HP OpenView Smart Plug-in for PeopleSoft

Administrator's Reference



Version A.02.05 June 2004

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1.	Introducing the HP OpenView Smart Plug-in for PeopleSoft			
	What is PeopleSoft?			
	What Is the PeopleSoft SPI?			
	What does the PeopleSoft SPI Do?			
	How does the PeopleSoft SPI Work?22			
2.	Installing and Configuring the PeopleSoft SPI			
	System Pre-Requisites			
	Supported Platforms and Versions28Supported Versions: PeopleSoft28Supported Versions: OVO/Unix Server28Supported Platforms: Batch-Server Components29Supported Platforms: Database-Server Components30Supported Platforms: Application-Server Components31Supported Platforms: Web-Server Components31			
	Installing the PeopleSoft SPI on the Management Server			
	Configuring the PeopleSoft SPI to Manage PeopleSoft Systems			

	Distributing PeopleSoft SPI Templates	
	Setting up PeopleSoft Users	53
	De-installing the PeopleSoft SPI	56
3.	Using the PeopleSoft SPI	
	Introduction	61
	The New OVO/Unix Managed Node Groups	62
	The New OVO/Unix Message Groups	63
	The New OVO/Unix Application Groups The PSSPI-Admin Application Group The PSoft-Admin Application Group The PSoft-Oper Application Group The PSoft-Reports Application Group The PSDB-Oper Application Group	66 69 70 73
	The New OVO/Unix Users	78
	The New OVO/Unix Templates and Monitors The PSSPI-App_Server Template Group. The PSSPI-Batch_Server Template Group. The PSSPI-DB_Server Template Group.	81 83
	The PSSPI-Web_Server Template Group	87
	Template and Monitors on MC/ServiceGuard Nodes	88
4.	Using Service Views Service Views with the PeopleSoft SPI	93

	The System View	.94
	The Instance View	.96
	Resources and Processes	.98
	Pre-defined Actions and Applications	.99
	Service Discovery, Activation, and Assignment	103
5.	Troubleshooting the PeopleSoft SPI	
	General Troubleshooting Notes	107
	Determining the PeopleSoft SPI Version	108
	PeopleSoft SPI Verification Scripts	109
	PeopleSoft SPI Error Logging	110
	PeopleSoft SPI Tracing	111
A.	File Names	
	Product Bundles and Filesets	115
	Files on the Management Server	119
	Files on the Managed Nodes	120
	PeopleSoft Configuration Files	
	The psspi.cfg Configuration File	
	The psspi.disc Configuration File	
	The ps.cig Configuration File	120
В.	PeopleSoft SPI Components	
	Templates and Monitors	
	Log-File Discovery Scripts	
	Monitor Scripts	138

	Using Openview Performance Agent	39
	Applications and Application Groups	41
	The PSSPI-Admin Application Group	41
	The PSoft-Admin Application Group	42
	The PSoft-Oper Application Group	43
	The PSoft-Reports Application Group	
	The PSDB-Oper Application Group	45
	Service Actions and Applications	47
C.	PeopleSoft SPI Commands	
	The psspi_tmcl Command	53
	The psspi_pspt Command	54
	The psspi_spicl Command	55
	The psspi inst Command	56

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Version A.02.05: June 2004

Conventions

The following typographical conventions are used in this manual.

Table 1 Typographical Conventions

Font Type	What the Font Type Represents	Example	
Italic	Book or manual titles, and man page names	Refer to the <i>HP OpenView IT/Operations</i> Administrator's Reference and the opc(1M) manpage for more information.	
Provides emphasis		You <i>must</i> follow these steps.	
Specifies a variable that you must supply when entering a command		At the prompt type: rlogin your_name where you supply your login name.	
		The <i>oper_name</i> parameter returns an integer response.	
Bold	New terms	The monitor agent observes	
Computer	Text and items on the computer screen	The system replies: Press Enter	
	Command names	Use the grep command	
	Function names	Use the opc_connect() function to connect	
	File and directory names	/opt/OV/bin/OpC/	
	Process names	Check to see if opennona is running.	
	Window/dialog box names	In the Add Logfile window	
Computer Bold	Text that you must enter	At the prompt, type: ls -1	
Кеусар	Keyboard keys	Press Return.	
[Button]	Buttons on the user interface.	Click [Operator]. Click the [Apply] button.	

Table 1 Typographical Conventions

Font Type	What the Font Type Represents	Example
Menu Items	A menu name followed by a colon (:) means that you select the menu, then the item. When the item is followed by an arrow (->), a cascading menu follows.	Select Actions: Utilities-> Reports

The HP OpenView Smart Plug-in for PeopleSoft Documentation Map

This section illustrates what information is available and where you can find it. The following manuals are available in PDF format:

- HP OpenView Smart Plug-in for PeopleSoft Administrator's Reference
- HP OpenView Smart Plug-in for PeopleSoft Software Release Notes

NOTE

The SPI documentation is no longer installed together with the SPI package but is available in a separate folder on the HP OpenView SPI-CD.

In addition to this documentation, the related OpenView products also provide a comprehensive set of manuals, which aim to assist you in using the products and improving your understanding of the underlying concepts.

Table 2 Documentation Roadmap

HP OpenView Product Name	Manual Title
OV Operations for Unix	Concepts Guide Installation Guide for the Management Server Administrator's Reference Administrators Task Guide Error Message Reference Scalability and Distribution Guide Network and Platform Functions Software Release Notes
OpenView Performance	Dictionary of Operating System Performance Metrics
OpenView Performance Agent	Installation and Configuration Guide Data Source Integration Guide Tracking your Transactions Users Manual

 Table 2
 Documentation Roadmap

HP OpenView Product Name	Manual Title
OpenView Performance Manager	Command Line Reference (HP-UX) Installation Guide
Smart Plug-in for Oracle	DB-SPI Oracle Reference DB-SPI Release Notes DB-SPI User's Guide
Smart Plug-in for BEA Tuxedo	BEASPI Installation Guide BEASPI User's Guide BEASPI Release Notes
Smart Plug-in for BEA WebLogic Server	WebLogic SPI Configuration Guide WebLogic SPI Release Notes WebLogic SPI Reference

Introducing the HP OpenView Smart Plug-in for PeopleSoft

This section describes the HP OpenView Smart Plug-in for PeopleSoft (PeopleSoft SPI) and explain how the various components fit together and work. In this section you will find information concerning:

- What is PeopleSoft?
- What Is the PeopleSoft SPI?
- What does the PeopleSoft SPI Do?
- How does the PeopleSoft SPI Work?

What is PeopleSoft?

PeopleSoft is a leading application software suite in the ERP (Enterprise Resource Planning) area and primarily known for its human resource components.

PeopleSoft is a distributed software application. Two types of configuration are common:

- 2-tier
- 3-tier

A basic 2-tier installation consists of a GUI station and a database server, where the database server can also run background batch processes. This configuration allows direct access to the database.

For larger environments or environments handling a large number of transactions, PeopleSoft supports a 3-tier configuration which includes an intermediate application-server layer. This improves performance and scalability by distributing the processing and caching data. Servers can (but do not have to) reside on separate machines. Figure 1-1 on page 18 illustrates a typical 3-tier PeopleSoft environment.

Additional servers may be found in a PeopleSoft environment and provide dedicated services:

File server provides PeopleSoft GUI software for the client

systems

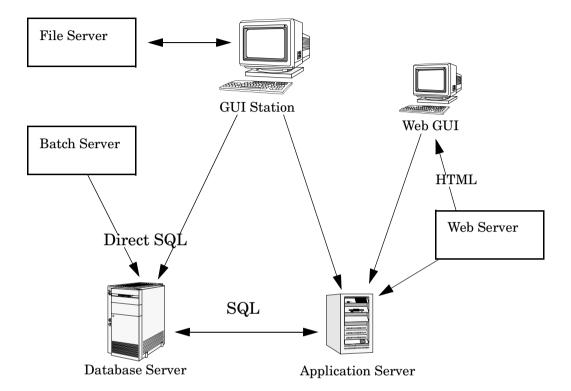
Batch server hosts the execution of batch jobs

Web Server provides access to web client software based on

Java/HTML

Chapter 1 17

Figure 1-1 Typical 3-Tier PeopleSoft Environment



What Is the PeopleSoft SPI?

HP OpenView Smart Plug-Ins are fully integrated solutions which "plug into" HP OpenView solutions and extend the managed domain to industry leading business, Internet, middleware, database and management applications. An extension of the HP OpenView platform, SMART Plug-Ins are tightly integrated modules which leverage the familiarity, security, and scalability of HP OpenView solutions, while eliminating redundant infrastructure and processes.

The HP OpenView Smart Plug-in for PeopleSoft, in particular, provides IT organizations with a pre-configured management solution for PeopleSoft environments based on HP OpenView OV Operations for Unix, the industry-leading enterprise-availability and automation solution. With HP OpenView OV Operations for Unix and the PeopleSoft SPI, you can centrally manage and administer the many different layers that impact the performance and availability of the PeopleSoft environment: the network, systems, Tuxedo, databases and the PeopleSoft application itself.

The PeopleSoft SPI is mainly intended for enterprise customers with a need for a PeopleSoft management solution: it allows the customer to manage distributed PeopleSoft environments. A PeopleSoft environment may consist of one or more PeopleSoft servers (e.g. application server, batch server), which can (but do not have to) reside on different systems.

Furthermore, there are a number of different client systems. PeopleSoft client and server components are supported on specific platforms. For more informations see "Supported Platforms and Versions" on page 28. The PeopleSoft SPI itself can be installed in a distributed management environment consisting of one or more OVO/Unix servers, one or more OV Operations for Unix or VantagePoint Performance Agents, and HP OpenView VantagePoint Performance Manager consoles.

Although each of these OpenView components is supported on a number of different platforms, the PeopleSoft SPI is only guaranteed to work correctly in specific, supported environments. The PeopleSoft SPI comprises several components some of which are directly assigned to specific PeopleSoft components.

Chapter 1 19

What does the PeopleSoft SPI Do?

The PeopleSoft SPI is a product that complies with HP OpenView standards and provides availability and performance monitoring of a typical PeopleSoft environment. As with all SPIs, the idea is to provide a pre-configured integration that works out-of-the-box in most situations but, if necessary, is also easily adaptable to your specific environment.

The PeopleSoft SPI provides complete integration with the standard OVO/Unix monitoring facility (templates), the OVO/Unix GUI (message groups, applications, and so on), and the Service Navigator as well as with HP OpenView VantagePoint Performance. Each integration capability is independent in order to guarantee that those people who do not have all of these OV products are still able to install and use the SPI - always assuming that OVO/Unix is already present. Note that integrations with VantagePoint Performance and the ServiceNavigator are optional.

The HP OpenView Smart Plug-in for PeopleSoft delivers monitoring and management capabilities specifically targeted at common PeopleSoft management issues. For example:

- monitoring batch job status and detecting failed or delayed jobs and malfunctioning components (such as the process scheduler) allows faster problem resolution.
- dynamic log file monitoring so that important event data registered by the various distributed error logs from PeopleSoft, Tuxedo, and log files are available if and when needed. Consolidating and filtering this data into a centralized event system leads to more rapid identification of the root cause of problems.
- pre-configured actions, such as starting the PeopleSoft application, are provided for specific events and implemented automatically in order to ensure the most rapid recovery from any crash or failure
- pre-defined reports providing information about user or batch job activity so that operators can quickly analyze and prevent performance bottlenecks.
- status information on all components of the PeopleSoft environment is constantly provided. The SMART Plug-In monitors the PeopleSoft application, any subsystems such as Tuxedo, and the DBMS and server processes. Monitoring is effected via scripts or programs that

Introducing the HP OpenView Smart Plug-in for PeopleSoft What does the PeopleSoft SPI Do?

are executed at defined intervals: templates interpret the collected metrics for rapid problem resolution.

In addition, and assuming the appropriate OpenView products are already installed and configured, data may also be fed to VantagePoint Performance to allow a graphical presentation and reporting. Further integration with the Service Navigator allows a graphical representation of the PeopleSoft components and their dependencies. Note that those components of the PeopleSoft environment not specifically covered by the HP OpenView Smart Plug-in for PeopleSoft (file server, web server) can nonetheless be monitored with standard OV Operations for Unix features.

Chapter 1 21

How does the PeopleSoft SPI Work?

The PeopleSoft SPI monitors the database server, the application server, and the batch server in the PeopleSoft environment and provides information through messages, graphs, and reports that show the current state of the environment. The SPI provides the following features and functionality:

monitor:

- PeopleSoft and Tuxedo log files (including the handling of dynamic log file names)
- the high-level status of Tuxedo
- the high-level status of Oracle DBMS
- critical OS resources (IPC, disk space)
- processes (e.g. PeopleSoft process scheduler)
- batch job status
- business metrics that are relevant to the management of PeopleSoft
- the key resources of the PeopleSoft DB
- the load on the PeopleSoft application server

integrate:

- the Service Navigator model specifically for a PeopleSoft environment
- standard PeopleSoft administration tools

• provide:

- applications to execute PeopleSoft-related operating tasks (start/stop Tuxedo domains, PS process scheduler, etc.)
- applications to generate status or configuration reports
- applications to generate user activity report

Installing and Configuring the PeopleSoft SPI

This section describes how to install and configure the HP OpenView Smart Plug-in for PeopleSoft. In this section you will find information concerning:

- System Pre-Requisites
- Supported Platforms and Versions
- Installing the PeopleSoft SPI on the Management Server
- Using optional Smart Plug-ins
- Configuring the PeopleSoft SPI to Manage PeopleSoft Systems
- Setting up PeopleSoft Users
- De-installing the PeopleSoft SPI

System Pre-Requisites

OV Operations for Unix (OVO/Unix) management server must be installed and configured on the machine on which you want to install and use the PeopleSoft SPI. For more information on which versions of OV Operations for Unix are supported, see "Supported Versions: OVO/Unix Server" on page 28. In addition, the OVO/Unix agent must be running on the OVO/Unix management server. Note also that the opens template must be assigned and distributed to the OVO/Unix management server in order to ensure that messages appear in the OVO/Unix GUI on the management server. Otherwise, the messages will simply be logged in a log-file.

The PeopleSoft SPI product SPI-PS-SRV-HPUX contains a dependency on the OVO/Unix file set OVOPC.OVOPC-UX-MGR78 (the OVO/Unix server software) to prevent installation of the PeopleSoft SPI on systems where OVO/Unix is *not* installed. Consequently, either OVO 7.0 (or higher) must be installed. (Note: VantagePoint Operations [VPO] is the former name of OVO/Unix)

For more information on platform and version support, see "Supported Platforms and Versions" on page 28.

Hardware Requirements

Table 2-2 on page 30 lists the hardware requirements for the machines on which you intend to install the PeopleSoft SPI.

Table 2-1 PeopleSoft SPI Hardware Requirements

	Additional Disk Space	Additional RAM
OVO/Unix Server	20MB	n/a
OVO/Unix Agent HP-UX	10MB	n/a
OVO/Unix Agent AIX	10MB	n/a
OVO/Unix Agent Solaris	10MB	n/a

Chapter 2 25

NOTE

Additional space is required for run-time data such as trace data, error logs, and data collected by the discovery application. The amount required depends on the configuration of the PeopleSoft SPI.

Software Requirements

Since the various software requirements for the PeopleSoft SPI such as DCE runtime and so on have already been verified by OVO/Unix, they are not checked by the PeopleSoft SPI either before or during installation.

No changes of operating system kernel parameters are required for the HP OpenView Smart Plug-in for PeopleSoft on the OVO/Unix management server and on the OVO/Unix managed nodes.

The following software product are either required or recommended for the PeopleSoft SPI.

Table 2-2 PeopleSoft SPI Software Requirements

Product	Required	Recommended	Remarks
Smart Plug-in for Oracle	Yes	-	Needed for database access
Smart Plug-in for BEA Tuxedo	No	Yes ^a	Used for detailed Tuxedo monitoring (not available on all platforms)
Smart Plug-in for BEAWebLogic Server	No	Yes ^b	Used for detailed WebLogic monitoring (not available on all platforms)
Smart Plug-ins DSI-to-DDF wrapper utilities	Yes	-	Needed for collecting performance data with OVPA or OV Performance subagent

Installing and Configuring the PeopleSoft SPI System Pre-Requisites

- a. The current version A.02.50 of the BEA SPI for Tuxedo is not able to manage the Tuxedo layer bundled with the PeopleSoft software.
- b. Version A.02.06 recommened. But see installation tips.

Chapter 2 27

Supported Platforms and Versions

The following sections indicate which platforms and which product versions are supported by the HP OpenView Smart Plug-in for PeopleSoft and its various components.

NOTE

If a PeopleSoft server system fulfills multiple roles, for example; database server and batch server at the same time, then the corresponding PeopleSoft SPI components may be used in parallel providing the system fulfills the specifications listed for both components. See the appropriate sections below for more detail.

Supported Versions: PeopleSoft

The PeopleSoft SPI is designed to run on all versions of PeopleSoft based on PeopleTools 7 and 8, running with Tuxedo 6.5, which comes bundled with PeopleTools. These are the PeopleTools releases 7.05 and 7.5 and releases 8.1 and 8.40 - 8.43.

Supported Versions: OVO/Unix Server

The PeopleSoft SPI runs on the following software versions of the HP-UX OVO/Unix management server:

- OVO A.07.10 or later
- OVO A.08.00

The PeopleSoft SPI runs on the following software versions of the Sun OVO/Unix management server:

- OVO A.07.10 or later
- OVO A.08.00

The PeopleSoft SPI also contains components that allow integration with HP OpenView VantagePoint Performance. If this product is *not* installed, the PeopleSoft SPI will nonetheless work with the other installed components, but the features related to the missing OpenView products are not available.

Supported Platforms: Batch-Server Components

The batch-server components of the PeopleSoft SPI are supported for the following platforms and software versions:

Table 2-3 Supported Platforms for the Batch-Server Components

	HP	Sun	IBM
Platform	HP Technical Workstations HP Business Servers	Sun SPARC	IBM RS6000
OS Version	HP-UX 10.20 ^{1,2} HP-UX 11.00 HP-UX 11.11	Solaris 2.6 Solaris 7 Solaris 8 Solaris 9 1, 2	AIX 4.2 ^{1, 2} AIX 4.3 ^{1, 2} AIX 5L ^{1, 2}
OVO/Unix Agent	ITO 5.30 ^{1, 2} VPO 6.0 OVO/Unix 7.1 OVO/Unix 8.0 ^a	ITO 5.30 ^{1, 2} VPO 6.0 OVO/Unix 7.1 OVO/Unix 8.0 ^b	ITO 5.30 VPO 6.0 OVO/Unix 7.1 OVO/Unix 8.0 ^c
OVPA Agent (MeasureWare)	C.02.00	C.02.00	C.02.00

- a. Non-HTTPS OVO Agent only.
- b. Non-HTTPS OVO Agent only.
- c. Non-HTTPS OVO Agent only.

No other platforms are supported with the PeopleSoft SPI A.02.05.

Note that not every combination may be possible due to restrictions of PeopleTools or OVO/Unix.

Chapter 2 29

 $^{^{1}\,\}mathrm{HP}$ OpenView Smart Plug-in for BEA Tuxedo A.02.00 not available

² HP OpenView Smart Plug-in for BEA WebLogic Server A.02.04 not available

Supported Platforms: Database-Server Components

The database-server components of the PeopleSoft SPI are supported for the following platforms and software versions:

Table 2-4 Supported Platforms for the Database-Server Components

	HP	Sun	IBM
Platform	HP Technical Workstations HP Business Servers	Sun SPARC	IBM RS6000
OS Version	HP-UX 10.20 HP-UX 11.00 HP-UX 11.11	Solaris 2.6 Solaris 7 Solaris 8 Solaris 9	AIX 4.2 AIX 4.3 AIX 5L
OVO/Unix Agent	ITO 5.30 VPO 6.0 OVO/Unix 7.1 OVO/Unix 8.0 ^a	ITO 5.30 VPO 6.0 OVO/Unix 7.1 OVO/Unix 8.0 ^b	ITO 5.30 VPO 6.0 OVO/Unix 7.1 OVO/Unix 8.0 ^c
OVPA Agent (MeasureWare)	C.02.00	C.02.00	C.02.00
DBMS Version	Oracle 7.3.x Oracle 8.0.x Oracle 8.1.x Oracle 9.1.x Oracle 9.2.x	Oracle 7.3.x Oracle 8.0.x Oracle 8.1.x Oracle 9.1.x Oracle 9.2.x	Oracle 7.3.x Oracle 8.0.x Oracle 8.1.x Oracle 9.1.x Oracle 9.2.x

- a. Non-HTTPS OVO Agent only.
- b. Non-HTTPS OVO Agent only.
- c. Non-HTTPS OVO Agent only.

No other platforms are supported with the PeopleSoft SPI A.02.05.

Note that the supported databases on the agent platforms depend on the installed PeopleTools versions and the databases supported by them.

Note that not every combination may be possible due to restrictions of PeopleTools or OVO/Unix or the Smart Plugin for Oracle.

