

HP

Business Process Insight

For the Windows® Operating System

Software Version: 2.20

Installation Guide

Document Release Date: October 2007

Software Release Date: October 2007



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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](#).

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 20
- Database requirements for HPBPI; see section [HPBPI and Database Usage](#) on page 22

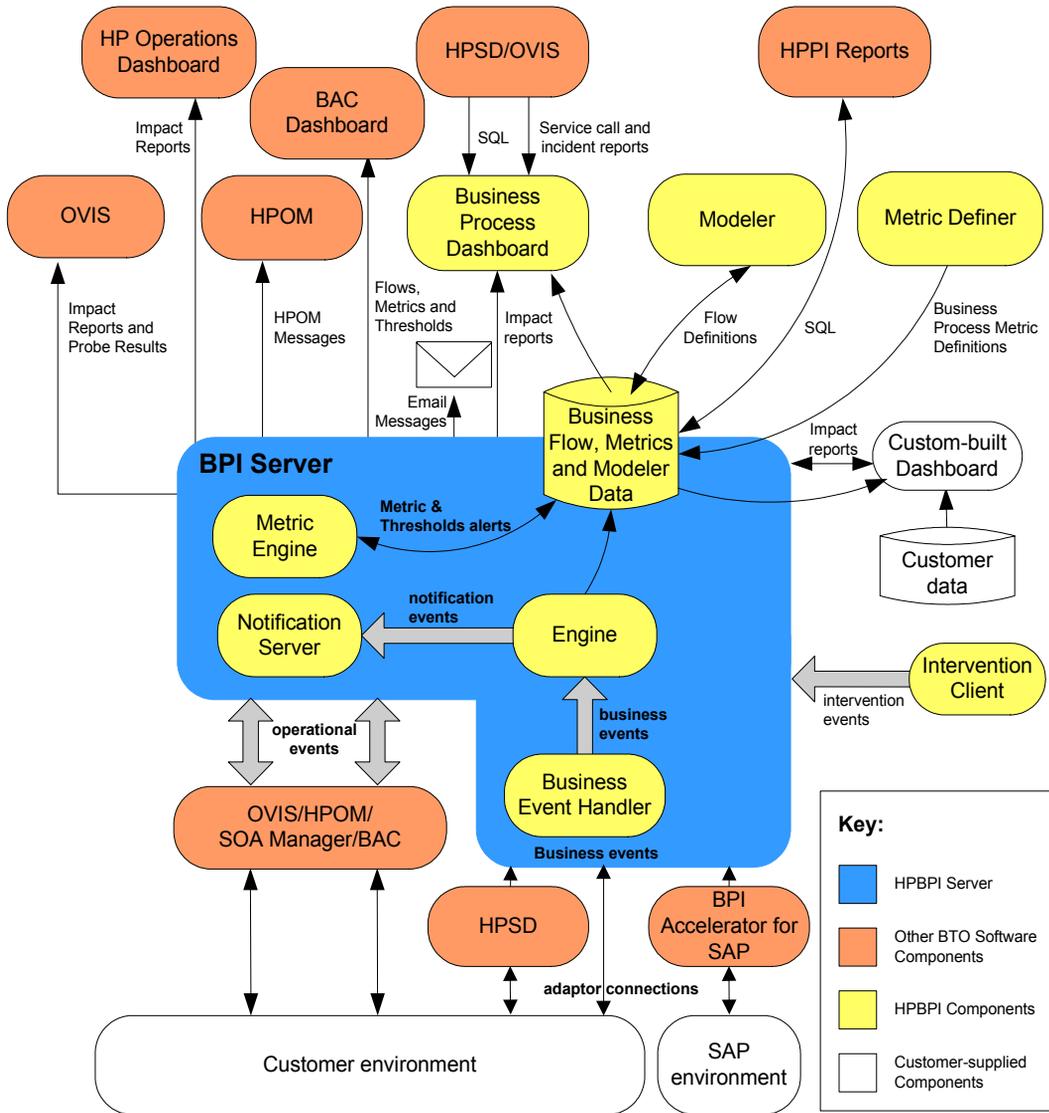
- Deployment options; see section [Distributing HPBPI Installation Components](#) on page 23
- Microsoft Server Cluster support; see section [High Availability Using Microsoft Server Clusters](#) on page 26.

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.

- HPBPI Custom Probes

The HPBPI Custom Probe installation program is separate from the remaining HPBPI components and is also described in this guide. Section [Options for Installing HPBPI Custom Probe Components](#) on page 19 describes the installation options that are available to you when installing the HPBPI Custom Probe component.

- 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.

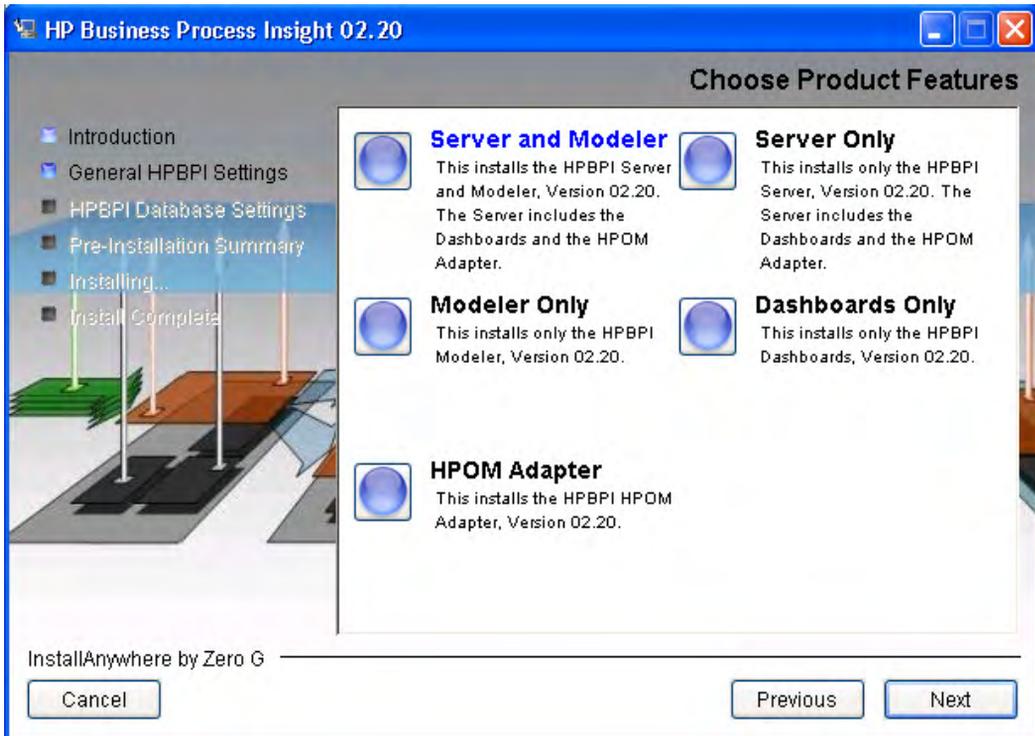


Note that only one copy of the HPBPI Server can be run on any one machine. You cannot install and run multiple copies of the HPBPI Server component, or any install option that contains the Server component.

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, with the exception of the HPBPI Custom Probes.

- **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.

- **Dashboards Only**

Use this option if you want to install one or more additional HPBPI Business Process Dashboards, or Service Desk Process Insight Dashboards on Windows machines that are separate from the HPBPI Server machine. 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.

- **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 flows to HP Operations Manager services. You install the HPOM Adapter for HP-UX on the

machine where HP Operations Manager (HPOM) is installed. You can install the HPOM Adapter for Windows on the machine where HPOM for Windows is installed, or on the same machine as the HPBPI Server.

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

- Re-install the existing version of HPBPI

You can re-install HPBPI version 02.20 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 02.0*n*, or later, to version 02.20 as described in [Chapter 7, Upgrading to HPBPI Version 02.20](#).

Options for Installing HPBPI Custom Probe Components

Install the HPBPI Custom Probes if you want to use OpenView Internet Services (OVIS) to monitor your HPBPI business flows.

You do not have to install the HPBPI Custom Probes if you want to use OVIS only as a source of operational events. You need only install the custom probes to add the additional probe capability to an existing OVIS implementation. The HPBPI Custom Probes are described in detail in the *Business Process Insight Reference Guide*.

Using the HPBPI Custom Probe installation program, you can:

- install the probes

Use this installation procedure to install the probes on a Windows machine where OVIS is running.



You cannot install the probes on a machine that is remote from OVIS; the probes must be installed on the machine where OVIS is also installed.

- re-install the probes

You can re-install the probes as described in [Chapter 5, Re-installing HPBPI Components](#).

