

HP OpenView Performance Insight

Installation Guide

Version: 5.0

HP-UX, Solaris, Windows®



Manufacturing Part Number: J5223-90027

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Related Documentation

This document is part of the OVPI documentation set, which also includes the following guides:

- *Performance Insight Administration Guide*
- *Performance Insight Guide to Building and Viewing Reports*
- *Performance Insight Release Notes*
- *Performance Insight Reference Guide*

In addition to customizing existing reports and learning how to create your own reports, you also might want to explore advanced features that allow you to integrate OVPI with other systems and import data from other sources. Procedures for using these more advanced features are found in the following guide: *Performance Insight TEEL Reference Guide*.

You can obtain this guide by attending OVPI customer training (go to <http://www.hp.com/education/courses/u1616s.html> for information) or by calling your HP sales representative.

The OVPI guides are bundled with the OVPI software on the product CD. These guides are also posted to the following Web site:

<http://support.openview.hp.com>

Because updated guides are posted to the Web site on a regular basis, the PDF available from the Web site is likely to be more current than the PDF included on the CD. ***Always*** check for updates on the support Web site before using any PDF that was shipped with on the CD.

To locate guides, select **product manuals** from the **using HP software** section; this displays the product manuals search page. Select **performance insight** from the select product box, and then select a version number from the select version box. To see the user guides for report packs, datapipes, and preprocessors, select **reporting and network solutions**, and then select a version number from the select version box.

Every title on the Product Manuals Search page indicates the date of publication. This date comes from the guide's title page.

Online Manuals

The documentation shipped with OVPI is available in Portable Document Format (PDF), which you can view using Adobe Acrobat Reader. You can find the PDF documents in the following locations:

- The OVPI Installation CD—The documentation set and the Adobe Acrobat Reader software are available *before* you install OVPI in the Documentation folder located on the OVPI CD-ROM.
- Your system—The documentation set is available *after* you install OVPI in the docs directory under the OVPI installation directory (for example, *installation_directory\docs* on a Windows system).

Technical Support and Training

You can find technical support and training information on the HP OpenView World Wide Web site at:

<http://openview.hp.com/>

There you will find contact information and details about the products, services, and support that HP OpenView offers.

You can go directly to the HP OpenView eCare Web site at:

<http://support.openview.hp.com/>

The eCare support site includes:

- Downloadable documentation
- Troubleshooting information
- Patches and updates
- Problem reporting
- Training information
- Support program information

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Installation Guidelines

HP OpenView Performance Insight (OVPI) is a comprehensive, performance management solution that automates the collection and analysis of network data, placing the information into report formats that you specify.

With OVPI, network administrators have the ability to manage service levels, optimize existing resources, accurately plan future growth, and predict network problems before they occur.

OVPI uses the following client applications for its reporting interface: Report Builder, Report Viewer, and the Web Access Server. OVPI uses the Management Console and the Web Access Server applications for administration tasks.

OVPI supports the following operating systems: HP-UX, Solaris, and Windows. For specific information about supported version and required patches, see [System Requirements on page 25](#).

OVPI's modular, client-server architecture provides scalability, letting you:

- Install the applications on a single host system to create a single-user management station.
- Distribute the applications across systems to create a network-wide management structure encompassing multiple users, organizations, and locations.

Figure 1 shows the OVPI architecture.

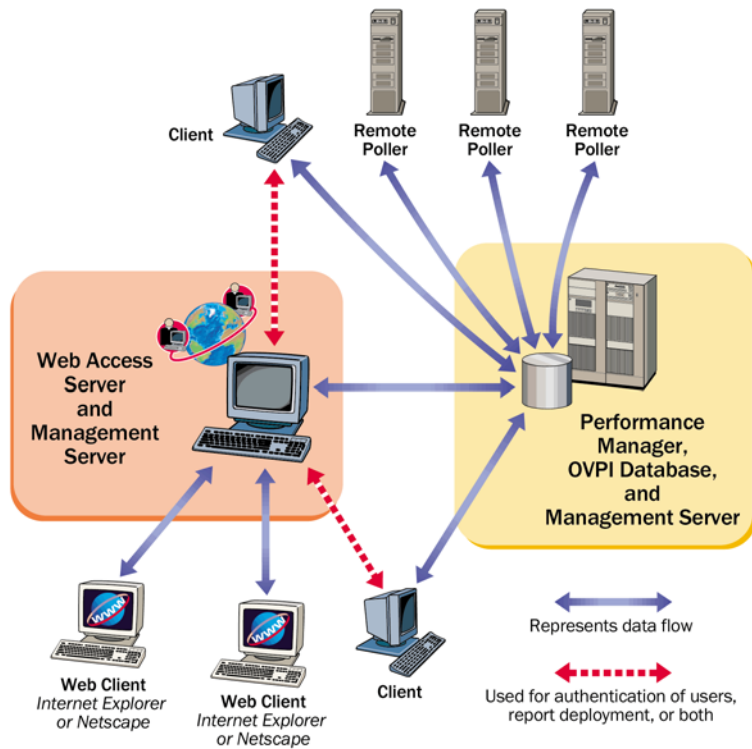


Figure 1 OVPI Architecture

- If you have a large enterprise network, a single host system may not provide either the power or the space for OVPI to optimally monitor the network.

OVPI Components

The OVPI application comprises the following components:

- OVPI database schema
- OVPI Performance Manager
- Web Access Server

- OVPI clients
- Management Console
- Remote Poller

OVPI Database

The OVPI database is the primary repository for the data that is collected, processed, and reported on by the other OVPI applications. It configures the database server for OVPI and creates the OVPI schema. For Oracle, it allows tablespace creation or installs into existing tablespaces that have been set up for OVPI. For Sybase, it will create the database segments for OVPI. A Management Server is installed with this component.

Performance Manager

Performance Manager provides the engine for storing, processing, and accessing data collected from applications and network devices throughout your network. Data is automatically aggregated, summarized, and aged out by Performance Manager.

Performance Manager consists of a relational database and the server software. The database is the storage area that contains the data the OVPI server collects and processes. The size of the database depends on various factors, including the amount of data you want to store and the number of elements that you poll. The server contains the programs that collect, process, and report on data.

Performance Manager is available for one or more physical servers. One of the physical servers is the *central server*, which is the main location for the data and the OVPI system. Typically, the processing of the data occurs on this server, as does the reporting of the data. This system usually has a large amount of disk space, memory, and processing power. Typically, there is only one central server.

The other physical servers are *satellite servers*. These machines contain data and the OVPI system. Typically, only the first level of processing may occur on these servers before the transfer of the data to the central server. In some cases, you may transfer the data to the central server before processing it; however, this may be a very large amount of data to transfer. In other cases,

you may transfer the data to the central server after the processing cycle is complete. A large deployment of OVPI may consist of multiple satellite servers.

Web Access Server

The Web Access Server component is a service that controls the OVPI client's access to the OVPI database. The Web Access Server receives requests for data from the following OVPI client applications: Report Viewer, Report Builder, Management Console, and Web Access Server. The Web Access Server retrieves the appropriate data from the OVPI database and sends it back to the client.

It provides web based reporting and user administration utilities. The Web Access Server is installed as a service and the resulting Web Access Server also acts as a Management Server. The OVPI clients are automatically installed with this component.

OVPI Clients

The clients provide the interface to OVPI. You can install a client on any networked system. The OVPI client applications are as follows:

- Report Builder. Lets you build and customize reports with multiple tables and graphs based on data from the OVPI database. Refer to the *HP OpenView Performance Insight Guide to Building and Viewing Reports* for details.
- Report Viewer. Lets you interactively view, modify, save, and print reports. Refer to the *HP OpenView Performance Insight Guide to Building and Viewing Reports* for details.
- Web Access Server. This component contains a web-based application server, also called the Web Access Server. This application lets you view, schedule, generate, and deploy reports. It also lets you perform the administration tasks that pertain to the OVPI client applications and services. (For more information about supported Web browsers, see [Installation Prerequisites Checklist on page 23](#).) Refer to the *HP OpenView Performance Insight Guide to Building and Viewing Reports* and the *HP OpenView Performance Insight Administration Guide* for details about the Web Access Server application and the service.

- **Management Console.** Lets you perform administrative tasks using the following applications:
 - **Database Tuner.** Lets you set many database configuration parameters to improve overall data throughput.
 - **MIB Browser.** Lets you analyze, query, and troubleshoot Structure of Management Information (SMI)-compliant SNMP MIBs.
 - **SNMP Discovery.** Lets you find the nodes in your network and determine whether or not a node is SNMP manageable.
 - **Type Discovery.** Lets you determine the device type of a node.
 - **Package Manager.** Lets you install and uninstall packages and deploy and undeploy them from the Web Access Server.
 - **Object Manager.** Lets you view and change the managed objects on your system.
 - **System Manager.** Lets you add, modify, and delete database and Web Access Server systems.
 - **Group Manager.** Lets you create groups from the managed objects referenced by the polling policies for your enterprise.
 - **Polling Policy Manager.** Lets you manage polling policies, import and manage nodes, and manage polling groups.
 - **Table Manager.** Lets you monitor your database, view data and property tables, and set defaults for tables, both individual and global.

Management Server

The role of the Management Server is to provide management services and forms, which are deployed during report pack installation, to the Management Console application.

Remote Poller

A *remote poller* is a system that collects data from nodes in the network and then stores the data on a server running the OVPI database, which is usually a satellite server. Each OVPI database server may support multiple remote pollers.

System Tasks

The process of data collection, processing and reporting can be divided into several tasks. The role that any OVPI system has is defined by which tasks it must perform, with each task requiring a particular set of OVPI components.

These tasks are defined as follows:

- Data collection
- Raw data to rate data processing
- Rate data to hourly data summarization
- Hourly data to daily, monthly, forecasting summarization, or all
- Servicing report requests
- Viewing and building reports

System Roles

This section describes the following system role names in the context of explaining where each of the system tasks should occur: standalone, remote poller, satellite server, central server, and Web Access Server.

Standalone

A *standalone* system is one where all of the OVPI components are installed on a single system. The system is capable of gathering and processing data, producing reports that can be accessed from the Web server, and also running the Report Viewer and Report Builder applications. The standalone system performs all the tasks described in [System Tasks on page 14](#).

Remote Poller

A *remote poller* is a system that collects data but stores it elsewhere. It does not have a database; it does not perform any processing. The remote poller performs the data collection task described in [System Tasks on page 14](#).

Typically, the remote poller stores its data on the satellite server, but it is located close (in terms of network path) to the target/pollled devices. This reduces the distance that unreliable and bulky SNMP packets must travel.



The OVPI Administrator must ensure that duplicate polling is avoided when the remote pollers are configured. Duplicate polling occurs when the same device is polled by two or more pollers.

Satellite Server

A *satellite server* is a system where all components of OVPI are installed; however, it usually will not run processing routines on collected data beyond the hourly level. The partially aggregated data is then copied to the central server, where aggregation is completed. You may have one or more remote pollers reporting to a satellite system.

The satellite server typically performs the raw data to rate data processing and the rate data to hourly data summarization tasks.

In some cases, the satellite server may run as a complete standalone system performing full data aggregation and reporting, yet still copy raw, rate or partially aggregated data up to a central server. This allows regional reports to be displayed at each satellite server, while network-wide reporting is available on the central server.

Central Server

A *central server* is a system where all the components of OVPI are installed. It receives partially processed data from one or more satellites, and it will usually only process data from the hourly level through to completion. The central server performs daily, monthly, and forecasting summarization.

Web Access Server

The Web Access Server is a system that hosts the OVPI Web site. It is also used by OVPI clients to authenticate their users.



The Web Access Server often requires significant memory and CPU. HP recommends in all installations that you install the Web Access Server on a system that does not contain the other OVPI processes. This suggestion is not mandatory; however, it is highly recommended.

Understanding System Roles and Components

Table 1 shows which OVPI software components are typically installed for each system role.

Table 1 Typical Installation of the Software Components

System Role	Sybase or Oracle	OVPI Database	OVPI Performance Manager	Web Access Server	Clients	Remote Poller
Standalone	X	X	X	X	X	
Remote Poller						X
Satellite Server	X	X	X		X	
Central Server	X	X	X		X	
Web Access Server				X		

Preparing for Installation

This chapter discusses the preparations and requirements necessary for installing HP OpenView Performance Insight (OVPI).



This version of OVPI does not currently support upgrades; that is, the upgrade feature is disabled upon installation; however, HP will supply an upgrade patch that will enable the upgrade feature of OVPI 5.0. When this patch is available, you can obtain it and any related documentation from the following location:

http://support.openview.hp.com/cpe/ovpi/patch_ovpi.jsp

Specifically, it provides information about the following:

- OVPI installation configurations
- OVPI component and service name changes
- Supported operating systems, UNIX desktops, and database management systems
- Required Java operating system patches
- Required HP-UX patches for OVPI
- Default memory and storage requirements for all OVPI components
- *UNIX systems only*: Kernel reconfiguration for Sybase, raw partition setup commands, and Sybase device size limitations

- Starting the setup program



HP strongly recommends that you read the release notes that came with your kit before you proceed with the installation. Specifically, this document provides an overview of the changes made to OVPI for the version 5.0 release such as new and changed features.

OVPI Configurations

You can install OVPI in one of the following configurations:

- *Standalone* configuration

In a OVPI standalone configuration, all of the OVPI components are installed on one system. Users can view reports from any intranet or internet workstation that has access to the Web Access Server.

- *Distributed* configuration

In a OVPI distributed configuration, the OVPI components are installed on multiple physically separate systems and operate as a single, distributed system. Users can view reports from any intranet or internet workstation that has access to the Web Access Server.

Choose a distributed installation for performance improvements if one of the following conditions is true:

- You have a large network that is geographically spread out and you want various regions to have reporting exclusively for their areas.
- You have more objects to be processed than one server can handle—typically 20,000 objects for polling and summarization.

Reasons for Using a Distributed Configuration

There are various reasons for considering installing OVPI in a distributed manner. Beside the obvious sharing of processing load, there may be geographical, organizational, or functional reasons to consider. You can only determine the correct balance by examining the network that you want to monitor and the needs of your users.

Following is a list of questions that can help you determine the correct balance:

- How many managed elements are there?

Do I have enough processing power? The number of elements that OVPI needs to report on will have a direct effect on the number of systems required, perhaps ruling out the need for a distributed architecture completely, or requiring a minimum number of each type of system. See your OVPI representative for assistance with this matter.

- Where are the target devices?

How fast is my network management infrastructure? The geographical spread of the target devices has an effect on the need for remote pollers. If data collection is done using SNMP, as is most common, then installing remote poller systems close to the devices can reduce the distance traveled (in terms of network path) by the bulky and unreliable SNMP packets; this decreases polling cycle times and improves data collection performance.

- Will reports be required at the satellite servers?

Who are the users and what are their needs? If the network is large enough to warrant multiple satellite servers then you need to consider other factors. Will the satellites each have a subset of devices assigned to them that is relevant to some subset of your users?

For example, if a network is spread across several regions, then it may make sense to have one satellite per region. In this case, will users located in that region prefer to look at reports that are specific to their region?

They could see the same reports by accessing the central server; however, for some users it may make more sense to access the reporting system locally. In these situations, the satellites must perform the full data-processing cycle, and they must also have a Web Access Server installed. This will place a higher processing load on the satellite server, but it could possibly reduce network traffic between regionally located users and a central Web Access Server.

- Will Near Real Time reports be required at the central server?

Who are the users and what are their needs? Processing collected data to the hourly level at the satellite and then copying it to the central server is the most efficient configuration for data aggregation and transfer.

The benefit of this configuration is that it reduces both the processing load on the central server and network traffic between the satellite and the central. However, it reduces the granularity of the reports available at the central server. Some reports, such as the Near Real Time reports, rely on the most granular rate data for their display. In the absence of this data, the report will not operate correctly and must be removed from the system, reducing functionality.

A user who wants to view these reports has the following options:

- Transfer the rate data instead of the hourly data to the central server. This will reduce the processing load on the satellite server but will **greatly** increase the processing load on the central server. It will also increase the amount of network capacity used by the reporting system as it moves large quantities of polled data between satellites and the central system.
- Transfer the rate data **and** the hourly data to the central server. This will **greatly** increase the amount of network capacity used by the reporting system.
- Only transfer the hourly data to the central server, but switch on regional reporting on the satellite systems allowing Near Real Time reports to be available at each. This will increase the processing load of the satellites as they must now perform extra daily and monthly aggregations while also servicing report requests. It also means that the entire report pack is not available for the whole network from any one system; administrators must access regional servers for detailed reports of traffic in that region.

A Typical Distributed Configuration

OVPI is extremely flexible and configurable. As a guideline, the most common architecture for very large networks is to have multiple poller systems located close to their target devices (see [Figure 2 on page 22](#)). Each poller should communicate with its parent satellite system, which is most likely regionally based. Each device is polled by one poller, and the OVPI Administrator should ensure that duplicate polling of the same device does not occur.

Satellite systems process the data from the raw-pollled form through to the hourly summarization level. This is the most costly in terms of CPU cycles because it involves a very large number of data samples. Typically, satellite systems do not perform aggregations beyond the hourly level.

The satellite server is configured to copy the hourly-summarized data across the network to the central server and the central server combines it with that of other satellite servers. The central server runs the final processing routines and aggregates the data from the hourly granularity level through to daily, monthly or forecasting depending upon the reporting package.

A Web Access Server is installed on a separate system and is dedicated to servicing incoming report requests, using the database of the central server.

If this architecture does not suit your reporting needs, contact your HP sales representative.

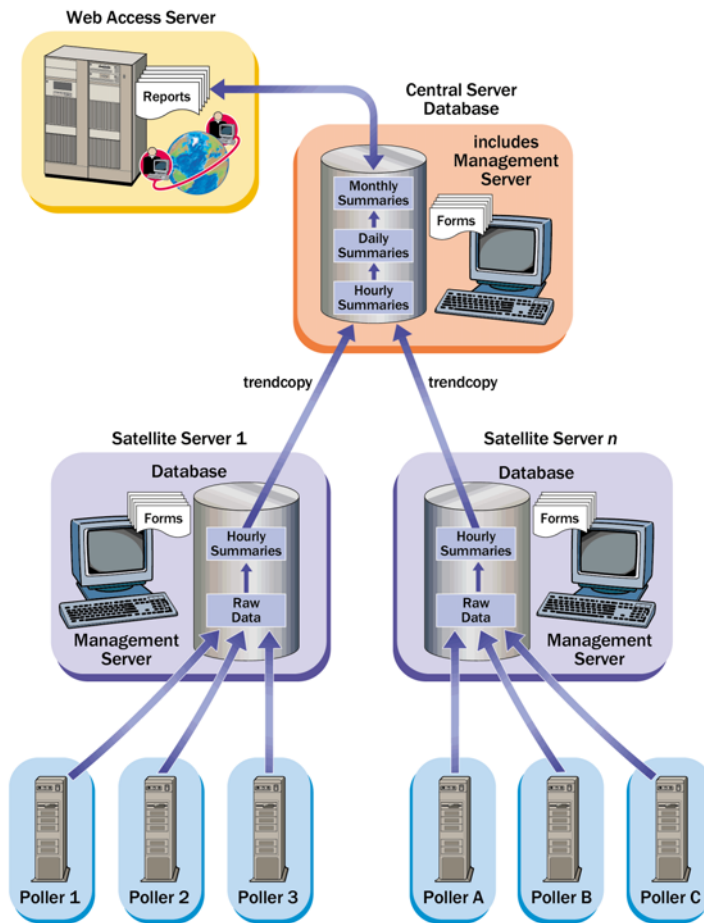


Figure 2 Common Distributed Architecture for SNMP Polling Systems

Issues to Consider Before Installation

You must make some changes to your report packs; these changes differ for each report pack. See the report pack's associated User Guide for details. The following sections describe some general issues that you should consider before you begin.

Polling and SNMP Connectivity

Any system that gathers data from the network requires connectivity through intermediate firewalls to reach the network devices. In situations where a satellite server is controlling pollers, you may need to create specialized polling policies to help divide the devices to be polled between pollers. For more information about creating polling policies, refer to the *Performance Insight Administration Guide*.

Reporting Client Connectivity

If users will need to view reports using a Web browser, then all users must have HTTP connectivity between their systems and the Web Access Server. If users will use the Report Viewer or Report Builder applications, then there must be connectivity between the client system and the Web Access Server system and the database server on the appropriate ports.

General Network Connectivity

You need to identify a range of ports to open to allow connectivity between all OVPI systems. See [Default Port Numbers on page 27](#) for details.

Installation Prerequisites Checklist

Use the checklist below to ensure that you have met all of the following OVPI installation prerequisites:

- 1 You have selected an installation method for OVPI.
See [OVPI Components on page 10](#) for details.
- 2 The system on which you will install OVPI has met the minimum installation requirements.
See [System Requirements on page 25](#) for details.
- 3 Your database is installed and is running before you begin the OVPI installation.
See [Chapter 3, Installing a Database](#) to learn more about installing a database.

4 *UNIX systems with Sybase only:*

- a** You have configured the kernel to support Sybase.

See [Reconfiguring Your Kernel for Sybase on page 37](#) for details.

- b** An installation environment (that is, a raw partition or a UNIX file system) has been selected for installing Sybase.

See [Comparing a Raw Partition to a UNIX File System on page 41](#) for details.

- c** *Windows systems running HP's proprietary memory management services only:* Disable the following services prior to installing OVPI:

- HpComponent
- HPEventLog
- HPFpcSvc
- HpLerSvc
- HPSdnSvc

- d** *Web Access Server only:* You must have one of the following Web browsers:

- Microsoft Internet Explorer 5.5 or later
- Netscape Navigator 6.0 or later



Your Web browser must have Java scripting enabled; otherwise, you will not be able to see the Navigation frame for the Web Access Server application.

To enable Java scripting, do one of the following depending on your Web browser:

— Internet Explorer

From the browser's Tools menu, select **Internet Options**. The Internet Options dialog box opens. Select the Security tab. Click **Internet** for the Web content zone, and then click **Custom Level**. The Security Settings dialog box opens. Scroll down the list of settings and locate the Scripting settings. Select **Enable** under Active scripting. Click **OK** in the Security Settings dialog box. Click **OK** in the Internet Options dialog box.

— Netscape Navigator

From the browser's Edit menu, select **Preferences**. The Preferences dialog box opens. Scroll to Advanced, and then click **Scripts & Plugins**. Select **Navigator** in the Enable JavaScript for box. Click **OK** in the Preferences dialog box.

System Requirements

This section contains the system requirements necessary for installing and running the OVPI software, including:

- Supported operating systems, UNIX desktops, and database management systems
- Default port numbers used
- Required Java operating system patches
- Required operating system patches
- Licensing
- Default memory and storage requirements for all OVPI components

General Considerations

OVPI is a CPU- and disk-intensive application. You should install it on a system that is dedicated to running OVPI exclusively.

Supported Operating and Database Management Systems

Table 2 shows the operating systems and the database management systems that OVPI supports. OVPI supports either Sybase Adaptive Server version 11.9.2.5 ESD 1 or Oracle 9.2.0.4. Table 2 also shows the OVPI components that are supported on each operating system.

Table 2 Supported Software Configurations

Operating Systems	Database Management Systems	OVPI Components
Solaris 8	Sybase and Oracle	All
Solaris 9	Oracle	All
HP-UX 11.11	Sybase and Oracle	All
Windows 2000 with Service Pack 4 and later	Sybase and Oracle	All
Windows 2003	Oracle	All
Windows XP	None	OVPI Clients only



OVPI supports minimal internationalization. You can install OVPI on any language version of the supported operating systems; however, OVPI will not be localized.

Supported Desktops for UNIX

OVPI supports the following UNIX desktop: CDE.



OVPI does not support OpenWindows.

Default Port Numbers

Figure 3 shows an example OVPI configuration and the default port numbers used by OVPI.

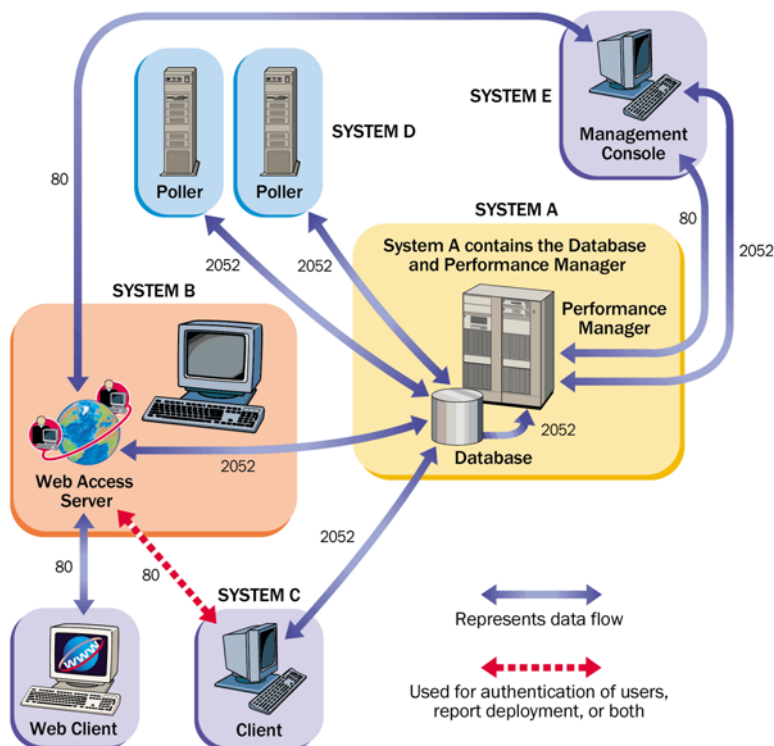


Figure 3 Default Port Numbers Used by OVPI

OVPI uses the following default port numbers for its components:

- OVPI database. The OVPI Database stores and processes raw and summarized data.
 - Sybase uses port 5000 (Windows) or port 2052 (UNIX).
 - Oracle uses port 1521 (Windows and UNIX).
- Web Access Server. The Web Access Server provides configuration information to Report Viewer and Report Builder, report viewing, scheduling, and administrative functions through a Web browser.
 - The Web Access Server uses port 80 when SSL is not enabled or port 443 when SSL is enabled.

This port is also used for remote OVPI administration through the Management Console.

If you are using the Web Access Server, you will also need to use the Management Server which also uses port 80 (the default). The Management Server is used by remote OVPI processes to gather information about the current system in order to configure it. It is primarily used by the Management Console but other OVPI applications use it also.



If you are using firewall software, you must open your OVPI ports in the firewall. Refer to your firewall documentation for instructions on opening the ports.

Required Java Operating System Patches

OVPI also includes Java 1.4.1_02. Java will automatically load onto your system during the installation, but it will most likely not run properly until you download the operating system patches required.



You must install all operating system patches before you install your database (Sybase or Oracle) or OVPI. For your convenience, the patches that were required and tested at the time this guide was printed are included; however, please contact your operating representative for the most recent list of patches required.

Viewing Installed Patches

This section describes how to view the patches already installed on your system and lists the patches required for each operating system.

Use *one* of the following commands to determine which patches have been installed on your system:

- *HP-UX*:

Type the following command:

```
/usr/sbin/swlist -l product | fgrep PH
```

- *Solaris*:

Type the following command:

```
showrev -p
```

- *Windows 2000*:

Do the following:

- a On the task bar, click the **Start** button, point to **Programs**, point to **Accessories**, and then choose **Windows Explorer**.
- b From the Windows Explorer **Help** menu, select **About Windows**.
- c Find the Service Pack number on the Version line. In the following example, *xxxx* is the build number and *n* is the service pack number.

Version 5.0 (Build *xxxx*: Service Pack *n*)

HP-UX Java Patch Requirements

To locate the latest Java patches for HP-UX, go to the following Web site address:

<http://www.hp.com/products1/unix/java/patches/index.html>



This URL is subject to change without notice.

Solaris Java Patch Requirements

To make sure that you have the latest Java patches for Solaris, go to the following Web site address and find the Solaris OS Patches section:

<http://java.sun.com/j2se/1.4/download.html>



This URL is subject to change without notice.

Windows Java Patch Requirements

There are no patches for Windows 2000 or Windows 2003.

Additional Patches Required for OVPI Components on HP-UX Systems

If you are going to install the Database Schema and Performance Manager components on an HP-UX system, you should install the HP-UX patches listed in [Table 3](#) before you install the components on the HP-UX system.

Table 3 HP-UX Patches Required by OVPI Components

Patch Number	Description
PHSS_14577	s700_800 11.00 HP aC++ runtime library components (A.03.10)
PHCO_29495	s700_800 11.11 libc cumulative patch
PHKL_27315	s700_800 11.11 Shared mutex hang; Shared synch perf support

Database Hardware Requirements

[Table 4](#) shows HP's minimum system recommendations based on database size.

The system load assumed in [Table 4](#) is defined by the number of managed objects OVPI is collecting and reporting on. A *managed object* is one instance of data (for example, one frame relay PVC or one router interface). A properly

sized single-server installation can support 20,000 managed objects with a polling cycle of 15 minutes. A distributed configuration typically may comprise a separate reporting server (Web Access Server), satellite servers, and a central server; the satellite server would do hourly roll-ups and transfers the hourly data to the central server. A properly sized satellite server can support 30,000 interfaces polling at 15-minute intervals, and a central server that is not separately collecting data can support four satellite servers without specific tuning.



For large systems, a second disk controller is recommended.

Table 4 System Recommendations by Database Size

Database Size^a	CPU	Sybase Minimum^b and Recommended Memory	Oracle Minimum and Recommended Memory	Drives 10 KB RPM or higher^c	Drive Usage
2 GB	1	1 GB/2 GB	2 GB/4 GB	4	1 for OS and swap 1 for temporary database 1 for log file 1 for database
5 GB	1	1 GB/2 GB	2 GB/4 GB	4	1 for OS and swap 1 for temporary database 1 for log file 1 for database
10 GB	2	1 GB/4 GB	2 GB/8 GB	6	1 for OS and swap 1 for temporary database 1 for log file 3 for database with RAID 0

Table 4 System Recommendations by Database Size (cont'd)

Database Size^a	CPU	Sybase Minimum^b and Recommended Memory	Oracle Minimum and Recommended Memory	Drives 10 KB RPM or higher^c	Drive Usage
20 GB	2	1 GB/4 GB	2 GB/8 GB	6	1 for OS and swap 1 for temporary database 1 for log file 3 for database with RAID 0
40 GB	4	1 GB/4 GB	4 GB/16 GB	8	1 for OS and swap 1 for temporary database 1 for log file 5 for database with RAID 0
80 GB	4	1 GB/4 GB	4 GB/16 GB	8	1 for OS and swap 1 for temporary database 1 for log file 5 for database with RAID 0

- a. You must have enough database disk space for twice the amount of data that you expect to store. The listed number of drives is the minimum number for acceptable performance and is based on the assumption that each drive is 36 GB. If you are running four or more report packs simultaneously, HP recommends that you install the Web Access Server on a separate system.
- b. Minimum memory for both Sybase and Oracle means that you will be able to install OVPI and run with a limited number of objects; performance may be unacceptable under load.
- c. This does not include mirror drives if used.

Default Memory and Storage Requirements

This section provides the default memory and storage requirements for installing Sybase and OVPI, including all of their components on the supported operating systems.

It is not required that you install all of the components onto the same UNIX file system or Windows partition; however, it is required that when you install a specific component that its default space is from one system.



See the *Performance Insight Administration Guide* for instructions to increase the size of the Oracle or Sybase database after OVPI is installed.

Sybase Minimum Storage Requirements

Table 5 lists the minimum storage requirements for Sybase.

Table 5 Sybase Minimum Storage Requirements

Component	HP-UX	Solaris	Windows
Executables	367 MB	358 MB	99 MB
Master Database	50 MB	50 MB	30 MB
Stored Procedures Database	60 MB	60 MB	60 MB
Installation Total	477 MB	468 MB	189 MB

Sybase Database Memory Configurations

When determining the amount of memory Sybase requires to run, use a scaled algorithm that is based on the system total memory.

Table 6 shows a scaled algorithm for running Sybase that is based on the system total memory.

Table 6 Sybase Database Memory Configurations

If the physical memory for your system is...	Sybase will require... ^a
256 MB or less	50% physical memory
257 MB or greater	60% physical memory

- a. On HP-UX systems, the total database memory will not exceed 1GB due to the limitations of the operating system.

OVPI Database Minimum Storage Requirements

Database size is to be determined according to the number of devices polled, the amount of data objects collected and the length of time the data will be stored.

Sybase

Table 7 lists the minimum storage requirements for the OVPI database using Sybase.

Table 7 OVPI Database Minimum Storage Requirements for Sybase

Component	HP-UX	Solaris	Windows
Main Database	800 MB	800 MB	800 MB
Temporary Database ^a	400 MB	400 MB	400 MB
Log Database ^b	400 MB	400 MB	400 MB
Installation Total^c	1600 MB	1600 MB	1600 MB

- a. The default amount for the Temporary Database is set to 50% of the Main Database. You can modify this value during the installation.
- b. The default amount for the Log Database is set to 50% of the Main Database. You can modify this value during the installation.
- c. The OVPI Database installation total value is based on the actual percentage value chosen; therefore; it is subject to change.

Oracle

The OVPI Database Minimum Storage Requirements for Oracle are 800MB for the main database on all platforms (HP-UX, Solaris, and Windows).

OVPI Storage Requirements

Table 8 lists the minimum storage requirements for OVPI.

Table 8 OVPI Minimum Storage Requirements

Component	HP-UX	Solaris	Windows
OVPI Database Schema ^a	600 MB	500 MB	400 MB
Performance Manager	425 MB	330 MB	365 MB
Web Access Server	255 MB	190 MB	165 MB
Client Applications	180 MB	105 MB	90 MB
Remote Poller	265 MB	200 MB	130 MB
Full (standalone) Install ^{bc}	900 MB	900 MB	1300 MB

- a. Assume an additional 800MB for Oracle and an additional 1600MB for Sybase.
- b. Assume an additional 800MB for Oracle and an additional 1600MB for Sybase.
- c. These are the storage requirements if you install all the components on a single system.