Supported Platforms: Application-Server Components

The application-server components of the PeopleSoft SPI are supported for the following platforms and software versions:

Table 2-5 Supported Platforms for the Application-Server Components

	НР	Sun	IBM
Platform	HP Technical Workstations HP Business Servers	Sun SPARC	IBM RS6000
OS Version	HP-UX 10.20 ¹ HP-UX 11.00 HP-UX 11.11	Solaris 2.6 Solaris 7 Solaris 8 Solaris 9 ¹	AIX 4.2 ¹ AIX 4.3 ¹ AIX 5L ¹
OVO/Unix Agent	ITO 5.30 ¹ VPO 6.0 OVO/Unix 7.1 OVO/Unix 8.0 ^a	ITO 5.30 ¹ VPO 6.0 OVO/Unix 7.1 OVO/Unix 8.0 ^b	ITO 5.30 VPO 6.0 OVO/Unix 7.1 OVO/Unix 8.0 ^c
OVPA Agent	C.02.00	C.02.00	C.02.00

- a. Non-HTTPS OVO Agent only.
- b. Non-HTTPS OVO Agent only.
- c. Non-HTTPS OVO Agent only.

No other platforms are supported with the PeopleSoft SPI A.02.05.

Note that not every combination may be possible due to restrictions of PeopleTools or OVO/Unix or the Smart Plugin for BEA WebLogic.

Supported Platforms: Web-Server Components

The web-server components of the PeopleSoft SPI are supported for the following platforms and software versions:

Chapter 2 31

¹ HP OpenView Smart Plug-in for BEA Tuxedo A.02.00 not available

 Table 2-6
 Supported Platforms for the Web-Server Components

	НР	Sun	IBM
Platform	HP Technical Workstations HP Business Servers	Sun SPARC	IBM RS6000
OS Version	HP-UX 10.20 ¹ HP-UX 11.00 HP-UX 11.11	Solaris 2.6 Solaris 7 Solaris 8 Solaris 9 ¹	AIX 4.2 ¹ AIX 4.3 ¹ AIX 5L ¹
OVO/Unix Agent	ITO 5.30 ¹ VPO 6.0 OVO/Unix 7.1 OVO/Unix 8.0 ^a	ITO 5.30 ¹ VPO 6.0 OVO/Unix 7.1 OVO/Unix 8.0 ^b	ITO 5.30 VPO 6.0 OVO/Unix 7.1 OVO/Unix 8.0 ^c
OVPA Agent	C.02.00	C.02.00	C.02.00
BEA WebLogic ²	6.1 SP2	6.1 SP2	n/a
Apache Webserver ³	Bundled with PeopleTools	Bundled with PeopleTools	Bundled with PeopleTools

- a. Non-HTTPS OVO Agent only.
- b. Non-HTTPS OVO Agent only.
- c. Non-HTTPS OVO Agent only.

No other platforms are supported with the PeopleSoft SPI A.02.05.

Note that not every combination may be possible due to restrictions of PeopleTools or OVO/Unix or the Smart Plugin for BEA WebLogic.

¹ HP OpenView Smart Plug-in for BEA WebLogic Server A.02.04 not available

² Monitored via HP OpenView Smart Plug-in for BEA WebLogic Server

³ Monitored via HP OpenView Smart Plug-in for PeopleSoft

Installing the PeopleSoft SPI on the Management Server

There are a number of simple steps which you need to carry out in order to install the HP OpenView Smart Plug-in for PeopleSoft software. In general terms, the process requires:

- Preparing the OVO/Unix Management Server for swinstall(1M)
- Installing the PeopleSoft SPI
- Verifying the Software Installation

Table 2-7 on page 33 shows the software bundles present in the HP OpenView Smart Plug-in for PeopleSoft product bundle. For more detailed information concerning the contents of the various software bundles, see "Product Bundles and Filesets" on page 115.

Table 2-7 PeopleSoft SPI Software Bundles

SD Bundle	Product	Description
SPI-PSoft-HPORA5	SPI-PS-SRV-HPUX	SPI software: components located on the HP management server.
	SPI-PS-CFG-ORA	SPI configuration for Oracle
SPI-PSoft-SuORA5	SPI-PS-SRV-SOL	SPI software: components located on the Sun management server.
	SPI-PS-CFG-ORA	SPI configuration for Oracle

Preparing the OVO/Unix Management Server for swinstall(1M)

The HP OpenView Smart Plug-in for PeopleSoft is available on the HP OpenView Operations for Unix SPI CD-ROM.

There are three CDs in the Applications CD-ROM set: The first and the second contain the product's management server install packages. The third contains the *OpenView Reporter and OpenView Performance Manager integrations* for the applications. For the HP OpenView Smart Plug-in for PeopleSoft, use the first or second CD, depending on the

Chapter 2 33

Installing the PeopleSoft SPI on the Management Server

platform of the management server. Note that if you are installing other HP OpenView SPI's, it may be necessary to use the third CD, too, in order to install the OV Reporter integrations of these SPI's.

Prepare the OVO/Unix management server environment for swinstall(1M) as follows:

1. Login as user root.

Please make sure that the environment variables needed for the ORACLE database are set in the profiles of users *root* and *oracle*.

2. Set the user root's umask, enter:

umask 027

3. Add the following two lines to the file ~root/.profile (only needed for the SPI for BEA Tuxedo)

LANG=C
export LANG

4. If not already present, create a directory to mount the CD-ROM:

mkdir /<mount point>

For example: mkdir /cdrom

- 5. Insert the product CD in the CD-ROM drive
- 6. Mount the CD-ROM as user root, enter:

mount -r -F cdfs /dev/<cdrom_drive_name> /<mount_point>

For example, for a local CD-ROM you might enter:

mount -r -F cdfs /dev/dsk/c0t2d0 /cdrom

On HP-UX, you can also run SAM and mount the CD-ROM to a specific path in the Disks and File Systems window.

If you intend to install one of the SPI for Oracle, SPI for BEA
WebLogic Server or SPI for BEA Tuxedo, then please consult the
installation guide of this SPI for further pre-installation
requirements.

Installing the PeopleSoft SPI

To install the HP OpenView Smart Plug-in for PeopleSoft product bundles using the swinstall(1M) command on the command line,

perform the following steps:

- 1. Install the software bundles
 - DSI2DDF (if not already installed)
 - DBSPIOracleAll (if not already installed)
 - BEASPI (if needed and supported and not already installed)
 - SPIWebLogicAll (if needed and supported and not already installed)
 - SPI-PSoft-HPORA5 (or SPI-PSoft-SuORA5)

with the command:

• For a HP-UX 11.x management server, enter:

• For a Solaris management server, enter:

If any errors occur during the software installation, check the logfile /var/adm/sw/swagent.log for more information, correct the problems, and run swinstall again.

NOTE

The opccfgupld command does not by default replace existing files, which can lead to a combination of error messages such as; "Object already exists in database" and "Cannot open file [...] File exists (Opc20-63)". For more information, see the opccfgupld(1M)man page.

2. Install OV Reporter integrations

Chapter 2 35

Installing and Configuring the PeopleSoft SPI

Installing the PeopleSoft SPI on the Management Server

If you have installed one or more of the SPI for Oracle, SPI for BEA WebLogic Server, SPI for BEA Tuxedo, you may install the OV Reporter integrations provided by these SPI's.

See the installation guide of the SPI for details on how to install these integrations.

Verifying the Software Installation

You can verify that the software has installed successfully by carrying out the following simple steps:

- 1. Verify swagent.log for SD installation errors and fix any problems that appear.
- 2. Check for any re-install errors and then make sure that the following new elements are present in the OVO/Unix GUI after the installation of the HP OpenView Smart Plug-in for PeopleSoft product bundles has completed
 - New node groups in the Node Groups window:
 - PS DB Server
 - PS App Server
 - PS Batch Server
 - PS Web Server

This node group is meant for the web servers which are bundled with PeopleTools 8.1, e.g. Apache. It is not meant as a containe for the BEA WebLogic or the IBM WebSphere server systems.

- New application groups in the Application Groups window:
 - PSoft-Oper
 - PSDB-Oper
 - PSoft-Admin
 - PSoft-Reports
 - PSSPI-Admin
- New message groups in the Message Groups window:
 - PSoft-Fault

- PSoft-Perf
- PSSPI
- New users in the OVO/Unix Users window:
 - psoft_op
 - psoft_adm
- New template groups in the Message Source Templates window:
 - SPI for PeopleSoft
 - PSSPI-App server
 - PSSPI-Batch Server
 - PSSPI-DB_server
 - PSSPI-Web_server
 - PSSPI-REPOSITORY
- 3. If the new PeopleSoft SPI elements are not visible in the OVO/Unix GUI, try stopping and restarting the OVO/Unix administrator's GUI.
- 4. If you installed one of the SPI for Oracle, SPI for BEA WebLogic Server or SPI for BEA Tuxedo, then please consult the installation guide of this SPI for further verification checks.

For more information on the various new elements see the appropriate sections in Chapter 3, "Using the PeopleSoft SPI," or Appendix B, "PeopleSoft SPI Components,". For information on more serious problems, see Chapter 4, "Using Service Views," on page 91.

Using optional Smart Plug-ins

This section contains some notes for the usage of optional Smart Plug-ins together with the PeopleSoft SPI.

• HP OpenView Smart Plug-in for BEA Weblogic Server

If the BEA Weblogic Server 6.1.2 is installed and should be monitored with the Weblogic SPI A.02.04, then the following configuration line has been shown to be necessary in the Weblogic SPI configuration file: SERVER<N> VERSION = 6.1 2

This line will not be necessary with Weblogic SPI version A.02.06.

Installing and Configuring the PeopleSoft SPI Installing the PeopleSoft SPI on the Management Server

• HP OpenView Smart Plug-in for BEA Tuxedo

Version A.02.05 of the Tuxedo SPI does not support Tuxedo 6.5 bundled with the PeopleSoft software. This issue will be addressed with a future version of the Tuxedo SPI.

Since several parts of a PeopleSoft installation such as the database name, directory locations, or user IDs vary from one environment to another, it is not possible to pre-configure the complete PeopleSoft SPI integration to work out-of-the-box in your environment. Consequently, assuming you have not already done so as part of the standard OVO/Unix installation, you will need to perform the following high-level steps to adapt the PeopleSoft SPI to the specific requirements of your environment:

- Setting up PeopleSoft Systems as OVO/Unix Managed Nodes
- Distributing the OVO/Unix Agent to the PeopleSoft Systems
- Discovering PeopleSoft Components on the Managed Nodes
- Assigning Nodes to Node Groups
- Activating the Configuration on the PeopleSoft Nodes
- Distributing PeopleSoft SPI Actions, Commands, and Monitors
- Configuring the PeopleSoft SPI to Monitor the Database
- Distributing PeopleSoft SPI Templates

Setting up PeopleSoft Systems as OVO/Unix Managed Nodes

If not already present, add to the Node Bank window those PeopleSoft systems in your environment, which you want to monitor with the HP OpenView Smart Plug-in for PeopleSoft. To add a system to the Node Bank, either:

1. open the Node Bank window and use the following menu sequence:

```
Actions-> Node-> Add...
```

or

2. select the required systems in the IP map, drag and drop them into the Node Bank window.

Distributing the OVO/Unix Agent to the PeopleSoft Systems

Check that the correct version of the OVO/Unix agent software is installed and running on the PeopleSoft node you want to set up and monitor with the PeopleSoft SPI. If no OVO/Unix agent is present, install the OVO/Unix agent software on the PeopleSoft systems by using the standard OVO/Unix agent distribution method. Open the Node Bank window, select the PeopleSoft systems, and use the following menu sequence:

Actions-> Agents-> Install Update sw & Config...

Discovering PeopleSoft Components on the Managed Nodes

PeopleSoft Installation (PS_HOME)

During the discovery phase, the SPI first tries to determine the directories of installed PeopleSoft components (the PeopleSoft Home directories; in short: PS_HOME).

This is done in multiple steps:

1. User specified locations

If the user has specified some installation directories using the Customized Startup of the PS Discovery OVO/Unix application (see the Administrators Reference Manual, Appendix A, "The pssspi.disc Configuration File"), take these as PS_HOME candidates.

2. Check running PeopleSoft processes

If there is no PS_HOME candidate, fetch the owner of running PeopleSoft processes; extract the home directory of this user and take this directory as a candiate for a PS HOME.

3. Look in "well known places"

If there is no PS_HOME candidate, take the directories /psoft, /opt/psoft and /usr/psoft candidates.

For each PS_HOME candidate, check whether a psconfig.sh or pstools.ini file exists.

If it does, take the owner of this file as the PeopleSoft User (PS USER)

and the candidate as the installation directory (PS HOME).

Oracle Installation (ORACLE HOME)

Once a valid PS_HOME has been found, the SPI tries to determine the value of the environment variable ORACLE_HOME for this installation.

This search for this variable is done in the following files (while the first definition resulting in an existing directory stops the search):

- <PS_HOME>/psconfig.sh
- ~<PS_USER>/.profile
- /etc/profile

If the Oracle installation cannot be found (e.g. SID not specified in the tnsnames.ora file, then the missing information has to be entered manually into the discovery file.

NOTE

Please note that the SPI is only able to process variable assignments if they conform to certain rules (see below).

Tuxedo Installation (TUXDIR)

Next, the SPI tries to determine the value for the environment variable TUXDIR.

The search is done only in the following files:

- <PS HOME>/psconfig.sh
- <PS_HOME>/install/psdb.sh
- <PS_HOME>/setup/psdb.sh

NOTE

Please note that the SPI is only able to process variable assignments if they conform to certain rules (see below).

PeopleSoft Application Servers

Next, the SPI tries to determine the values for all Application Servers of the current PeopleSoft installation.

Installing and Configuring the PeopleSoft SPI

Configuring the PeopleSoft SPI to Manage PeopleSoft Systems

All directories

• <PS_HOME>/appserv/<Domain>

are searched for a file psappsrv.cfg.

If this directory and file are found, the SPI extracts the variables

- DBName
- DBType
- OprId
- OprPswd
- Connect.Id
- Connect.Pswd

from the Application Server configuration file.

If the ConnectId is not empty, this id and the corresponding password is used to connect to the database. Otherwise the OprId is used.

Please note that these variables must start in column 1. The password must not be encrypted.

NOTE

If the passwords are encrypted in the application server or process scheduler configuration files, then the owner of the associated PeopleSoft databases cannot be determined automatically during the discovery process. In this case, the owner of the PeopleSoft databases has to be inserted manually into the discovery file. Please see "The psspi.disc Configuration File" on page 122for a commented discovery file.

Since the passwords are currently only used during the discovery phase, normal operation is supported when the database owner is entered manually.

Process Schedulers

Next, the SPI determines the values for all Process Schedulers of the current PeopleSoft installation.

All directories

• <PS HOME>/appserv/prcs/<DB> for PS 7.5, PS8

• <PS_HOME/prcs/<DB> for PS7

are searched for a file psprcs.cfg.

If this directory and file are found, the SPI extracts the variables

- DBType
- OprId
- OprPswd
- ConnectId
- ConnectPswd
- PrcsServerName

from the Process Scheduler configuration file. If the ConnectId is not empty, this id and the corresponding password is used to connect to the database. Otherwise the OprId is used.

Please note that these variables must start in column 1. The password must not be encrypted.

NOTE

If the passwords are encrypted in the application server or process scheduler configuration files, then the owner of the associated PeopleSoft databases cannot be determined automatically during the discovery process. In this case, the owner of the PeopleSoft databases has to be inserted manually into the discovery file. Please see "The psspi.disc Configuration File" on page 122for a commented discovery file.

Since the passwords are currently only used during the discovery phase, normal operation is supported when the database owner is entered manually.

General Discovery Strategy and Prerequisites

The information found during this discovery phase is written to the psspi.disc file on the OVO/Unix agent.

You may use the OVO/Unix application PSSPI-Admin: Edit PS Cfg to edit this file on the agent, thus adjusting the information of the automatic discovery process. After editing and verifying the changes using the PSSPI-Admin: Verify PS Cfg application, the PSSPI-Admin: PS Activate application must be used to activate the

edited file. Please note that this file is copied back automatically to the OVO/Unix management server only after the automatic discovery step. If you edited this file manually, you will have to copy it manually to the file /var/opt/OV/share/psspi/disc/<nodename> on the management server (where <nodename> is the name of the OVO/Unix agent system). This may easily be done using the OVO/Unix application PSSPI-Admin:Get PS Cfq.

Please note that before you may use any of the PSSPI applications, you will have to distribute the Commands to the managed node.

NOTE

See the "The psspi.disc Configuration File" on page 122 for detailed information regarding the file syntax.

Rules for variable assignments in configuration files

Configuration Variables The SPI is only able to process variable assignments in configuration files if they conform to the following rules:

- Only white space allowed before the variable name.
- There must be no case tag or other shell code before the variable name in the assignment. However, the word export is tolerated.
- The value of the variable is taken as all text after the equal sign and up to the end of the line, a comment char (#), a semicolon (;), white space or a backquote, whichever comes first.
- Trailing white space is stripped from the value. Thus, no embedded functions are allowed to compute the values.
- Conditional assignments are not supported.
- All assignments conforming to the other rules are processed, no matter if they are located in a conditional path (if/else).
- Only explicit assignments are supported.
- The values must not use other variables (\$variable) for their definition. However, if a variable is recursively defined (VAR=\$VAR:new1), this is tolerated.

Runtime variables

During the runtime of the SPI, several environment variables are

needed. These variables are computed dynamically according to the rules listed above.

These variables are

- PS DB
- PS SQR
- SQRDIR
- SQRFLAGS
- COBPATH
- COBDIR
- SHLIB PATH

Please note that the last variable is used always and then copied to the actual variable valid for the current platform (SHLIB_PATH, LD_LIBRARY_PATH, LIBPATH, ...).

The definitions for these variables are searched in the files

- /etc/profile
- ~<PS USER>/.profile
- <PS HOME>/psconfig.sh

in that order. The last definition found is used.

Performing the Discovery

Once all the PeopleSoft systems have been added to the Node Bank Window and you have ensured the OVO/Unix agent is running on the PeopleSoft systems, you can proceed with the automatic discovery of the PeopleSoft systems by performing the steps described in this section. Note, however, that although the discovery process works even if the database and/or Tuxedo application servers are down when you execute the PS Discovery application, the discovery file contains the value "UNKNOWN" for the database owner. To fix this, you can either:

- 1. add the database owner to the discovery file manually, or
- 2. ensure the Oracle databases that reference any PeopleSoft databases are running when you execute the PS Discovery application

NOTE

Although, the discovery mechanism and the configuration-file syntax within the PeopleSoft SPI both support the existence of multiple PeopleSoft installations on one system (i.e. multiple PS_HOME directories or users), the normal discovery mechanism will not always be able to find them automatically. For more information on how to help the PS Discovery application to find multiple PS_HOME instances, see "Searching for Multiple PS_HOME Directories" on page 128.

To start the discovery process:

- 1. Select *all* the PeopleSoft systems in OVO/Unix Node Bank window that are either a PeopleSoft database, PeopleSoft application, or PeopleSoft batch server.
- 2. Double-click the PS Discovery icon in the application group, PS SPI Admin. Alternatively, right click the icon and select the Execute item in the drop-down menu. The PS Discovery application executes a script on the OVO/Unix management server. Once initiated, the script initiates the following steps:
 - a. determines the node type of each node (Unix or NT)
 - b. transfers a discovery script to the PeopleSoft systems that you have selected in the Node Bank window and executes it.

The discovery program checks the node-specific PeopleSoft configuration, generates information concerning the installed PeopleSoft components, and then writes the findings to the file

/etc/opt/OV/psspi/conf/psspi.disc on the managed node. This file is subsequently transferred back to the OVO/Unix management server, where it is stored in /var/opt/OV/share/psspi/disc/<node_name>, and the contents displayed along with instructions for the user.

For more information concerning how to go about distributing templates to the PeopleSoft nodes, see "Distributing PeopleSoft SPI Actions, Commands, and Monitors" on page 49.

Figure 2-1 PS Discovery Application Example Output



Assigning Nodes to Node Groups

Follow the instructions generated by the PS Discovery application and use the information displayed to put the PeopleSoft nodes into the node groups suggested. For example, PeopleSoft batch servers go into the PS Batch Server node group. Figure 2-1 on page 47 gives a sample of the PS Discovery application output.

Since the appropriate PeopleSoft templates and template groups are assigned by default to the respective PeopleSoft node groups, dragging and dropping the PeopleSoft nodes to the PeopleSoft node groups recommended by the PS Discovery application automatically assigns the correct templates in turn to the PeopleSoft nodes you are add in this step. However, you still have to *distribute* the templates to the PeopleSoft nodes. For more information, see "Distributing PeopleSoft SPI Templates" on page 51.

NOTE

Database servers do not generate any discovery information for the PeopleSoft SPI. However, database-related templates still need to be assigned to database servers: you can do this by adding the database server in question to the PeopleSoft SPI node group, PS DB Server.

NOTE

Webservers other than the server bundled with PeopleTools 8.1 (e.g. Apache), should not assigned to the PeopleSoft SPI PS Web Server node group. Thos webserver systems should be assigned to the node groups which are installed via the Smart Plug-in monitoring this webserver (e.g. Smart Plug-in for BEA WebLogic server, Smart Plug-in for IBM WebSphere server).

Activating the Configuration on the PeopleSoft Nodes

Verify that the discovered information is correct and, if so, activate the configuration for the discovered components using the PS Activate application. In the example illustrated in Figure 2-1, one machine, called siamon, is database, batch, and application server. The PS Activate application activates the information discovered by the PS Discovery application and stored in the file psspi.disc on the PeopleSoft system by copying it to /etc/opt/OV/psspi/conf/ps.cfg and making it

available to the OVO/Unix monitors. Note that this application may take some time to complete.

Distributing PeopleSoft SPI Actions, Commands, and Monitors

To distribute the PeopleSoft actions, commands, and monitors to the PeopleSoft systems which you want the PeopleSoft SPI to monitor, open the Node Bank window and use the following menu sequence:

Actions-> Agents-> Install/Update SW & Config...

