

Oracle® Solaris Cluster Data Service for PeopleSoft Enterprise Guide

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Preface

Oracle Solaris Cluster Data Service for Oracle PeopleSoft Application Server Guide explains how to install and configure Oracle Solaris Cluster data services.

This document is intended for system administrators with extensive knowledge of Oracle software and hardware. Do not use this document as a planning or presales guide. Before reading this document, you should have already determined your system requirements and purchased the appropriate equipment and software.

The instructions in this book assume knowledge of the Oracle Solaris Operating System and expertise with the volume-manager software that is used with Oracle Solaris Cluster software.

Using UNIX Commands

This document contains information about commands that are specific to installing and configuring Oracle Solaris Cluster data services. The document does *not* contain comprehensive information about basic UNIX commands and procedures, such as shutting down the system, booting the system, and configuring devices. Information about basic UNIX commands and procedures is available from the following sources:

- Online documentation for the Oracle Solaris Operating System
- Oracle Solaris Operating System man pages
- Other software documentation that you received with your system

Typographic Conventions

The following table describes the typographic conventions that are used in this book.

TABLE P-1 Typographic Conventions

Typeface	Meaning	Example
AaBbCc123	The names of commands, files, and directories, and onscreen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. <code>machine_name%</code> you have mail.

TABLE P-1 Typographic Conventions (Continued)

Typeface	Meaning	Example
AaBbCc123	What you type, contrasted with onscreen computer output	machine_name% su Password:
<i>aabbcc123</i>	Placeholder: replace with a real name or value	The command to remove a file is <i>rm filename</i> .
<i>AaBbCc123</i>	Book titles, new terms, and terms to be emphasized	Read Chapter 6 in the <i>User's Guide</i> . A <i>cache</i> is a copy that is stored locally. Do <i>not</i> save the file. Note: Some emphasized items appear bold online.

Shell Prompts in Command Examples

The following table shows the default UNIX system prompt and superuser prompt for shells that are included in the Oracle Solaris OS. Note that the default system prompt that is displayed in command examples varies, depending on the Oracle Solaris release.

TABLE P-2 Shell Prompts

Shell	Prompt
Bash shell, Korn shell, and Bourne shell	\$
Bash shell, Korn shell, and Bourne shell for superuser	#
C shell	machine_name%
C shell for superuser	machine_name#

Related Documentation

Information about related Oracle Solaris Cluster topics is available in the documentation that is listed in the following table. All Oracle Solaris Cluster documentation is available at <http://www.oracle.com/technetwork/indexes/documentation/index.html>.

Topic	Documentation
Data service administration	<i>Oracle Solaris Cluster Data Services Planning and Administration Guide</i> Individual data service guides

Topic	Documentation
Concepts	<i>Oracle Solaris Cluster Concepts Guide</i>
Software installation	<i>Oracle Solaris Cluster Software Installation Guide</i>
System administration	<i>Oracle Solaris Cluster System Administration Guide</i>
Hardware administration	<i>Oracle Solaris Cluster 3.3 Hardware Administration Manual</i>
	Individual hardware administration guides
Data service development	<i>Oracle Solaris Cluster Data Services Developer's Guide</i>
Error messages	<i>Oracle Solaris Cluster Error Messages Guide</i>
Command and function reference	<i>Oracle Solaris Cluster Reference Manual</i>

For a complete list of Oracle Solaris Cluster documentation, see the release notes for your release of Oracle Solaris Cluster at <http://www.oracle.com/technetwork/indexes/documentation/index.html>.

Related Third-Party Web Site References

Third-party URLs that are referenced in this document provide additional related information.

Note – Oracle is not responsible for the availability of third-party web sites mentioned in this document. Oracle does not endorse and is not responsible or liable for any content, advertising, products, or other materials that are available on or through such sites or resources. Oracle will not be responsible or liable for any actual or alleged damage or loss caused or alleged to be caused by or in connection with use of or reliance on any such content, goods, or services that are available on or through such sites or resources.

Documentation and Support

See the following web sites for additional resources:

- [Documentation](http://www.oracle.com/technetwork/indexes/documentation/index.html) (<http://www.oracle.com/technetwork/indexes/documentation/index.html>)
- [Support](http://www.oracle.com/us/support/systems/index.html) (<http://www.oracle.com/us/support/systems/index.html>)

Oracle Software Resources

Oracle Technology Network (<http://www.oracle.com/technetwork/index.html>) offers a range of resources related to Oracle software:

- Discuss technical problems and solutions on the [Discussion Forums](http://forums.oracle.com) (<http://forums.oracle.com>).
- Get hands-on step-by-step tutorials with [Oracle By Example](http://www.oracle.com/technetwork/tutorials/index.html) (<http://www.oracle.com/technetwork/tutorials/index.html>).

Getting Help

If you have problems installing or using Oracle Solaris Cluster, contact your service provider and provide the following information:

- Your name and email address (if available)
- Your company name, address, and phone number
- The model number and serial number of your systems
- The release number of the Oracle Solaris Operating System (for example, Oracle Solaris 10)
- The release number of Oracle Solaris Cluster (for example, Oracle Solaris Cluster 3.3)

Use the following commands to gather information about each node on your system for your service provider.