Sybase Device Size Limits

This section provides the device size limits for Sybase Adaptive Server 11.9.2.5 when supporting devices greater than 2 gigabytes (GB) in size and explains why some operating systems are limited to 2 GB.

Using a seek utility, Sybase is able to locate and support the largest device size allowable by the host system.

[Table 9](#) lists the maximum device size and how it varies by operating system.

Table 9 Maximum Device Size Supported

Operating System	Sybase Version	
	11.9.2.5 File	11.9.2.5 Raw
HP-UX	32 GB	32 GB
Solaris	2 GB	32 GB
Windows	4 GB	N/A

Addressable Memory Limits

[Table 10](#) lists addressable memory limits by operating system for Sybase Adaptive Server 11.9.2.5 and Oracle 9.2.0.4.

Table 10 Addressable Memory Limits

Operating System	Sybase
HP-UX	1 GB
Solaris	4 GB
Windows	2 GB

UNIX-Specific Requirements

If you are installing OVPI on a UNIX system, make sure that you meet all the requirements specified in this section.



Make sure that you have also met all the requirements discussed in [System Requirements on page 25](#).

On a UNIX system, you must do the following:

- Reconfigure your kernel before you install Sybase.

- Determine whether you want to install the OVPI database on a UNIX file system or on a raw partition, and then set up the raw partitions before you install the OVPI database.

Reconfiguring Your Kernel for Sybase

You must install Sybase Adaptive Server on the system that will operate as the OVPI Server.



On a UNIX system, you must reconfigure your kernel and reboot the system before you can install Sybase.

If Sybase is already installed on your system, you can begin to install OVPI. See [Chapter 4, Installing OVPI on Sybase](#) or [Chapter 6, Installing OVPI in a Distributed Configuration](#) for details.

Reconfiguring Your Kernel on HP-UX

You must reconfigure your kernel before you install Sybase. After you reconfigure your kernel, you can install Sybase and then OVPI. To reconfigure the kernel on an HP-UX system, you can use the System Administration Manager (SAM) utility or the command-line interface.

Using the SAM Utility

To reconfigure your kernel using the SAM utility:

- 1 Log on as `root`.
- 2 Invoke the SAM utility (typically from the `/usr/sbin` directory). The System Administration Manager window opens.
- 3 Double-click the **Kernel Configuration** icon. The SAM Areas: Kernel Configuration area appears in the System Administration Manager window.
- 4 Double-click the **Configurable Parameters** icon. The Kernel Configuration window opens.
- 5 Select **max_thread_proc** from the list of configurable parameters. The `max_thread_proc` entry is highlighted.

- 6 From the Action menu, select **Modify Configurable Parameter**. The Modify Configurable Parameter window opens.
- 7 Select **Specify New Formula/Value**, and then enter the following value in the Formula/Value box:

1024



If you are unable to set `max_thread_proc` to 1024, you may need to adjust other dependent kernel parameters (such as, but not limited to, `maxusers`) in order to set `max_thread_proc` to its recommended value.

- 8 Click **OK** to close the Modify Configurable Parameter window. The Kernel Configuration window opens.
 - 9 Select **maxusers** from the list of configurable parameters. The `maxusers` entry is highlighted.
 - 10 From the Action menu, select **Modify Configurable Parameter**. The Modify Configurable Parameter window opens.
 - 11 Select **Specify New Formula/Value**, and then enter the following value in the Formula/Value box:
- 124**
- 12 Click **OK** to close the Modify Configurable Parameter window. The Kernel Configuration window opens.
 - 13 Select **shmmax** from the list of configurable parameters. The `shmmax` entry is highlighted.
 - 14 From the Action menu, select **Modify Configurable Parameter**. The Modify Configurable Parameter window opens.
 - 15 Select **Specify New Formula/Value**, and then enter the following value in the Formula/Value box:

1073741824

This defines the maximum amount of your system's RAM that can be dedicated to Sybase. The value you entered (1073741824) is the total number of bytes in 1 gigabyte (GB). You can adjust this to a maximum of 2147483648 (2 GB) depending on your HP-UX patch installation. (For more information, contact Hewlett Packard's Technical Support.)

- 16 Click **OK** to close the Modify Configurable Parameter window. The Kernel Configuration window opens.



You must enable asynchronous disk I/O, whether or not you intend to use it. The steps that follow describe how to do this.

- 17 From the SAM Kernel Configuration menu, select **Drivers**.
- 18 Select **asyncdsk** from the list of drivers. The asyncdisk driver is highlighted.
- 19 From the Action menu, choose **Add Driver to Kernel**.
The pending state for asyncdsk should be set to **In**.
- 20 From the Action menu, choose **Process New Kernel**, and then reboot the system.
- 21 Click **Yes** to rebuild the kernel.
- 22 Because the user ID of the user booting Adaptive Server and Backup Server must be the owner of the /dev/async device file, type the following commands as `root` at the UNIX command prompt:


```
/etc/mknod /dev/async c 101 4
chmod 0660 /dev/async
```
- 23 Continue with the installation process by installing Sybase.
- 24 After you successfully install Sybase, type the following command at the command line:


```
chown sybase /dev/async
```
- 25 Continue with the installation process by installing OVPI.

Using the Command Line

To reconfigure your kernel using the command line:

- 1 Log on as `root` and type the following commands at the UNIX command prompt:

```
cd /stand/build
/usr/sbin/sysadm/system_prep -v -s system
```

This command extracts the system file from the running kernel.

- 2 Edit the “Tunable Parameters” section of the system file by adding or modifying these parameters: `shmmax`, `maxusers`, and `max_thread_proc`. For example, you might use the following settings for these parameters:

```
shmmax 1073741824
maxusers 124
max_thread_proc 1024
```



HP strongly recommends that you enable asynchronous disk I/O, whether or not you intend to use it. If you install the OVPI database on a raw partition, the database engine can use async I/O. Use the following steps to enable async I/O.

- 3 Find the “Drivers/Subsystems” section of the file. Add the following line:

```
asyncdsk
```

- 4 Build a system kernel in the current directory using the following command:

```
/usr/sbin/mk_kernel -s system
```

- 5 Enter the following command sequence to complete the process:

```
mv /stand/system /stand/system.prev
mv /stand/vmunix /stand/vmunix.prev
mv /stand/build/system /stand/system
mv /stand/build/vmunix_test /stand/vmunix
```

- 6 Reboot your system.

Reconfiguring Your Kernel on Solaris

You must reconfigure your kernel before you install Sybase. After you reconfigure your kernel, you can install Sybase and then OVPI. To reconfigure the kernel on a Solaris system, modify your `/etc/system` file.

To reconfigure your kernel:

- 1 Edit the `/etc/system` file.
- 2 Modify the following command to reflect the total number of bytes (`nnnnnnnnnn`) that will be allocated to Sybase:

```
set shmsys:shminfo_shmmax=nnnnnnnnnn
```

See [Table 6](#) for information about how much memory you need to allocate for Sybase.

For Solaris 8, you can specify up to 4294967295 (4 GB) whether or not you physically have this amount of memory available.

One gigabyte equals 1024^3 ; therefore, the total number of bytes is calculated as follows: *Number of gigabytes* $\times 1024^3$. For example, the calculation for 4 GB would be as follows: $4 \times 1024^3 = 4294967295$.



The total number of bytes must meet or exceed the requirements listed in [Table 6](#).

- 3 Modify the maxusers parameter if you want. By default, this parameter is set to the number of megabytes of physical memory or 1024, whichever is lower. You cannot set it higher than 2048.
- 4 Reboot your system.

Installing the OVPI Database

This section describes the differences between installing the OVPI database (Sybase in this case) on a raw partition or a UNIX file system. (S0 and Veritas raw partitions are supported.)

If you want to install the OVPI database on a raw partition, see [Setting Up Raw Partitions on page 43](#) for details before you install OVPI. If you want to install the OVPI database on a UNIX file system, see [Installing Sybase on page 65](#) for details. When you install OVPI, Sybase is installed on a UNIX file system by default.

Comparing a Raw Partition to a UNIX File System

A *raw partition* on a UNIX system is a part of the disk where no file system has been created. Even though the Sybase Adaptive Server can use UNIX files for database devices, Sybase recommends using raw partitions instead.

Most UNIX systems use a buffer cache for disk I/O. Writes to disk are stored in the buffer and may not be written to disk immediately. If the Sybase Adaptive Server completes a transaction and sends the result to a UNIX file,

the transaction is considered complete, even though the UNIX buffer cache may not have been written to disk. If the system crashes before this buffer cache is written, you lose data. In this situation, the Sybase Adaptive Server has no way of knowing that the write to disk eventually failed, and the transaction is not rolled back. In addition, some UNIX operating systems do partial writes. In that case, if the system crashes, the Sybase device is corrupted.

Using raw partitions for Sybase devices allows the Sybase Adaptive Server to process its own I/O requests, without having to go through the UNIX buffering scheme. Using this method, Sybase Adaptive Server knows exactly what portions of a transaction completed or failed in the event of a system crash.

Using a Raw Partition

If you use a raw partition, the effect is to partition or isolate your database from any other information that may be stored on that server. Such partitioning has important performance implications.

Advantages

All of the stored data resides in a single location. This can increase database efficiency and processing speed. In addition, in the event of a system crash, a partitioned database can be somewhat easier to recover. It is also much more difficult for an outside influence to interfere with the database.

Disadvantages

Some OVPI users find that the performance advantages of installing Sybase on a raw partition are not significant for their systems. The installation process is more involved, and may be unnecessary. In addition, installing Sybase on a raw partition requires more of your server's available disk space. Moreover, you cannot use standard UNIX backup utilities to back up a raw partition. You must use Sybase's backup and archive utilities to make a copy of the database.

Using the UNIX File System

If you use the UNIX file system, your database may be surrounded by and interspersed with other applications. Again, this has both advantages and disadvantages.

Advantages

Installing Sybase on the UNIX file system is a simpler process that you accomplish as part of the OVPI installation. Sybase can still operate at 80%+ of peak efficiency. Some database administration tasks are also easier to perform. Since Sybase installation automatically reserves disk space for its own use, there is often no need to create a physical partition.

Disadvantages

If you install Sybase on the UNIX file system, Sybase components on your hard disk are dispersed. This means that Sybase will sometimes need to search several different locations on the disk to find the information it needs. This can slow down Sybase processing somewhat. Since Sybase is not physically isolated from other applications, it is marginally more susceptible to outside influences.

In the final analysis, HP cannot make a blanket recommendation on how you should install Sybase. This issue needs to be decided on a case-by-case basis, preferably in consultation with an HP systems engineer.

Setting Up Raw Partitions

You must set up the raw partitions needed before you install the OVPI database, the transaction log, and tempdb (if you decide to install tempdb on a raw partition).

Sybase executables, libraries, installation, and configuration files reside on a file system. The OVPI executables, reports, demo database, and documentation also reside on a file system.

You can set up as many raw partitions as necessary to accommodate the size of your OVPI database, transaction log, and tempdb.

Suggested guidelines for setting up the database are as follows:

- Place tempdb on a raw partition or on a file system. HP recommends that you place tempdb on a file system. The size of tempdb should be 50% of the size of the OVPI database.
- Place the OVPI database on either a raw partition or file system.

- Place the transaction log the same way you place the OVPI database; that is, place it on either a raw partition or on a file system. If you place the transaction log on a raw partition, place it on a different disk spindle from the OVPI database. The size of the transaction log should be 50% of the size of the OVPI database.



Do not install any Sybase database components on a raw partition that contains the partition map. Typically, this is found on the first sector of the first cylinder.

Setting Up a Raw Partition on Solaris

This section contains the procedure you need to set up a raw partition on Solaris using the command-line interface.

In the procedure, partitions `c0t3d0s3` and `c0t3d0s4` could represent the following:

- `c0t3d0s3`—OVPI Database (10 GB)
- `c0t3d0s4`—tempdb (5 GB)

You can repeat this procedure, as needed, substituting partition name and size for the raw partitions which you could be using to comprise either the OVPI database, the transaction log, or tempdb (if you are placing tempdb on a raw partition).

To create raw partitions:

- 1 At the command prompt, type the following:
format
- 2 Select the number of the disk on which the raw partition will be created. A list of options appears.
- 3 Type the following command:
partition
A list of options appears.
- 4 Type the following command:
print
A table of the slices on the selected disk appears.
- 5 Select the number of an available slice.

- 6 Enter a valid tag (for example, **home**) when prompted.
- 7 Keep the default permissions (**wm**).
- 8 Enter the starting cylinder by adding 1 to the highest ending cylinder other than backup.
- 9 Enter the partition size (for example, **20g** for 20 GB; **35m** for 35 MB).
- 10 Repeat [Step 4](#) through [Step 9](#) for each partition that you want to create on this disk.
- 11 After the last partition is assigned, type the following command:
label
- 12 Type **y**. at the prompt.
- 13 Type **quit** at the prompt.
- 14 Type the following command:
label
- 15 Type **y**. at the prompt.
- 16 Type **quit** at the prompt.
- 17 Repeat [Step 1](#) through [Step 16](#) to create a raw partition on another disk.



You must also change the character block. The steps that follow describe how to do this.

- 18 To change the group ID:

```
chgrp sybase /dev/dsk/c0t3d0s3
chgrp sybase /dev/rdsk/c0t3d0s3
chgrp -h sybase /dev/dsk/c0t3d0s3
chgrp -h sybase /dev/rdsk/c0t3d0s3
chgrp sybase /dev/dsk/c0t3d0s4
chgrp sybase /dev/rdsk/c0t3d0s4
chgrp -h sybase /dev/dsk/c0t3d0s4
chgrp -h sybase /dev/rdsk/c0t3d0s4
```

Setting Up a Raw Partition on HP-UX

This section contains the procedure you need to set up raw partitions on HP-UX using Application Manager and the command-line interface.

In the procedure, lv01 and lv02 could represent the following:

- lv01—OVPI Database (10 GB)
- lv02—tempdb (5 GB)

You can repeat this procedure, as needed, substituting partition name and size for the raw partitions which you could be using to comprise either the OVPI database, the transaction log, or tempdb (if you are placing tempdb on a raw partition).

Using SAM



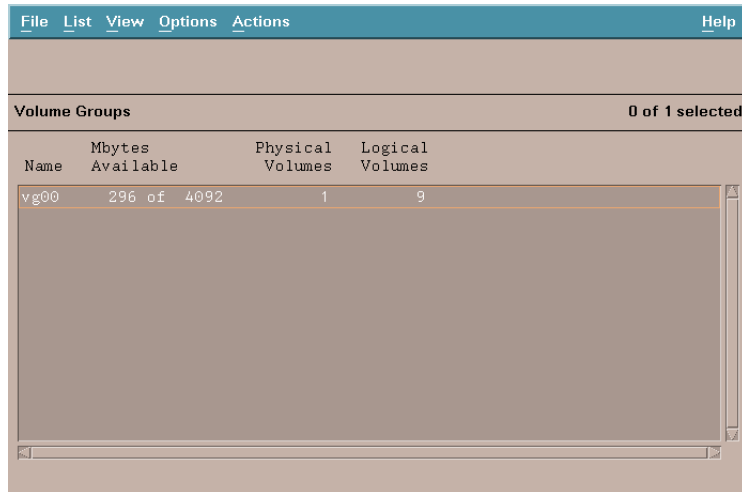
The interface shown in the following procedure will differ slightly, depending on the version of HP-UX that you are using.

To set up a raw partition:

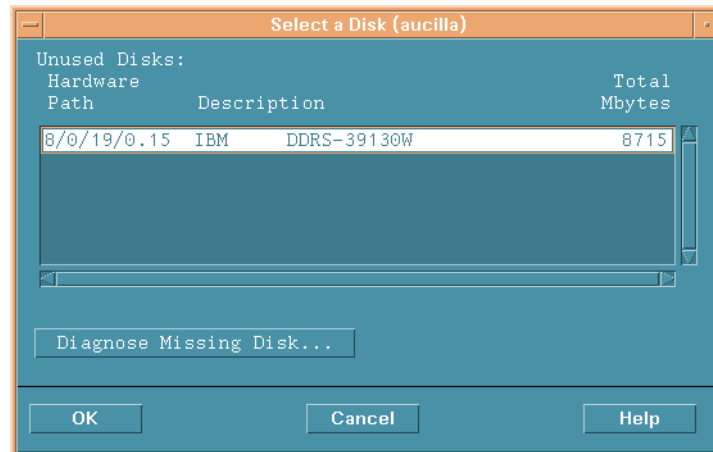
- 1 Log on as `root`.
- 2 Invoke the SAM utility (typically from the `/usr/sbin` directory). The System Administration Manager window opens.
- 3 Double-click the **Disks and File Systems** icon. The Disk and File Systems dialog box opens.
- 4 Do *one* of the following:
 - If you do *not* need to create a volume group, do the following:
 - a Double-click the **Logical Volume** icon.
 - b From the Actions menu, select **Create**. The Create New Logical Volumes window opens.
 - c Click **Select Volume Group**.
 - d From the pop-up box, select the volume group.
 - e Click **OK**.
 - f Click **Define New Logical Volume(s)**.
 - To create a Volume Group, do the following:

- a** Double-click the **Volume Groups** icon.

The **Scanning the Hardware** message appears in the **Disks and File Systems** dialog box, and then the following window opens. (In this example, an existing volume group is listed.)

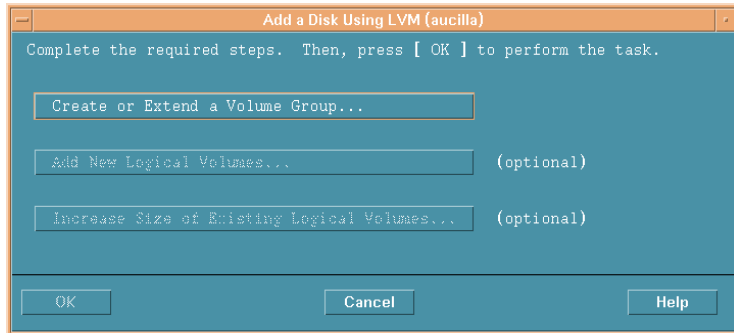


- b** Select **Actions, Create**, or **Extend**. The **Select a Disk** dialog box opens.

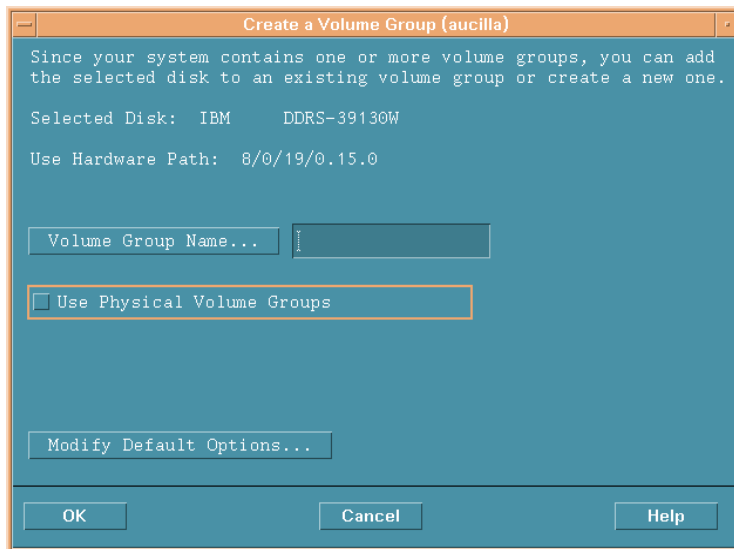


This window identifies the disk's hardware path, the disk's location on the SCSI chain, and total disk capacity in MB.

- Click **OK**. The Add a Disk using LVM dialog box opens. (LVM is the acronym for Logical Volume Manager).

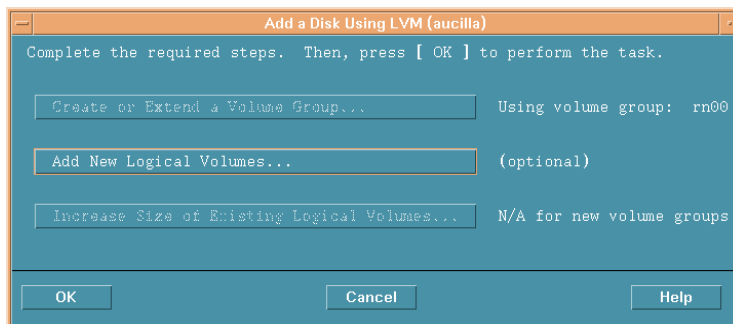


- Click **Create or Extend a Volume Group**. The Create a Volume Group dialog box opens.



- Type the name of the volume group in the Volume Group Name box (in this example rn00).

- Click **OK**. The Add a Disk Using LVM dialog box opens.



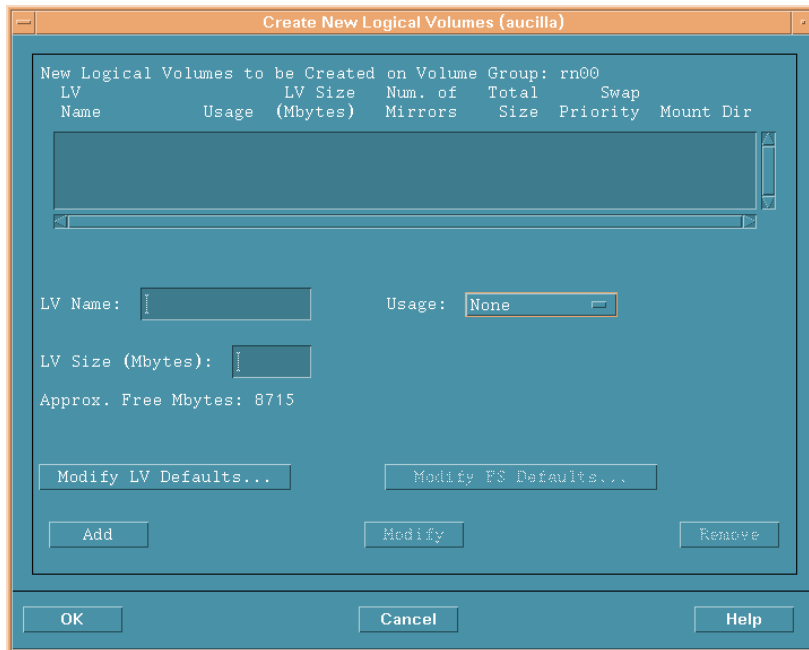
- Select the **Add New Logical Volumes** button.

➤ Do not click the **OK** button during this procedure; this will start the physical volume creation task, which is an unrelated procedure.

The Create New Logical Volumes dialog box opens.

- 5 In the LV Name box, type the name of the logical volume (**lv01** in this example).
 - 6 In the LV Size (Mbytes) box, type the size of the logical volume (**10240** in this example).
- The physical extent size for the volume group must be a multiple of 4. If you enter a value in the LV Size (Mbytes) box that is not a multiple of 4, a message appears to notify you that the system will round the value up to the nearest multiple of 4. Click **OK** to dismiss the message and continue.

7 Select **None** from the Usage list.

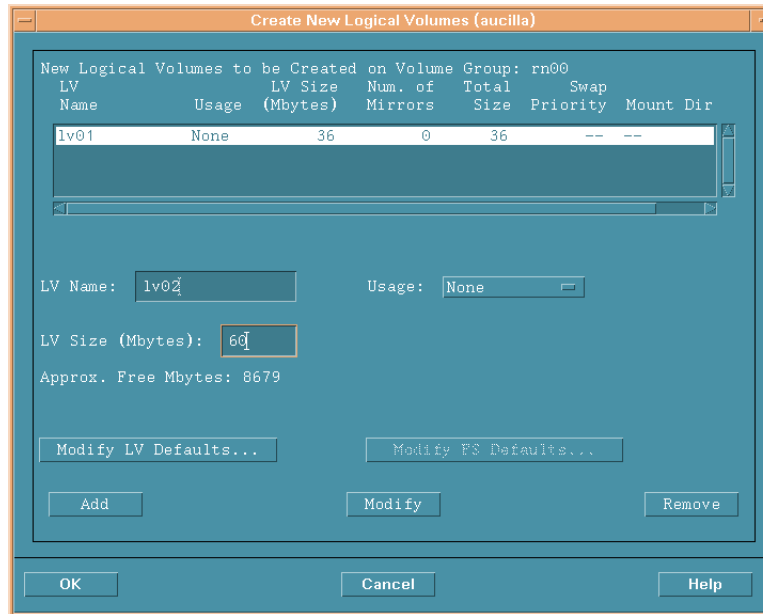


8 Click **Add**. The parameters appear in the dialog box.

The Create New Logical Volumes dialog box reopens with the newly created logical volume listed.

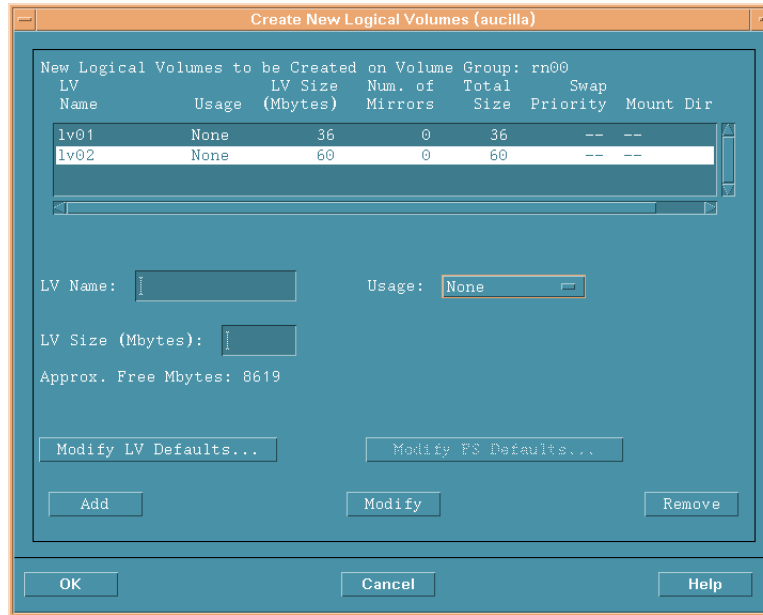
9 In the LV Name box, type the name of the logical volume (**lv02** in this example).

- 10 In the LV Size (Mbytes) box, type the size of the logical volume (**5120** in this example). The Create New Logical Volumes dialog box will appear as follows:



- 11 Ensure that the Usage box is set to **None**, and then click **Add**.

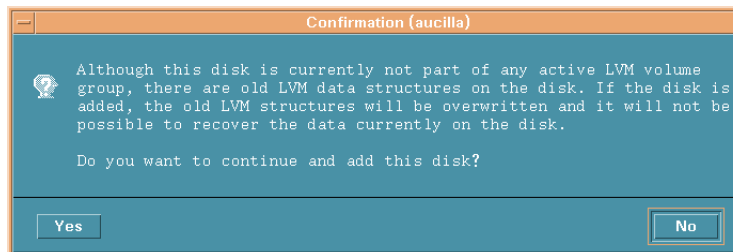
The two logical volumes that were created in this procedure are listed.



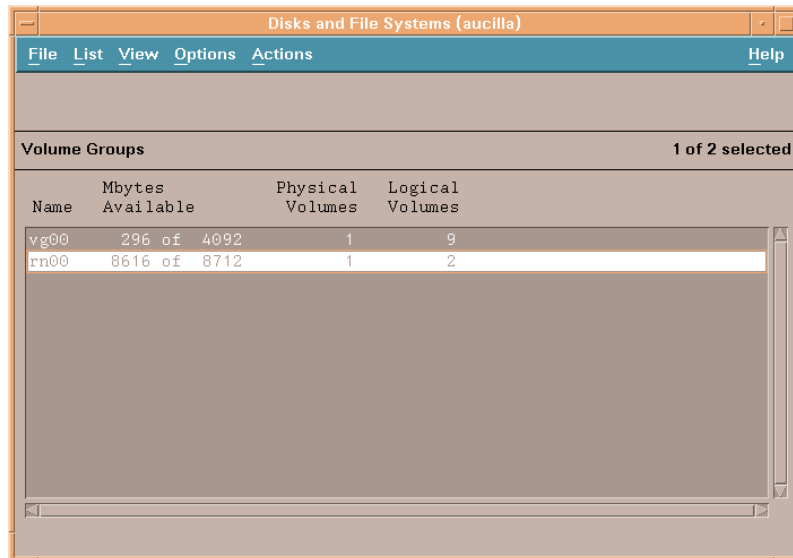
- 12** Repeat [Step 9](#) through [Step 11](#) for each raw partition. Adjust the name and size for each partition.

All of the logical volumes you create during the actual procedure will be listed.

- 13** Click **OK**. The Add a Disk Using LVM dialog box reopens.
- 14** Click **OK** to add the additional logical volumes.
- 15** If the following confirmation dialog box opens, click **Yes** to continue the creation of the new logical volume process.



The Disks and File Systems dialog box opens. The newly created logical volumes are listed.



Using the Command Line

Instructions for setting up raw partitions on an HP-UX system, using the command line interface are as follows:

- 1 Before creating a logical volume, run the following command to determine the disks attached to the system and their device file names:

```
ioscan -f -n
```

- 2 Initialize each disk as an LVM disk by using the `pvcreate` command. For example, enter:

```
pvcreate /dev/rdisk/c0t15d0
```



Using the `pvcreate` command results in the loss of all data currently on the physical volume, and you use the character device file for the disk. Once a disk is initialized, it is called a physical volume.

- 3 Create a directory for the volume group. For example:

```
mkdir /dev/rn00
```

- 4 Create a device file named `group` in the above directory using the **mknod** command. The basic syntax is:

```
mknod /dev/rn00/group c 64 0x010000
```

The `c` following the device file name specifies that `group` is a character device file. The `64` is the major number for the group device file; it will always be `64`. The `0x010000` (`0x020000`, etc.) is the major number for the group file in hexadecimal. Note that each particular `01`, `02`, etc. must be a unique number across all volume groups.

Use the **pvdisk** command to get information about your drive. For example:

```
pvdisk /dev/dsk/c0t15d0
```

- 5 Create the volume group specifying each physical volume to be included using the **vgcreate** command. For example:

```
vgcreate /dev/rn00 /dev/dsk/c0t15d0
```

The following messages appear as a result of this command:

```
Increased the number of physical extents per physical volume to
2178
```

```
Volume group "dev/rn00" has been successfully created
```

- 6 Once you have created the volume group, create a logical volume using the **lvcreate** command. For example:

```
lvcreate /dev/rn00
```

When LVM creates the logical volume, it creates the block and character device files and places them in the directory `/dev/rn00/lvol1`.

The following message appears as a result of this command:

```
/dev/rn00/lvol1 has been successfully created with character
device "/dev/rn00/rlvol1".
```

- 7 Repeat [Step 2](#) through [Step 6](#) for each raw partition to be created.
- 8 The following commands illustrate how to allocate (extend) disk capacity for the specific `lvol`.

For the OVPI database:

```
lvextend -L 36 /dev/rn00/lvol1
```

For the Temporary Database:

```
lvextend -L 60 /dev/rn00/lvol2
```



Repeat the procedure, as needed, substituting partition name and size for the raw partitions which you could be using to comprise either the OVPI database, the transaction log, or tempdb (if you are placing tempdb on a raw partition).

Starting the Setup Program

The OVPI setup program runs the installation wizard, which contains options for installing Sybase, OVPI's components, and Remote Poller and upgrading OVPI and the Remote Poller. This section describes how to start the setup program on both Windows and UNIX operating systems.

To start the setup program:

- 1 Log on to the local system.
 - *Windows:*
Log on as a user with administrative privileges.
 - *UNIX:*
Log on as `root`.
- 2 Insert the CD in the CD-ROM drive. If you are a UNIX user, you must also mount the CD.

Table 11 provides instructions for mounting the CD on each of the UNIX platforms:

Table 11 Mounting the OVPI CD on UNIX

Operating System	Command
Sun Solaris	<p>The CD should mount automatically when you insert it in the CD-ROM drive. If the CD-ROM mounts automatically, the File Manager window opens. If not, as root, type the following:</p> <pre>mkdir /cdrom mount -r /dev/dsk/cd_devicename /cdrom</pre> <p>In this instance, <i>cd_devicename</i> is the name of the CD-ROM device.</p>
HP-UX	<p>You can use the SAM utility to mount the CD-ROM, or you can type the following commands:</p> <pre>mkdir /cdrom mount /dev/dsk/cd_devicename /cdrom</pre> <p>In this instance, <i>cd_devicename</i> is the name of the CD-ROM device.</p>

3 *Solaris systems only:* Do the following:

a To display the **cd_label**, type the following command:

```
ls -l /cdrom
```

b To change directory, type the following command:

```
cd /cdrom/cd_label
```

In this instance, ***cd_label*** identifies the CD name.

- 4 Do one of the following to start the setup program:

— *Windows:*

From the top level folder on the CD, double-click `setup.exe`.

The Setup window opens.

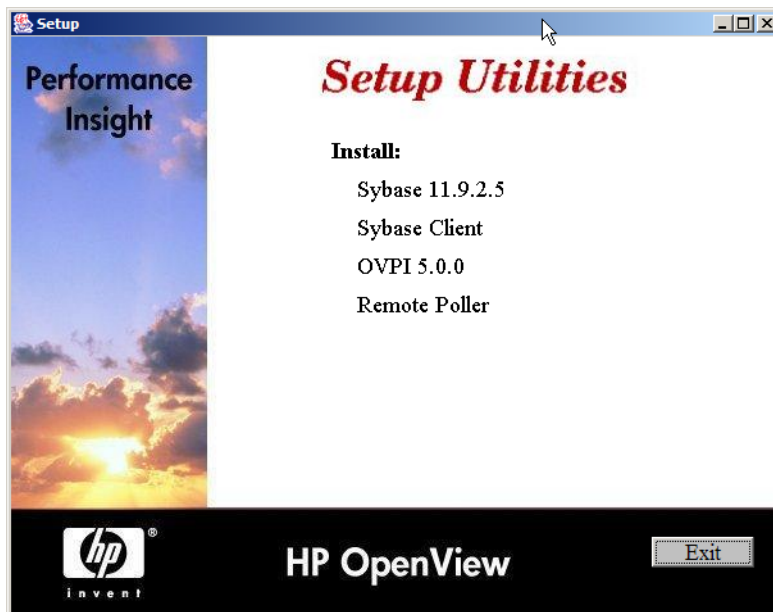


Figure 4 Setup Window for Windows

► If the wizard windows display incorrectly on a Windows system, see [Troubleshooting on page 203](#).