Note that distributing the actions, commands, and monitors to the PeopleSoft managed nodes should be done using the -force option.

Configuring the PeopleSoft SPI to Monitor the Database

If you want the PeopleSoft SPI to monitor the PeopleSoft database, you have to configure the database-monitoring component of the PeopleSoft SPI. This process applies *only* to the PeopleSoft database servers and is the same as the process used by the OVO/Unix Smart Plug-in for Databases. For more information, see the product-specific documentation supplied with the HP OpenView Operations for Unix Smart Plug-in for Databases.

This configuration has to be performed using the tools which are

	installed via the Smart Plug-in for Oracle. ——
NOTE	If the database server for a process scheduler does <i>not</i> reside on the local (batch-server) system, you have to configure the database components on the batch server as well. For more details, see "The PSSPI-Batch_Server Template Group" on page 83.

NOTE

To configure the PeopleSoft SPI to monitor the PeopleSoft database:

1. Select the PeopleSoft database servers in the Node Bank window (or Database Node Group window) and execute the OVO/Unix

application DBSPI Config. You will need to provide the user/password to be used by the OVO/Unix monitors when accessing the database. This user must be granted the appropriate rights for database access

2. A window running an editor for the DB-SPI Configuration File is displayed. The default editor for the configuration file is the UNIX vi editor. However, another editor can be selected using the EDITOR environment variable in the root user setup.

NOTE

When DBSPI Config is launched for the first time on a node, examples for setting keywords are provided. All lines containing # are treated as comments.

- 3. Prepare a list of all RDBMS instances that you want to monitor on the PeopleSoft system.
- 4. Prepare a list with the following information, which you will need during the configuration process:
 - ORACLE HOME
 - ORACLE_SID
 - settings on the target node that should be monitored by DB-SPI.
 - Oracle user name and password.
- 5. In the Oracle section of the editor screen set the following variables to the values specified:
 - HOME to the current value of \$ORACLE_HOME (use quotation marks)
 - DATABASE to the current value of \$ORACLE_SID (use the instance name)
 - *CONNECT* to the Oracle user/password used to connect to the databases (use quotation marks)

The database user specified in the *CONNECT* clause must be granted certain capabilities in order to be able view the system tables in the database. You should apply grants directly to the user. Do not use Oracle Roles: they do not work well with grants. For example, use the following command to apply grants:

```
grant create session to dbspi_user 1
grant select on PS_EMPLOYEES to dbspi_user 1
grant select on V$SESSION to dbspi_user 1
grant select on V$PROCESS to dbspi_user 1
grant select on PSWORKLIST to dbspi_user 1
grant select on PSPRCSRQST to dbspi_user 1,2
grant create any view to dbspi_user 1,3
grant alter session to dbspi_user 1,4
```

- 6. If there is more than one Oracle instance on the node, list all instances using additional *HOME*, *DATABASE*, and *CONNECT* entries.
- 7. Apply the changes to a node by accepting the default [Yes] at the following prompt:

```
Save configuration to /var/opt/OV/dbspi/local.cfg? [yes]
```

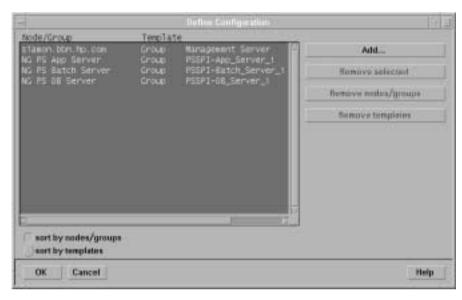
If you wish to undo the changes rather than apply them, press ${\bf N}$ (o), followed by **Enter** at the prompt.

Distributing PeopleSoft SPI Templates

The PeopleSoft SPI templates are organized into specific template groups according to system type: PeopleSoft database, application, or batch-server systems. Dragging and dropping the PeopleSoft nodes to the PeopleSoft node groups recommended by the PS Discovery application automatically assigns the appropriate PeopleSoft SPI templates: the PeopleSoft template groups and, by implication, their contents, are assigned by default to the PeopleSoft node groups. However, the PeopleSoft templates still need to be distributed to the PeopleSoft server systems (now OVO/Unix managed nodes) using the standard OVO/Unix distribution mechanism illustrated in Figure 2-2 on page 52.

- 1. *dbspi_user* is only a suggested database user name.
- 2. More grants may be necessary if the DB-SPI metrics are used to monitor the database. In this case, the DB-SPI documentation describes the appropriate steps which have to be performed.
- 3. **Grant create any view** is used only for the report for DB-SPI metric 6. A view is temporarily created for the report.
- 4. **Grant alter session** is necessary only if DB-SPI tracing is turned on (by adding **Trace All** to the config file).

Figure 2-2 Distributing the HP OpenView Smart Plug-in for PeopleSoft Templates



To distribute the PeopleSoft templates to the PeopleSoft systems which you want the PeopleSoft SPI to monitor, open the Node Bank window and use the following menu sequence:

Actions-> Agents-> Install/Update SW & Config...

Note that distributing the templates to the PeopleSoft managed nodes automatically activates the PeopleSoft SPI monitoring on those nodes.

NOTE

Messages intercepted by the PSSPI-DBSPI-Messages template supplied with the PeopleSoft SPI duplicate messages intercepted by the DBSPI. If the DBSPI is already installed (and the DBSPI templates already assigned and distributed) and you want to avoid duplicate messages arriving from the database server, you should disable the PSSPI-DBSPI-Messages template by deleting it from the PSSPI-DB_Server template group before distributing the PeopleSoft SPI templates.

Setting up PeopleSoft Users

The HP OpenView Smart Plug-in for PeopleSoft comes with two, new, pre-configured OVO/Unix users covering operational and administrative roles in the PeopleSoft environment. These new users are responsible for a set of pre-configured PeopleSoft-specific node and message groups and have the following default names:

Table 2-8 Default PeopleSoft SPI Users

User Name	Password	Description
psoft_adm	PsofT_adm	PeopleSoft environment administrator
psoft_op	PsofT_op	PeopleSoft environment operator

Each of these two users has a set of pre-configured applications assigned. The pre-configured users themselves as well as their default configuration can be used either "as is" or as a basis for a model user in your working environment. In addition, the following pre-defined **User Profiles** for this purpose:

- psoft_adm_prf
- psoft_op_prf

User Profiles simplify user management by allowing you to create a hierarchical set of abstract users each with a default configuration, which you can assign at any time to any of the real operators you are setting up. To configure a new user profile, open the Add User Profile Hierarchy window and enter the appropriate information in the fields provided. Saved user profiles appear as symbols in the OVO/Unix User Profile Bank. To assign a user profile to a specific user, open the Add User window, click the [Profiles...] button, and drag and drop the appropriate user profile from the User Profile Bank into the Profiles of User: <user> window of the operator you are configuring. This automatically assigns all the responsibilities, applications, application groups, and other profiles that are part of the configured profile to the user you have specified. For more information on User Profiles, see the HP OpenView OV Operations for Unix A.08.00 product documentation.

Table 2-9 on page 54 lists the application groups assigned by default to

Installing and Configuring the PeopleSoft SPI **Setting up PeopleSoft Users**

the PeopleSoft administrator and operator within OVO/Unix.

Table 2-9 Default PeopleSoft Application Group Assignment

Application Group	PeopleSoft Administrator	PeopleSoft Operator
PSSPI-Admin	1	
PSoft-Reports	✓	✓
PSoft-Admin	✓	
PSoft-Oper	✓	✓
PSDB-Oper	✓	✓

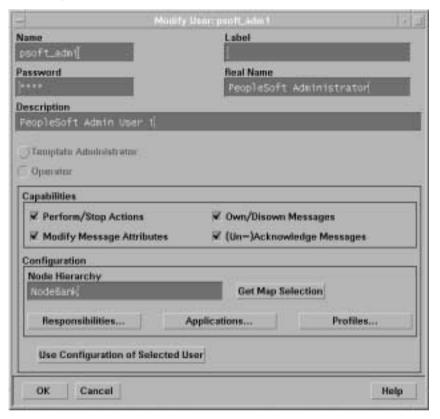
The PeopleSoft Message groups listed in Table 2-10 on page 54 are associated by default with the PeopleSoft node groups; PS App Server, PS Batch Server, and PS DB Server.

Table 2-10 Default PeopleSoft Message Group Assignment

Message Group	PeopleSoft Administrator	PeopleSoft Operator
PSoft-Fault	✓	✓
PSoft-Perf	✓	✓
PSSPI	✓	✓

To add or modify an OVO/Unix user, open the Users Bank window and select Add... or Modify... from the Actions: User pull-down menu. This opens the Responsibility Matrix window illustrated in Figure 2-3 on page 55.

Figure 2-3 New PeopleSoft Users in OVO/Unix



De-installing the PeopleSoft SPI

The HP OpenView Smart Plug-in for PeopleSoft can be de-installed by carrying out the following high-level steps:

- 1. Remove the PeopleSoft SPI components from the PeopleSoft systems (OVO/Unix managed nodes) and clean the system up
- 2. Remove the PeopleSoft SPI software from the OVO/Unix management server

NOTE

The OVO/Unix GUI integration has to be removed manually (OVO/Unix does not support automatic removal from the command line) and the distributed components have to be removed from the OVO/Unix managed nodes.

De-installing from Managed PeopleSoft Systems

To remove the HP OpenView Smart Plug-in for PeopleSoft components from the OVO/Unix managed nodes:

- 1. De-assign the PeopleSoft SPI templates from the PeopleSoft systems:
 - a. In the Node Bank window or the appropriate PeopleSoft SPI node group, remove any PeopleSoft systems from the PSSPI node groups.
 - b. Distribute the *empty* template-assignment list to the selected PeopleSoft systems using the following menu sequence.

```
Actions-> Agents-> Install/Update SW & Config...
```

2. Execute the application PSSPI Cleanup (in the PSSPI-Admin application group) on the managed node where you want to de-install the PeopleSoft SPI. The PSSPI Cleanup application removes the local SPI components from the selected managed nodes.

The de-installation script $psspi_clean$ can also be called manually (with the -n(ode) option) on the OVO/Unix managed node. Note that this has to be done before removing the OVO/Unix application desktop items themselves.

3. Cleanup the DBSPI components, if appropriate, using the DBSPI Cleanup application in the PSSPI-Admin application group.

NOTE

This step should be performed only if the DBSPI is *not* required.

De-installing from the OVO/Unix Management Server

To remove the HP OpenView Smart Plug-in for PeopleSoft components from the OVO/Unix management server and complete the general clean up process:

1. Remove the PeopleSoft SPI software from the OVO/Unix management server by using the swremove command. On the OVO/Unix management server, enter:

```
swremove SPI-PSoft-HPORA5
```

or, alternatively:

```
swremove SPI-PSoft-SuORA5
```

- 2. Distribute the actions, command, and monitors to *all* PeopleSoft managed nodes: this removes all PeopleSoft SPI components.
- 3. Cleanup the GUI by removing the PeopleSoft-specific elements, such as:
 - Node Groups
 - Applications and Application Groups
 - Message Groups
 - Templates
 - User and User Groups

Installing and Configuring the PeopleSoft SPI

De-installing the PeopleSoft SPI

3 Using the PeopleSoft SPI

This section describes what you get with the HP OpenView Smart Plug-in for PeopleSoft and how to start using it. In this section you will find an introduction as well as information concerning:

- The New OVO/Unix Managed Node Groups
- The New OVO/Unix Message Groups
- The New OVO/Unix Application Groups
- The New OVO/Unix Users
- The New OVO/Unix Templates and Monitors

Introduction

If you are already familiar with OV Operations for Unix, you will notice that the installation and configuration of the HP OpenView Smart Plug-in for PeopleSoft has added a number of new pre-configured components to the GUI, specifically to the Node Group and Message Group windows, as well as to the User Bank and Application Bank.

A set of new, pre-configured node groups allow you to organize your PeopleSoft systems within OVO/Unix according to their function; that is, Application Server, Batch Server, or Database Server. When you start to configure the new OVO/Unix users to suit the demands of your working environment, you will see these new PeopleSoft-specific node groups are automatically assigned to the new PeopleSoft-specific OVO/Unix users, who are added to the User Bank during the installation of the PeopleSoft SPI. For more information on the new node groups and the new users, see "The New OVO/Unix Managed Node Groups" on page 62 and "The New OVO/Unix Users" on page 78.

The PeopleSoft SPI also provides a large number of applications that are conveniently organized into groups and specifically designed to help you take advantage of the powerful problem-solving capabilities of OVO/Unix to automate the control and management of problems arising in the PeopleSoft environment. For more information on which new applications are available in the HP OpenView Smart Plug-in for PeopleSoft, see "The New OVO/Unix Application Groups" on page 65.

However, perhaps the most important component of the HP OpenView VantagePoint HP OpenView Smart Plug-in for PeopleSoft are the new PeopleSoft-specific templates. These templates are aimed at helping you extract the most useful information as easily as possible and, as a result, allowing you to concentrate resources on the monitoring of those critical aspects of the PeopleSoft systems that are necessary to keep the systems up and running. For more information on which new templates are available, see "The New OVO/Unix Templates and Monitors" on page 80.

Chapter 3 61

The New OVO/Unix Managed Node Groups

The following OVO/Unix node groups are installed as part of the PeopleSoft SPI. Initially they are empty (i.e. no nodes are assigned to the new node groups):

- PS App Server
- PS Batch Server
- PS DB Server
- PS Web Server

All pre-defined PeopleSoft node groups s are assigned by default to the pre-defined PeopleSoft users, which are delivered with the PeopleSoft SPI. The different template groups specific to the PeopleSoft SPI are also assigned by default to the corresponding PeopleSoft node groups.

NOTE

The node group PS Web Server is only meant for the web servers bundled with PeopleSoft, e.g. Apache. This node group must not be used for BEA WebLogic or IBM WebSphere servers.

The New OVO/Unix Message Groups

Four new OVO/Unix message groups appear in the Message Group window after the successful installation of the HP OpenView Smart Plug-in for PeopleSoft. Figure 3-1 on page 63 illustrates these new message groups, which are designed to help you better organize the messages generated by the PeopleSoft systems you are monitoring.

Figure 3-1 The Message Group Window

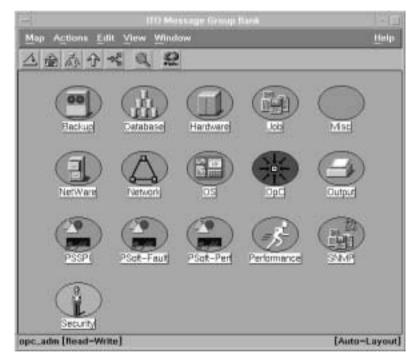


Table 3-1 on page 64 describes which type of messages generated by the PeopleSoft systems go into which PeopleSoft message groups. You can assign these message groups to the OVO/Unix users using the standard OVO/Unix method so that the users responsible for PeopleSoft problems

Chapter 3 63

The New OVO/Unix Message Groups

see only those messages they need to be able to do their job.

Table 3-1 PeopleSoft-Specific Message Groups

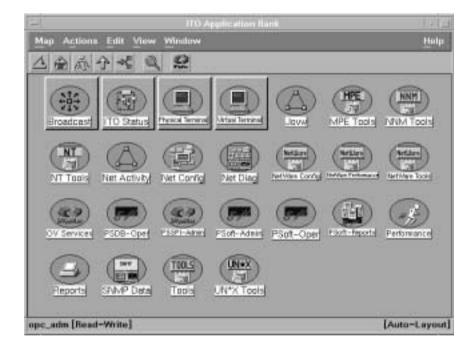
Message Group Name	Description
PSoft-Fault	All OVO/Unix messages related to faults within the PeopleSoft environment
PSoft-Perf	All OVO/Unix messages related to PeopleSoft performance problems
PSSPI	All OVO/Unix messages related to problems within the PeopleSoft SPI itself

OVO/Unix messages relating to PeopleSoft problems which do *not* fall into one of the categories in Table 3-1, go by default into the message group PSoft-Fault.

The New OVO/Unix Application Groups

After the successful installation of the HP OpenView Smart Plug-in for PeopleSoft, a number of new OVO/Unix application groups appear in the Application Group window. Figure 3-2 on page 65 shows these new application groups.

Figure 3-2 New PeopleSoft SPI Application Groups



The following list describes in general terms what the scope of the new PeopleSoft application groups are:

PSSPI-Admin containing applications intended for OVO/Unix

administrators that are working on PeopleSoft SPI

administration.

PSoft-Admin containing applications intended for OVO/Unix users

working in administrative mode in the PeopleSoft

environment.

Chapter 3 65

The New OVO/Unix Application Groups

PSoft-Oper containing applications intended for OVO/Unix users

working in operational mode in the PeopleSoft

environment.

PSoft-Reports containing applications intended for OVO/Unix users

working in information retrieval mode.

PSDB-Oper containing applications intended for OVO/Unix users

working in operational mode in the database

environment.

The sections that follow describe the individual PeopleSoft application groups in more detail, list the applications that the groups contain, and explain what the various applications do. Note that the applications listed will only work in the manner described if the HP OpenView Smart Plug-in for PeopleSoft has been successfully installed and correctly configured on *both* the OVO/Unix management server *and* the PeopleSoft systems you want the PeopleSoft SPI to monitor.

The PSSPI-Admin Application Group

The PSSPI-Admin application group contains applications intended for OVO/Unix administrators who are working specifically on PeopleSoft SPI administration. The applications are started as Unix user root and either can or must be used when installing, configuring, operating, and troubleshooting the PeopleSoft SPI. For more information on which utilities are called by the individual applications, see "Applications and Application Groups" on page 141 in Appendix B, "PeopleSoft SPI Components,".

Table 3-2 on page 66 lists in alphabetical order the various applications in the PSSPI-Admin application group, describes briefly how the individual applications work, and indicates which function is called by each application and which PeopleSoft interface is used.

Table 3-2 PSSPI-Admin Applications

Application Name	Description
Activate PS Services	Activates the generated ServiceNavigator model for the default OVO/Unix users, psoft_adm and psoft_op. Use the -replace option with "Customized Start" to replace existing services with the new model. To assign the model to alternative users, add the appropriate user names.

Table 3-2 PSSPI-Admin Applications

Application Name	Description
Build PS Services	Builds a ServiceNavigator model for PeopleSoft environment from discovered information. Note that if a discovery file was manually edited on the managed node, the file has to be transferred back to the OVO/Unix management server (see application Get PS Cfg).
	If the application finds an existing service definition file, this file is preserved as /var/opt/OV/share/tmp/psspi/svc/svc_main.a ll.old
Edit PS Cfg	Starts a text editor (vi) ^a for configuration file with managed PeopleSoft components
Get PS Cfg	Retrieves the discovery file from the selected managed nodes and stores them on the OVO/Unix management server.
	Use this application if you have modified the discovery file manually on the managed node, e.g. by using the application Edit PS Cfg.
Edit PSSPI Cfg	Starts a text editor (vi) ^a and opens the PSSPI configuration file psspi.cfg, which contains control options for the PeopleSoft SPI
PS Activate	Activates the discovered PeopleSoft components and creates a ps.cfg file on the selected system
PS Analyze	Analyzes the PeopleSoft components discovered by PS Discovery on all PeopleSoft systems
PS Discovery	Discovers PeopleSoft components on the nodes you have selected
PSSPI Cleanup	Removes all files and persistent information pertaining to the PeopleSoft SPI on the selected node
PSSPI Off	Switches <i>OFF</i> the monitoring components of the PSSPI (except database metrics and log-file monitoring) on the selected node

Chapter 3 67

Table 3-2 PSSPI-Admin Applications

Application Name	Description
PSSPI On	Switches <i>ON</i> the monitoring components of the PSSPI (except database metrics and log-file monitoring) on the selected node
PSSPI Trace Off	Switches <i>OFF</i> the generation of trace information from the PSSPI components (except database metrics) on the selected node
PSSPI Trace On	Switches <i>ON</i> the generation of trace information from the PSSPI components (except database metrics) for the selected node
Verify PS Cfg	Verifies that the configuration of the managed PeopleSoft components in the ps.cfg file reflects the PeopleSoft environment on the node, and uses the findings to generate a report for the selected node
Verify PSSPI Com	Verifies that the communication between managed node and management server is working correctly for PeopleSoft messages, and generates a report about the results for the selected node
Verify Node Inst	Checks the installation of the PSSPI on the OVO/Unix managed node is correct and uses the findings to generate a report for the selected node
Verify Svr Inst	Verifies that the installation of the PSSPI on the OVO/Unix management server is correct then uses the findings to generate a report
View PSSPI Cfg	Displays the PSSPI configuration file psspi.cfg, which contains settings for tracing for the selected node
View PS Cfg	Displays the PeopleSoft configuration file psspi.disc, which lists the managed PeopleSoft components for the selected node
View PSSPI Error	Displays the contents of the PSSPI error log file on the selected node

Table 3-2 PSSPI-Admin Applications

Application Name	Description
View PSSPI Trace	Displays the contents of the PSSPI trace file on the selected node

a. Use the *EDITOR* variable to change this setting. Note that, for security reasons, the editor process runs as user opc_op.

The PSoft-Admin Application Group

This group contains applications intended for OVO/Unix users working in administrative mode. These users are allowed to configure or tune the PeopleSoft environment. The applications can also be used to perform administrative tasks in the PeopleSoft environment.

Note that all applications in the PSoft-Admin application group are started as Unix user root. For more information on which utilities are called by the individual applications, see "Applications and Application Groups" on page 141 in Appendix B, "PeopleSoft SPI Components,".

