HP Operations
Smart Plug-in for PeopleSoft

Configuration Guide

Version: 2.90

For Microsoft Windows® operating systems

This PDF file contains the same information found in the online help. Some interactive pages are not included.

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Support

Please visit the HP software web site at:

http://www.hp.com/managementsoftware/support/

This web site provides contact information and details about the products, services, and support that HP software offers.

HP software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valuable support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest
- Submit enhancement requests online
- Download software patches
- Submit and track progress on support cases
- Manage a support contract
- Look up HP support contacts
- Review information about available services
- Enter discussions with other software customers
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Most of the support areas require that you register as an HP Passport user and log in. To find more information about access levels, go to the following URL:

http://h20230.www2.hp.com/new_access_levels.jsp

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http://h20229.www2.hp.com/passport-registration.html

1 Smart Plug-in for PeopleSoft

This section describes the contents of the on-line help for the PeopleSoft SPI.

In this Section

The on-line help for the Smart Plug-in for PeopleSoft provides all the information you need to install and use the PeopleSoft SPI to manage and monitor your PeopleSoft environment from a central location. The on-line help includes information about the following topics:

- "Introducing the PeopleSoft SPI"

  This section describes the Smart Plug-in for PeopleSoft (PeopleSoft SPI) and explains how the various components fit together and work.

- "Installing the PeopleSoft SPI"

  This section describes how to prepare for, perform, and verify the installation of the Smart Plug-in for PeopleSoft.

- "Configuring the PeopleSoft SPI"

  This section describes how to configure the various installed components of the Smart Plug-in for PeopleSoft.

- "Using the PeopleSoft SPI"

  This section describes what you get with the Smart Plug-in for PeopleSoft and how to start using it.

- "Using Service Views"

  This section describes how to take advantage of the service model of the PeopleSoft environment built by the Smart Plug-in for PeopleSoft.

- "HPO Service Reports"

  This section describes Smart Plug-in for PeopleSoft data collections that allows reporting.

- "Troubleshooting the PeopleSoft SPI"

  This section describes how to go about troubleshooting the Smart Plug-in for PeopleSoft.

- "PeopleSoft SPI File Names"

This section describes which files are installed by the Smart Plug-in for PeopleSoft and where exactly they are located after the installation and configuration of the product has been completed successfully.

- “PeopleSoft SPI Components”

  This section describes which components are installed by the 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.

- “PeopleSoft SPI Commands”

  In this section you can find information relating to the functions used by the Smart Plug-in for PeopleSoft tools. You can use these functions to create customized HPO tools.

In this Section

2 Introducing the PeopleSoft SPI

This section describes the HP Operations Smart Plug-in for PeopleSoft and explains how the various components fit together and work.

In this Section

This section describes the HP Operations Smart Plug-in for PeopleSoft (PeopleSoft SPI) and explains how the various components fit together and work. The information in this section covers the following topics:

- “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 2-1 on page 16 illustrates a typical 3-tier PeopleSoft environment.

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

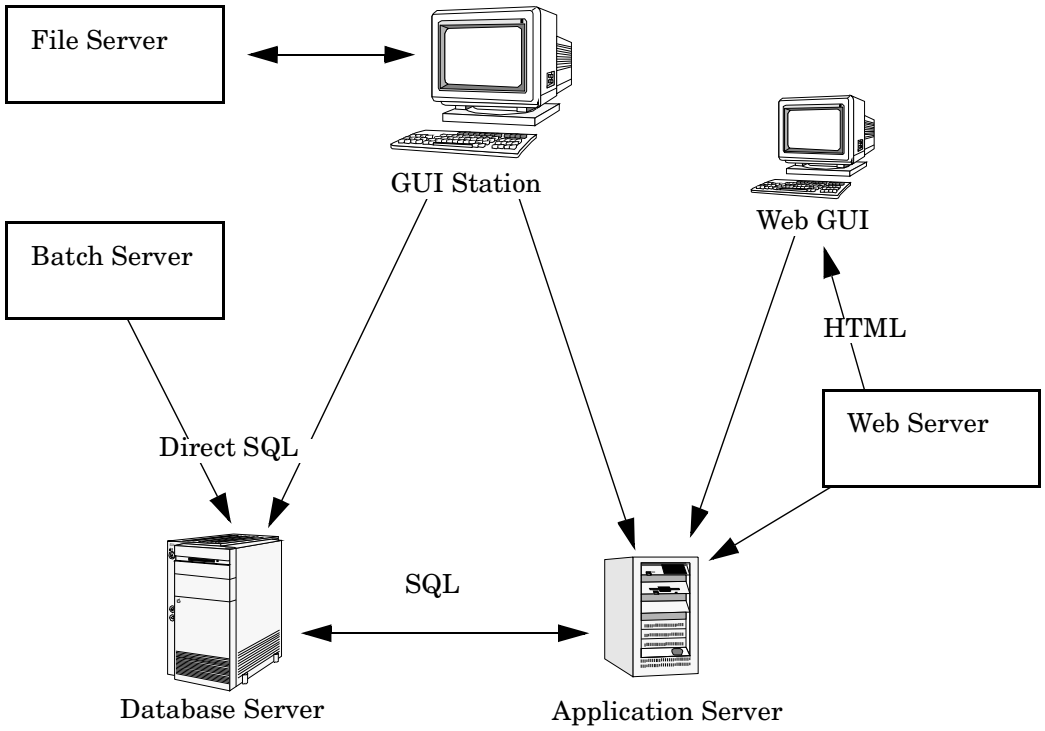
- File server

  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

Figure 2-1 Typical 3-Tier PeopleSoft Environment



What is the PeopleSoft SPI?

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

The Smart Plug-in for PeopleSoft provides IT organizations with a pre-configured management solution for PeopleSoft environments based on HP Operations, the industry-leading enterprise-availability and automation solution. With HP Operations 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 25. The PeopleSoft SPI itself can be installed in a distributed management environment consisting of one or more HPO servers, one or more HP Operations agents, and HP Performance Manager consoles.

Although each of these 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.

What does the PeopleSoft SPI Do?

The PeopleSoft SPI is a product that complies with HP Software standards and provides availability and performance monitoring of a typical PeopleSoft environment. As with all Smart Plug-ins for HP Operations (HPO), 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 HPO monitoring feature (policies) and the HPO graphical user interface (GUI), for example: tools, nodes, services, and so on. Each integration capability is independent to guarantee that those people who do not have all of the required HP Software products are still able to install and use the PeopleSoft SPI - always assuming that HPO is already present. Note that integrations with HP Performance Manager is optional.

The 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 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 about all components of the PeopleSoft environment is constantly provided. The Smart Plug-in for PeopleSoft monitors the PeopleSoft application, any subsystems such as Tuxedo, and the DBMS and server processes. Monitoring is

performed with scripts or programs that are executed at defined intervals: policies interpret the collected metrics for rapid problem resolution.

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

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:

- Monitoring:
  - — PeopleSoft and Tuxedo log files (including the handling of dynamic log-file names)
  - — High-level status of Tuxedo
  - — High-level status of the DBMS
  - — Critical OS resources (IPC, disk space)
  - — Essential processes (e.g. PeopleSoft process scheduler)
  - — Batch-job status
  - — business metrics that are relevant to the management of PeopleSoft
  - — Key resources of the PeopleSoft database
  - — Load on the PeopleSoft application server
- Integration:
  - — Service model specifically for a PeopleSoft environment
  - — Standard PeopleSoft administration tools
- Tools:
  - — Tools to manage PeopleSoft-related operating tasks (start/stop Tuxedo domains, PS process scheduler, etc.)
  - — Tools to generate status or configuration reports

3 Installing the PeopleSoft SPI

This section describes how to install the Smart Plug-in for PeopleSoft.

In this Section

This section describes how to install and remove the Smart Plug-in for PeopleSoft. This section includes information concerning the following topics:

- “System Pre-Requisites”
- “Supported Platforms and Versions”
- “Installing the PeopleSoft SPI on the Management Server”
- “De-installing the PeopleSoft SPI”

System Pre-Requisites

The HP Operations (HPO) management server must be installed and configured on the machine on which you want to install and use the PeopleSoft SPI. In this section, you can find information about the following topics:

- "Hardware Requirements" on page 23
- "Software Requirements" on page 24

For more information about which versions of HP Operations are supported, see "Supported Versions: HPO Server" on page 25. In addition, the HPO agent must be running on the HPO management server.

For more information about platform and version support, see "Supported Platforms and Versions" on page 25.

Hardware Requirements

Table 3-1 on page 23 lists the hardware requirements for the machines on which you intend to install the PeopleSoft SPI.

Table 3-1 PeopleSoft SPI Hardware Requirements

HPO Component	Additional Disk Space	Additional RAM
HPO Server	20MB	n/a
HPO Agent Windows	10MB	n/a
HPO Agent Unix	10MB	n/a

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

Software Requirements

You do not need to make any changes to operating-system kernel parameters before installating the Smart Plug-in for PeopleSoft on the HPO management server or on the HPO managed nodes.

Table 3-2 on page 24 lists the software products that the PeopleSoft SPI either requires or recommends.

Table 3-2 PeopleSoft SPI Software Requirements

Product	Status	Remarks
Smart Plug-in for Oracle, MS SQL Server or DB2	Required[a]	Needed for database access and database related metrics of the PeopleSoft SPI
Smart Plug-in for BEA WebLogic Server	Recommended[b]	Used for detailed WebLogic monitoring (not available on all platforms)

a. Version 6.0 or higher is required for DBSPI. Version 03.30 or higher is required for DB2SPI.
b. See the installation tips for the Smart Plug-in for BEA WebLogic Server in this product documentation.

Supported Platforms and Versions

The following sections indicate which platforms and which product versions are supported by the Smart Plug-in for PeopleSoft and its various components. The information in this section includes the following topics:

- "Supported Versions: PeopleTools" on page 25
- "Supported Versions: HPO Server" on page 25
- "Supported Platforms: HPO Agent" on page 26
- "Supported Platforms: Database-Server Components" on page 26
- "Supported Platforms: Web-Server Components" on page 27

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

Supported Versions: PeopleTools

The PeopleSoft SPI is designed to run on all versions of PeopleSoft based on PeopleTools 7 and 8, using Tuxedo 6.5 and 8.1 which come bundled with PeopleTools. Specifically, the PeopleSoft SPI currently supports the PeopleTools releases: 7.05, 7.5*, 8.1*, 8.40 - 8.49.

The PeopleSoft SPI assumes the following combinations - which are the default for a PeopleSoft installation:

- Tuxedo 6.5 with PeopleTools 7.05 up to 8.43
- Tuxedo 8.1 with PeopleTools 8.44 up to 8.49

Supported Versions: HPO Server

The PeopleSoft SPI runs on the following software versions of the HPO management server:

- HPO 7.50, 8.00 for Windows

Supported Platforms: HPO Agent

The PeopleSoft SPI runs on the following supported HPO-agent platforms:

Table 3-3 Supported Platforms for the HPO managed nodes

Platform	OS
Intel x86	Windows 2000 Windows 2003
	SuSE Linux SLES 8, 9 RedHat Linux 2.1, 3.0, 4.0
HP PA-RISC	HP-UX 11.00, 11.11, 11.23
HP Itanium	HP-UX 11.23
Sun SPARC	Solaris 7, 8, 9, 10
IBM RS6000	AIX 5.1, 5.2, 5.3

Note that not every combination is possible due to restrictions with PeopleTools, with HPO for Windows, or requirements by other Smart Plug-ins.

Supported Platforms: Database-Server Components

The database-server components of the PeopleSoft SPI support PeopleTools installed on the following databases:

- Oracle
- MSSQL
- DB2

NOTE The database versions that the PeopleSoft SPI supports depend on the versions supported by the DB-SPI (SPI for Oracle, SPI for MS SQL Server) and the DB2SPI (SPI for DB2).

Supported Platforms: Web-Server Components

The web-server components of the PeopleSoft SPI support the following web servers bundled with PeopleTools:

- Apache Webserver
- BEA WebLogic

Installing the PeopleSoft SPI on the Management Server

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

- "Preparing the HPO Management Server" on page 28
- "Installing the PeopleSoft SPI" on page 28
- "Verifying the Software Installation" on page 29

Preparing the HPO Management Server

The Smart Plug-in for PeopleSoft is available on the HP Operations for Windows SPI DVD-ROM.

To prepare the HPO management server for the installation of the PeopleSoft SPI:

1. Login as a user with administrative rights to install software.
2. Insert the product media in the DVD-ROM drive.
3. Follow the directions of the setup program which is started automatically and select the PeopleSoft SPI and, optionally, reports for installation.
4. If you intend to install additional products such as: the SPI for Oracle, MS SQL Server, SPI for BEA WebLogic Server, or SPI for DB2, see the installation instructions provided by the product you want to install to check if there are any additional pre-installation requirements.

Installing the PeopleSoft SPI

To perform a complete installation of the PeopleSoft SPI, including software for which the PeopleSoft SPI provides integrated functionality, you need to carry out the following high-level steps:

1. Install the required software

- The appropriate SPI for Database or SPI for DB2 (if not already installed)
- SPI for PeopleSoft

2. Install the recommended software bundles
   - The HP Operations Smart Plug-in for BEA WebLogic Server (if needed and supported and not already installed)
3. Install HP Reporter integrations
   - PeopleSoft SPI reports

   If you install one or more of the SPI for Database, SPI for BEA WebLogic Server, or SPI for DB2 you can install the HP Reporter integrations provided by the Smart Plug-ins.

   For more information about installing PeopleSoft SPI reports, see "Installing PeopleSoft SPI Reports" on page 97. For more information about installing and configuring integration packages, see the installation guide for the appropriate Smart Plug-in.

