of HPBPI in the future, the new installation will not progress if it detects the existence of an existing HPBPI database. To reinstall in the future, any existing HPBPI database tables need to be removed, or copied to another location. The installation process offers you the option of removing the existing HPBPI database tables.

Select the option that you want and click `Uninstall` to continue with the uninstallation procedure.

If you have chosen to keep the HPBPI data, continue at step 10; otherwise continue at the next step.

9. If you have chosen to delete the HPBPI data, you are presented with the database user password dialog, where you are asked to enter the password for the specified HPBPI database user. Enter the password and click `Uninstall` to complete the uninstall procedure.
10. The Uninstaller continues and removes the HPBPI components.

The uninstaller reports any files that it cannot delete as part of the uninstallation process and recommends that you restart your Windows machine to complete the installation.

Click `Done` to complete the uninstallation procedure.

If you have chosen to keep the HPBPI data, continue at step 13.

11. Restart your Windows machine.

After the machine is restarted, you need to make sure that all the HPBPI files and directories have been removed.

12. Delete any remaining HPBPI files from the following directory, including the directory `HP Business Process Insight`:

`C:\Program Files\HP\HP Business Process Insight`

13. Delete the following personal configuration files for the HPBPI Modeler and the HPBPI Administration Console:

```
C:\Documents and Settings\profile\.hp_bpi\modeler.cfg  
C:\Documents and Settings\profile\.hp_bpi\adminconsole.cfg
```

where *profile* is the name of the user account where the installation was executed. Delete the directory *hp_bpi* where the files are located.

14. Delete any unwanted entries on the Start|Programs menu.

If you are uninstalling, following an upgrade from earlier versions of HPBPI, there might be additional options on the Start|Programs menu for HP Business Process Insight; you need to delete these manually.

15. Delete the database user created for HPBPI if it was used solely for HPBPI. The uninstall program does not remove the database user as it might be used for other purposes.

You have now completed the tasks to remove the HPBPI components from your Windows machine.

Post Uninstall Tasks

The following are tasks that you might need to complete after you have removed the HPBPI components from your machine.

Make a Copy of Data in Database

If you have chosen to keep the HPBPI data, you can make a copy of the data that you want to keep and then delete the HPBPI files and directories, HPBPI database files and the HPBPI database User.

If you are using Oracle 10g, you can also purge the HPBPI Database User's Recycle Bin using the Oracle `PURGE RECYCLEBIN` command. This Oracle database command purges all the database tables, and their dependent objects, for the specified user, plus any other indexes owned by the user.

Remove HPBPI Options from Start Menu

If your HPBPI installation was previously an upgrade from earlier versions of HPBPI, you might have some residual options remaining on the Start Menu. You can delete all the HP|HP Business Process Insight menu options from the Start Menu when the uninstall is complete.

Remove Database User

The uninstall program removes all the HPBPI-related database tables; however, it does not remove the database user that owns these tables. This is because the database user could be used for other database objects.

If you know that the database user is required only for the HPBPI database tables, you can delete it after the uninstall program has completed successfully.

Removing the HPOM Adapter

How you remove the HPOM Adapter depends on whether it is installed on HP-UX or Windows.

If it is installed on HP-UX, refer to section [HP-UX](#) on page 137.

If it is installed on Windows, refer to section [Windows](#) on page 138.

HP-UX

To remove the HPOM Adapter from your HP-UX machine, complete the following steps:

1. Stop the HPOM Adapter using the HPBPI Administration Console.
2. Close the HPBPI Administration Console.
3. Change to the directory where the HPBPI uninstall files are installed:

```
cd hpbpi-install-dir/UninstallerData/bia
```

4. Type the following command:

```
sh ./Uninstall_hpbpi
```

The installer GUI starts on the machine where the `DISPLAY` environment variable is configured to display.

5. Click the `Next` button.

You are asked to confirm that all the HPBPI components are shut down. Click `Uninstall` to continue. The Uninstaller continues and removes all the HPOM Adapter files and directories.

6. Click `Done` to complete the Uninstall procedure.
7. Check that the HPBPI files and directories have been removed. By default these files are located at:

```
/opt/hp/BusinessProcessInsight
```

8. Check that the startup and shutdown scripts installed for HPBPI are also deleted. The location of these files is described in section [Starting the HPOM Adapter on HP-UX](#) on page 109.

You have now completed the task of removing the HPOM adapter from your HP-UX machine.

If you plan to reinstall the Adapter on the same machine in the future, make sure that you follow the instructions for undeploying processes and redeploying these processes when the Adapter has been reinstalled; see the section headed *Modifying the HP Operations Manager Adapter Hostname* in the *Business Process Insight System Administration Guide*.

Windows

If you are using the HPOM Adapter on a machine where the HPBPI Server is installed, the Adapter is removed when the HPBPI Server is removed.

To remove the HPOM Adapter from other Windows machines, complete the following steps:

1. Stop the HPOM Adapter using the HPBPI Administration Console.
2. Close the HPBPI Administration Console.
3. When all the HPBPI components are shut down and HPBPI Windows Services are stopped, you can continue and remove the HPBPI software as follows:

Select Start | Settings | Control Panel | Add/Remove Programs

4. Select **HP Business Process Insight** from the currently installed programs.
5. Click **Change/Remove** to start the uninstall program.
You are presented with an introduction screen labeled **Uninstall HP Business Process Insight**.
6. Click **Next** to continue.
7. You are asked to confirm that all the HPBPI components are shut down. Click **Next** to continue, when the HPBPI components are shut down.
8. The Uninstaller continues and removes the HPBPI components.

The uninstaller reports any files that it cannot delete as part of the uninstallation process and recommends that you restart your Windows machine to complete the installation.

Click **Done** to complete the uninstallation procedure.

9. Restart your Windows machine.

After the machine is restarted, you need to make sure that all the HPBPI files and directories have been removed.

10. Delete any remaining HPBPI files from the following directory, including the directory HP Business Process Insight:

C:\Program Files\HP\HP Business Process Insight

You have now completed the tasks to remove the HPBPI components from your Windows machine.

If you plan to reinstall the Adapter on the same machine in the future, make sure that you follow the instructions for undeploying processes and redeploying these processes when the Adapter has been reinstalled; see the section headed *Modifying the HP Operations Manager Adapter Hostname* in the *Business Process Insight System Administration Guide*.

Removing the HPBPI Modeler

To remove the HPBPI Modeler from a machine where it has been installed using the Modeler Only installation option, complete the following steps:

1. Make sure that the Modeler is shut down.
2. Select Start | Settings | Control Panel | Add/Remove Programs
3. Select HP Business Process Insight from the currently installed programs.
4. Click Change/Remove to start the uninstall program.

You are presented with an introduction screen labeled Uninstall HP Business Process Insight.

5. Click Next to continue.
6. You are asked to confirm that all the HPBPI components are shut down. Click Uninstall to continue, when the HPBPI components are shut down.
7. Check that the HPBPI files and directories have been removed. By default these files are located at:

C:\Program Files\HP\HP Business Process Insight

8. Remove the following Modeler configuration file:

C:\Documents and Settings*profile*\.hp_bpi\modeler.cfg

where *profile* is the name of the user account where the installation was executed.

9. Reboot your Windows machine.

You have now completed the tasks to remove the HPBPI Modeler from your Windows machine.

Removing the HPBPI Dashboard

To remove the HPBPI Dashboard from a machine where it has been installed using the Dashboards Only installation option, complete the following steps:

1. Close the browser Window where the Dashboard is running.
2. Make sure the Servlet Engine is stopped on the machine where the HPBPI Dashboard is running.
3. Close the HPBPI Administration Console.
4. Select Start | Settings | Control Panel | Add/Remove Programs
5. Select HP Business Process Insight from the currently installed programs.
6. Click Change/Remove to start the uninstall program labeled Uninstall HP Business Process Insight.

You are presented with an introduction screen.

7. Click Next to continue.
8. You are asked to confirm that all the HPBPI components are shut down. Click Uninstall to continue, when the HPBPI components are shut down.
9. Check that the HPBPI files and directories have been removed. By default these files are located at:

C:\Program Files\HP\HP Business Process Insight

10. Reboot your Windows machine.

You have now completed the tasks to remove the HPBPI Dashboard from your Windows machine.