- uninstall the probes

You can remove the probes from your machine as described in [Chapter 6, Uninstalling HPBPI Components](#).

- upgrade the probes

When you install HPBPI version 02.20, you must also upgrade the HPBPI Custom Probes for OVIS from being compatible with earlier versions of HPBPI to being compatible with HPBPI version 02.20. This is described in [Chapter 7, Upgrading to HPBPI Version 02.20](#).

Licensing

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

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 [License Key Password Redemption](#) on page 99 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 flows that it is processing. The databases that are supported for use with HPBPI are:

- Microsoft SQL Server 2000
- 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 strongly recommended not to use Microsoft SQL Server 2000 in a production environment. In addition, 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 57.

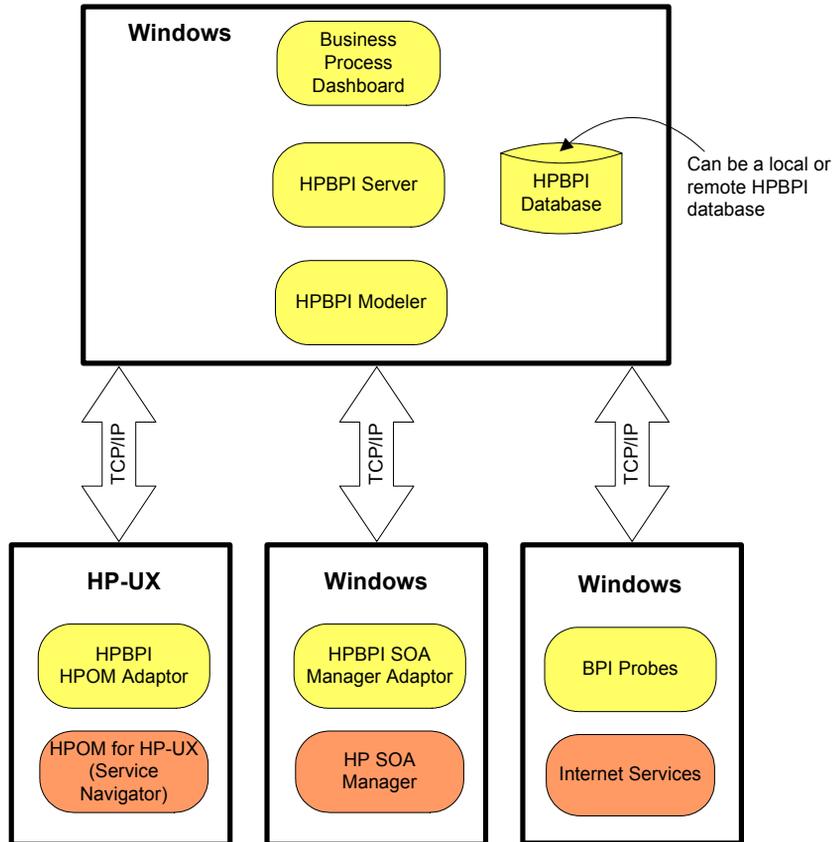


You are strongly advised not to modify any of the data in the HPBPI database tables as HPBPI relies on this data being internally consistent in order to operate. Changing the values in the database tables will impact the behavior and operation of your HPBPI machine.

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 for the HPBPI Custom Probes, which must be installed on that same machine as the OpenView Internet Services Management Server. Note that there is no additional installation required if all you want is to monitor the status of OVIS services.
- 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.

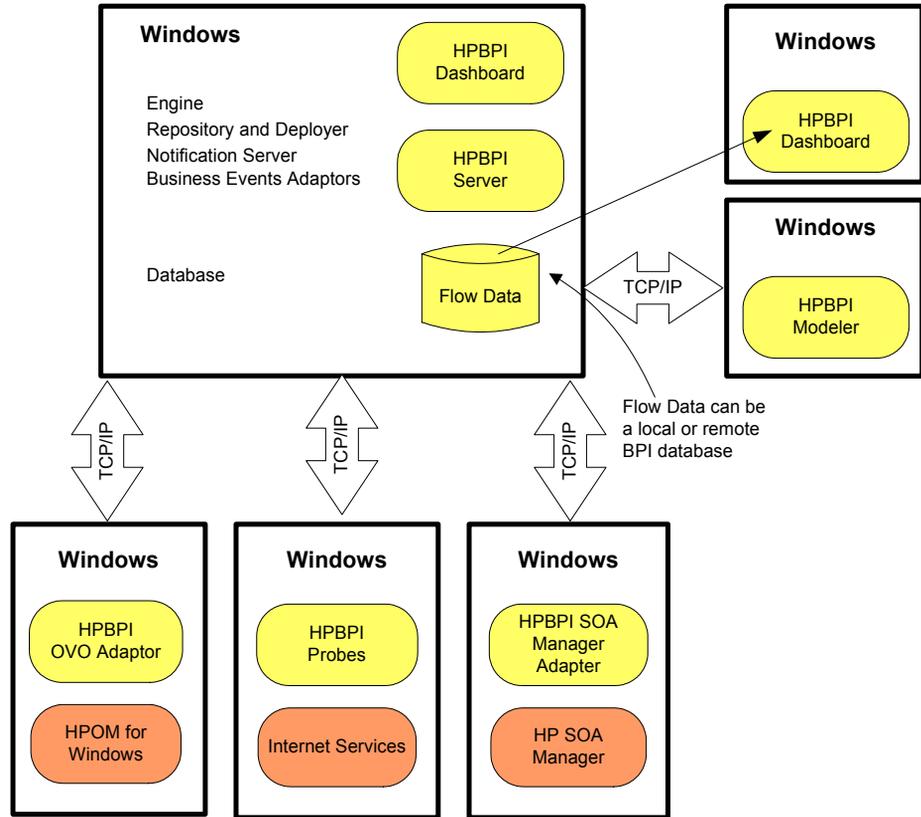
You can access the HPBPI Web clients from any machine running an Internet Explorer Web browser and that has network access to the machine where the HPBPI Server is running.

[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 HPOM Adapter installation, SOA Manager Adapter installation and HPBPI Custom Probes 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.

There is no need to install the HPBPI custom probes for OVIS if all you want is to monitor the status of OVIS services.

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 02.20](#) 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 37.
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 57.
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 72
 - section [Information Required for a Server Only Installation](#) on page 77
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 89
 - section [Server Only Installation on Windows](#) on page 101

6. Start the HPBPI Server; see section [Starting HPBPI Server Components on Windows](#) on page 97.

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 [License Key Password Redemption](#) on page 99.
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 41.
3. Collect the data that you need for the installation; see the section [Information Required for a Modeler Only Installation](#) on page 78
4. Install the Modeler installation as described in section [Modeler Only Installation](#) on page 103.
5. Make sure that the HPBPI Server is running; see section [Starting HPBPI Server Components on Windows](#) on page 97.

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 Installation Requirements](#) on page 43.
3. Collect the data that you need for the installation; see the section [Information Required for a Dashboards Only Installation](#) on page 78
4. Make sure that the HPBPI Server is running; see section [Starting HPBPI Server Components on Windows](#) on page 97.

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 106.

Installation Summary - Custom Probes

The HPBPI Custom Probes for Internet Services need be installed only if you want OVIS to monitor details of your HPBPI business flows.



The probes must be installed on the same machine as the OVIS Management Server.

The following list provides a summary of the steps required to install the HPBPI Custom Probes for OVIS:

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 Custom Probes Installation](#) on page 45.

3. Collect the data that you need for the installation; see the section [Information Required for an OVIS Custom Probes Installation](#) on page 84
4. Install the OVIS Custom Probes as described in section [HPBPI Custom Probes for Internet Services Installation](#) on page 117.

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 48.
3. Collect the data that you need for the installation; see the section [Information Required for an HPOM Adapter Installation](#) on page 81
4. Install the HPOM Adapter for windows as described in section [HPOM Adapter Installation](#) on page 110.

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 48.
3. Collect the data that you need for the installation; see the section [Information Required for an HPOM Adapter Installation](#) on page 81.
4. Install the HPOM Adapter as described in section [HPOM Adapter Installation](#) on page 110.

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 51.

3. Collect the data that you need for the installation; see the section [Information Required for a SOA Manager Adapter Installation](#) on page 82.
4. Install the SOA Manager Adapter as described in section [HP SOA Manager Adapter Installation and Configuration](#) on page 119.