Verifying the Software Installation

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

1. Check for any installation errors. The HPO common installer logs internal steps during the installation and writes the information to a dedicated log file. If there are any problems during the installation, you can find the log files for server and console packages in `%OvDataDir%\HPOVInstall\`.

NOTE The Log files the common installer writes are not available if you install packages separately from individual `.msi` files.

2. Make sure that the following new elements are present in the HPO GUI after the installation of the Smart Plug-in for PeopleSoft product completes.
   - New node groups:
     — `PS App Server`

  - PS Batch Server
  - PS Web Server
  - PS DB2 Server
  - PS ORA Server
  - PS Win MSS Server
- New tool application groups:
  - PSSPI-Admin
  - PSoft-Admin
  - PSoft-Oper
  - PSoft-Reports
- New policy template groups:
  - PSSPI-App_server
  - PSSPI-Batch_Server
  - PSSPI-DB2DB_server
  - PSSPI-OraDB_server
  - PSSPI-MSSDB_Server
  - PSSPI-Web_server
- New user roles:
  - PSoft-Admin
  - PSoft-Oper

3. If the new PeopleSoft SPI elements are not visible in the HPO GUI, try stopping and restarting the HPO GUI.
4. If you installed one of the SPI for Database, SPI for BEA WebLogic Server or SPI for DB2, 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 “Using the PeopleSoft SPI” on page 53 or “PeopleSoft SPI Components” on page 119.

De-installing the PeopleSoft SPI

To remove the Smart Plug-in for PeopleSoft, carry out the following high-level steps:

1. "De-installing from Managed PeopleSoft Systems"

   Remove the PeopleSoft SPI components from the PeopleSoft systems (HPO managed nodes) and clean the system.

2. "De-installing from the HPO Management Server"

   Remove the PeopleSoft SPI software from the HPO management server.

NOTE Since HPO does not support automatic software removal from the command line, you have to remove manually both the HPO GUI integration and the components deployed on the HPO managed nodes.

De-installing from Managed PeopleSoft Systems

To remove the Smart Plug-in for PeopleSoft components from the HPO managed nodes:

1. De-assign the PeopleSoft SPI policies from the PeopleSoft systems:

   a. Remove the appropriate PeopleSoft systems from the appropriate PeopleSoft SPI node groups.

      - Open the Node Configuration Editor
      - Select the PeopleSoft system in the right pane in the PeopleSoft SPI node group and click the right mouse button.
      - Select `Delete` as the action and confirm to remove the reference to this node.
      - Do this for all PeopleSoft systems from which the PSSPI should be removed.

   b. Remove the policies from the selected PeopleSoft systems.

- Select the PeopleSoft system in the HPO Console tree (left pane).
- Click the right mouse button and select View / Policy Inventory.
- In the right pane, all policies which are stored on the node are shown. Select all PeopleSoft SPI policies (PSSPI-*). You may sort the list by clicking on the column header.
- Click the right mouse button and select All Tasks / Remove from node.
- Do this for all PeopleSoft systems from which the PSSPI should be removed.

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

   The de-installation script `psspi_cleanup.pl` can also be called manually on the HPO managed node.

3. Cleanup the SPI for Database components, if appropriate, using the `DBSPI Cleanup` tool.

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

De-installing from the HPO Management Server

To remove the Smart Plug-in for PeopleSoft components from the HPO management server and complete the general clean up process:

1. Remove the PeopleSoft SPI software from the HPO management server.
   - Start the standard Windows tool `Add/Remove Programs` from the control panel.
   - Select the "`hp Operations Manager New and Upgraded Smart Plug-ins`" entry and press the `Change` button.
   - Follow the instructions until the "`Program Maintenance`" window appears.

- Select the "`Remove products`" option and press the `Next` button.
- Mark the "`PeopleSoft`" entry and press the `Next` button. Follow the instructions to remove this program from the HPO management server.

2. Deploy the instrumentation needed for other SPIs to *all* PeopleSoft managed nodes and mark the check box "`Remove existing instrumentation ...`": this removes all PeopleSoft SPI components.
3. Cleanup the GUI by removing the PeopleSoft-specific elements, such as:
   - Node Groups
     - Open the `Node Configuration Editor`
     - Select the `PeopleSoft` node group in the right pane and click the right mouse button.
     - Select `Delete` and confirm to remove this node group.
   - Services
     - Open the `Service Configuration Editor` and select the `PeopleSoft` service entry.
     - Press the `Delete` button and confirm to remove the PeopleSoft service hierarchy.
   - User Roles
     - Open the `User Roles Configuration Editor`.
     - Select the `PSoft-Admin` and `PSoft-Oper` user roles.
     - Press the `Delete` button and confirm to remove these user roles.

4 Configuring the PeopleSoft SPI

This section describes the steps you need to perform to set up and customize the Smart Plug-in for PeopleSoft.

Configuring the PeopleSoft SPI to Manage PeopleSoft Systems

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 HPO installation, you will need to perform the following high-level steps to adapt the PeopleSoft SPI to the specific requirements of the PeopleSoft environment you want to monitor:

- "Setting up PeopleSoft Systems as HPO Nodes" on page 37
- "Distributing the HPO Agent to the PeopleSoft Systems" on page 38
- "Distributing PeopleSoft SPI Instrumentation" on page 39
- "Configuring the PeopleSoft SPI to Monitor the Database" on page 40
- "Discovering PeopleSoft Components on the Managed Nodes" on page 42
- "Assigning Nodes to Node Groups" on page 47
- "Distributing PeopleSoft SPI Policies" on page 48
- "Activating the Configuration on the PeopleSoft Nodes" on page 49
- "Non-root Agent Support" on page 50

Setting up PeopleSoft Systems as HPO Nodes

If not already present, add to HPO as managed nodes the PeopleSoft systems in your environment that you want to monitor with the Smart Plug-in for PeopleSoft. To add a managed node to HPO, see the *HP Operations Administrator's Guide to Online Information*.

Distributing the HPO Agent to the PeopleSoft Systems

Check that the correct version of the HPO agent software is installed and running on the PeopleSoft node you want to set up and monitor with the PeopleSoft SPI. If no HPO agent is present, install the HPO agent software on the PeopleSoft systems by using the standard HPO agent distribution method. For more information about installing the HPO agent, see the *HP Operations Administrator's Guide to Online Information*.

NOTE

On Windows managed nodes, the HPO-agent user must be a PeopleSoft Administrator, that is: a user with the authority to start up or shut down Tuxedo domains and Process Schedulers using the `psadmin` tool.

On Windows managed nodes, if the HPO agent is configured to run under the LocalSystem account, the ability to start up or shut down Tuxedo domains and Process Schedulers cannot be tested using `psadmin`. In most of cases the LocalSystem user has appropriate rights. Otherwise reconfigure the HPO agent to run as the PeopleSoft Administrator.

Distributing PeopleSoft SPI Instrumentation

To distribute the PeopleSoft SPI instrumentation to the PeopleSoft systems which you want the PeopleSoft SPI to monitor, follow the HPO instructions for deploying instrumentation and select the following instrumentation packages:

- `PSSPI`
- `SPI Data Collector`

Configuring the PeopleSoft SPI to Monitor the Database

If you want the PeopleSoft SPI to monitor the PeopleSoft database server and gather database-related metrics, configure the database monitoring component for the PeopleSoft database server node and the PeopleSoft Process-Scheduler node. The configuration must be performed before discovery step.

NOTE This configuration has to be performed using the tools which are installed with the Smart Plug-in for Databases or Smart Plug-in for DB2.

If Oracle is used as the PeopleSoft database, then the following rules apply for the configuration of the SPI for Oracle:

- The names of the PeopleSoft databases are configured as TNS names in the `tnsnames.ora` file. You can check this using the Oracle tool `tnsping` with the PeopleSoft database name as an argument. This applies to the database server, too. Note that this rule is required by the PeopleSoft Installation Guide.
- In the SPI for Oracle configuration, use the name of the PeopleSoft database as both the `DATABASE` and the `ALIAS` entry.

If MS SQL Server 2000 is used as the PeopleSoft database management system, then the following rules apply for the configuration of the SPI for MS SQL Server:

- Each PeopleSoft database name must appear as an ODBC data-source name. The name of the actual MSSQL database - which is configured in this ODBC data source - must be identical to the PeopleSoft database name. Note that this is required by the PeopleSoft Installation Guide.
- In the SPI for MSSQL Server configuration, use the name of the PeopleSoft database server as the only target description. Since the PeopleSoft databases are installed in the *default instance* of the MSSQL Server, the SPI for MSSQL Server does not need any further information to connect to the database server.

Special installation notes for the SPI for Databases

If you use the *Microsoft SQL Server* on the PeopleSoft database servers, note that versions 6, 7, and 8 of the *SPI for Microsoft SQL Server* have a problem if the MSSQL installation directory contains blank characters. If this is the case, the DBSPI cannot correctly locate the path to the `isql.exe`/`osql.exe` programs which are used to evaluate the special PeopleSoft SPI database metrics.

To work around this problem on the PeopleSoft database servers, compute the 8.3 name of the MSSQL installation directory and replace the registry key `HKLM\Software\Microsoft\Microsoft SQL Server\80\Tools\ClientSetup\SQLPath` with the new value.

IMPORTANT

If you have to enable the trace mode of the *SPI for Microsoft SQL Server* on the PeopleSoft database servers, note that versions 6, 7, and 8 of the *SPI for Microsoft SQL Server* cannot trace metric 3792 of the PeopleSoft SPI. This is due to a limitation in the trace buffer of the DBSPI. There is no work around; you cannot trace metric 3792.

Discovering PeopleSoft Components on the Managed Nodes

The PeopleSoft components installed on the PeopleSoft servers are discovered by starting the SPI tool `PS Discovery` on all PeopleSoft nodes.

NOTE To perform this discovery step, the SPI instrumentation must be available on the PeopleSoft nodes. For more information, see "Distributing PeopleSoft SPI Instrumentation" on page 39

When the `PS Discovery` tool starts, it tries to discover information about the following areas:

- "The PeopleSoft Environment"
- "PeopleSoft Application Servers"
- "PeopleSoft Batch Servers"
- "PeopleSoft Web Server"
- "General Discovery Strategy and Prerequisites"

The PeopleSoft Environment

The `PS Discovery` tool tries to discover the following information concerning the PeopleSoft environment:

- "PeopleSoft Installation"
- "Database Type"
- "PeopleTools version"
- "Tuxedo Installation"
- "PeopleSoft database name"
- "Database home"
- "Database name"
- "PeopleSoft database owner"

- "Database server hostname"

PeopleSoft Installation

During the discovery phase, the PeopleSoft SPI first tries to determine the location of installed PeopleSoft components, that is: the PeopleSoft Home directories defined in `PS_HOME`. The discovery process includes the following steps:

1. User-specified locations:

   If the user has specified some installation directories by supplying arguments to the tool `PS Discovery`, take these as `PS_HOME` candidates.

2. Look in common and "often-used" places:

   If there is no `PS_HOME` candidate, take the first- and second-level directories of all fixed drives found on the system as candidates.

   For each `PS_HOME` candidate, check whether a `peoplesoft.properties` exists. If it does, take the candidate as the installation directory (`PS_HOME`).

Database Type

The database type (DB_TYPE) can be ORACLE, MSSQL and DB2. Although no error is generated for other database types, there is no monitoring available for them.

PeopleTools version

The discovery process for the PeopleTools version (PS_VER) includes the following steps:

1. User-specified version:

   If the user has specified PeopleSoft version using the parameters string (-ver *version*) assume this value for the PS_VER variable. It is important not to confuse the PeopleTools version with the PeopleTools application version.

2. Switch user to PS_USER and run '`psadmin -v`' (Unix):

   If PS_USER has an interactive login, use option -ver *version* to specify the PeopleTools version.

3. Extract version information from the `peopletools.properties` file.

Although PeopleSoft does not require this file to function correctly, it is not recommended to delete it.

4. If all previous steps failed to determine the version of PeopleSoft installed on the managed node, assume 8.44 as the default version.

Tuxedo Installation

For Unix operating systems, the PeopleSoft SPI determines the value of the TUXDIR variable by searching the following files:

- `<PS_HOME>/psconfig.sh`
- `<PS_HOME>/install/psdb.sh`
- `<PS_HOME>/setup/psdb.sh`

For Microsoft Windows operating systems, the PeopleSoft SPI tries to determine the value for the variable TUXDIR automatically, from the environment.

PeopleSoft database name

The `psspi_disc.pl` retrieves the database name (PS_DBNAME) from either the `psappsrv.cfg` or the `psprcs.cfg` file.

Database home

For Oracle databases, the PeopleSoft SPI takes the value from configuration file of Oracle SPI.

Database name

The PeopleSoft SPI sends DB_NAME to the external collectors as a parameter. External collectors are provided by Smart Plug-ins for Oracle, MSSQL or DB2. For Oracle database servers, the DB_NAME is the same as PSDB_NAME. For MSSQL servers, the DB_NAME is a server name. For DB2 servers, the DB_NAME is an instance name.

PeopleSoft database owner

The owner of the PeopleSoft database is defined in PS_DBOWNER. This value is required only for Oracle database servers. The DBSPI UDM feature extracts the OWNERID from the PS.PSDBOWNER table for DBNAME=PS_DBNAME. Note that the Smart Plug-in for Oracle must be configured for this step.

Database server hostname

For Oracle database servers, the file `tnsnames.ora` is used to determine the value of the Oracle server hostname (DB_SERVER).

For DB2, the commands '`db2 list database directory`' and '`db2 list node directory`' are executed.

For MSSQL, the registry key `ODBC.INI` is analyzed.

PeopleSoft Application Servers

The `PS Discovery` tool tries to determine values for all application servers running in the PeopleSoft environment that you want to monitor with the PeopleSoft SPI.