Removing a SOA Manager Adapter Installation

There are no special instructions for removing the SOA Manager adapter. The SOA Manager adapter was installed from a zip archive on the machine where SOA Manager is installed.

To delete the adapter, delete the files and the directories that were created when you unpacked the zip archive.

7 Upgrading to HPBPI Version 7.50

This chapter describes how to upgrade from your existing HPBPI installation to HPBPI version 7.50

If you are installing HPBPI for the first time, you do not need to read this chapter.

Some of the information in this chapter discusses the new features for each of the releases. This is information that you might find useful to read, but it is not required reading for the upgrade procedure, so can safely be ignored. These sections are:

- [New and Changed Features Between HPBPI 2.0n and HPBPI 2.10](#) on page 149
- [New and Changed Features Between HPBPI 2.10 and HPBPI 2.20](#) on page 155
- [New and Changed Features Since HPBPI Version 2.20](#) on page 160

The following are the sections that you must read before starting the upgrade. Some of the sections are aimed at specific versions of HPBPI and need only be read if you are upgrading from that version:

- [Upgrade Paths for HPBPI and Installation Types](#) on page 145
- [Upgrading from HPBPI Version 01.01](#) on page 148
- [Tasks to Complete Before Starting the Upgrade](#) on page 164
- [Overview of Upgrade](#) on page 167

The following sections provide the instructions for upgrading from your existing version of HPBPI to HPBPI version 7.50. Read the section, or sections, that are appropriate to your deployment.

- [Upgrade Procedure](#) on page 169
- [Upgrading an HPOM Adapter Installation](#) on page 170

The following sections describe possible tasks that you need to complete after the upgrade:

- [Post Upgrade Tasks](#) on page 174
- [Restarting Your HPBPI Systems](#) on page 183

Upgrade Paths for HPBPI and Installation Types

Figure 6 shows the migration paths that you can follow when upgrading to HPBPI version 7.50.



You need to make sure that you have checked the prerequisite software for HPBPI version 07.50 before starting the upgrade; for example, HPBPI version 07.50 does not support Microsoft SQL Server 2000, whereas HPBPI version 02.20 does. This means you need to migrate the database before starting the upgrade.

Figure 6 Migration Table

HPBPI Version	to 2.0n	to 2.10	to 2.20	to 7.50
from 1.1	yes	no	no	no
from 2.0n	not applicable	yes	yes	yes
from 2.10	not applicable	not applicable	yes	yes
from 2.20	not applicable	not applicable	not applicable	yes

If you want to install the same version of HPBPI to repair your installation, you need to follow the instructions in [Chapter 5, Re-installing HPBPI Components](#) that cover re-installation for the correct version of HPBPI. Do not follow the instructions in this chapter.

In addition to the version upgrade compatibility, you need to be aware of the installation type upgrade options that are supported for HPBPI version 07.50.

The following list describes the supported installation types that you can upgrade for HPBPI version 07.50. In all cases, you must shut down and upgrade all HPBPI components together. This is because differing versions of HPBPI components do not interwork.

- **Server and Modeler installation**

You can upgrade from a `Server` and `Modeler` installation; however, you must keep the same database, including database version. Be aware that this is important in cases where the version of the supported database changes between versions. Make sure that you read section [Tasks to Complete Before Starting the Upgrade](#) on page 164

- **Server Only installation**

You can upgrade from a `Server Only` installation in the same way as a `Server` and `Modeler` installation. You can also upgrade a `Server Only` installation to a `Server` and `Modeler` installation.

- **Modeler installation**

If you upgrade the HPBPI server, you must also upgrade a `Modeler Only` installation in order that it is compatible with the HPBPI server installation for HPBPI version 07.50.

You can also upgrade from a `Modeler Only` installation to a `Server Only` or a `Server` and `Modeler` installation.

- **Dashboard installation**

If you upgrade the HPBPI server, you must also upgrade the `Dashboards Only` installation in order that it is compatible with the HPBPI version 07.50 `Server` installation.

You can also upgrade from a `Dashboards Only` installation to a `Server Only` or a `Server` and `Modeler` installation.

- **HP Operations Manager Adapter**

If you upgrade the HPBPI server, you must also upgrade an HPOM Adaptor installation to be compatible with the HPBPI version 07.50 Server installation.

Refer to section [Information Required for an HPOM Adapter Installation](#) on page 76 for details of the information required for this installation.

- **HP SOA Manager Adapter**

There is a new installation for the SOA Manager adapter provided with HPBPI; however, the functions of the adapter have not changed. As a result HPBPI version 7.50 will interwork with version 2.20 of the SOA Manager adapter.

Upgrading from HPBPI Version 01.01

You cannot upgrade from HPBPI version 01.01 directly to HPBPI version 07.50; you must first upgrade to HPBPI version 02.0*n*.

Follow the instructions for upgrading to HPBPI version 02.00 in the *HP Business Process Insight Installation Guide* for HPBPI version 02.00.



You do not need to start any of the HPBPI components, you need only complete the upgrade.

If you have difficulty in obtaining HPBPI version 02.0*n*, use the following email address to request help:

`info.hbbpi@hp.com`

You can now continue at section [Tasks to Complete Before Starting the Upgrade](#) on page 164

New and Changed Features Between HPBPI 2.0 n and HPBPI 2.10

The following changes were introduced between HPBPI version 2.0 n and HPBPI version 2.10.

- Database schema changes

Two minor changes to existing database tables were made as follows:

In table `Resources` and `Nodes2Resources`, the length of the `Resource_ID` column has been increased from 260 to 296 characters. This is to take account of the new Service Sources that can be defined and allows up to 40 characters for the name of the Service Source. The tables are described in the *Business Process Insight Reference Guide*.

- New and revised pages in the Administration Console.

The following changes were introduced to the Administration Console pages:

- Status

New entries on the Status page to take account of the new components added for HPBPI version 2.10, and the order of the components on the Status page has been modified.

- Monitor Engine

New settings for Java Virtual machine and Threshold Violation Notification parameters.

- HPOM Interoperability

This entry was moved to appear as one of the new Operational Service Sources.

- OVIS Interoperability

This entry was moved to appear as one of the new Operational Service Sources.

- Port Numbers

New entries on the Port Numbers page to take account of the new components added for HPBPI version 2.10.

- Logging

There are new entries on the Logging page to take account of:

- the new components added for HPBPI version 2.10.
- a new parameter to control the time allowed for starting components before they are considered to have failed.

The following pages were new for HPBPI version 2.10:

- Operational Service Source

New for HPBPI version 2.10, and is where you configure all the sources of operational events for HPBPI; for example, HPOM, OVIS and SOA Manager.

- HPOM Adaptor

Use this option when you want to run the HPOM Adapter on the same machine as the HPBPI Server.

- Security

New for HPBPI version 2.10 and is where you configure the security options, both Select Access and Servlet Engine, for your HPBPI clients.

The parameters available through the HPBPI Administration Console are all described in the *Business Process Insight Administration Guide*.

- Select Access integration

You can secure access to the HPBPI interfaces using HP Select Access. HP Select Access is part of the HP Identity Management suite of products; it provides policy-based authentication and authorization for your applications; for example, HPBPI Repository Explorer. Using HP Select Access is described in the *Business Process Insight Administration Guide*.

- SOA Manager integration

HP SOA Manager enables you to manage your service oriented architecture (SOA) resources. HPBPI version 2.10 provides new adapters to enable you to integrate with SOA Manager as follows:

- using the SOA Manager service model to provide the status of SOA Manager business services to HPBPI. This is described in the *Business Process Insight Reference Guide*.
- enabling HPBPI to receive business events from SOA Manager for the HPBPI business processes that it is tracking. This is described in the *Business Process Insight Integration Training Guide - Business Events*.

- HP Operations Dashboard integration

The HP Operations Dashboard is an HP BTO Software-wide Dashboard and should not be confused with the HPBPI Business Process Dashboard, which is a Dashboard for use only with HPBPI.

HPBPI version 02.10 enables you to link the HPBPI service status information into the HP Operations Dashboard. Refer to the HP Operations Dashboard documentation for more details of the features and functions offered and how to add links to the HPBPI Business Process Dashboard. The *Business Process Insight Reference Guide* also provides information on how HPBPI integrates with HP Operations Dashboard.