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 02.20](#) describes how to upgrade from HPBPI version 02.0*n*, or later, to HPBPI version 02.20.
- [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 Flows*
- *Business Process Insight Integration Training Guide - Defining Business Metrics*
- *Business Process Insight Integration Training Guide - Monitoring Service Desk*
- *Business Process Insight Integration Training Guide - Customizing the Business Process Dashboard*
- *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 37.
- HPBPI Server Only installation; see section [HPBPI Server and Modeler and Server Only Installation Requirements](#) on page 37.
- HPBPI Modeler Only installation; see section [HPBPI Modeler Installation Requirements](#) on page 41.
- HPBPI Dashboards Only installation; see section [HPBPI Dashboard Installation Requirements](#) on page 43
- HPBPI Custom Probe installation; see section [HPBPI Custom Probes Installation](#) on page 45.
- HPOM Adapter installation; see section [HPOM Adapter Installation Requirements](#) on page 48.
- HP SOA Manager Adapter; see section [HP SOA Manager Adapter Installation Requirements](#) on page 51.

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 57.

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 02.20](#).

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 flows that you need to define, the business process metrics 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 SP1• 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	512MB 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	512MB 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; however, you need to read section [Oracle Database Configuration](#) on page 63 for details of calculating disk space for the database based on the numbers of flow instances and business process metrics.

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	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/
Databases:	
<ul style="list-style-type: none"> Microsoft SQL Server 	<ul style="list-style-type: none"> Microsoft SQL Server 2000 standard edition, plus SP3a Microsoft SQL Server 2005 standard edition, plus SP2
<ul style="list-style-type: none"> Oracle Server 	<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 8.10 for HP-UX, plus Service Navigator Value Pack 9.1 for HP-UX HPOM version 8.20 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
OpenView Internet Services ^c	<ul style="list-style-type: none"> OVIS 6.10 OVIS 6.20
HP Service Desk ^d	HPSD 4.50 (using the WEB-API), plus service pack 22

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

Software Component	Version
HP SOA Manager ^e	<ul style="list-style-type: none"> • SOA Manager 2.10 • SOA Manager 2.50
HP Select Access ^f	Select Access 6.2
HP Operations Dashboard	<ul style="list-style-type: none"> • HPOD 2.0, plus OVDRHVNT_00002 • HPOD 2.1
HP Business Availability Centre	<ul style="list-style-type: none"> • HPBAC 6.8 • HPBAC 7.0
HP Performance Insight	<ul style="list-style-type: none"> • HPPI 5.10 • HPPI 5.20
Tomcat ^g	5.0.19
Internet Explorer	6 or 7

- a. 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.
- b. 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.
- c. This HP BTO Software product is required only if you want to use OVIS probes to monitor the flows in your HPBPI solution.
- d. This HP BTO Software product is required only if you want to integrate HPBPI with HP Service Desk.
- e. 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.
- f. This HP BTO Software product is required only if you want to authenticate the HPBPI components using Select Access.
- g. 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 alerts through email.

See also section [J2SE](#) on page 53 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 SP1• 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	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 53 for information about setting up your J2SE.

HPBPI Dashboard 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 SP1• 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	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 53 for information about setting up your J2SE.

HPBPI Custom Probes Installation

The following sections describe the system, database and software requirements for the HPBPI Custom Probes on Windows. The probes must be installed on the same system as the OVIS Management Server.

System Requirements

The following table lists the minimum system requirements for the HPBPI Custom Probes installation on Windows.



OpenView Internet Services supports probes running on the same system, or remote from the OVIS Management Server. Be aware that the HPBPI Custom Probes for OVIS are Local Probes and must not be installed on a system that is remote from the OVIS Management Server.

The following table lists the system requirements for the HPBPI Custom Probes. Note that the only requirement listed is the platform version. The probes installation has few system requirements and those already required by OpenView Internet Services are also suitable for the HPBPI Custom Probes.

Table 9 Minimum System Requirements for HPBPI Custom Probe 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 SP1• Windows XP Professional, plus SP2	

Disk Space Requirements

The following table describes the disk space requirements for the custom probes.

Table 10 HPBPI Custom Probes Disk Space Requirements

Installation Type	Free Disk Space	How to Check
HPBPI Custom Probes 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 Custom Probes installation requires the following software versions to be installed before the installation is started.

Table 11 HPBPI Custom Probes Installation Software Requirements

Software Component	Version
J2SE	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/
OpenView Internet Services	6.10 or 6.20
Database	Any of the following database supported by the version of OpenView Internet Services that you plan to use: <ul style="list-style-type: none">• Microsoft SQL Server Desktop Engine (MSDE)• Microsoft SQL Server 2000• Oracle 8 for HP-UX• Oracle9i for HP-UX• Oracle 10g for HP-UX For database version information, refer to the OpenView Internet Services documentation.

See also section [J2SE](#) on page 53 for information about setting up your J2SE and section [HPBPI Custom Probes for Internet Services Database Requirements](#) on page 68 for details of the database requirements for the Custom probes.

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 12 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	HP-UX 11.11(PA RISC) or 11.23 (Itanium)	<code>/usr/bin/uname -rs</code>

Table 13 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 SP1Windows 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 14 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 15 HPOM Adapter Software Requirements

Software Component		Version
J2SE		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 8.10 for HP-UX and Service Navigator Value Pack 8.0 for HP-UX• Version 8.20 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 53 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 16 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 17 HP SOA Manager Adapter Software Requirements

Software Component	Version
J2SE	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• Version 2.5

J2SE

This component is required by HPBPI to run the java classes and to compile the business flows. It is also required by the installation procedure on the HP-UX system where the HPOM Adapter is installed.



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 Impact 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 Impact Information

SOA Manager is required if you want HPBPI to report on business service impact 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 flows.

OpenView Internet Service Impact Information

OVIS is required if you want to receive operational impact information from Internet Services, in order to assess the impact of operational failures on the flows that you define.

OVIS is also required if you want OVIS to report OVIS metric information about the business flows that you define in HPBPI.

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 alerts 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

Service Desk

There are three ways that HPBPI interoperates with HP Service Desk:

- The Notification Server component of HPBPI can send HP Operations Manager messages to HP Operations Manager and ultimately to Service Desk. If you want to take advantage of this feature, you need to have HP Operations Manager installed and Service Desk configured to receive these HP Operations Manager messages.
- The HPBPI Business Process Dashboard enables you to associate the service information received from HP Operations Manager (HPOM) and OpenView Internet Services (OVIS) with Service Desk (HPSD) service calls and incidents. You configure this as a post-installation task.
- You can use HPBPI to monitor your HPSD ITIL processes for the following HP Service Desk modules:
 - HPSD Helpdesk Manager
 - HPSD Change Manager

There are different configuration tasks for each of these integrations, and all are completed as post-installation tasks.

Business Availability Center

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

- HPBPI deployed Flow definitions (including Nodes) can be exported to BAC and 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 Process Metrics defined for the Flows.
- You can configure a BAC portlet server (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 Flow information.

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 Metric definer to create and modify business process metrics.
- configuring notification request for the HPBPI Notification Server.
- viewing information through the HPBPI Dashboard.
- using the Repository Explorer to view and manipulate design-time flow data in the Model Repository database tables.
- using the Intervention Client to manage active flow 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 flows 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 59.
- Configuration requirements for the Oracle Server database, which are specific to HPBPI; see section [Oracle Database Configuration](#) on page 63.

Installation Type and Database Requirement

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

Table 18 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
HPBPI Custom Probe Installation	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 successful. The database details can be configured at a later time.

It is strongly recommended that the HPBPI database schema objects; for example, tables, stored procedures, triggers are installed such that they are owned exclusively by HPBPI. In the case of Microsoft SQL Server, there should be a Database exclusively for HPBPI. In the case of Oracle, there should be an Oracle User exclusively for 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, you need to check that the database tables HPBPI uses do not clash with any tables that already exist in the database. The *Business Process Insight Reference Guide* provides details of the database schema and 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 63.

HPBPI Data File Requirements

The HPBPI SQL Server data files are initially configured with the following properties:

- Initial file size of 50MB
- File growth in steps of 100MBs
- Automatic file growth with no maximum size

The 50MB initial file size is sufficient for approximately 1,000 instances of a five-node business flow with one business process metric defined. This is a business process metric where no statistics are being recorded, that is, you have set the `Collection Interval` to zero (0).

These space requirements assume that each node instance is started and completed only once. Whenever a node instance starts for the first time, or is restarted, a row is added to the `Node_Instance_StartedTimes` database table. Therefore each time a node is restarted, it requires additional space in the database.

If your implementation has flows that exceed 1,000 instances and 5 nodes, you need to analyse whether the way that HPBPI has configured the data files is appropriate and make any necessary changes. You also need to make sure that you allow space for your database transaction log files and for the files that might be created as part of your backup strategy.