All directories `<`*`PS_HOME`*`>/appserv/<`*`Domain`*`>` are searched for the file `psappsrv.cfg`. If the directory and file exist, the PeopleSoft SPI extracts the variables `Domain ID` and `Log Directory` from the application-server configuration file.

PeopleSoft Batch Servers

The `PS Discovery` tool tries to determine values for all process schedulers in the PeopleSoft installation you want to monitor with the PeopleSoft SPI. The discovery tool searches the following directories for the process-scheduler configuration file `psprcs.cfg`:

- `PS 7.5, PS 8: <PS_HOME>/appserv/prcs/<DB>`
- `PS 7: <PS_HOME>/prcs/<DB>`

If the directory and file are found, the SPI extracts the following variables from the process-scheduler configuration file:

- `PrcsServerName`
- `Log/Output Directory`

PeopleSoft Web Server

The `PS Discovery` tool tries to determine values for all Web Servers in the PeopleSoft environment that you want to monitor with the PeopleSoft SPI. The `psspi_disc.pl` script supports only bundled

Apache web server (Unix) and Weblogic web server. It analyzes the directory `<PS_HOME>/webserv` and determines the type of web server and the domain name.

General Discovery Strategy and Prerequisites

The PeopleSoft SPI writes the information found during the discovery phase to the `psspi.disc` file on the HPO agent. If the PeopleSoft SPI is not able to determine all PeopleSoft components automatically, you can use a text editor on the managed node to edit the `psspi.disc` file manually. After editing the file, verify the changes using the `PSSPI-Admin:Verify PS Cfg` application. For more information about the syntax required in the `psspi.disc` file, see “The psspi.disc Configuration File” on page 115.

NOTE Before you use any of the PeopleSoft SPI tools, you have to distribute the PeopleSoft SPI instrumentation to the managed node.

Assigning Nodes to Node Groups

Follow the instructions generated by the `PS Discovery` tool 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.

The appropriate PeopleSoft policies and policy groups are assigned by default to the respective PeopleSoft node groups. To automatically deploy the correct policies to the PeopleSoft nodes you add in this step, drag the PeopleSoft nodes to (and drop them into) the PeopleSoft node groups recommended by the `PS Discovery` tool.

NOTE

Web servers other than Apache and BEA WebLogic, which are bundled with PeopleTools 8 should not be assigned to the PeopleSoft SPI `PS Web Server` node group. Those web-server systems should be assigned to the node groups which are installed by the Smart Plug-in monitoring this webserver, for example: Smart Plug-in for IBM WebSphere server.

Distributing PeopleSoft SPI Policies

The PeopleSoft SPI organizes its policies into specific policy groups according to system role, for example: PeopleSoft database, application, web or batch-server systems. Dragging the PeopleSoft nodes to (and dropping them into) the PeopleSoft node groups recommended by the `PS Discovery` tool automatically assigns the appropriate PeopleSoft SPI policies. The PeopleSoft policy groups and, by implication, their contents, are assigned by default to the PeopleSoft node groups.

Since the PeopleSoft policy groups are configured as *auto deploy*, there might be no need to manually deploy the policies.

Note that the automatic deployment of policies to the PeopleSoft managed nodes does not activate the PeopleSoft SPI monitoring on those nodes.

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. 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 `<HPOAgentInstallDir>/psspi/conf/ps.cfg` and making it available to the SPI instrumentation scripts. Note that this operation may take some time to complete.

The PS Activate application also performs the following steps:

- Prepares UDM files
- Creates integration files for CODA/Performance Agent.
- Activates application definitions for Performance Manager (*Unix managed nodes only*)
- Sends configuration file ps.cfg to HPO management server.
- Prepares Tuxedo collector files (*Unix managed nodes only*).

Non-root Agent Support

This step applies to managed nodes hosting UNIX operating systems, only. If you use the `ovswitchuser` command to configure the agent to run as a non-root user, you must perform additional steps on the HPO managed node. The same steps are required if the PeopleSoft SPI is installed on an HPO managed node where the agent is already running under a non-root user account.

NOTE For managed nodes where the HPO agent is already running as a non-root user, you should perform these steps instead of discovery steps described in the section "Discovering PeopleSoft Components on the Managed Nodes" on page 42.

The script `psspi_root.pl` starts the discovery process and all options specified for `psspi_root.pl` will be redirected to `psspi_disc.pl`.

NOTE If the discovery must be restarted on the node where the HPO agent is already running as a non-root user, at first remove the file `psspi.disc` in PSSPI_CONF_DIR (`/var/opt/OV/psspi/conf` on HP-UX).

To configure the PeopleSoft SPI to run as a non-root user:

1. Login as user root to the HPO managed node.
2. Locate the `psspi_root.pl` command; by default, the command resides in the directory: `<HPO_CMDS>`
3. On the command line, enter: `./psspi_perl psspi_root.pl`

   The script `psspi_root.pl` creates the `psspi` directory structure on the HPO managed node if it does not exist yet and changes group and permissions for `psspi` directories and files. Group becomes the agent group, permissions – 0664 for files and 02775 for folders. If the Tuxedo collectors files `psspi_tuxcoa*` are located in the PSSPI_BIN_DIR (`/var/opt/OV/psspi/bin` on HP-UX), then they get permissions 0775, so that the PeopleSoft user can execute them.

The `psspi_root.pl` copies the file `psspi_sudo` from HPO_CMDS to PSSPI_BIN_DIR and sets owner root for this binary and suid bit 04750.

4. Edit `/etc/psspi.su` file to add allowed PeopleSoft users.

   The non-root agent user (any user from the agent group) can switch to any user in the `/etc/psspi.su` and execute any commands on behalf of it.

5 Using the PeopleSoft SPI

This section describes the components installed by the Smart Plug-in for PeopleSoft and how to start using them.

In this Section

This section describes the components installed by the Smart Plug-in for PeopleSoft and how to start using them. The information in this section covers the following topics:

- “The PeopleSoft SPI Managed-Node Groups”
- “The PeopleSoft SPI Tools Groups”
- “The PeopleSoft SPI User Roles”
- “The PeopleSoft SPI Policies”
- “PeopleSoft SPI Policies on Cluster Nodes”
- “Using the HP Performance Agent”

Introduction

If you are already familiar with HP Operations, you will notice that the installation and configuration of the Smart Plug-in for PeopleSoft adds a number of new pre-configured components to the GUI, specifically to the `Nodes` section, as well as to the `Policy Management` , `Tools`, `Services` and `User Roles` section.

A set of new, pre-configured node groups allow you to organize your PeopleSoft systems within HPO according to their function; that is, Application Server, Batch Server, Web Server or Database Server. For more information about the new node groups and the new users, see “The PeopleSoft SPI Managed-Node Groups” on page 56 and “The PeopleSoft SPI User Roles” on page 69.

The PeopleSoft SPI also provides a large number of tools that are conveniently organized into groups and specifically designed to help you take advantage of the powerful problem-solving capabilities of HPO to automate the control and management of problems arising in the PeopleSoft environment. For more information about which new tools are available in the Smart Plug-in for PeopleSoft, see “The PeopleSoft SPI Tools Groups” on page 57.

However, perhaps the most important component of the Smart Plug-in for PeopleSoft are the new PeopleSoft-specific policies. These policies 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 PeopleSoft SPI Policies” on page 70.

The PeopleSoft SPI Managed-Node Groups

The following HPO node groups are installed as part of the PeopleSoft SPI. Note that, initially, they are empty, that is: no nodes are assigned to the new node groups:

- `PS App Server`
- `PS Batch Server`
- `PS DB2 Server`
- `PS ORA Server`
- `PS Web Server`
- `PS Win MSS Server`

The installation of the PeopleSoft SPI assigns all pre-defined PeopleSoft SPI node groups by default to pre-defined PeopleSoft user roles, which are delivered with the PeopleSoft SPI. Setup also assigns different policy groups by default to the corresponding PeopleSoft SPI node groups.

The PeopleSoft SPI Tools Groups

After the successful installation of the Smart Plug-in for PeopleSoft, a number of new PeopleSoft SPI tool groups appear in the top-level PSSPI tool group.

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

- "The PSSPI-Admin Tools Group"

  `PSSPI-Admin` contains tools intended for HPO administrators that are working on PeopleSoft SPI administration.

- "The PSoft-Admin Tools Group"

  `PSoft-Admin` contains tools intended for HPO users working in administrative mode in the PeopleSoft environment.

- "The PSoft-Oper Tools Group"

  `PSoft-Oper` contains tools intended for HPO users working in operational mode in the PeopleSoft environment.

- "The PSoft-Reports Tools Group"

  `PSoft-Reports` contains tools intended for HPO users working in information retrieval mode.

The sections that follow describe the individual PeopleSoft tool groups in more detail, list the tools that the groups contain, and explain what the various tools do. Note that the tools listed will only work in the manner described if the Smart Plug-in for PeopleSoft is running and correctly configured on *both* the HPO management server *and* the PeopleSoft systems you want the PeopleSoft SPI to monitor.

The PSSPI-Admin Tools Group

The `PSSPI-Admin` tool group contains tools intended for HPO administrators who are working specifically on PeopleSoft SPI administration. The tools are started as agent user and either can or must be used when installing, configuring, operating, and troubleshooting the PeopleSoft SPI.

Table 5-1 on page 58 lists the tools in the `PSSPI-Admin` tool group, describes briefly what the each tools does, and indicates the command call used by the tool.

Table 5-1 PSSPI-Admin Tools

Tool Name	Description
`Activate PS Services`	Activates the generated service model for the default HPO user roles `PeopleSoft Admin` and `PeopleSoft User`. Uses the command: `psspi_actsvc.pl`
`Build PS Services`	Builds a service model for PeopleSoft environment from discovered information. Uses the command: `psspi_bldsvc.pl`
`Edit PS Cfg` (*HPO for Unix only*)	Starts a text editor (set by `EDITOR` variable or vi if the variable is not set) and opens the PeopleSoft configuration file ps.cfg. Uses the command: `psspi_spicl.pl pscfg -e`
`Edit PSSPI Cfg` (*HPO for Unix only*)	Starts a text editor (set by `EDITOR` variable or vi if the variable is not set) and opens the PSSPI configuration file psspi.cfg, which contains control options for the PeopleSoft SPI. Uses the command: `psspi_spicl.pl spicfg -e`
`Get PS Cfg`	Retrieves the discovery file from the selected managed nodes and stores them on the HPO management server. Use this tool if you have modified the discovery file manually on the managed node. Uses the command: `psspi_spicl.pl getps`

Table 5-1 PSSPI-Admin Tools (Continued)

Tool Name	Description
`PS Activate`	Activates the discovered PeopleSoft components and creates a `ps.cfg` file on the selected system. This action also copies the discovery information from the managed node to the management server Uses the command: `psspi_act.pl`.
`PS Discovery`	Discovers PeopleSoft components on the nodes you have selected. Uses the command: `psspi_disc.pl`
`PSSPI Cleanup`	Removes all files and persistent information pertaining to the PeopleSoft SPI on the selected node. Uses the command: `psspi_cleanup.pl`
`PSSPI Off`	Switches *OFF* the monitoring components of the PSSPI on the selected node. Uses the command: `psspi_spicl.pl setcfg COLLECTION FALSE`
`PSSPI On`	Switches *ON* the monitoring components of the PSSPI on the selected node. Uses the command: `psspi_spicl.pl setcfg COLLECTION TRUE`
`PSSPI Trace AUTO`	Switches to mode *AUTO* the generation of trace information from the PSSPI components (except database metrics) on the selected node. Uses the command: `psspi_spicl.pl setcfg TRACE_LEVEL AUTO`
`PSSPI Trace Off`	Switches *OFF* the generation of trace information from the PSSPI components (except database metrics) on the selected node. Uses the command: `psspi_spicl.pl setcfg TRACE_LEVEL 0`

Table 5-1 PSSPI-Admin Tools (Continued)

Tool Name	Description
`PSSPI Trace On`	Switches *ON* the generation of trace information from the PSSPI components (except database metrics) for the selected node.Uses the command: `psspi_spicl.pl setcfg TRACE_LEVEL 2`
`Self-Healing Info`	Collects troubleshooting data. Uses the command `psspi_shs.pl -standalone`
`Verify Node Inst`	Checks the installation of the PSSPI on the HPO *managed node* is correct and uses the findings to generate a report for the selected node. Uses the command: `psspi_verify.pl -n`
`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. Uses the command: `psspi_verify.pl -d`
`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. Uses the command: `psspi_verify.pl -c`
`Verify PS Srv` (*HPO for Unix only*)	Verifies that the installation of the PSSPI on the HPO *management server* is correct then uses the findings to generate a report. Uses the command: `psspi_verify.pl -s`

Table 5-1 PSSPI-Admin Tools (Continued)

Tool Name	Description
`View PS Cfg`	Displays the PeopleSoft configuration file `psspi.disc`, which lists the managed PeopleSoft components for the selected node. Uses the command: `psspi_spicl.pl pscfg -d`
`View PSSPI Cfg`	Displays the PSSPI configuration file `psspi.cfg`, which contains settings for tracing for the selected node. Uses the command: `psspi_spicl.pl spicfg -d`
`View PSSPI Error`	Displays the contents of the PSSPI error log file on the selected node. Uses the command: `psspi_spicl.pl spilog`
`View PSSPI Trace`	Displays the contents of the PSSPI trace file on the selected node. Uses the command: `psspi_spicl.pl spitrc`

The PSoft-Admin Tools Group

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

NOTE All tools in the `PSoft-Admin` tools group run under the agent_user account.

Table 5-2 on page 62 lists in alphabetical order the various tools in the `PSoft-Admin` tool group, indicates which function is called by each tool, and shows and which PeopleSoft interface is used.