— *UNIX:*

Locate the setup program, and start it by typing the following command:

`./setup`

The Setup window opens.

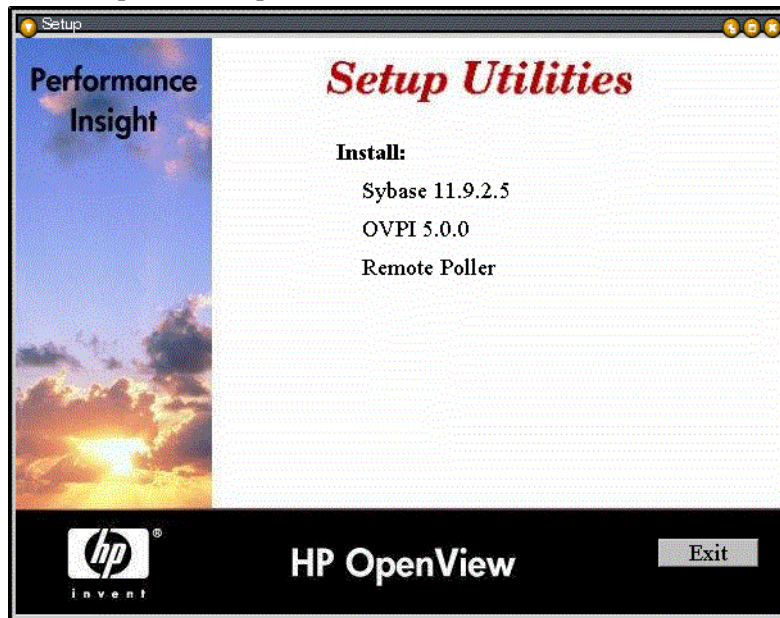


Figure 5 Setup Window for UNIX

Installing a Database

The data that HP OpenView Performance Insight (OVPI) collects is stored in a database. OVPI supports the following databases:

- Sybase Adaptive Server 11.9.2.5 ESD 1

Sybase is OVPI's embedded database; the Sybase software is provided on the OVPI product CD-ROM. See [Installing Sybase on page 65](#) for more specific information.

- Oracle 9.2.0.4

For OVPI 5.0, Oracle is a supported database; however, it is not a bundled database like Sybase. See [Installing Oracle on page 60](#) for more specific information.



The OVPI installation program installs on both databases with default configurations, sizing, and so on. To optimize the installation of OVPI for your particular environment, you may want to consult with a database administrator.

For the list of operating systems that each database supports, see [Supported Operating and Database Management Systems on page 26](#).



You must install a database (Sybase or Oracle) and have it running on your system *before* you install OVPI.

Installing Oracle



This guide does not explain how to install and tune Oracle. For your convenience, the OVPI installation program does provide defaults for Oracle tuning parameters and tablespace creation. Before you install OVPI, you may want to have your Oracle database administrator design and set up the Oracle database, including the creation of the tablespaces needed by OVPI.

To use OVPI with an Oracle database, do the following:

- Purchase and install Oracle.
OVPI only supports Oracle Enterprise Edition 9.2.0.4 with Partitioning. Partitioning, as of this writing, is a separately purchased option from Oracle.
- Start the Oracle installation program and install it according to the Oracle documentation, making the following selections when the appropriate window is displayed:
 - Installation Types window
Select the **Enterprise Edition** option.
 - Database Configuration Assistant Step 5 of 7 window
Do the following:
 - Select the **Typical** option.
 - Select the Character Sets tab, and make sure you select the AL32UTF8 character set to support wide character data storage (for example, for Japanese).
- Before you install OVPI, make sure that the instance for the Oracle listener program created for OVPI is running.

Using Existing Tablespaces

During the OVPI installation, the installation wizard will display the Database Selection window ([Figure 5 on page 86](#)), which asks you whether you want to create new tablespaces on Oracle or use the existing tablespaces on Oracle.



It is recommended that the following task be performed by an Oracle database administrator.

In order to use existing tablespaces, you **must** do the following **before** you install OVPI:

- 1 Create the `dsi_dpipe` user with dba privileges.
- 2 Create the following tablespaces as the `dsi_dpipe` user:
 - `dpipe_default_seg`
 - `dpipe_property_ind_seg`
 - `dpipe_property_seg`
 - `dpipe_upload_ind_seg`
 - `dpipe_upload_seg`
 - `dpipe_rate_ind_seg`
 - `dpipe_rate_seg`
 - `dpipe_summary_ind_seg`
 - `dpipe_summary_seg`
 - `dpipe_overflow_seg`

For information about tablespace sizing, see [Tablespace Sizing Guidelines on page 63](#).

- 3 Adjust Oracle parameters

Because Oracle includes the ability to optimize itself automatically, it is only necessary to set a minimum number of parameters to allow full optimization of the database.

[Table 1](#) lists these parameters and the recommended value for each. You can obtain the current list of values for the parameters in [Table 1](#) by querying the V\$SYSTEM_PARAMETER table. For a description of each parameter, see [Changing Specific Oracle Configuration Parameters on page 124](#).

Table 1 Recommended Values for Oracle Parameters

Parameter	Recommended Value
SGA_MAX_SIZE shared memory = 40% of SGA size buffer cache = 40% of SGA size large pool = 12% of SGA size java pool = 8% of SGA size	60% of the total system memory
PGA_AGGREGATE_TARGET (M)	200M
DB_FILE_MULTIBLOCK_READ_COUNT	stripe size (KB) / DB_BLOCK_SIZE (KB) ^a
WORKAREA_SIZE_POLICY	AUTO
DB_CACHE_SIZE (Windows) DB_32K_CACHE_SIZE (UNIX)	95% of available buffer cache ^b
PARALLEL_AUTOMATIC_TUNING	TRUE

a. See [Determining the Database Block Size](#).

b. See [Determining Cache Size](#).

Determining the Database Block Size

To determine DB_BLOCK_SIZE, type the following SQL*Plus command:

```
SELECT value
FROM   V$PARAMETER
WHERE  name = 'db_block_size';
```

Determining Cache Size

To determine what 95% of the available buffer cache is, type the following SQL*Plus command:

```
SELECT (dc.CURRENT_SIZE + fm.CURRENT_SIZE) * 0.95
FROM   V$SGA_DYNAMIC_FREE_MEMORY fm,
       V$SGA_DYNAMIC_COMPONENTS dc
WHERE  dc.COMPONENT = 'buffer cache';
```

Tablespace Sizing Guidelines

The section describes the guidelines for creating tablespace relative to the amount of disk space you want for the OVPI database. These guidelines are important to consider if you want to increase the entire OVPI database by a certain size.



You can change the size of the tablespaces during the OVPI installation. See [Changing Specific Oracle Configuration Parameters on page 124](#) for details.

Table 2 shows the Oracle tablespaces and the percentage of the database that they should occupy.

Table 2 Size of Oracle Tablespaces in dpipe

Tablespace	Percent of Total Database
dpipe_default_seg	5%
dpipe_property_ind_seg	2%
dpipe_property_seg	2%
dpipe_upload_ind_seg	6%
dpipe_upload_seg	7%
dpipe_rate_ind_seg	12%
dpipe_rate_seg	12%
dpipe_summary_ind_seg	12%

Table 2 Size of Oracle Tablespaces in dpipe (cont'd)

Tablespace	Percent of Total Database
dpipe_summary_seg	12%
dpipe_overflow_seg	30%
Total Size of the Database	100%

[Table 3](#) is example that shows how you would set up a 1GB database using the ratios listed in [Table 2](#) and the extent size rule.

Table 3 Tablespace Size for a 1 GB Database

Tablespace	Initial Tablespace Size	Extent^a
dpipe_default_seg	50 MB	25 MB
dpipe_property_ind_seg	20 MB	10 MB
dpipe_property_seg	20 MB	10 MB
dpipe_upload_ind_seg	60 MB	30 MB
dpipe_upload_seg	70 MB	35 MB
dpipe_rate_ind_seg	120 MB	60 MB
dpipe_rate_seg	120 MB	60 MB
dpipe_summary_ind_seg	120 MB	60 MB
dpipe_summary_seg	120 MB	60 MB
dpipe_overflow_seg	300 MB	150 MB
Total Database	1 GB	Default
temp	4 GB	Default
undo	1 GB	Default

- a. The extent size rule is the lesser of 50% of the initial tablespace size and 1GB. For example, for an 80 GB database, the initial size of dpipe_overflow_seg will be 24 GB and extents will be 1 GB (not 50%).

Installing Sybase

This chapter contains instructions for installing the following Sybase software:

- Sybase Adaptive Server 11.9.2.5 ESD 1 (Windows and UNIX systems)
- Sybase Client (Windows only)

Installing the Sybase Client software is optional. The Sybase client software installs SQLAdvantage, which is a tool you can use to view the contents of the Sybase database.

The Sybase Client has the same installation procedure as Sybase Adaptive Server on Windows. To install Sybase Client, follow the procedure in [Installing and Starting Sybase on Windows on page 65](#).

Sybase uses a file called an interfaces file to locate the SQL Servers on the network. Use the **dsedit** utility to create or modify this file. See [The Sybase Interfaces File on page 209](#) for details.

Installing and Starting Sybase on Windows



When you installed Windows, the process created the paging file at the recommended size (approximately 1.5 to 2 times the amount of RAM on your system), assuming that your hard disk had enough space. Adaptive Server requires the Windows virtual-memory paging file to be at or above its recommended size; otherwise, Adaptive Server fails to start and gives no indication as to what caused the problem. For more information about the paging file and how to change its size, see your Windows operating system documentation.

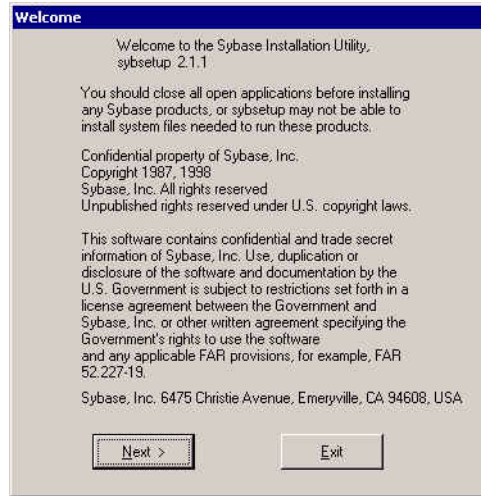
To install and start Sybase on Windows:

- 1 Log on to the local system as a user with administrative privileges.
- 2 Insert the CD in the CD-ROM drive.
- 3 From the top level folder on the CD, double-click `setup.exe`.

The Setup window opens ([Figure 4 on page 57](#)).

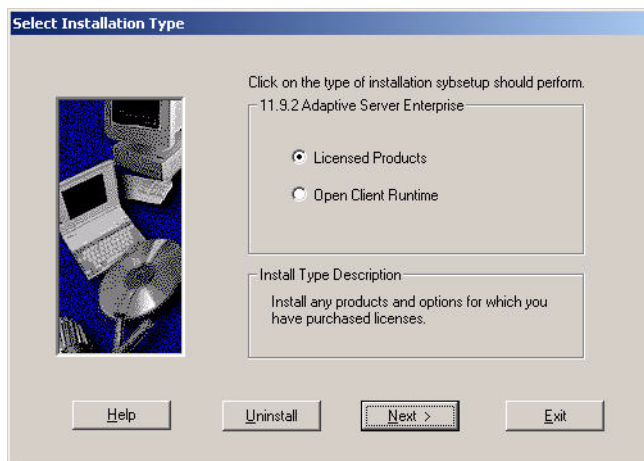
- 4 Do one of the following:
 - Click **Sybase 11.9.2.5** to install Sybase Adaptive Server.
 - Click **Sybase Client** to install Sybase Client.

The Welcome dialog box opens.



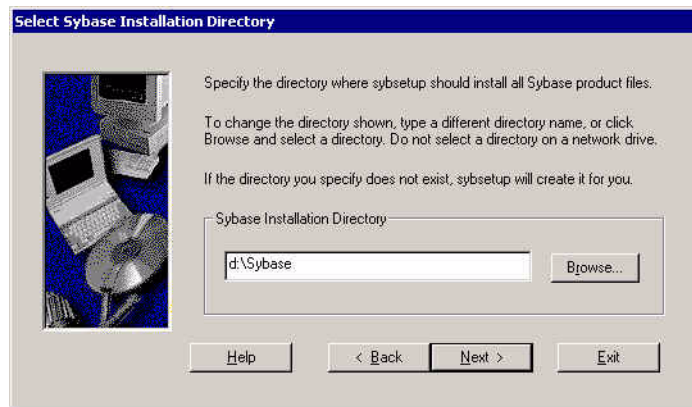
- 5 Click **Next** to continue the installation.

The Select Installation Type dialog box opens and displays the name of the application that you are installing either **11.9.2 Adaptive Server Enterprise** or **11.9.2 PC Client for Adaptive Server Enterprise**.



- 6 Select the installation type you want to perform, and then click **Next** to continue the installation.

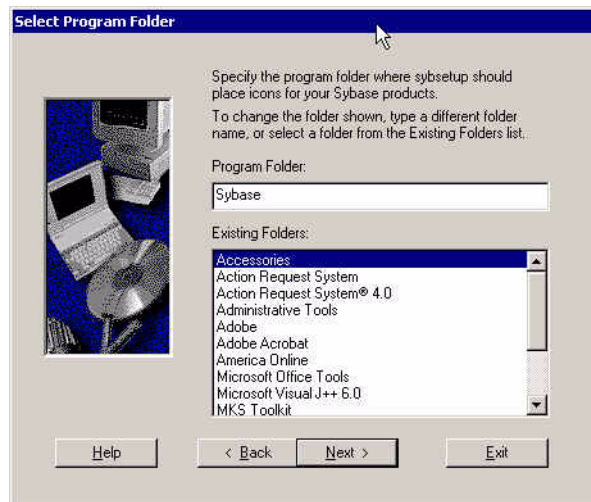
The Select Sybase Installation Directory window opens.



- 7 Click **Next** to accept the default path and to continue the installation.

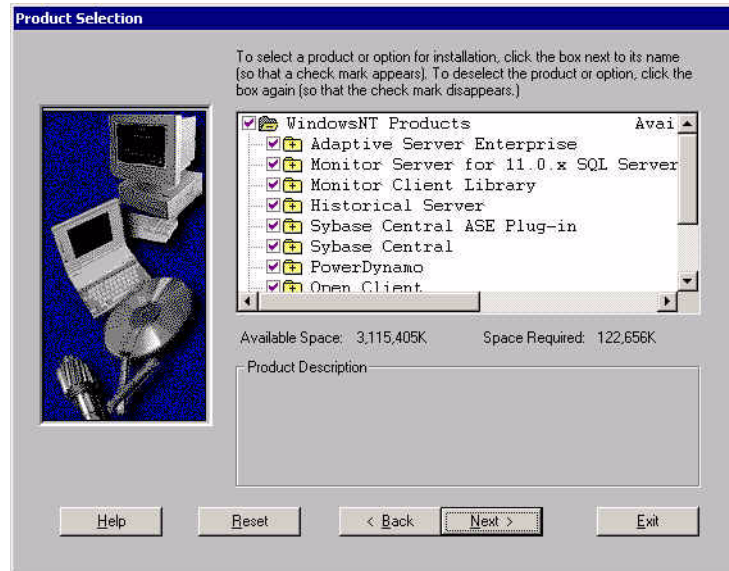
If you enter a different path, it cannot contain any blank spaces.

The Select Program Folder window opens.



- 8 Click **Next** to accept the default program folder for Sybase and continue the installation.

The Product Selection window opens.



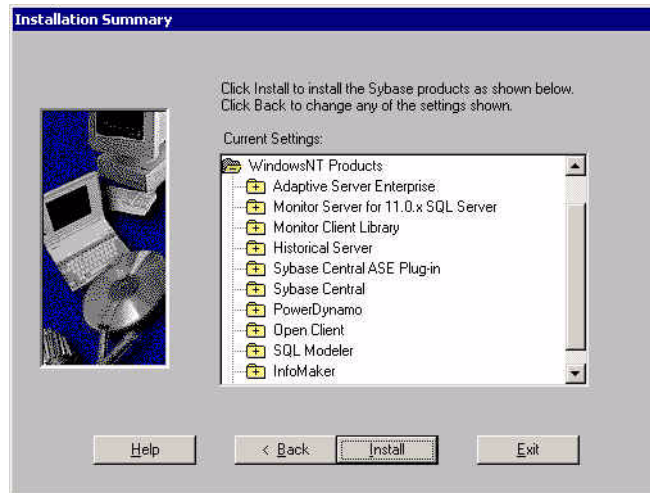
By default, all of the Sybase product options are selected; however, you do not need to install all of the options.

9 Do *one* of the following:

- Click **Next** to install all of the Sybase products and to continue the installation.
- To select the minimum product options needed, click to clear all of the options **except** the following, and then click **Next**:
 - Adaptive Server Enterprise
 - Sybase Central ASE Plug-in
 - Sybase Central
 - Open Client
 - Language Modules

➤ If you do not choose the Historical Server option, there will be no backup server; however, you can refer the *Performance Insight Administration Guide* for information about creating a backup server.

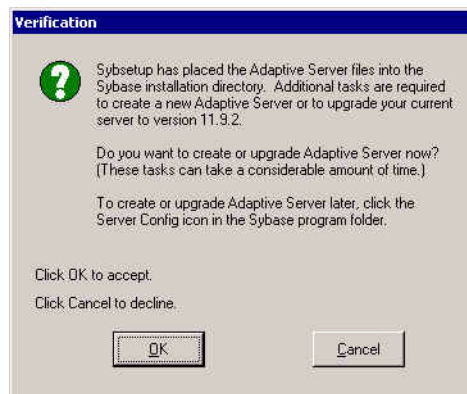
The Installation Summary window opens.



10 Do the following:

- a Review the summary of installation options.
- b To change an option, click **Back** until you reach the window that contains the option you want to change.
- c When you are ready to continue with the installation, click **Install**.

A Verification message opens.



11 Click **OK** to continue the installation.

The Create an Adaptive Server window opens.

Create an Adaptive Server

To configure your Adaptive Server, accept the following values or change them as desired, then click Create.

WARNING: If you are only adding options to an existing Adaptive Server, click Exit now.

Adaptive Server:

Master Device File

Path:

Master Device Size: MB
(master)

Sybsystemprocs

Path:

System Procedure Device Size: MB
(sybssystemproc)

The options on the Create an Adaptive Server window are as follows:

— Adaptive Server

The server's name, which must be a valid server name identifier. Server names can be no more than 31 characters long. The first character must be alphabetic. Characters following the first character can include letters, numbers, or an underscore. You cannot use embedded spaces or hyphens.

— Master Device File

The default path for the master device file

— Sybssystemprocs

The default path for Sybase System Procedures

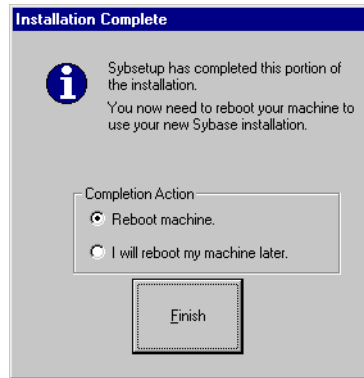
— System Procedure Device Size (sybssystemproc)

A default value of 60 MB for the System Procedure Device Size

12 Do *one* of the following:

- Review the configuration options for creating the Adaptive Server, make any changes you want, and then click **Create** to create the Adaptive Server.
- Click **Exit** if an Adaptive Server already exists, and all modifications to the existing server have been made.

13 When the installer successfully completes, the Installation Complete window opens.



➤ You must reboot your system before you can use Sybase.

14 Reboot your system by doing one of the following:

- Select **Reboot Now** to immediately reboot your system, and then click **Finish**.
- Select **Reboot Later** to reboot your system at a later time, and then click **Finish**.

➤ After your system reboots, you *must* start Sybase before you can install OVPI.

15 To start Sybase, do the following:

- a** On the task bar, click the Start button, point to Settings, and choose Control Panel. The Control Panel window opens.
- b** Double-click the **Administrative Tools** icon. The Administrative Tools window opens.

- c** Double-click the **Services** icon. The Services window opens.
- d** Select **Sybase SQLServer_***server*, where *server* is the name of your Sybase SQL Server.
- e** Right-click the service name, and then select **Start** from the shortcut menu.
- f** Close the Services window.

You can now install OVPI by using the instructions in one of the following sections:

- [Installing OVPI – Standalone on page 80](#) for a standalone implementation
- [Installing OVPI on page 140](#) for a distributed implementation

Installing and Starting Sybase on UNIX

To install and start Sybase on a UNIX system:

Task 1: Start the setup program.

Run the OVPI setup program. See [Starting the Setup Program on page 55](#).

After you start the setup program, the Setup window opens. See [Figure 5 on page 58](#).

Task 2: Select the OVPI installation option.

Select **Sybase 11.9.2** from the Setup window.

Task 3: Read the Welcome message, and click Next.

Task 4: Specify the information needed to configure Sybase.

Figure 1 shows the Sybase Settings window.

Figure 1 Sybase Settings Window

- 1 Type the name of the Sybase SQL server in the Server Name (DSQUERY) box.

The Sybase SQL server is where the client applications will look for information by default. The default server name is `<hostname>_SYBASE`. In this instance, *hostname* is the name of your Sybase SQL server.



Ensure that you enter the Sybase SQL server's name in uppercase, and that it is a valid server name identifier. Server names can not be more than 31 characters. The first character must be alphabetic. Characters following the first character can include letters, numbers, or an underscore. You cannot use embedded spaces or hyphens.

- 2 Type the port number for the Sybase server in the TCP/IP Port Number box.

The default port number is 2052. Sybase uses assigned TCP ports to communicate with Sybase clients and servers on other systems. It knows how to find them by the combined IP address of the remote system and the TCP Port of the application it needs on that system. This information is stored in the interfaces file in the Sybase directory. Sybase uses only one TCP port. It can be any port numbered higher than 1024 that is not already used by another application. The installation wizard will use the port number you enter here for Sybase.

If you change the TCP Port, check the `/etc/services` file to make sure that no other application is using your port number or the one after it.

- 3 In the Sybase Administrator (SA) Password box, type a password for the SA account, and then retype this password in the Confirm box.

When you create the Sybase Administration password, adhere to the following rules:

- It must be at least 6 characters long.
 - It can contain any printable letters, numbers, or symbols.
 - It cannot exceed 30 characters. If your password exceeds 30 characters, Sybase will only use the first 30 characters and ignore the remaining characters.
- 4 Do *one* of the following:
 - In the Directory box, type the name of the directory in which Sybase is to be installed. (By default, this is `/usr/Sybase`.)
 - Click **Browse** to display the Choose Directory dialog box, which lets you select a directory other than the default. After you select a directory, click **OK** to return to the Sybase window.
 - 5 If necessary, click **Advanced** to modify the installation's configuration.

The Sybase Advanced Configuration dialog box opens, which contains the following tabs:

- General tab. Lets you specify the location of the Sybase `error.log` file.
- Master Device tab. Lets you specify the name of the master device, the location of the `master.dat` file, and its size.
- Procedures Device tab. Lets you specify the name of the procedures device, the location of the `procedures.dat` file, and its size.

Click **OK** to apply any changes you make or **Cancel** to return to the Sybase Configuration window.

6 Click Next.

If the installation program detects either of the following conditions, it will display a message:

- An existing database – If you continue, the installation will overwrite your current database. Click **Yes** to overwrite the existing database and proceed with the installation.
- Insufficient disk space – If the system has insufficient disk space, the installation will most likely fail. Click **OK** to dismiss the message, and click **Cancel** in the Sybase Configuration window. Free up the necessary disk space and restart the installation again.

Task 5: Create or modify the operating system account.

On UNIX systems, the Performance Manager component requires an operating system account and group named `sybase`.

Depending on whether or not this account exists, different windows will open during this point in the installation:

- If the operating system account and group do not exist, the Create OS user window opens. See [Creating the Operating System Account](#).
- If the operating system account and group do exist, the Existing OS User window opens. See [Modify the Existing Operating System Account](#). on page 76.

Creating the Operating System Account

Figure 12 on page 98 shows the Operating System User for Performance Manager window.

- 1** Type a password for the account in the Password box, and then retype the password in the Confirm Password box.

The password must have a minimum length of one character; there is no limit on its maximum length. Any character is valid.

- 2** Click **Next**.

Modify the Existing Operating System Account.

Figure 13 on page 99 shows the Operating System User for Performance Manager window.

- 1 Click one of the following:
 - **Modify user environment.** This option updates the account's `.profile` or `.cshrc` with the OVPI environment variables (`COLLECT_HOME`, `DPIPE_HOME`, `DPIPE_TMP`, and `TREND_LOG`).
 - **Do not modify user environment.** This option will not update the account's `.profile` or `.cshrc` with the OVPI environment variables. If you select this option, you will have to manually add the OVPI environment variables later.
- 2 Click **Next**.

Task 6: Review the installation information and install.

Figure 18 on page 107 shows the Selection Summary window.

- 1 Review the Selection Summary window.
- 2 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Summary window.
- 3 Click **Install** to continue the installation.

Task 7: Close the Setup program.

The Progress window opens, showing the installation status. See Figure 19 on page 108.

Do *one* of the following:

- If the Sybase installation was successful, click **Done**.
- If the Sybase installation was unsuccessful, click the **Details** button at the bottom of the Progress window. See [Troubleshooting a Sybase Installation Failure on page 78](#) for details.



After you install Sybase successfully, it should automatically be running on your system. If it is not, you must manually start it *before* you can install OVPI.

Task 8: Verify Sybase is running on your system.

To verify if Sybase is running on your system, enter the following at the command line:

```
ps -ef | grep -i sybase
```

Task 9: If necessary, start Sybase.

If Sybase is *not* running, enter *one* of the following commands:

- *Solaris*:
/etc/init.d/Sybase start
- *HP-UX*:
/sbin/init.d/Sybase start

You can now install OVPI by using the instructions in one of the following sections:

- [Installing OVPI – Standalone on page 80](#) for a standalone configuration
- [Installing OVPI on page 140](#) for a distributed configuration

Task 10: Make Sybase the owner of the /dev/async directory.

After you successfully install Sybase, type the following command at the command line as `root`:

```
chown sybase /dev/async
```

Shutting Down Sybase

If you ever need to shut down Sybase, type the following commands:

```
isql -Usa -P sa_password
```

```
shutdown
```

```
go
```

Troubleshooting a Sybase Installation Failure

There is an `error.log` file in the Sybase installation directory that you can use to determine the cause of the installation failure. Sybase writes messages to this file each time the system is booted and each time a Sybase error occurs. The name of the error log file is as follows:

- In UNIX:

`$SYBASE/install/servername_SYBASE.log`

- In Windows:

`$SYBASE/install/errorlog`

After you identify the cause, consult the Sybase documentation. To obtain Sybase documentation, see [Related Documentation on page 3](#).

Installing OVPI on Sybase

This chapter describes how to install HP OpenView Performance Insight (OVPI) on supported operating systems in a standalone configuration on a Sybase database.

A *standalone* system is one where all of the OVPI components are installed on a single system. If you would like to install OVPI in a distributed configuration, see [Chapter 6, Installing OVPI in a Distributed Configuration](#). To install OVPI on an Oracle database, see [Chapter 5, Installing OVPI on Oracle](#).

Before you install OVPI, ensure that you have met the following requirements:

- Read the *HP OpenView Performance Insight Release Notes*. Specifically, this document provides an overview of the changes made to OVPI for the version 5.0 release such as new features and changed features.
- Your system must meet the prerequisites in [Chapter 2, Preparing for Installation](#). For all Windows and UNIX systems, see [System Requirements on page 25](#). In addition, see [UNIX-Specific Requirements on page 36](#) for UNIX systems.
- You have installed the database according to the information provided in [Chapter 3, Installing a Database](#).

Installing OVPI – Standalone

This section describes the information that you need to supply when you use the installation wizard and how to install OVPI on both Windows and UNIX systems.

Preparing for Component Installation

Most of the information that you need to supply when you use the installation wizard will have default values; however, HP recommends that you have this information available prior to installation in the event that you want to change a default value.

[Table 1](#) lists each of the OVPI components, the installation wizard window that asks for information about the component, the parameters requested in each window, and the default values for the parameters.

Table 1 Installation Wizard Configuration Parameters

Component	Wizard Window	Default Values for the Parameters
All components	Destination Folder	Destination Directory: C:\OVPI (Windows) or /usr/ovpi (UNIX)
OVPI database schema	Sybase Reference Using Sybase Administrator User	Sybase Server Name: <LOCAL_HOST> ^a (Windows) or <LOCALHOST>_SYBASE (UNIX) Sybase Host Name: System on which Sybase is installed Sybase Port: 5000 (Windows) or 2052 (UNIX) Sybase Directory: C:\Sybase (Windows) or /usr/Sybase (UNIX)

Table 1 Installation Wizard Configuration Parameters (cont'd)

Component	Wizard Window	Default Values for the Parameters
OVPI database schema	Sybase User and Device Creation	Database Devices: <i>Sybase_directory\dbfiles</i> (Windows) or <i>Sybase_directory/dbfiles</i> (UNIX) Database Size: 800 MB Transaction Log: <i>Sybase_directory\dbfiles</i> (Windows) or <i>Sybase_directory/dbfiles</i> (UNIX) Percent of Database: 50% Temporary Space: <i>Sybase_directory\dbfiles</i> (Windows) or <i>Sybase_directory/dbfiles</i> (UNIX) Percent of Database: 50%
Performance Manager	Performance Manager Settings	Poller/Collection Cache Directory: <i>OVPI_directory\collect</i> (Windows) or <i>OVPI_directory/collect</i> (UNIX)
Web Access Server	Web Access Server Settings	OVPI Administrator Username: trendadm HTTP Port: 80

- a. In this instance, *LOCAL_HOST* (Windows) or *LOCALHOST* (UNIX) is the name of the Sybase host.

Installing OVPI



With the exception of starting the installation wizard, the **Advanced** button on the Sybase User and Device Creation window (raw devices), and the Operating System User for Performance Manager window, the steps for installing OVPI as a standalone system are identical for both Windows and UNIX systems. To minimize duplication, this section provides separate instructions for starting the installation wizard on Windows and UNIX; however, it provides only one procedure for the OVPI installation.

Task 1: Ensure that the database is installed and running.

If you have *not* installed the database, see [Chapter 3, Installing a Database](#).

Task 2: Start the setup program.

Run the OVPI setup program. See [Starting the Setup Program](#) on page 55.

Task 3: Select the OVPI installation option.

Select **OVPI 5.0.0** from the Setup window.

Task 4: Read the Welcome window.

Figure 1 shows the Welcome window.



Figure 1 Welcome Window

Click **Next** to continue the installation.

Task 5: Accept or reject the license terms.

Figure 2 shows the License Agreement window.

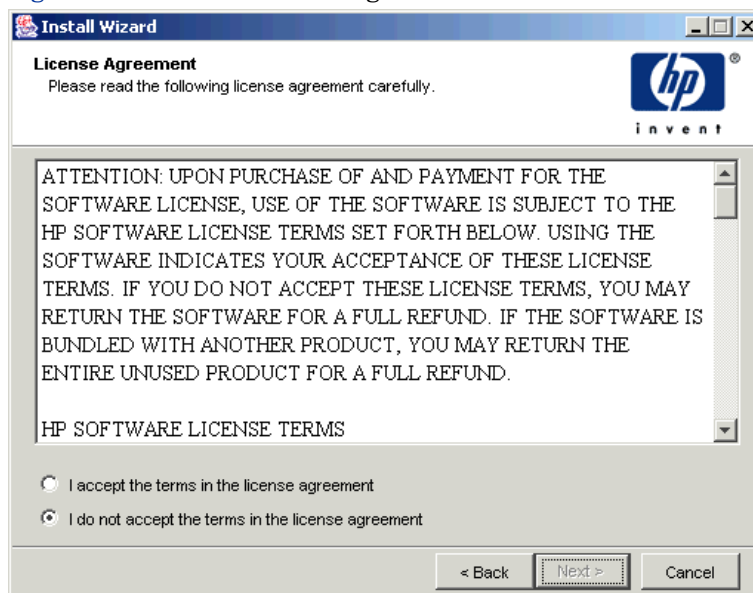


Figure 2 License Agreement Window

Do *one* of the following:

- To reject the license terms and discontinue installation, click **Cancel**.
A confirmation window appears.
 - If you click **Yes**, the installation process ends.
 - If you click **No**, the License Terms window appears again. You can then click the **I accept the terms in the license agreement** option to proceed with installation.
- To accept the license terms and continue installing OVPI, click the **I accept the terms in the license agreement** option, and then click **Next**.

Task 6: Select the OVPI components you want to install.

Figure 3 shows the Component Selection window.



Figure 3 Component Selection Window

- 1 Make sure that all components are checked; all components are required for a standalone installation.
For a description of each component, see [OVPI Components on page 10](#).
- 2 Click **Next** to continue the installation.

Task 7: Specify an installation directory for the OVPI software.

Figure 4 shows the Destination Folder window.