If you know that your implementation will require a significant amount of space for database tables, you are advised to make the appropriate changes to the data file sizes and not rely on using the automatic growth of the data files. Configuring the database correctly from the start maximizes the efficiency of the database operation.

If you need to increase the data file size for the HPBPI database, use the Microsoft SQL Server Enterprise Manager to increase the maximum file size. This can be done by right-clicking on the HPBPI database entry in the Explorer Tree, within the SQL Server Enterprise Manager, and selecting the Data Files tab from Properties.

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 create an 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 for the Authentication Mode to use within SQL Server that you select the option for Mixed 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. Select:
Start | Programs | Microsoft SQL Server | Enterprise Manager
2. Expand the Tree View and double-click SQL Server Group.
3. In the right-hand pane, right-click on the SQL Server Group called (local) (Windows NT) and select the Properties option.
4. Select the Security tab.
5. In the Security Window ensure that the following authentication option is selected:
SQL Server and Windows
6. Click OK if you have modified the entry, or Cancel if the authentication setting is correct.
7. If you have modified the authentication setting, you need to pause, stop and restart the database for the changes to take effect.

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

- 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 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 64
- [Tablespace Space Requirements](#) on page 64
- [Character Set for Oracle Database](#) on page 65

- [Oracle Cursor Settings](#) on page 66
- [Oracle Server Database User Permissions](#) on page 66

If you plan to use a Microsoft SQL Server database, refer to section [Microsoft SQL Server Database Configuration](#) on page 59.

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 66.

Tablespace Space Requirements

At installation, the user tablespace size is set as follows:

- Initial tablespace size of 50MB
- File growth in steps of 100MBs
- Automatic file growth with no maximum size

The 50MB initial tablespace size is sufficient for approximately 1,000 instances of a five-node business flow with one business process metric defined. This is a business process metric where no statistics are being recorded, that is, you have set the `Collection Interval` to zero (0).

This section provides a number examples of other scenarios for cases where you want to estimate tablespace size for additional flows, or for collecting statistics for business process metrics.

It is likely that your implementation will have flows that exceed 1,000 instances and 5 nodes, and also have multiple business process metrics set and collect metric statistics. As a result you need to analyze whether the way that HPBPI has configured the tablespace size is appropriate for your implementation and make any necessary changes.

If you know that your implementation will require a significant amount of space for database tables, you are advised to make the appropriate changes to the tablespace size and not rely on using the automatic growth of the tablespace. Configuring the database correctly from the start maximizes the efficiency of the database operation.

Use the Oracle Server Management tools to modify the size of the HPBPI tablespace.

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.

Other reasons for using UTF8 include:

- When using an Oracle 8 database server using UTF8 is one way of supporting unicode characters. (UTF8 supports both variable-width database character sets and supports Unicode encoding.)
- 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.

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 Cursor Settings

Cursors are used by Oracle to identify objects that are managed through the System Global Area. In the case of HPBPI, one of the uses of cursors is to identify Prepared Statements. For this reason, you need to configure the number of cursors to be equivalent to the number of pooled connections and Prepared Statements that are configured for HPBPI.

How you set the values for cursors within Oracle varies according to the version of Oracle that you are using. If you are using Oracle 9.2.0.5.0 or later, refer to the instructions in section [Oracle 9.2.0.5.0 or Later](#) on page 66.

Oracle 9.2.0.5.0 or Later

If you currently have `open_cursors` set to a high value (for example, greater than 1000), it is likely that this is causing large numbers of PL/SQL cursors to be cached in the shared pool.

For Oracle version 9.2.0.5.0 and later the maximum number of cursors that can be cached is determined by the parameter `session_cached_cursors` and not `open_cursors`.

The number of Prepared Statements defined for HPBPI is shown through the Administration Console, and after installing HPBPI for the first time, is set to 10,000 Prepared Statements. Refer to the *Business Process Insight System Administration Guide*, for details of the value for Maximum Number of active JDBC Prepared Statements.

The value for `session_cached_cursors` is set within the Oracle database file:

```
initsid.ora
```

where `sid` is the system identifier for the HPBPI database tables.

You need to make sure that this value for `open_cursors` is set to be the same as the value for Maximum Number of active JDBC Prepared Statements.

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`

If you create your own database user, you are advised to check 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.

HPBPI Custom Probes for Internet Services Database Requirements

The HPBPI Custom Probes must be installed on the same system as Internet Services Configuration Manager; however, they also need access to the HPBPI data.

If you are using Microsoft SQL Server to store your HPBPI data, then you do not need to complete any additional tasks in order for the custom probes to access this data. However, if you are using an Oracle Server to store your HPBPI data, you need to complete the tasks described in this section before installing the custom probes. These tasks need to be completed on the system where you intend to install the Custom Probes, which is where the OVIS Configuration Manager is also installed.

When using an Oracle Server to store the HPBPI data, you need to configure an Oracle Net Service that you then need to enter when you install the HPBPI Custom Probes. You configure an Oracle Net Service using the Net Configuration Assistant.

You also need to make sure that the Oracle Client software for Windows is installed on the OVIS system. The Oracle Client software provides the Configuration Assistant, which you use to configure a Net Service Name.

Make a note of the Net Service Name that you create as you need to quote it when you install the HPBPI Custom Probes.

You also need to make a note of the Oracle ODBC driver that is configured for the HPBPI database. The ODBC drivers configured for your system are defined in Administration Tools > Data Sources (ODBC), which is accessed from the Control Panel.

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

In addition, this chapter describes how to install the HPBPI Custom Probes for OVIS. You need only install the probes for OVIS if you intend to use OVIS to monitor HPBPI and report on the business flows. The probes installation is a separate installation procedure and is also available on the distribution media. HPBPI's ability to receive operational reports from OVIS does not require the probes installation.

You can install the HPBPI Custom Probes at any time, there is no relationship between the HPBPI installation and the probes installation; however, OVIS must be installed before installing the HPBPI custom probes.

The following topics are covered in this chapter:

- Tasks to complete before starting the installation; see section [Collecting Required Information for Installer](#) on page 71
- The location of the HPBPI installation log files; see section [Installation Log Files](#) on page 86
- [Server and Modeler Installation on Windows](#) on page 89
- [Server Only Installation on Windows](#) on page 101
- [Modeler Only Installation](#) on page 103

- [Dashboards Only Installation](#) on page 106.
- [HPOM Adapter Installation](#) on page 110
- [HP SOA Manager Adapter Installation and Configuration](#) on page 119
- [HPBPI Custom Probes for Internet Services Installation](#) on page 117.

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 any database configuration changes required for HPBPI and the HPBPI custom probes, as described in section [HPBPI Server Database Requirements](#) on page 57 and section [HPBPI Custom Probes for Internet Services Database Requirements](#) on page 68.
- 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 72.
 - [Information Required for a Server Only Installation](#) on page 77
 - [Information Required for a Modeler Only Installation](#) on page 78
 - [Information Required for a Dashboards Only Installation](#) on page 78
 - [Information Required for an HPOM Adapter Installation](#) on page 81
 - [Information Required for a SOA Manager Adapter Installation](#) on page 82
 - [Information Required for an OVIS Custom Probes Installation](#) on page 84.

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

Table 19 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 20 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 21 on page 75.

Table 20 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 flow 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 port number that Microsoft SQL Server uses to communicate with applications; by default this is port 1433.	

Table 20 Microsoft SQL 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 schemas and users, plus assign privileges to users.</p>	<p>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.</p> <p>Obtain the credentials for a suitable user from your database administrator.</p> <p>By default the installer offers the <code>sa</code> account.</p>	

Table 20 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 62.</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>The database password can comprise any character, with the exception of the space (<code> </code>) and backslash (<code>\</code>) characters; it cannot start with a dollar (<code>\$</code>) or at (<code>@</code>) character.</p>	
Directory where the database data files are stored	<p>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.</p>	

Table 21 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 20 on page 72.

Table 21 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 flow 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 21 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 66.</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 21 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 57 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, HP OpenView Internet Services, HP Service Desk 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 19](#) to [Table 21](#) 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 installing the HPBPI Modeler.

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

Table 22 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 23](#), [Table 24](#) and [Table 25](#) list the information requested by the HPBPI Dashboards Only Installation.

Table 23 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 24 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 21 on page 75.

Table 24 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 flow 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.	
Name for the SQL Server database	This is the name of the SQL Server database created for HPBPI. The SQL Server database that you create must have a Collation set to be case insensitive.	
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 25 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 24 on page 79.

Table 25 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 flow 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 26 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 27 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.	

Information Required for an OVIS Custom Probes Installation

The HPBPI Custom Probes for Internet Services need be installed only if you want OVIS to monitor HPBPI metrics relating to your business flows. Refer to the *Business Process Insight Reference Guide* for details of the function of the probes.