Table 5-2 PSoft-Admin Tools

Tool Name	Description
`psadmin` (*HPO for Unix only*)	Starts the PeopleSoft command line tool psadmin in a new terminal window. Valid options for psadmin can be used for customization purposes. You can use option `-p` *`PS_HOME`* for multi PeopleSoft environment. Uses the Command: `psspi_inst.pl psadmin`
`tmadmin` (*HPO for Unix only*)	Starts the Tuxedo command line tool tmadmin in a new terminal window. If necessary, you can specify `-d` *`domain_name`* option to start application for this PeopleSoft domain only. All valid options for tmadmin can be used for customization (before -d option). Uses the command: `psspi_tmcl.pl tmadmin`
`tmconfig` (*HPO for Unix only*)	Starts the Tuxedo command line tool tmconfig in a new terminal window. If necessary, you can specify `-d` *`domain_name`* option to start application for this PeopleSoft domain only. All valid options for tmadmin can be used for customization (before -d option). Uses the command: `psspi_tmcl.pl tmconfig`

Table 5-2 PSoft-Admin Tools (Continued)

Tool Name	Description
`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. Using additional argument `-a` will work on all domains, whereas additional argument `-d` *`domain`* will work on the specified domain only. Uses the command: `psspi_tmcl.pl tmunloadc -f`
`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` tool group. Uses the command: `psspi_pspt.pl viewcfg`

The PSoft-Oper Tools Group

This group contains tools intended for HPO users working in operational mode. These users are responsible for resolving problems that occur within the PeopleSoft environment and are reported by HPO messages. The tools can be used to perform operational tasks on the PeopleSoft environment such as restarting servers.

NOTE All tools in the `PSoft-Oper` tools group are started run under the agent-user account.

Table 5-3 on page 64 lists in alphabetical order the various tools in the `PSoft-Oper` tool group, describes briefly how the individual tool works, and indicates which function is called by each tool and which PeopleSoft interface is used.

Table 5-3 PSoft-Oper Tools

Tool Name	Description
`Boot Adm Servers`	Boot PS administration servers for all domains (i.e. Tuxedo infrastructure processes like BBL). Command: `psspi_tmcl.pl tmboot -A`
`Boot Appl Servers`	Boot PS application servers for all domains (e.g. PeopleSoft- specific server processes like `PSAPPSRV`, `PSQCKSRV`). Command: `psspi_tmcl.pl tmboot -S`
`Boot PS Domain`	Boots a PS domain (both administration and application servers). Domain must be specified by additional arguments using `-d` *`domain`*. Command: `psspi_tmcl.pl tmboot`
`File Systems`	Displays statistics on file systems and their usage. Command: `psspi_df.pl`
`IPC Cleanup`	Purges the current IPC resources for a specific PeopleSoft installation. (Only Unix managed nodes). Command: `psspi_ipcs.pl -d`
`IPC Current`	Displays the current IPC resource statistics. (Only Unix managed nodes). Command: `psspi_ipcs.pl`

Table 5-3 PSoft-Oper Tools (Continued)

Tool Name	Description
IPC Needed	Displays the IPC resources needed to boot an additional PS domain. (Only Unix managed nodes). Command: `psspi_tmcl.pl tmboot -c`
Restart PS Domain	Shuts down and reboots a PS domain (both administration and application servers). The domain must be specified by additional arguments using `-d` *`domain`*. Command: `psspi_tmcl.pl domrestart`
Shutd. PS Domain	Shuts down a PS domain. The domain must be specified by additional arguments using `-d` *`domain`*. Command: `psspi_tmcl.pl tmshutdown`
Shutd. Adm Servers	Shuts down all the PS administration servers. Command: `psspi_tmcl.pl tmshutdown -A`
Shutd. Appl Servers	Shuts down all the PS application servers. Command: `psspi_tmcl.pl tmshutdown -S`
Start Proc Sched	Starts a process scheduler process. By default - all process schedulers. Database can be specified by additional arguments using `-d` *`DB`*. Command: `psspi_pspt.pl start`

Table 5-3 PSoft-Oper Tools (Continued)

Tool Name	Description
`Stop Proc Sched`	Stops a process scheduler process and accepts the same options as `Start Proc Sched`. Command: `psspi_pspt.pl stop`
`View APPSRV.LOG`	Displays the contents of the `APPSRV.LOG` log file of a PS domain. Command: `psspi_tmcl.pl viewlog -p`
`View PRCS Log`	Displays the contents of the latest process-scheduler log file. Command: `psspi_pspt.pl viewlog`
`View TUXLOG`	Displays the contents of the latest Tuxedo log file of a PS domain. Command: `psspi_tmcl.pl viewlog -t`

The PSoft-Reports Tools Group

This `PSoft-Reports` tools group contains tools intended for HPO users working in information-retrieval mode. The tools are granted read-only rights and may be used to create reports on the PeopleSoft environment. All tools are started as agent user.

Table 5-4 on page 67 lists in alphabetical order the various tools in the `PSoft-Reports` tool group, indicates which function is called by each tool, and shows which PeopleSoft interface is used.

Table 5-4 PSoft-Reports Tools

Tool Name	Description
PS Connections	For Oracle databases, it generates a report on the number and origin of 2-tier connections to the PeopleSoft database. For MSSQL server, it lists the currently active connections to the PS database. For DB2 database, it returns the number of current connections to the database. Command: `psspi_dbcax.pl -report_on_all_DB -r 1 -m 793`
PS Job Status	Generates a report on the status of all PeopleSoft batch jobs on the selected node. Command: `psspi_dbcax.pl -report_on_all_DB -r 2 -m 792`
PS Status	Generates a status report on all PeopleSoft components on the selected node. Command: `psspi_inst.pl status`
PS Worklist Status	Generates a report on the status of the entries in the PeopleSoft worklist table. Command: `psspi_dbcax.pl -report_on_all_DB -r 2 -m 795`
PS/TX Versions	Generates a report on the PeopleSoft/Tuxedo software version on the selected node. Command: `psspi_inst.pl version`
Proc Sched Status	Generates a status report on the PeopleSoft process scheduler. All valid options for the `pspt` command may be used. Command: `psspi_pspt.pl status`

Table 5-4 PSoft-Reports Tools (Continued)

Tool Name	Description
`TX Client Status`	Generates a report with information on the current PeopleSoft user activity. Command: `psspi_tmcl.pl tmadmin -I pclt`
`TX Queue Status`	Generates a status report on the current PeopleSoft queues. Command: `psspi_tmcl tmadmin.pl -I pq`
`TX Server Status`	Generates a status report on the current PeopleSoft servers. Command: `psspi_tmcl.pl tmadmin -I psr`

The PeopleSoft SPI User Roles

After the successful installation of the Smart Plug-in for PeopleSoft, two new HPO user roles are available for assignment to real HPO users. For details on how to assign user roles to users, please consult the HPO on-line help system.

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

- `PeopleSoft Admin` is responsible for the administrative aspects of the PeopleSoft environment
- `PeopleSoft Oper` is responsible for monitoring the operational aspects of the PeopleSoft environment

Table 5-5 on page 69 shows at a glance which new components of the Smart Plug-in for PeopleSoft are assigned by default to which new user role. These assignments can easily be reviewed and, where necessary, modified using standard HPO tools.

Table 5-5 Default User Role Assignments

New Component		PeopleSoft Admin	PeopleSoft Oper
Node Group	PS App Server	✓	✓
	PS Batch Server	✓	✓
	PS DB2 Server PS ORA Server PS Win MSS Server	✓	✓
	PS Web Server	✓	✓
Tool Group	PSSPI-Admin	✓	
	PSoft-Admin	✓	
	PSoft-Oper	✓	✓
	PSoft-Reports	✓	✓

The PeopleSoft SPI Policies

The Smart Plug-in for PeopleSoft installs a number of new policy groups which contain all the policies you need to manage the PeopleSoft environment. The following policy groups are installed by the PeopleSoft SPI and are explained in greater detail in the individual sections that follow:

- "The PSSPI-App_Server Policy Group" on page 71
- "The PSSPI-Batch_Server Policy Group" on page 73
- "The PSSPI-DB2DB_Server Policy Group" on page 73
- "The PSSPI-MSSDB_Server Policy Group" on page 74
- "The PSSPI-OraDB_Server Policy Group" on page 75
- "The PSSPI-Web_Server Policy Group" on page 78

For a complete list of all the policies which the PeopleSoft SPI installs, see "The Template Repository" on page 121. For more information about the scripts which the policies and PeopleSoft SPI monitors use, see "Policies and Templates" on page 120.

CAUTION You must not assign the top-level `SPI for PeopleSoft` policy group to a node or node group: the `SPI for PeopleSoft` policy group is a container for the other PeopleSoft-specific policy groups.

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 policy. The policies and policy groups have to be deployed using the standard HPO mechanisms. For more information on assigning and deploying templates in HPO, see "Distributing PeopleSoft SPI Policies" on page 48.

NOTE Note that only one of either the policy group `PSSPI-MSSDB_Server`, `PSSPI-DB2DB_Server` or `PSSPI-OraDB_Server` can be assigned to a single node. Which policy group is to be used depends on the database server used on this system for the PeopleSoft databases.

The PSSPI-App_Server Policy Group

Table 5-6 on page 71 lists the policies in the `PSSPI-App_Server` policy group, indicates each policy type, and describes briefly what the policy monitors. For more information about what, if any, commands the policies call, see "The Template Repository" on page 121.

On Windows managed nodes PeopleSoft SPI can monitor Tuxedo domains (Application server) only if the HPO agent user has administrative rights for the Tuxedo domain. To check the permissions granted to all users except LocalSystem, use the `psadmin` tool. The HPO agent user must be able to start up and shut down the Tuxedo domain using this tool.

Table 5-6 PSSPI-App_Server Policies

Policy Type	Policy 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 PeopleSoft domain.
	`PSSPI-OwnLogA`	Monitors the `psspi.log` log file on a managed node.
	`PSSPI-TUXLogFiles`	Monitors the `TUXLOG.`*<date>* log files for each PeopleSoft domain.
Message	`PSSPI-Messages`	Intercepts messages from the PeopleSoft SPI programs.

Table 5-6 PSSPI-App_Server Policies (Continued)

Policy Type	Policy 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.
	PSSPI-TMIB-001	Monitors the status of the Tuxedo domains of a PeopleSoft application server
	PSSPI-TMIB-002	Monitors the status of the Tuxedo machine
	PSSPI-TMIB-003	Monitors the status of the Tuxedo server group: APPSRV
	PSSPI-TMIB-004	Monitors the status of the Tuxedo server group: BASE
	PSSPI-TMIB-005	Monitors the current number of APPSRV server processes and compares the reported value with TA_MIN
	PSSPI-TMIB-006	Monitors the actual number of APPSRV server processes and compares it with TA_MAX
	PSSPI-TMIB-007	Monitors the generation number TA_MAXGEN - TA_GENERATION
	PSSPI-TMIB-008	Monitors the actual (absolute) number of APPSRV processes.
	PSSPI-TMIB-010	Monitors the number of 3-tier connections.
Schedule	PSSPI-TMIB-Col-05m	Runs the TMIB collector process to gather Tuxedo metrics every 5 mins.

The PSSPI-Batch_Server Policy Group

Table 5-7 on page 73 lists the policies in the `PSSPI-Batch_Server` policy group, indicates each policy type, and gives a brief description of what the policies monitor. For more information about what, if any, commands the policies call, see “The Template Repository” on page 121..

Table 5-7 PSSPI-Batch_Server Policies

Policy Type	Policy Name	Description
Logfile	`PSSPI-PrcsLogFiles`	Monitors the PeopleSoft process-scheduler log files.
	`PSSPI-PrcsAppSrvLogFiles`	Monitors the log file `APPSRV_<`*`DATE`*`>.LOG` for each process scheduler.
	`PSSPI-OwnLogA`	Monitors the `psspi.log` log file on a managed node.
Message	`PSSPI-Messages`	Intercepts messages from the PeopleSoft SPI programs
Monitor	`PSSPI-PrcsLogSize`	Monitors the size of the process-scheduler log directory and the disk space consumed by the process scheduler log files.
	`PSSPI-PrcsMon`	Monitors the existence of the process-scheduler process.
	`PSSPI-PrcsMon-STAT`	Monitors the existence of `PSDSTSRV`, the additional process-scheduler process.

The PSSPI-DB2DB_Server Policy Group

Table 5-8 on page 74 lists the policies in the `PSSPI-DB2DB_Server` policy group, indicates each policy type, and gives a brief description of what the policy monitors.

NOTE The policies in the PSSPI-DB2DB_Server policy group are intended for PeopleSoft database servers running the DB2 database.

For more information about what, if any, commands the policies call, see "The Template Repository" on page 121.

Table 5-8 PSSPI-DB2DB_Server Policies

Policy Type	Policy Name	Description
Logfile	`PSSPI-DB_LogFile`	Monitors the database server log table, `PS_MESSAGE_LOGPARM`. For more information, see "The PSSPI-DB_LogFile Policy" on page 77.
	`PSSPI-OwnLogA`	Monitors the `psspi.log` log file on a managed node.
Message	`PSSPI-Messages`	Intercepts messages from the PeopleSoft SPI programs
Monitor	`PSSPI-DB2SPI-4792`	Number of queue jobs.
	`PSSPI-DB2SPI-4793`	Number of database connections
	`PSSPI-PrcsJobTab`	Checks the process-scheduler table and the job-table entries.
	`PSSPI-WorkList`	Checks the PeopleSoft work-list table
Schedule	`PSSPI-DB2-Col-05min`	Runs the DBSPI or DB2SPI collector process to gather database metrics every 5 minutes

The PSSPI-MSSDB_Server Policy Group

Table 5-9 on page 75 lists the policies in the PSSPI-MSSDB_Server policy group, indicates each policy type, and gives a brief description of what the policy monitors.For more information about what, if any, commands the policies call, see "The Template Repository" on page 121.