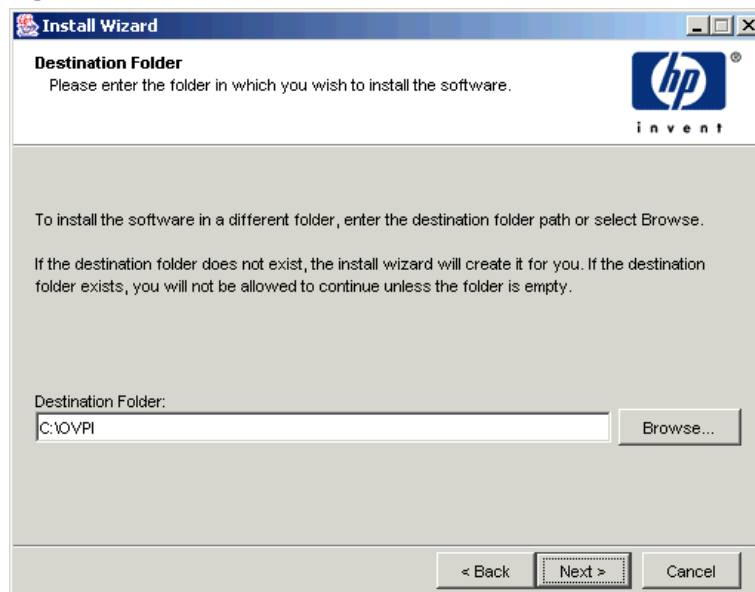


Figure 4 Destination Folder Window

An installation directory can be any one of the following: NFS mounted directory, UNIX soft link, UNIX hard link, or a Windows mapped drive.



The path to the destination folder cannot contain any blank spaces.

Do *one* of the following:

- Click **Next** to accept the default destination folder and to continue the installation.
- Type a different destination folder from the default, and click **Next** to continue the installation.

Depending on the installation directory you specified, the following will occur:

- If the installation directory does not already exist, the setup program creates it.
- If the installation directory already exists and contains data, a message will display to warn you that the directory is not an empty.

- If you specify an installation directory that is located on a file system that the setup program cannot access, a message will display to warn you. You cannot continue the installation until you supply a valid directory.

Task 8: Select the database settings in which the OVPI database schema will be installed.

Figure 5 shows the Database Selection window.

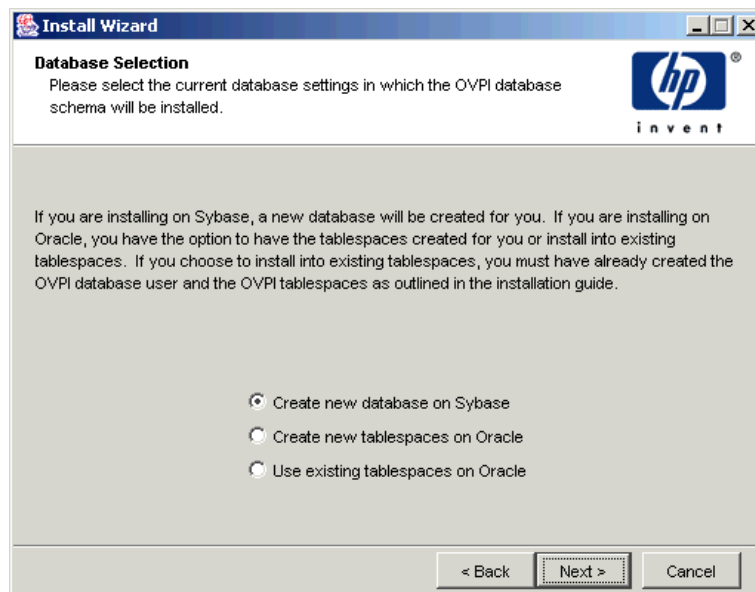


Figure 5 Database Selection Window

- 1 Select the **Create new database on Sybase** option.

This option requires that no dpipe_db database or dsi_dpipe user exist in order for the installation to complete successfully.

- 2 Click **Next**.

Task 9: Locate and connect to the database.

Figure 6 shows the Sybase Reference Using Sybase Administrator User window.

Figure 6 Sybase Reference Using Sybase Administrator User

The Sybase Reference Using Sybase Administrator User window contains the following values:

- Sybase Server Name (DSQUERY). This is the name of the Sybase SQL Server where the client applications will look for information by default. (Note that this name is case sensitive.) You can find the name of this server in the Sybase interfaces file; this file is located on the system where the Sybase SQL Server is installed. For more information about the Sybase interfaces file, see [The Sybase Interfaces File on page 209](#).
- Sybase Host Name. This is the name of the system on which Sybase is installed.

- Sybase TCP/IP Port Number. The TCP/IP port number that Sybase uses to communicate with clients and servers on other systems. In addition to <DSQUERY>, there are several other Sybase SQL Servers that will be assigned port numbers during the installation. These servers are as follows:

Sybase Server	Windows	UNIX
<DSQUERY>_BS	5001	2053
<DSQUERY>_MS	5002	2054
<DSQUERY>_HS	5003	2055
<DSQUERY>_XP	5004	2056

You must manually start each of these servers in order for them to work.

- Sybase Administrator (SA) Password. If you changed the Sybase Administrator password during the Sybase installation from a NULL value to an actual password, type that password in the Sybase Administrator (SA) Password box.

If you did *not* change the Sybase Administrator during the Sybase installation, you can leave this box blank.

- Sybase Directory. The directory into which you installed Sybase. Click **Browse** to select a different directory. After you select a directory, click **OK** to return to the Sybase SA Reference window.

Do *one* of the following:

- Click **Next** to accept the default values for Sybase environment configuration.
- Type the necessary values, and click **Next**.

Task 10: Create the OVPI user account and devices.

Figure 7 shows the Sybase User and Device Creation window.

Figure 7 Sybase User and Device Creation Window

The installation wizard creates the device files for the OVPI database using Sybase Adaptive Server. Files are created within Sybase for the following: OVPI database, transaction log, and temporary space. The OVPI database uses the device files to store its data. (If raw devices are used, no device files are created.)

By default, the installation wizard creates the device files in the Sybase installation directory in a subfolder called `dbfiles`. You can change the name of this folder at this point in the installation to be something different; however, the name cannot contain any spaces.



All Sybase devices are created using the `vstart=512` option. This lets you use labeled file systems with OVPI. For example, if the size of your database is 800 MB, only 799 MB of it will be available; one megabyte is allocated for the label.

The Sybase User and Device Creation window contains the following options:

- Database Devices and Database Size (MB). Specifies the file location of the database device and its size.
- Transaction Log and Percent of Database. Specifies the file location of the transaction log and the amount of space allocated to it in the database.
- Temporary Space and Percent of Database. Specifies the file location of the temporary space and the amount of space allocated to it in the database.
- OVPI Database User (dsi_dpipe) Password and Confirm Password. Creates a password for the dsi_dpipe account.

Do the following:

1 Do one of the following:

- Click **Next** to accept the default values for the OVPI database configuration.
- Modify a value or click **Browse** to specify a different location, and then click **Next**.



HP recommends that the temporary space (dpipe_temp) and the transaction log (dpipe_log) be approximately 50% the size of the database device (dpipe_db). For example, if the database (dpipe_db) is 800 MB, then the temporary space (dpipe_temp) and temporary log (dpipe_log) should be 400 MB each.

2 In the OVPI Database User (dsi_dpipe) Password box, create a password for this account, and then retype the password in the Confirm Password box.

Create the dsi_dpipe password adhering to the following rules:

- The password must have a minimum length of 6 characters and cannot exceed 30 characters in length.
- The password must start with an alphabetic character.
- Valid characters are all alphanumeric characters, the underscore (_), and the pound (#).



The password is case sensitive.

- 3 If needed, click **Advanced** to display the Advanced OVPI Configuration dialog box. This dialog box lets you do the following:
 - Add files to or remove them from the OVPI database devices (dpipe_db, dpipe_temp, and dpipe_log), and on UNIX systems only, you can use raw partitions for these devices (Database, Transaction Log, and Temporary Space tabs); S0 and Veritas raw partitions are supported.
 - Modify the Sybase configuration parameters (Parameters tab).

Modifying the Sybase Database Devices

To modify the OVPI database devices:

- a Select the tab associated with the device (Database, Transaction Log, or Temporary Space) you want to modify. [Figure 8](#) shows the Database tab in the Advanced OVPI Configuration dialog box.

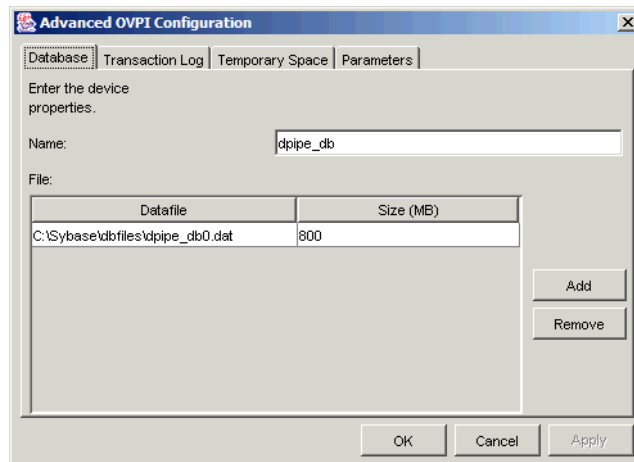


Figure 8 Database Tab

- b To add a file to a database device, do one of the following:
 - *Windows:*
Click **Add**.
 - *UNIX:*
Click **Add**, and then click the Datafile arrow, and select a file from the list.

A precalculated size for the device appears next to the device's name in the Size (MB) column. If you are using raw partitions, it is recommended that you do not change this value.

- c Click **Apply** when you have finished making your changes.
- d *File-system database files only:* To edit the file, double-click the file, path, or size cell.
- e To remove a file:
 - Click on the file, and press the TAB key.
 - Press the up or down arrow key to enable selection, and then use the up or down arrow key to select the file you want to remove.
 - Click **Remove**.
 - Click **Apply** when you have finished making all of your changes.



You must create at least one file for each device.

- f *UNIX only:* To use a raw partition for a database device, do the following:
 - Select the tab associated with the device that you want to use a raw partition.
 - Select the **Use raw partitions for this database** check box.

The installation application will find disk partitions that are not mounted, used, swapped or listed in the `/etc/vfstab` file. This will prevent any file systems that may have been unmounted, but are still available as file systems if the administrator were to mount them, from being used by the installation wizard.

- g Click **Apply** when you have finished making all of your changes. Click **OK** when you want to return to the Sybase User and Device Creation window.

When you return to the Sybase User and Device Creation window, you may notice the following conditions:

- *UNIX only:* If you chose a raw partition for a particular database device, the database device will appear dimmed on the window.

- If you added a file to or remove a file from one of the devices, the percentages and database size listed on the window will be recalculated.
- If a database device has several files that are located in different directories, the fields for the database device will appear dimmed on the window.

Changing Sybase Configuration Parameters



HP recommends that only a Sybase database administrator change the values for these parameters.

To change your Sybase configuration parameters:

- Select the Parameters tab in the Advanced OVPI Configuration dialog box. [Figure 9](#) shows the Parameters tab in the Advanced OVPI Configuration dialog box.

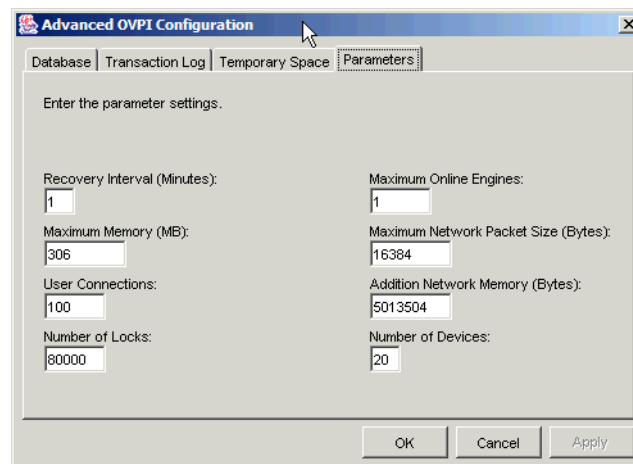


Figure 9 Parameters Tab

The Parameters tab contains the following options:

- Recovery Interval (Minutes). Sets the maximum number of minutes that the SQL Server should use to recover each database in case of system failure.
- Maximum Memory (MB). Sets the size of memory that the SQL Server allocates from the operating system.

- User Connections. Sets the maximum number of user connections that can be connected to a SQL Server at the same time. The global variable @@max_connections stores the maximum values for your system. It varies according to operating system.
- Number of Locks. Sets the number of available locks.
- Maximum Online Engines. Controls the number of engines in a symmetric multiprocessor environment.

If your system uses a single CPU, the recommended value is 1. If you increase the value, there is a possibility that Sybase will slow down due to internal contention. However, if your system uses multiple CPU's, the value may be increased in order to take advantage of the multiple CPU architecture.
- Maximum Network Packet Size (Bytes). Sets the maximum network packet size that a client program can request.
- Additional Network Memory (Bytes). Allocates additional memory for clients that request packet sizes larger than the default packet size for the server.
- Number of Devices. Limits the number of database devices that the SQL Server can use.

b Click **Apply** when you have finished making all of your changes. Click **OK** when you want to return to the Sybase User and Device Creation window.

4 Click **Next** to continue the installation.

Task 11: Install Performance Manager.

Figure 10 shows the Performance Manager Settings window.

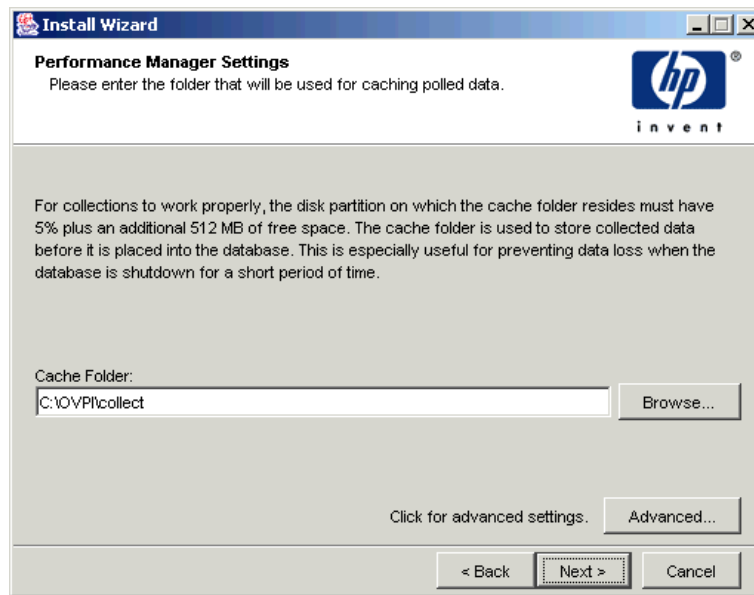


Figure 10 Performance Manager Settings Window



For collections to work properly, the disk partition on which the Poller Collection/Cache directory resides must have 5% plus an additional 512 MB of free space. For example, if the disk partition is 10 GB, it must have 1 GB of free space.

Do the following:

- 1 If needed, click **Advanced** to open the Advanced OVPI Configuration dialog box, which lets you specify the directory in which the log files will reside. [Figure 11](#) shows the Log Settings tab in the Advanced OVPI Configuration dialog box.

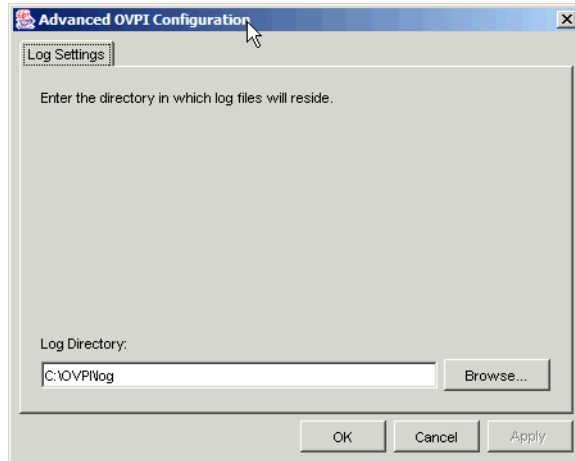


Figure 11 Log Settings Tab

To specify a directory for log files:

- a In the Log Directory box, do one of the following:
 - Type the directory path in which the log files will reside.
 - Click **Browse** to locate the desired directory.
 - Accept the default path; the default creates a `log` folder under the directory into which you installed OVPI.

➤ The installation will create a log directory under the directory in which you installed OVPI. Certain log files will be maintained there regardless of the directory you specify in the Log Directory box.

- b Click **OK** to apply any changes and return to the Performance Manager Settings window.

- 2 Do *one* of the following:
 - Click **Next** to accept the default location for the Cache Folder and to continue the installation.
 - Type a fully-qualified path to the location, and click **Next** to continue the installation.
 - Click **Browse** to navigate to a location for the Cache Folder, and then click **Next** to continue the installation.
- 3 Do one of the following depending on your operating system:
 - Windows: Go to [Task 13 on page 100](#).
 - UNIX: Proceed with [Task 12](#).

Task 12: UNIX systems only: Create or modify the operating system account.

On UNIX systems, the Performance Manager component requires an operating system account and group named `trendadm`.



The purpose of this account is to preserve the environment in which OVPI will run. This account is used to log on to the operating system and should not be confused with the `trendadm` account you will create in [Task 13 on page 100](#), which is used to log on to the Web Access Server application.

Depending on whether or not this account exists, different windows will open during this point in the installation:

- If the operating system account and group do not exist, the Create OS user window opens. See [Creating the Operating System Account on page 98](#).
- If the operating system account and group do exist, the Existing OS User window opens. See [Modifying the Existing Operating System Account on page 99](#).

Creating the Operating System Account

Figure 12 shows the Operating System User for Performance Manager window.

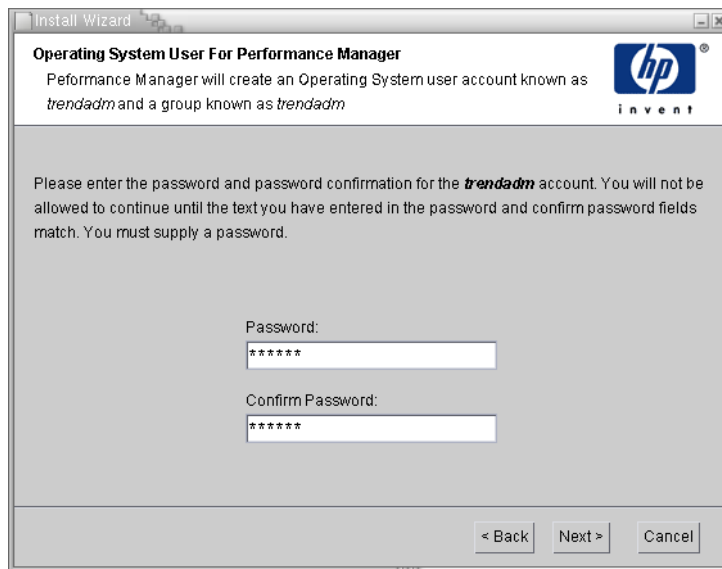


Figure 12 Operating System User for Performance Manager Window

- 1 Create a password for the `trendadm` account in the Password box, and then retype the password in the Confirm Password box.

By default, the password must have a minimum length of one character, has no limit on its maximum length, and may contain any character; however, it is recommended that you adhere to your company's policy for password creation.

- 2 Click **Next**.
- 3 Go to [Task 13 on page 100](#).

Modifying the Existing Operating System Account

Figure 13 shows the Operating System User for Performance Manager window.

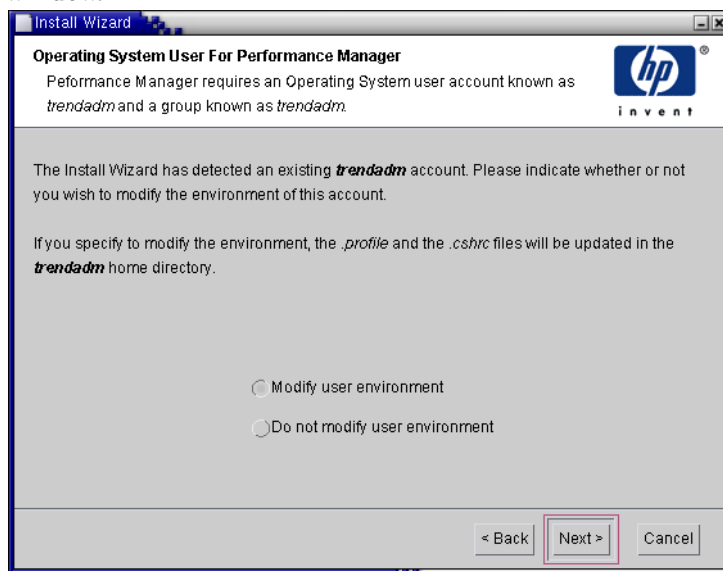


Figure 13 Operating System User for Performance Manager Window

- 1 Click one of the following:
 - **Modify user environment.** This option updates the trendadm account's .profile or .cshrc with the OVPI environment variables (COLLECT_HOME, DPIPE_HOME, DPIPE_TMP, and TREND_LOG).
 - **Do not modify user environment.** This option will not update the account's .profile or .cshrc with the OVPI environment variables. If you select this option, you will have to manually add the OVPI environment variables later.
- 2 Click **Next**.

Task 13: Specify the port for the Web Access Server.

Figure 14 shows the Web Access Server Settings window.

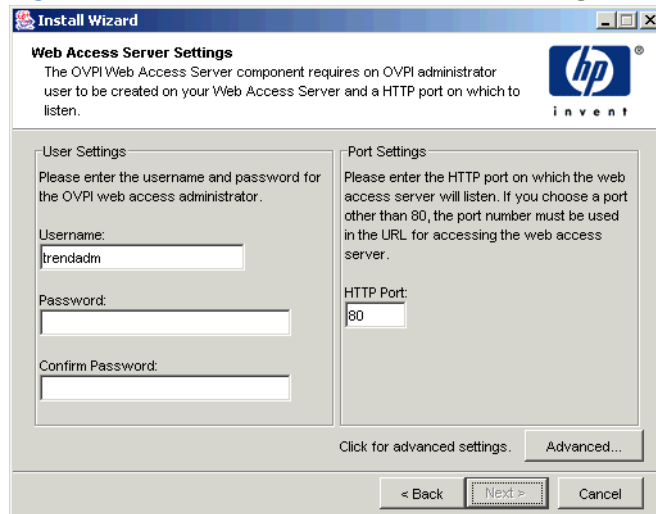


Figure 14 Web Access Server Settings Window

- 1 In the Username box, type the username for the OVPI Web Access Server administrator. The username is `trendadm` by default.



This account is used to log on to the Web Access Server application. Do not confuse this account with the `trendadm` account that is discussed in [Task 12 on page 97](#) (UNIX installations only), which is used to preserve the environment in which OVPI will run. The account for the Web Access Server is given the default name of `trendadm`; however, you can change the name of this account now.

- 2 Create a password for the OVPI Web Access Server administrator account by typing a password in the Password box.



The installation wizard places no restrictions on the minimum and maximum length or on the characters that can be used in the username and password; however, the installation wizard does require that you supply a username and a password. It is recommended that you adhere to your company's policy for username and password creation.

You can change password rules after you install OVPI using the Web Access Server application. Refer to the *Performance Insight Administration Guide* for details.

- 3 Type the password you created in [Step 2](#) in the Confirm Password box.
- 4 Type the port for the Web Access Server in the HTTP Port box if you do not want to use the default, which is 80. Any open port can be used.
- 5 If needed, click **Advanced** to open the Advanced OVPI Configuration dialog box, which lets you do the following:
 - Change the location of the reports directories (Directories tab). The reports directory is where all deployed reports will be stored. See [Changing the Reports Directories on page 102](#) for details.
 - Create and remove user accounts (OVPI User tab). A user account lets you log on to OVPI's client applications (Report Viewer, Report Builder, Web Access Server, and Management Console). See [Creating and Modifying User Accounts on page 102](#) for details.
 - Enable Secure Sockets Layer (SSL) communication between the Web Access Server and a supported Web browser (SSL Setup tab). See [Enabling Secure Sockets Layer \(SSL\) Communications on page 104](#) for details.
- 6 Click **Next** to continue with the installation.

Changing the Reports Directories

To change the location of the users and reports directories:

- a Select the Directories tab in the Advanced OVPI Configuration dialog box. [Figure 15](#) shows the Directories tab in the Advanced OVPI Configuration dialog box.

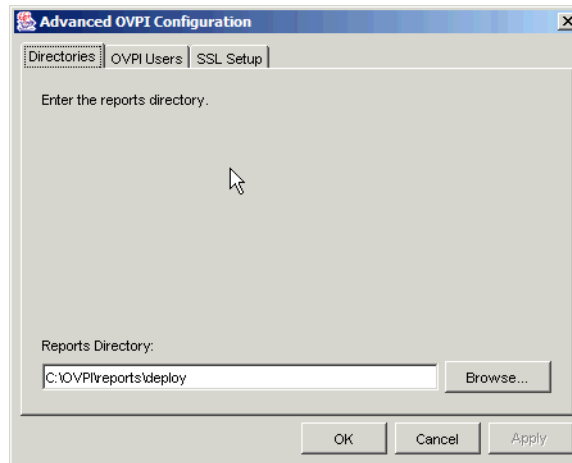


Figure 15 Directories Tab

- b To change the reports directory, do *one* of the following:
 - Enter a new directory location in the Reports Directory box.
 - To search for a directory, click **Browse**. Locate the directory, and then click **OK**.
- c Click **Apply** to make your changes take effect.
- d Click **OK** when you want to return to the Web Access Server Settings window, and then click **Next** to continue with the installation.

Creating and Modifying User Accounts

Use the OVPI User tab to create user accounts. These accounts are used to log on to the following OVPI client applications: Management Console, Report Builder, Report Viewer, and Web Access Server.

You can create regular user accounts or administrator accounts. Users with non-administrator accounts can access the OVPI client applications. Users with administrator accounts can the administration features (Administration link) of the Web Access Server. Refer to the *Performance Insight Administration Guide* for details.

To create and modify accounts:

- a Select the OVPI User tab in the Advanced OVPI Configuration dialog box. [Figure 16](#) shows the OVPI User tab in the Advanced OVPI Configuration dialog box

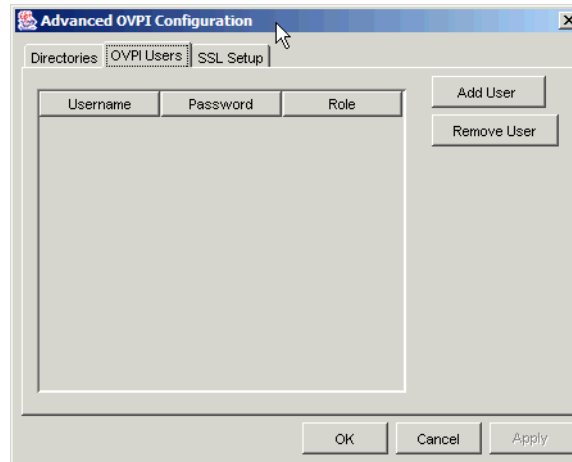


Figure 16 OVPI User Tab

- b To add a user account, do the following:
 - Click **Add User**. A default user appears with a default value of new-user for user name and password, and a role of user.
 - Double-click the new-user cell under the User Name column, delete the default value, and then enter the user name you want to use.
 - Double-click the new-user cell under the Password column, delete the default value, and then enter the password you want to use.
 - Click the user cell under the Role column, and then select a role (**user** or **admin**) from the list.
 - Click **Apply** when you have finished making all of your changes.

- c** To remove a user account:
 - Select the user name. The entire row is selected including the user name, password, and role.
 - Click **Delete User**.
 - Click **Apply** when you have finished making all of your changes.
- d** Click **OK** when you want to return to the Web Access Server Settings window, and then click **Next** to continue with the installation.

You can create, modify, or delete user accounts after you install OVPI using the Web Access Server. Refer to the *Performance Insight Administration Guide* for details.

Enabling Secure Sockets Layer (SSL) Communications

Using SSL, you can enable secure communication between the Web Access Server and a supported Web browser, Report Viewer, Report Builder, and the Management Console.

To enable SSL, you create a self-signed certificate. This self-signed certificate will allow you to enable SSL; however, this self-signed certificate is only valid for 90 days. You should send this certificate to a certificate authority in order to receive a signed digital certificate or generate another self-signed certificate before the 90 days expires.

Once you have a signed digital certificate, you must import it using the Web Access Server application. Additionally, you can use the Web Access Server to change SSL settings after you install OVPI. Refer to the *Performance Insight Administration Guide* for details.

To enable SSL communications and create a self-signed certificate:

- a Select the SSL Setup tab in the Advanced OVPI Configuration dialog box. [Figure 17](#) shows the SSL Setup tab in the Advanced OVPI Configuration dialog box.

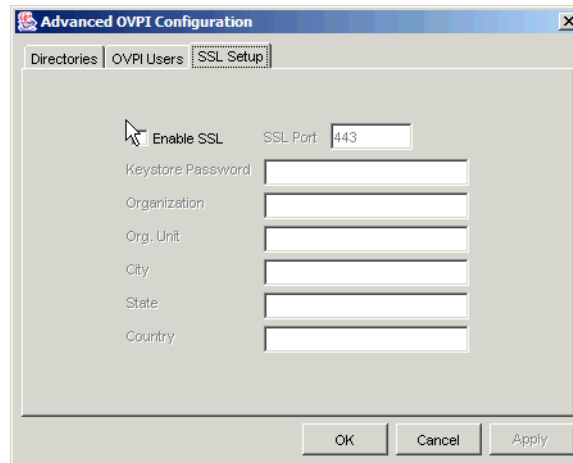


Figure 17 SSL Setup Tab

- b Select the Enable SSL check box.



By selecting this option, you will not disable the standard HTTP listener; thus, the secured SSL port and the unsecured HTTP port will both be enabled.

- c Do *one* of the following:
 - Leave the value in the SSL Port box as is; the default is 443.
 - Modify the value in the SSL Port box.

- d** In the Keystore Password box, enter a password of 6 characters or more.



Record the password and keep it in a secure place; you will need it to generate a signed certificate.

After you generate your self-signed certificate, it will be stored in the certificate repository. This password lets the Web Access Server access the certificate repository.

The remaining fields request information that is necessary when you generate an SSL key that must be verified and signed by a certificate-signing authority. This is information used by the person who checks by the certificate to ensure that the certificate is valid.

- e** Type your two-letter country code in the Country box (for example, “US”).
- f** The following information is optional:
 - Organization. Type the name of your organization (for example, “ABC Systems, Inc.”)
 - Org. Unit. Type the name of your department or division (for example, “Northeast Sales”).
 - City. Type the name of your city or locality (for example, “Los Angeles”).
 - State. Type the name of your state or province (for example, “California”).
- g** Click **Apply** to make your changes take effect.
- h** Click **OK** when you want to return to the Web Access Server Settings window, and then click **Next** to continue with the installation.

Task 14: Review the installation information and install.

Figure 18 shows the Selection Summary window.

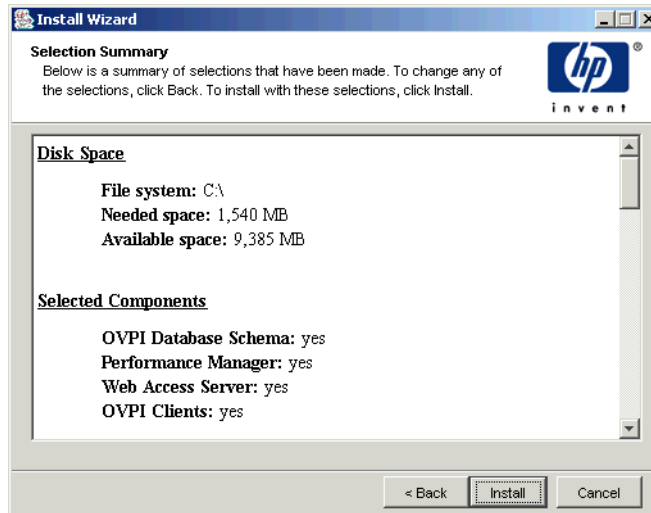


Figure 18 Selection Summary Window

- 1 Review the Selection Summary window.
- 2 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Selection Summary window.
- 3 Click **Install** to continue the installation.

Task 15: Close the Setup program.

Figure 19 shows the Installation Progress window, which shows the installation status.

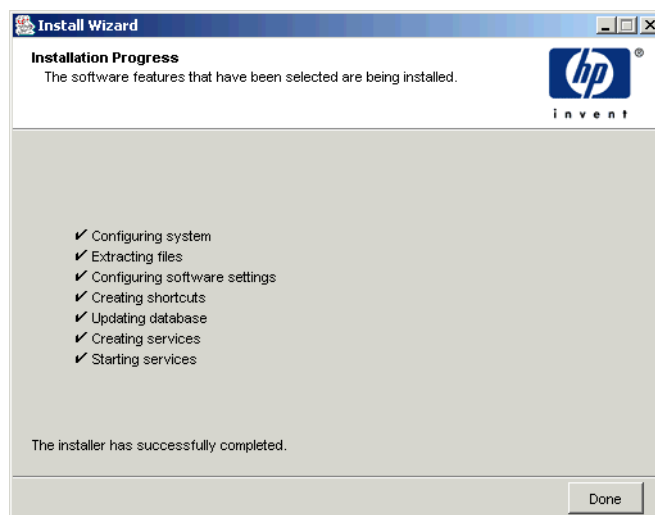


Figure 19 Installation Progress Window

Do *one* of the following:

- If the OVPI installation was successful, click **Done**.
 - If you installed OVPI on a UNIX system, the installation is complete.
- If the OVPI installation was unsuccessful, click the **Details** button at the bottom of the Installation Progress window for additional information, and then contact Technical Support. For information about how to contact support, see [Technical Support and Training on page 4](#).

Task 16: Windows systems only: Reboot the system.

You must reboot your Windows system before you can use OVPI.

Post-Installation Tasks

Refer to the *Performance Insight Administration Guide* for information about how to configure OVPI after you have installed it and for administrative tasks that you will need to perform.

Installing OVPI on Oracle

This chapter describes how to install HP OpenView Performance Insight (OVPI) on supported operating systems in a standalone configuration on an Oracle database.

A *standalone* system is one where all of the OVPI components are installed on a single system. (If you would like to install OVPI in a distributed configuration, see [Chapter 6, Installing OVPI in a Distributed Configuration](#).) To install OVPI using an database, see [Chapter 4, Installing OVPI on Sybase](#).