Table 3-3 on page 69 lists in alphabetical order the various applications in the PSoft-Admin application group, describes briefly how the individual applications work, and indicates which function is called by each application and which PeopleSoft interface is used

Table 3-3 PSoft-Admin Applications

Application Name	Description
Edit PRCS Config	Starts a text editor (vi) ^a and opens the PeopleSoft process scheduler configuration file. The function accepts the same options for the selection of the process scheduler as Start Proc Sched in the PSoft-Oper application group.
Edit pstools.ini	Starts a text editor (vi) ^a and opens the PeopleSoft configuration file pstools.ini (PS 7 only), which contains the settings for trace level, log fence, and so on

Chapter 3 69

Table 3-3 PSoft-Admin Applications

Application Name	Description
psadmin	Starts the PeopleSoft command line tool psadmin in a new terminal window. Valid options for psadmin can be used for customization purposes. By default, psadmin starts in interactive mode with <i>no</i> options specified.
tmadmin	Starts the Tuxedo command line tool tmadmin in a new terminal window. If necessary, users are prompted to select a PeopleSoft domain, for which tmadmin will be started. All valid options for tmadmin can be used for customization.
tmconfig	Starts the Tuxedo command line tool tmconfig in a new terminal window. If necessary, users are prompted to select a PeopleSoft domain, for which tmconfig will be started. All valid options for tmconfig can be used for customization.
Unload TX Conf	Displays the current Tuxedo configuration for a PeopleSoft domain. If necessary, users are prompted to select a PeopleSoft domain, for which the configuration will be displayed
View PRCS Config	Displays the contents of the PeopleSoft process scheduler configuration file. The function accepts the same options for the selection of the process scheduler as Start Proc Sched in the PSoft-Oper application group.
View pstools.ini	Displays the contents of the PeopleSoft configuration file pstools.ini (PS 7 only). This file contains the settings for trace level, log fence, and so on

a. Use the *EDITOR* variable to change this setting. Note that *EDITOR* runs as \$PS_USER.

The PSoft-Oper Application Group

This group contains applications intended for OVO/Unix users working in operational mode. These users are responsible for resolving problems

that occur within the PeopleSoft environment and are reported by OVO/Unix messages. The applications can be used to perform operational tasks on the PeopleSoft environment (e.g. restart servers).

Note that all applications in the PSoft-Oper application group are started as Unix user root. For more information on which utilities are called by the individual applications, see "Applications and Application Groups" on page 141 in Appendix B, "PeopleSoft SPI Components,".

Table 3-4 on page 71 lists in alphabetical order the various applications in the PSoft-Oper application group, describes briefly how the individual applications work, and indicates which function is called by each application and which PeopleSoft interface is used.

Table 3-4 PSoft-Oper Applications

Application Name	Description
Boot Adm Servers	Boot PS administration servers (i.e. Tuxedo infrastructure processes like BBL). Where necessary, you are prompted to select a PeopleSoft domain, for which the admin servers will be booted.
Boot Appl Servers	Boot PS application servers (e.g. PeopleSoft- specific server processes like PSAPPSRV, PSQCKSRV). Where necessary, you are prompted to select a PeopleSoft domain, for which the application servers will be booted.
Boot All PS Domains	Boots all the PS domains (both administration and application servers), which are listed in ps.cfg
Boot PS Domain	Boots a PS domain (both administration and application servers). If necessary, you are prompted to select a PeopleSoft domain, to be booted.
File Systems	Displays statistics on file systems and their usage.
IPC Cleanup	Purges the current IPC resources for a specific PeopleSoft installation
IPC Current	Displays the current IPC resource statistics
IPC Needed	Displays the IPC resources needed to boot an additional PS domain.

Chapter 3 71

Table 3-4 PSoft-Oper Applications

Application Name	Description
psadmin	Starts the PeopleSoft command line tool psadmin in a new terminal window. Valid options for psadmin can be used for customization pirposes. By default, psadmin starts in interactive mode with <i>no</i> options specified.
PS App Server	Starts the PerfView user interface with pre-defined graphs illustrating PeopleSoft application server metrics.
PS Proc Sched	Starts the PerfView user interface with pre-defined graphs illustrating Process-scheduler metrics.
PS All Procs	Starts the PerfView user interface with pre-defined graphs showing all processes.
Restart All PS Domains	Shuts down and reboots all the PS domains (both administration and application servers), which are listed in ps.cfg
Restart PS Domain	Shuts down and reboots a PS domain (both administration and application servers). If necessary, you are prompted to select a PeopleSoft domain, to be restarted.
Shutd. PS Domain	Shuts down a PS domain. If necessary, you are prompted to select a PeopleSoft domain to be shut down
Shutd. All PS Domains	Shuts down all the PS domains listed in the file ps.cfg
Shutd. Adm Servers	Shuts down the PS administration servers. Where necessary, you are prompted to select a PeopleSoft domain, whose administration servers will be shut down.
Shutd. Appl Servers	Shuts down PS application servers. If necessary, you are prompted to select a PeopleSoft domain, in which the application servers will be shut down.

Table 3-4 PSoft-Oper Applications

Application Name	Description
Start Proc Sched	Starts a process scheduler process. If necessary, users are prompted to select a PeopleSoft database, for which the process scheduler process will be started
Start All Proc Scheds	Starts <i>all</i> the process scheduler processes, which are listed in ps.cfg (PeopleSoft 7.5 and higher <i>only</i>).
Stop All Proc Scheds	Stops <i>all</i> the process scheduler processes, which are listed in ps.cfg (PeopleSoft 7.5 and higher <i>only</i>).
Stop Proc Sched	Stops a process scheduler process and accepts the same options as Start Proc Sched.
System Metrics	Starts the PerfView user interface with pre-defined graphs illustrating the most important system metrics.
tmadmin	Starts the Tuxedo command line tool tmadmin in a new terminal window. If necessary, users are prompted to select a PeopleSoft domain, for which tmadmin will be started. All valid options for tmadmin can be used for customization.
View APPSRV.LOG	Displays the contents of the APPSRV.LOG logfile of a PS domain. Where necessary, you are prompted to select a PeopleSoft domain, for which the logfile will be viewed.
View TUXLOG	Displays the contents of the latest Tuxedo logfile of a PS domain. Where necessary, you are prompted to select a PeopleSoft domain, whose Tuxedo logfile you want to view.
View PRCS Log	Displays the contents of the latest process-scheduler logfile. Where necessary, you are prompted to select a PeopleSoft database, whose process scheduler logfile you wish to view.

The PSoft-Reports Application Group

This ${\tt PSoft-Reports}$ application group contains applications intended

The New OVO/Unix Application Groups

for OVO/Unix users working in information-retrieval mode. The applications are granted read-only rights and may be used to create reports on the PeopleSoft environment. All applications are started as Unix user root. For more information on which utilities are called by the individual applications, see "Applications and Application Groups" on page 141 in Appendix B , "PeopleSoft SPI Components,".

Table 3-5 on page 74 lists in alphabetical order the various applications in the PSoft-Reports application group, describes briefly how the individual applications work, and indicates which function is called by each application and which PeopleSoft interface is used.

Table 3-5 PSoft-Reports Applications

Application Name	Description
PS Status	This application generates a status report on all PeopleSoft components on the selected node.
PS 2-Tier Conn	Generates a report on the number and origin of 2-tier connections to the PeopleSoft database.
Proc Sched Status	Generates a status report on the PeopleSoft process scheduler. Where necessary, you are prompted to select a PeopleSoft database, whose process-scheduler status you want to see. All valid options for the pspt command may be used.
PS Job Status	Generates a report on the status of all PeopleSoft batch jobs on the selected node.
PS/TX Versions	Generates a report on the PeopleSoft/Tuxedo software version on the selected node.
PS Worklist Status	Generates a report on the status of the entries in the PeopleSoft worklist table.
Tblspace Files	List data files for all table spaces of the PS database
Tblspace Fragmnt	Generate a report on tablespace fragmentation
Tblspace Free	List free tablespace
Tblspace Status	Lists the status of table space

Table 3-5 PSoft-Reports Applications

Application Name	Description
TX Client Status	Generates a report with information on the current PeopleSoft user activity. Where necessary, you are prompted to select a PeopleSoft domain, whose client status you want to see. Valid options for tmadmin may be used for customization. Output, as from tmadmin, with the command pclt.
TX Server Status	Generates a status report on the current PeopleSoft servers. Where necessary, you are prompted to select a PeopleSoft domain, whose server status you want to display. All valid options for tmadmin can be used. Output, as from tmadmin, with the command psr.
TX Queue Status	Generates a status report on the current PeopleSoft queues. Where necessary, you are prompted to select a PeopleSoft domain, whose queue status you want to display. Valid options for tmadmin can be used. Output, as from tmadmin, with command pq.

Note that there is an additional report available to the OVO/Unix administrator which generates a report listing the number of managed nodes that require a licence for the HP OpenView Smart Plug-in for PeopleSoft and indicating the total number of licenses needed. To access this report from any top-level window in the OVO/Unix administrator's GUI, use the following menu sequence:

Actions-> Utilities-> Reports-> PSSPI Licence Report

The PSDB-Oper Application Group

The PSDB-Oper application group contains applications intended for OVO/Unix users whose responsibility it is to resolve problems within the database environment of a PeopleSoft installation. The contents of this application group are identical to the application group DBSPI-Oracle that is part of the HP OpenView VantagePoint SMART Plug-In for Databases with two exceptions: the Export and Import applications present in DBSPI-Oracle are *not* included in PSDB-Oper.

The applications in PSDB-Oper can be used to perform operational tasks on the PeopleSoft database such as starting it up or shutting it down.

The New OVO/Unix Application Groups

Table 3-6 on page 76 lists in alphabetical order the various applications in the PSDB-Oper application group and describes briefly how the individual applications work. For more information on the individual applications in PSDB-Oper, see the documentation supplied with the SMART Plug-In for Databases.

NOTE

The applications in the group DBSPI Oracle require that a user named oracle exist in group dba. If the user oracle is not in group dba, you will have to modify Customized Startup to execute some Oracle applications. Customized Startup permits a different user login. Application that either start or stop database instances have to perform a connect internal, which requires the executing user to be in group dba.

Table 3-6 PSDB-Oper Applications

Application Name	Description
LSNRCTL	Calls the lsnrctl program for a database instance
Shutdown Inst*	Shuts down a database instance
Shutdown all Inst*	Shuts down all configured database instances
Shut. Inst. Immediate*	Shuts down a database instance with immediate option
Shut. Inst. Abort*	Shuts down a database instance with the abort option
SQL* DBA	Starts sqldba program (only available in Oracle 7.2.)
SQL Net Status	Prints the SQL Net status
SQL Net Start	Starts SQL Net.
SQL Net Stop	Stops SQL Net
SQL* Plus	Starts sqlplus program
Start Instance	Starts a database instance
Start all Inst*	Starts all configured database instances
Svr Mgr (Text)	Starts svrmgrl program (Oracle >= 7.3 only)
Svr Mgr (X11)	Starts svrmgrm program (Oracle >= 7.3 only)

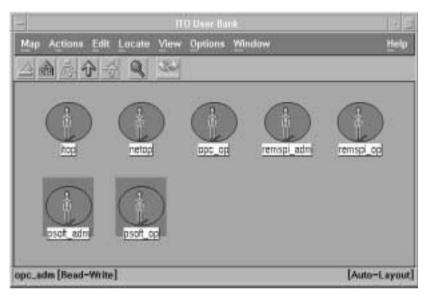
Using the PeopleSoft SPI The New OVO/Unix Application Groups

Note that all applications in Table 3-6 marked with an asterisk (*) require an internal connect to the database instance. Consequently, the executing account must have dba as its primary group (Oracle).

The New OVO/Unix Users

After the successful installation of the HP OpenView Smart Plug-in for PeopleSoft, two new OVO/Unix users appear in the User Bank window. Figure 3-3 on page 78 shows these new users.

Figure 3-3 New PeopleSoft-specific Users



The following list describes in general terms what the scope of the new users are:

psoft-adm is responsible for the administrative aspects of the

PeopleSoft environment

psoft-op is responsible for monitoring the operational aspects of

the PeopleSoft environment

Table 3-7 on page 79 shows at a glance which new components of the HP OpenView Smart Plug-in for PeopleSoft are assigned by default to which new user. These assignments can easily be reviewed and, where necessary, modified in the Responsibility Matrix window, which you can see by opening the User Bank window, right-clicking the user you want to modify, and selecting the Modify... item in the pop-up menu

that appears.

Table 3-7 Default User Assignments

New Component		psoft_adm	psoft_op
Node Group	PS App Server	✓	1
	PS Batch Server	✓	1
	PS DB Server	✓	✓
	PS Web Server	✓	1
Message Group	PSoft-Fault	✓	1
	PSoft-Perf	✓	1
	PSSPI	✓	✓
Application Group	PSSPI-Admin	✓	
	PSoft-Admin	✓	
	PSoft-Oper	✓	✓
	PSoft-Reports	✓	✓
	PSDB-Oper	✓	✓

Alternatively, you can review and modify one of the two default **User Profiles** provided with the HP OpenView Smart Plug-in for PeopleSoft products SPI-PSoft-HPORA and SPI-PSoft-SuORA and which appear in the OVO/Unix User Profile Bank window:

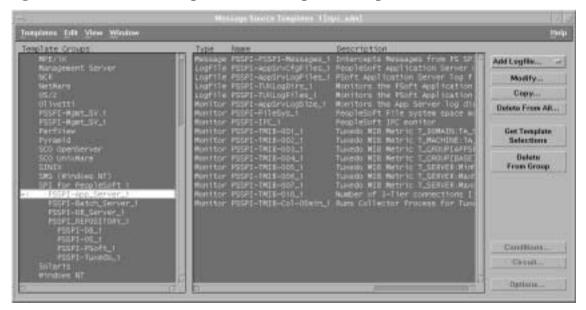
- psoft_adm_prf
- psoft_op_prf

For more information on setting up users and using User Profiles in the PeopleSoft SPI, see "Setting up PeopleSoft Users" on page 53. For more information on User Profiles in general, see the OVO/Unix A.08.00 documentation and specifically the section on User Profiles in the *HP OpenView IT/Operations Concepts Guide*.

The New OVO/Unix Templates and Monitors

The HP OpenView Smart Plug-in for PeopleSoft installs a number of new template groups which contain all the templates and monitors you need to manage the PeopleSoft environment. For example, the PeopleSoft server processes can be monitored using a pre-defined process monitor provided as part of the PeopleSoft SPI. In addition the PeopleSoft server log files can be monitored with log-file templates. The templates and template groups have to be distributed using the standard OVO/Unix mechanisms. For more information on assigning and distributing templates in OVO/Unix, see "Distributing PeopleSoft SPI Actions, Commands, and Monitors" on page 49. Figure 3-4 on page 80 shows which new templates groups are available and how the groups are organized according to the type of PeopleSoft domain.

Figure 3-4 The PeopleSoft SPI Template Groups



The template groups installed by the PeopleSoft SPI are:

- SPI for PeopleSoft
- PSSPI-App Server

The New OVO/Unix Templates and Monitors

- PSSPI-Batch Server
- PSSPI-DB Server
- PSSPI-Web Server
- PSSPI REPOSITORY

The SPI for PeopleSoft template group must *not* be assigned to a node or node group: it is a top-level template group that is a container for the other PeopleSoft-specific template groups. Similarly, the PSSPI_REPOSITORY template group should not be used directly, either: as the name suggests, it contains *all* the templates installed by the HP OpenView Smart Plug-in for PeopleSoft but conveniently organized in the following sub-groups:

- PSSPI-DB
- PSSPI-OS
- PSSPI-Psoft
- PSSPI-Tuxedo

NOTE

The PSSPI_REPOSITORY template group contains additional templates which are not included in the default template groups. For a complete list of the templates supplied with the HP OpenView Smart Plug-in for PeopleSoft, see "The Template Repository" on page 133.

The three main template groups which you may assign to the appropriate PeopleSoft nodes or node groups are explained in greater detail in the individual sections that follow. For more information on the scripts which the templates and PeopleSoft SPI monitors use, see Templates and Monitors in Appendix B , "PeopleSoft SPI Components."

The PSSPI-App_Server Template Group

Table 3-8 on page 82 lists the templates in the PSSPI-App_Server template group, indicates each template's type, and gives a brief

Using the PeopleSoft SPI

The New OVO/Unix Templates and Monitors

description of what is monitored and how.

Table 3-8 PSSPI-App_Server Templates

Template Type	Template Name	Description
Monitor	PSSPI-AppSrvLogSize	Monitors the application-server log directory for the amount of disk space consumed by the APPSRV.LOG and TUXLOG. <date> files</date>
	PSSPI-FileSys	Monitors UNIX file-system space - checks all local file systems
	PSSPI-IPC	Monitors the PeopleSoft UNIX IPC, including kernel table usage for semaphores, message queues, and shared memory
	PSSPI-TMIB-001_1	Monitors the status of the Tuxedo domains of a PeopleSoft application server
	PSSPI-TMIB-005_1	Monitors the actual number of APPSRV server processes and compares the it with TA_MIN
	PSSPI-TMIB-006_1	Monitors the actual number of APPSRV server processes and compares it with TA_MAX
	PSSPI-TMIB-007_1	Monitors the generation number TA_MAXGEN - TA_GENERATION
	PSSPI-TMIB-008_1	Monitors the actual (absolute) number of APPSRV processes.
	PSSPI-TMIB-010_1	Monitors the number of GUI clients
	PSSPI-TMIB-Col-05min_1 a	Runs the TMIB collector process to gather DB metrics every <intv> minutes. In this case intv = 5 mins. Note that there may be multiple templates with different <intv>. Actual data processing is done in monitors TMIB-<metric>. In addition, this collector checks for Tuxedo domains which are currently down.</metric></intv></intv>
	PSSPI-TMIB-Col-05min_2	This TMIB collector checks for Tuxedo domains which are currently up.

The New OVO/Unix Templates and Monitors

Table 3-8 PSSPI-App_Server Templates

Template Type	Template Name	Description
Logfile	PSSPI-AppSrvCfgFiles	Monitors changes to the application-server configuration file, psappsrv.cfg
	PSSPI-AppSrvLogFiles	Monitors the application-server log file, APPSRV.LOG, for each PS domain
		Please note that messages not currently recognized by a SPI Template Condition are send directly to the history log of the VPO server as "unrecognized messages". To change this, you may deactivate the according flag in the last condition of this template.
	PSSPI-TUXLogDirs	Monitors the PeopleSoft domain log directories for new TUXLOG files.
	PSSPI-TUXLogFiles	Monitors the TUXLOG. <date> log files for each PeopleSoft domain</date>
		Please note that messages not currently recognized by a SPI Template Condition are send directly to the history log of the VPO server as "unrecognized messages". To change this, you may deactivate the according flag in the last condition of this template.
Message	PSSPI-PSSPI-Messages	Intercepts messages from the PeopleSoft SPI programs

a. If you want to split the collector monitor into multiple monitors each of which is configured to run at different intervals, make sure that only *one* of the monitors is configured to feed the MeasureWare agent. For more information, see "Monitor Scripts" on page 138.

The PSSPI-Batch_Server Template Group

Table 3-9 on page 84 lists the templates in the PSSPI-Batch_Server template group, indicates each template's type, and gives a brief description of what is monitored and how.

If the database server for a process scheduler does not reside on the local

Using the PeopleSoft SPI

The New OVO/Unix Templates and Monitors

(batch-server) system, you have to configure the database components on the batch server as well (and in the same way) as the database server as described in "Configuring the PeopleSoft SPI to Monitor the Database" on page 49, with the exception of the <code>CONNECT</code> string. In order to take account of the remote database, the <code>CONNECT</code> string on the batch server should take the following format:

CONNECT "<name>/<passwd>@<db_alias>"

where db_alias is the name of the PeopleSoft database.

Table 3-9 PSSPI-Batch_Server_1 Templates

Template Type	Template Name	Description
Message	PSSPI-PSSPI-Messages	Intercepts messages from the PeopleSoft SPI programs
Logfile	PSSPI-PrcsLogDirs	Monitors the PeopleSoft, process-scheduler log directories. Checks for new log files and switches the actual log file
	PSSPI-PrcsLogFiles	Monitors the PeopleSoft process-scheduler log files: PTPUPRCS_*.log
		Please note that messages not currently recognized by a SPI Template Condition are send directly to the history log of the VPO server as "unrecognized messages". To change this, you may deactivate the according flag in the last condition of this template.
Monitor	PSSPI-PrcsLogSize	Monitors the size of the process-scheduler log directory and the disk space consumed by the PTPUPRCS_*.log files
	PSSPI-PrcsJobTab	Checks the process-scheduler table and the job-table entries
	PSSPI-PrcsMon	Monitors the existence of the process scheduler process: PTPUPRCS
	PSSPI-PrcsMon-STAT	Monitors the existence of additional process scheduler processes: PSDSTSRV

The PSSPI-DB_Server Template Group

Table 3-10 on page 86 lists the templates in the PSSPI-DB_Server template group, indicates each template's type, and gives a brief description of what is monitored and how.

NOTE

Messages intercepted by the PSSPI-DBSPI-Messages template supplied with the PeopleSoft SPI duplicate messages intercepted by the DPSPI templates. If the DBSPI is already installed (and the DBSPI templates already assigned and distributed) and you want to avoid duplicate messages arriving from the database server, you should disable the PSSPI-DBSPI-Messages template by deleting it from the PSSPI-DB_Server template group before distributing the PeopleSoft SPI templates.

NOTE

If the same database metrics as listed in Table 3-10 are to be computed using the original DBSPI templates, it may happen that more than one DBSPI collector is accessing a PeopleSoft database at the same time.