NOTE The policies in the PSSPI-MSSDB_Server policy group are intended for PeopleSoft database servers running the Microsoft SQL Server RDBMS.

Table 5-9 PSSPI-MSSDB_Server Policies

Policy Type	Policy Name	Description
Logfile	PSSPI-DB_LogFile	Monitors the database server log table, PS_MESSAGE_LOGPARM. For more information, see "The PSSPI-DB_LogFile Policy" on page 77.
	PSSPI-OwnLogA	Monitors the psspi.log log file on a managed node.
Message	PSSPI-Messages	Intercepts messages from the PeopleSoft SPI programs
Monitor	PSSPI-DBSPI-3791	Number of employees in the PeopleSoft database.
	PSSPI-DBSPI-3792	Number of queue jobs.
	PSSPI-DBSPI-3793	Number of database connections
	PSSPI-PrcsJobTab	Checks the process-scheduler table and the job-table entries
	PSSPI-WorkList	Checks the PeopleSoft work-list table
Schedule	PSSPI-MSSQL-Col-05min	Runs the DBSPI collector process to gather DB metrics every 5 minutes.

The PSSPI-OraDB_Server Policy Group

Table 5-10 on page 76 lists the policies in the PSSPI-OraDB_Server policy group, indicates each policy type, and gives a brief description of what is monitored. For more information about what, if any, commands the policies call, see "The Template Repository" on page 121.

NOTE The policies in the PSSPI-OraDB_Server policy group are intended for use with PeopleSoft database servers running the Oracle RDBMS.

Table 5-10 PSSPI-OraDB_Server Policies

Policy Type	Policy Name	Description
Logfile	PSSPI-DB_LogFile	Monitors the database server log table, PS_MESSAGE_LOGPARM. For more information, see "The PSSPI-DB_LogFile Policy" on page 77.
	PSSPI-OwnLogA	Monitors the psspi.log log file on a managed node.
Message	PSSPI-Messages	Intercepts messages from the PeopleSoft SPI programs
Monitor	PSSPI-DBSPI-0791	Number of employees in the PeopleSoft database.
	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-PrcsJobTab	Checks the process-scheduler table and the job-table entries
	PSSPI-WorkList	Checks the PeopleSoft work-list table
Schedule	PSSPI-ORACLE-Col-05min	Runs the DBSPI or DB2SPI collector process to gather DB metrics every 5 minutes.

The PSSPI-DB_LogFile Policy

The PeopleSoft SPI policy groups `PSSPI-DB2DB_Server, PSSPI-MSSDB_Server, PSSPI-OraDB_Server` include the logfile policy `PSSPI-DB_LogFile`. The policy allows you to monitor the messages that the PeopleSoft applications write in the PeopleSoft table PS_MESSAGE_LOGPARM.

Note that it is not possible to create pre-defined conditions for the `PSSPI-DB_LogFile` policy since the format of each message varies depending on which PeopleSoft application generates it, and the user can also further configure the message's format.

By default, the `PSSPI-DB_LogFile` policy sends no messages to the console. However, two conditions in the policy can help the user to understand the format of the log-file and create their own conditions:

- `Suppress ALL messages`
- `Count of rows deleted from table`

The first condition, `Suppress ALL messages`, suppresses the forwarding of any message from PeopleSoft applications to the console. If you want to see messages generated by the PeopleSoft SPI in the console, move this suppress-all condition to the end of the list of conditions. The format of the log-file is *<data time> <jobid> <pr_name> message*, where data and time, jobid, pr_name represent the columns `DTTM_STAMP_SEC`, `JOBID` and `PROGRAM_NAME` respectively of the table `PS_MESSAGE_LOG`, and the message is extracted from the column `MESSAGE_PARM` of the table `PS_MESSAGE_LOGPARM`.

The second condition, `Count of rows deleted from table`, checks for the presence of the entry in the `PSSPI-DB_LogFile` policy and generates a message which it sends to the console.

Example 5-1 PeopleSoft Log-File Entries

```
<2007-07-21 19:46:15> <PRCSPURGAR> <PRCSPURG> Count of rows
deleted from table PSPRCSRQSTTEXT: 0 (65,307)
```

To assign the message generated by a condition to a service ID, use the PeopleSoft log-file name. The format of the PeopleSoft log-file name is *DBTYPE_PSDB*, where `DBTYPE` is the type of database used, for example: ORACLE, MSSQL or DB2, and `PSDB` is the name of the PeopleSoft database instance, for example: PT844. The Service ID can be set to `PS_SPI:<$MSG_NODE>:<$LOGFILE>`.

For example, if a condition matches and generates a message from a PeopleSoft (Oracle) database PT844 on a system called `inmon.hp.com`, the Service ID would look like the following example:
`PS_SPI:inmon.hp.com:ORACLE_PT844`

The PSSPI-Web_Server Policy Group

Table 5-11 on page 78 lists the policies in the `PSSPI-Web_Server` policy group, indicates each policy type, and gives a brief description of what is monitored. For more information about what, if any, commands the policies call, see "The Template Repository" on page 121.

Table 5-11 PSSPI-Web_Server Policies

Template Type	Template Name	Description
Logfile	`PSSPI-WebLogFiles`	Monitors the Apache log file (for PeopleSoft 8)
	`PSSPI-OwnLogA`	Monitors the `psspi.log` log file on a managed node.
Message	`PSSPI-Messages`	Intercepts messages from the PeopleSoft SPI programs
Monitor	`PSSPI-WebMon`	Monitors the existence of the main Apache or WebLogic web server (bundled with PeopleSoft).

PeopleSoft SPI Policies on Cluster Nodes

The PeopleSoft SPI policies continue to generate messages and send them to the HPO management server irrespective of whether the resource group for PeopleSoft is running on that node or not. This can lead to a situation where, after a resource group switch from node A to node B, unnecessary messages appear in the `Message Browser` window on the HPO 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 unnecessary messages from PeopleSoft systems in a cluster environment, you need to disable the PeopleSoft SPI on those nodes where the PeopleSoft components are no longer running and re-enable the PeopleSoft SPI on the managed node, where the PeopleSoft components are running again. For more information, see the following sections:

- "Disabling the PeopleSoft SPI on Cluster Nodes" on page 79
- "Enabling the PeopleSoft SPI on Cluster Nodes" on page 80

Disabling the PeopleSoft SPI on Cluster Nodes

To automatically *disable* the PeopleSoft SPI after a package switch, add the following lines to the script which is called when the HPO resource group is enabled on the managed node:

```
opctemplate -d PSSPI-AppSrvLogFiles
opctemplate -d PSSPI-AppSrvCfgFiles
opctemplate -d PSSPI-AppSrvLogSize
opctemplate -d PSSPI-TUXLogFiles
opctemplate -d PSSPI-IPC
opctemplate -d PSSPI-TMIB-Col-05m
opctemplate -d PSSPI-PrcsLogFiles
opctemplate -d PSSPI-PrcsLogSize
opctemplate -d PSSPI-PrcsMon
opctemplate -d PSSPI-PrcsMon-STAT
opctemplate -d PSSPI-PrcsJobTab
opctemplate -d PSSPI-DB2DB-Col-05min
opctemplate -d PSSPI-OraDB-Col-05min
opctemplate -d PSSPI-MSSDB-Col-05min
```

```
opctemplate -d PSSPI-WorkList
opctemplate -d PSSPI-WebLogFiles
opctemplate -d PSSPI-WebMon
```

Enabling the PeopleSoft SPI on Cluster Nodes

To automatically *enable* the PeopleSoft SPI after a package switch, add the following lines to the script which is called when the HPO package starts up after a failover. Note that the following lines must run on the managed node:

```
opctemplate -e PSSPI-AppSrvLogFiles
opctemplate -e PSSPI-AppSrvCfgFiles
opctemplate -e PSSPI-AppSrvLogSize
opctemplate -e PSSPI-TUXLogFiles
opctemplate -e PSSPI-IPC
opctemplate -e PSSPI-TMIB-Col-05m
opctemplate -e PSSPI-PrcsLogFiles
opctemplate -e PSSPI-PrcsLogSize
opctemplate -e PSSPI-PrcsMon
opctemplate -e PSSPI-PrcsMon-STAT
opctemplate -e PSSPI-PrcsJobTab
opctemplate -e PSSPI-DB2DB-Col-05min
opctemplate -e PSSPI-OraDB-Col-05min
opctemplate -e PSSPI-MSSDB-Col-05min
opctemplate -e PSSPI-WorkList
opctemplate -e PSSPI-WebLogFiles
opctemplate -e PSSPI-WebMon
```

Using the HP Performance Agent

The HPO monitors provided with the Smart Plug-in for PeopleSoft can feed the data they collect directly into the HP Software Embedded Performance Component (CODA) or the HP Performance Agent using the Data Source Integration (DSI) tools. 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 Performance agent (if installed) and, in the process, creates a DSI registration file. If the HPO 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.

Graphs which show the performance data collected by the PeopleSoft SPI may be specified manually using the embedded graphing component of the HPO console.

6 Using Service Views

This section describes how to take advantage of the service model of the PeopleSoft environment built by the Smart Plug-in for PeopleSoft.

In this Section

This section describes how to take advantage of the service model of the PeopleSoft environment built by the Smart Plug-in for PeopleSoft. The information in this section covers the following topics:

- “Service Views with the PeopleSoft SPI”
- “Viewing PeopleSoft Services”
- “Viewing PeopleSoft Instances”
- “PeopleSoft Resources and Processes”
- “Service Discovery and Activation”

Service Views with the PeopleSoft SPI

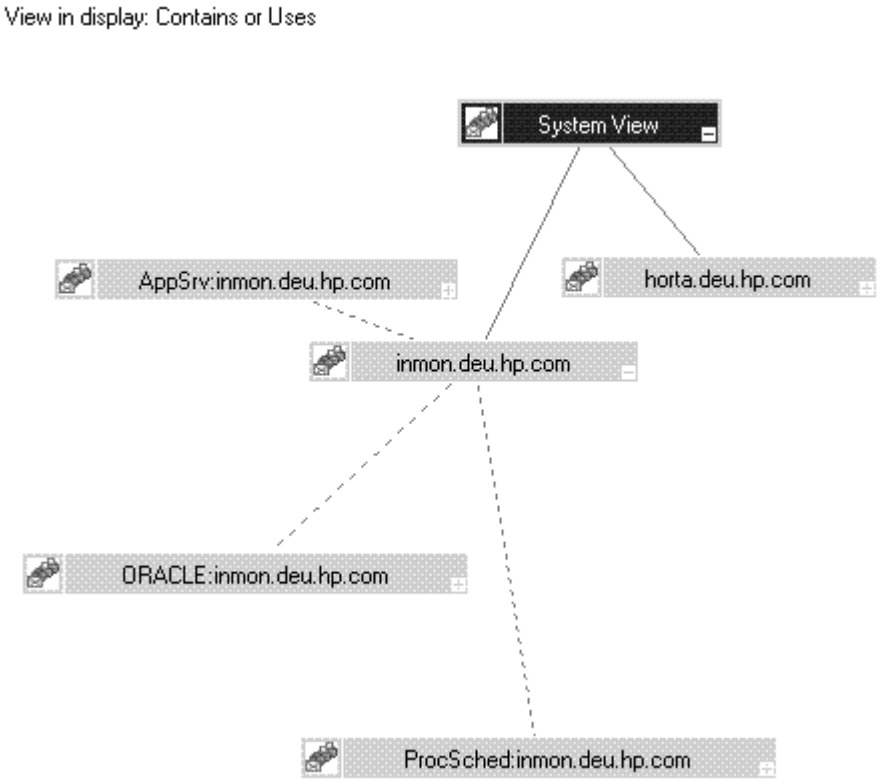
If you are using the Smart Plug-in for PeopleSoft with HP Operations for Windows, you can make use of the service model which allows you to display a logical view of all the monitored components in your user environment.

From a PeopleSoft perspective, the PeopleSoft SPI uses the service model to display all PeopleSoft components (database, application, web 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 “Viewing PeopleSoft Services” on page 86. For more information on the instance view, see “Viewing PeopleSoft Instances” on page 88.

Viewing PeopleSoft Services

The PeopleSoft SPI uses the service model to display all PeopleSoft components such as database, application, web, and batch servers as well as any dependencies in terms of the systems on which the PeopleSoft components are running. Figure 6-1 on page 86 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 PeopleSoft role is assigned to a system.