The probes must be installed on the same machine as the OVIS Management Server.

There is a separate installation program on the distribution media for the custom probes installation.

Table 28 Information Required for an HPBPI Custom Probes Installation

Information	Notes	Values
Name of Custom Probes installation directory	A default is offered by the installer that you can override.	
Type of database that HPBPI is configured to use.	This defines the type of database that you have configured for HPBPI, for example, Oracle or Microsoft SQL Server.	
Oracle ODBC Driver Name	This is the name of the Oracle ODBC driver configured for the HPBPI database. The question is asked only where you select Oracle as the database type during the installation; see section HPBPI Custom Probes for Internet Services Database Requirements on page 68.	
Oracle Net Service Name	This is name that you have configured for the Oracle Net Service Name using the Net8 Configuration Assistant. The question is asked only where you select Oracle as the database type during the installation; see section HPBPI Custom Probes for Internet Services Database Requirements on page 68.	

Table 28 Information Required for an HPBPI Custom Probes Installation

Information	Notes	Values
Microsoft SQL Server hostname	<p>This is the name of the machine where SQL Server database that HPBPI is using is installed.</p> <p>This question is asked only where you select MS SQL Server as the database type during the installation; see section HPBPI Custom Probes for Internet Services Database Requirements on page 68.</p>	
Microsoft SQL Server database name	<p>This is the name of the database that is configured for the HPBPI data in Microsoft SQL.</p> <p>This question is asked only where you select MS SQL Server as the database type during the installation; see section HPBPI Custom Probes for Internet Services Database Requirements on page 68.</p>	

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.

HPBPI Custom Probes Log File

The log file for the HPBPI custom probes installation is located as follows:

`OVIS-install-dir\HP_OpenView_Business_Process_Insight_Custom_Probes_for_Internet_Services_InstallLog.log`

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 89.
- [Server Only Installation on Windows](#) on page 101.
- [Modeler Only Installation](#) on page 103.
- [Dashboards Only Installation](#) on page 106
- [HPBPI Custom Probes for Internet Services Installation](#) on page 117.
- [HPOM Adapter Installation](#) on page 110.

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 72
- 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 57 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 53. 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 91 describes the questions relating the database that you intend to use to use to store the HPBPI flow data.

HPBPI Database Settings

HPBPI uses a database to store its flow definitions and flow 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 92.

For an Oracle Server, select Oracle, click Next and continue at section [Oracle Server Database](#) on page 94.

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. The default offered is the standard port number used by Microsoft SQL Server, you do not need to change this unless you have configured Microsoft SQL Server to use an alternative port number.

- 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 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 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 `Remove Existing Database Contents`, the installer continues with the installation and deletes and recreates the all the database functions that HPBPI requires. Alternatively, you can:

- 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.

Choose the option that you want to continue with and either restart the installation, or continue at section [Pre-Installation Summary](#) on page 96 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 60. 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 `Remove Existing Database Contents`, the installer continues with the installation and deletes and recreates the tables that HPBPI requires. Alternatively, you can:

- 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.

Choose the option that you want to continue with and either restart the installation, or continue at section [Pre-Installation Summary](#) on page 96 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
- 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 [License Key Password Redemption](#) on page 99.

Post Installation Information

There are a number of new parameters that have been introduced in HPBPI version 02.20, and 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 the number of CPU cores on the machine where you have installed the HPBPI Server.

- Metric Engine event settings - The maximum number of pooled metric 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.

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:

- HP BPI - 1 Business Process Software LTU
- HP SD BPI - Helpdesk Mgmt Software 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 77 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 53. 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 90 to complete the `Server Only` installation.

When you have completed the `Server Only` installation and started HPBPI, continue at section [License Key Password Redemption](#) on page 99.

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 78 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 53. 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 78 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 53. 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 81 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 110. If you are installing the Adapter on a Windows system, complete the steps described in section [Windows](#) on page 112.

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`. The `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 113.

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 53. 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

Following a new installation, the OVBPIOVOAdaptor service is set to be a Startup Type of Manual. If you want the adapter to start automatically following a system reboot, you need to set the Service Startup Type to be 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.

HPBPI Custom Probes for Internet Services Installation

This section describes how to install the HPBPI Custom Probes for Internet Services; install these probes if you want to use OVIS to report on HPBPI-specific metrics. Before starting the installation, make sure that you have read section [Information Required for an OVIS Custom Probes Installation](#) on page 84.

The probes installed for HPBPI and the flow metrics that they measure are described in the *Business Process Insight Reference Guide*.



You must install the HPBPI Custom Probes on the machine where OpenView Internet Services Configuration Manager is installed.

Complete the following steps to install the probes:

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-ovis-probes-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.

You are presented with an installation GUI that leads you through the steps to install your HPBPI custom probes. Click **Next** to start the installation.

2. From the **Choose Install Folder** dialog, accept the default installation directory, or select **Choose**, to navigate to a directory of your choice and click **Next**.
3. From the **HPBPI Database Type** dialog, select the database type that you configured for HPBPI to use to store flow data, click **Next**.

If you selected **Microsoft SQL Server**, continue at step 6, otherwise, continue at step 4 for **Oracle**.

4. From the **Oracle ODBC Driver Name** dialog, enter the name for the ODBC driver that you want HPBPI to use when making a connection to the OVIS Oracle database.

5. From the `Net Service Name` dialog, enter the name that you configured for the Oracle Net Service and click `Next`.

Continue at step 8.

6. From the `HPBPI Database Hostname` dialog, enter the hostname for the machine where the database used by HPBPI is installed and running.
7. From the `HPBPI MSSQL Database Schema Name` dialog, enter the name of the HPBPI schema as defined within SQL Server, for example `HpbpiSchema`.
8. 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 custom probes directories and files. When the installation is complete, you can exit the installation procedure.

The HPBPI Custom Probes are now installed and you can use OVIS to configure these probes in the same way as other OVIS probes. When configuring the `Probe Location Info`, make sure that you select `Local System` as the value for the `Probe Location` parameter.

You also need to configure the OVIS integration as an operational service source for HPBPI. You do this using the Administration Console as described in the *Business Process Insight Administration Guide*.

Details of the information required by these probes is given in the *Business Process Insight Reference Guide*.

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 82.

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 Flows 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

If you are using an Oracle Server for your HPBPI implementation, you are advised to read the section in the *Business Process Insight Problem Solving Guide* related to Oracle Server performance. The section provides information relating to optimizing Oracle for use with HPBPI.

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 flow to check that all the HPBPI files are installed correctly, and that your HPBPI machine is operating as it should be. This chapter does not provide any information about verifying that the HPBPI Custom Probe installation is correct.

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

The chapter describes how you deploy the flow, plus the Data and Event definitions for the flow. You then go on and use the Flow 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 flow. The *Business Process Insight Integration Training Guide - Modeling Flows* provides a more detailed example of creating a flow including Data and Events.

Before using the verification flow, 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 Flow

This section describes how to import one of the example flows 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 97 and section [Starting the HPBPI Modeler](#) on page 104.

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

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 flow, which is contained in a `.zip` file and located under the `MB_Mobile` directory as follows:

```
hpbpi-install-dir\contrib\DemoFlowLibrary\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` flow are listed.

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

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

6. Select the `MB_Mobile` flow under `Flows` in the HPBPI Modeler Navigator pane.

7. Deploy the `MB_Mobile` flow 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 flow.
9. Click `Close` when the flow has been successfully deployed.

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

Using the Flow Simulator

The next step is to start the Flow Simulator and run the test case for the `MB_Mobile` flow. The simulator injects business events into the Business Impact Engine and as a result flow 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 02.20, you need to make sure that you are using the correct version of the test script with the correct version of the flow. Do not mix a version 02.0*n*, or later, flow with a version 02.20 test script for the Flow Simulator.

To run the Flow Simulator, complete the following steps:

1. Locate the HPBPI distribution media.

The Flow Simulator is located under the following directory:

```
CD-drive\contrib\FlowSimulator
```

2. Copy the entire contents of `contrib\FlowSimulator` directory to a directory with the same name under your HPBPI installation directory as follows:

```
hpbpi-install-dir\contrib\FlowSimulator
```

3. Open a Command Prompt window.
4. Change directory to where the Flow Simulator files are located.

5. Run `FlowSimulator.bat`.

The Flow 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` flow, which you now need to import into the simulator.

6. From the Flow Simulator, select `File|Open Test Suite`

7. Browse to the following directory:

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

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

8. Select the file `MB_Mobile.test`.

9. Click `Open`

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

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

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

Viewing the Flow Using the HPBPI Dashboard

To check how the `MB_Mobile` flow is progressing, start the HPBPI Dashboard and view the flow summary for the flow 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` flow from Business Flow Summary.

Scroll to the bottom of the page and you can see a summary of the flow instances and the numbers of flow instances in each state. If there are values other than zero against one or more of the instances, the flow is progressing and the installation is therefore successful. You can continue and navigate around the Dashboard to view the details of the flow instances. When you have completed the verification, continue at section [What to do Next](#) on page 128.

If the values are zero, then the `MB_Mobile` flow 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 Flow Simulator and close the remaining HPBPI components as follows:

1. To stop the test suite for the `MB_Mobile` flow, click the `Stop Suite` button.
2. Close the Flow Simulator.
3. Close the browser Window where the HPBPI Dashboard is running.
4. From the HPBPI Modeler, undeploy the `MB_Mobile` flow, including all the associated Data and Event definitions. You can also delete the definitions related to the `MB_Mobile` flow 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` flow 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 02.20 machine, do not read this chapter, you must refer to [Chapter 7, Upgrading to HPBPI Version 02.20](#).

This chapter covers the following topics:

- [Options for Re-installing](#) on page 130
- [Before Starting the Re-installation Procedure](#) on page 132
- [Re-installing HPBPI Components](#) on page 134
- [HPOM Adapter Re-installation](#) on page 137
- [HPBPI Custom Probe Re-Installation](#) on page 140
- [SOA Manager Adapter Re-Installation](#) on page 142

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, including the repository Business Flow definitions.

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 134.
- HPOM Adapter Installation; see section [HPOM Adapter Re-installation](#) on page 137.
- HPBPI Custom Probe Installation; see section [HPBPI Custom Probe Re-Installation](#) on page 140.

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 29](#) on page 130.

Table 29 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 29 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
HPBPI Custom Probes	HPBPI Custom Probes

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.
- changes made to the following script in the `examples` directory are preserved, by renaming the file.

```
hpbpi-install-dir\examples\bia\ServiceDeskAdaptors\  
SD_Adaptor_Config.properties
```

The file is renamed to `SD_Adaptor_Config.properties.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 .

Following the reinstallation, you must reapply any changes that you made to the file: `SD_Adaptor_Config.properties`.

- the HPBPI Dashboard configuration files.

The installed HPBPI Dashboard files are replaced by the re-installation process. When you re-install HPBPI version 02.20, 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 .

Customized Dashboards files that have been created in the recommended location are not changed during the re-installation process. This includes files for both Business Process Insight and Service Desk Process Insight.

- 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.

Restoring a Customized Dashboard Following a Reinstallation

If you have not customized your Business Process Dashboard files, you do not need to read this section.

When you reinstall HPBPI version 02.20, the installation process makes a copy of the Dashboard files and directories in order to preserve your changes and installs the new files for HPBPI 2.20. As a result your customized Dashboard is temporarily unavailable. The files are copied, or renamed, as described in section [Before Starting the Re-installation Procedure](#) on page 132.

This occurs with any of the following installation types:

- Server and Modeler
- Server Only
- Dashboards Only

If you followed the guidance in the *Business Process Insight Integration Training Guide - Customizing the Business Process Dashboard*, 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\  
hpbpi-bpd\myDashboard
```

To reinstate your customized Dashboard, you need to copy your customized directory from the following location and reinstate it under the newly installed HPBPI directory:

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

where n is a number that increases each time you complete a reinstallation.

You also need to copy the following directories to the same location, if you have created content in them for your customizations:

- `customFlowImageDrawer`
- `CustomMetricThresholdSummaryTable`

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 137.

For Windows, refer to section [Windows](#) on page 139.

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.

4. From the `Choose Install Folder` dialog, make sure that you have selected the directory where the HPOM Adapter is already installed.

You must not choose a different folder for HPBPI, as only one copy of the HPBPI Server can be run on a single machine.

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.

5. From the `Choose Product Features` dialog, select `HPOM Adaptor` and click `Next`.
6. 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.
7. 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.

HPBPI Custom Probe Re-Installation

Use the HPBPI Custom Probes installation to reinstall deleted or corrupt files, or to change the configuration of the Custom Probes. The configuration information that can be modified is related to the database details for the HPBPI data. If you change the database type or hostname, you will need to reconfigure the HPBPI Custom Probes in order that they can access the new database.

Complete the following steps to reinstall the HPBPI Custom Probes for OVIS:

1. If you have modified the `OvbpiProbe.cfg` file to configure multiple HPBPI Servers, make a copy of the file before starting the re-installation.

2. Run the installation procedure: `hpbpi-custom-probe-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. From the `Choose Install Folder` dialog, make sure that you have selected the directory where the HPBPI Custom Probes are already installed.

You are presented with a message informing you that the probes are already installed. Click `OK` to dismiss the message and continue with the installation at the `HPBPI Database Type` dialog as follows:

- a. Click `Cancel` to finish the installation without re-installing.
- b. Select the database type that you have configured for HPBPI and click `Next`.

If you selected `MS SQL Server`, continue at step 6, otherwise, continue at step 4.

4. From the `Oracle ODBC Driver Name` dialog, accept the name for the ODBC driver that you want HPBPI to use when making a connection to the OVIS Oracle database.
5. From the `Oracle Net Service Name` dialog, accept the name for the `Net Service Name` that you configured for the Oracle Client connection and click `Next`.

Continue at step 8.

6. From the HPBPI Database Hostname dialog, accept the hostname for the machine where the database used by HPBPI is installed and running.
7. From the HPBPI MSSQL Database Schema Name dialog, accept the name of the HPBPI schema as defined within SQL Server, for example hbpischema.
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 HPBPI Custom Probe directories and files. When the installation is complete, click `Done` to exit the installation procedure.

9. If you made a copy of the `Ovbpiprobe.cfg` file in step 1, make sure that the newly installed `Ovbpiprobe.cfg` file contains the changes before continuing.

The re-installation is now complete.

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

HPBPIWhen 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 145.
- Removing the HPOM Adapter; see section [Removing the HPOM Adapter](#) on page 149.
- 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 152.
- 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 153.
- Removing the HPBPI Custom Probes from the OVIS machine; see section [Removing an HPBPI Custom Probes Installation](#) on page 154.
- Removing the SOA Manager adapter from the SOA Manager machine; see section [Removing a SOA Manager Adapter Installation](#) on page 155.

You can choose to remove all the HPBPI 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 database tables, the uninstall procedure deletes the table, but it does not delete:

- the tablespace (Oracle Server)
- Database (SQL Server)
- Database user, where the user is created as part of the installation process

If you want to keep your data for reporting purposes, ensure that `Delete Data` is not selected 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 database tables 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.

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 Metric 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, you need to remove any existing HPBPI database tables, or copy them to another location in the database.

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 HPBPI version 1.1, HP Business Process Insight and the Dashboard options are left on the Start|Programs menu. You need to delete these manually following the uninstallation.

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 149.

If it is installed on Windows, refer to section [Windows](#) on page 150.

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 115.

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

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.

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 an HPBPI Custom Probes Installation

To remove the Business Process Insight Custom Probes For Internet Services from a machine where it has been installed, complete the following steps:

1. Select Start | Settings | Control Panel | Add/Remove Programs
2. Select HP OpenView Business Process Insight Custom Probes for Internet Services from the currently installed programs.
3. Click Change/Remove to start the uninstall program.

You are presented with a screen that explains the uninstall process.

4. Click the Uninstall button to continue removing the Business Process Insight Custom Probes for Internet Services.

You are presented with an InstallAnywhere Uninstall dialog. that introduces the uninstall program. Click Uninstall to continue.

5. Click Quit on the Uninstall Complete dialog.
6. Reboot your Windows machine.



Uninstalling the HPBPI Custom Probes does not remove existing probe instances, it removes the ability to create new probe instances; however, the existing probe instances can no longer be used and therefore should be manually deleted.

You have now completed the tasks to remove the Custom Probes 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 02.20

This chapter describes how to upgrade from your existing HPBPI installation to HPBPI version 02.20.

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 162
- [New and Changed Features Since HPBPI 2.10](#) on page 168

The following are the sections that you must read in 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 159
- [Upgrading from HPBPI Version 01.01](#) on page 161
- [Tasks to Complete Before Starting the Upgrade](#) on page 173
- [Upgrading HPBPI](#) on page 176

The following sections provide the instructions for upgrading from your existing version of HPBPI to HPBPI version 2.20. Read the section, or sections, that are appropriate to your deployment.