Before you install OVPI, ensure that you have met the following requirements:

- Read the *HP OpenView Performance Insight Release Notes*. Specifically, this document provides an overview of the changes made to OVPI for the version 5.0 release such as new features and changed features.
- Your system must meet the prerequisites in [Chapter 2, Preparing for Installation](#). For all Windows and UNIX systems, see [System Requirements on page 25](#). In addition, see [UNIX-Specific Requirements on page 36](#) for UNIX systems.
- You have installed the database according to the information provided in [Chapter 3, Installing a Database](#).

Installing OVPI – Standalone

This section describes the information that you need to supply when you use the installation wizard and how to install OVPI on both Windows and UNIX systems.

Preparing for Component Installation

Most of the information that you need to supply when you use the installation wizard will have default values; however, HP recommends that you have this information available prior to installation in the event that you want to change a default value.

[Table 1](#) lists each of the OVPI components, the installation wizard window that asks for information about the component, the parameters requested in each window, and the default values for the parameters.

Table 1 Installation Wizard Configuration Parameters

Component	Wizard Window	Default Values for the Parameters
All components	Destination Folder	Destination Directory: C:\OVPI (Windows) or /usr/ovpi (UNIX)
OVPI Database Schema	Oracle Reference Using Database Administrator User	Oracle TCP/IP port: 1521 Oracle User with DBA privileges: sys Oracle home directory: \$ORACLE_HOME
OVPI Database Schema	Oracle User and Tablespace Creation ^a	Database size: 1024 MB Database files directory: \$ORACLE_HOME/dbs
Performance Manager	Performance Manager Settings	Poller/Collection Cache Directory: <i>OVPI_directory\collect</i> (Windows) or <i>OVPI_directory/collect</i> (UNIX)
Web Access Server	Web Access Server Settings	OVPI Administrator Username: trendadm HTTP Port: 80

- a. This window will only open if you select the **Create new tablespaces on Oracle** option in the Database Selection window ([Figure 5](#)).

Installing OVPI



With the exception of starting the installation wizard and the Operating System User for Performance Manager window, the steps for installing OVPI as a standalone system are identical for both Windows and UNIX systems. To minimize duplication, this section provides separate instructions for starting the installation wizard on Windows and UNIX; however, it provides only one procedure for the OVPI installation.

Task 1: Make sure that the database is installed and running.

If you have *not* installed the database, see [Chapter 3, Installing a Database](#).

Task 2: Make sure that the instance for the Oracle listener program created for OVPI is running.

Task 3: Start the setup program.

Run the OVPI setup program. See [Starting the Setup Program on page 55](#).

Task 4: Select the OVPI installation option.

Select **OVPI 5.0.0** from the Setup window.

Task 5: Read the Welcome window.

Figure 1 shows the Welcome window.

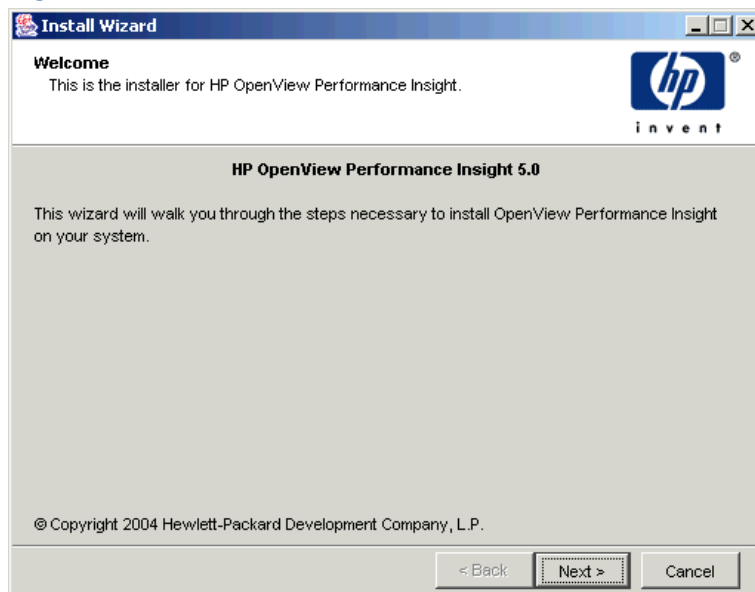


Figure 1 Welcome Window

Click **Next** to continue the installation.

Task 6: Accept or reject the license terms.

Figure 2 shows the License Agreement window.

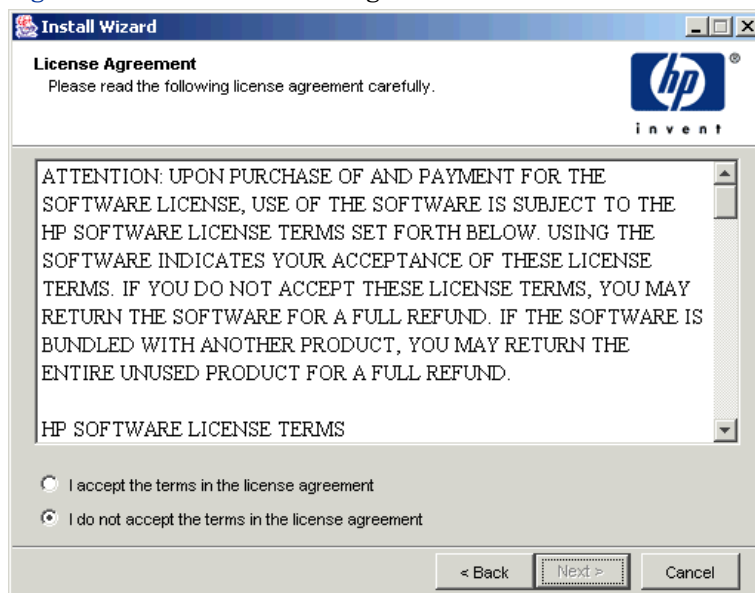


Figure 2 License Agreement Window

Do *one* of the following:

- To reject the license terms and discontinue installation, click **Cancel**.
A confirmation window appears.
 - If you click **Yes**, the installation process ends.
 - If you click **No**, the License Terms window appears again. You can then click the **I accept the terms in the license agreement** option to proceed with installation.
- To accept the license terms and continue installing OVPI, click the **I accept the terms in the license agreement** option, and then click **Next**.

Task 7: Select the OVPI components you want to install.

Figure 3 shows the Component Selection window.



Figure 3 Component Selection Window

- 1 Make sure that all components are checked; all components are required for a standalone installation.
For a description of each component, see [OVPI Components on page 10](#).
- 2 Click **Next** to continue the installation.

Task 8: Specify an installation directory for the OVPI software.

Figure 4 shows the Destination Folder window.

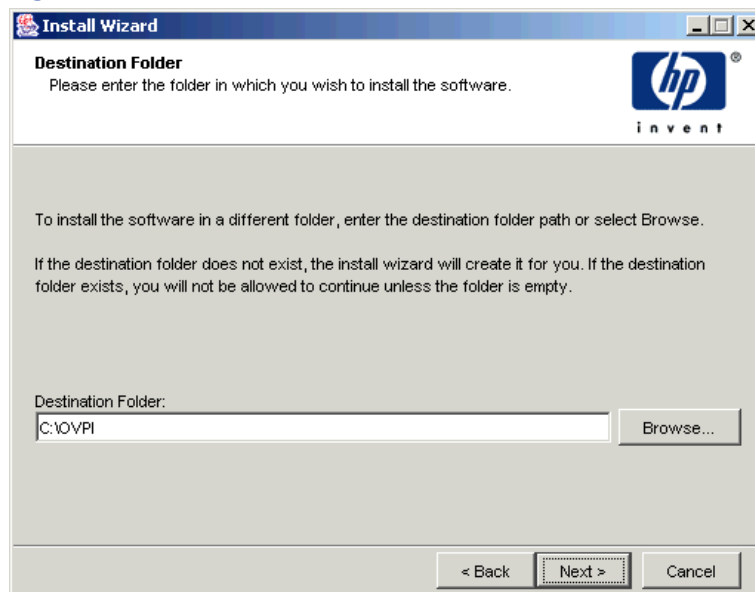


Figure 4 Destination Folder Window

An installation directory can be any one of the following: NFS mounted directory, UNIX soft link, UNIX hard link, or a Windows mapped drive.



The path to the destination folder cannot contain any blank spaces.

Do *one* of the following:

- Click **Next** to accept the default destination folder and to continue the installation.
- Type a different destination folder from the default, and click **Next** to continue the installation.

Depending on the installation directory you specified, the following will occur:

- If the installation directory does not already exist, the setup program creates it.
- If the installation directory already exists and contains data, a message will display to warn you that the directory is not an empty.

- If you specify an installation directory that is located on a file system that the setup program cannot access, a message will display to warn you. You cannot continue the installation until you supply a valid directory.

Task 9: Select the database settings in which the OVPI database schema will be installed.

Figure 5 shows the Database Selection window.

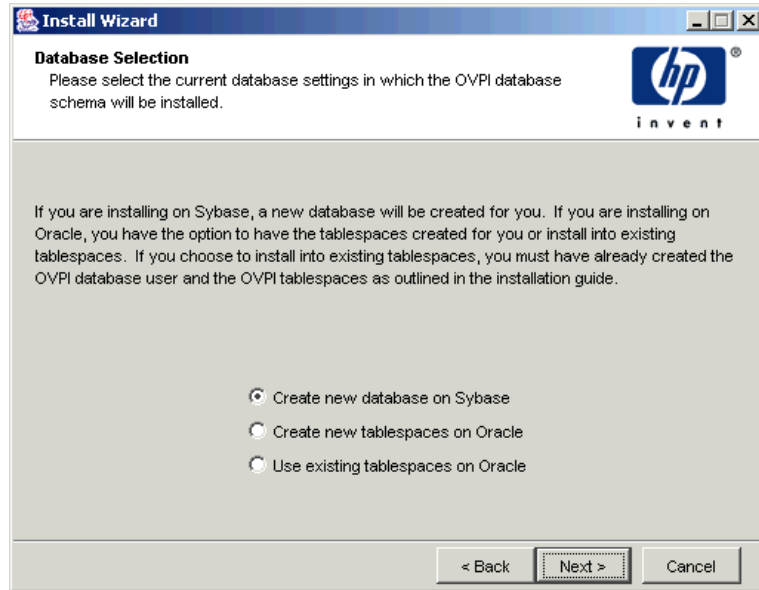


Figure 5 Database Selection Window


For information about tablespace sizing guidelines, see [Tablespace Sizing Guidelines on page 63](#).

1 Select one of the following options:

- **Create new tablespaces on Oracle.**

To use this option, the `dsi_dpipe` user must **not** exist and the following tablespaces must **not** exist:

- `dpipe_default_seg`
- `dpipe_property_ind_seg`
- `dpipe_property_seg`

- dpipe_upload_ind_seg
 - dpipe_upload_seg
 - dpipe_rate_ind_seg
 - dpipe_rate_seg
 - dpipe_summary_ind_seg
 - dpipe_summary_seg
 - dpipe_overflow_seg
 - **Use existing tablespaces on Oracle.**
Before you continue with the installation, you ***must*** do the following:
 - Create the OVPI database user account (dsi_dpipe).
 - As the dsi_dpipe user, create the tablespaces referred to above.
 - Adjust the recommended Oracle parameters. For details, see [Using Existing Tablespaces on page 61](#).
-  If you are unsure of which option to select, select **Create new tablespaces on Oracle**.

2 Click **Next**.

Do one of the following depending on which tablespace option you chose:

- **Create new tablespaces on Oracle** option. Go to [Task 10](#).
- **Use existing tablespaces on Oracle** option. Go to [Task 12 on page 125](#).

Task 10: Locate and connect to the database.

The Oracle Reference Using Database Administrator User window opens.

Figure 6 Oracle Reference Using Database Administrator User Window

- 1 In the Oracle Instance ID (SID) box, type the Oracle Instance ID.
A default is provided only if the Oracle environment variable ORACLE_SID is set; verify that the SID shown is correct since you may have more than one database instance running.
- 2 In the Oracle TCP/IP Port Number box, type the TCP/IP port for Oracle.
The default is 1521.
- 3 In the Oracle User with DBA Privileges box, type the username for an account with Database Administrator privileges.
- 4 In the Oracle User Password box, type the password for the account you specified in [Step 3](#).
- 5 In the Oracle Home Directory box, type the directory into which you installed Oracle. If the installation program can determine the location of the Oracle Home directory, then it is provided as the default.
- 6 Click **Next**.

Task 11: Create the Oracle user account and the new tablespaces.

Tablespaces are created with autoextend on, allowing Oracle to automatically extend a datafile to meet the needs of the data if enough free space does not currently exist in the tablespace. Thus, monitor the system to make sure that the physical filesystem does not exceed 100%.

Figure 7 shows the Oracle User and Tablespace Creation window.

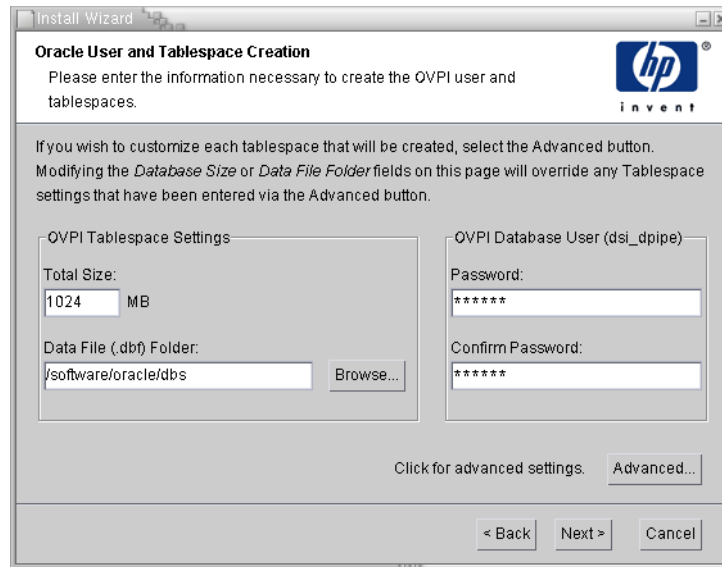


Figure 7 Oracle User and Tablespace Creation Window



Before you change the values for the Total Size and Data File Folder options, decide whether you want to modify the data files for database segments by clicking the **Advanced** button. See [Step 4 on page 122](#) for details. Do **not** change the values for the Total Size ([Step 1](#)) and Database Folder ([Step 2](#)) options after you modify the database segments using the Advanced Configuration dialog box. Once you set the values for these options, you cannot reset them. Thus, they will override the changes you made using the Advanced Configuration dialog box. There is no way to reset these options, unless you cancel from the installation program and start the installation again.

- 1 In the Total Size box, type the size of the database. The default is 1024 MB; the minimum size that the database can be is 500 MB.

The tablespaces will be created with the space appropriately distributed.

- 2 In the Data File (.dbf) Folder box, type the directory in which the database files (.dbf) are created.
- 3 In the OVPI Database User (dsi_dpipe) Password box, create a password for the `dsi_dpipe` account, and then retype the password in the Confirm Password box.

Create the `dsi_dpipe` password adhering to the following rules:

- The password must have a minimum length of 1 character and cannot exceed 30 characters in length.
- The password must start with an alphabetic character.
- Valid characters are all alphanumeric characters and the underscore (_).



The password is not case sensitive.

- 4 If needed, click **Advanced** to display the Advanced OVPI Configuration dialog box. This dialog box lets you do the following:
 - Add, modify, or remove the data files that comprise the tablespaces.

The tablespaces are as follows: default, property and property index, upload and upload index, rate and rate index, summary and summary index, and database overflow. See [Modifying the Default Tablespaces](#) for details.
 - Change specific Oracle configuration parameters. See [Changing Specific Oracle Configuration Parameters on page 124](#) for details.

Modifying the Default Tablespaces



Once you modify the database segments using the Advanced OVPI Configuration dialog box, do **not** change the values for the Total Size ([Step 1 on page 121](#)) and Data File Folder ([Step 2 on page 122](#)) options in the Oracle User and Tablespace Creation window. If you change the values for these options, you can not reset them; thus, they override the changes you made using the Advanced Configuration dialog box. There is no way to reset these options, unless you cancel from the installation program and start the installation again.

For tablespace sizing guidelines, see [Tablespace Sizing Guidelines on page 63](#).

To modify the tablespaces:

- a Click **Advanced** in the Oracle User and Tablespace Creation window to open the Advanced OVPI Configuration dialog box.
- b Select the tab associated with the tablespace you want to change. [Figure 8](#) shows the Property tab in the Advanced OVPI Configuration dialog box.

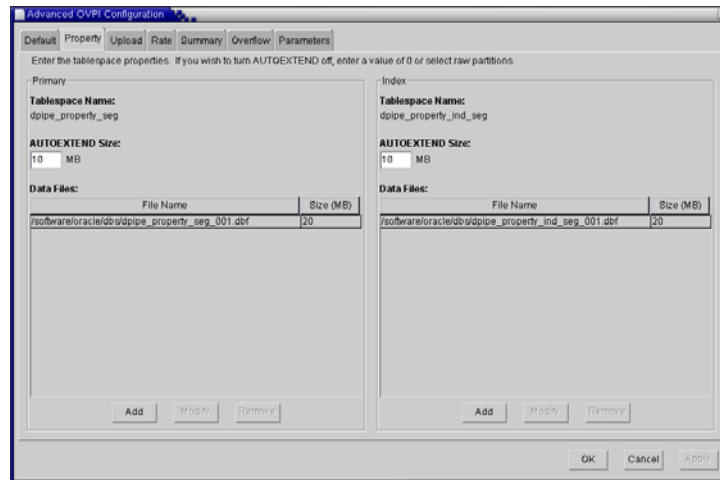



Figure 8 Property Tab

- c In the AUTOEXTEND Size box, type the size of the extent.
 - If you specify 0 for the extent size, Oracle's autoextending feature is disabled.
- d To add a data file, click **Add**. In the DataFile Information dialog box, type the following: the name of the data file in the DataFile name box and the size of the data file in the Size box. Click **OK**.
- e To modify a data file, select the data file, and click **Modify**. In the DataFile Information dialog box, do the following: change the data file's name, size, or both, and click **OK**.

- f** To remove a data file, select the data file, and click **Remove**.
-  You must create at least one data file for each tablespace.
- g** When you have finished making all of your changes, click **OK** to close the Advanced OVPI Configuration dialog box and to return to the Oracle User and Tablespace Creation window.

Changing Specific Oracle Configuration Parameters

See [Table 1 on page 62](#) for the values that HP recommends for these parameters.

To change your Oracle configuration parameters:

- a** Click **Advanced** in the Oracle User and Tablespace Creation window to open the Advanced OVPI Configuration dialog box.
- b** Select the Parameters tab. The Parameters tab contains the following:
 - **SGA_MAX_SIZE**. This parameter determines the maximum amount of memory that will be utilized by the Oracle database. This memory is shared memory and is used by all Oracle server processes.
 - **PGA_AGGREGATE_TARGET (M)**. This parameter lets you specify the target aggregate PGA memory available to all server processes associated with the instance. The default is 200M.
 - **DB_FILE_MULTIBLOCK_READ_COUNT**. This parameter lets you minimize I/O during table scans by specifying the maximum number of blocks that should be read in one I/O operation when a sequential scan occurs.
 - **WORKAREA_SIZE_POLICY**. This parameter lets you specify the policy for sizing work areas and controls the mode in which working areas are tuned. The default is AUTO. It is **not** recommended that you use MANUAL for the value.
 - **DB_CACHE_SIZE**. This parameter specifies the size of the DEFAULT buffer pool for buffers with the primary block size. The default is TRUE. It is **not** recommended that you use FALSE.
 - **DB_32K_CACHE_SIZE**. This parameter lets you specify the size of the cache for 32K buffers.

- **PARALLEL_AUTOMATIC_TUNING.** Lets you specify whether or not Oracle will determine the default values for the parameters that control parallel execution.
- c Click **Apply** to make your changes take effect. Click **OK** when you want to return to the Oracle User and Tablespace Creation window.
- 5 Click **Next** in the Oracle User and Tablespace Creation window to continue with the installation.
- 6 Go to [Task 13 on page 126](#).

Task 12: Locate and connect to the database.

Figure 9 shows the Oracle Reference Using OVPI Database User window.

Figure 9 Oracle Reference Using OVPI Database User Window

- 1 In the Oracle Instance ID (SID) box, type the Oracle Instance ID.
A default is provided only if the Oracle environment variable **ORACLE_SID** is set; verify that the SID shown is correct since you may have more than one database instance running.
- 2 In the Oracle TCP/IP Port Number box, type the TCP/IP port for Oracle.
- 3 In the Password box, type the password for the **dsi_dp1pe** account.

- 4 In the Oracle Home Directory box, type the directory into which you installed Oracle. If the installation program can determine the location of the Oracle Home directory, then it is provided as the default.
- 5 Click **Next**.

Task 13: Install Performance Manager.

Figure 10 shows the Performance Manager Settings window.

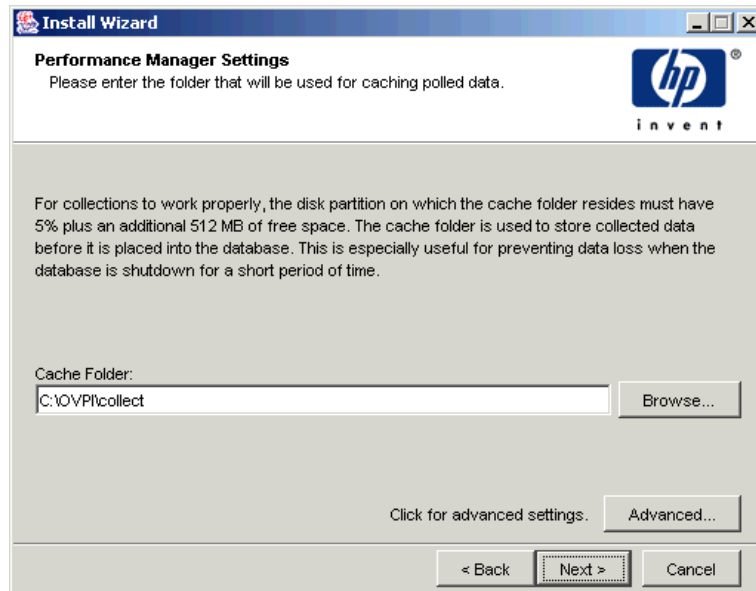


Figure 10 Performance Manager Settings Window



For collections to work properly, the disk partition on which the Poller Collection/Cache directory resides must have 5% plus an additional 512 MB of free space. For example, if the disk partition is 10 GB, it must have 1 GB of free space.

Do the following:

- 1 If needed, click **Advanced** to open the Advanced OVPI Configuration dialog box, which lets you specify the directory in which the log files will reside. [Figure 11 on page 96](#) shows the Log Settings tab in the Advanced OVPI Configuration Dialog Box.

To specify a directory for log files:

- a** In the Log Directory box, do one of the following:
 - Type the directory path in which the log files will reside.
 - Click **Browse** to locate the desired directory.
 - Accept the default path; the default creates a `log` folder under the directory into which you installed OVPI.



The installation will create a log directory under the directory in which you installed OVPI. Certain log files will be maintained there regardless of the directory you specify in the Log Directory box.

- b** Click **OK** apply any changes you made and to return to the Performance Manager Settings window.

2 Do one of the following:

- Click **Next** to accept the default location for the Cache Folder and to continue the installation.
- Type a fully-qualified path for the location, and click **Next** to continue the installation.
- Click **Browse** to navigate to a location for the Cache Folder, and then click **Next** to continue the installation.

3 Do one of the following depending on your operating system:

- Windows: Go to [Task 15 on page 130](#).
- UNIX: Proceed with [Task 14](#).

Task 14: UNIX systems only: Create or modify the operating system account.

On UNIX systems, the Performance Manager component requires an operating system account and group named `trendadm`.



The purpose of this account is to preserve the environment in which OVPI will run. This account is used to log on to the operating system and should not be confused with the `trendadm` account you will create in [Task 15 on page 130](#), which is used to log on to the Web Access Server application.

Depending on whether or not this account exists, different windows will open during this point in the installation:

- If the operating system account and group do not exist, the Create OS user window opens. See [Creating the Operating System Account on page 128](#).
- If the operating system account and group do exist, the Existing OS User window opens. See [Modifying the Existing Operating System Account on page 129](#).

Creating the Operating System Account

Figure 11 shows the Operating System User for Performance Manager window.

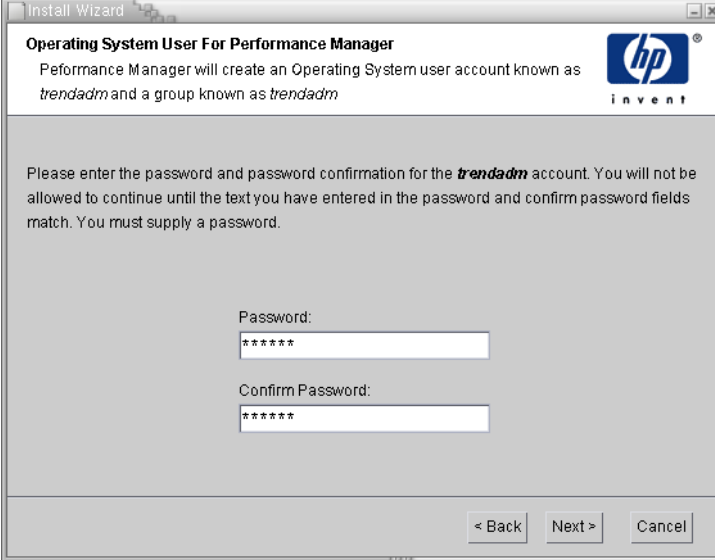


Figure 11 Operating System User for Performance Manager Window

- 1 Create a password for the `trendadm` account in the Password box, and then retype the password in the Confirm Password box.

By default, the password must have a minimum length of one character, has no limit on its maximum length, and may contain any character; however, it is recommended that you adhere to your company's policy for password creation.

- 2 Click **Next**.

3 Go to [Task 15](#) on page 130.

Modifying the Existing Operating System Account

[Figure 12](#) shows the Operating System User for Performance Manager window.

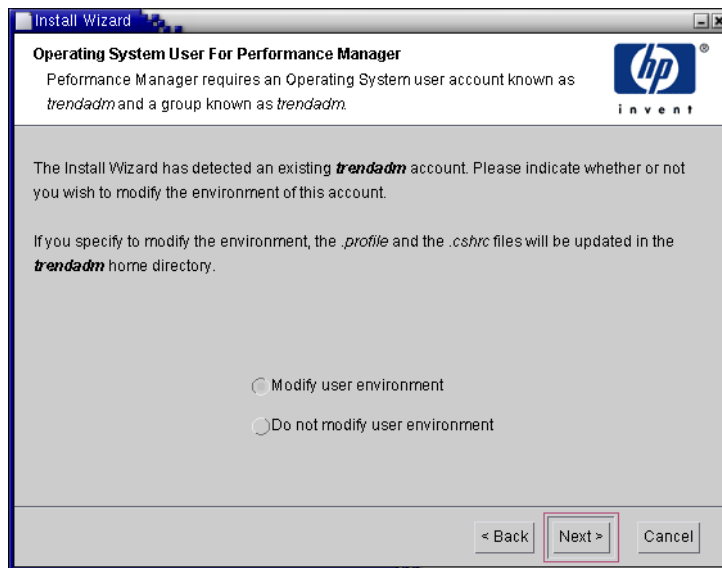


Figure 12 Operating System User for Performance Manager Window

1 Click one of the following:

- **Modify user environment.** This option updates the trendadm account's .profile or .cshrc with the OVPI environment variables (COLLECT_HOME, DPIPE_HOME, DPIPE_TMP, and TREND_LOG).
- **Do not modify user environment.** This option will not update the account's .profile or .cshrc with the OVPI environment variables. If you select this option, you will have to manually add the OVPI environment variables later.

2 Click **Next**.

Task 15: Specify the port for the Web Access Server.

Figure 13 shows the Web Access Server Settings window.

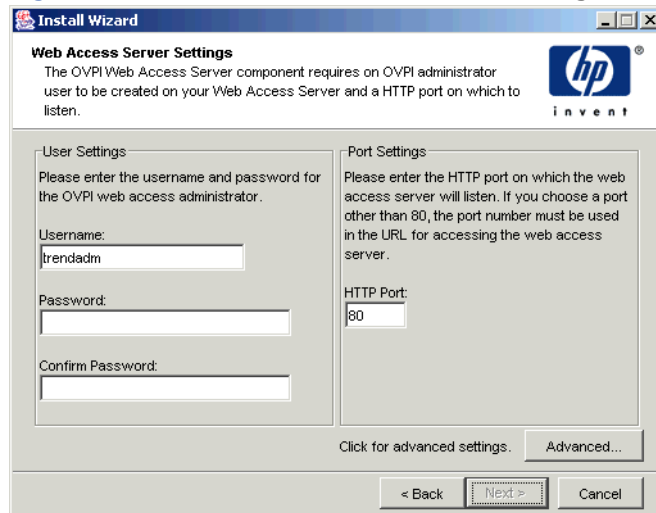


Figure 13 Web Access Server Settings Window

- 1 In the Username box, type the username for the OVPI Web Access Server administrator. The username is `trendadm` by default.
 - This account is used to log on to the Web Access Server application. Do not confuse this account with the `trendadm` account discussed in [Task 14 on page 127](#) (UNIX installations only), which is used to preserve the environment in which OVPI will run. The account for the Web Access Server is given the default name of `trendadm`; however, you can change the name of this account now.
- 2 Create a password for the OVPI Web Access Server administrator account by typing a password in the Password box.
 - The installation wizard places no restrictions on the minimum and maximum length or on the characters that can be used in the username and password; however, the installation wizard does require that you supply a username and a password. It is recommended that you adhere to your company's policy for username and password creation.

You can change password rules after you install OVPI using the Web Access Server application. Refer to the *Performance Insight Administration Guide* for details.

- 3 Type the password you created in [Step 2](#) in the Confirm Password box.
- 4 Type the port for the Web Access Server in the HTTP Port box if you do not want to use the default, which is 80.
- 5 If needed, click **Advanced** to open the Advanced Configuration dialog box, which lets you do the following:
 - Change the location of the `reports` directories (Directories tab). The `reports` directory is where all deployed reports will be stored. See [Changing the Reports Directories](#) for details.
 - Create and remove user accounts (OVPI User tab). A user account lets you log on to OVPI's client applications (Report Viewer, Report Builder, Web Access Server, and Management Console). See [Creating and Modifying User Accounts on page 132](#) for details.
 - Enable Secure Sockets Layer (SSL) communication between the Web Access Server and a supported Web browser (SSL Setup tab). See [Enabling Secure Sockets Layer \(SSL\) Communications on page 133](#) for details.
- 6 Click **Next** to continue with the installation.

Changing the Reports Directories

To change the location of the users and reports directories:

- a Select the Directories tab in the Advanced OVPI Configuration dialog box. [Figure 15 on page 102](#) shows the Directories tab in the Advanced OVPI Configuration Dialog Box.
- b To change the `reports` directory, do *one* of the following:
 - Enter a new directory location in the Reports Directory box.
 - To search for a directory, click **Browse**. Locate the directory, and then click **OK**.
- c Click **Apply** to make your changes take effect.
- d Click **OK** when you want to return to the Web Access Server Settings window, and then click **Next** to continue with the installation.

Creating and Modifying User Accounts

Use the OVPI User tab to create user accounts. These accounts are used to log on to the following OVPI client applications: Management Console, Report Builder, Report Viewer, and Web Access Server.

You can create regular user accounts or administrator accounts. Users with non-administrator accounts can access the OVPI client applications. Users with administrator accounts can the administration features (Administration link) of the Web Access Server. Refer to the *Performance Insight Administration Guide* for details.

To create and modify accounts:

- a** Select the OVPI User tab in the Advanced OVPI Configuration dialog box. [Figure 16 on page 103](#) shows the OVPI User tab in the Advanced OVPI Configuration Dialog Box.
- b** To add a user account, do the following:
 - Click **Add User**. A default user appears with a default value of new-user for user name and password, and a role of user.
 - Double-click the new-user cell under the User Name column, delete the default value, and then enter the user name you want to use.
 - Double-click the new-user cell under the Password column, delete the default value, and then enter the password you want to use.
 - Click the user cell under the Role column, and then select a role (**user** or **admin**) from the list.
 - Click **Apply** when you have finished making all of your changes.

- c** To remove a user account:
 - Select the user name. The entire row is selected including the user name, password, and role.
 - Click **Delete User**.
 - Click **Apply** when you have finished making all of your changes.
- d** Click **OK** when you want to return to the Web Access Server Settings window, and then click **Next** to continue with the installation.

You can create, modify, or delete user accounts after you install OVPI using the Web Access Server. Refer to the *Performance Insight Administration Guide* for details.


Enabling Secure Sockets Layer (SSL) Communications


Using SSL, you can enable secure communication between the Web Access Server and a supported Web browser, Report Viewer, Report Builder, and the Management Console.

To enable SSL, you create a self-signed certificate. This self-signed certificate will allow you to enable SSL; however, this self-signed certificate is only valid for 90 days. You should send this certificate to a certificate authority in order to receive a signed digital certificate or generate another self-signed certificate before the 90 days expires.

Once you have a signed digital certificate, you must import it using the Web Access Server application. Additionally, you can use the Web Access Server to change SSL settings after you install OVPI. Refer to the *Performance Insight Administration Guide* for details.

To enable SSL communications and create a self-signed certificate:

- a** Select the SSL Setup tab in the Advanced Configuration dialog box. [Figure 17 on page 105](#) shows the SSL Setup tab in the Advanced OVPI Configuration Dialog Box.
 - b** Select the **Enable SSL** check box.
-  By selecting this option, you will not disable the standard HTTP listener; thus, the secured SSL port and the unsecured HTTP port will both be enabled.