Figure 6-1 A *System* View of the PeopleSoft Environment



Each system can have different server types:

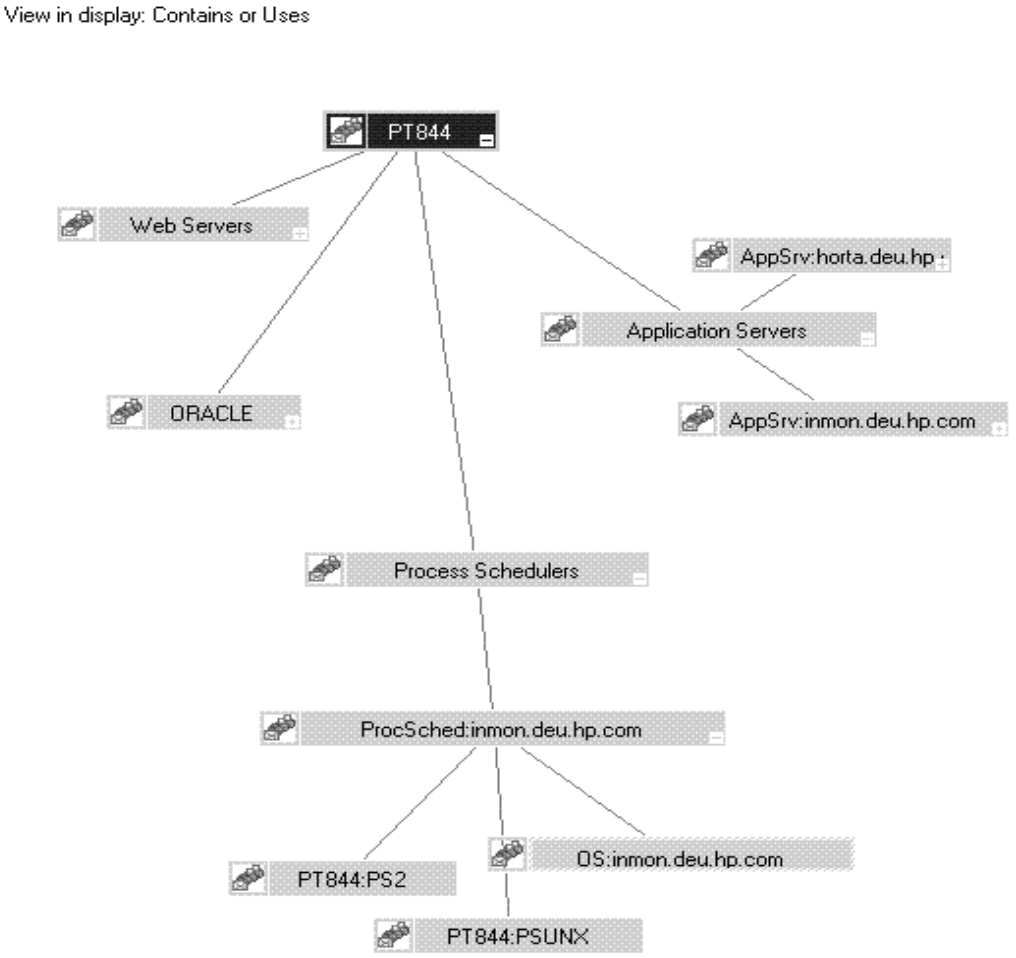
- database servers (ORACLE, MSSQL or DB2)
- application servers (AppSrv)
- batch servers (ProcSched)
- web servers (APACHE or WEBLOGIC)

Viewing PeopleSoft Instances

The PeopleSoft SPI can also use the service model to display all PeopleSoft components (database, application, web 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 6-2 on page 89 illustrates an example of just such an instance view, where `PT844` is an instance name.

Figure 6-2 An *Instance* View of the PeopleSoft Environment



PeopleSoft Resources and Processes

The Smart Plug-in for PeopleSoft monitors low-level resources and reports any failure by sending a message to the HPO 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.

The following are examples of a service name:

```
PS_SPI:horta.deu.hp.com:AppSrv

PS_SPI:horta.deu.hp.com:AppSrv:PT844_TUXDOM

PS_SPI:inmon.deu.hp.com:ProcSched

PS_SPI:inmon.deu.hp.com:ProcSched:PT844_PSUNX

PS_SPI:inmon.deu.hp.com:ORACLE_PT844

PS_SPI:horta.deu.hp.com:WEBLOGIC_peoplesoft
```

where:

- PS_SPI

  is the name space
- inmon.deu.hp.com and horta.deu.hp.com

  are the host names
- AppSrv, ProcSched, Database type (ORACLE, MSSQL, DB2)

  is the sub-group
- TUXDOM

  is the Tuxedo domain name
- PT844

  is the PeopleSoft database name
- PSUNX

  is the Process Scheduler name
- peoplesoft

is the Webserver domain name

Note that the HPO policies provided with the PeopleSoft SPI use *exactly* the same format in their service field to be able to identify the affected service when sending an HPO message.

Service Discovery and Activation

Once you have all the necessary HP Operations components installed and running, you can use the pre-defined tools provided with the PeopleSoft SPI to discover the services present in the PeopleSoft domain, build a service model, and activate it.

To build the PeopleSoft service model and activate it:

1. Open the `PSSPI-Admin` tool group.
2. Launch the `Build PS Services` tool to build a service model for the PeopleSoft environment. The `Build PS Services` tool uses the information stored in the node-specific configuration files residing in the directories created by the `PS Activation` tool:

   `<ShareDir>\SPI-Share\psspi\disc\<`*`node_name`*`>`
3. Launch `Activate PS Services` tool to activate the newly built service model for the PeopleSoft environment.

7 HPO Service Reports

This section describes the Smart Plug-in for PeopleSoft service reports and explains what data the PeopleSoft SPI collects and how.

In this Section

This section describes the Smart Plug-in for PeopleSoft service reports and explains what data the PeopleSoft SPI collects and how. The information in this section covers the following topics:

- “Data Sources”
- “PeopleSoft SPI Reports”
- “Installing PeopleSoft SPI Reports”

Data Sources

The PeopleSoft SPI collects and stores reporting data in the data source `PSSPIOSM_`*`SYSTEM`*, where *`SYSTEM`* is the short host name. For example, reporting metrics collected from system inmon.deu.hp.com are stored in the data source `PSSPIOSM_INMON`.

PeopleSoft SPI Reports

The following policies send the data to the Reporter data source: PSSPI-TMIB-Col-05m, PSSPI-PrcsMon, PSSPI-WebMon. The following Reporter table columns are filled by the monitors:

- PSSPI_METRIC_ID is 101 for availability metrics.
- PSDB_NAME is the name of PeopleSoft database.
- SERVER_NAME is the name of process scheduler, application server or web server depend on server_type.
- SERVER_TYPE can be one of the following values: PRCS, APPSRV or WEBSRV.
- OBJECT_NAME is the process name of process scheduler. The column is undefined for application and web servers.
- METRIC_VALUE_1 is 1 if the server is up and 0 if it is down.

Installing PeopleSoft SPI Reports

If you use HP Reporter, you can install the PeopleSoft SPI reports on the Reporter system so that you can customize them and apply them, as desired, to groups of systems and single systems. If you have Reporter and HPO for Windows installed on the same system, no separate installation for the PeopleSoft SPI is necessary.

However, if Reporter runs on a system separate from HPO for Windows, you must install a component for the PeopleSoft SPI that sets up PeopleSoft SPI reports within Reporter:

1. Insert the *HP Smart Plug-ins, New and Upgraded for Operations/Performance for Windows DVD* in the DVD-ROM drive of the Reporter system.
2. Run the following program to install the report package:
   `.\spis\peoplesoft spi\psspi-reporter.msi`
3. Open the Reporter main window and check the status pane to note changes to the Reporter configuration.
4. Add group and single system reports by assigning reports as desired. See more information about configuring reports in Reporter documentation.

8 Troubleshooting the PeopleSoft SPI

This section describes how to go about troubleshooting the Smart Plug-in for PeopleSoft.

In this Section

This section describes how to go about troubleshooting the Smart Plug-in for PeopleSoft. The information in this section covers the following topics:

- “General Troubleshooting Notes”
- “Determining the PeopleSoft SPI Version”
- “PeopleSoft SPI Verification Scripts”
- “PeopleSoft SPI Error Logging”
- “PeopleSoft SPI Tracing”
- “Self-Healing Integration”

General Troubleshooting Notes

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

1. Establish what version of the Smart Plug-in for PeopleSoft is installed and running. For more information, see "Determining the PeopleSoft SPI Version" on page 102.
2. Use the "verification" tools such as `Verify PS Cfg` and `Verify PSSPI Com` in the `PSSPI-Admin` tool group. These tools, 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 103.
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 104.
4. Generate information on the working of the PeopleSoft SPI, enable tracing by running the `PSSPI Trace On` application in the `PSSPI-Admin` tool group. For more information, see "PeopleSoft SPI Tracing" on page 105.
5. Collect troubleshooting data on a managed node. The collected data can then be sent to your HP support representative to help quickly resolve the SPI issue. For more information, see "Self-Healing Integration" on page 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 tools 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.
2. Run the tool `PS/TX Versions` which resides in the tool group `PSoft-Reports` to establish which version of PeopleSoft and/or Tuxedo is present.

PeopleSoft SPI Verification Scripts

The Smart Plug-in for PeopleSoft provides a number of tools such as `Verify PS Cfg` and `Verify PSSPI Com` which reside in the tool 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 tools are available to assist in the verification procedure, see “The PSoft-Admin Tools Group” on page 61.

PeopleSoft SPI Error Logging

The 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:

- HPO Management Server

  `<ShareDir>\SPI-Share\psspi\log\psspi_srv.log`

- HPO Managed Node

  `<AgentInstallDir>/psspi/log/psspi.log` (Windows)
  `<OVO_DATADIR>/psspi/log/psspi.log` (UNIX)

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

It is also useful to check the standard HPO error-log file for information:

`<AgentInstallDir>\log\OpC\opcerror` (Windows)
`<OVO_DATADIR>/log/OpC/opcerror` (UNIX)

PeopleSoft SPI Tracing

The Smart Plug-in for PeopleSoft uses perl scripts for monitors and tool startup. All perl scripts on the HPO managed node create trace information, if this is configured in the PeopleSoft SPI configuration file. By default, the tracing is set to *AUTO* mode. It means that if an error occurs, the trace information will be written in the trace file automatically.

You can switch the tracing on or off on the HPO managed node using the `PSSPI Trace On` and `PSSPI Trace Off` tools in the `PSSPI-Admin` tool group. To set the tracing to the *AUTO* mode use the `PSSPI Trace AUTO` tool. Tracing output is written to the following files:

- HPO Managed Node

  `<AgentInstallDir>/psspi/log/psspi.trc` (Windows)
  `<OVO_DATADIR>/psspi/log/psspi.trc` (UNIX)

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

- HPO Server

  `<ShareDir>\SPI-Share\psspi\log\`*`script_name.trc`*

NOTE All HPO Server perl scripts always create a trace file *`script_name`*`.trc`, but they rewrite it every time.

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

`<mm/dd/yyyy>` *`<hh:mm:ss>`* `PSSPI(`*`<program name>-<pid>`*`): `*`<text>`*

Table 8-1 on page 105 lists and describes the various fields.

Table 8-1 Trace-File Fields

Field Name	Description
`<mm/dd/yyyy>`	Date when the entry is created
`<hh:mm:ss>`	Time when the entry is created

Table 8-1 Trace-File Fields (Continued)

Field Name	Description
<program name>	Name of program (script, executable) responsible for the entry
<pid>	PID of program responsible for the entry
<text>	Detailed information on event

Self-Healing Integration

To collect troubleshooting data for HP support you can use the tool `Self-Healing Info` in the `PSSPI-Admin` tool group. The application starts the self-healing collector in stand-alone mode. The self-healing collector writes the data it collects to the files `/tmp/spi_ps` on Unix, or in `%TEMP%/spi_ps` on Windows.

A PeopleSoft SPI File Names

This section describes which files are installed by the 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

This section describes which files are installed by the 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:

- “Files on the Management Server”
- “Files on the Managed Nodes”
- “PeopleSoft Configuration Files”

Files on the Management Server

The PeopleSoft SPI exists as an MSI bundle and must be installed on the HPO management server. Note that this is usually done as part of the HP Operations setup program. Control scripts perform a number of customization procedures during installation and, in addition, create the directories listed in Table A-1 on page 111:

Table A-1 PeopleSoft SPI File Locations on the HPO Management Server

Description	Location[a]
SPI installation files	`.\install\psspi`
Instrumentation packages for managed nodes (*HPO 7.5 for Windows only*)	All paths relative to: `.\Data\Shared\Instrumentation`

	`.\AIX\5L 5.1\psspi`
	`.\AIX\5L 5.2\psspi`
	`.\AIX\5L 5.3\psspi`

	`.\HPUX\B.11.00\psspi`
	`.\HPUX\B.11.11\psspi`
	`.\HPUX\B.11.23\psspi`
	`.\HPUX\B.11.23 PI\psspi`

	`.\LINUX\Red Hat EL 2.1\psspi`
	`.\LINUX\Red Hat EL 3.0\psspi`
	`.\LINUX\Red Hat EL 4.0\psspi`
	`.\LINUX\SuSE Server 9\psspi`

	`.\Solaris\7\psspi`
	`.\Solaris\8\psspi`
	`.\Solaris\9\psspi`
	`.\Solaris\10\psspi`

	`.\Windows 2000\5.0\psspi` `.\Windows Server 2003\5.2\psspi`

Table A-1 PeopleSoft SPI File Locations on the HPO Management Server

Description	Location[a]
Instrumentation packages for managed nodes (only HPO 8.x for Windows)	`.\Data\Shared\Instrumentation\Categories\PSSPI`
SPI Reports	`.\Data\reports\psspi`
SPI Reports Configuration files	`.\newconfig\packages\newdb_PSSPI.xml` `.\newconfig\packages\reload_PSSPI.srp`

a. All paths relative to the HPO Server installation directory

Files on the Managed Nodes

After installing the Smart Plug-in for PeopleSoft on the HPO Management Server and deploying the instrumentation to the PeopleSoft systems (which become, as a result, HPO managed nodes), the components listed in Table A-2 on page 113 will reside on the managed node:

Table A-2 PeopleSoft SPI File Locations on the HPO Managed Nodes

Description	Location [a]	Created By
SPI scripts and binary files	<*OVOAGT_INSTRUMENTDIR*>	HPO agent
Non-root sudo files	<*OVO_DATADIR*>/psspi/bin	PeopleSoft SPI
SPI temporary and runtime files	<*OVO_DATADIR*>/psspi/tmp	PeopleSoft SPI
SPI log files	<*OVO_DATADIR*>/psspi/log	PeopleSoft SPI
SPI configuration files	<*OVO_DATADIR*>/psspi/conf	PeopleSoft SPI
DSI integration files	<*OVO_DATADIR*>/psspi/dsi	PeopleSoft SPI

a. All variables (like *OVO_DATADIR*) can be found by executing the command
`opcagt -type -verbose`
on the managed node.