- New administration parameters for Monitor Engine

- Java Virtual Machine settings

These parameters enable you to modify the amount of memory heap available to the JVM for the Monitor Engine.

- Threshold Violation Notification settings

These parameters enable you to control how often the Monitor Engine polls its data, and the maximum number of violation notifications delivered within a particular polling interval.

These new parameters are fully described in the *Business Process Insight Administration Guide*.

- New and revised methods for Notification Server templates

The following methods are new for HPBPI version 2.10:

- `getThresholdAlertNotificationPeriodDurationHours()`
- `getThresholdAlertNotificationPeriodDurationMinutes()`
- `getThresholdAlertNotificationPeriodDurationSeconds()`
- `getThresholdAlertNotificationPeriodStart()`
- `getThresholdAlertNotificationPeriodEnd()`
- `getThresholdNumberNotificationsInPeriod()`
- `getThresholdNumberAlertsInPeriod()`
- `getThresholdNumberNormalAlertsInPeriod()`
- `getThresholdNumberWarningAlertsInPeriod()`
- `getThresholdNumberMinorAlertsInPeriod()`
- `getThresholdNumberMajorAlertsInPeriod()`
- `getThresholdNumberCriticalAlertsInPeriod()`
- `getThresholdAlertStatusChangeTime()`
- `getThresholdAlertRaisedTime()`

The following methods have been revised for HPBPI version 2.10. They replace the methods of the same name. They differ only in that the new methods return a double number in String format for localization. The old methods are still supported for backwards compatibility:

- `getOvisObjectiveValue()`
- `getOvisObjectiveThreshold()`
- `getOvisAgreementConformanceThreshold()`
- `getOvisAgreementConformance()`

These new and revised methods are described in the *Business Process Insight Administration Guide*.

- In HPBPI version 2.10, you can configure and run HPOM Adapter on same machine as the HPBPI Server.

You can now run the HPOM Adapter on the same machine as the HPBPI Server. In previous versions of HPBPI this configuration set up was not supported. You add the HPOM Adapter to your HPBPI configuration using the new HPOM Adapter option in the Administration Console.

- HPBPI Modeler and BPEL import

HPBPI version 02.10 enables you to import Business Process Execution Language (BPEL) definitions into the Modeler and use these BPEL definitions as the start point of your Process definition. Refer to the *Business Process Insight Integration Training Guide - Importing BPEL*, for more information on the options for importing BPEL definitions.

- Support for Microsoft Server Clusters to provide high availability capabilities.

You can install and set up HPBPI version 02.10, or later, to operate in a Microsoft Server Cluster environment (in an Active/Passive mode). This is described in the *Business Process Insight System Administration Guide*.

- Introduction of Junction Steps in HPBPI Modeler

HPBPI 02.10 has introduced a new type of step in the HPBPI Modeler, the Junction Step. This new step is used to visually define the structure of a business process.

In particular, when you import a BPEL process, the HPBPI Modeler creates a Junction Step for the start and end of each BPEL structural element.

- ▶ As this is a new type of step, you might see some anomalies when using a Business Process Dashboard that is pre HPBPI version 02.10 with Business Processes that are created using HPBPI version 02.10 and that include Junction Steps.

When displayed in pre HPBPI version 02.01 Business Process Dashboards, a Junction Step is displayed as a red square. This does not have an effect on the behavior of the Business Process Dashboard, it is a presentation anomaly only and can be ignored.

- Support of Self-Healing service
HP Self-Healing Services, as used by HPBPI version 02.10, automates some of the steps involved in collecting information about a problem and then packaging the information to send it to HP.
HPBPI version 02.10's use of the Self-Healing services is described in the *Business Process Insight Reference Guide*.
- New documents in the HPBPI documentation set:
 - *Business Process Insight Reference Guide*
 - *Business Process Insight Integration Training Guide - Importing BPEL*
 - *Business Process Insight Monitor Definer Online Help*

Now read section [New and Changed Features Between HPBPI 2.10 and HPBPI 2.20](#) on page 155 for details of the changes introduced in HPBPI version 02.20.

New and Changed Features Between HPBPI 2.10 and HPBPI 2.20

HPBPI version 02.20 includes the following new and modified features:

- New names for some OpenView products.

Many of the HP OpenView products have been renamed to adopt the HP Software brand identity. The mappings for the old and the new names used within HPBPI are as follow:

HP OpenView products	HP BTO products
HP OpenView Business Process Insight	HP Business Process Insight
HP OpenView Service Desk Process Insight	HP Service Desk Process Insight
HP OpenView Operations	HP Operations Manager
HP OpenView Service Desk	HP Service Desk
HP Dashboard	HP Operations Dashboard
HP OpenView Select Access	HP Select Access
HP OpenView Performance Insight	HP Performance Insight
HP OpenView Service Navigator	HP Operations Manager, Service Navigator component

In cases where there are new product names, the new names are used throughout the HPBPI version 2.20 product and product documentation. Some products have not changed, for example, OVIS.

- New integration with SAP using the HPBPI Accelerator for SAP.

The HPBPI Accelerator for SAP enables you to monitor the status fields within an IDoc. Using the HPBPI Accelerator you can create processes and business events that monitor the status changes within any number of IDocs.

Refer to the *Business Process Insight Accelerator for SAP Guide* for details of using the Accelerator.

- New integration with Business Activity Center, which enables you to:
 - use BAC to report on the status of operational services and how they impact HPBPI business processes.
 - view HPBPI Process and Monitor definitions from within the BAC Dashboard. You can also link across to the HPBPI Business Process Dashboard to track more detail of the business impact.
 - view HPBPI Process diagrams and Business Threshold data through My BAC.

How to configure HPBPI to integrate with BAC is described in the *Business Process Insight Reference Guide*.

- New business event queue mechanism

In HPBPI version 2.20, you can configure a business event queuing mechanism. In this case, all new business events are placed on a queue by the Business Event Handler. This means that the Business Event Handler does not need to wait for the Business Object Manager to process the business event and can immediately return to tracking the event source and process the next incoming business event.

If you choose not to use a queue for business events, the Business Event Handler behaves as it did in previous versions of HPBPI; that is, it waits until the business event has been processed by the Business Object Manager. This includes waiting for all the necessary information from the event to be committed to the database.

Implementing a business event queue means there is benefit to additional Event Receivers, thus improving performance.

Refer to the *Business Process Insight Administration Guide* for details of the new parameters relating to the BIE Event Queue settings.

- Exporting selected monitor values to Excel format from the Business Process Dashboard.

There are new options on the Business Process Dashboard Process Instance, Monitors and Violations pages that enable you to export data to a CSV file. A CSV file contains comma separated values (CSVs) and is a format that can be imported into Microsoft Excel.

- Database schema changes

There have been a number of changes to the HPBPI database schema; however, most of the changes relate to additional database columns that represent times in milliseconds, in addition to the time formats already provided.

The following columns, in the Flow_Instance and Node_Instance tables, are new for HPBPI version 02.20:

- EndTimeRecorded
- EndTimeRecordedLongMillis

The following table shows the additions to existing date and time columns:

Table	Column
Metric_Dim_Metrics	LastStatisticsRecordLongMillis
Metric_Dim_Flow_Instances	StartTimeLongMillis EndTimeLongMillis
Metric_Fact_Values	TimeCompletedLongMillis DeadlineLongMillis StartTimeLongMillis LastUpdateTimeLongMillis
Metric_Fact_Statistics	TimeLongMillis
Metric_Dim_Thresholds	LastCheckTimeLongMillis CurrentAlertFromTimeLongMillis
Metric_Fact_Alerts	TimeLongMillis RaisedTimeLongMillis

- New and revised pages in the Administration Console.

Changes have been made to the following Administration Console pages:

- Status

There is a new entry for BAC Data Samples' Provider on the Status page to support the new BAC integration, which has been added for HPBPI version 02.20.

- Monitor Engine Event settings

The Monitor Engine Event Settings are all new for HPBPI version 02.20. These are related to performance enhancements.

- Monitor Engine Statistics settings

Some new parameters have been added to the Monitor Engine Statistics settings. These are related to performance enhancements.