Per default, such overlapping metrics are detected by the DBSPI collectors and a warning message is written to the DBSPI log file - and shown in the OVO/Unix message browser.

To avoid these messages - and to avoid the additional load on the managed node - you may want to disable these multiply defined metrics in one of the SPI's, whether the DBSPI or the PeopleSoft SPI.

This may be done by removing the appropriate metric number from the collector templates. For the PeopleSoft SPI, this collector template is PSSPI-DB-Col-05Min_1. For the DBSPI, this collector template is DBSPI-Ora-05min, DBSPI-Ora-05min-Favorites or

Using the PeopleSoft SPI The New OVO/Unix Templates and Monitors

DBSPI-Ora-05minSQLNet.,

Table 3-10 PSSPI-DB_Server Templates

Template Type	Template Name	Description
Message	PSSPI-DBSPI-Messages	Intercepts messages from the DBSPI programs
	PSSPI-PSSPI-Messages	Intercepts messages from the PeopleSoft SPI programs
Monitor	PSSPI-DB-Col-05Min	Runs the collector process to gather DB metrics every 5 minutes
	PSSPI-DBSPI-0001	Monitors the database status (DBInstanceStatus)
	PSSPI-DBSPI-0002	Monitors the database process (ProcessStatus)
	PSSPI-DBSPI-0006	Monitors the number of table spaces with low free space (TblSpaceFreePctCnt)
	PSSPI-DBSPI-00011	Monitors the number of fragmented table spaces (TblSpaceFragmentCnt)
	PSSPI-DBSPI-0023	Current buffer cache hit percentage (CurrBuffCacheHitPct)
	PSSPI-DBSPI-0792	Number of queue jobs
	PSSPI-DBSPI-0793	Number of 2-tier client connections: i.e. the number of clients working in 2-tier mode
	PSSPI-FileSys	Monitors the PeopleSoft file-system space
	PSSPI-IPC	Monitors the PeopleSoft UNIX IPC, including kernel-table usage for semaphores, message queues, and shared memory
	PSSPI-WorkList	Checks the PeopleSoft work-list table

The PSSPI-Web_Server Template Group

Table 3-9 on page 84 lists the templates in the PSSPI-Web_Server template group, indicates each template's type, and gives a brief description of what is monitored and how.

Table 3-11 PSSPI-Web_Server Templates

Template Type	Template Name	Description
Message	PSSPI-PSSPI-Messages	Intercepts messages from the PeopleSoft SPI programs
Logfile	PSSPI-WebLogFiles	Monitors the log file of the bundled Apache web server (PeopleTools 8.1)
Monitor	PSSPI-WebMon	Monitors the existence of the Apache web server (PeopleSoft 8.1)

Template and Monitors on MC/ServiceGuard Nodes

The PeopleSoft SPI templates and monitors continue to generate messages and send them to the OVO/Unix management server irrespective of whether the MC/ServiceGuard package for PeopleSoft is running on that node or not. This can lead to a situation where, after a package switch from node A to node B, unnecessary messages appear in the Message Browser window on the OVO/Unix management server informing you that the PeopleSoft processes are no longer running on node A. The messages are unnecessary because they are notifying you of behavior that is expected.

To allow or prevent the collection and sending of such messages from PeopleSoft systems in an MC/ServiceGuard environment, you need to disable the PeopleSoft SPI on those nodes, where the PeopleSoft components are down intentionally and to reactivate the PeopleSoft SPI where the PeopleSoft components are up again.

To deactivate the PeopleSoft SPI, add the following lines to the script which is called when the OVO/Unix package is switched off on the managed node:

```
opctemplate -d PSSPI-AppSrvLogFiles
opctemplate -d PSSPI-AppSrvCfgFiles
opctemplate -d PSSPI-AppSrvLogSize
opctemplate -d PSSPI-TUXLogDirs
opctemplate -d PSSPI-TUXLOgFiles
opctemplate -d PSSPI-FileSys
opctemplate -d PSSPI-IPC
opctemplate -d PSSPI-TMIB-Col-05min_1
opctemplate -d PSSPI-TMIB-Col-05min_2
ocptemplate -d PSSPI-PrcsLogDirs
opctemplate -d PSSPI-PrcsLogFiles
opctemplate -d PSSPI-PrcsLogSize
opctemplate -d PSSPI-PrcsMon
opctemplate -d PSSPI-PrcsJobTab
opctemplate -d PSSPI-DB-Col-05min
opctemplate -d PSSPI-WorkList
opctemplate -d PSSPI-WebLogFiles
opctemplate -d PSSPI-WebMon
```

To activate the PeopleSoft SPI, add the following lines to the script

Template and Monitors on MC/ServiceGuard Nodes

which is called when the OVO/Unix package is switched on:

```
opctemplate -e PSSPI-AppSrvLogFiles
opctemplate -e PSSPI-AppSrvCfgFiles
opctemplate -e PSSPI-AppSrvLogSize
opctemplate -e PSSPI-TUXLogDirs
opctemplate -e PSSPI-TUXLOgFiles
opctemplate -e PSSPI-FileSys
opctemplate -e PSSPI-IPC
opctemplate -e PSSPI-TMIB-Col-05min 1
opctemplate -e PSSPI-TMIB-Col-05min_2
ocptemplate -e PSSPI-PrcsLogDirs
opctemplate -e PSSPI-PrcsLogFiles
opctemplate -e PSSPI-PrcsLogSize
opctemplate -e PSSPI-PrcsMon
opctemplate -e PSSPI-PrcsJobTab
opctemplate -e PSSPI-DB-Col-05min
opctemplate -e PSSPI-WorkList
opctemplate -e PSSPI-WebLogFiles
opctemplate -e PSSPI-WebMon
```

Using the PeopleSoft SPI

Template and Monitors on MC/ServiceGuard Nodes

4 Using Service Views

This section describes how to take advantage of the HP OpenView Smart Plug-in for PeopleSoft integration with HP OpenView ServiceNavigator. In this section you will find information concerning:

- Service Views with the PeopleSoft SPI
- The System View
- The Instance View
- Resources and Processes
- Pre-defined Actions and Applications
- Service Discovery, Activation, and Assignment

Service Views with the PeopleSoft SPI

If you are using the HP OpenView Smart Plug-in for PeopleSoft with OV Operations for Unix, you can make use of the HP OpenView ServiceNavigator which allows you to display a logical view of all the monitored components in your user environment.

NOTE

The Navigator is a *separate* product: it is not included either with the HP OpenView Smart Plug-in for PeopleSoft or OV Operations for Unix.

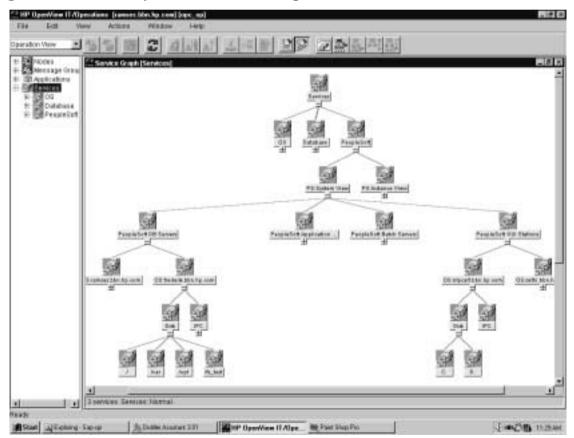
From a PeopleSoft perspective, the PeopleSoft SPI uses the Navigator to display all PeopleSoft components (database, application, and batch servers) and any dependencies both in terms of the systems on which the PeopleSoft components are running, that is; a *system* view and, if necessary, the logical view of each installed PeopleSoft instance, the *instance* view. For more information on the system view, see "The System View" on page 94. For more information on the instance view, see "The Instance View" on page 96.

Chapter 4 93

The System View

The PeopleSoft SPI uses the Navigator to display all PeopleSoft components such as database, application, and batch servers as well as any dependencies in terms of the systems on which the PeopleSoft components are running. Figure 4-1 on page 94 illustrates an example representation of a "system" view. It is important to recognize that the idea is *not* to display the status of any particular PeopleSoft functionality: rather, it is to indicate which systems are configured in which PeopleSoft role.

Figure 4-1 A System View of the PeopleSoft Environment



There are four different system types each represented by a service icon:

- database servers
- application servers
- batch servers
- web servers (only servers bundled with PT 8.1, i.e. Apache)

Note that any one system can be linked to more than one system-type icon (e.g. a database server can also be an application server) and each of the system icons has a dependency on a *real* system icon in the OS (operating system) name space.

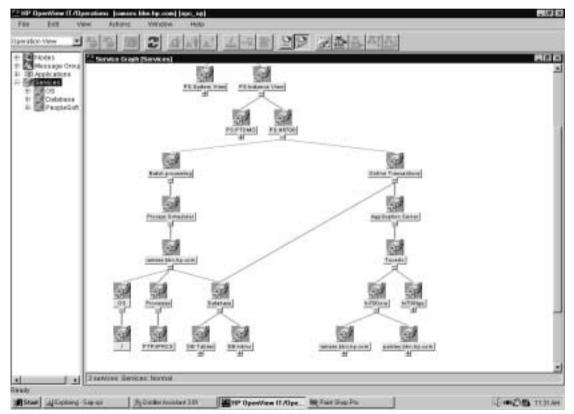
In addition, each system has a set of actions which operate on the PeopleSoft (or PeopleSoft SPI) components on this particular system. The set of actions differs according to system type: database servers, for example, have a set of actions designed for database-related operations. Note that the actions are visible in the scoping (left-hand) pane only as pop-up menus. To access these menus, select a system (or instance) in the scoping pane and click the right mouse button.

Chapter 4 95

The Instance View

The PeopleSoft SPI can also use the Navigator to display all PeopleSoft components (database, application, and batch servers) in terms of the PeopleSoft instances running, that is; an *instance* view. The top level of a instance view is one icon for each installed PeopleSoft instance such as PeopleSoft Databases like **HR** (Human Resources) and **Finance**. Figure 4-2 on page 96 illustrates an example of just such an instance view, where PTDMO and HR700 are instance names.

Figure 4-2 An Instance View of the PeopleSoft Environment



Each top-level PeopleSoft instance, such as HR or Finance, depends on a logical component like Batch Processing or Online Transactions, which in turn have a dependency on the *real* database, the application

server, and the process-scheduler subsystem. Note that there can be multiple process schedulers on different systems each represented in the Navigator by a single system icon. The application server depends on one or more Tuxedo domains, which in turn can reside on different systems.

Each system has dependencies on relevant components in the OS name space, and this might affect the availability of the service. For example, the application server depends on all IPC resources but only on specific file systems on this system.

Objects below the PeopleSoft instance root Instance View are the PeopleSoft databases. In Figure 4-2, "An Instance View of the PeopleSoft Environment," the PeopleSoft databases are named PTDMO and HR700 preceded by the name space PS_SPI: to which all PeopleSoft service objects belong. These objects represent the availability of the PeopleSoft instance as one object and can be used for reporting. For technical analysis of problems, the person responsible usually wants to drill down to the root cause of the problem represented by leaf objects (typically processes and resources).

Chapter 4 97

Resources and Processes

The HP OpenView Smart Plug-in for PeopleSoft monitors low-level resources and reports any failure by sending a message to the OVO/Unix management server. The propagation rules that determine which high level services are affected by the failure of low-level processes and resources is built into the service-tree definition. The low-level component names contain intermediate instance names which provide uniqueness within the service definition. For example the process PSAUTH may show up in multiple locations (at least once for each PeopleSoft *domain*). Consequently, the name of the service representing PSAUTH contains the name of the particular PeopleSoft domain.

The following is an example of a service name:

PS SPI: ramses.bbn.hp.com:AppSrv:pt700ora:PSAUTH

where:

PS_SPI is the name space ramses.bbn... is the host name

AppSrv is the sub-group (necessary, in this case, to avoid the

situation in which a real DB has the same name as a

Tuxedo domain)

pt700ora is the Tuxedo domain
PSAUTH is the process name

Note that the OVO/Unix templates provided with the PeopleSoft SPI use *exactly* the same format in their service field in order to be able to identify the affected service when sending an OVO/Unix message.

Pre-defined Actions and Applications

The ServiceNavigator model generated by the PeopleSoft SPI service definition contains a set of pre-defined actions, which can be started and used in the same way as any standard OVO/Unix Application Desktop icon, Typically, these applications operate on either the service object to which they are bound or *all* objects in the service-hierarchy level immediately below, for example; all file systems under a directory-service object. Table 4-1, Table 4-2, and Table 4-3 list the actions and applications available for Service Views with the HP OpenView Smart Plug-in for PeopleSoft.

For more information on the objects to which the actions are bound as well as the functions called, see "Service Actions and Applications" on page 147.

NOTE

Some of the pre-defined actions require a working X11 server on the console, from which the Navigator is started. If no X11 server is available, no output or any interaction is possible from these actions.

Chapter 4 99

Table 4-1 PeopleSoft SPI Service Actions: DBSPI

Application	Name	Description
DB_SPI:	ORA:LSNRCTL	Start the Oracle listener control utility
	ORA:SQLNetStart	Start SQL*Net
	ORA:SQLNetStatus	Display the status of SQL*Net
	ORA:SQLNetStop	Stop SQL*Net
	ORA:Sqldba	Start Sqldba
	ORA:Sqlplus	Start Sqlplus
	ORA:StartDBInst	Start selected database instance
	ORA:StartDBInstAll	Start all database instances
	ORA:StopDBInst	Stop selected database instance
	ORA:StopDBInstAbort	Stop selected DB instance (abort mode)
	ORA:StopDBInstAll	Stop all database instances
	ORA:StopDBInstImm	Stop selected DB instance (immediate)
	ORA:Svrmgrl	Start Oracle server manager in L ine mode
	ORA:Svrmgrm	Start Oracle MOTIF server manager

Table 4-2 PeopleSoft SPI Service Actions: OS

Application	Name	Description
os:	Disk:Display:SpaceFS	Displays file-system usage for a specified volume
	Disk:Display:SpaceAll	Displays file-system usage for all volumes
	IPC:Display	Displays usage for all IPC parameters
	IPC:Display:MsgQueues	Displays message-queue usage
	IPC:Display:Semaphores	Displays semaphore usage
	IPC:Display:SharedMem	Displays shared memory usage

Table 4-3 PeopleSoft SPI Service Actions: PSSPI

Application Name		Description
PS_SPI:	Prcs:PrcsStart	Starts a domain object
	Prcs:PrcsStartAll	Starts all domains on the PS Application Server
	Prcs:PrcsStatus	Display the status of a domain object
	Prcs:PrcsStatusAll	Display the status of all domains on the PS Application Server
	Prcs:PrcsStop	Stops a domain object
	Prcs:PrcsStopAll	Stops all domains on the PS Application Server

Chapter 4 101

Table 4-3 PeopleSoft SPI Service Actions: PSSPI

Application Name		Description
PS_SPI:	SPI:Analyze	Analyze the PeopleSoft instance
	SPI:VerifyNodeInst	Verify the PeopleSoft instance running on the managed node
	SPI:VerifyPsCfg	Verify the PeopleSoft configuration
	SPI:VerifyPsSpiComm	Verify the configuration of the PeopleSoft SPI
	SPI:ViewPsCfg	View the PeopleSoft configuration
	SPI:ViewPsSpiCfg	View the configuration of the PeopleSoft SPI
	SPI:ViewPsSpiErr	View PeopleSoft SPI errors
	SPI:ViewPsSpiTrace	View PeopleSoft SPI trace information
PS_SPI:	Tux:BootAdmSrvs	Boot TUXEDO administration servers
	Tux:BootAppSrvs	Boot TUXEDO application servers
	Tux:BootDomain	Boot selected TUXEDO domain
	Tux:BootDomainAll	Boot all TUXEDO domains
	Tux:ClientStatus	Display the status of selected TUXEDO client
	Tux:ClientStatusAll	Display the status of all TUXEDO clients
	Tux:ShutdownAdmSrvs	Shut down TUXEDO admin. servers
	Tux:ShutdownAppSrvs	Shut down TUXEDO application servers
	Tux:ShutdownDomain	Shut down selected TUXEDO domain
	Tux:ShutdownDomainAll	Shut down all TUXEDO domains

Service Discovery, Activation, and Assignment

Once you have all the necessary HP OpenView components installed and running, you can use the pre-defined applications provided with the PeopleSoft SPI to discover the services present in the PeopleSoft domain, build a Navigator model, activate it, and finally assign it to the appropriate users. In addition to OV Operations for Unix A.08.00 and the HP OpenView Smart Plug-in for PeopleSoft, you also need to install and configure, if you have not already done so, the HP OpenView Navigator.

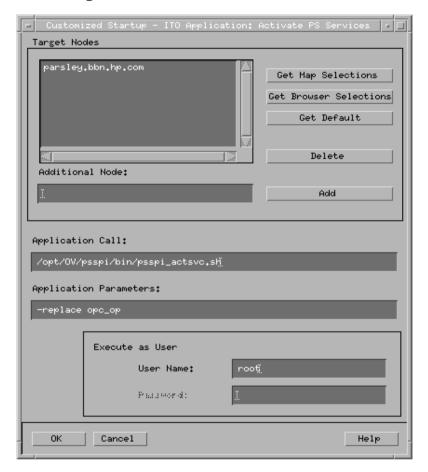
To build the PeopleSoft service model and activate it:

- Open the PSSPI-Admin application group in the Application Bank window.
- 2. Double click the Build PS Services application to build a Navigator model for the PeopleSoft environment. The Build PS Services application uses the information stored in the node-specific configuration files residing in the directories created by the PS Discovery application: /etc/opt/OV/share/psspi/conf/<node name>.
- 3. Double click the Activate PS Services application to activate the newly built Navigator model for the PeopleSoft environment and assign it to the default PeopleSoft users:
 - psoft adm
 - psoft_op

Note that, if necessary, you can modify the Activate PS Services application to assign the PeopleSoft Navigator model to other users of your choice. To do this, use the Application Parameters field in the Application Customized Startup window to specify the new users for the Activate PS Services application. Figure 4-3 on page 104 shows how you can use the same field in the Application Customized Startup window to specify the -replace option if you want to overwrite an existing service model. This might be appropriate if, for example, you want to activate a *new* service model.

Chapter 4 103

Figure 4-3 Activating a New Service Model



Troubleshooting the PeopleSoft SPI

This section describes how to go about troubleshooting the HP OpenView Smart Plug-in for PeopleSoft. In this section you will find information concerning:

- General Troubleshooting Notes
- Determining the PeopleSoft SPI Version
- PeopleSoft SPI Verification Scripts
- PeopleSoft SPI Error Logging
- PeopleSoft SPI Tracing

General Troubleshooting Notes

There are a number of tools and tips to help you troubleshoot problems with the HP OpenView Smart Plug-in for PeopleSoft. The following list describes the most important points to remember:

- 1. Establish what version of the HP OpenView Smart Plug-in for PeopleSoft is installed and running. For more information, see "Determining the PeopleSoft SPI Version" on page 108.
- 2. Use the "verification" applications such as Verify PS Cfg and Verify PSSPI Com in the Application Group PSSPI Admin. These applications, as the names suggest, allow you to verify specific aspects of the configuration and installation of the PeopleSoft SPI. For more information, see "PeopleSoft SPI Verification Scripts" on page 109.
- 3. Have a look at the standard PeopleSoft SPI error log files, which can often contain information that is crucial to understanding and resolving problems. For more information, see "PeopleSoft SPI Error Logging" on page 110.
- 4. Generate information on the working of the PeopleSoft SPI, enable tracing by running the PSSPI Trace On application in the PSSPI-Admin application group. For more information, see "PeopleSoft SPI Tracing" on page 111.

Chapter 5 107

Determining the PeopleSoft SPI Version

It is essential that you know which version of the PeopleSoft SPI software is installed and running on the system that is proving troublesome in order to be able to understand how to proceed. To establish which version of the software is present, carry out the following steps:

1. Use the swlist command on the selected system to determine which product bundle(s) have been installed. For example:

- 2. Use applications such as Verify Node Inst and Verify Srv Inst to establish the version number of the PeopleSoft SPI files installed on the management server and the managed nodes.
- 3. Run the application PS/TX Versions which resides in the application group PSoft-Reports to establish which version of PeopleSoft and/or Tuxedo is present.

PeopleSoft SPI Verification Scripts

The HP OpenView Smart Plug-in for PeopleSoft provides a number of applications such as Verify PS Cfg and Verify PSSPI Com which reside in the Application Group PSSPI Admin and allow you to run checks to establish whether or not various aspects of the installation and configuration have completed successfully. For more information on which applications are available to assist in the verification procedure, see "The PSoft-Admin Application Group" on page 69.

Chapter 5 109

PeopleSoft SPI Error Logging

The HP OpenView Smart Plug-in for PeopleSoft logs error information in a number of standard files. These PeopleSoft SPI error log files which can often contain information that is crucial to understanding and resolving problems reside in the following locations:

OVO/Unix Server /var/opt/OV/share/psspi/log/psspi.log

OVO/Unix Mgd Node /var/opt/OV/psspi/log/psspi.log

(/var/lpp/OV/psspi/log/psspi.log on AIX)

/var/opt/OV/psspi/log/ULOG.<date>

(/var/lpp/OV/psspi/log/ULOG.<date> on AIX)

The OVO/Unix managed node in this context is the PeopleSoft system you are managing with the PeopleSoft SPI.