NOTE Path separators in this section are given only for UNIX managed nodes. For Windows managed nodes use the back slash as a path separator, for example: <*OVO_DATADIR*>\psspi\conf

PeopleSoft Configuration Files

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

- "The psspi.cfg Configuration File" on page 114
- "The psspi.disc Configuration File" on page 115
- "The ps.cfg Configuration File" on page 118

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

The psspi.cfg Configuration File

The configuration file <*OVO_DATADIR*>/psspi/conf/psspi.cfg can be used to control the overall behavior of PeopleSoft SPI components on the PeopleSoft system that is managed by HPO. The following example illustrates the contents of the psspi.cfg file:

Example A-1 The psspi.cfg File on HPO Managed Nodes

```
############################################################
# File: psspi.cfg
# Description: PeopleSoft SPI configuration file.
############################################################

TRACE_LEVEL 2

############################################################
```

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 starting with a hash (#) sign are treated as comments. Table A-3 on page 115 show which keys are supported in the `psspi.cfg` file:

Table A-3 Supported Keys in the psspi.cfg File

Key	Type	Value Range	Default Setting	Description
`TRACE_LEVEL`	integer	0 - 9 or AUTO	AUTO	Trace level controls the amount of runtime tracing written by SPI processes.
`COLLECTION`	boolean	TRUE/ FALSE	TRUE	Enables/ disables the entire PeopleSoft SPI

The psspi.disc Configuration File

The `PS Discovery` tool writes its findings to the file `<OVO_DATADIR>/psspi/conf/psspi.disc`

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 activate the file again using the tool `PS Activate`.

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

`<`*`ShareDir`*`>\SPI-Share\psspi\disc\<`*`node_name`*`>`

The example below shows what kind of information is written to the `psspi.disc` file on a managed node and what the format of the file contents is.

Example A-2 The psspi.disc File on Managed Nodes

```
################################################################################
#
# File:            psspi.disc
# Description:     PeopleSoft SPI information base - filled by SPI discovery
```

```
# Language:        Config
# Package:         HP Operations Smart Plug-in for PeopleSoft
#
# (c)Copyright 1999-2006 Hewlett-Packard Company.,  All Rights Reserved.
#
################################################################################

#-------------------------------------------------------------------------
# Global PeopleSoft specific entries for this host.
#-------------------------------------------------------------------------
OS_VERS;HP-UX B.11.11
#-------------------------------------------------------------------------
# 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;PS_VER;PS_DBNAME;DB_TYPE;DB_NAME;DB_SERVER;DB_HOME;
PS_DBOWNER;TUXDIR;TUXVER;TUXBIT
#-------------------------------------------------------------------------

PS_DB

/opt/PT8.48;psoft;8.48;PT84;ORACLE;PT84;inmon.deu.hp.com;/opt/oracle/product/9.2
.0;SYSADM;/opt/tuxedo;8.1;32
END

#-------------------------------------------------------------------------
# List of Application Servers (Tuxedo Domains) used by PeopleSoft.
# Each entry has the following format:
# PS_HOME;DOMAIN;APPLOGS
#-------------------------------------------------------------------------

APPSRV
/opt/PT8.48;TUXDOM;/opt/PT8.48/appserv/TUXDOM/LOGS
END

#-------------------------------------------------------------------------
# List of PeopleSoft Process Schedulers. Each entry has the following format:
# PS_HOME;PRCS_DIR;PRCS_NAME;LOGS
#-------------------------------------------------------------------------

PRCS
/opt/PT8.48;PT84;PSUNX;/opt/PT8.48/appserv/prcs/PT84/LOGS
END

#-------------------------------------------------------------------------
# List of PeopleSoft bundled web servers as defined by PS_HOME. Each entry
# is represented by a single line having the following format:
```

```
# PS_HOME;WEB_HOME;WEB_TYPE;WEB_DOMAIN
#-------------------------------------------------------------------------

WEBSRV
/opt/PT8.48;/opt/PT8.48/webserv;WEBLOGIC;peoplesoft
END

#-------------------------------------------------------------------------
# List of File systems. Each entry has the following format:
#   Mount-point;...
#-------------------------------------------------------------------------
FILESYS
/stand;/u02;/
END
##########################################################################
# End of psspi.disc
##########################################################################
```

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_HOME*s 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 in the `Parameters` field in the HPO tool launch window. For more details about discovery options see the chapter “Discovering PeopleSoft Components on the Managed Nodes” on page 42.

The ps.cfg Configuration File

The `PS Activate` tool reads the `psspi.disc` and copies its contents to the file <*OVO_DATADIR*>`/psspi/conf/ps.cfg`, which is evaluated on the managed node by the HPO policy and tool scripts and, in addition, sent back to the HPO management server to be converted into the HPO service model. The format of the `ps.cfg` file is the same as the `psspi.disc` file. If the `PS Activate` tool is run subsequently, the old configuration is backed up to the file:

<*OVO_DATADIR*>`/psspi/conf/ps.cfg.`<*PID*>

NOTE After you have activated the configuration, you can run the `Verify PS Cfg` tool in the `PSSPI-Admin` tool group to make sure that the configuration is consistent and reflects the instance or instances present on the PeopleSoft server.

B PeopleSoft SPI Components

This section describes which components are installed by the 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.

Policies and Templates

All PeopleSoft SPI policies have the prefix `PSSPI-`. The same rule applies to all PeopleSoft SPI policy conditions, too.

Many log-file and monitor policies 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 policy by passing the list of instances which are of interest to you to the script, which the policy 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-05m` policy 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:

```
pspsi_perl psspi_tmib.pl 1-10 domain_name
```

The following sections list the scripts used by the policies available in the Smart Plug-in for PeopleSoft:

- “The Template Repository” on page 121
- “Log-File Scripts” on page 126
- “Monitor Scripts” on page 127

The Template Repository

Table B-1 on page 121 lists *all* the policies and templates provided with the Smart Plug-in for PeopleSoft.

Table B-1 All PSSPI Policies and Templates

Policy Name	Type	Description
PSSPI-AppSrvCfgFiles	Logfile	Monitors changes to the application-server configuration file, psappsrv.cfg. Uses the command call: psspi_logfile.pl -s APPSRV -l PSAPPSRVCFG
PSSPI-AppSrvLogFiles	Logfile	Monitors the application-server log file, APPSRV.LOG, for each PS domain. Uses the command call: psspi_logfile.pl -s APPSRV -l APPSRV
PSSPI-AppSrvLogSize	Monitor	Monitors the application-server log directory for the amount of disk space consumed by the APPSRV.LOG and TUXLOG.<*date*> files. Uses the command call: psspi_logsiz.pl *MonitorName* AppSrv
PSSPI-DB_LogFile	Logfile	Monitors the database server log table, PS_MESSAGE_LOGPARM. For more details, see “The PSSPI-DB_LogFile Policy” on page 77. Uses the command call: psspi_dblog.pl

Table B-1 All PSSPI Policies and Templates (Continued)

Policy Name	Type	Description
PSSPI-DB2-Col-05min PSSPI-ORACLE-Col-05min PSSPI-MSSQL-Col-05min	Schedule	Runs the DBSPI or DB2SPI collector process to gather DB metrics every *intv* minutes. In this case *intv* = 5 minutes. Note that there may be multiple templates with different *intv*. Actual data processing is done in monitors PSSPI-DBSPI-*metric* or PSSPI-DB2SPI-*metric*. Uses the command call: psspi_dbcax.pl 792,793
PSSPI-DBSPI-0791 PSSPI-DBSPI-3791	External Monitor	Number of employees in the PeopleSoft database. Metric 0791 is for Oracle, 3791 for MSSQL DB.
PSSPI-DBSPI-0792 PSSPI-DBSPI-3792 PSSPI-DB2SPI-4792	External Monitor	Number of queue jobs. Metric 0792 is for Oracle, 3792 for MSSQL DB, 4792 for DB2.
PSSPI-DB2SPI-4793	External Monitor	(*DB2 only*) Number of database connections.
PSSPI-DBSPI-0793	External Monitor	(*Oracle only*) Number of 2-tier client connections: i.e. the number of clients working in 2-tier mode.
PSSPI-DBSPI-3793	External Monitor	(*MSSQL only*) Number of database connections.
PSSPI-IPC	Monitor	(*UNIX managed nodes only*) Monitors kernel parameters for Tuxedo domains. Uses the command call: psspi_ipcmon.pl *MonitorName*
PSSPI-Messages	Message	Intercepts messages from the PeopleSoft SPI programs
PSSPI-OwnLogA	Logfile	Monitors the psspi.log log file on a managed node.

Table B-1 All PSSPI Policies and Templates (Continued)

Policy Name	Type	Description
PSSPI-PrcsAppSrvLogFiles	Logfile	Monitors the log file APPSRV_<*DATE*>.LOG for each process scheduler. Uses the command call: psspi_logfile.pl -s PRCS -l APPSRV
PSSPI-PrcsJobTab	Monitor	Checks the process-scheduler table and the job-table entries. Uses the command call: psspi_prcs.pl *MonitorName*
PSSPI-PrcsLogFiles	Logfile	Monitors the PeopleSoft process-scheduler log files. Uses the command call: psspi_logfile.pl -s PRCS -l SCHDLR
PSSPI-PrcsLogSize	Monitor	Monitors the size of the process-scheduler log directory and the disk space consumed by the process scheduler log files. Uses the command call: psspi_logsiz.pl *MonitorName* Prcs
PSSPI-PrcsMon	Monitor	Monitors the existence of the process-scheduler process. Uses the command call: psspi_pmon.pl *MonitorName*
PSSPI-PrcsMon-STAT	Monitor	(*Unix managed nodes only*) Monitors the existence of PSDSTSRV, the additional process-scheduler process. Uses the command call: psspi_pmon.pl *MonitorName* PSDSTSRV
PSSPI-TMIB-001	External Monitor	Monitors the status of the Tuxedo domains of a PeopleSoft application server

Table B-1 All PSSPI Policies and Templates (Continued)

Policy Name	Type	Description
PSSPI-TMIB-002	External Monitor	Monitors the status of the Tuxedo machine
PSSPI-TMIB-003	External Monitor	Monitors the status of the Tuxedo server group: APPSRV
PSSPI-TMIB-004	External Monitor	Monitors the status of the Tuxedo server group: BASE
PSSPI-TMIB-005	External Monitor	Monitors the actual number of APPSRV server processes and compares the reported value with TA_MIN
PSSPI-TMIB-006	External Monitor	Monitors the actual number of APPSRV server processes and compares it with TA_MAX
PSSPI-TMIB-007	External Monitor	Monitors the generation number TA_MAXGEN - TA_GENERATION
PSSPI-TMIB-008	External Monitor	Monitors the actual (absolute) number of APPSRV processes.
PSSPI-TMIB-010	External Monitor	Monitors the number of 3-tier connections.
PSSPI-TMIB-Col-05m [a]	Schedule	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*>. Uses the command call: `psspi_tmib.pl 1,5-8,10`
PSSPI-TUXLogFiles	Logfile	Monitors the TUXLOG.<*date*> log files for each PeopleSoft domain. Uses the command call: `psspi_logfile.pl -s APPSRV -l TUXLOG`

Table B-1 All PSSPI Policies and Templates (Continued)

Policy Name	Type	Description
PSSPI-WebLogFiles	Logfile	Monitors the Apache log file (for PeopleSoft 8). Uses the command call: psspi_logfile.pl -s WEBSRV -l LOGS
PSSPI-WebMon	Monitor	Monitors the existence of the main Apache or WebLogic web server (bundled with PeopleSoft). Uses the command call: psspi_websrv.pl *MonitorName*
PSSPI-WorkList	Monitor	Checks the PeopleSoft work-list table using the comand call: psspi_wrklst.pl *MonitorName*

a. If you want to split the scheduled policy into multiple policies each of which is configured to run at different intervals, make sure that only *one* of the policies is configured to feed the Performance agent. For more information, see “Monitor Scripts” on page 127.

Log-File Scripts

Table B-2 on page 126 lists the scripts used by the log-file policies.

Table B-2 Log-File Scripts

Script Name	Used by Policy	Description

`psspi_logfile.pl`	`PSSPI-AppSrvLogFiles`
	`PSSPI-PrcsAppSrvLogFiles`
	`PSSPI-PrcsLogFiles`
	`PSSPI-TUXLogFiles`
	`PSSPI-WebLogFiles`
		For UNIX managed nodes returns the names of symbolically linked log files. For Windows managed nodes returns the names of log files. Uses the command call:
		
		`psspi_logfile.pl -s` *`ServerType`* `-l` *`LogType`*
		
		where `ServerType` is one of the `APPSRV`, `PRCS` or `WEBSRV` and `LogType` is the type of logfile.

	`PSSPI-OwnLogA`	Returns the path to the PeopleSoft SPI log file `psspi.log` on a managed node. Uses the command call: `psspi_logfile.pl -s PSSPI -l AGENT`
`psspi_dblog.pl`	PSSPI-DB_LogFile	Connects to the database, extracts the data from the table PS_MESSAGE_LOGPARM, writes the logfile, and returns the logfile name. Uses the command call: `psspi_dblog.pl`

Monitor Scripts

HPO process monitors require perl scripts or programs to perform the desired monitoring. Table B-3 on page 127 lists the scripts used by the PeopleSoft SPI monitors.

The PeopleSoft SPI monitor scripts (in conjunction with the corresponding HPO monitor policies) use the object-monitoring feature. This means that the information pertaining to which objects are to be monitored resides in the scripts themselves. By default, there is only *one* policy 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 Performance agent. By default, the Performance agent integration is configured to run the collection every 5 minutes: if you change the interval make sure the value of the modified interval matches the value declared in the DDF specification. In addition, all other collector policies should specify the `-no_dsi` option as an argument to the `psspi_tmib.pl` collector script.