- Monitor Engine Threshold settings

Some new parameters have been added to the Monitor Engine Statistics settings. These are related to performance enhancements.

- BAC Sample Destinations

This is new for HPBPI version 02.20 and is part of the new integration with Business Availability Center. Refer to the *Business Process Insight Reference Guide* for details of the Business Availability Center integration.

- Operational Service Source

There is an additional Operational Service source called the HP Business Availability Center Adapter. Use this Service Source when configuring your system to integrate with BAC. Refer to the *Business Process Insight Reference Guide* for details of the BAC integration.

- Performance enhancements

The Business Impact Engine and the Monitor Engine have been enhanced to support multiple threads, and HPBPI version 02.20 includes new parameters that control the numbers of threads that the Engines can use.

These new parameters also affect the performance of HPBPI; refer to section [Performance Enhancements](#) on page 175 for details of these parameters and how to modify them.

- Monitor Definer menu options modified

With the introduction of the Business Availability Center integration the menu options on the Monitor Definer Navigation frame have been rearranged. There are now two menu options:

- File

This is where you can choose to export or import Monitor definition files, including exporting BAC XML File Adapter files.

- Help

This option offers help topics related to the use of the Monitor Definer interface.

- New Reports Package using HP Performance Insight

There is a new report pack for HPBPI provided with HP Performance Insight version 5.3 (or later). This enables you to use Performance Insight to maintain historical reports for HPBPI.

- New documents in the HPBPI documentation set:

- *Business Process Insight Quick Start Guide*

- *Business Process Insight Accelerator for SAP Guide*

You should now continue and read section [New and Changed Features Since HPBPI Version 2.20](#) on page 160.

New and Changed Features Since HPBPI Version 2.20

The following changes and features have been introduced in HPBPI Version 07.50:

- Alignment of product version number with Business Availability Center.
The HPBPI version number has skipped from version 02.20 to version 07.50 in order to align with the Business Availability Center version number.
- Control of database partitioning for your Oracle database.
HPBPI version 2.20 implemented the use of Oracle Database Table and Index partitioning for the HPBPI database tables. Using Oracle partitioning requires an additional Oracle license. If you do not have an Oracle license that entitles you use partitioning, you must disable HPBPI's use of partitioning as described in section [HPBPI and Oracle Database Table and Index Partitioning](#) on page 175.
- Microsoft SQL Server version support changes.
HPBPI no longer supports Microsoft SQL Server 2000. This means that you need to migrate your SQL Server database and the HPBPI data, before you start the upgrade.
- The following terminology alignments have also been made with Business Availability Center 7.50:
 - Flow becomes Business Process; for example: Flow Diagram is now Process Diagram and Flow Simulator is now Process Simulator.
 - Node becomes Business Process Step; for example, Node Status is now Process Step Status.
 - Metric becomes Monitor; for example, Metric Definer is now the Monitor Definer.
 - Alert becomes Violation; for example, Threshold Alert is now a Threshold Violation.
 - Weight becomes Process Value, for example, Absolute process value within the Monitor Definer.

- The Integration with Business Availability Center is enhanced and the following additional options are now available:
 - Sharing models with Business Availability Center whereby HPBPI models are stored in CMDB as CIs.
 - Single sign on.

You need only complete one login when moving between the Business Process Dashboard and Business Availability Center. If you want to use a single logon for HPBPI and Business Availability Center, both HPBPI and Business Availability Center have to be installed in the same domain.
 - Support for SLM alerts and Business Availability Center reporting.

There are more extensive reporting options available to you when using the Business Availability Center Dashboard SLA reporting; these include Custom Reports and a Service Report Builder.
 - Business Availability Center alerts and notifications based on business process service-level objectives
 - Additional Portlets: Business Performance Portlet (modification of the Threshold Dial portlet in 2.20), and Business Performance History Portlet. These are in addition to the existing and unchanged Business Process Portlet.
- When you enable the integration with Business Availability Center:
 - instance violations continue to be viewed using the HPBPI Dashboard; however, all other violations (Backlogs, Throughputs, and Durations) are viewed only through the Business Availability Center Dashboard. You can no longer view Backlog, Throughput and Duration violations through the HPBPI Business Process Dashboard following the integration.
 - Dials and statistical threshold information for HPBPI are shown using the My BAC portlets and not using the HPBPI Business Process Dashboard.
 - the Collection Interval defined for Business Process Monitors is aligned with Business Availability Center Data samples send interval. The Data samples send interval is configured using the HPBPI Administration Console as described in the *Business Process Insight Administration Guide*.

Monitors that have already been defined when the integration is enabled have their Collection Interval setting retained in the database; this original Collection Interval is reinstated in place of the Data sample send interval if the integration to Business Availability is subsequently disabled.

- you use Business Availability Center to define statistical thresholds within HPBPI 7.50.

When the Business Availability Center integration is not enabled, the statistical thresholds continue to be defined and viewed in HPBPI.

- HPBPI statistical threshold data is stored in the UCMDB and not the Business Process Insight database. This might have an impact on reporting applications that you are using with HPBPI in that data that was previously available in the HPBPI database is no longer populated.
- You no longer set thresholds on monitors within HPBPI, you now use Business Availability Center to set Objectives on KPIs when raising violations against statistical monitor values or durations. As an example, when you integrate HPBPI with Business Availability Center, you are no longer able to set statistical thresholds on monitors, instead you set objectives against KPIs in Business Availability Center.
- SLA and SLO email notifications are no longer available using the HPBPI Email Notification Server; they are set using Business Availability Center.



Any statistical thresholds created before HPBPI is integrated with Business Availability Center, continue to be reported through Business Process Insight. These thresholds are also sent, as data samples, to Business Availability Center, where you can add KPIs if required.

- You can configure HPBPI to integrate with TransactionVision.

As a result there is a new component in HPBPI version 07.50, which is the JMS Business Event Handler. Refer to the *Business Process Insight Reference Guide* for information about the TransactionVision integration and configuring the JMS Business Event Handler.

- The following are changes specific to the behavior of the Monitor Definer when the integration to Business Availability Center is enabled:
 - all statistical thresholds that were defined before the integration to Business Availability Center was enabled are available to be edited; however, you cannot change the value for their Types, nor create any new statistical thresholds.
 - when a Monitor is exported, the Collection Interval is saved in the .zip file and not the Data sample send interval.
 - when the a monitor is imported, the Collection Interval is imported and saved. It is then available to use if the integration to Business Availability Center disabled.

Configuring HPBPI to integrate with Business Availability Center is described in the *Business Process Insight Reference Guide*. Information relating to the Monitor Definer and its use is described in the Monitor Definer online Help.

- Email, and other notifications of statistical violations, are configured through Business Availability Center when the integration between HPBPI and Business Availability Center is enabled.

Email notifications for instance violations continue to be configured using HPBPI and sent to the Notification Server.

The following are features that are no longer available in HPBPI version 07.50

- The ability to link to Service Desk service details from the HPBPI Dashboard
- The integration with HP OpenView Internet Services.

Tasks to Complete Before Starting the Upgrade

Before starting the upgrade, make sure that you have completed the steps described in the following sections, where they are appropriate:

- [Upgrades Originating From HPBPI Version 01.00](#) on page 164
- [Check Versions of Prerequisite Software](#) on page 165
- [HPBPI and Oracle Database Table and Index Partitioning](#) on page 175
- [Check Database Table Use](#) on page 165
- [Reinstating Customized Dashboards](#) on page 178
- [Copy Changed Component Configuration Files](#) on page 166
- [Back Up Your System](#) on page 166

Upgrades Originating From HPBPI Version 01.00

If you have never installed HPBPI (OVBPI) version 01.00, or if you are using Microsoft SQL Server, you can skip this section and continue at section [Check Versions of Prerequisite Software](#) on page 165.

If you originally installed HPBPI version 01.00 and configured HPBPI to use an Oracle database, you need to execute the following SQL commands before starting the upgrade to HPBPI version 07.50:

1. Login to `sqlplus` as the Oracle user `system` and provide the system password.
2. Enter the following SQL command:

```
grant create sequence to ovbpiuser;
```
3. Exit from `sqlplus`.

You need to run this command as early versions of HPBPI did not set the same access rights for the HPBPI database user as later versions. As a result, the HPBPI database user that was created was not given sufficient access rights to the HPBPI database.