It is also useful to check the standard OVO/Unix error-log file for information:

/var/opt/OV/log/OpC/opcerror
(/var/lpp/OV/log/OpC/opcerror on AIX)

110 Chapter 5

PeopleSoft SPI Tracing

The HP OpenView VantagePoint HP OpenView Smart Plug-in for PeopleSoft uses shell scripts for monitors and application startup. All shell scripts create trace information, provided this is configured in the PeopleSoft SPI configuration file. By default, the tracing is switched *off* by the HP OpenView Smart Plug-in for PeopleSoft. Note that unlike the set command with the -x option, the scripts can generate trace information even if they run unattended (e.g. when started by the monitor agent).

To generate information on the working of the PeopleSoft SPI, enable tracing by running the PSSPI Trace On application in the PSSPI-Admin application group. Tracing output is written to the following files which are cleaned up at regular intervals:

OVO/Unix Server /var/opt/OV/share/psspi/log/psspi.trc

OVO/Unix Mgd Node /var/opt/OV/psspi/log/psspi.trc

(/var/lpp/OV/psspi/log/psspi.trc on AIX)

The OVO/Unix managed node in this context is the PeopleSoft system you are managing with the PeopleSoft SPI.

Once you have configured what you want to appear in the trace file, you can switch the tracing on or off using the PSSPI Trace On and PSSPI Trace Off applications in the PSSPI-Admin application group.

The following trace-related variables can be defined in the configuration file:

Table 5-1 Trace Variables

Variable Name	Permitted Values	Description
TRACE_LEVEL	0-9	Determines the amount of trace information written. The higher the level, the more trace information is generated. Default is: 0 (tracing off). Note that zero and non-zero are the <i>only</i> values that are currently supported.

Chapter 5 111

Table 5-1 Trace Variables

Variable Name	Permitted Values	Description
TRACE_OBJ	<pre><names all="" delivered="" of="" peoplesoft="" programs="" spi="" the="" with=""></names></pre>	Defines the programs for which trace information will be generated. You can specify multiple program names, which must be separated by commas.

Entries in the trace file, psspi.trc, appear in the following format:

<mm/dd/yyyy> <hh:mm:ss> PSSPI(cpid>): <text>

Table 5-2 on page 112 lists and describes the various fields.

Table 5-2 Trace-File Fields

Field Name	Description
<mm dd="" yyyy=""></mm>	Date when the entry is created
<hh:mm:ss></hh:mm:ss>	Time when the entry is created
<pre><pre><pre><pre>opram name></pre></pre></pre></pre>	Name of program (script, executable) responsible for the entry
<pid></pid>	PID of program responsible for the entry
<text></text>	Detailed information on problem

If you wish to enable tracing during discovery and activation of the PeopleSoft SPI, run the PS Discovery application once, edit the file; /etc/opt/OV/psspi/conf/psspi.cfg, then run the discovery application again. The psspi.cfg file is not overwritten.

112 Chapter 5

A File Names

This section describes which files are installed by the HP OpenView Smart Plug-in for PeopleSoft and where exactly they are located after the installation and configuration of the product has been completed successfully. In this section you will find information concerning:

- Product Bundles and Filesets
- Files on the Management Server
- Files on the Managed Nodes
- PeopleSoft Configuration Files

Product Bundles and Filesets

Table A-1 on page 115 shows which products are present in the HP OpenView Smart Plug-in for PeopleSoft software bundles.

Table A-1 Products in the PeopleSoft SPI Software Bundle

SD Product	SD File Set	Description
SPI-PS-SRV-HPUX	PI-PS-SRV-HPUX SPI-PS-CORE-HPUX SPI server software (co. HP-UX).	
	SPI-PS-CORE-5	OVO/Unix specific components
SPI-PS-SRV-SOL	SPI-PS-CORE-SOL SPI server software (common S Solaris).	
	SPI-PS-CORE-5	OVO/Unix pecific components

Table A-1 Products in the PeopleSoft SPI Software Bundle

SD Product	SD File Set	Description
SPI-PS-CFG-ORA	SPI-PS-HPUX	SPI configuration (actions/command/monitors) HP-UX 10.20 general
	SPI-PS-HPUX11	SPI configuration (actions/command/monitors) HP-UX 11.x0general
	SPI-PS-AIX	SPI configuration (actions/command/monitors) AIX general
	SPI-PS-SOL	SPI configuration (actions/command/monitors) Solaris general
	SPI-PS-ORA-HPUX	SPI configuration (actions/command/monitors) HP-UX 10.20 Oracle
	SPI-PS-ORA-UX11	SPI configuration (actions/command/monitors) HP-UX 11.0 Oracle
	SPI-PS-ORA-AIX	SPI configuration (actions/command/monitors) AIX Oracle
	SPI-PS-ORA-SOL	SPI configuration (actions/command/monitors) Solaris Oracle

NOTE

The products SPI-PS-SRV-HPUX contains a dependency to the OVO/Unix file set OVOPC-UX-MGR78 (the OVO/Unix server software) to prevent installation on systems where OVO/Unix is not installed. For this reason, OVO/Unix version A.07.10 (or later) or OVO/Unix A.08.00 $\it must$ be present on the system on which you want to install the PeopleSoft SPI.

Table A-2 on page $\,$ 117 shows which software bundles are present in the HP OpenView Smart Plug-in for PeopleSoft product bundle.

Table A-2 File Sets in the PeopleSoft SPI Software Products

SD File Set	Description
SPI-PS-CORE-HPUX	HP-UX OVO/Unix server based programs/commands/scripts, configuration files (independent from OVO/Unix version), for example:
	SPI discovery commands
	PerfView graph commands
SPI-PS-CORE-SOL	Sun Solaris OVO/Unix server based programs/commands/scripts, configuration files (independent from OVO/Unix version), for example:
	SPI discovery commands
	PerfView graph commands
SPI-PS-CORE-5	OVO/Unix specific SPI configuration including:
	OVO/Unix GUI integration in uploadable format
	OVO/Unix templates and monitor scripts
	ServiceNavigator integration
SPI-PS-HPUX	Components applicable to all PeopleSoft systems running HP-UX 10.x
SPI-PS-HPUX11	Components applicable to all PeopleSoft systems running HP-UX 11.x
SPI-PS-AIX	Components applicable to all PeopleSoft systems running AIX
SPI-PS-SOL	Components applicable to all PeopleSoft systems running Solaris

File Names

Product Bundles and Filesets

Table A-2 File Sets in the PeopleSoft SPI Software Products

SD File Set	Description
SPI-PS-ORA-HPUX	Components applicable to PeopleSoft systems running HP-UX 10.20 and Oracle
SPI-PS-ORA-UX11	Components applicable to PeopleSoft systems running HP-UX 11.0 and Oracle
SPI-PS-ORA-AIX	Components applicable to PeopleSoft systems running AIX and Oracle
SPI-PS-ORA-SOL	Components applicable to PeopleSoft systems running Solaris and Oracle

Files on the Management Server

The PeopleSoft SPI exists as an SD bundle and must be installed on the OVO/Unix management server. SD control scripts perform a number of customization procedures during installation and, in addition, create the directories listed in Table A-3 on page 119:

Table A-3 PeopleSoft SPI File Locations on the OVO/Unix Management Server

Description	Location
SPI binary files	/opt/OV/psspi
SPI temporary and runtime files	/var/opt/OV/share/psspi/tmp
SPI log files	/var/opt/OV/share/psspi/log
SPI configuration files	/etc/opt/OV/share/conf/psspi
OVO/Unix integration files in uploadable format: VPO/OVO GUI HP-UX scripts AIX scripts Solaris scripts Oracle scripts (HP) Oracle scripts (AIX) Oracle scripts (Sol.)	/var/opt/OV/share/tmp/OpC_appl/psspi/CORE-5/HPUX/AIX/SOL/HPORA/ORA-AIX/ORA-SOL

The OVO/Unix upload packages residing in the directory .../OpC_appl/psspi are loaded into the OVO/Unix database. These packages are loaded using the following command:

opccfgupld -add <package>

Note that objects already present are *not* replaced. The user should verify the SD log file for any messages concerning this and, if necessary, execute the OVO/Unix upload command manually with the -replace option.

Files on the Managed Nodes

After installing the HP OpenView Smart Plug-in for PeopleSoft on the OVO/Unix Management Server and distributing the required components to the PeopleSoft systems (which become, as a result, OVO/Unix managed nodes), the components listed in Table A-4 on page 120 will reside on the managed node:

Table A-4 PeopleSoft SPI File Locations on the OVO/Unix Managed Nodes

Description	Location	Created By
SPI binary files	/opt/OV/psspi AIX:/usr/lpp/OV/psspi	discovery/User
SPI temporary and runtime files	/var/opt/OV/psspi/tmp AIX:/var/lpp/OV/psspi/tmp	SPI
SPI log files	/var/opt/OV/psspi/log AIX:/var/lpp/OV/psspi/log	SPI
SPI configuration files	/etc/opt/OV/conf/psspi AIX: /etc/lpp/OV/conf/psspi	discovery/User

PeopleSoft Configuration Files

This section describes three important PeopleSoft SPI configuration files, namely:

- psspi.cfg
- psspi.disc
- ps.cfq

Each of these three configuration files is described in greater detail in the following sections.

The psspi.cfg Configuration File

The configuration file /etc/opt/OV/psspi/conf/psspi.cfg can be used to control the overall behavior of PeopleSoft SPI components on the PeopleSoft system that is managed by OVO/Unix. The following example illustrates the contents of the ps.cfg file:

Each line consists of a key value pair separated by white spaces. The value consists of everything following the first white space(s) until the end of the line. Quoting is neither necessary nor allowed since quotes are used as part of the value itself. However, empty lines are allowed. Lines

PeopleSoft Configuration Files

starting with a hash (#) sign are treated as comments. Table A-5 on page 122 show which keys are supported in the psspi.cfg file:

Table A-5 Supported Keys in the psspi.cfg File

Key	Туре	Value Range	Default Setting	Description
TRACE_LEVEL	integer	0 - 9	0	Trace level controls the amount of runtime tracing written by SPI processes. Current options are: • zero • non zero
TRACE_OBJ	string	any	""	Program/Script name(s) to be traced. List items separated by commas
COLLECTION	boolean	TRUE/ FALSE	TRUE	Enables/ disables the entire PeopleSoft SPI

The psspi.disc Configuration File

The PS Discovery application writes its findings to the file /etc/opt/OV/psspi/conf/psspi.disc, which is sent back to the OVO/Unix management server to be converted into the OVO/Unix service hierarchy.

The format of the psspi.disc file allows for convenient manual editing: such an action might be necessary if, for example, the discovery application fails for any reason and the database coordinates need to be entered separately, or if more that one database instance is discovered and not all the instances need to be monitored.

Note that if you modify the contents of the psspi.disc file on the managed node, you also have to transfer the changed file back to the the OVO/Unix management server since this particular file is used for other purposes, such as building the ServiceNavigator model.

NOTE

To copy the modified discovery file back to management server, you may

use the OVO/Unix application Get PS Cfg.

On the OVO/Unix management server, individual discovery files are stored for each node in the following location:

/var/opt/OV/share/psspi/disc/<node_name>

The example below shows what kind of information is written to the psspi.disc file and what the format of the file contents is:

```
# OPC WHAT STRING="@(#)HP OpenView Smart Plug-in for PeopleSoft A.02.05"
# File: psspi.disc
# Description: PeopleSoft SPI information base. Automatically
# generated by discovery process.
# Language: Config
# Package: HP OpenView VantagePoint SmartPlug-In for PeopleSoft
# (c)Copyright 1999 Hewlett-Packard Company., All Rights Reserved.
# Global PeopleSoft-specific entries for this host.
# NOTE: These entries must correspond to the actual number of Tuxedo domains,
       PeopleSoft process schedulers, bundled web servers, PeopleSoft
#
       databases, PeopleSoft instances and file systems.
# OS_VERS
           ... name of operating system and its version
               (uname -s, uname -r)
# NUM DOMAINS ... number of entries in the section 'DOMAIN'
# NUM PRCS ... number of entries in the section 'PROC_SCHED'
# NUM WEB SRV ... number of entries in the section 'WEB SRV'
# NUM_PS_DBS ... number of entries in the section 'PS_DB'
# NUM_PS_INST ... number of entries in the section 'PS_INST'
# NUM FS
            ... number of entries in the section 'FILE SYS'
OS_VERS HP-UX B.11.00
NUM_DOMAINS 2
NUM PRCS
NUM_WEB_SRV 0
NUM_PS_DBS 2
NUM PS INST 1
NUM_FS 4
```

File Names

PeopleSoft Configuration Files

```
#-----
# List of Tuxedo Domains used by PeopleSoft. Each entry has the following format:
# - Domain-Name PSoft-Database PS-DB-User PS-DB-Password
# Domain-Name ... name of the Tuxedo domain, i.e. the name of the directory
                   in $PS HOME/appserv for this domain
# PSoft-Database ... name of the PeopleSoft database for this domain
# PS-DB-User ... PeopleSoft UserId or ConnectId (if given) from application
#
                    server config file ($PS_HOME/appserv/<Domain>/psappsrv.cfg
#
                    (currently not used in A.02.00)
# PS-DB-Password ... PeopleSoft UserPswd or ConnectPswd (if given) from
#
                   application server config file
#
                    (currently not used in A.02.00)
#
# NOTE: The 'PSoft-Database', i.e. the name of the PeopleSoft database is used
       in section 'PS DB' again. Thus, each 'PSoft-Database' listed in this
#
#
       section 'DOMAIN' must correspond to an entry in section 'PS_DB'.
#
# NOTE: If encrypted password are used for the PeopleSoft application server,
       then the entry 'PSoft-DB-Owner' in section 'PS_DB' cannot be determined
#
#
       by the automatic discovery process. In this case, the owner has to be
       updated manually in the section 'PS_DB'.
DOMAIN
              TM1PSDMO PS PS
     tm1tux
     pt700ora PTDMO PS PS
END
#-----
# List of PeopleSoft Process Schedulers. Each entry has the following format:
# - Scheduler-Name PSoft-Database PS-DB-User PS-DB-Password Log-Dir
# Scheduler-Name ... name of the process scheduler as listed for key
                    'PrcsServerName' in scheduler configuration file
# PSoft-Database ... name of the PeopleSoft database for this scheduler
               ... PeopleSoft UserId or ConnectId (if given) from application
# PS-DB-User
                    server config file ($PS_HOME/appserv/<Domain>/psappsrv.cfg
                    (currently not used in A.02.00)
# PS-DB-Password ... PeopleSoft UserPswd or ConnectPswd (if given) from
                   application server config file
#
#
                    (currently not used in A.02.00)
# Log-Dir
                ... Log directory for this process scheduler
                   This is not the directory configured in the scheduler
#
                   configuration file, but the directory really used for the
#
                    scheduler logs (e.g. TUXLOG_<date>, SCHDLR_<date>.LOG).
```

```
# NOTE: The 'PSoft-Database', i.e. the name of the PeopleSoft database is used
       in section 'PS DB' again. Thus, each 'PSoft-Database' listed in this
       section 'PROC SCHED' must correspond to an entry in section 'PS DB'.
# NOTE: If encrypted password are used for the PeopleSoft application server,
       then the entry 'PSoft-DB-Owner' in section 'PS DB' cannot be determined
       by the automatic discovery process. In this case, the owner has to be
       updated manually in the section 'PS_DB'.
PROC SCHED
 PSUNX TM1PSDMO PS PS /opt/PT/appserv/prcs/TM1PSDMO/LOGS
 PSUNX PTDMO PS PS /opt/PT/appserv/prcs/PTDMO/LOGS
END
#-----
# List of PeopleSoft Databases. Each entry has the following format:
# - PSoft-Database PS HOME Ora-DB-SID PSoft-DB-Owner Ora-Home Ora-DB-Server
# PSoft-Database ... name of the PeopleSoft database referenced from entries
                      in sections 'PROC_SCHED' and 'DOMAIN'
# PS HOME
                  ... home/installation directory for the PeopleSoft
                      installation this database belongs to
# Ora-DB-SID
                  ... the Oracle SID for this database
                  ... the owner of the PeopleTools tables in the database
# PSoft-DB-Owner
# Ora-Home
                  ... the ORACLE_HOME directory of this database
# Ora-DB-Server
                  ... the name of the system where this Oracle DB is located
# NOTE: The 'PS HOME' entry is used in section 'PS INST' again. Thus, each
       'PS_HOME' listed in this section 'PS_DB' must correspond to an entry
#
       in section 'PS_INST'.
# NOTE: If the Oracle SID cannot be determined (e.g. no 'SID' entry in
       'tnsnames.ora', then this SID has to be updated manually in section
       PS_DB. This is the same value as configured in the DBSPI connection
       setup.
PS DB
 TM1PSDMO /opt/psoft tmdmo SYSADM1 /opt/oracle/product/7.3.4 ramses.bbn.hp.com
         /opt/psoft hdmo SYSADM /opt/oracle/product/7.3.4 ramses.bbn.hp.com
END
                             _____
# List of PeopleSoft installations as defined by PS_HOME. Each entry is
# represented by a single line having the following format:
# - PS_HOME PS_USER TUXDIR PS_VERSION
```

File Names

PeopleSoft Configuration Files

```
\ \ \# PS_HOME \ \ \ldots home/installation directory for this PeopleSoft installation
           ... installation user for this PeopleSoft installation
# PS USER
                (this Unix id is used to execute the PeopleSoft/Tuxedo
#
                supplied commands and scripts)
# TUXDIR ... the Tuxedo installation directory
# PS VERSION ... the PeopleTools version of this PeopleSoft installation
PS INST
 /opt/psoft psoft /opt/tuxedo 8.42
END
# List of PeopleSoft bundled web servers as defined by PS HOME. Each entry is
# represented by a single line having the following format:
# - WEBSRV HOME TYPE
# - where TYPE is one of { APACHE }
# WEBSRV HOME ... the home/installation directory of this web server
# TYPE
           ... may only be 'APACHE'
# NOTE: Only the web servers bundled with PeopleTools are supported in this
       section, i.e. Apache for PT 8.1. Other web application servers have
       to be addressed with optional SPI's.
WEB_SRV
END
#-----
# List of File systems. The only entry has the following format:
# Mount-point ...
FILE_SYS
 /opc_db /psdb /stand /psdb/tmdmo
END
```

Multiple process schedulers accessing the *same* PeopleSoft database are *not* recognized: multiple process schedulers accessing *different* databases are supported.

NOTE

If the discovery mechanism is restarted, the previously stored information base is backed up to the file psspi.disc.bak.<PID> and

then the psspi.disc is overwritten.

PeopleSoft allows the creation of multiple independent installations on one system - for example, different versions for testing purposes. However, this results in multiple *PS_HOME* residing in directories adhering to a standard PeopleSoft structure but which typically are not associated with separate user accounts. Although, the discovery mechanism and the configuration-file syntax within the PeopleSoft SPI both support the existence of multiple PeopleSoft installations on one system (i.e. multiple *PS_HOME* directories or users), the normal discovery mechanism will not always be able to find them automatically.

To enable the discovery of multiple PS_HOMEs as well as any other PeopleSoft components in such environments, the PS Discovery application accepts additional options which allow you to narrow the search down to those places where a PeopleSoft installation might usually be found. These options can be specified using the Application Parameters field in the OVO/Unix Customized Startup window illustrated in Figure A-1 on page 128. In the example displayed, the discovery is instructed to evaluate all directories matching the pattern "/opt/*/ps*" and "/opt/ps*". Alternatively, you can instruct the discovery script to use the find(1) command to search recursively through one or more specified directories. For example:

-o "-find /opt" <node name>"

Other options include:

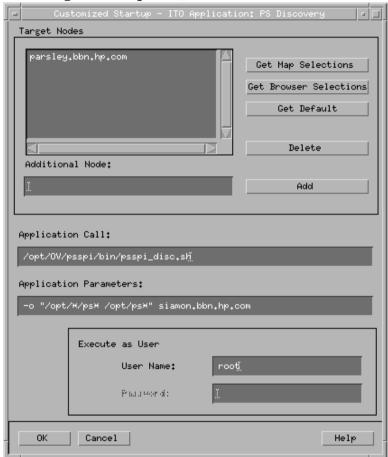
-h(elp), -? Display some help instructions

-noremotedb Do not auto-discover remote DB servers

The PS Analyze application which resides in the PSSPI-Admin application group uses a command to analyze the components discovered on the PeopleSoft system. The same command is called automatically after the successful completion of the discovery mechanism and shows which role a PeopleSoft system plays and which OVO/Unix monitoring components need to be assigned.

PeopleSoft Configuration Files

Figure A-1 Searching for Multiple PS_HOME Directories



The ps.cfg Configuration File

The PS Activate application reads the psspi.disc and copies its contents to the file /etc/opt/OV/psspi/conf/ps.cfg, which is evaluated on the managed node by the OVO/Unix template and monitor scripts and, in addition, sent back to the OVO/Unix management server to be converted into the OVO/Unix service hierarchy. The format of the ps.cfg file is the same as the psspi.disc file. If the PS Activate application is run subsequently, the old configuration is backed up to the file:

/etc/opt/OV/psspi/conf/ps.cfg.<PID>

	\sim	_	_
NI			_

After you have activated the configuration, you can run the <code>Verify PS Cfg</code> application in the <code>PSSPI Admin</code> application group to make sure that the configuration is consistent and reflects the instance or instances present on the PeopleSoft server.