Command	Function
<code>prtconf -v</code>	Displays the size of the system memory and reports information about peripheral devices
<code>psrinfo -v</code>	Displays information about processors
<code>showrev -p</code>	Reports which patches are installed
<code>prtdiag -v</code>	Displays system diagnostic information
<code>/usr/cluster/bin/clnode show-rev</code>	Displays Oracle Solaris Cluster release and package version information

Also have available the contents of the `/var/adm/messages` file.

Installing and Configuring Oracle Solaris Cluster HA for PeopleSoft Application Server

This chapter gives an overview of Oracle Solaris Cluster HA for PeopleSoft Application Server (HA for PeopleSoft application server) and explains how to install and configure HA for PeopleSoft application server.

This chapter contains the following sections:

- “HA for PeopleSoft Enterprise Overview” on page 9
- “Installing and Configuring HA for PeopleSoft Application Server” on page 10
- “HA for PeopleSoft Application Server Overview” on page 11
- “Planning the HA for PeopleSoft Application Server Installation and Configuration” on page 11
- “Installing and Configuring the PeopleSoft Application Server Domain” on page 13
- “Verifying Installation and Configuration of the PeopleSoft Application Server Domain” on page 14
- “Installing the HA for PeopleSoft Application Server Data Service Packages” on page 15
- “Registering and Configuring HA for PeopleSoft Application Server” on page 16
- “Verifying Installation and Configuration of the PeopleSoft Application Server Domain Resource” on page 18
- “Tuning the HA for PeopleSoft Application Server Fault Monitor” on page 18
- “Debugging HA for PeopleSoft Application Server” on page 20

HA for PeopleSoft Enterprise Overview

Use the information in this section to understand how HA for PeopleSoft Enterprise makes PeopleSoft Enterprise highly available.

HA for PeopleSoft Enterprise provides fault monitoring and automatic failover for the PeopleSoft Enterprise application to eliminate single points of failure in a PeopleSoft Enterprise system. Any PeopleSoft Enterprise application runs on the PeopleSoft Enterprise PeopleTools three-tier architecture. Oracle Solaris Cluster orchestrates the startup, shutdown, and failover

of the PeopleSoft Enterprise PeopleTools components. The following table lists the data services that protect PeopleSoft Enterprise PeopleTools components in an Oracle Solaris Cluster configuration.

TABLE 1-1 Protection of PeopleSoft Enterprise PeopleTools components

PeopleSoft Enterprise PeopleTools component	Protected by
Database server	<p>The data service for the database that you are using, for example:</p> <ul style="list-style-type: none"> ■ For the Oracle database, the data service is explained in the Oracle Solaris Cluster Data Service for Oracle Guide. ■ For the Oracle RAC database, the data service is explained in the Oracle Solaris Cluster Data Service for Oracle Real Application Clusters Guide.
Application server	<p>The data service is HA for PeopleSoft Application Server. The resource type is ORCL.PeopleSoft_app_server.</p>
Web server	<p>The data service is explained in the Oracle Solaris Cluster Data Service for WebLogic Server Guide.</p>

HA for PeopleSoft Enterprise requires that a functioning cluster with the initial cluster framework is already installed. See the [Oracle Solaris Cluster Software Installation Guide](#) for details on initial installation of clusters and data service software. You register HA for PeopleSoft Enterprise after you successfully install the basic components of Oracle Solaris Cluster and PeopleSoft Enterprise software.

Installing and Configuring HA for PeopleSoft Application Server

The following table summarizes the tasks for installing and configuring HA for PeopleSoft application server and provides cross-references to detailed instructions for performing these tasks. Perform the tasks in the order that they are listed in the table.

TABLE 1-2 Tasks for Installing and Configuring HA for PeopleSoft Application Server

Task	Instructions
1. Plan the installation	“Planning the HA for PeopleSoft Application Server Installation and Configuration” on page 11
2. Install and configure the PeopleSoft application server software	“Installing and Configuring the PeopleSoft Application Server Domain” on page 13
3. Verify the PeopleSoft application server domain installation and configuration	“Verifying Installation and Configuration of the PeopleSoft Application Server Domain” on page 14

TABLE 1–2 Tasks for Installing and Configuring HA for PeopleSoft Application Server *(Continued)*

Task	Instructions
4. Install HA for PeopleSoft application server packages	“Installing the HA for PeopleSoft Application Server Data Service Packages” on page 15
5. Register and configure HA for PeopleSoft application server resources	“Registering and Configuring HA for PeopleSoft Application Server” on page 16
6. Verify the HA for PeopleSoft application server resource installation and configuration	“Verifying Installation and Configuration of the PeopleSoft Application Server Domain Resource” on page 18
7. Tune the HA for PeopleSoft application server fault monitor	“Tuning the HA for PeopleSoft Application Server Fault Monitor” on page 18
8. Debug HA for PeopleSoft application server	“Debugging HA for PeopleSoft Application Server” on page 20

HA for PeopleSoft Application Server Overview

HA for PeopleSoft application server provides orderly startup, shutdown, fault monitoring, and automatic failover of a PeopleSoft application server domain. The PeopleSoft application server component is protected by the HA for PeopleSoft application server data service.