If you do not execute this command, the upgrade fails and the following error message is written to the log file for the database (HP_Business_Process_Insight_DbSetupLog.log):

```
WARNING: ORA-01031: insufficient privileges
ORA-06512at line ... executing script: C:\Program Files\HP\HP
Business Process Insight\misc\bia\MetricTables_script.sql
```

If the upgrade fails with this error, and you have not executed the SQL command, you can execute the SQL command after the upgrade and then rerun the HPBPI version 07.50 installation.

Check Versions of Prerequisite Software

HPBPI version 07.50, might require different versions of the prerequisite software; this depends on the version of HPBPI that you are upgrading from. Check the tables in [Chapter 2, Before Starting the Installation](#) for the system and software requirements.



If you are currently using HPBPI with a version of Oracle, or Microsoft SQL Server that is not supported by HPBPI version 07.50, you must upgrade the database before upgrading to the new version of HPBPI. As an example, if you are using Oracle 8.1.7 you must upgrade to a supported version of Oracle 9i or Oracle 10g before upgrading HPBPI. If you are using Microsoft SQL Server 2000, you must upgrade to Microsoft SQL Server 2005, and migrate your HPBPI data, before upgrading HPBPI.

Similarly, if you are using a different J2SE version, you must move to the correct version of the J2SE before starting the HPBPI version 07.50 installation

Check Database Table Use

If you have created a database exclusively for your HPBPI data, then you can skip this section.

If the database used by HPBPI is also used for other applications, you need to check the list of table names that are created for HPBPI version 07.50 before starting the upgrade process. If you have user-defined, or application, tables that have the same name as the HPBPI tables defined for version 07.50, you need to remove them from the HPBPI schema, or database, before starting the upgrade. If you do not, the upgrade process is likely to fail.

You are strongly advised to have a Database or Database User specifically for HPBPI to prevent any possibility of table name clashes.

The full list of schema objects created by HPBPI version 07.50 is listed in [Appendix A, Database Tables Defined for HPBPI](#).

Copy Changed Component Configuration Files

Before starting the upgrade process make sure that you have taken a copy of any files that you have modified whilst using the existing version of HPBPI and before starting the procedure. You can then reapply the changes to the files after the upgrade is complete.

Examples of files that you might have changed are configuration files and the SQL script for archiving Active and Deleted instances.

The HPBPI master configuration file, which is managed through the Administration Console, is updated as part of the upgrade process.

Back Up Your System

Before starting the upgrade, you are strongly advised to back up your machine and database. Make sure that you shut down all the HPBPI components, using the Administration console, and then close the Administration Console, before backing up your machine and starting the upgrade process.

Overview of Upgrade

You complete the upgrade by over installing your existing version of HPBPI with HPBPI version 07.50.

The following is information that you need to be aware of before you start the upgrade process:

- Installation question defaults

With a couple of exceptions, all existing settings for your HPBPI configuration are used as a default for the installation. The upgrade procedure does presents the location of the J2SE for you to confirm. If you have changed the version of J2SE that you are using, you need to make sure that you modify the directory where the J2SE is installed when you are answering the installation questions.

If you have previously configured Business Availability Center, you might also be presented with questions that relate to its configuration; see later steps in this list for more details.

- Following the upgrade to HPBPI version 07.50, any processes that were being tracked in the Business Impact Engine continue to be tracked. The upgrade to HPBPI version 07.50 does not impact your operational system.
- Following the upgrade to HPBPI version 07.50, all processes in the Modeler remain in the same state (deployed and undeployed) as they were before the upgrade.
- If you have enabled the integration with Business Availability Center version 6.8 or 7.0 in your HPBPI version 2.20 implementation:
 - HPBPI version 7.5 supports only one connection to a Business Availability Center Gateway Server. If you have configured more than one in your HPBPI version 2.20 implementation, you need to modify it, and remove all but one Gateway Server, before starting the upgrade. If the upgrade procedure detects that more than one Gateway Server defined for you Operational Service Source or your Data Sample Destination, it offers you the option of quitting the upgrade in order that you can modify your settings, or continuing and losing all your Business Availability Center configurations. If you choose to continue, you need to reconfigure your Business Availability Center integration after the upgrade is complete.

- HPBPI version 7.5 requires a fully qualified host name (including domain name) for the Business Availability Center Gateway Server host name. If you have not fully qualified the name in the HPBPI version 2.20 implementation, the upgrade procedure prompts you for the domain name as part of the upgrade.
- be aware that Business Availability Center version 7.5 is not backwards compatible with Business Availability Center 6.8 or 7.0. As a result, HPBPI CIs that you have defined in Business Availability Center version 6.8 or 7.0 are recreated in version 7.5. As a result, you might need to redefine any relationships that you have configured, between the HPBPI CIs, within Business Availability Center following the upgrade to HPBPI version 7.5.
- you are recommended to upgrade Business Availability Center to version 7.5 before upgrading HPBPI.

HPBPI version 7.5 automatically synchronizes with Business Availability Center version 7.5 when the upgrade is complete. If you have not first upgraded Business Availability Center, HPBPI cannot complete the synchronization as part of the upgrade process. When the synchronization is complete, Business Availability Center creates CIs for the Business Processes, Processes Steps and Monitors. You can then recreate the relationships between these CIs within the Business Availability Center Dashboard.

If HPBPI is not able to synchronize with Business Availability Center as part of the upgrade, it automatically attempts the synchronization at intervals following the upgrade, until it is successful.

You can now continue and upgrade your HPBPI components as described in the following sections:

- [Upgrade Procedure](#) on page 169
- [Upgrading an HPOM Adapter Installation](#) on page 170

When the HPBPI upgrade is complete, continue and follow the remaining upgrade instructions, starting at section [Upgrading an HPOM Adapter Installation](#) on page 170.

Upgrade Procedure

This section covers the steps that you need to complete to upgrade any combination of HPBPI components.

To run the upgrade program, complete the following steps:

1. Make sure that all the HPBPI components are stopped on all machines where they are running. This includes any remote HPBPI Modeler installation, remote Dashboard installation and HPOM Adapter installation for Windows or HP-UX.

If the installer detects any of the HPBPI components still running, the installation is aborted until the components are stopped.

2. From an account with Administrator privileges, run the installation procedure from the distribution media as follows:

```
cd-drive\i386\hpbpi-install.exe
```

You are presented with an installation GUI that leads you through the steps to install your HPBPI components.

3. Click **Next** to start the installation and then follow the instructions presented by the installation GUI.

If the upgrade procedure detects that Microsoft SQL Server 2000 is installed, it displays an error message and the upgrade is terminated.

If you have not previously enabled the HPBPI integration with Business Availability Center, the upgrade continues at Step 4.

If you are migrating from a HPBPI implementation where you have enabled an integration with Business Availability Center, the HPBPI version 7.5 installation program attempts to automatically migrate your configuration settings for the Business Availability Center integration.

If the installer determines that you have more than one Business Availability Center platform defined, it prompts you to either:

- quit the upgrade and reconfigure your HPBPI integration to have only one the Business Availability Center platform for both the Operational Service Source and Data Sample Destination. In this case, when you restart the upgrade program, HPBPI and Business Availability Center can be automatically synchronized as part of the upgrade.

- continue with the upgrade and lose your configuration settings for Business Availability Center. In this case, you need to re-enter the settings when the upgrade is complete and the synchronization between HPBPI and Business Availability Center is completed when the modifications are made using the Administration Console.
4. The installation procedure continues and installs the HPBPI directories and files. When the installation is complete, click **Done** to exit the installation procedure.

If you have an HPOM Adapter installation in your deployment, you need to continue at section [Upgrading an HPOM Adapter Installation](#) on page 170; otherwise, you can complete any relevant post upgrade tasks described in section [Post Upgrade Tasks](#) on page 174.

Upgrading an HPOM Adapter Installation

The following sections describe how to update the HPBPI OM adapter on HP-UX and Windows.

Windows

Complete the following steps to upgrade the HPOM Adapter component on a Windows machine:

1. Shut down any HPBPI components that are running on the machine where the HPOM adapter is running. These will be the Administration Server and the HPOM Adapter.
2. From an account with Administrator privileges, run the installation procedure from the distribution media as follows:

```
cd-drive\i386\hpbpi-install.exe
```

You are presented with an installation GUI that leads you through the steps to install your HPBPI components. Click **Next** to start the installation.