- c** Do *one* of the following:
 - Leave the value in the SSL Port box as is; the default is 443.
 - Modify the value in the SSL Port box.
 - d** In the Keystore Password box, enter a password of 6 characters or more.
-  Record the password and keep it in a secure place; you will need it to generate a signed certificate.
- After you generate your self-signed certificate, it will be stored in the certificate repository. This password lets the Web Access Server access the certificate repository.
- The remaining fields request information that is necessary when you generate an SSL key that must be verified and signed by a certificate-signing authority. This is information used by the person who checks by the certificate to ensure that the certificate is valid.
- e** Type your two-letter country code in the Country box (for example, “US”).
 - f** The following information is optional:
 - Organization. Type the name of your organization (for example, “ABC Systems, Inc.”)
 - Org. Unit. Type the name of your department or division (for example, “Northeast Sales”).
 - City. Type the name of your city or locality (for example, “Los Angeles”).
 - State. Type the name of your state or province (for example, “California”).
 - g** Click **Apply** to make your changes take effect.
 - h** Click **OK** when you want to return to the Web Access Server Settings window, and then click **Next** to continue with the installation.

Task 16: Review the installation information and install.

Figure 14 shows the Selection Summary window.

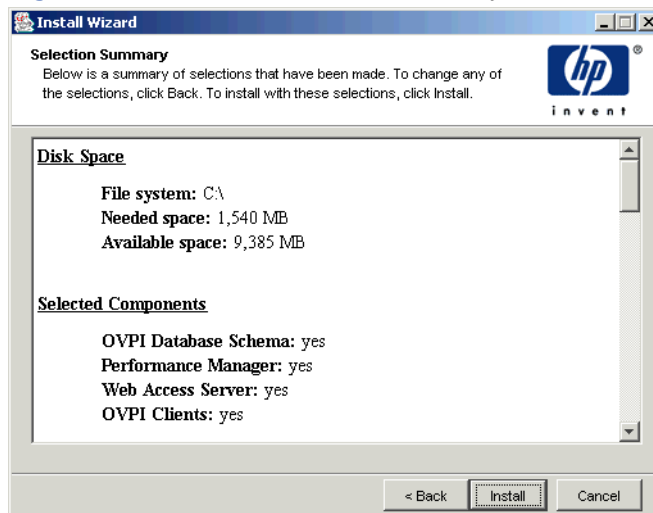


Figure 14 Selection Summary Window

- 1 Review the Selection Summary window.
- 2 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Selection Summary window.
- 3 Click **Install** to continue the installation.

Task 17: Close the Setup program.

Figure 15 shows the Installation Progress window, which shows the installation status.

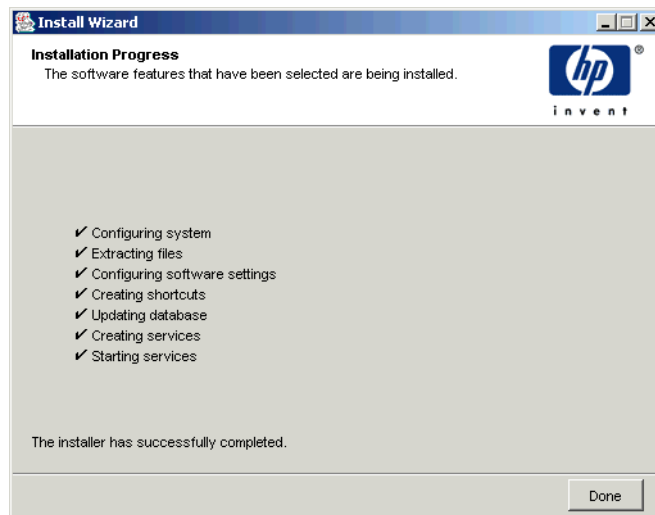


Figure 15 Installation Progress Window

Do *one* of the following:

- If the OVPI installation was successful, click **Done**.
 - If you installed OVPI on a UNIX system, the installation is complete.
- If the OVPI installation was unsuccessful, click the **Details** button at the bottom of the Installation Progress window for additional information, and then contact Technical Support. For information about how to contact support, see [Technical Support and Training on page 4](#).

Task 18: Windows systems only: Reboot the system.

You must reboot your Windows system before you can use OVPI.

Post-Installation Tasks

Refer to the *Performance Insight Administration Guide* for information about how to configure OVPI after you have installed it and for administrative tasks that you will need to perform.

Installing OVPI in a Distributed Configuration

This chapter describes how to install HP OpenView Performance Insight (OVPI) in a distributed configuration.

Installation Prerequisites

Before you install OVPI in a distributed configuration, do the following:

- Read the *HP OpenView Performance Insight Release Notes*. Specifically, this document provides an overview of the changes made to OVPI for the version 5.0 release such as new features and changed features.
- Read [System Roles on page 14](#) to understand the role your system will play in the overall architecture. System roles dictate which OVPI components you must install for the system to be capable of fulfilling its role.
- Read [Reasons for Using a Distributed Configuration on page 18](#).
- Your systems must meet the prerequisites in [Chapter 2, Preparing for Installation](#). For all Windows and UNIX systems, see [System Requirements on page 25](#). In addition, see [UNIX-Specific Requirements on page 36](#) for UNIX systems.

- Adhere to the following requirements:
 - Install the database schema component **first**, making sure that you install it on the same system that is running your database server (Sybase or Oracle).
 - Install OVPI's Database Schema and the Performance Manager components on the **same** system.

During the installation, you select these components from the Component Selection window. See [Figure 3 on page 84](#).
 - The remote poller and satellite servers can be installed on different platforms; however, as the default database character sets may differ between operating systems, be sure that all database instances and clients utilize a common character set.

Installing OVPI

Since there are numerous ways in which to install OVPI in a distributed configuration, it is not possible to document all of those configurations; however, this chapter does provide the following:

- An example scenario of how to install OVPI in a typical distributed configuration
- How to individually install each component
- Separate instructions for installing the Database and Performance Manager components on Sybase and on Oracle

This section describes how to install OVPI in the distributed environment shown below.

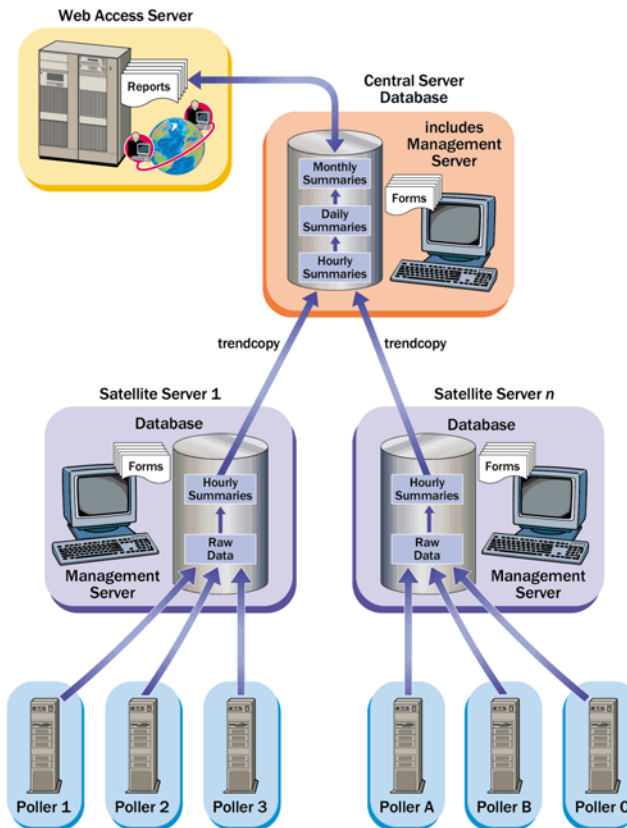


Figure 1 Common Distributed Architecture for SNMP Polling Systems

Example: Installing OVPI in a Distributed Configuration

The following example shows you how to install OVPI in the distributed configuration shown in [Figure 1](#) on Windows systems using Sybase.

Task 1: Ensure that Sybase is installed and running.

Ensure that Sybase is installed and running. See [Installing Sybase on page 65](#) for details.

Task 2: Install the Database Schema and Performance Manager components on the Central Server.

To install these components, see [Installing the Database Schema and Performance Manager Components on Sybase on page 145](#).

Task 3: Install the Web Access Server.

To install the Web Access Server, see [Installing the Web Access Server on page 172](#).

If you have more than one Web Access Server, repeat the installation procedure on each Web Access Server system.

Task 4: Install only the report packages on the Central Server, and deploy the reports to the Web Access Server.



If your configuration has more than one Web Access Server, you must deploy the reports from the report packages to each Web Access Server.

The report packages are located on the Reporting and Network Solutions CD.

- 1** Insert the Reporting and Network Solutions CD in the CD-ROM drive. (If you are a UNIX user, you must also mount the CD. See [Table 11 on page 56](#) for instructions.)
- 2** Print and read the guide for each package that you plan to install, because the documentation contains the guidelines for installing the package in a distributed environment.

To obtain these guides:

- a** Go to the following Web site:

www.ovweb.external.hp.com/lpe/doc_serv/

- b** In the select product box, choose **reporting and network solutions**.

The list of Reporting and Networking Solutions user guides are displayed.

- c Select the guide you want, and click **Open** to open the PDF file or **Download** to download the PDF file to a system.
- 3 Follow the instructions in the guide to extract and install each package that you want and deploy its reports to the Web Access Server.
- 4 Follow the guidelines for installing the package in a distributed environment.

Task 5: Install the Database Schema and Performance Manager components on all Satellite Server systems.

To install these components, see [Installing the Database Schema and Performance Manager Components on Sybase on page 145](#).



It is also possible to have a distributed installation without Satellite Servers; this installation would only have a Central Server and Remote Pollers.

Task 6: Discover the network on the Satellite Servers.

Discover your network by using one of the following methods:

- Let OVPI discover your nodes by using the SNMP Discovery wizard. Refer to the *Performance Insight Administration Guide* for more information about this wizard.
- Import your nodes by using the `node_manager` command. Refer to the *Performance Insight Reference Guide* for more information about this command.



You only need to discover the nodes that you plan to poll.

Task 7: Install the report packages and the datapipes on the Satellite Servers, but do not deploy the reports.

For each Satellite Server, follow the procedure in [Task 4 on page 142](#).

Make sure that you do the following:

- Install the same report packages on the Satellite Servers that you installed on the Central Server.

The trendcopy process copies data from the Satellite Servers to the Central Server; if the data structures are different or missing, the process could fail.

- Disable polling in the `trendtimer.sched` file if a Satellite Server is not going to be polling devices.

Refer to Chapter 1 in the *Performance Insight Administration Guide* for more information.

Task 8: Install Remote Pollers.

To install a Remote Poller, see [Installing the Remote Poller Component on page 185](#).

If you have more than one Remote Poller, repeat the installation procedure on each Remote Poller system.

Task 9: Run type discovery on the Satellite Servers.

Run type discovery on the Satellite Servers if you did not perform a type discovery when you installed the report packages in [Task 7](#).

For more information about type discovery, refer to the *Performance Insight Administration Guide*.

Task 10: Configure report packs for use in a distributed environment.

Refer to the report pack documentation for information about configuring the package in a distributed environment.

Task 11: Configure polling policies for use in a distributed environment.

You must modify the report package polling policies, which are located on the Satellite Servers, so that the policies are collecting data from the system on which the remote poller is located. Refer to Chapter 1 in the *Performance Insight Administration Guide* for more information.

Installing OVPI Components Individually

You can select the components that are required for your particular system, and the installation wizard will guide you through the installation, prompting you for all the configuration parameters needed for the installation; however, the following sections describe how to individually install most of the components.



When you perform a distributed installation, you **must** install the Database Schema and Performance Manager components on the same system. Thus, the installation for these two components is combined.

Installing the Database Schema and Performance Manager Components on Sybase

This section describes the preparation and installation steps necessary for the OVPI database component and Performance Manager on Sybase.

Preparing for the Installation

To avoid delays in the installation process, ensure that you have the following information available:

- Directory into which you want to install OVPI
- Sybase Administrator password
- Sybase TCP/IP port number
- Directory into which you installed Sybase
- To create the OVPI devices, you will need the following information:
 - The location of the database device file and its size
 - The location of the transaction log file and the space it will occupy in database
 - The location of the temporary space file and the space it will occupy in the database
- Poller/Collection Cache Directory
- UNIX systems only: Create or modify the operating system account (trendadm).

- Management Server HTTP port number
- Web Access Server host name and its HTTP port number

Installing the Components

Complete the following tasks to install the Database Schema and Performance Manager components:

Task 1: Ensure that the database is installed and running.

See [Chapter 3, Installing a Database](#) for details.

Task 2: Start the setup program.

See [Starting the Setup Program on page 55](#).

After you start the setup program, the Setup window opens. See [Figure 4 on page 57](#) (Windows) or [Figure 5 on page 58](#) (UNIX). The Setup window opens.

Task 3: Select the OVPI installation option.

Select **OVPI 5.0.0** from the Setup window.

Task 4: Read the Welcome window.

The Welcome window opens. See [Figure 1 on page 82](#).

Click **Next** to continue the installation.

Task 5: Accept or reject the license terms.

The License Terms window opens. See [Figure 2 on page 83](#).

Do *one* of the following:

- To reject the license terms and discontinue installation, click **Cancel**.
A confirmation window appears.
 - If you click **Yes**, the installation process ends.
 - If you click **No**, the License Agreement window appears again. You can then click the **I accept the terms in the license agreement** option to proceed with installation.
- To accept the license terms and continue installing OVPI, click the **I accept the terms in the license agreement** option, and then click **Next**.

Task 6: Select the OVPI component you want to install.

The Component Selection window opens. See [Figure 3 on page 84](#).

- 1 Click the **OVPI Database Schema** check box, the **Performance Manager** check box, and click to clear all other check boxes.

For a description of the components, see [OVPI Components on page 10](#).

- 2 Click **Next**.

Task 7: Specify an installation directory for the OVPI software.

The Destination Folder window opens. See [Figure 4 on page 85](#).

An installation directory can be any one of the following: NFS mounted directory, UNIX soft link, UNIX hard link, or a Windows mapped drive.



The path to the destination folder cannot contain any blank spaces.

Do *one* of the following:

- Click **Next** to accept the default destination folder and to continue the installation.
- Type a different destination folder from the default, and click **Next** to continue the installation.

Depending on the installation directory you specified, the following will occur:

- If the installation directory does not already exist, the setup program creates it.
- If the installation directory already exists and contains data, a message will display to warn you that the directory is not an empty.
- If you specify an installation directory that is located on a file system that the setup program cannot access, a message will display to warn you. You cannot continue the installation until you supply a valid directory.

Task 8: Select the database settings in which the OVPI database schema will be installed.

The Database Selection window opens. See [Figure 5 on page 86](#).

1 Select Create new database on Sybase.

This option requires that no dpipe_db database or dsi_dpipe user exist in order for the installation to complete successfully.

2 Click Next.**Task 9: Locate and connect to the database.**

The Sybase Reference Using Sybase Administrator User window opens. See [Figure 6 on page 87](#). It contains the following values:

- Sybase Server Name (DSQUERY). This is the name of the Sybase SQL Server where the client applications will look for information by default. (Note that this name is case sensitive.) You can find the name of this server in the Sybase interfaces file; this file is located on the system where the Sybase SQL Server is installed. For more information about the Sybase interfaces file, see [The Sybase Interfaces File on page 209](#).
- Sybase Host Name. This is the name of the system on which Sybase is installed.
- Sybase TCP/IP Port Number. The TCP/IP port number that Sybase uses to communicate with clients and servers on other systems. In addition to <DSQUERY>, there are several other Sybase SQL Servers that will be assigned port numbers during the installation. These servers are as follows:

Sybase Server	Windows	UNIX
<DSQUERY>_BS	5001	2053
<DSQUERY>_MS	5002	2054
<DSQUERY>_HS	5003	2055
<DSQUERY>_XP	5004	2056

You must manually start each of these servers in order for them to work.

- Sybase Administrator (SA) Password. If you changed the Sybase Administrator password during the Sybase installation from a NULL value to an actual password, type that password in the Sybase Administrator (SA) Password box.

If you did *not* change the Sybase Administrator during the Sybase installation, you can leave this box blank.

- Sybase Directory. The directory into which you installed Sybase. Click **Browse** to select a different directory. After you select a directory, click **OK** to return to the Sybase Reference Using Sybase Administrator User window.

Do *one* of the following:

- Click **Next** to accept the default values for Sybase environment configuration.
- Type the necessary values, and click **Next**.

Task 10: Create the OVPI user account and devices.

The Sybase User and Device Creation window opens. See [Figure 7 on page 89](#).

The installation wizard creates the device files for the OVPI database using Sybase Adaptive Server. Files are created within Sybase for the following: OVPI database, transaction log, and temporary space. The OVPI database uses the device files to store its data. (If raw devices are used, no device files are created.)

By default, the installation wizard creates the device files in the Sybase installation directory in a subfolder called `dbfiles`. You can change the name of this folder at this point in the installation to be something different; however, the name cannot contain any spaces.



All Sybase devices are created using the `vstart=512` option. This lets you use labeled file systems with OVPI. For example, if the size of your database is 800 MB, only 799 MB of it will be available; one megabyte is allocated for the label.

The Sybase User and Device Creation window contains the following options:

- Database Devices and Database Size (MB). Specifies the file location of the database device and its size.

- Transaction Log and Percent of Database. Specifies the file location of the transaction log and the amount of space allocated to it in the database.
- Temporary Space and Percent of Database. Specifies the file location of the temporary space and the amount of space allocated to it in the database.
- OVPI Database User (dsi_dpipe) Password and Confirm Password. Creates a password for the dsi_dpipe account.

Do the following:

1 Do one of the following:

- Click **Next** to accept the default values for the OVPI database configuration.
- Modify a value or click **Browse** to specify a different location, and then click **Next**.

➤ HP recommends that the temporary space (dpipe_temp) and the transaction log (dpipe_log) be approximately 50% the size of the database device (dpipe_db). For example, if the database (dpipe_db) is 800 MB, then the temporary space (dpipe_temp) and temporary log (dpipe_log) should be 400 MB each.

2 In the OVPI Database User (dsi_dpipe) Password box, create a password for this account, and then retype the password in the Confirm Password box.

Create the dsi_dpipe password adhering to the following rules:

- The password must have a minimum length of 6 characters and cannot exceed 30 characters in length.
- The password must start with an alphabetic character.
- Valid characters are all alphanumeric characters, the underscore (_), and the pound (#).

➤ The password is case sensitive.

- 3 If needed, click **Advanced** to display the Advanced OVPI Configuration dialog box. This dialog box lets you do the following:
 - Add files to or remove them from the OVPI database devices (dpipe_db, dpipe_temp, and dpipe_log), and on UNIX systems only, you can use raw partitions for these devices (Database, Transaction Log, and Temporary Space tabs); S0 and Veritas raw partitions are supported. See [Modifying the Sybase Database Devices](#) for details.
 - Modify the Sybase configuration parameters (Parameters tab). See [Changing Sybase Configuration Parameters on page 153](#) for details.
- 4 Click **Next** to continue the installation.

Modifying the Sybase Database Devices

To modify the OVPI database devices:

- a Select the tab associated with the device (Database, Transaction Log, or Temporary Space) you want to modify. [Figure 8 on page 91](#) shows the Database tab in the Advanced OVPI Configuration dialog box.
- b To add a file to a database device, do one of the following:
 - *Windows:*
Click **Add**.
 - *UNIX:*
Click **Add**, and then click the Datafile arrow, and select a file from the list.

A precalculated size for the device appears next to the device's name in the Size (MB) column. If you are using raw partitions, it is recommended that you do not change this value.
- c Click **Apply** when you have finished making your changes.
- d *File-system database files only:* To edit the file, double-click the file, path, or size cell.
- e To remove a file:
 - Click on the file, and press the TAB key.
 - Press the up or down arrow key to enable selection, and then use the up or down arrow key to select the file you want to remove.
 - Click **Remove**.

- Click **Apply** when you have finished making all of your changes.



You must create at least one file for each device.

f *UNIX only:* To use a raw partition for a database device, do the following:

- Select the tab associated with the device that you want to use a raw partition.
- Select the **Use raw partitions for this database** check box.

The installation application will find disk partitions that are not mounted, used, swapped or listed in the `/etc/vfstab` file. This will prevent any file systems that may have been unmounted, but are still available as file systems if the administrator were to mount them, from being used by the installation wizard.

g Click **Apply** when you have finished making all of your changes.

h Click **OK** when you want to return to the Sybase User and Device Creation window, and then click **Next** to continue the installation.

When you return to the Sybase User and Device Creation window, you may notice the following conditions:

- *UNIX only:* If you chose a raw partition for a particular database device, the database device will appear dimmed on the window.
- If you added a file to or remove a file from one of the devices, the percentages and database size listed on the window will be recalculated.
- If a database device has several files that are located in different directories, the fields for the database device will appear dimmed on the window.

Changing Sybase Configuration Parameters



HP recommends that only a Sybase database administrator change the values for these parameters.

To change your Sybase configuration parameters:

- a** Select the Parameters tab in the Advanced OVPI Configuration dialog box. [Figure 8 on page 91](#) shows the Parameters tab in the Advanced OVPI Configuration Dialog Box.

The Parameters tab contains the following options:

- Recovery Interval (Minutes). Sets the maximum number of minutes that the SQL Server should use to recover each database in case of system failure.
- Maximum Memory (MB). Sets the size of memory that the SQL Server allocates from the operating system.
- User Connections. Sets the maximum number of user connections that can be connected to a SQL Server at the same time. The global variable @@max_connections stores the maximum values for your system. It varies according to operating system.
- Number of Locks. Sets the number of available locks.
- Maximum Online Engines. Controls the number of engines in a symmetric multiprocessor environment.

If your system uses a single CPU, the recommended value is 1. If you increase the value, there is a possibility that Sybase will slow down due to internal contention. However, if your system uses multiple CPU's, the value may be increased in order to take advantage of the multiple CPU architecture.

- Maximum Network Packet Size (Bytes). Sets the maximum network packet size that a client program can request.
- Additional Network Memory (Bytes). Allocates additional memory for clients that request packet sizes larger than the default packet size for the server.
- Number of Devices. Limits the number of database devices that the SQL Server can use.

- b** Click **Apply** when you have finished making all of your changes.

- c Click **OK** when you want to return to the Sybase User and Device Creation window, and then click **Next** to continue the installation.

Task 11: Install Performance Manager.

Figure 10 on page 95 shows the Performance Manager Settings window.



For collections to work properly, the disk partition on which the Poller Collection/Cache directory resides must have 5% plus an additional 512 MB of free space. For example, if the disk partition is 10 GB, it must have 1 GB of free space.

Do the following:

- 1 If needed, click **Advanced** to open the Advanced OVPI Configuration dialog box, which lets you specify the directory in which the log files will reside. Figure 9 on page 93 shows the Log Settings tab in the Advanced OVPI Configuration dialog box.

To specify a directory for log files:

- a In the Log Directory box, do one of the following:
 - Type the directory path in which the log files will reside.
 - Click **Browse** to locate the desired directory.
 - Accept the default path; the default creates a `log` folder under the directory into which you installed OVPI.



The installation will create a log directory under the directory in which you installed OVPI. Certain log files will be maintained there regardless of the directory you specify in the Log Directory box.

- b Click **OK** to apply any changes and return to the Performance Manager Settings window.

- 2 Do *one* of the following:
 - Click **Next** to accept the default location for the Cache Folder and to continue the installation.
 - Type a fully-qualified path to the location, and click **Next** to continue the installation.
 - Click **Browse** to navigate to a location for the Cache Folder, and then click **Next** to continue the installation.
- 3 Do one of the following depending on your operating system:
 - Windows: Go to [Task 13 on page 157](#).
 - UNIX: Proceed to [Task 12](#) of this procedure.

Task 12: UNIX systems only: Create or modify the operating system account.

On UNIX systems, the Performance Manager component requires an operating system account and group named `trendadm`.



The purpose of this account is to preserve the environment in which OVPI will run. This account is used to log on to the operating system and should not be confused with the `trendadm` account you will create in [Task 8 on page 175](#), which is used to log on to the Web Access Server application.

Depending on whether or not this account exists, different windows will open during this point in the installation:

- If the operating system account and group do not exist, the Create OS user window opens. See [Creating the Operating System Account on page 156](#).
- If the operating system account and group do exist, the Existing OS User window opens. See [Modify the Existing Operating System Account. on page 156](#).

Creating the Operating System Account

Figure 11 on page 128 shows the Operating System User for Performance Manager window.

- 1 Create a password for the `trendadm` account in the Password box, and then retype the password in the Confirm Password box.

By default, the password must have a minimum length of one character, has no limit on its maximum length, and may contain any character; however, it is recommended that you adhere to your company's policy for password creation.
- 2 Click **Next**.
- 3 Go to [Task 13 on page 157](#).

Modify the Existing Operating System Account.

Figure 13 on page 99 shows the Existing OS User window.

- 1 Click one of the following:
 - **Modify user environment.** This option updates the `trendadm` account's `.profile` or `.cshrc` with the OVPI environment variables (`COLLECT_HOME`, `DPIPE_HOME`, `DPIPE_TMP`, and `TREND_LOG`).
 - **Do not modify user environment.** This option will not update the account's `.profile` or `.cshrc` with the OVPI environment variables. If you select this option, you will have to manually add the OVPI environment variables later.
- 2 Click **Next**.

Task 13: Specify the port for the Management Server.

Figure 2 shows the Management Server window.

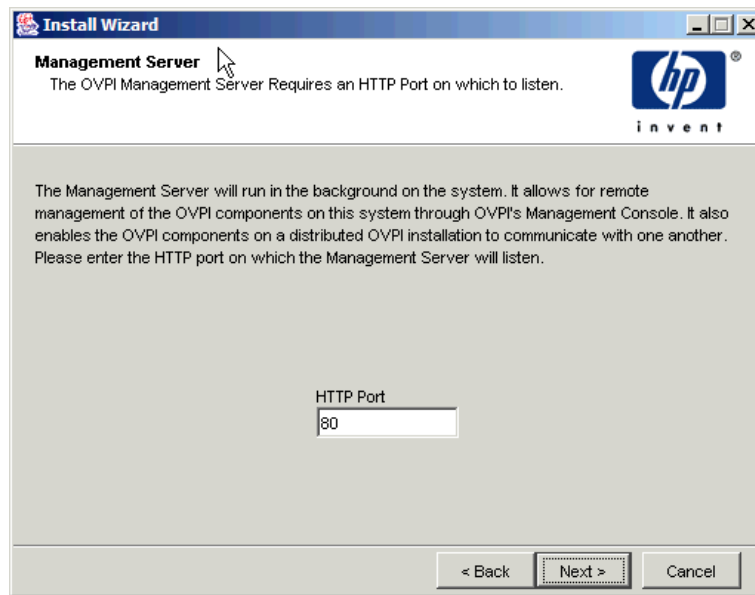


Figure 2 Management Server Window

This window creates the Management Server, which runs in the background on the system. It lets you manage the OVPI components on this system using OVPI's Management Console application. (Refer to *Performance Insight Administration Guide* for more information about the Management Console.) Additionally, it lets the components in an OVPI distributed installation communicate with each other.

The Management Server is a service that is started automatically by the OVPI setup program; this service appears as follows on the supported operating systems:

- Windows: OVPI HTTP Server
- Solaris: `/etc/init.d/ovpi_httpd` and `/etc/rc3.d/S99ovpi_httpd` startupscripts
- HP-UX: `/sbin/init.d/ovpi_httpd` and `/sbin/rc3.d/S99ovpi_httpd` startup scripts

- 1 Type the port on which the Management Server will listen in the HTTP Port box.
- 2 Click **Next**.

The Remote Web Access Server Settings window opens.

Task 14: Specify information about the Web Access Server.



If you have not installed the Web Access Server yet, enter the information where it will be installed.

Figure 3 shows the Remote Web Access Server Settings window.

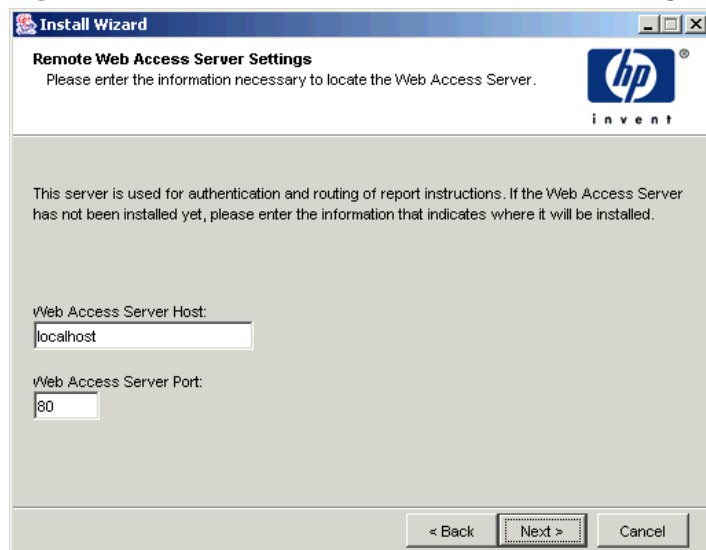


Figure 3 Web Access Server Reference Window

- 1 Enter the name of the Web Access Server in the Web Access Server Host box.
- 2 Enter the port number for the Web Access Server in the Web Access Server Port box.
- 3 Click **Next** to continue.

Task 15: Review the installation information and install.


- 1 Review the Selection Summary window ([Figure 18 on page 107](#)).
- 2 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Summary window.
- 3 Click **Install** to continue the installation.

The Installation Progress window opens, showing the installation status. See [Figure 19 on page 108](#).

Task 16: Close the Setup program.

Do *one* of the following:

- If the OVPI installation was successful, click **Done**.


 If you installed OVPI on a UNIX system, the installation is complete.
- If the OVPI installation was unsuccessful, click the **Details** button at the bottom of the Installation Progress window for additional information, and then contact Technical Support. For information about how to contact support, see [Technical Support and Training on page 4](#).

Task 17: Windows systems only: Reboot the system.

You must reboot your Windows system before you can use OVPI.

Installing the Database Schema and Performance Manager Components on Oracle

This section describes the preparation and installation steps necessary for the OVPI database component and Performance Manager on Oracle.

- 
- When you perform a distributed installation, you
- must***
- install the Database Schema and Performance Manager components on the same system.

Preparing for the Installation

To avoid delays in the installation process, ensure that you have the following information available:

- Directory into which you will install OVPI
- Oracle Instance ID (SID)
- Password for the OVPI database (dsi_dpipedb) account
- Oracle TCP/IP port number
- Directory into which you installed Oracle
- If you are using existing tablespaces, you will also be asked for the following:
 - The size of the database
 - The directory in which the data files are stored

For more information about tablespaces and tablespace sizing guidelines, see [Installing Oracle on page 60](#).

- Poller/Collection Cache Directory
- UNIX systems only: Create or modify the operating system account (trendadm).
- Web Access Server host name
- Web Access Server HTTP port number
- Management Server HTTP port number

Installing the Components

Complete the following tasks to install the Database Schema and Performance Manager components:

Task 1: Ensure that the database is installed and running.

See [Chapter 3, Installing a Database](#) for details.

Task 2: Make sure that the instance for the Oracle listener program created for OVPI is running.

Task 3: Start the setup program.

See [Starting the Setup Program on page 55](#).

After you start the setup program, the Setup window opens. See [Figure 4 on page 57](#) (Windows) or [Figure 5 on page 58](#) (UNIX). The Setup window opens.

Task 4: Select the OVPI installation option.

Select **OVPI 5.0.0** from the Setup window.

Task 5: Read the Welcome window.

The Welcome window opens. See [Figure 1 on page 82](#).

Click **Next** to continue the installation.

Task 6: Accept or reject the license terms.

The License Terms window opens. See [Figure 2 on page 83](#).

Do *one* of the following:

- To reject the license terms and discontinue installation, click **Cancel**.
A confirmation window appears.
 - If you click **Yes**, the installation process ends.
 - If you click **No**, the License Agreement window appears again. You can then click the **I accept the terms in the license agreement** option to proceed with installation.
- To accept the license terms and continue installing OVPI, click the **I accept the terms in the license agreement** option, and then click **Next**.

Task 7: Select the OVPI component you want to install.

The Component Selection window opens. See [Figure 3 on page 84](#).

- 1 Click the **OVPI Database Schema** check box, the **Performance Manager** check box, and click to clear all other check boxes.
For a description of the components, see [OVPI Components on page 10](#).
- 2 Click **Next**.

Task 8: Specify an installation directory for the OVPI software.

The Destination Folder window opens. See [Figure 4 on page 85](#).

An installation directory can be any one of the following: NFS mounted directory, UNIX soft link, UNIX hard link, or a Windows mapped drive.



The path to the destination folder cannot contain any blank spaces.

Do *one* of the following:

- Click **Next** to accept the default destination folder and to continue the installation.
- Type a different destination folder from the default, and click **Next** to continue the installation.

Depending on the installation directory you specified, the following will occur:

- If the installation directory does not already exist, the setup program creates it.
- If the installation directory already exists and contains data, a message will display to warn you that the directory is not an empty.
- If you specify an installation directory that is located on a file system that the setup program cannot access, a message will display to warn you. You cannot continue the installation until you supply a valid directory.

Task 9: Select the database settings in which the OVPI database schema will be installed.

The Database Selection window opens. See [Figure 5 on page 86](#).

1 Select one of the following options:


- **Create new tablespaces on Oracle.**

To use this option, the `dsi_dpipe` user must **not** exist and the following tablespaces must **not** exist:

- `dpipe_default_seg`
- `dpipe_property_ind_seg`
- `dpipe_property_seg`
- `dpipe_upload_ind_seg`

- dpipe_upload_seg
 - dpipe_rate_ind_seg
 - dpipe_rate_seg
 - dpipe_summary_ind_seg
 - dpipe_summary_seg
 - dpipe_overflow_seg
 - **Use existing tablespaces on Oracle.**

Before you continue with the installation, you ***must*** do the following:

 - Create the OVPI database user account (dsi_dpipe).
 - As the dsi_dpipe user, create the tablespaces referred to above.
 - Adjust the recommended Oracle parameters. For details, see [Table 1 on page 62](#).
-  If you are unsure of which option to select, select **Create new tablespaces on Oracle**.