File Names

PeopleSoft Configuration Files

B PeopleSoft SPI Components

PeopleSoft SPI Components

This section describes which components are installed by the HP OpenView Smart Plug-in for PeopleSoft and provides detailed reference material, which aims to help you understand how the various components work and interact with each other. In this section you will find information concerning:

- Templates and Monitors
- Applications and Application Groups
- Service Actions and Applications

Templates and Monitors

All templates have the *prefix* PSSPI-. Consequently, the name of the template APPSRV appears in the GUI as PSSPI-APPSRV. The same rule applies to all template conditions, too. However, template conditions have a suffix which indicates both the version number *and* the condition number. For example, PSSPI-TMIB-002.1.1 for version one of the first condition in the template, PSSPI-TMIB-002.

Many log-file and monitor templates operate by default on multiple PeopleSoft or Tuxedo instances, which are all found during the discovery process. However, it is possible to limit the operational scope of a given template by passing the list of instances which are of interest to you to the script, which the template executes. If you do not explicitly declare any instances, the script assumes it has to monitor all discovered instances. To modify the PSSPI-TMIB-Col-05min_1 template to monitor one domain, the monitor script should be changed to look like the following example, where <domain_name> is the name of the domain you want to monitor:

psspi_tmib PSSPI-TMIB-Col-05min_1 1-10 <domain name>

The following sections list the scripts used by the templates and monitors available in the HP OpenView Smart Plug-in for PeopleSoft

NOTE

Most of the PeopleSoft commands executed by the PeopleSoft SPI are operated under the special PeopleSoft owner Unix account (e.g. psoft).

If the OVO/Unix standard templates Su (AIX), Su (10.x/11.x HP-UX) or Su (Solaris) are assigned and deployed to a managed node running a PeopleSoft SPI component, then message like "Succeeded switch user to psoft by root" will appear in the message browser.

To avoid such messages, you may add an appropriate suppress condition to this template.

The Template Repository

The PSSPI-Repository template group contains *all* the templates provided with the HP OpenView Smart Plug-in for PeopleSoft. Table B-1

on page $\,$ 134 lists the contents of the Template Repository in alphabetical order.

Table B-1 PSSPI-REPOSITORY Template Group

Template Name	Template Type	Description
PSSPI-AppSrvLogSize	Monitor	Monitors the application-server log directory for the amount of disk space consumed by the APPSRV.LOG and TUXLOG. <date> files</date>
PSSPI-AppSrvCfgFiles	Logfile	Monitors changes to the application-server configuration file, psappsrv.cfg
PSSPI-AppSrvLogFiles	Logfile	Monitors the application-server log file, APPSRV.LOG, for each PS domain
PSSPI-DBSPI-Messages	Message	Intercepts messages from the DBSPI programs
PSSPI-DB-Col-05min	Monitor	Runs the DBSPI collector process (via psspi_dbcao) to gather DB metrics every <intv> minutes. In this case intv = 5 mins. Note that there may be multiple templates with different <intv>. Actual data processing is done in monitors PSSPI-DBSPI-<metric></metric></intv></intv>
PSSPI-DBSPI-0001	Monitor	Monitors the database status (DBInstanceStatus)
PSSPI-DBSPI-0002	Monitor	Monitors the database process (ProcessStatus)
PSSPI-DBSPI-0006	Monitor	Monitors the number of table spaces with low free space (TblSpaceFreePctCnt)
PSSPI-DBSPI-00011	Monitor	Monitors the number of fragmented table spaces (TblSpaceFragmentCnt)
PSSPI-DBSPI-0023	Monitor	Current buffer cache hit percentage (CurrBuffCacheHitPct)
PSSPI-DBSPI-0791	Monitor	Number of employees in the PeopleSoft database
PSSPI-DBSPI-0792	Monitor	Number of queue jobs

Table B-1 PSSPI-REPOSITORY Template Group

Template Name	Template Type	Description	
PSSPI-DBSPI-0793	Monitor	Number of 2-tier client connections: i.e. the number of clients working in 2-tier mode	
PSSPI-FileSys	Monitor	Monitors the PeopleSoft file-system space	
PSSPI-IPC	Monitor	Monitors the PeopleSoft UNIX IPC, including kernel-table usage for semaphores, message queues, and shared memory	
PSSPI-PrcsJobTab	Monitor	Checks the process-scheduler table and the job-table entries	
PSSPI-PrcsLogDirs	Logfile	Monitors the PeopleSoft, process-scheduler log directories. Checks for new log files and switches the actual log file	
PSSPI-PrcsLogFiles	Logfile	Monitors the PeopleSoft process-scheduler log files: PTPUPRCS_*.log	
PSSPI-PrcsLogSize	Monitor	Monitors the size of the process-scheduler log directory and the disk space consumed by the PTPUPRCS_*.log files	
PSSPI-PrcsMon	Monitor	Monitors the existence of the process scheduler process: PTPUPRCS	
PSSPI-PrcsMon-STAT	Monitor	Monitors the existence of additional process scheduler processes: PSDSTSRV	
PSSPI-WebLogFile	Logfile	Monitors the Apache log file (for PeopleSoft 8)	
PSSPI-WebMon	Monitor	Monitors the existence of the main Apache web server (for PeopleSoft 8)	
PSSPI-PSSPI-Messages	Message	Intercepts messages from the PeopleSoft SPI programs	
PSSPI-TMIB-001_1	Monitor	Monitors the status of the Tuxedo domains of a PeopleSoft application server	

PeopleSoft SPI Components **Templates and Monitors**

Table B-1 PSSPI-REPOSITORY Template Group

Template Name	Template Type	Description	
PSSPI-TMIB-002_1	Monitor	Monitors the status of the Tuxedo machine	
PSSPI-TMIB-003_1	Monitor	Monitors the status of the Tuxedo server group: APPSRV	
PSSPI-TMIB-004_1	Monitor	Monitors the status of the Tuxedo server group: BASE	
PSSPI-TMIB-005_1	Monitor	Monitors the actual number of APPSRV server processes and compares the it with TA_MIN	
PSSPI-TMIB-006_1	Monitor	Monitors the actual number of APPSRV server processes and compares it with TA_MAX	
PSSPI-TMIB-007_1	Monitor	Monitors the generation number TA_MAXGEN - TA_GENERATION	
PSSPI-TMIB-008_1	Monitor	Monitors the actual (absolute) number of APPSRV processes.	
PSSPI-TMIB-010_1	Monitor	Monitors the number of GUI clients	
PSSPI-TMIB-Col-05min_1 a PSSPI-TMIB-Col-05min_2	Monitor	Runs the TMIB collector process to gather Tuxedo metrics every <intv> minutes. In this case intv = 5 mins. Note that there may be multiple templates with different <intv>. Actual data processing is done in monitors TMIB-<metric>. The first monitor checks additionally for Tuxedo domains currently down, the second monitor checks for Tuxedo domains currently up.</metric></intv></intv>	
PSSPI-TUXLogDirs	Logfile	Monitors the PeopleSoft domain log directories for new TUXLOG files.	
PSSPI-TUXLogFiles	Logfile	Monitors the TUXLOG. <date> log files for each PeopleSoft domain</date>	
PSSPI-WorkList	Monitor	Checks the PeopleSoft work-list table	

a. If you want to split the collector monitor into multiple monitors each of which is configured to run at different intervals, make sure that only *one* of the monitors is configured to feed the MeasureWare agent. For more information, see "Monitor Scripts" on page 138.

Log-File Discovery Scripts

Since TUXEDO and the PeopleSoft process scheduler periodically switch to new log-file instances, it is not possible to create a log-file template with a static log file path. Consequently, the log-file discovery feature is used to execute a discovery script at start up and configuration of the OVO/Unix log-file encapsulator. The log-file discovery feature returns a list of actual log-file paths. Using the domain names as names for the symbolic links (and therefore as names of the log file itself), allows the integration of the domain name (via <\$LOGFILE>) into the generated OVO/Unix messages, even if the domain names are not part of the log message read from the log file. Table B-2 on page 137 lists the scripts used by the log-file discovery feature.

Table B-2 Log-File Discovery Scripts

Script Name	Used by	Description	
psspi_swlog	TuxLogDirs	Creates symbolic links from application-server log directories to PSSPI log directories. Returns PeopleSoft log directories as monitored objects to allow the detection of new log files by the OVO/Unix log-file encapsulator.	
psspi_psswlg	PrcsLogDirs	Same as psspi_swlog above, but for the process-scheduler log files	
psspi_appsv	APPSRV	Returns the names of symbolically linked application-server log files (APPSRV. <date>): two for each domain, linked as /APPSRV. [01]/<domain>.</domain></date>	
psspi_tuxlg	TuxLogFiles	Returns the names of symbolically linked application-server log files (TUXLOG. <date>): two for each domain, linked as /TUXLOG. [01]/<domain>.</domain></date>	

Table B-2 Log-File Discovery Scripts

Script Name	Used by	Description
psspi_pslogs	PrcsLogFiles	Returns the names of symbolically linked process-scheduler log files (PROCS*): two for each PeopleSoft database, linked as /PROCS.[0 1]/ <ps-db>)</ps-db>
psspi_webmon	WebLogFiles	Returns the names of log files for configured Apache web servers (PeopleSoft 8)

Monitor Scripts

OVO/Unix process monitors require shell scripts or programs in order to perform the desired monitoring. The scripts are installed in the customer branch of the OVO/Unix databases directory. Table B-3 on page 139 lists the scripts used by the PeopleSoft SPI monitors.

The PeopleSoft SPI monitor scripts (in conjunction with the corresponding OVO/Unix monitor templates) use the object-monitoring feature. This means that the information pertaining to which objects (file systems, IPC parameters, etc.) are to be monitored resides in the scripts themselves. By default, there is only *one* template condition for *all* instances. If a finer granularity is desired, you can create conditions for single instances.

If you want to split the collector monitor into multiple monitors each of which is configured to run at different intervals, make sure that only one of the monitors is configured to feed the MeasureWare agent. By default, the VantagePoint Performance DSI integration is configured to run the collection every 5 minutes: if you change the interval (or the DSI configuration) make sure the value of the modified interval matches the value declared in the DSI specification. In addition, all other collector templates should specify the <code>-no_dsi</code> option as an argument to the

psspi_tmib collector script.

Table B-3 Monitor Scripts

Script Name	Used by	Description	
psspi_fsmon	FileSys	Monitors actual usage of local file systems and passes values to the OVO/Unix monitor agent and, if configured, to MeasureWare via DSI (Data Service Integration)	
psspi_ipcmon	IPC	Monitors actual usage of IPC tables and passes values to the OVO/Unix monitor agent and, if configured, to MeasureWare via DSI	
psspi_pmon	PrcsMon	Monitors all process-scheduler processes and passes the values to the OVO/Unix monitor agent and, if configured, to MeasureWare via DSI.	
		This script checks the existence of additional process scheduler processes, currently PSDSTSRV.	
psspi_webmon	WebMon	Monitors the existence of the bundled Apache web server for PeopleSoft 8.	
psspi_prcs	PrcsJobTable	Monitors the process schedulers job table	
psspi_tmib psspi_tuxcoa	TMIB-Col- <intv></intv>	TMIB Collector: called with metric IDs in parameter list to evaluate the metrics of TMIB objects.	
psspi_dbcao	DB-Col- <intv></intv>	DB Collector: called with metric IDs in parameter list to evaluate the metrics of DBMS and PeopleSoft-specific DBs.	
psspi_wrklst	Worklist	Monitors the worklist tables.	

Using OpenView Performance Agent

The OVO/Unix monitors provided with the HP OpenView Smart Plug-in for PeopleSoft can feed the data they collect directly into OpenView

PeopleSoft SPI Components

Templates and Monitors

Performance Agent or OpenView Performance subagent using the Data Source Integration. The PeopleSoft SPI has a pre-defined DSI-specification file, which is activated using the PS Activate application. Running the PS Activate application registers the parameters defined in the specification file with the MeasureWare agent (if installed) and, in the process, creates a DSI registration file. If the OVO/Unix monitors detect that the DSI command file ddflog is present and executable, they automatically attempt to feed the collected data to the DSI.

NOTE

If the name of a Tuxedo domain contains any special characters other than letters, numbers, and the underscore (_), the DSI integration will fail.

Applications and Application Groups

This section provides more detailed information concerning how the PeopleSoft SPI applications work. The tables in the sections that follow show which utilities are called by the various applications.

For a command reference of the functions used by the PeopleSoft SPI applications, see Appendix C , "PeopleSoft SPI Commands," on page 151. Note that the commands psspi_spicl, psspi_tmcl, and psspi_pspt accept an optional parameter, -q, in the application call. The -q option specifies that *no* output be printed and no user input be requested. This option could be used to run specific tasks in batch mode.

The PSSPI-Admin Application Group

Table B-4 on page 141 lists in alphabetical order the various applications in the PSSPI-Admin application group and indicates which function is called by each application.

Table B-4 PSSPI-Admin Application Calls

Application Name	Function Called	
Activate PS Services	psspi_actsvc.sh	
Build PS Services	psspi_bldsvc.sh	
Edit PS Cfg	psspi_spicl pscfg -e	
Edit PSSPI Cfg	psspi_spicl spicfg -e	
Get PS Cfg	psspi_disc.sh -get	
PS Activate	psspi_act.sh	
PS Analyze	psspi_ana.sh	
PS Discovery	psspi_disc.sh	
PSSPI Cleanup	psspi_cleanup	
PSSPI Off	psspi_spicl setcfg COLLECTION FALSE	

Table B-4 PSSPI-Admin Application Calls

Application Name	Function Called	
PSSPI On	psspi_spicl setcfg COLLECTION TRUE	
PSSPI Trace Off	psspi_spicl setcfg TRACE_LEVEL 0	
PSSPI Trace On	psspi_spicl setcfg TRACE_LEVEL 2	
Verify PS Cfg	psspi_vrfy -d	
Verify PS Com	psspi_vrfy -c	
Verify PS Node	psspi_vrfy -n	
Verify PS Srv	psspi_vrfy -s	
View PSSPI Cfg	psspi_spicl spicfg -d	
View PS Cfg	psspi_spicl pscfg -d	
View PSSPI Error	psspi_spicl spilog	
View PSSPI Trace	psspi_spicl spitrc	

The PSoft-Admin Application Group

Table B-5 on page 142 lists in alphabetical order the various applications in the PSoft-Admin application group, indicates which function is called by each application, and shows and which PeopleSoft interface is used

Table B-5 PSoft-Admin Application Calls

Application Name	Function Called	PeopleSoft (PS) Interface
Edit PRCS Config	psspi_pspt editcfg	n/a
Edit pstools.ini	psspi_tmcl ptcfg -e	n/a
Psadmin	psspi_tmcl psamin	psadmin
PSSPI License Report	dbspicao -m 704	n/a
Tmadmin	psspi_tmcl tmadmin	tmadmin

Table B-5 PSoft-Admin Application Calls

Application Name	Function Called	PeopleSoft (PS) Interface
Tmconfig	n/a	tmconfig
Unload TX Conf	psspi_tmcl tmunloadc -f	tmunloadcf
View PRCS Config	psspi_pspt viewcfg	n/a
View pstools.ini	psspi_tmcl ptcfg -d -q	n/a

The PSoft-Oper Application Group

Table B-6 on page 143 lists in alphabetical order the various applications in the PSoft-Oper application group, describes briefly how the individual applications work, and indicates which function is called by each application and which PeopleSoft interface is used.

Table B-6 PSoft-Oper Application Calls

Application Name	Function Called	PeopleSoft (PS) Interface
Boot Adm Servers	psspi_tmcl tmboot -A	tmboot -A
Boot Appl Servers	psspi_tmcl tmboot -S	tmboot -S
Boot All PS Domains	psspi_tmcl tmboot -a	tmboot
Boot PS Domain	psspi_tmcl tmboot	tmboot
File Systems	psspi_df	n/a
IPC Cleanup	psspi_ipcs	n/a
IPC Current	psspi_ipcs	n/a
IPC Needed	psspi_tmcl tmboot -c	n/a
Psadmin	psspi_tmcl psamin	psadmin
PS App Server	psspi_pv App	n/a
PS Tuxedo	psspi_pv Tux	n/a

PeopleSoft SPI Components Applications and Application Groups

Table B-6 PSoft-Oper Application Calls

Application Name	Function Called	PeopleSoft (PS) Interface
PS Proc Sched	psspi_pv Proc	n/a
PS All Procs	psspi_pv All	n/a
Shutd. PS Domain	psspi_tmcl tmshutdown	tmshutdown
Shutd. All PS	psspi_tmcl tmshutdown -a	tmshutdown
Shutd. Adm Servers	psspi_tmcl tmboot -A	tmshutdown -A
Shutd. Appl Servers	psspi_tmcl tmboot -S	tmshutdown -S
Start Proc Sched	psspi_pspt start	pspt -start
Start All Proc Scheds	psspi_pspt start -a	pspt -start (PS 7.5)
Stop Proc Sched	psspi_pspt stop	pspt -stop (PS 7.5) or -kill (PS 7)
Stop All Proc Scheds	psspi_pspt stop -a	pspt -stop (PS 7.5) or -kill (PS 7
System Metrics	psspi_pv graph History -ps SCOPE	n/a
Tmadmin	psspi_tmcl tmadmin	tmadmin
View APPSRV.LOG	psspi_tmcl viewlog -p	n/a
View TUXLOG	psspi_tmcl viewlog -t	n/a
View PRCS Log	psspi_pspt viewlog	n/a

The PSoft-Reports Application Group

Table B-7 on page 145 lists in alphabetical order the various applications in the PSoft-Reports application group, indicates which function is called by each application, and shows which PeopleSoft

interface is used.

Table B-7 PSoft-Reports Applications

Application Name	Function Called	PS Interface
PS Status	psspi_tmcl status -q	<multiple></multiple>
PS 2-Tier Conn	dbspicao -r 1 -m 703	<database></database>
Proc Sched Status	psspi_pspt -status	pspt -status
PS Job Status	psspi_dbcao -report_on_all_DB -r 2 -m 792	<multiple></multiple>
PS Worklist Status	psspi_dbcao -report_on_all_DB -r 2 -m 795	<multiple></multiple>
Tblspace Files	dbspicao -r 1 -m 8	<database></database>
Tblspace Fragmnt	dbspicao -r 1 -m 11	
Tblspace Free	dbspicao -r 1 -m 6	
Tblspace Status	dbspicao -r 1 -m 7	
TX Client Status	psspi_tmcl tmadmin -I pclt	tmadmin
TX Server Status	psspi_tmcl tmadmin -I psr	tmadmin
TX Queue Status	psspi_tmcl tmadmin -I pq	tmadmin

The PSDB-Oper Application Group

Table B-8 on page 145 lists in alphabetical order the various applications in the PSDB-Oper application group, indicates which function is called by each application, and shows which Oracle interface is used.

Table B-8 PSDB-Oper Applications

Application Name	Function Called	Oracle Interface
LSNRCTL	dbspialo -i lsnrctl	lsnrctl

PeopleSoft SPI Components Applications and Application Groups

Table B-8 PSDB-Oper Applications

Application Name	Function Called	Oracle Interface
Shutdown Inst*	dbspialo -i dbshut	dbshut
Shutdown all Inst*	dbspialo -a dbshut	dbshut
Shut. Inst. Immediate*	dbspialo -i dbshuti	dbshut immediate
Shut. Inst. Abort*	dbspialo -i dbshuta	dbshut abort
SQL* DBA	dbspialo -i sqldba	sqldba
SQL Net Status	dbspialo -i netstat	lsnrctl; status
SQL Net Start	dbspialo -i netstart	lsnrctl; start
SQL Net Stop	dbspialo -i netstop	lsnrctl; stop
SQL* Plus	dbspialo -i sqlplus	sqlplus
Start Instance	dbspialo -i dbstart	dbstart
Start all Inst*	dbspialo -a dbstart	dbstart
Svr Mgr (Text)	dbspialo -i svrmgrl	svrmgrl
Svr Mgr (X11)	dbspialo -i svrmgrl	svrmgrl

Service Actions and Applications

The service definition contains a set of pre-defined actions, which can be started and used in the same way as any standard OVO/Unix Application Desktop icon. Typically, these applications operate on either the service object to which they are bound or all objects in the level immediately below in the service hierarchy, for example: all file systems under a directory-service object. Table B-9 on page 147, Table B-10 on page 148, and Table B-11 on page 148 illustrate the service object to which the individual applications are bound and, where appropriate, which command is called. For a short description of each action, see "Pre-defined Actions and Applications" on page 99.