3. Select **HPOM Adaptor** and click **Next**.

4. From the JDK Home dialog select **Choose** to navigate to the directory where the new version of J2SE is installed and click next to continue.
Make sure that you select the directory where the updated version of the J2SE is installed.
5. Check the details on the **Pre-Installation Summary** dialog. If they are correct, click **Install**, if they are not, click **Previous** to correct them.

The installation procedure continues and installs the HPBPI directories and files. When the installation is complete, click **Done** to exit the installation procedure.

Continue and upgrade the remaining HPBPI components as appropriate and then complete any relevant post upgrade tasks described in section [Post Upgrade Tasks](#) on page 174.

HP-UX

You can upgrade you HPOM Adapter installation on HP-UX by following the instructions in this section.

1. Log on with system administration (root) capability.
2. Make sure that any HPBPI components are stopped on the machine where the adapter is installed. Use the **Stop All** option on the HPBPI Administration Console to do this and then close the HPBPI Administration Console.
3. Change directory to where the HPBPI installation image is located.

4. Run the installation program as follows:

```
.sh /hp-ux/hpbpi-ovo-adaptor-install.bin
```

When the installation image has been extracted, the installer GUI starts on the machine where the `DISPLAY` environment variable is configured to display.

If you see an error message indicating that you have not installed the correct version of the J2SE, you need to exit from the installation. You then need to make sure that the correct version of Java is defined in the system `PATH` environment variable and restart from step 2, or run the installer from the command line as follows:

- a. Change directory to where the installation image is located.
- b. Type the following command:

```
sh ./hp-ux/hpbpi-om-adaptor-install.bin LAX_VM Java 1.5  
Home Directory/bin/java
```

where *Java 1.5 Home Directory* is the home directory for the J2SE.

This forces the installer to use the correct J2SE. You can now continue with the installation.

Click `Next` until you are presented with the `Choose Install Folder` dialog.

5. From the `Choose Install Folder` dialog, make sure that you have selected the directory where the HPOM Adapter is already installed.

If you do not select the directory where the Adapter is already installed, the installer continues and installs a second Adapter on your machine.

You are presented with a message informing you that HPBPI is already installed. Click `OK` and then `Next` if you want to continue, or click `OK` and `Cancel` to finish the installation immediately without upgrading.

6. Click `OK` and then `Next` to continue with the upgrade. If you want to exit from the installation click `Cancel`.
7. From the `JDK Home` dialog select `Choose` to navigate to the directory where the new version of J2SE is installed and click `next` to continue.

Make sure that you select the directory where the updated version of the J2SE is installed.

8. Check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and installs the HPOM Adapter directories and files. When the installation is complete, click **Done** to exit the installation procedure.

Continue and upgrade the remaining HPBPI components as appropriate and then complete any relevant post upgrade tasks described in section [Post Upgrade Tasks](#) on page 174.

Post Upgrade Tasks

The following sections describe tasks that you might need to complete following the HPBPI upgrade.

If you do not take the actions described in these sections, you might not have a fully operational HPBPI system.

- [Performance Enhancements](#) on page 175
- [Licensing](#) on page 176
- [Business Availability Center CI Updates](#) on page 176
- [Reinstating Changes to HPBPI Configuration Files](#) on page 177
- [Servlet Engine Configuration File](#) on page 177
- [Redeploy Existing HPBPI Version 01.01 Business Processes](#) on page 178
- [Reinstating Customized Dashboards](#) on page 178
- [Removing Start Options That are No Longer Required](#) on page 181
- [Using Contributed Processes and Components](#) on page 182

Performance Enhancements

If you are upgrading from HPBPI version 2.20, you do not need to read this section.

There are a number of new parameters that were introduced in HPBPI version 02.20, which can be used to affect the performance of HPBPI.

If you are running HPBPI on a machine that has multiple CPU cores and you have a license that entitles you to run on multiple CPU cores (for example HP BPI Enterprise Foundation LTU), you can modify the following HPBPI parameters to improve HPBPIs utilization of these CPU cores:

- BIE Event queue settings - Number of event handling threads
Following a new installation, the value of this parameter is set to one (1). Modify the value of this parameter to be equivalent to twice the number of CPU cores on the machine where you have installed the HPBPI Server.
- Monitor Engine event settings - The maximum number of pooled monitor event processors (1 to19)
Following a new installation, the value of this parameter is set to one (1). Modify the value of this parameter to be 19.

Refer to the *Business Process Insight Administration Guide* for details of these parameters and how to modify them using the HPBPI Administration Console.

HPBPI and Oracle Database Table and Index Partitioning

HPBPI version 02.20 introduced the use of Oracle's Database Table and Index partitioning feature; this had the effect of improving the performance of database queries.

However, use of Oracle partitioning requires an additional Oracle license and if you do not have the correct license, you must not use Oracle database partitioning.

If you do not have the appropriate license and you want to disable HPBPI's use of Oracle partitioning, complete the following steps:

1. From the Administration Console, stop all the HPBPI components.
2. Open a Command Prompt Window.

3. Change directory to:

```
bpi-install-dir\bin
```

4. Run the following script:

```
OraclePartitioningSwitcher switch
```

where *switch* can be either true or false.

true enables Oracle database partitioning for HPBPI and false disables Oracle Database Table and Index Partitioning for HPBPI.

Enter a value of false to disable HPBPI's use of Oracle partitioning.



You must make sure that you have the appropriate Oracle license if you decide to keep, or use, the Oracle Database Table and Index Partitioning feature for HPBPI.

5. When the partitioning change is complete, restart the HPBPI components using the Administration Console.

Licensing

HPBPI version 07.50 is a fully licensed product; refer to section [When the partitioning is complete, restart the HPBPI components using the Administration Console](#), on page 92 for details of how to obtain and install your license key.

Business Availability Center CI Updates

You need only read this section if you have upgraded from a HPBPI implementation where you have enabled the integration with Business Availability Center.

When the upgrade is complete, and where the configuration allows, HPBPI automatically re synchronizes with Business Availability Center. As a result, Processes, Process Steps and Monitors, which are defined in HPBPI, are sent to Business Availability Center where they are added to the UCMDB as CIs.

When the synchronization and upgrade are complete, you need to use Business Availability Center to recreate any relationships between the CIs that were in place before you upgrade Business Availability Center.

Reinstating Changes to HPBPI Configuration Files

If you have made any changes to configuration files not specifically listed in this chapter, these changes need to be reapplied to the newly installed files.

When you have completed these changes, and completed any other applicable post upgrade tasks described in this section, you can continue and restart the HPBPI components that you stopped; see section [Restarting Your HPBPI Systems](#) on page 183.

Servlet Engine Configuration File

Following an HPBPI upgrade, a new version of the Servlet Engine configuration file (`tomcat-users.xml`) is installed. The original file is left in place and is not modified.

The location of the Servlet Engine configuration file is:

```
hpbpi-install-dir\nonOV\jakarta-tomcat-5.0.19\conf
```

The name of the file is the same as the original file, and appended to the file name is a string, which indicates the version of HPBPI that the file is associated with for example:

```
tomcat-users.xml.07.50.000
```

You need to compare the new file with your existing configuration file and copy the HPBPI-related changes into the existing file.

The reason that the HPBPI installation procedure does not replace the file is because you might have made your own changes to the file, which you do not want to be overwritten

Redeploy Existing HPBPI Version 01.01 Business Processes

You need only complete the actions described in this section if you have Business Processes that were created in HPBPI version 01.01 and that have not been redeployed in any other version of HPBPI.



You must undeploy and then redeploy any HPBPI version 01.01 business processes from within the HPBPI Modeler following your upgrade to HPBPI 07.50.

When you redeploy your processes, the existing processes are then superseded and any Business process monitors defined for existing processes are automatically transferred to the new versions of the processes. In this case, the statistics collected for the monitor definition on the newly deployed process are reset to zero. You therefore lose all the historical data relating to the business process monitor definition; however, the superseded process has the historical statistical information.

Reinstating Customized Dashboards

If you have not created a customized Dashboard, you can skip this section.