2 Click **Next**.

Do one of the following depending on which tablespace option you chose:

- **Create new tablespaces on Oracle** option. Go to [Task 10](#).
- **Use existing tablespaces on Oracle** option. Go to [Task 12 on page 168](#).

Task 10: Locate and connect to the database.

[Figure 6 on page 120](#) shows the Oracle Reference Using Database Administrator User window.

- 1 In the Oracle Instance ID (SID) box, type the Oracle Instance ID.
A default is provided only if the Oracle environment variable ORACLE_SID is set; verify that the SID shown is correct since you may have more than one database instance running.
- 2 In the Oracle TCP/IP Port Number box, type the TCP/IP port for Oracle. The default is 1521.

- 3 In the Oracle User with DBA Privileges box, type the username for an account with Database Administrator privileges.
- 4 In the Oracle User Password box, type the password for the account you specified in [Step 3](#).
- 5 In the Oracle Home Directory box, type the directory into which you installed Oracle. If the installation program can determine the location of the Oracle Home directory, then it is provided as the default.
- 6 Click **Next**.

Task 11: Create the Oracle user account and the new tablespaces.

[Figure 7 on page 121](#) shows the Oracle User and Tablespace Creation window.



Tablespaces are created with autoextend on, allowing Oracle to automatically extend a datafile to meet the needs of the data if enough free space does not currently exist in the tablespace. Thus, monitor the system to make sure that the physical filesystem does not exceed 100%.

- 1 In the Total Size box, type the size of the database. The default is 1024 MB; the minimum size that the database can be is 500 MB.

The tablespaces will be created with the space appropriately distributed.

- 2 In the Data File (.dbf) Folder box, type the directory in which the database files (.dbf) are created.




Before you change the values for the Total Size and Data File Folder options, decide whether you want to modify the data files for database segments by clicking the **Advanced** button. See [Step 4 on page 165](#) for details. Do **not** change the values for the Total Size ([Step 1](#)) and Database Folder ([Step 2](#)) options after you modify the database segments using the Advanced Configuration dialog box. Once you set the values for these options, you cannot reset them. Thus, they will override the changes you made using the Advanced Configuration dialog box. There is no way to reset these options, unless you cancel from the installation program and start the installation again.

- 3 In the OVPI Database User (dsi_dpipe) Password box, create a password for the `dsi_dpipe` account, and then retype the password in the Confirm Password box.


Create the dsi_dpipe password adhering to the following rules:

- The password must have a minimum length of 1 character and cannot exceed 30 characters in length.
- The password must start with an alphabetic character.
- Valid characters are all alphanumeric characters and the underscore (_).

 The password is not case sensitive.

- 4 If needed, click **Advanced** to display the Advanced OVPI Configuration dialog box. This dialog box lets you do the following:
 - Add, modify, or remove the data files that comprise the tablespaces.
The tablespaces are as follows: default, property and property index, upload and upload index, rate and rate index, summary and summary index, and database overflow. See [Modifying the Default Tablespaces](#) for details.
 - Change specific Oracle configuration parameters. See [Changing Specific Oracle Configuration Parameters on page 166](#) for details.

Modifying the Default Tablespaces

 Once you modify the database segments using the Advanced OVPI Configuration dialog box, do **not** change the values for the Total Size ([Step 1 on page 164](#)) and Data File Folder ([Step 2 on page 164](#)) options in the Oracle User and Tablespace Creation window. If you change the values for these options, you can not reset them; thus, they override the changes you made using the Advanced Configuration dialog box. There is no way to reset these options, unless you cancel from the installation program and start the installation again.

For tablespace sizing guidelines, see [Tablespace Sizing Guidelines on page 63](#).

To modify the tablespaces:

- a** Click **Advanced** in the Oracle User and Tablespace Creation window to open the Advanced OVPI Configuration dialog box.
- b** Select the tab associated with the tablespace you want to change. [Figure 8 on page 123](#) shows the Property tab in the Advanced OVPI Configuration dialog box.
- c** In the AUTOEXTEND Size box, type the size of the extent.



If you specify 0 for the extent size, Oracle's autoextending feature is disabled.

- d** To add a data file, click **Add**. In the DataFile Information dialog box, type the following: the name of the data file in the DataFile name box and the size of the data file in the Size box. Click **OK**.
- e** To modify a data file, select the data file, and click **Modify**. In the DataFile Information dialog box, do the following: change the data file's name, size, or both, and click **OK**.
- f** To remove a data file, select the data file, and click **Remove**.



You must create at least one data file for each tablespace.

- g** When you have finished making all of your changes, click **OK** to close the Advanced OVPI Configuration dialog box and to return to the Oracle User and Tablespace Creation window.

Changing Specific Oracle Configuration Parameters

See [Table 1 on page 62](#) for the values that HP recommends for these parameters.

To change your Oracle configuration parameters:

- a** Click **Advanced** in the Oracle User and Tablespace Creation window to open the Advanced OVPI Configuration dialog box.
- b** Select the Parameters tab. The Parameters tab contains the following:

- **SGA_MAX_SIZE**. This parameter determines the maximum amount of memory that will be utilized by the Oracle database. This memory is shared memory and is used by all Oracle server processes.
 - **PGA_AGGREGATE_TARGET (M)**. This parameter lets you specify the target aggregate PGA memory available to all server processes associated with the instance. The default is 200M.
 - **DB_FILE_MULTIBLOCK_READ_COUNT**. This parameter lets you minimize I/O during table scans by specifying the maximum number of blocks that should be read in one I/O operation when a sequential scan occurs.
 - **WORKAREA_SIZE_POLICY**. This parameter lets you specify the policy for sizing work areas and controls the mode in which working areas are tuned. The default is AUTO. It is **not** recommended that you use MANUAL for the value.
 - **DB_CACHE_SIZE**. This parameter specifies the size of the DEFAULT buffer pool for buffers with the primary block size. The default is TRUE. It is **not** recommended that you use FALSE.
 - **DB_32K_CACHE_SIZE**. This parameter lets you specify the size of the cache for 32K buffers.
 - **PARALLEL_AUTOMATIC_TUNING**. Lets you specify whether or not Oracle will determine the default values for the parameters that control parallel execution.
- c** Click Apply to make your changes take effect. Click **OK** when you want to return to the Oracle User and Tablespace Creation window.
 - 5** Click **Next** in the Oracle User and Tablespace Creation window to continue with the installation.
 - 6** Go to [Task 13 on page 168](#).

Task 12: Locate and connect to the database.

Figure 6 on page 120 shows the Oracle Reference Using OVPI Database User window.

- 1 In the Oracle Instance ID (SID) box, type the Oracle Instance ID.
A default is provided only if the Oracle environment variable ORACLE_SID is set; verify that the SID shown is correct since you may have more than one database instance running.
- 2 In the Oracle TCP/IP Port Number box, type the TCP/IP port for Oracle.
- 3 In the Password box, type the password for the dsi_dpipe account.
- 4 In the Oracle Home Directory box, type the directory into which you installed Oracle. If the installation program can determine the location of the Oracle Home directory, then it is provided as the default.
- 5 Click **Next**.

Task 13: Install Performance Manager.

Figure 10 on page 126 shows the Performance Manager Settings window.



For collections to work properly, the disk partition on which the Poller Collection/Cache directory resides must have 5% plus an additional 512 MB of free space. For example, if the disk partition is 10 GB, it must have 1 GB of free space.


Do the following:

- 1 If needed, click **Advanced** to open the Advanced OVPI Configuration dialog box, which lets you specify the directory in which the log files will reside. Figure 9 on page 93 shows the Log Settings tab in the Advanced OVPI Configuration dialog box

To specify a directory for log files:

- a In the Log Directory box, do one of the following:
 - Type the directory path in which the log files will reside.
 - Click **Browse** to locate the desired directory.

- Accept the default path; the default creates a `log` folder under the directory into which you installed OVPI.

 The installation will create a log directory under the directory in which you installed OVPI. Certain log files will be maintained there regardless of the directory you specify in the Log Directory box.

- b** Click **OK** apply any changes you made and to return to the Performance Manager Settings window.

2 Do one of the following:


- Click **Next** to accept the default location for the Cache Folder and to continue the installation.
- Type a fully-qualified path for the location, and click **Next** to continue the installation.
- Click **Browse** to navigate to a location for the Cache Folder, and then click **Next** to continue the installation.

3 Do one of the following depending on your operating system:

- Windows: Go to [Task 15 on page 170](#).
- UNIX: Proceed with [Task 14](#).

Task 14: UNIX systems only: Create or modify the operating system account.

On UNIX systems, the Performance Manager component requires an operating system account and group named `trendadm`.

 The purpose of this account is to preserve the environment in which OVPI will run. This account is used to log on to the operating system and should not be confused with the `trendadm` account you will create in [Task 8 on page 175](#), which is used to log on to the Web Access Server application.

Depending on whether or not this account exists, different windows will open during this point in the installation:

- If the operating system account and group do not exist, the Create OS user window opens. See [Creating the Operating System Account](#).
- If the operating system account and group do exist, the Existing OS User window opens. See [Modifying the Existing Operating System Account on page 170](#).

Creating the Operating System Account

Figure 11 on page 128 shows the Operating System User for Performance Manager window.

- 1 Create a password for the `trendadm` account in the Password box, and then retype the password in the Confirm Password box.

By default, the password must have a minimum length of one character, has no limit on its maximum length, and may contain any character; however, it is recommended that you adhere to your company's policy for password creation.
- 2 Click **Next**.
- 3 Go to [Task 15 on page 170](#).

Modifying the Existing Operating System Account

Figure 12 on page 129 shows the Operating System User for Performance Manager window.

- 1 Click one of the following:
 - **Modify user environment.** This option updates the `trendadm` account's `.profile` or `.cshrc` with the OVPI environment variables (`COLLECT_HOME`, `DPIPE_HOME`, `DPIPE_TMP`, and `TREND_LOG`).
 - **Do not modify user environment.** This option will not update the account's `.profile` or `.cshrc` with the OVPI environment variables. If you select this option, you will have to manually add the OVPI environment variables later.
- 2 Click **Next**.

Task 15: Specify information about the Web Access Server.



If you have not installed the Web Access Server yet, enter the information where it will be installed.

Figure 3 on page 158 shows the Remote Web Access Server Settings window.

- 1 Enter the name of the Web Access Server in the Web Access Server Host box.

- 2 Enter the port number for the Web Access Server in the Web Access Server Port box.
- 3 Click **Next** to continue.

Task 16: Specify information about the Management Server.

Figure 2 on page 157 shows the Management Server window.

- 1 Type the port on which the Management Server will listen in the HTTP Port box.
- 2 Click **Next**.

This window creates the Management Server, which runs in the background on the system. It lets you manage the OVPI components on this system using OVPI's Management Console application. (Refer to *Performance Insight Administration Guide* for more information about the Management Console.) Additionally, it lets the components in an OVPI distributed installation communicate with each other.

The Management Server is a service that is started automatically by the OVPI setup program; this service appears as follows on the supported operating systems:

- Windows: OVPI HTTP Server
- Solaris: `/etc/init.d/ovpi_httpd` and `/etc/rc3.d/S99ovpi_httpd` startupscripts
- HP-UX: `/sbin/init.d/ovpi_httpd` and `/sbin/rc3.d/S99ovpi_httpd` startup scripts


Task 17: Review the installation information and install.

- 1 Review the Selection Summary window. See Figure 18 on page 107.
- 2 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Summary window.
- 3 Click **Install** to continue the installation.

The Installation Progress window opens, showing the installation status. See Figure 19 on page 108.

Task 18: Close the Setup program.

Do *one* of the following:

- If the OVPI installation was successful, click **Done**.
 If you installed OVPI on a UNIX system, the installation is complete.
- If the OVPI installation was unsuccessful, click the **Details** button at the bottom of the Installation Progress window for additional information, and then contact Technical Support. For information about how to contact support, see [Technical Support and Training on page 4](#).

Task 19: Windows systems only: Reboot the system.

You must reboot your Windows system before you can use OVPI.

Installing the Web Access Server

This section describes the preparation and installation steps necessary for the Web Access Server component.

Preparing for the Installation

To avoid delays in the installation process, have the following information available:

- Directory into which you will install OVPI
- The username and password for the Web Access Server administrator account that you will need to create
- Web Access Server HTTP port
- Database host and port

Installing the Component

Complete the following tasks to install the Web Access Server component:

Task 1: It is recommended that the database is installed and running before you install this component.

When this component is installed, it asks for the database host and port number in order to download database information from the database system. If you have not installed the database, the installation will let you continue; however, you will then have to use the Management Console to configure your database system after you install this component.

See [Chapter 3, Installing a Database](#) for details.

Task 2: Start the setup program.

See [Starting the Setup Program on page 55](#).

After you start the setup program, the Setup window opens. See [Figure 4 on page 57](#) (Windows) or [Figure 5 on page 58](#) (UNIX). The Setup window opens.

Task 3: Select the OVPI installation option.

Select **OVPI 5.0.0**. The Welcome window opens.

Task 4: Read the Welcome window.

The Welcome window opens. See [Figure 1 on page 82](#).

Task 5: Accept or reject the license terms.

The License Agreement window opens. See [Figure 2 on page 83](#).

Do *one* of the following:

- To reject the license terms and discontinue installation, click **Cancel**.
A confirmation window appears.
 - If you click **Yes**, the installation process ends.
 - If you click **No**, the License Agreement window appears again. You can then click the **I accept the terms in the license agreement** option to proceed with installation.
- To accept the license terms and continue installing OVPI, click the **I accept the terms in the license agreement** option, and then click **Next**.

Task 6: Select the OVPI component you want to install.

The Component Selection window opens. See [Figure 3 on page 84](#).

- 1 Click the **Web Access Server** check box, and click to clear all other check boxes.

For a description of the component, see [OVPI Components on page 10](#).

- 2 Click **Next**.

Task 7: Specify an installation directory for the OVPI software.



If you have already installed another OVPI component on this system, the Destination Folder window will not open. In this case, go to [Task 8 on page 175](#).

An installation directory can be any one of the following: NFS mounted directory, UNIX soft link, UNIX hard link, or a Windows mapped drive.



The path to the destination folder cannot contain any blank spaces.

Do *one* of the following:

- Click **Next** to accept the default destination folder and to continue the installation.
- Type a different destination folder from the default, and click **Next** to continue the installation.

Depending on the installation directory you specified, the following will occur:

- If the installation directory does not already exist, the setup program creates it.
- If the installation directory already exists and contains data, a message will display to warn you that the directory is not an empty.
- If you specify an installation directory that is located on a file system that the setup program cannot access, a message will display to warn you. You cannot continue the installation until you supply a valid directory.

Task 8: Specify the port for the Web Access Server.

Figure 14 on page 100 shows the Web Access Server Settings window.

- 1 In the Username box, type the username for the OVPI Web Access Server administrator. The username is `trendadm` by default.

➤ This account is used to log on to the Web Access Server application. Do not confuse this account with the `trendadm` account that is discussed in [Task 12 on page 155](#) (UNIX installations only), which is used to preserve the environment in which OVPI will run. The account for the Web Access Server is given the default name of `trendadm`; however, you can change the name of this account now.

- 2 Create a password for the OVPI Web Access Server administrator account by typing a password in the Password box.

➤ The installation wizard places no restrictions on the minimum and maximum length or on the characters that can be used in the username and password; however, the installation wizard does require that you supply a username and a password. It is recommended that you adhere to your company's policy for username and password creation.

You can change password rules after you install OVPI using the Web Access Server application. Refer to the *Performance Insight Administration Guide* for details.

- 3 Type the password you created in [Step 2](#) in the Confirm Password box.
- 4 Type the port for the Web Access Server in the HTTP Port box if you do not want to use the default, which is 80. Any open port can be used.
- 5 If needed, click **Advanced** to open the Advanced OVPI Configuration dialog box, which lets you do the following:
 - Change the location of the `reports` directories (Directories tab). The `reports` directory is where all deployed reports will be stored. See [Changing the Reports Directories on page 176](#) for details.
 - Create and remove user accounts (OVPI User tab). A user account lets you log on to OVPI's client applications (Report Viewer, Report Builder, Web Access Server, and Management Console). See [Creating and Modifying User Accounts on page 176](#) for details.

- Enable Secure Sockets Layer (SSL) communication between the Web Access Server and a supported Web browser (SSL Setup tab). See [Enabling Secure Sockets Layer \(SSL\) Communications on page 177](#) for details.
- 6 Click **Next** to continue with the installation.

Changing the Reports Directories

To change the location of the users and reports directories:

- a Select the Directories tab in the Advanced OVPI Configuration dialog box. [Figure 15 on page 102](#) shows the Directories tab in the Advanced OVPI Configuration dialog box.
- b To change the `reports` directory, do *one* of the following:
 - Enter a new directory location in the Reports Directory box.
 - To search for a directory, click **Browse**. Locate the directory, and then click **OK**.
- c Click **Apply** to make your changes take effect.
- d Click **OK** when you want to return to the Web Access Server Settings window, and then click **Next** to continue with the installation.

Creating and Modifying User Accounts

Use the OVPI User tab to create user accounts. These accounts are used to log on to the following OVPI client applications: Management Console, Report Builder, Report Viewer, and Web Access Server.

You can create regular user accounts or administrator accounts. Users with non-administrator accounts can access the OVPI client applications. Users with administrator accounts can the administration features (Administration link) of the Web Access Server. Refer to the *Performance Insight Administration Guide* for details.

To create and modify accounts:

- a** Select the OVPI User tab in the Advanced OVPI Configuration dialog box. [Figure 16 on page 103](#) shows the OVPI User tab in the Advanced OVPI Configuration dialog box
- b** To add a user account, do the following:
 - Click **Add User**. A default user appears with a default value of new-user for user name and password, and a role of user.
 - Double-click the new-user cell under the User Name column, delete the default value, and then enter the user name you want to use.
 - Double-click the new-user cell under the Password column, delete the default value, and then enter the password you want to use.
 - Click the user cell under the Role column, and then select a role (**user** or **admin**) from the list.
 - Click **Apply** when you have finished making all of your changes.
- c** To remove a user account:
 - Select the user name. The entire row is selected including the user name, password, and role.
 - Click **Delete User**.
 - Click **Apply** when you have finished making all of your changes.
- d** Click **OK** when you want to return to the Web Access Server Settings window, and then click **Next** to continue with the installation.

You can create, modify, or delete user accounts after you install OVPI using the Web Access Server. Refer to the *Performance Insight Administration Guide* for details.


Enabling Secure Sockets Layer (SSL) Communications

Using SSL, you can enable secure communication between the Web Access Server and a supported Web browser, Report Viewer, Report Builder, and the Management Console.

To enable SSL, you create a self-signed certificate. This self-signed certificate will allow you to enable SSL; however, this self-signed certificate is only valid for 90 days. You should send this certificate to a certificate authority in order to receive a signed digital certificate or generate another self-signed certificate before the 90 days expires.

Once you have a signed digital certificate, you must import it using the Web Access Server application. Additionally, you can use the Web Access Server to change SSL settings after you install OVPI. Refer to the *Performance Insight Administration Guide* for details.

To enable SSL communications and create a self-signed certificate:

- a** Select the SSL Setup tab in the Advanced Configuration dialog box. [Figure 17 on page 105](#) shows the SSL Setup tab in the Advanced OVPI Configuration dialog box
- b** Select the Enable SSL check box.
 -  By selecting this option, you will not disable the standard HTTP listener; thus, the secured SSL port and the unsecured HTTP port will both be enabled.
- c** Do *one* of the following:
 - Leave the value in the SSL Port box as is; the default is 443.
 - Modify the value in the SSL Port box.

- d** In the Keystore Password box, enter a password of 6 characters or more.



Record the password and keep it in a secure place; you will need it to generate a signed certificate.

After you generate your self-signed certificate, it will be stored in the certificate repository. This password lets the Web Access Server access the certificate repository.

The remaining fields request information that is necessary when you generate an SSL key that must be verified and signed by a certificate-signing authority. This is information used by the person who checks by the certificate to ensure that the certificate is valid.

- e** Type your two-letter country code in the Country box (for example, “US”).
- f** The following information is optional:
 - Organization. Type the name of your organization (for example, “ABC Systems, Inc.”)
 - Org. Unit. Type the name of your department or division (for example, “Northeast Sales”).
 - City. Type the name of your city or locality (for example, “Los Angeles”).
 - State. Type the name of your state or province (for example, “California”).
- g** Click **Apply** to make your changes take effect.
- h** Click **OK** when you want to return to the Web Access Server Settings window, and then click **Next** to continue the installation.

Task 9: Supply information about the database.

Figure 4 shows the Remote Database Settings window.

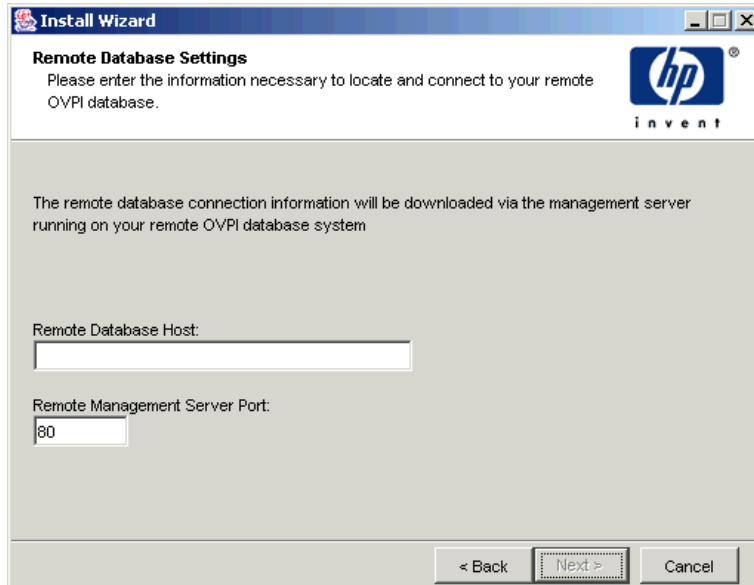


Figure 4 Remote Database Settings Window

- 1 Enter the name of the database host in the Remote Database Host box.
- 2 Enter the port number for the database host in the Remote Management Server Port box.
- 3 Click **Next**.



If the system fails to connect to the database to obtain database information, a warning message displays.

The database (Sybase or Oracle) and the OVPI database must be running before you continue with the installation. If you are using Oracle, the Oracle Listener program must be running also.

Click **Cancel** to retype the database information, or click **OK** to continue the installation. If you continue with the installation, you will need to use the Management Console after the installation to set up the database connection.

Task 10: Review the installation information and install.


- 1 Review the Selection Summary window ([Figure 18 on page 107](#)).
- 2 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Selection Summary window.
- 3 Click **Install** to continue the installation.

The Progress window opens, showing the installation status. See [Figure 19 on page 108](#).

Task 11: Close the Setup program.

Do *one* of the following:

- If the OVPI installation was successful, click **Done**.

 If you installed OVPI on a UNIX system, the installation is complete.
- If the OVPI installation was unsuccessful, click the **Details** button at the bottom of the Installation Progress window for additional information, and then contact Technical Support. For information about how to contact support, see [Technical Support and Training on page 4](#).

Task 12: Windows systems only: Reboot the system.

You must reboot your Windows system before you can use OVPI.

Installing the Clients Component

This section describes the preparation and installation steps necessary for the Clients component. The clients provide the interface to OVPI. You can install a client on any networked system. For more information about the OVPI clients, see [OVPI Clients on page 12](#).

Preparing for the Installation

To avoid delays in the installation process, have the following information available:

- Directory into which you will install OVPI

- The username and password for the Web Access Server administrator account that you will need to create
- Port number on which the Web Access Server will reside

When you install the clients, several applications will install. For a list of these applications, see [OVPI Clients on page 12](#).

Installing the Component

Complete the following tasks to install the OVPI Clients components:

Task 1: Start the setup program.

See [Starting the Setup Program on page 55](#).

After you start the setup program, the Setup window opens. See [Figure 4 on page 57](#) (Windows) or [Figure 5 on page 58](#) (UNIX). The Setup window opens.

Task 2: Select the OVPI installation option.

Select **OVPI 5.0.0**. The Welcome window opens.

Task 3: Read the Welcome window.

Click **Next** to continue the installation. The License Agreement window opens. See [Figure 2 on page 83](#).

Task 4: Accept or reject the license terms.

Do *one* of the following:

- To reject the license terms and discontinue installation, click **Cancel**.
A confirmation window appears.
 - If you click **Yes**, the installation process ends.
 - If you click **No**, the License Agreement window appears again. You can then click the **I accept the terms in the license agreement** option to proceed with installation.
- To accept the license terms and continue installing OVPI, click the **I accept the terms in the license agreement** option, and then click **Next**.


The Component Selection window opens. See [Figure 3 on page 84](#).

Task 5: Select the OVPI component you want to install.

- 1 Click the **OVPI Clients** check box, and click to clear all other check boxes.
For a description of the component, see [OVPI Components on page 10](#).
- 2 Click **Next**.

The Destination Folder window opens. See [Figure 4 on page 85](#).

Task 6: Specify an installation directory for the OVPI software.

-  If you have already installed another OVPI component on this system, the Destination Folder window will not open. In this case, go to [Task 7](#).

An installation directory can be any one of the following: NFS mounted directory, UNIX soft link, UNIX hard link, or a Windows mapped drive.



The path to the destination folder cannot contain any blank spaces.

Do *one* of the following:

- Click **Next** to accept the default destination folder and to continue the installation.
- Type a different destination folder from the default, and click **Next** to continue the installation.

Depending on the installation directory you specified, the following will occur:

- If the installation directory does not already exist, the setup program creates it.
- If the installation directory already exists and contains data, a message will display to warn you that the directory is not an empty.
- If you specify an installation directory that is located on a file system that the setup program cannot access, a message will display to warn you. You cannot continue the installation until you supply a valid directory.

The Remote Web Access Server Settings window opens.

Task 7: Specify the information needed to access the Web Access Server.

[Figure 3 on page 158](#) shows the Remote Web Access Server Settings window.

Do the following:

- 1 Enter the name of the Web Access Server in the Web Access Server Host box.
- 2 Enter the port number for the Web Access Server in the Web Access Server Port box.
- 3 Click **Next**.


Task 8: Review the installation information and install.

- 1 Review the Selection Summary window ([Figure 18 on page 107](#)).
- 2 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Selection Summary window.
- 3 Click **Install** to continue the installation.

The Progress window opens, showing the installation status. See [Figure 19 on page 108](#).

Task 9: Close the Setup program.

Do *one* of the following:

- If the OVPI installation was successful, click **Done**.
 If you installed OVPI on a UNIX system, the installation is complete.
- If the OVPI installation was unsuccessful, click the **Details** button at the bottom of the Installation Progress window for additional information, and then contact Technical Support. For information about how to contact support, see [Technical Support and Training on page 4](#).

Task 10: Windows systems only: Reboot the system.

You must reboot your Windows system before you can use OVPI.

Installing the Remote Poller Component

This section describes the preparation and installation steps necessary for the Remote Poller component.

Remote Poller is a database client, command-line executable. During installation, Remote Poller will install all of its polling binaries onto any system other than the one currently maintaining the OVPI database.



If you have already installed the Performance Manager, you do not need to install the Remote Poller. Remote Poller is a subset of the Performance Manager.

Preparing for the Installation

To avoid delays in the installation process, have the following information available:

- Directory into which you will install the remote poller
- Database host
- Database host number
- Poller Collection/Cache directory
- UNIX systems only: Select a password for the operating system account (`trendadm`) if the account does not exist.

Installing the Component

Complete the following tasks to install the Remote Poller component:

Task 1: Ensure that the database is installed and running.

See [Chapter 3, Installing a Database](#) for details.

Task 2: Start the setup program.

See [Starting the Setup Program on page 55](#).

After you start the setup program, the Setup window opens. See [Figure 4 on page 57](#) (Windows) or [Figure 5 on page 58](#) (UNIX).

Task 3: Select the OVPI installation option.

Select **Remote Poller**.

Task 4: Read the Welcome window.

The Welcome window opens. See [Figure 2 on page 83](#).

Click **Next** to continue the installation.

Task 5: Accept or reject the license terms.

The License Agreement window opens. See [Figure 2 on page 83](#).

Do *one* of the following:

- To reject the license terms and discontinue installation, click **Cancel**.
A confirmation window appears.
 - If you click **Yes**, the installation process ends.
 - If you click **No**, the License Agreement window appears again. You can then click the **I accept the terms in the license agreement** option to proceed with installation.
- To accept the license terms and continue installing OVPI, click the **I accept the terms in the license agreement** option, and then click **Next**.

Task 6: Specify an installation directory for the OVPI software.

[Figure 4 on page 85](#) shows the Destination Folder window.

- If you have already installed another OVPI component on this system, the Destination Folder window will not open. In this case, go to [Task 7](#).

An installation directory can be any one of the following: NFS mounted directory, UNIX soft link, UNIX hard link, or a Windows mapped drive.



The path to the destination folder cannot contain any blank spaces.

Do *one* of the following:

- Click **Next** to accept the default destination folder and to continue the installation.
- Type a different destination folder from the default, and click **Next** to continue the installation.

Depending on the installation directory you specified, the following will occur:

- If the installation directory does not already exist, the setup program creates it.
- If the installation directory already exists and contains data, a message will display to warn you that the directory is not an empty.
- If you specify an installation directory that is located on a file system that the setup program cannot access, a message will display to warn you. You cannot continue the installation until you supply a valid directory.

The Remote Database Settings window opens.

Task 7: Supply information about the database.

Figure 4 on page 180 shows the Remote Database Settings window.

- 1 Enter the name of the database host in the Remote Database Host box.
- 2 Enter the port number for the database host in the Remote Management Server Port box.
- 3 Click **Next**.



If the system fails to connect to the database to obtain database information, a warning message displays. It is recommended that the database (Sybase or Oracle) and the OVPI database be running before you continue with the installation. Click **Cancel** to retype the database information, or click **OK** to continue the installation. If you continue with the installation, you will need to use the Management Console after the installation to set up the database connection; refer the *Performance Insight Administration Guide* for details.

The Performance Manager Settings window opens.

Task 8: Configure polling collections.

Figure 10 on page 95 shows the Performance Manager Settings window.

1 Do *one* of the following:

- Click **Next** to accept the default location for the Cache Folder and to continue the installation process.
- Click **Browse** to select a different location for the Cache Folder, and then click **Next** to continue the installation process.



For collections to work properly, the disk partition on which the Poller Collection/Cache directory resides must have 5% plus an additional 512 MB of free space. For example, if the disk partition is 10 GB, it must have 1 GB of free space.

2 If needed, click **Advanced** to open the Remote Poller Advanced Configuration dialog box, which lets you specify the directory in which the remote poller log files will reside.

To specify a directory for log files:

- a** Click **Advanced** on the Performance Manager Settings window. The Advanced Configuration dialog box opens.
- b** In the Log Directory box, type the directory path in which the log files will reside, or click **Browse** to locate the desired directory, or accept the default path.



The installation will create a log directory under the directory in which you installed OVPI. Certain log files will be maintained there regardless of the directory you specify in the Log Directory box.

- c** Click **OK** to return to the Remote Poller window.

3 Do one of the following depending on your operating system:

- UNIX: Go to [Task 9](#).
- Windows: Go to [Task 10 on page 190](#).

Task 9: UNIX systems only: Create or modify the operating system account.

On UNIX systems, the Performance Manager component requires an operating system account and group named `trendadm`.



The purpose of this account is to preserve the environment in which OVPI will run. This account is used to log on to the operating system and should not be confused with the `trendadm` account you will create in [Task 8 on page 175](#), which is used to log on to the Web Access Server application.

Depending on whether or not this account exists, different windows will open during this point in the installation:

- If the operating system account and group do not exist, the Create OS user window opens. See [Creating the Operating System Account](#).
- If the operating system account and group do exist, the Existing OS User window opens. See [Modifying the Existing Operating System Account](#).

Creating the Operating System Account

[Figure 12 on page 98](#) shows the Operating System User for Performance Manager window.

- 1 Create a password for the `trendadm` account in the Password box, and then retype the password in the Confirm Password box.

By default, the password must have a minimum length of one character, has no limit on its maximum length, and may contain any character; however, it is recommended that you adhere to your company's policy for password creation.

- 2 Click **Next**.
- 3 Go to [Task 10 on page 190](#).

Modifying the Existing Operating System Account

[Figure 13 on page 99](#) shows the Operating System User for Performance Manager window.

- 1 Click one of the following:

- **Modify user environment.** This option updates the trendadm account's `.profile` or `.cshrc` with the OVPI environment variables (`COLLECT_HOME`, `DPIPE_HOME`, `DPIPE_TMP`, and `TREND_LOG`).
- **Do not modify user environment.** This option will not update the account's `.profile` or `.cshrc` with the OVPI environment variables. If you select this option, you will have to manually add the OVPI environment variables later.

2 Click **Next**.

Task 10: Review the installation information and install.

- 1 Review the Selection Summary window (Figure 18 on page 107).
- 2 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Summary Summary window.
- 3 Click **Install** to continue the installation.

The Progress window opens, showing the installation status. See Figure 19 on page 108.

Task 11: Close the Setup program.

Do *one* of the following:

- If the OVPI installation was successful, click **Done**.
 - If you installed OVPI on a UNIX system, the installation is complete.
- If the OVPI installation was unsuccessful, click the **Details** button at the bottom of the Installation Progress window for additional information, and then contact Technical Support. For information about how to contact support, see [Technical Support and Training on page 4](#).

Task 12: Windows systems only: Reboot the system.

You must reboot your Windows system before you can use OVPI.



The Remote Poller will not begin to poll devices until you set up its polling policy. You must do this in the OVPI database where you installed Remote Poller. For more information about setting up a polling policy on a remote poller, refer Chapter 2 in the *Performance Insight Administration Guide* for details.

Post-Installation Tasks

Refer to the *Performance Insight Administration Guide* for information about how to configure OVPI after you have installed it and for administrative tasks that you will need to perform.