- [Upgrading HPBPI Components](#) on page 177
- [Upgrading an HPOM Adapter Installation](#) on page 178
- [Upgrading an HPBPI Custom Probe Installation](#) on page 181

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

- [Post Upgrade Tasks](#) on page 183
- [Restarting Your HPBPI Systems](#) on page 193

Upgrade Paths for HPBPI and Installation Types

Figure 5 shows the migration paths that you can follow when upgrading to HPBPI version 2.20.

Figure 5 Migration Table

HPBPI Version	2.0n	2.10	2.20
1.10	yes	no	no
2.0n	not applicable	yes	yes
2.10	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 the chapter covering 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 2.20.

The following list describes the supported installation types that you can upgrade for HPBPI version 02.20. In all cases, you must shut down and upgrade all HPBPI components together. This is because different versions of HPBPI components are not able to 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 173

- 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 02.20.

You can also upgrade from a `Modeler Only` installation to 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 02.20 `Server` installation.

Refer to section [Information Required for an HPOM Adapter Installation](#) on page 81 for details of the information required for this installation.

- **HPBPI OVIS Custom Probes installation**

If you upgrade the HPBPI server, you must also upgrade an `HPBPI OVIS Custom Probes` installation to be compatible with the HPBPI version 02.20 `Server` installation; this can be in the form of a `Server and Modeler` installation or a `Server Only` installation.

Refer to section [Information Required for an OVIS Custom Probes Installation](#) on page 84 for details of the information required for this installation.

Upgrading from HPBPI Version 01.01

You cannot upgrade from HPBPI version 01.01 directly to HPBPI version 02.20; 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.hpbpi@hp.com`

You can now continue at section [Tasks to Complete Before Starting the Upgrade](#) on page 173

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.

- Metric Engine

New settings for Java Virtual machine and Threshold Alert 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 flows that it is monitoring. 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 impact 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 Metric Engine

- Java Virtual Machine settings

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

- Threshold Alert Notification settings

These parameters enable you to control how often the Metric Engine polls its data, and the maximum number of alert 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 Flow 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 Nodes in HPBPI Modeler

HPBPI 02.10 has introduced a new type of node in the HPBPI Modeler, the Junction Node. This new node is used to visually define the structure of a business flow.

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

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

When displayed in pre HPBPI version 02.01 Business Process Dashboards, a Junction Node 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 Metric Definer Online Help*

Now read section [New and Changed Features Since HPBPI 2.10](#) on page 168 for details of the changes introduced in HPBPI version 02.20.

New and Changed Features Since HPBPI 2.10

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 flows 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 flows.
 - view HPBPI Flow and Metric definitions from within the BAC Dashboard. You can also link across to the HPBPI Business Process Dashboard to monitor more detail of the business impact.
 - view HPBPI Flow 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 monitoring 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 metric values to Excel format from the Business Process Dashboard.

There are new options on the Business Process Dashboard Flow Instance, Metrics and Alerts 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.

- Metric Engine Event settings

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

- Metric Engine Statistics settings

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

- Metric Engine Threshold settings

Some new parameters have been added to the Metric 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 BAC. Refer to the *Business Process Insight Reference Guide* for details of the BAC 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 Metric 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 [Post Installation Information](#) on page 98 for details of these parameters and how to modify them.

- Metric Definer menu options modified

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

- File

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

- Help

This option offers help topics related to the use of the Metric 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 [Tasks to Complete Before Starting the Upgrade](#) on page 173, which describes the information that need before starting the upgrade.

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:

- [Check Versions of Prerequisite Software](#) on page 174
- [Check Database Table Use](#) on page 174
- [Reinstating Customized Dashboards](#) on page 186
- [Copy Changed Component Configuration Files](#) on page 175
- [Back Up Your System](#) on page 175

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 174.

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 02.20:

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 02.20 installation.

Check Versions of Prerequisite Software

HPBPI version 2.20, 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 that is not supported by HPBPI version 02.20, you must upgrade Oracle 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.

There is a Technical Note (*Upgrading Your Oracle Database*) provided on the distribution media, which describes the HPBPI-related tasks that you must complete when upgrading Oracle.

Similarly, if you are using a different J2SE version, you must move to the correct version of the J2SE before starting the HPBPI version 02.20 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 02.20 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 02.20, 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 table names created by HPBPI version 02.20 is listed in the *HP Business Process Insight Administration Guide*.

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.

Upgrading HPBPI

You complete the upgrade by over installing your existing version of HPBPI with HPBPI version 02.20.

The following information is useful to know before you start the upgrade process. In particular, note the information relating to the installation questions:

- **Installation question defaults**
All existing settings for your HPBPI configuration are used as a default for the installation. The only question presented is the location of the J2SE. 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.
- Following the upgrade to HPBPI version 02.20, any flows that were being monitored in the Business Impact Engine continue to be monitored. The upgrade to HPBPI version 02.20 does not impact your operational system.
- Following the upgrade to HPBPI version 02.20, all flows in the Modeler remain in the same state (deployed and undeployed) as they were before the upgrade.

You can now continue and upgrade your HPBPI components as described in the following sections:

- [Upgrading HPBPI Components](#) on page 177
- [Upgrading an HPOM Adapter Installation](#) on page 178
- [Upgrading an HPBPI Custom Probe Installation](#) on page 181

Upgrading HPBPI Components

This section covers the steps that you need to complete to upgrade any combination of HPBPI components.

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.

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.

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

You now need to complete any relevant post upgrade tasks described in section [Post Upgrade Tasks](#) on page 183.

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.
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. 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 HPBPI 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.

4. Select `HPOM Adaptor` and click `Next`.

5. 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.
6. 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 183.

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 183.

Upgrading an HPBPI Custom Probe Installation

Complete the following steps to upgrade the HPBPI Custom Probes for OVIS:

1. If you have modified the `OvbpiProbe.cfg` file to configure multiple HPBPI Servers, make a copy of the file before starting the upgrade.
2. From an account with Administrator privileges, run the installation procedure from the distribution media as follows:

```
cd-drive\i386\hpbpi-custom-probe-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.

3. From the **Choose Install Folder** dialog, make sure that you have selected the directory where the HPBPI Custom Probes are already installed.

If you do not select the same directory, the installer continues and installs a second set of probes in a new directory on your machine.

You are presented with a message informing you that the probes are already installed. Click **OK** to dismiss the message and continue with the installation at the **HPBPI Database Type** dialog as follows:

4. From the **HPBPI Database Type** dialog, select the database type that you configured for HPBPI to use to store flow data, click **Next**.

If you selected **Microsoft SQL Server**, continue at step 7, otherwise, continue at step 5 for **Oracle**.

5. From the **Oracle ODBC Driver Name** dialog, enter, or accept, the name for the ODBC driver that you want HPBPI to use when making a connection to the OVIS Oracle database.

6. From the `Net Service Name` dialog, enter, or accept, the name that you configured for the Oracle Net Service and click `Next`.

Continue at step 9.

7. From the `HPBPI Database Hostname` dialog, enter the hostname for the machine where the database used by HPBPI is installed and running.
8. From the `HPBPI MSSQL Database Schema Name` dialog, enter the name of the HPBPI schema as defined within SQL Server, for example `hpbpiSchema`.
9. 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 custom probes directories and files. When the installation is complete, you can exit the installation procedure.

10. If you made a copy of the `Ovbpiprobe.cfg` file in step 1, make sure that the newly installed `Ovbpiprobe.cfg` file contains the changes before continuing.

Continue and upgrade the remaining HPBPI components as appropriate and then complete the post upgrade tasks described in section [Post Upgrade Tasks](#) on page 183.

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.

- [Licensing](#) on page 183
- [Reinstating Changes to HPBPI Configuration Files](#) on page 183
- [Servlet Engine Configuration File](#) on page 184
- [Redeploy Existing HPBPI Version 01.01 Business Flows](#) on page 186
- [Reinstating Customized Dashboards](#) on page 186
- [Moving to the HPBPI Version 02.20 Business Process Dashboard and Service Desk Process Insight Dashboard](#) on page 187
- [Service Desk Process Insight Examples](#) on page 190
- [Removing Unwanted Start Options](#) on page 191
- [Using Contributed Flows and Components](#) on page 191

Licensing

HPBPI version 02.20 is a fully licensed product; refer to section [License Key Password Redemption](#) on page 99 for details of how to obtain and install your license key.

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 193.

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.02.20.000
```

You need to compare the new file with your existing configuration file and copy the changes for into the existing file.

There were no changes introduced in HPBPI Version 02.20; however, section [Servlet Engine Changes Introduced Between HPBPI Version 02.0n and HPBPI Version 02.10](#) on page 184 describes the changes that were introduced in HPBPI Version 02.10.