Table B-3 Monitor Scripts

Script Name	Used by Monitor	Description
`psspi_dbcax.pl`	PSSPI-DB-Col-intv	DB Collector: called with metric IDs in parameter list to evaluate the metrics of DBMS and PeopleSoft-specific DBs. Uses the command call (monitoring): `psspi_perl psspi_dbcax.pl` *`METRICS`* `[`*`PS_DBNAME`* `...]` where `METRICS` are metrics, `PS_DBNAME` - the PeopleSoft database name

Table B-3 Monitor Scripts (Continued)

Script Name	Used by Monitor	Description
`psspi_ipcmon.pl`	PSSPI-IPC	(*UNIX managed nodes only*) Monitors actual usage of IPC tables and passes values to HPO agent. Uses the command call: `psspi_perl psspi_ipcmon.pl` *`MONITOR`* `[`*`DOMAIN`* `...]` where `MONITOR` is a monitor name, `DOMAIN` - Tuxedo domain name. If the domain names are not specified all domains from `ps.cfg` are monitored.
`psspi_logsiz.pl`	PSSPI-PrcsLogSize PSSPI-AppSrvLogSize	Monitors the size of the process scheduler or application server log directory and the disk space consumed by the process scheduler or application server log files. Uses the command call: `psspi_perl psspi_logsiz.pl` *`MONITOR CATEGORY`* `[`*`INSTANCE`* `...]` where `MONITOR` is a monitor name, `CATEGORY` - `APPSRV` or `PRCS`, `INSTANCE` - Tuxedo domain or process scheduler name. If the domain names or process scheduler names are not specified all Tuxedo domain or process schedulers are monitored.

Table B-3 Monitor Scripts (Continued)

Script Name	Used by Monitor	Description
`psspi_pmon.pl`	PSSPI-PrcsMon PSSPI-PrcsMon-STAT	Monitors all process-scheduler processes and passes the values to the HPO monitor agent and, if configured, to Performance agent. Uses the command call: `psspi_perl psspi_pmon.pl` *`MONITOR`* `[-no_dsi|`*`ProcessName`*`]` where `MONITOR` is a monitor name, `ProcessName` - process scheduler process name. If the process scheduler process name is not specified the `PSPRCSRV` is monitored.
`psspi_prcs.pl`	PSSPI-PrcsJobTab	Monitors the process schedulers job table. Uses the command call: `psspi_perl psspi_prcs.pl` *`MONITOR`* `[`*`PSDB_NAME`*`]` where `MONITOR` is a monitor name and `PSDB_NAME` is a process-scheduler name. If the process scheduler process name is not specified all process schedulers configured in `ps.cfg` are monitored.

Table B-3 Monitor Scripts (Continued)

Script Name	Used by Monitor	Description
psspi_tmib.pl psspi_tuxcoa.65 psspi_tuxcoa.81 psspi_tuxcoa64.81 psspi_tuxcoa.65.ex psspi_tuxcoa.81.exe	PSSPI-TMIB-Col-05m	TMIB Collector: called with metric IDs in parameter list to evaluate the metrics of TMIB objects. Uses the command call: psspi_perl psspi_tmib.pl *METRICS* [-t *Prefix*] [-no_dsi] [*DOMAIN ...*] where DOMAIN is a Tuxedo domain name, Prefix - the prefix, which will be added to external monitor names, ex. CRM-PSSPI-TMIB-005_1. If the domain names are not specified all domains from ps.cfg are monitored. If -no_dsi option is specified, the data will not be sent to the Performance agent. The programs with extension .81/.81.exe are meant for Tuxedo 8.1; the programs with extension .65/.65.exe are meant for Tuxedo 6.5. psspi_tuxcoa64.81 is for 64-bit Tuxedo domains.
psspi_websrv.pl	PSSPI-WebMon	Monitors the existence of the Apache or WebLogic web server bundled with PeopleSoft 8. Uses teh command call: psspi_perl psspi_websrv.pl *MONITOR* where MONITOR is a monitor name.

Table B-3 Monitor Scripts (Continued)

Script Name	Used by Monitor	Description
`psspi_wrklst.pl`	PSSPI-WorkList	Monitors the worklist tables. Uses the command call: `psspi_perl psspi_wrklst.pl` *`MONITOR`* `[`*`PS_DBNAME`* `...]` where `MONITOR` is a monitor name, `PS_DBNAME` - a PeopleSoft database name. If the PeopleSoft database names are not specified all databases from `ps.cfg` are monitored.

C PeopleSoft SPI Commands

In this section you can find information relating to the functions used by the Smart Plug-in for PeopleSoft in tool calls. You can use these functions to create customized HPO tools.

In this Section

In this section you can find information relating to the functions used by the Smart Plug-in for PeopleSoft in tool calls. You can use these functions to create customized HPO tools. In this section you will find information concerning:

- "The psspi_act.pl Command" on page 135
- "The psspi_actsvc.pl Command" on page 136
- "The psspi_bldsvc.pl Command" on page 137
- "The psspi_cleanup.pl Command" on page 138
- "The psspi_dbcax.pl Command" on page 139
- "The psspi_df.pl Command" on page 140
- "The psspi_disc.pl Command" on page 141
- "The psspi_inst.pl Command" on page 142
- "The psspi_ipcs.pl Command" on page 143
- "The psspi_pspt.pl Command" on page 144
- "The psspi_shs.pl Command" on page 145
- "The psspi_spicl.pl Command" on page 146
- "The psspi_tmcl.pl Command" on page 147
- "The psspi_verify.pl Command" on page 148

The psspi_act.pl Command

Performs activation PSSPI on managed node.

NAME `psspi_act.pl`

SYNOPSIS `psspi_act.pl`

DESCRIPTION The command `psspi_act.pl` is used by the `PS Activate` tool. More details can be found in the chapter “Activating the Configuration on the PeopleSoft Nodes” on page 49.

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

The psspi_actsvc.pl Command

Activates the PeopleSoft service model. The command runs on HPO management server.

NAME

`psspi_actsvc.pl`

SYNOPSIS

`psspi_actsvc.pl`

DESCRIPTION

The command `psspi_actsvc.pl` loads the PeopleSoft service model into HPO Manager.

More details can be found in the chapter “Service Discovery and Activation” on page 92.

EXIT VALUES

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

The psspi_bldsvc.pl Command

Builds the PeopleSoft service model. It is started on HPO management server.

NAME

`psspi_bldsvc.pl`

SYNOPSIS

`psspi_bldsvc.pl`

DESCRIPTION

The command `psspi_bldsvc.pl` builds the PeopleSoft service model. More details can be found in the chapter “Service Discovery and Activation” on page 92.

EXIT VALUES

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

The psspi_cleanup.pl Command

Removes all files and persistent information pertaining to the PeopleSoft SPI on the node.

NAME

`psspi_cleanup.pl`

SYNOPSIS

`psspi_cleanup.pl [-y]`

DESCRIPTION

The command `psspi_cleanup.pl` with option `-y` removes all files and persistent information pertaining to the PeopleSoft SPI on the selected node. Without the option prints a warning message only.

EXIT VALUES

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

The psspi_dbcax.pl Command

Starts reports for the PeopleSoft databases.

NAME

`psspi_dbcax.pl`

SYNOPSIS

`psspi_dbcax.pl -report_on_all_DB [`*`arguments`*`]`

`psspi_dbcax.pl -report_on_one_DB` *`instance`* `[`*`arguments`*`]`

DESCRIPTION

The command `psspi_dbcax.pl` invokes a DBSPI or DB2SPI scripts depending on database type (ORACLE, MSSQL or DB2). With the option `-report_on_all_DB` the report will be started on all configured instances. For the option `-report_on_one_DB` the *`instance`* must be given. The *`arguments`* will be forwarded to external script without parsing. They must contain metric and report number. Note that DBSPI and DB2SPI must be installed and configured on the managed node.

EXIT VALUES

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

The psspi_df.pl Command

Displays statistics on file systems and their usage.

NAME `psspi_df.pl`

SYNOPSIS `psspi_df.pl` *`[fs1 fs2 ...]`*

DESCRIPTION The command `psspi_df.pl` Displays statistics on file systems *`fs1, fs2`* and their usage.

EXIT VALUES Returns the exit values from external commands (e.g. `itodiag.exe`, `df`).

The psspi_disc.pl Command

Discovers the PeopleSoft components installed on the PeopleSoft servers.

NAME

`psspi_disc.pl`

SYNOPSIS

psspi_disc.pl [-path *ps_home*] [-find] [-ver *ps_ver*]

`psspi_disc.pl [-h[elp] | -?]`

DESCRIPTION

The command psspi_disc.pl discovers the PeopleSoft components on the managed node automatically. But in some cases come options can be specified to help the script:
`-find` cause the discovery to test all directories under the specified directory or a self-found directories
`-path` use this path as a PS_HOME for discovery; *ps_home* must be *one* single parameter, i.e. must be quoted if containing spaces. There can be several parameters `-path` *ps_home*, if the command is intended for several servers.
`-ver` can be use to set the PeopleTools version (do no mix with PS Application version!), if the script fails to discover version for any reason (e.g. the psadmin user has interactive login).
More details about how the script works can be found in the chapter “Discovering PeopleSoft Components on the Managed Nodes” on page 42.

EXIT VALUES

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

The psspi_inst.pl Command

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

NAME

psspi_inst.pl

SYNOPSIS

psspi_inst.pl *command* [-p *PShome1, PShome2*] [*parameters*]

psspi_inst.pl [-h | -?]

DESCRIPTION

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

- psadmin
- 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 entries in the Parameters field of a tool or specified with a command-line option: -p pshome1,pshome2.

Additional, optional parameters can be passed to the started command-line tool using *parameters*. However, these parameters are not checked by psspi_inst.pl; they are passed by *command* as is. The -h option displays usage information and lists the options available with the function.

EXIT VALUES

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

The psspi_ipcs.pl Command

Displays the current IPC resource statistics or purges the current IPC resources for a specific PeopleSoft installation. Only for Unix managed node.

NAME

`psspi_ipcs.pl`

SYNOPSIS

`psspi_ipcs.pl [`*`parameters`*`]`

`psspi_ipcs.pl -`*`d`* `[-a |-p` *`PShome1,PShome2`*`] [-y]`

DESCRIPTION

The command `psspi_ipcs.pl` without options invokes a command line tool `ipcs` and passes *`parameters`* to it without parsing. Usually it is used to display the current IPC resource statistics.
If the option `-d` is specified, then the command purges the current IPC resources for specified PS_HOMEs. You do not need to specify PS_HOME, if there is only one PeopleSoft installation on managed node. With the option `-a` the script run the command for all PS_HOMEs. Note that only if the option `-y` is specified the resources will be purged, otherwise only the list of commands will be printed for review.

EXIT VALUES

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

The psspi_pspt.pl Command

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

NAME

`psspi_pspt.pl`

SYNOPSIS

`psspi_pspt.pl` *`command`* `[-p` *`PRCS_NAME1[:DB_NAME],PRCS_NAME2`*`]`

`psspi_pspt.pl [-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`
- `viewcfg`
- `viewlog`

All necessary environment variables are set before the script invokes *`command`*. With the option `-p` the Process Scheduler name can be set. If no ProcessScheduler name is specified, then the *`command`* is executed for all Process Schedulers. If there are several PeopleSoft databases with the same Process Scheduler name, then the Process Scheduler can be specified by format `PRCS_NAME:DB_NAME`, where `PRCS_NAME` is a Process Scheduler name, and `DB_NAME` is a PeopleSoft database name.
The `-h` option displays usage information and lists the options available with the function.

EXIT VALUES

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

The psspi_shs.pl Command

Starts Self-Healing collector to collector troubleshooting data.

NAME

`psspi_shs.pl`

SYNOPSIS

`psspi_shs.pl [`*`parameters`*`]`

DESCRIPTION

The command `psspi_shs.pl` invokes the Self-Healing collector.

Additional, optional parameters can be passed to the started command-line tool using *`parameters`*. However, these parameters are not checked by `psspi_shs`.pl; they are passed to the collector as is.

EXIT VALUES

The utility always returns a zero return code.

The psspi_spicl.pl Command

Shell script to start tasks related to the PeopleSoft SPI.

NAME

`psspi_spicl.pl`

SYNOPSIS

`psspi_spicl.pl` *`command [parameters]`*

`psspi_spicl.pl [-h | -?]`

DESCRIPTION

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

- `getps`
- `pscfg -d(isplay)`
- `setcfg <`*`LABEL`*`> <`*`VALUE`*`>`
- `spicfg -d(isplay)`
- `spilog`
- `spitrc`

The `-h` option displays usage information and lists the options available with the function.

EXIT VALUES

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

The psspi_tmcl.pl Command

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

NAME

`psspi_tmcl.pl`

SYNOPSIS

`psspi_tmcl.pl` *`command`* `[`*`parameters`*`] [-d` *`domain1,domain2`*`]`

`psspi_tmcl.pl` *`command`* `[-h |-?]`

DESCRIPTION

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

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

All necessary environment variables are set before the function invokes the tasks defined in *`command`*. If domain name is not specified, then the command is executed for all domains.
The `-h` option displays usage information and lists the options available with the function.

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

EXIT VALUES

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

The psspi_verify.pl Command

Shell script to start tasks related to the PeopleSoft SPI.

NAME

`psspi_verify.pl`

SYNOPSIS

`psspi_verify.pl [-c|-d|-n|-s]`

DESCRIPTION

The command `psspi_verify.pl` checks the installation of the PSSPI on the HPO managed node is correct (`-n`), verifies that the configuration of the managed PeopleSoft components in the `ps.cfg` file reflects the PeopleSoft environment on the node (`-d`), verifies that the communication between managed node and management server is working correctly for PeopleSoft messages (`-c`), verifies that the installation of the PSSPI on the HPO management server is correct (`-s`).

EXIT VALUES

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

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