If you followed the guidance in the documentation, you have taken a copy of the `gen` directory under the following directory and called `myDashboard`, for example:

```
bpi-install-dir\nonOV\jakarta-tomcat-5.0.19\webapps\  
ovbpidashboard2-20\myDashboard
```

If you have upgraded from earlier versions of HPBPI, this directory name might be slightly different.

To reinstate your customized Dashboard, you need to copy your customized directory from its existing directory to the newly installed HPBPI version 07.50 directory which is as follows:

```
bpi-install-dir\nonOV\jakarta-tomcat-5.0.19\webapps\  
hpbpi-bpd
```

Make sure that you copy the directory, *myDashboard*, and its contents and not just the contents of the directory. You also need to copy the following directories to the same location, if you have created content in them for your customizations:

- *customFlowImageDrawer*
- *CustomMetricThresholdSummaryTable*

Removing Files for Unwanted Versions of Dashboard Files

Each time you reinstall the Business Process Dashboard a new version of the Dashboard files are created at the following location:

```
bpi-install-dir\nonOV\jakarta-tomcat-5.0.19\webapps
```

For each installation, a Dashboard *.war* file is created for HPBPI and named as follows:

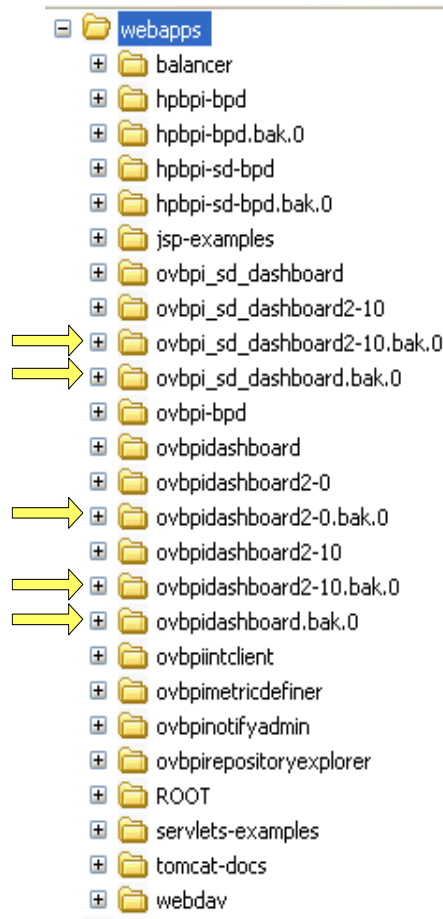
```
hpbpi-bpd.war
```

The actual file name varies according to the version of HPBPI or whether this is a new installation, an over-installation or an upgrade. The files accumulate because they are renamed each time you reinstall HPBPI, in order to preserve changes; see also section [Before Starting the Re-installation Procedure](#) on page 124 for more information on the file renaming. You can delete those files that are no longer required, but make sure that you keep the current version of the Dashboard and the version that is currently in use; these versions are the same, unless you have created customized Dashboards.

Each *.war* file has an associated directory structure, which is created when you start the Servlet Engine. The directory name is based on the name of the *.war* file. There are also *.bak* directories created when you reinstall HPBPI; these can also be deleted if they are no longer required.

Figure 7 shows an example of the directory structure under the webapps directory following a series of upgrades and re-installations.

Figure 7 webapps Directory Structure



From Figure 7 you might decide to delete the .bak directories for earlier versions of HPBPI. These are directories that have been created as a result of re-installations.

There are also Service Desk Process Insight Dashboard files listed that might exist from previous versions of HPBPI:

ovbpi_sd_dashboardnnn

These files can be seen listed in Figure 7.

You can also delete directories that are related to earlier versions of the product, provided that you have not made any customizations in these directories that you want to preserve; for example, you can delete the following, which are HPBPI version 1.1 and version 2.0n directories:

- `ovbpidashboard`
- `ovbpidashboard2-0`

Keeping multiple copies of these `.war` files and their associated directories can have an impact on the performance of your machine. This is because each time you make a change to a configuration parameter using the Administration Console, the change needs to be propagated to all the files.

You are advised to delete the copies of these unwanted `.war` files and their associated directories following an HPBPI upgrade.

Removing Start Options That are No Longer Required

When the upgrade of a Server and Modeler installation is complete, you have a number of options available from the start menu for HPBPI as follows:

Start|All Programs|HP |HP Business Process Insight

The following are the options available when you install HPBPI version 07.50 for the first time:

- Dashboard
- Intervention Client
- Monitor Definer
- Modeler
- Notification Server Admin
- Repository Explorer
- Administration

You can remove all other options with the exception of any Dashboard options that you might want to keep. You also need to be aware that the options do not necessarily appear in the order listed above.

Using Contributed Processes and Components

If you have deployed any of the contributed processes; for example, the `RFID_SupplyChain` process, you can continue to use these processes with HPBPI version 07.50. However, if you are using a version of a contributed process from a version earlier than 07.50, you must use the correct version of the test script for the process. You cannot use any of the HPBPI version 07.50 test scripts with previous versions of the business processes and you cannot use previous versions of test scripts with version 07.50 business processes.

If you intend to use any of the contributed component programs; for example, the Process Simulator, you must use the version 07.50 programs with HPBPI version 07.50, you cannot use previous versions of the contributes programs with HPBPI version 07.50.

Be aware that the upgrade program deletes and recreates the following contributed directories:

- `FlowSimulator`
This directory, and its content, is deleted and recreated with the new name `ProcessSimulator`
- `DemoFlowLibrary`
This directory, and its content, is deleted and recreated with the new name `DemoProcessLibrary`

Restarting Your HPBPI Systems

When you have completed the upgrade of all the HPBPI components, you can restart the HPBPI components using the Administration Console, or you can use the Windows Services for starting the HPBPI Server components.

You can also verify the installation using the example business process described in [Chapter 4, Verifying the Installation](#).

What to do Next

When you have upgraded HPBPI and reapplied your changes, you have completed the upgrade tasks and you can continue using your HPBPI machine.

8 Reporting Problems to Hewlett-Packard

Before reporting problems to Hewlett-Packard, make sure that you have the following information available.

If the problem is with the HPBPI Server:

- The hostname and host ID of the machine where the HPBPI component is running.
- The operating system, and its version, plus patches on all the systems where the HPBPI components are running, including the HPOM Adapter, where appropriate.
- A copy of the log files for all the HPBPI components.
- A copy of any relevant trace files.
- A note of any error messages reported with the problem.
- A copy of your installation log files, which are located at:
 - `hpbpi-install-dir\HP_Business_Process_Insight_InstallLog.log` (Windows)
 - `hpbpi-install-dir/HP_Business_Process_Insight_InstallLog.log` (HP-UX)
 - `hpbpi-install-dir\HP_Business_Process_Insight_DBSetupLog.log` (if present)
- A copy of the latest InstallAnywhere installation log files, which are located at the root directory of the drive where you installed HPBPI; for example C:\. The InstallAnywhere installation log files for HPBPI components all start with the string `hpovpbi...`
- All HPBPI install and uninstall files in the root directory where you have installed HPBPI.
- A copy of the database log file.

- A copy of the HPBPI database tables at the time of the problem; see [Appendix A, Database Tables Defined for HPBPI](#) for a complete list of the database tables used by HPBPI.
- Screen captures of any error dialog boxes.
- The output from the following command on the machine where the HPOM Adapter for HP-UX is running:

```
/usr/sbin/sysdef
```

This command analyses the currently running system and reports on the tunable kernel parameters.

- The output from the following command on HP-UX:

```
/usr/sbin/swapinfo
```

This command prints device and file system paging space.

- A copy of the output from running the Integrity Checker. Using the Integrity Checker is described in the *Business Process Insight System Administration Guide*.

If the problem is with the HPBPI Business Process Dashboard, use the View|Source option in the Web browser to view the source of the Web page where the problem is and copy the source to a file. If you were presented with an error report from the Dashboard, take a screen capture of the error report. You can then make these available to HP.

If the problem is with the HPBPI Modeler, supply the following information to HP:

- A copy of `modelclasses.cfg`, which is located in the `hpbpi-install-dir\data\conf\bia` directory.
- A copy of any Process, Data and Event definitions from the Modeler. These can be exported from the Modeler as described in the *Business Process Insight System Administration Guide*.