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

Servlet Engine Changes Introduced Between HPBPI Version 02.0n and HPBPI Version 02.10

For HPBPI version 02.10, the changes that you need to be aware of are:

1. A change in structure of the HPBPI related entries to make it easier to locate differences.
2. New entries in the file for the HPBPI Business Process Dashboard (`ovbpi-dashboard`) and the Service Desk Process Insight Dashboard (`ovbpi-sdpi-dashboard`). You need to:
 - copy the `<role rolename ...>` information for the Dashboards
 - append the new entries for the Dashboards to the `<userusername...>` entry that already exists for the admin user.
 - copy the new `<user username...>` entry for the dashboard user.

The newly installed Servlet Engine configuration file is as follows and the new entries that you need to extract and copy into the existing `tomcat-users.xml` file are shown emphasized in bold text:

```
<?xml version='1.0' encoding='utf-8'?>
<tomcat-users>
<role rolename="ovbpi-event-injector"/>
<role rolename="ovbpi-int-client"/>
<role rolename="ovbpi-notify-admin"/>
<role rolename="ovbpi-metric-definer"/>
<role rolename="ovbpi-model-repository"/>
<role rolename="ovbpi-dashboard"/>
<role rolename="ovbpi-sdpi-dashboard"/>

<user username="admin" password="ovbpi"
roles="ovbpi-notify-admin,ovbpi-int-client,ovbpi-event-injector,
ovbpi-metric-definer,ovbpi-model-repository,ovbpi-dashboard,ov
bpi-sdpi-dashboard"/>
<user username="dashboard" password="console"
roles="ovbpi-dashboard,ovbpi-sdpi-dashboard"/>
</tomcat-users>
```

Redeploy Existing HPBPI Version 01.01 Business Flows

You need only complete the actions described in this section if you have Business Flows 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 flows from within the HPBPI Modeler following your upgrade to HPBPI 2.20.

When you redeploy your flows, the existing flows are then superseded and any Business process metrics defined for existing flows are automatically transferred to the new versions of the flows. In this case, the statistics collected for the metric definition on the newly deployed flow are reset to zero. You therefore lose all the historical data relating to the business process metric definition; however, the superseded flow 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 *Business Process Insight Integration Training Guide - Customizing the Business Process Dashboard*, 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\  
ovbpidashboard2-10\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 2.20 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`

Moving to the HPBPI Version 02.20 Business Process Dashboard and Service Desk Process Insight Dashboard

This section describes post-upgrade tasks relating to the Business Process Dashboard and to the Service Desk Process Insight Dashboard.

After the upgrade to HPBPI version 02.20, the installed HPBPI Dashboard files are replaced by the upgrade process. If you have customized your Dashboard files, you should have copied your Dashboard files as described in section [Reinstating Customized Dashboards](#) on page 186.

After the upgrade is complete, you need to reinstate the customizations that you have made to your Dashboard file as described in section [Reinstating Dashboard Files and Start Menu Entries](#) on page 187.

Reinstating Dashboard Files and Start Menu Entries

When you have completed your upgrade there are at least the following two entries for the Business Process Dashboard on the `Start` menu, for example:

- Dashboard 2.10
This is the link to the HPBPI version 02.10 Business Process Dashboard.
- Dashboard
This is the link to the HPBPI version 02.20 Business Process Dashboard.

There might be more entries if you have previously upgraded from versions of HPBPI prior to version 2.10.

The URL for the HPBPI version 02.10 Dashboard remains unchanged, so all existing links to the version 02.10 Dashboard continue to work. There is a new URL for the HPBPI version 02.20 Dashboard as follows:

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

This URL will not be changed in future versions of HPBPI and will be overwritten with the new Dashboard files each time you reinstall HPBPI version 02.20 or when you upgrade to a future version of HPBPI.

You might also want to remove older versions of the Dashboard files, if they are no longer required, as described in section [Removing Files for Unwanted Versions of Dashboard Files](#) on page 188

Removing Files for Unwanted Versions of Dashboard Files

Each time you reinstall the Business Process Dashboard or the Service Desk Process Insight Dashboard, a new version of the Dashboard files are created at the following location:

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

For each installation, a Dashboard `.war` file is created for HPBPI and for Service Desk Process Insight and named as follows:

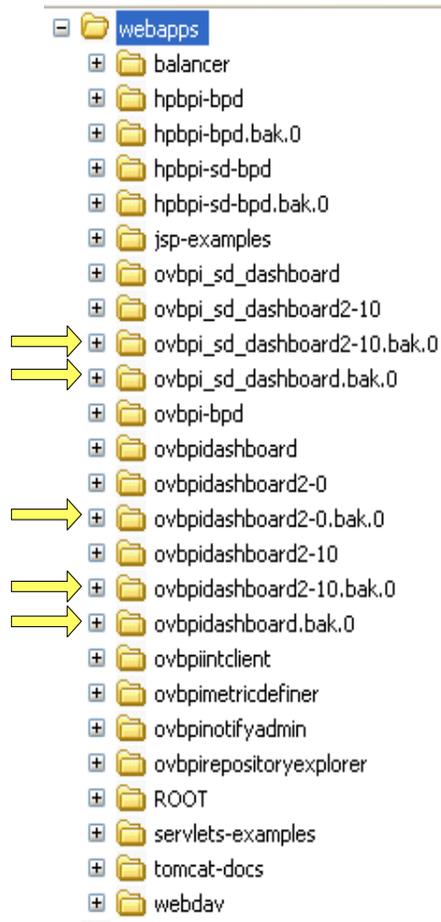
- `hpbpi-bpd.war` (Business Process Dashboard)
- `hpbpi-sd-bpd.war` (Service Desk Process Insight Dashboard)

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 132 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 Dashboards 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 6 shows an example of the directory structure under the webapps directory following a series of upgrades and re-installations.

Figure 6 webapps Directory Structure



From Figure 6 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.

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 2.0*n* directories:

- `ovbpidashboard`
- `ovbpidashboard2-0`
- `ovbpi_sd_dashboard2-0`

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.

Service Desk Process Insight Examples

Following the upgrade, changes made to the following script in the `examples` directory are preserved, by renaming the file.

```
hpbpi-install-dir\examples\bia\ServiceDeskAdaptors\  
SD_Adaptor_Config.properties
```

The file is renamed to `SD_Adaptor_Config.properties.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*.

Following the upgrade, you must reapply any changes that you made to the file: `SD_Adaptor_Config.properties`.

The following script is affected in the same way. The version of the script that you have installed depends on the version of Service Desk you are using with Service Desk Process Insight:

```
hpbpi-install-dir\examples\bia\ServiceDeskAdaptors\  
SD5.0_Adaptor_Config.properties
```

Removing Unwanted Start Options

When the upgrade of a Server and Modeler installation is complete, you have the following options available from the Start|All Programs|HP OpenView|Business Process Insight menu:

- Dashboard 2.10
- OVBPI Admin
- Intervention Client
- Metric Definer
- Modeler
- Notification Server Admin
- Administration
- Dashboard

Be aware that the options do not necessarily appear in the order listed above.

If you have completed other upgrades, then the options available from the Start menu are slightly different. In all cases, you have both the OVBPI Admin and the Administration options. You can remove the OVBPI Admin option if you want to simplify the interface as it is identical to the Administration option.

The Dashboard 2.10 and Dashboard options are described in section [Moving to the HPBPI Version 02.20 Business Process Dashboard and Service Desk Process Insight Dashboard](#) on page 187.

Using Contributed Flows and Components

If you have deployed any of the contributed flows; for example, the RFID_SupplyChain flow, you can continue to use these flows with HPBPI version 02.20. However, if you are using a version of a contributed flow from a version earlier than 02.20, you must use the correct version of the test script

for the flow. You cannot use any of the HPBPI version 02.20 test scripts with previous versions of the business flows and you cannot use previous versions of test scripts with version 02.20 business flows.

If you intend to use any of the contributed component programs; for example, the Flow Simulator, you must use the version 02.20 programs with HPBPI version 02.20, you cannot use previous versions of the contributes programs with HPBPI version 02.20.

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 newly installed Windows Services for starting the HPBPI Server components.

You can also verify the installation using the example business flow 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 and HPBPI Custom Probes, 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...`

There are log files for the HPBPI installation procedure, the HPBPI uninstallation procedure and the HPBPI custom probes for OVIS installation and uninstallation.

- 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 the *Business Process Insight Reference Guide* for a complete list of the relevant database tables.
- If appropriate, a copy of log file for the HPBPI custom probes for OVIS installation, which is located at:

```
OVIS-install-dir\newconfig\HP_Business_Process_Insight_
Custom_Probes_for_Internet_Services_InstallLog.log
```

- 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 Flow, 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.

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