Uninstalling OVPI

This chapter contains instructions for uninstalling HP OpenView Performance Insight (OVPI) and Sybase from both Windows and UNIX systems.

- With the exception of starting the uninstall wizard, the procedures for uninstalling OVPI are identical for both Windows and UNIX systems.

Starting the Uninstall Wizard

The uninstall wizard will only remove files that were added to your system at the time of the OVPI installation (for example, the OVPI components). It will not remove files that were generated or created by a user or an application. For example, the uninstall wizard will not remove log files and reports.

- You must log on as a user with administrator privileges (Windows) or as `root` (UNIX) to execute the OVPI uninstall wizard.

Uninstalling OVPI on Windows and UNIX

The OVPI uninstallation procedure removes all OVPI components from the local system.

To uninstall OVPI on Windows and UNIX systems:

Task 1: Start the Uninstall Wizard.

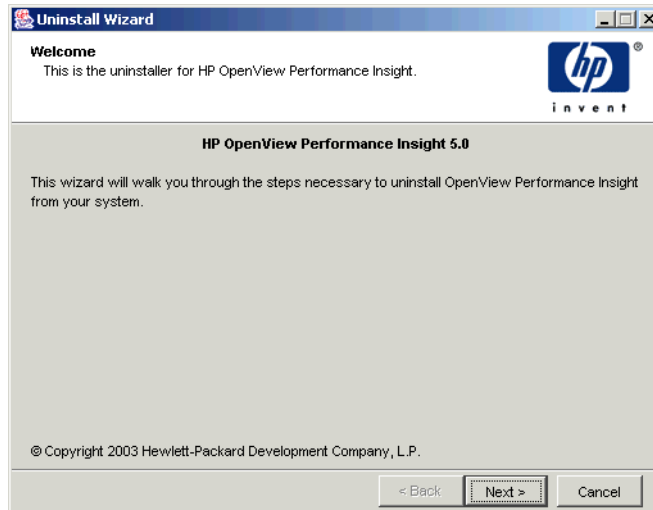
Do *one* of the following depending on your operating system:

- *Windows:*
 - Log on to the local system as a user with administrative privileges.
 - From the Windows Desktop, click Start, point to Programs, HP OpenView, Performance Insight, and then choose **Uninstall** from the menu.
- *UNIX:*
 - Log on to the local system as `Root`.
 - Locate the `uninstall` program and start it by typing the following command:

`%DPIPE_HOME/bin/uninstall`

`$DPIPE_HOME` is the directory into which you installed OVPI.

The Welcome window opens.



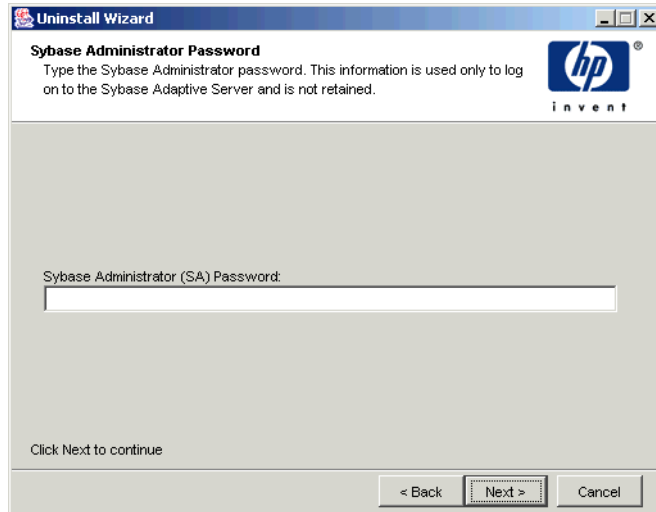
Task 2: Read the Welcome window.

Click **Next** to continue the uninstall.

One of the following happens:

- If the database schema is installed on the system where you are uninstalling OVPI, go to [Task 3](#).

- If the database schema is not installed on the system where you are uninstalling OVPI, go to [Task 4](#).



Task 3: Local Sybase database only: Supply the Sybase Administrator password.

Do one of the following:

- If you set the Sybase Administrator password, type the password in the Sybase Administrator (SA) Password box and click **Next**.
- If you did not set the Sybase Administrator password, leave Sybase Administrator (SA) Password box blank and click **Next**.

Task 4: Review the information and uninstall.

The Selection Summary window opens.

- 1 Review the Selection Summary window.
- 2 If necessary, click **Back** to return to a previous window to make a change. After you make any change, click **Next** until you return to the Selection Summary window.
- 3 Click **Uninstall** to continue.

Task 5: Close the Setup program.

The Uninstall Progress window opens, which shows the status of the uninstall.

Do *one* of the following:



- If the OVPI uninstall was successful, click **Done**.
- If the OVPI uninstall was unsuccessful, click the **Details** button at the bottom of the Uninstall Progress window for additional information, and then contact Technical Support. For information about how to contact support, see [Technical Support and Training on page 4](#).

Task 6: Windows systems only: Reboot the system.

You must reboot your Windows system before you can use OVPI.

Task 7: Manually remove the directory in which OVPI was installed and the .ovpi directory.

The uninstall wizard will only remove the files installed by the installation wizard. For example, all reports you deployed for any report packs you have installed will not be removed; therefore, to prevent potential issues when you reinstall OVPI, it is recommended that you remove the following:

- The directory into which you installed OVPI
 -  If you have reports or data in this directory that you want to save, move those files to another location before you remove the directory.
- The .ovpi directory, which stores a user's custom settings
 -  This directory will only be present if the user has run one of the following applications: Report Builder, Report Viewer, and Web Access Server.

The .ovpi directory is a hidden file; therefore, you will need to make it visible to your file system to remove it. On UNIX systems, this directory is located in the UNIX home directory. On Windows systems, you can find it in the following location:

`%SystemDrive%\Documents and Settings\username`

Users should remove their own .ovpi directory.

Deleting the OVPI and .ovpi Directories

To delete these directories on a UNIX system, do the following:

- 1 Open a new shell window on the system where the application is installed.
- 2 To delete the directory in which OVPI is installed, type the following command:

```
rm -rf OVPI_directory
```

For example, if you installed OVPI in the /data directory, you would type the following command:

```
rm -rf /data/ovpi
```

- 3 To delete the .ovpi directory, type the following command from your home directory:

```
rm -rf .ovpi
```

To delete these directories on a Windows system, do the following:

- 1 To delete the directory in which you installed OVPI, do either of the following:
 - Windows Explorer. Locate the directory, right-click it, and select **Delete**.
 - Command Prompt window. Type the following command:

```
rmdir /S OVPI_installation_directory
```

- 2 To delete the .ovpi directory, do either of the following:
 - Windows Explorer. Navigate to the following location:
`%SystemDrive%\Documents and Settings\username`
Right-click the .ovpi directory, and select **Delete**.

- Command Prompt window. Type the following command:

```
rmmdir /S .ovpi
```

Uninstalling Sybase On Windows

To uninstall Sybase on a Windows system, you must:

- Stop Sybase.
- Run the Sybase uninstall program.
- Remove the Sybase directory.

Stopping Sybase

To stop Sybase on Windows:

- 1 From the Windows Desktop, click the Start button, point to Settings, and choose **Control Panel**.
The Control Panel window opens.
- 2 Double-click the **Administrative Tools** icon. The Administrative Tools windows opens.
- 3 Double-click the **Services** icon. The Services window opens.
- 4 Select Sybase SQLServer_*server*, where *server* is the name of your Sybase SQL Server.
- 5 Right-click the service name, and then select **Stop** from the shortcut menu.
- 6 Close the Services window.

Running the Sybase Uninstall Program

To remove Sybase from Windows:

- 1 Insert the OVPI CD in the CD-ROM drive.
- 2 From the top level folder on the CD, double-click `setup.exe`.
The Setup window opens ([Figure 4 on page 57](#)).

- 3 Click **Sybase 11.9.2.5**.

The Sybase Welcome window opens.

- 4 Click **Next** to continue the uninstall process.

The Select Installation Type window opens.

- 5 Click **Uninstall** to continue the uninstall process.

The Uninstall Sybase Products window opens.

- 6 Click **OK** to continue with the uninstall.

A warning message displays.

- 7 Click **OK** to continue with the uninstall.

A verification message displays asking if you want to delete the Sybase program group.

- 8 Click **OK** to continue with the uninstall.

If the uninstallation is successful, the following message displays:



- 9 Click **OK**.

The Select Installation Type window opens.

- 10 Click **Exit**.

- 11 Delete the Sybase directory.

Uninstalling Sybase on UNIX

To uninstall Sybase on UNIX, you must:

- Stop Sybase.
- Perform some required system tasks.

- Remove the Sybase directory.



The commands shown in this section are case-sensitive. Ensure that you type each one exactly as shown above.

Stopping Sybase

This section contains two procedures for stopping Sybase on UNIX. Use the first procedure if you *did not* set a Sybase administrator (SA) password when you installed Sybase. Use the second procedure if you *did* set an SA password during installation.

To stop Sybase if there is no SA password:

- 1 Log on as `root`.
- 2 Stop Sybase by entering one of the following:
 - *Sun Solaris*:
`/etc/init.d/Sybase stop`
 - *HP-UX*:
`/sbin/init.d/Sybase stop`

To stop Sybase if there is an SA password:

- 1 Log on as `root`.
- 2 Stop Sybase by entering the following command:
`su - sybase $SYBASE/bin/isql -Usa Psa_password -Sserver_name`
In this instance, *sa_password* is the Sybase administrator password and *server_name* is the name of the Sybase server.
- 3 At the ISQL prompt, type the following:
`shutdown with wait`
- 4 Press **Enter**, then type the following:
`go`

Performing Required System Tasks



The following procedure assumes that you accepted the default settings when you installed Sybase. If you did not use the default values, you may need to examine the `/etc/passwd` file and `/etc/group` file to identify the actual Sybase user and group names.

Perform the required system tasks by doing the following:

- 1 Edit the `/etc/services` file and remove the following line:

```
SYBASEquery_server
```

In this instance, *server* is the name of your Sybase SQL Server.

- 2 Remove the Sybase user and group by entering:

— Sun Solaris and HP-UX:

```
groupdel sybase
userdel sybase
```

- 3 Remove the following files:

— *Sun Solaris*:

```
/etc/init.d/Sybase
/etc/rc3.d/S120Sybase
/etc/rc3.d/K120Sybase
```

— *HP-UX*:

```
/sbin/init.d/Sybase
/sbin/rc3.d/S120Sybase
/sbin/rc3.d/K120Sybase
```

Removing the Sybase Directory

To remove Sybase from UNIX:

- 1 Log on as `root`.
- 2 From the location where Sybase is installed, enter the following command:

```
rm -rf Sybase
```

Troubleshooting

This appendix describes the error messages and problems that you may encounter during the HP OpenView Performance Insight (OVPI) installation.

UNIX Issues

This section describes modifications you may have to make for specific vendor devices while installing Sybase or OVPI.

Building a Sybase Device on an EMC Disk

Before you build any Sybase device on an EMC disk, you must first disable asynchronous I/O in the database.

To disable asynchronous I/O:

- 1 Change the <SYBASE_SERVER>.cfg option:
from
"allow sql server async i/o = DEFAULT"
to
"allow sql server async i/o = 0"
- 2 Stop and restart the Sybase Server.

- 3 When you are finished, replace the `[SYBASE_SERVER].cfg` option with its original setting, and stop and restart the Sybase Server.

Starting OVPI (Solaris)

The following warning message may display when OVPI starts on Solaris:

```
Illegal mnemonic - could not convert X KEYSYM to a keycode
```

This is a hardware key-mapping issue and does not affect OVPI. You can use the `xmodmap` program to view and modify the current key mappings if you want.

To view and modify the current key mappings:

- 1 At the command line, type the following:
`su to root`
- 2 Enter the following command:
`xmodmap -e "keysym KP_Insert = Insert"`



You must perform this task whenever the system is restarted.

Windows Issues

This section describes issues you may encounter with OVPI in the Windows environment.

Fixing the Display of Installation Wizard Windows

If the installation or uninstall wizard windows display incorrectly during the installation, you will need to change the text size of the Windows font.

To change the text size of the Windows font:

- 1 On the Windows taskbar, click the Start button, point to Settings, and then select **Control Panel**. The Control Panel window opens.
- 2 Double-click the **Display** icon.

- 3 Select the Settings tab.
- 4 On the Settings tab, click **Advanced**.
- 5 On the General tab, select **Small Fonts** from the Font Size list.

Uninstalling OVPI Manually

If for some reason the OVPI uninstall fails on Windows, you must manually uninstall OVPI by using the following procedure.

To uninstall OVPI manually:

Task 1: Stop all OVPI services.

Stop the following services:

- OVPI HTTP Server
- OVPI Timer
- *Sybase databases only:* Sybase SQLServer_*server*, where *server* is the name of your Sybase SQL Server.

Task 2: Remove the OVPI HTTP Server.

To remove the OVPI HTTP server:

- 1 Open a command prompt window, and navigate to the *installation_directory*/jrun/bin directory, where *installation_directory* is the directory into which you installed OVPI.
- 2 Execute the following command:
`jrunsvc -remove ovpi_httpd`

Task 3: Remove the following registry entries:

- 1 Open HKEY_LOCAL_MACHINE ⇒ SOFTWARE, and then expand the Macromedia folder, the Install Data folder, and remove the following entry:
JRun4

- 2 From HKEY_LOCAL_MACHINE ⇒ SOFTWARE ⇒ Hewlett-Packard ⇒ HP OpenView, remove the following entry:
Performance Insight

Task 4: Remove the OVPI Timer service.

To remove the OVPI Timer service:

- 1 Open a command prompt window, and navigate to the *installation_directory/bin* directory, where *installation_directory* is the directory into which you installed OVPI.
- 2 Execute the following command to remove OVPI Timer:
trendtimer -r

Task 5: Delete and edit certain environment variables.


- 1 On the Windows taskbar, click the Start button, point to Settings, and then select **Control Panel**. The Control Panel window opens.
- 2 Double-click **System**. The System Properties dialog box opens.
- 3 Click the **Advanced** tab, and then click the **Environment Variables** button.
- 4 Delete the following variables:
 - COLLECT_HOME
 - DPIPE_HOME
 - DPIPE_TMP
 - TREND_LOG
- 5 Edit the PATH environment variable by removing anything that relates to OVPI; click **Set** when you are finished.

Task 6: Restart your system.

Task 7: Delete the OVPI directory.

Task 8: Sybase databases only: Uninstall Sybase, delete the Sybase directory, and restart your system.

1 Uninstall Sybase.

 If the Sybase SQL server is running, then stop it.

Do the following:

- a Start the OVPI setup program ([Starting the Setup Program on page 55](#)).
 - b Select **Sybase 11.9.5.2** from the Setup window.
 - c Click **Uninstall** in Sybase's Select Installation Type window.
- 2 Delete and edit certain environment variables by doing the following:
- a On the Windows taskbar, click the Start button, point to Settings, and then select **Control Panel**. The Control Panel window opens.
 - b Double-click **System**. The System Properties dialog box opens.
 - c Click the **Advanced** tab, and then click the **Environment Variables** button.
 - d Delete the following variables:
 - DSLISTEN
 - DSQUERY
 - e Edit the PATH environment variable by removing anything that relates to Sybase; click **Set** when you are finished.
- 3 Delete the Sybase directory.
- 4 Restart your system.

Task 9: Remove the OVPI program folder.

- 1 Right-click the **Start** button.
- 2 Select **Open All Users** from the shortcut menu.

- 3 Expand the Programs folder, and then expand the HP OpenView folder.
- 4 Right-click **Performance Insight**, and select **Delete** from the shortcut menu.

The Sybase Interfaces File

- This appendix is supplied for reference purposes only. Any changes to the Sybase interfaces file should be made using the Management Console's System Management application. Refer to the *Performance Insight Administration Guide* for more information about using this application.

Sybase uses a file called an *interfaces file* to locate the SQL Servers on the network. This appendix describes how to create or modify this file using **dsedit**.

You can find the Sybase interfaces file in the following locations:

- **UNIX**

The interfaces file is located in the Sybase home directory specified by your SYBASE environment variable; for example, /usr/Sybase. See [Creating the Sybase Interfaces File on UNIX Systems on page 210](#) for details.

- **Windows**

The interfaces file is located in C:\Sybase\ini\sql.ini, where C: is the location of the Sybase directory. See [Creating the Sybase Interfaces File on Windows Systems on page 213](#) for details.

- Ensure that when you type the SQL Server name that it matches the entry in the Sybase interfaces file exactly.

Creating the Sybase Interfaces File on UNIX Systems

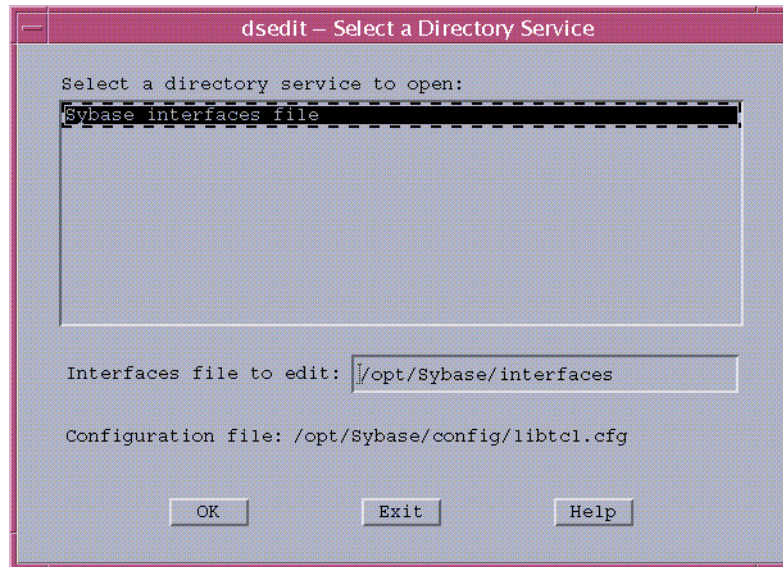
Use the dsedit utility to create the Sybase interfaces file for Sybase on UNIX systems.

To create the Sybase interfaces file:

- 1 Open a new shell window.
- 2 Type the following command:

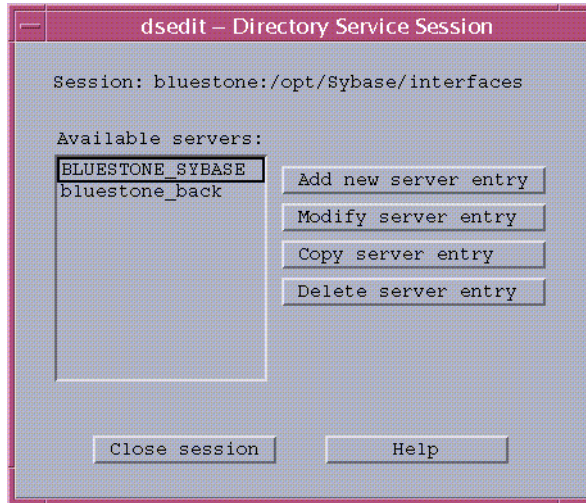
```
$SYBASE/bin/dsedit
```

The dsedit - Select a Directory Service dialog box opens.



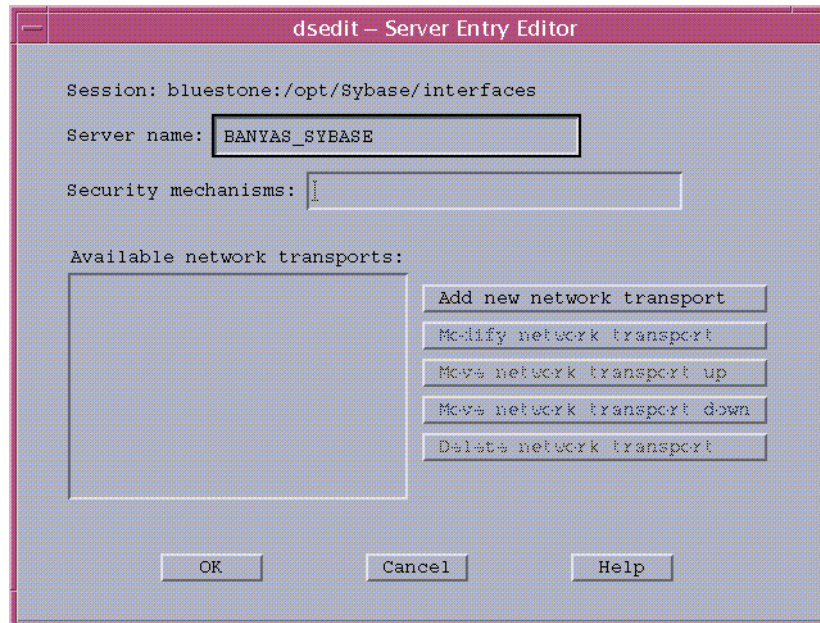
- 3 Select **Sybase interfaces file** in the Select a directory service to open box.
- 4 Verify the path and name of the interfaces file in the Interfaces file to edit box.
- 5 Click **OK**.

The dsedit - Directory Service Session dialog box opens.



- 6 Select the Sybase server from the Available servers box.
- 7 Click **Add new server entry**.

The dsedit - Server Entry Editor dialog box opens.

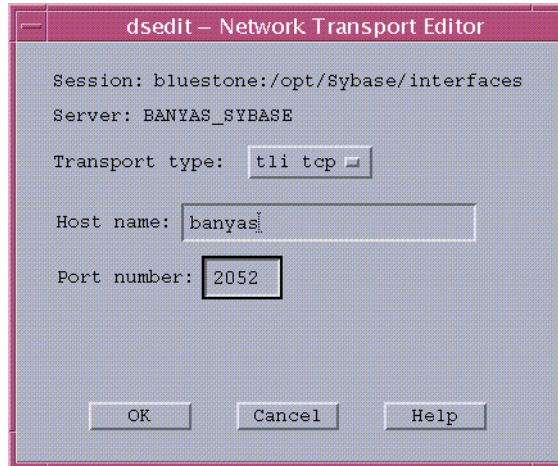


- 8 Type the name of the secondary Sybase server (**not** the server's host name) in the Server name box (in this example, BANYAS_SYBASE.)

➤ The Sybase server name on a UNIX platform is typically *hostname_SYBASE*. The Sybase server name on a Windows platform is typically the same as the host name.

- 9 Click **Add new network transport**.

The dsedit - Network Transport Editor dialog box opens.



- 10 In the Transport type list, click **tli tcp**.
- 11 Enter the secondary server's host name in the Host name box.
- 12 Enter the port number that is configured for Sybase connections on the secondary server in the Port number box.

➤ The port number for OVPI servers installed on a UNIX system is typically 2052. The port number for OVPI servers installed on a Windows system is typically 5000.

- 13 Click **OK** to close the dsedit - Network Transport Editor dialog box.
- 14 Click **OK** to close the dsedit - Server Entry Editor dialog box.
- 15 Click **Close session** to close the dsedit - Directory Service Session dialog box.

- 16 Click **Exit** to close the dsedit - Select a Directory Service dialog box.
- 17 Click **Yes** to confirm that you want to exit from dsedit.

You can validate the result by viewing the `$SYBASE/interfaces` file.

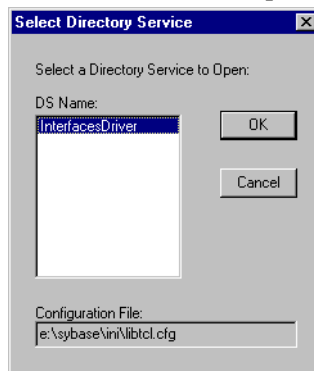
Creating the Sybase Interfaces File on Windows Systems

Use the dsedit utility to install a secondary server interfaces file entry for Sybase on a Windows system.

To create the Sybase interfaces file:

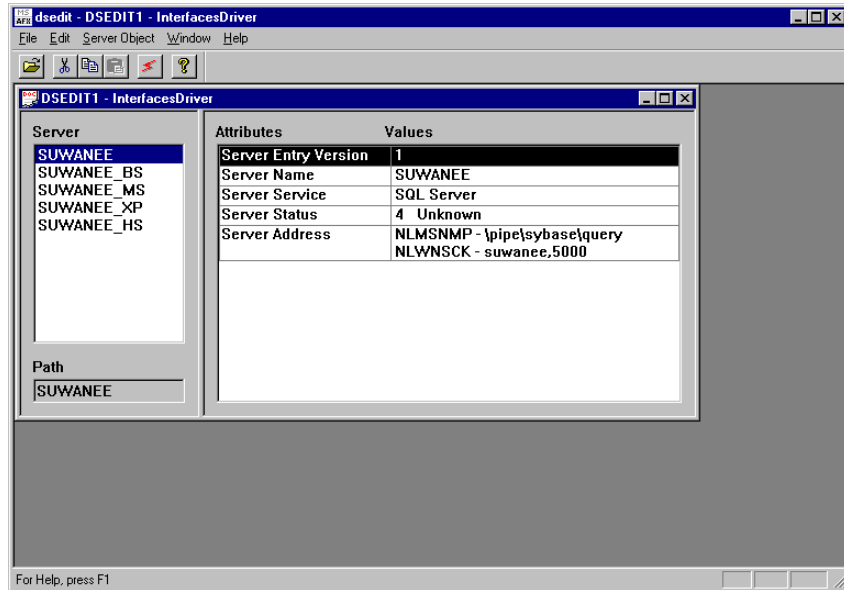
- 1 Select **Start** ⇒ **Programs** ⇒ **Sybase** ⇒ **Dsedit**.

The Dsedit window opens with the Select Directory Service dialog box.



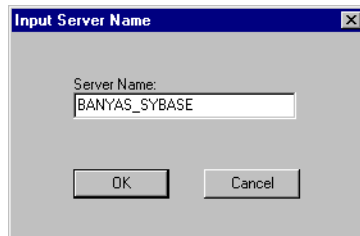
- 2 Select **InterfacesDriver** in the DS Name box.
- 3 Click **OK**.

The DSEDIT1 - InterfacesDriver window opens.



- 4 From the Server Object menu, choose **Add**.

The Input Server Name dialog box opens.

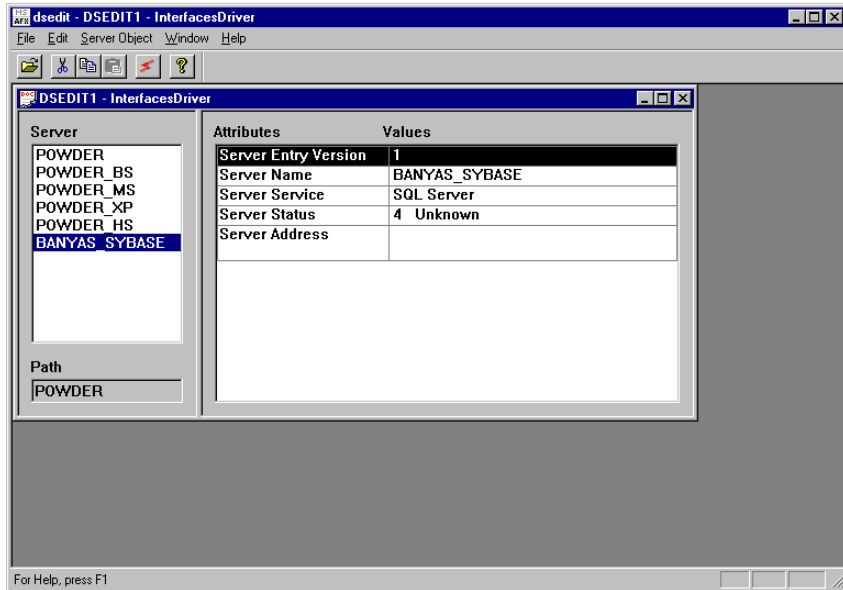


- 5 Enter the database server name in the Server Name box (in this example, BANYAS_SYBASE, which is on a UNIX platform).

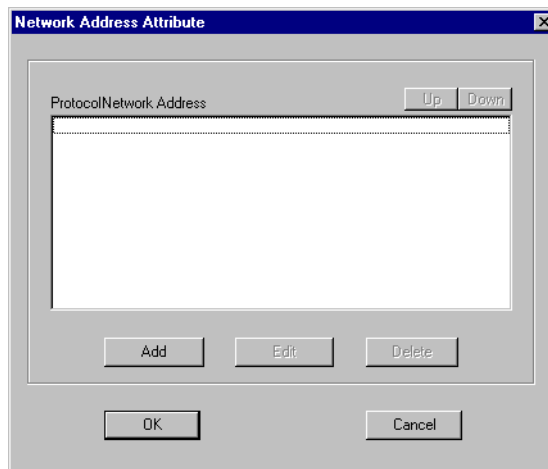
➤ The Sybase server name on a UNIX platform is typically *servername_SYBASE*. The Sybase server name on a Windows platform is typically the same as the host name.

- 6 Click **OK**.

The DSEdit1 - InterfacesDriver window reopens with the server name that you added highlighted.

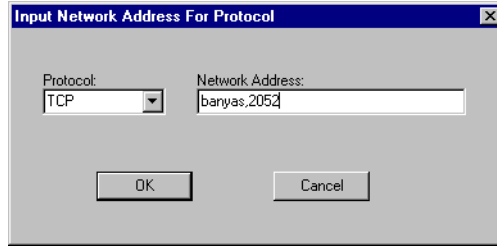


- 7 Double-click the **Server Address** attribute in the Attributes column.
The Network Address Attribute dialog box opens.



- 8 Click **Add**.

The Input Network Address For Protocol dialog box opens.



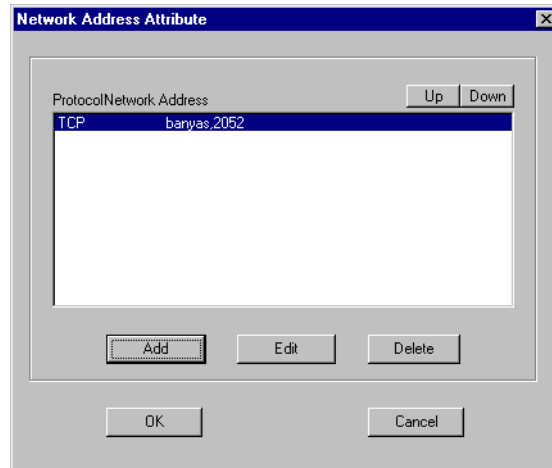
9 Do the following:

- a In the Protocol list, click **TCP**.
- b In the Network Address box, type the host name of the server (*banyas*, in this example), a comma, and the port number to which the server listens (2052, in this example).

➤ The port number for OVPI servers installed on a UNIX system is typically 2052. The port number for OVPI servers installed on a Windows system is typically 5000.

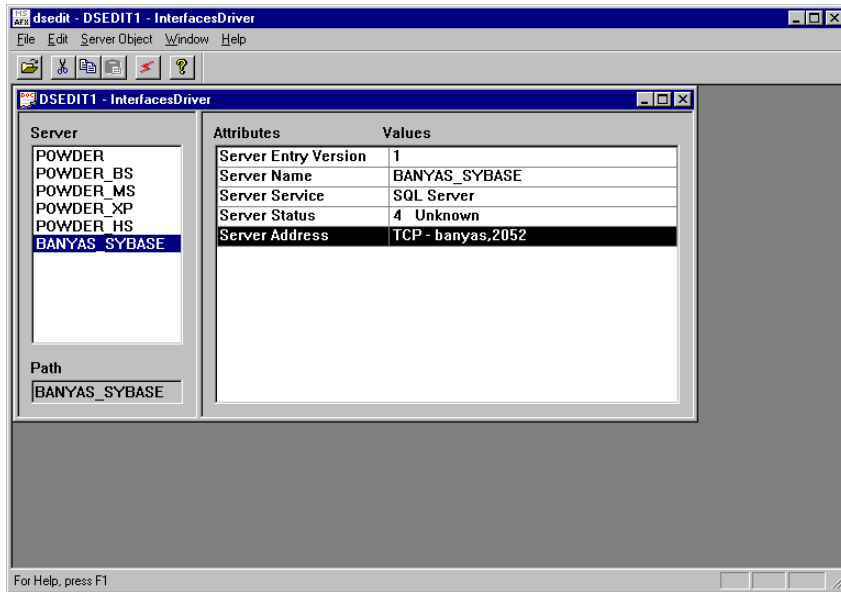
10 Click **OK**.


The Network Address Attribute dialog box opens with your entry.



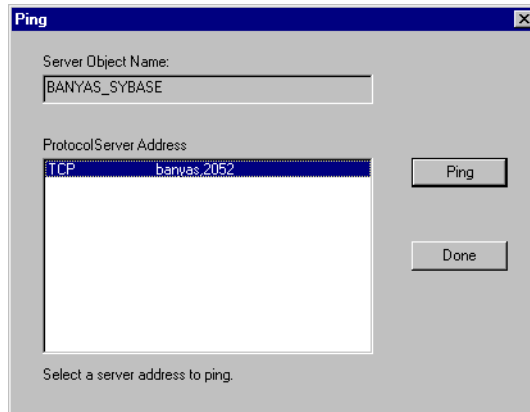
11 Click **OK**.

The DSEdit1 - InterfacesDriver window opens with the information that you added highlighted.



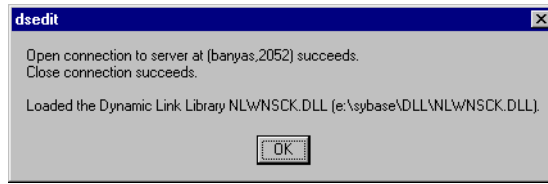
- 12 Click the **Ping** icon  to test the connection to the specified server.

The Ping dialog box opens.



- 13 Click **Ping**.

A message similar to the following displays in the dsedit window if you have successfully opened a connection to the specified server.



▶ If the message you receive indicates that the server is not recognized, you have incorrectly specified the host name of the server, the port number, or the server is down. In this case, verify the host name of the server and its port number. If you are still having difficulties, contact Technical Support.

- 14 Click **OK** to close the message.
- 15 Click **Done** to close the Ping dialog box.
- 16 From the dsedit utility's File menu, select **Exit**.

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