Self-Healing Services

HPBPI supports the HP Self-Healing services, which enables HPBPI to automate some of the steps involved in collecting information about a problem and package the information so you can send it to HP.

Self-Healing Services are available all HP BTO Software customers who have a support contract. HP Self-Healing Services will dramatically simplify how you resolve HP BTO Software application issues and speed up the support troubleshooting process.

Self-Healing Services (SHS) is a free service for HP support customers that automates many of the steps involved in troubleshooting, searching for solutions, and submitting support cases for HP BTO Software applications.

You can save even more time by using the quick and easy case submission link that you initiate when needed. HP support will already have the data they would normally ask you for when you submit a support case. Self healing is enabled by downloading and installing the Self-Healing Services client and the Instant Support Enterprise Edition (ISEE) client.

HPBPI's integration with the Self-Healing incident reporting is able to:

- Create system-specific incident reports with detailed analysis
- Present documented solutions from HP's support knowledge base
- Provide comprehensive HP BTO Software patch analysis
- Capture the state of the system and HPBPI when a problem occurs

You can utilize this service to gather information about a problem and send this information to HP using a secure Web access mechanism. The type of information that HPBPI collects includes:

- HPBPI installation log files
- Version numbers of the HPBPI components
- Database version number
- Installation status of all HPBPI components
- Output of the Integrity Checker
- Content of all the most recent HPBPI component log files in the following directory:

```
hpbpi-install-dir\data\conf\bia\logs
```

Where the size of the log file is significantly large, only the first and last 1000 lines of the file are collected.

- Operating system environment variables
- Servlet Engine log file
- content of the HPBPI `version.properties` file
- all the configuration files in the following directory:

`hpbpi-install-dir\data\conf\bia`

Details of how to set up your system and download the software that you need to run in order to use the Self-Healing Service can be found at the following URL:

http://support.openview.hp.com/self_healing_downloads.jsp

There is a download software option under the Self-Healing Services Downloads heading on this Web page.

Data Collector Details

The Data Collector used by HPBPI has the following characteristics:

- A long name (or description), which is `business process insight`
- A source name, which is `bpi`
- A set of components as follows:
 - `bia-af`
 - `bia-admin`
 - `bia-bce`
 - `bia-common`
 - `bia-event`
 - `bia-metric`
 - `bia-modeler`
 - `bia-model-repository`
 - `bia-notify`
 - `bia-views`

- bia-webservices
- database

Running the Data Collector as a Standalone Tool

In addition to using the Self-Healing Services, you can run the Data Collector to collect the data for the Self-Healing Services independently. This enables you to gather information relating to the HPBPI machine. You might need to do this at the request of your support representative as part of the diagnosis of a problem, or you might want to collect data for your own troubleshooting purposes.

There are two scripts for running the HPBPI Data Collector, the only difference between the two is that one of the scripts packages all the files generated by the HPBPI Data Collector into a zip archive file. You can then send this file to HP if required.

The scripts are named and located as follows:

- `hpbpi-install-dir\lbin\bia\archiveovbpicollector.bat`
- `hpbpi-install-dir\lbin\bia\ovbpicollector.bat`

The script prefixed archive, is the script that also creates the zip archive file.

When you execute these scripts the data collected is written to the following directory:

`hpbpi-install-dir\data\log\selfhealing`

If the directory does not already exist, it is created when the script is executed.

A Database Tables Defined for HPBPI

The following tables list the all the database tables and views that are created for HPBPI. Many of these tables are for internal use only and should not be modified.

This list is provided in order that you can make sure that all the tables are included in any backup and recovery procedures and for you to check for any potential database table name clashes.

The capitalization used in the table is for ease of reference only. How the table names are represented in your database is database specific; for example, for an Oracle Server all table and view names are upper case.

[Table 26](#) on page 191 lists all the HPBPI database tables and [Table 27](#) on page 194 lists all the views.

Table 26 Complete List of HPBPI Database Tables

Table Name	Internal Use Only (yes/no)
AdaptorConfig	yes
Arcs	no
BACDataSampleDestinations	yes
BCE_Metric_Id_Gen	yes
DataInstIdToBeDeleted	yes
Data_Objects	no
DBusmh_Attribute	yes
DBusmh_EditableAttribute	yes
DBusmh_Patient	no
DBusmh_Role	yes

Table 26 Complete List of HPBPI Database Tables

Table Name	Internal Use Only (yes/no)
DBusmh_User	yes
DBusmh_UserRole	yes
EventQueue	yes
Event_Store	no
FailedBACSamples	yes
FlowDataFilters	yes
FlowIdsToBeUpdated	yes
FlowInstIdToBeDeleted	yes
FlowNodeZones	yes
Flows	no
Flow_Instance_Table	yes
ImpactThreshold	yes
MetricToBACDestination	yes
Metric_CustomTypes	no
Metric_Definitions	yes
Metric_Dim_Dates	no
Metric_Dim_Flows	no
Metric_Dim_Flow_Instances	no
Metric_Dim_Groups	no
Metric_Dim_Metrics	no
Metric_Dim_Thresholds	no
Metric_Events	yes
Metric_Events_Engine_Status	yes

Table 26 Complete List of HPBPI Database Tables

Table Name	Internal Use Only (yes/no)
Metric_Events_Seqs_To_Remark	
Metric_Fact_Alerts	no
Metric_Fact_Statistics	no
Metric_Fact_Values	no
Metric_Generate_Errors	yes
Metric_Notification_Check_Time	yes
Metric_Staging_Statistics	yes
Metric_Staging_Stats_Modified	yes
Metric_Stored_Procedures ^a	yes
NodeIdAndResourceStatus	yes
NodeInstToBeDeleted	yes
Nodes	no
Nodes2Resources	no
Node_Instance_Table	yes
Node_Instance_CompletedTimes	no
Node_Instance_StartedTimes	no
NS_Digesterstore	yes
NS_DigesterSubscriptions	yes
NS_EmailRetry	yes
NS_EmailSubscriptions	yes
NS_EmailUsers	yes
NS_OVORetry	yes
NS_OVOSubscriptions	yes

Table 26 Complete List of HPBPI Database Tables

Table Name	Internal Use Only (yes/no)
NS_ScriptRetry	yes
NS_ScriptSubscriptions	yes
NS_SLAEmailSubscriptions	yes
NS_SLOEmailSubscriptions	yes
OVIS_AlarmStatus	yes
OVISTimeStamps	yes
Repos_defns	yes
Repos_Folders	yes
Repos_Labels	yes
Repos_Labels2Defns	yes
Resources	no
RMIEventRetry	yes
SOAPEventRetry	yes
Version	yes

a. this table is available only with Microsoft SQL Server.

The following table lists all the HPBPI database views.

Table 27 Complete List of HPBPI Database Views

View Name	Internal Use Only (yes/no)
Dbusmh_View	yes
Flow_Instance	no
Metrics	no

Table 27 Complete List of HPBPI Database Views

View Name	Internal Use Only (yes/no)
Metric_Values	no
Node_Instance	no
Repos_Definitions	yes

The following table lists the HPBPI database indexes.

Table 28 Complete List of HPBPI Database Indexes

Index Name	Internal Use Only (yes/no)
Flow_Instance_Idx_nnn	yes
Idxn	yes
Metric_Dim_Dates_Idx_nnn	yes
Metric_Dim_Groups_Idx_nnn	yes
Metric_Events_Idx_nnn	yes
Metric_Fact_Groups_Idx_nnn	yes
Metric_Fact_Alerts_Idx_nnn	yes
Metric_Fact_Statistics_Idx_nnn	yes
Metric_Fact_Values_Idx_nnn	yes
Metric_Staging_Statistics_Idx_nnn	yes
Node_Instance_Comple_Idx_nnn	yes
Node_Instance_Idx_nnn	yes
Node_Instance_Starte_Idx_nnn	yes
Sys_string	yes

There are also stored procedures, database triggers and other database scripts defined by HPBPI and potentially defined by you. These also need to be taken into account for backup purposes or if you need to move the HPBPI data.

It is strongly recommended that you create an Oracle User or Microsoft SQL Server Database specifically for HPBPI as it makes the task of identifying this HPBPI data much easier.

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