Table B-9 PeopleSoft SPI Service-Definition Object Bindings: DBSPI

Application	n Name	Object Binding	Command
DB_SPI:	ORA:LSNRCTL	DB server system	dbspialo -i lsnrctl
	ORA:SQLNetStart	DB server system	dbspialo -i netstart
	ORA: SQLNetStatus	DB server system	dbspialo -i netstatus
	ORA: SQLNetStop	DB server system	dbspialo -i netstop
	ORA: Sqldba	DB Instance	dbspialo -i sqldba
	ORA: Sqlplus	DB Instance	dbspialo -i sqlplus
	ORA:StartDBInst	DB Instance	dbspialo -i dbstart
	ORA:StartDBInstAll	DB server system	dbspialo -a dbstart
	ORA:StopDBInst	DB Instance	dbspialo -i dbshut
	ORA:StopDBInstAbort	DB Instance	dbspialo -a dbshuta
	ORA:StopDBInstAll	DB server system	dbspialo -a dbshut
	ORA:StopDBInstImm	DB Instance	dbspialo -i dbshuti
	ORA:Svrmgrl	DB Instance	dbspialo -i svrmgrl
	ORA:Svrmgrm	DB Instance	dbspialo -i svrmgrm

Table B-10 PeopleSoft SPI Service-Definition Object Bindings: OS

Application 1	Name	Object Binding	Command
os:	Disk:Display:SpaceFS	File system	psspi_df <fs></fs>
	Disk:Display:SpaceAll	Disk	psspi_df
	IPC:Display	IPC	psspi_ipcs
	IPC:Display:MsgQueues	MsgQueues	psspi_ipcs -q
	IPC:Display:Semaphores	Semaphores	psspi_ipcs -s
	IPC:Display:SharedMem	Shared Memory	psspi_ipcs m

Table B-11 PeopleSoft SPI Service-Definition Object Bindings: PSSPI

Application	n Name	Object Binding	Command
PS_SPI:	Prcs:PrcsStart	Process scheduler Instance	psspi_pspt start -d < <i>PSDB</i> > -q
	Prcs:PrcsStartAll	Batch server system	psspi_pspt start -a -q
	Prcs:PrcsStatus	Proc. Scheduler Inst.	psspi_pspt status -d < <i>PSDB</i> > -q
	Prcs:PrcsStatusAll	Batch server system	psspi_pspt status -a -q
	Prcs:PrcsStop	Proc. Scheduler Inst.	psspi_pspt stop -d <psdb> -q</psdb>
	Prcs:PrcsStopAll	Batch server system	psspi_pspt stop -a -q

Table B-11 PeopleSoft SPI Service-Definition Object Bindings: PSSPI

Application	Name	Object Binding	Command
PS_SPI:	SPI:Analyze	All systems in the system view	/opt/OV/psspi/bin/\ psspi_ana.sh \$OPC_NODES \$OPC_SERVICE_NODE
	SPI:VerifyNodeInst		psspi_vrfy -n
	SPI:VerifyPsCfg		psspi_vrfy -d
	SPI:VerifyPsSpiComm		psspi_vrfy -c
	SPI:ViewPsCfg		psspi_spicl pscfg -d -q
	SPI:ViewPsSpiCfg		psspi_spicl spicfg -d -q
	SPI:ViewPsSpiErr		psspi_spicl spilog -q
	SPI:ViewPsSpiTrace		psspi_spicl spitrc -q

Table B-11 PeopleSoft SPI Service-Definition Object Bindings: PSSPI

Application	n Name	Object Binding	Command
PS_SPI:	Tux:BootAdmSrvs	Domain	psspi_tmcl tmboot -q -d <tux-domain> -A</tux-domain>
	Tux:BootAppSrvs	Domain	psspi_tmcl tmboot -q -d <tux-domain> -S</tux-domain>
	Tux:BootDomain	Domain	<pre>psspi_tmcl tmboot -q -d <tux-domain></tux-domain></pre>
	Tux:BootDomainAll	Application server system	psspi_tmcl tmboot -q -a
	Tux:ClientStatus	Domain	psspi_tmcl tmadmin -q -d <tux-domain> -I pclt</tux-domain>
	Tux:ClientStatusAll	Application server system	psspi_tmcl tmadmin -q -a -I pclt
	Tux:QueueStatus	Domain	psspi_tmcl tmadmin -q -d <tux-domain> -I pq</tux-domain>
	Tux:QueueStatusAll	Application server system	psspi_tmcl tmadmin -q -a -I pq
	Tux:ServerStatus	Domain	psspi_tmcl tmadmin -q -d <tux-domain> -I psr</tux-domain>
	Tux:ServerStatusAll	Application server system	psspi_tmcl tmadmin -q -a -I psr
	Tux:ShutdownAdmSrvs	Domain	psspi_tmcl tmshutdown -q -d <tux-domain> -A</tux-domain>
	Tux:ShutdownAppSrvs	Domain	psspi_tmcl tmshutdown -q -d <tux-domain> -S</tux-domain>
	Tux:ShutdownDomain	Domain	psspi_tmcl tmshutdown -q -d <tux-domain></tux-domain>
	Tux:ShutdownDomainAll	Application server system	psspi_tmcl tmshutdown -q -a

C PeopleSoft SPI Commands

PeopleSoft SPI Commands

In this section you can find information relating to the functions used by the HP OpenView Smart Plug-in for PeopleSoft in application calls. You can use these functions to create customized OVO/Unix applications. In this section you will find information concerning:

- psspi_tmcl
- psspi_pspt
- psspi_spicl
- psspi_inst

The psspi_tmcl Command

Starts domain-related command-line tools or domain-related tasks for PeopleSoft environments.

NAME

psspi_tmcl

SYNOPSIS

 $\label{local_psspi_tmcl} $$ psspi_tmcl $ command $ [-q][-a | -d $ domain1, domain2] $$ [parameters] $$ psspi_tmcl $ command $ [-h | -?] $$$

DESCRIPTION

The command psspi_tmcl executes a domain-related Tuxedo command-line tool or other domain-related tasks as specified in *command*. Valid options for *command* are:

- tmadmin
- tmconfig
- tmboot
- tmshutdown
- tmunloadcf
- viewlog
- domrestart

All necessary environment variables are set before the function invokes the tasks defined in *command*. *All* of the commands *require* domain. Domains can either be selected by users by means of a popup window or they can be specified by means of a command-line option: -a(11) or -d(omain) domain1, domain2. Specified domains must be valid PeopleSoft domains. The -h option displays usage information and lists the options available with the function. If the -q option is used, the psspi_tmcl does not print messages to stdout and does not ask for user input. Consequently, psspi_tmcl can be used in batch mode.

Additional optional parameters can be passed to the started Tuxedo command using parameters. However, these parameters are not checked by psspi_tmcl: they are passed by command as is.

EXIT VALUES

If an error occurs, the utility returns a non-zero return code.

The psspi_pspt Command

Shell script to start tasks related to the PeopleSoft process-scheduler process.

NAME

psspi_pspt

SYNOPSIS

```
psspi_pspt command [-q] [-a | -d PSDB1,PSDB2]
psspi pspt [-h | -?]
```

DESCRIPTION

The command executes tasks related to the PeopleSoft process scheduler process according to command parameter. Valid values for *command* are:

- start
- stop
- status
- viewcfq
- viewlog
- editcfq

All necessary environment variables are set before the script invokes *command. All* of the commands *require* PSDB, the PeopleSoft database server. The PeopleSoft database server can either be selected by users by means of a popup window or specified by means of a command-line option: -a(11) or -d(omain) PSDB1,PSDB2. Specified databases must be valid PeopleSoft databases.

The -h option displays usage information and lists the options available with the function. If the -q option is used, the psspi_pspt does *not* print messages to stdout and does not ask for user input. Consequently, psspi_pspt can be used in batch mode.

EXIT VALUES

If an error occurs, the utility returns a non-zero return code.

The psspi_spicl Command

Shell script to start tasks related to the PeopleSoft SPI.

NAME

psspi_spicl

SYNOPSIS

psspi_spicl command [-q] parameters

psspi_spicl [-h | -?]

DESCRIPTION

The command psspi_spicl executes tasks related to the PeopleSoft SPI as specified in command. Valid options for command are:

- spitrc
- spilog
- pscfg -d(isplay) -e(edit)
- spicfg -d(isplay) -e(edit)
- setcfg <LABEL> <VALUE>

The -h option displays usage information and lists the options available with the function. If the -q option is used, the psspi_pspt does *not* print messages to stdout and does not ask for user input. Consequently, psspi_pspt can be used in batch mode.

EXIT VALUES

If an error occurs, the utility returns a non-zero return code.

The psspi_inst Command

Starts tasks related to the PeopleSoft installation (defined by PS_HOME) for PeopleSoft environments.

NAME

psspi_inst

SYNOPSIS

```
psspi_inst command [-q] [ -a | -p PSinstallation1,
PSinstallation2 ] [parameters]
psspi_inst command [-h | -?]
```

DESCRIPTION

The command psspi_inst invokes a command line tool or generates information related to the PeopleSoft installation specified in *command*. Valid options for *command* are:

- psadmin
- ptcfq
- version
- status

All necessary environment variables are set before the function is executed. *All* of the commands require *PSinstallation*. PeopleSoft installations can either be selected by users by means of a popup window or specified with a command-line option: -a(11) or -p(PeopleSoft installation) psinstallation1, psinstallation2. Specified installations must be valid PeopleSoft installations.

Additional, optional parameters can be passed to the started command-line tool using parameters. However, these parameters are not checked by psspi_inst: they are passed by command as is. The -h option displays usage information and lists the options available with the function. If the -q option is used, the psspi_pspt does not print messages to stdout and does not ask for user input. Consequently, psspi_pspt can be used in batch mode.

EXIT VALUES

If an error occurs, the utility returns a non-zero return code.

action distribution, 49 actions service views, 99, 147 activate nodes, 48 activating a service model, 103 agent file locations, 120 application calls psspi_inst (1M), 156 psspi_pspt (1M), 154 psspi_spicl (1M), 155 psspi_tmcl (1M), 153 application groups new, 65 PSDB-Oper, 66, 75, 79, 145 PSoft-Admin, 65, 69, 79 PSoft-Reports, 66, 73, 79 PSSPI-Admin, 65, 66, 79 applications	PS Discovery output, 47 PS Job Status, 74, 145 PS Proc Sched, 72, 144 PS Status, 74, 145 PS Tuxedo, 143 Psadmin, 70, 72, 142, 143 PSSPI Cleanup, 67, 141 PSSPI Error, 142 PSSPI License Report, 142 PSSPI Doff, 67, 141 PSSPI On, 68, 142 PSSPI Trace Off, 68, 142 PSSPI Trace Off, 68, 142 PSSPI Trace On, 68, 142 Restart All PS Domains, 72 Restart PS Domain, 72 Shut. Inst. Abort, 76, 146 Shut. Inst. Immediate, 76, 146 Shutd Adm Servers, 72, 144 Shutd Appl Servers, 72, 144 Shutd PS Domain, 72, 144 Shutdown All Inst, 76, 146	TX Client Status, 75, 145 TX Queue Status, 75, 145 TX Server Status, 75, 145 Unload TX Conf, 70, 143 Verify PS Cfg, 68, 142 Verify PS Com, 142 Verify PS Node, 68, 142 Verify PS Server, 68, 142 Verify PSSPI Com, 68 View APPSRV.LOG, 73, 144 View PRCS Config, 70, 143 View PRCS log, 73, 144 View PSSPI Cfg, 68, 142 View PSSPI Cfg, 68, 142 View PSSPI Error, 68 View PSSPI Error, 68 View PSSPI Trace, 69, 142 View pstools.ini, 70, 143 View TUXLOG, 73, 144 assign nodes to node groups, 48 assigning a service model, 103
Boot Adm Servers, 71, 143 Boot Adm Servers, 71, 143 Boot All PS Domains, 71 Boot Appl Servers, 71, 143 Boot PS Domain, 71, 143 Build PS Services, 66, 67, 141 Edit PRCS Config, 69, 142 Edit PS Config, 67, 141 Edit PSSPI Cfg, 67, 141 Edit pstools.ini, 69, 142 File systems, 71, 143 IPC Cleanup, 71, 143 IPC Current, 71, 143 IPC Needed, 71, 143 IPC Needed, 71, 143 LSNRCTL, 76, 145 Proc Sched Status, 74, 145 PS 2-Tier Conn, 74, 145 PS Activate, 67, 141 PS All Procs, 72, 144 PS Analyze, 67, 141 PS App Server, 72, 143 PS Discovery, 67, 141	Shutdown Inst, 76, 146 SQL Net Start, 76, 146 SQL Net Status, 76, 146 SQL Net Stop, 76, 146 SQL* Plus, 76, 146 SQL*DBA, 76, 146 Srv Mgr (Text), 76, 146 Srv Mgr (X11), 76, 146 Start all Inst*, 76, 146 Start All Proc Scheds, 73, 144 Start Proc Sched, 73, 144 Stop All Proc Scheds, 73, 144 Stop Proc Sched, 73, 144 System Metrics, 73, 144 Tblspace Files, 74, 145 Tblspace Free, 74, 145 Tblspace Status, 74, 145 Tmadmin, 70, 73, 142, 144 Tmconfig, 70, 143	Boot Adm Servers, 71, 143 Boot All PS Domains, 71 Boot Appl Servers, 71, 143 Boot PS Domain, 71, 143 Build PS Services, 66, 67, 141 building a service model, 103 C command distribution, 49 command calls service actions, 147 commands psspi_inst (1M), 156 psspi_pspt (1M), 154 psspi_spicl(1M), 155 psspi_tmcl (1M), 153 configuration, 39 activate nodes, 48

add PeopleSoft systems, 39 assign nodes to node groups, 48 discover PeopleSoft components, 45 distribute ITO agents to PeopleSoft systems, 40 configuration files PeopleSoft SPI, 121 ps.cfg, 128 psspi.cfg, 121	DSI integration monitors, 139 tuxedo domain name, 140 E Edit PRCS Config, 69, 142 Edit PS Config, 67, 141 Edit PSSPI Cfg, 67, 141 Edit pstools.ini, 69, 142	I installation, 33 pre-requisites, 25 supported platforms, 28 installing ITO preparing the management server, 33 IPC Cleanup, 71, 143 IPC Current, 71, 143 IPC Needed, 71, 143
psspi.disc, 122 configuring user profiles, 53 conventions typographical, 11	file locations managed nodes, 120 management server, 119 File systems, 71, 143	L log files new PSSPI-AppSrvCfgFiles_1,
D database monitoring, 49 de-installing PeopleSoft SPI managed PeopleSoft system,	files PeopleSoft SPI configuration, 121 ps.cfg, 128 psspi.cfg, 121 psspi.disc, 122	83, 134 PSSPI-AppSrvLogFiles_1, 83, 134 PSSPI-PrcsLogDirs_1, 84, 135 PSSPI-PrcsLogFiles_1, 84, 135
management server, 57 discover PeopleSoft components, 45 discovering a service model, 103 discovery of services, 103 discovery scripts	G getting started, 61 groups new application, 65 PSDB-Oper, 66, 75, 79, 145 PSoft-Admin, 65, 69, 79 PSoft-Oper, 66, 70, 79 PSoft-Reports, 66, 73, 79	PSSPI-TUXLogDirs_1, 83, 136 PSSPI-TUXLogFiles_1, 83, 136 log-file discovery scripts, 137 logical service views, 96 LSNRCTL, 76, 145
log files, 137 distribute ITO agents to PeopleSoft systems, 40 distribution action, 49 command, 49	PSSPI-Admin, 65, 66, 79 new nessages, 63 new nodes, 62 templates, 80 PSSPI-App_Server_1, 81 PSSPI-Batch_Server_1, 83,	M managed node de-install PeopleSoft SPI, 56, 57 managed nodes file locations, 120
monitor, 49 template, 51 domain name tuxedo DSI restrictions, 140	PSSPI-DB_Server_1, 85 H hardware requirements, 25	managed PeopleSoft system de-installing the PeopleSoft SPI, 56 management server

de-installing the PeopleSoft SPI, 57 file locations, 119 message groups new, 63 Psoft-Fault, 64, 79 Psoft-Perf, 64, 79 PSSPI, 64, 79 message templates new PSSPI-DBSPI-Messages_1, 86, 134 PSSPI-PSSPI-Messages_1, 83, 84, 86, 87, 135 messages generation on ServiceGuard nodes, 88 model service	PSSPI-PrcsJobTab_1, 84, 135 PSSPI-PrcsLogSize_1, 84, 135 PSSPI-PrcsMon_1, 84, 135 PSSPI-TMIB-001_1, 82, 135 PSSPI-TMIB-002_1, 136 PSSPI-TMIB-003_1, 136 PSSPI-TMIB-004_1, 136 PSSPI-TMIB-005_1, 82, 136 PSSPI-TMIB-006_1, 82, 136 PSSPI-TMIB-007_1, 82, 136 PSSPI-TMIB-008_1, 82, 136 PSSPI-TMIB-008_1, 82, 136 PSSPI-TMIB-010_1, 82, 136 PSSPI-TMIB-Col-05Min_1, 82, 86, 136 PSSPI-WorkList_1, 86, 136	product bundles, 115 SPI configuration files, 121 ps.cfg, 128 psspi.cfg, 121 psspi.disc, 122 PeopleSoft SPI de-installing, 56 managed PeopleSoft system, 56 management server, 57 How does it work?, 22 What does it do?, 20 What is it?, 19 PeopleSoft user profiles new psoft_adm_prf, 79 psoft_op_prf, 79 PeopleSoft users new
service activation, 103	N	new psoft-adm, 78
assignment, 103 building, 103 discovery, 103	new node group, 62 node groups assigning nodes to, 48	psoft-op, 78 physical service views, 94 platforms
monitor distribution, 49 monitor scripts, 138 monitors, 80 discovery scripts, 138 DSI integration, 139	new, 62 PS App Server, 62, 79 PS Batch Server, 62, 79 PS DB Server, 62, 79 nodes	supported, 28 pre-requisites, 25 hardware, 25 Proc Sched Status, 74, 145 product bundles, 115
new PSSPI-AppSrvLogSize_1,82, 134 PSSPI-DBSPI-0001, 86, 134 PSSPI-DBSPI-00011, 86,	assigning to node groups, 48 O object bindings service actions, 147	filesets, 115 PS 2-Tier Conn, 74, 145 PS Activate, 67, 141 PS Analyze, 67, 141 PS App Server, 62, 72, 79, 143
134 PSSPI-DBSPI-0002, 86, 134 PSSPI-DBSPI-0006, 86, 134 PSSPI-DBSPI-0023, 86, 134 PSSPI-DBSPI-0791, 134 PSSPI-DBSPI-0792, 86, 134 PSSPI-DBSPI-0793, 86, 135 PSSPI-FileSys_1, 82, 86, 135 PSSPI-IPC_1, 82, 86, 135	passwords for PeopleSoft users, 53 PeopeSoft file locations managed nodes, 120 management server, 119 filesets, 115	PS Batch Server, 62, 79 PS DB Server, 62, 79 PS Discovery, 45, 67, 141 output, 48 using the output, 48 PS Job Status, 74, 145 PS Proc Sched, 72, 144 PS Status, 74, 145 PS Tuxedo, 143

ps.cfg, 128	PSSPI-DBSPI-0793 monitor, 86,	PSSPI-TUXLogDirs_1 log file,
PS_HOME, 46, 127	135	83, 136
multiple, 126	PSSPI-DBSPI-Messages_1	PSSPI-TUXLogFiles_1 log file,
Psadmin, 70, 72, 142, 143	message template, 86, 134	83, 136
PSDB-Oper, 75, 145	PSSPI-FileSys_1 monitor, 82,	PSSPI-WorkList_1 monitor, 86,
psoft_adm_prf, 79	86, 135	136
psoft_op_prf, 79	PSSPI-IPC_1 monitor, 82, 86,	
psoft-adm, 78	135	R
Psoft-Fault, 64, 79	PSSPI-PrcsJobTab_1 monitor,	repository
psoft-op, 78	84, 135	
Psoft-Perf, 64, 79	PSSPI-PrcsLogDirs_1 log file,	template, 133
PSSPI, 64	84, 135	requirements
PSSPI Cleanup, 67, 141	PSSPI-PrcsLogFiles_1 log file,	hardware, 25
PSSPI Error, 142	84, 135	Restart All PS Domains, 72
PSSPI License Report, 142	PSSPI-PrcsLogSize_1 monitor,	Restart PS Domain, 72
PSSPI Message Group, 79	84, 135	
PSSPI Off, 67, 141	PSSPI-PrcsMon_1 monitor, 84,	\mathbf{S}
PSSPI On, 68, 142	135	scripts
PSSPI Trace Off, 68, 142	PSSPI-PSPI-Messages_1	log-file discovery, 137
PSSPI Trace On, 68, 142	message template, 83, 135	monitors, 138
psspi.cfg, 121	PSSPI-PSSPI-Messages_1	templates, 133
permitted keys, 122	message template, 84, 86,	trace variables, 111
psspi.disc, 46, 122	87	trace-variable fields, 112
PSSPI-AppSrvCfgFiles_1 log	PSSPI-TMIB-001_1 monitor, 82,	tracing, 111
file, 83, 134	135	service
PSSPI-AppSrvLogFiles_1 log	PSSPI-TMIB-002_1 monitor,	views
file, 83, 134	136	activation, 103
PSSPI-AppSrvLogSize_1	PSSPI-TMIB-003_1 monitor,	assignment, 103
monitor, 82, 134	136	build, 103
PSSPI-DBSPI-0001 monitor, 86,	PSSPI-TMIB-004_1 monitor,	discovery, 103
134	136	service discovery, 103
PSSPI-DBSPI-00011 monitor,	PSSPI-TMIB-005_1 monitor, 82,	service name, 98
86, 134	136	service views, 93
PSSPI-DBSPI-0002 monitor, 86,	PSSPI-TMIB-006_1 monitor, 82,	actions, 99, 147
134	136	command calls, 147
PSSPI-DBSPI-0006 monitor, 86,	PSSPI-TMIB-007_1 monitor, 82,	object bindings, 147
134	136	logical, 96
PSSPI-DBSPI-0023 monitor, 86,	PSSPI-TMIB-008_1 monitor, 82,	name, 98
134	136	physical, 94
PSSPI-DBSPI-0791 monitor,	PSSPI-TMIB-010-1 monitor, 82,	processes, 98
134	136	host name, 98
PSSPI-DBSPI-0792 monitor, 86,	PSSPI-TMIB-Col-05Min 1	name, 98
134	monitor, 82, 86, 136	name space, 98
101	111011101, 02, 00, 100	<u>.</u> ,

```
View PSSPI Cfg, 68, 142
View PSSPI Error, 68
View PSSPI Trace, 69, 142
View pstools.ini, 70, 143
View TUXLOG, 73, 144
views
service, 93
actions, 99, 147
command calls, 147
instance, 96
object bindings, 147
processes, 98
resources, 98
system, 94
```