Planning the HA for PeopleSoft Application Server Installation and Configuration

This section contains the information you need to plan your HA for PeopleSoft application server installation and configuration.

Configuration Restrictions for HA for PeopleSoft Application Server

The configuration restrictions in the subsections that follow apply only to HA for PeopleSoft application server.

For restrictions that apply to all data services, see the [Oracle Solaris Cluster 3.3 Release Notes](#).



Caution – Your data service configuration might not be supported if you do not observe these restrictions.

- **Failover support only** - PeopleSoft application server can be configured only as a failover data service and not as a scalable data service.

- **Multiple application server domains** - The Oracle Solaris Cluster resource of resource type `ORCL.PeopleSoft_app_server` can manage exactly one PeopleSoft application server domain. To manage multiple PeopleSoft application server domains, configure multiple Oracle Solaris Cluster resources of resource type `ORCL.PeopleSoft_app_server`, each resource managing exactly one PeopleSoft application server domain.

Configuration Requirements for HA for PeopleSoft Application Server

Use the requirements in this section to plan the installation and configuration of HA for PeopleSoft application server. These requirements apply to HA for PeopleSoft application server only. You must meet these requirements before you proceed with your HA for PeopleSoft application server installation and configuration.

Information about how to install PeopleSoft Enterprise PeopleTools is published at <http://support.oracle.com/>. For PeopleSoft Enterprise PeopleTools version 8.50, refer to document ID 887277.1 and select the guide for the database you use.

For requirements that apply to all data services, see [Chapter 1, “Planning for Oracle Solaris Cluster Data Services,” in *Oracle Solaris Cluster Data Services Planning and Administration Guide*](#).



Caution – Your data service configuration might not be supported if you do not adhere to these requirements.

- **UNIX user and group** - The UNIX user and group that are used to install, operate, and manage the PeopleSoft application server domain must exist on all cluster nodes where the corresponding resource for the PeopleSoft application server domain is configured to come online.
- **File systems** - The file systems used to store the required binaries and data for the PeopleSoft application server domain must be configured on highly available local file systems. If you choose to install the binaries on local storage, install and keep them identical on all the cluster nodes. The directory specified for `Psft_Cfg_Home` must reside on a highly available local file system, which needs to be accessible where the corresponding resource for the PeopleSoft application server domain come online.
- **Environment variables** - In addition to the required environment variables that are explained in the PeopleSoft Enterprise PeopleTools installation guide, you must set up the following variables before you configure the PeopleSoft application server domain:
 - `SC_LHOSTNAME`
 - `LD_PRELOAD_32`
 - `LD_PRELOAD_64`

Set `SC_LHOSTNAME` to the logical hostname under which the PeopleSoft application server domain must be reachable from the web tier. For more details, refer to the [libscho.st.so.1\(1\)](#) man page.

Set these environment variables for the profile of the user that operates the PeopleSoft application server domain. Ensure that the login for the user is noninteractive. If you invoke as user root, you must see these variables displayed in the `psadmin` command output:

```
# su - Psft_User -c "/Psft_Home/appserv/psadmin -env"
```

- **Database tier dependency** - If the database tier is deployed on the same global cluster, the resource for the PeopleSoft application server domain must define a strong resource dependency to the resources for the database instance and database listener. This ensures that the PeopleSoft application server domain will only try to start when the corresponding database is already operational. This configuration is required for a successful startup of the PeopleSoft application server domain.
- **Database client network connection** - The database client used by the PeopleSoft application server domain configuration must be configured to connect to the network address that is managed by the cluster framework for the corresponding database server.

Installing and Configuring the PeopleSoft Application Server Domain

This section contains the procedures you need to install and configure a PeopleSoft application server domain as a cluster resource.

▼ How to Enable the PeopleSoft application server Domain to Run in a Cluster

Perform this procedure on one node of the cluster.

- 1 On a cluster node that will host the PeopleSoft application server domain, become superuser or assume a role that provides `solaris.cluster.verb` RBAC authorization.
- 2 Register the `SUNW.HAStoragePlus` resource type.

```
# clresourcetype register SUNW.HAStoragePlus
```
- 3 Create a failover resource group.

```
# clresourcegroup create Psft-failover-rg
```
- 4 Create a resource for the PeopleSoft application server domain file systems on shared storage.

```
# clresource create -g Psft-failover-rg -t SUNW.HAStoragePlus \
-p FilesystemMountPoints=Psft-mount-points Psft-has-resource
```

- 5 Create a resource for the logical hostname that will be used by the web tier to connect to the PeopleSoft application server domain.

```
# clreslogicalhostname create -g Psft_failover-rg \
-h logical-hostname logical-hostname-resource
```

- 6 Enable the failover resource group that now includes the PeopleSoft application server domain disk storage and logical host resources.

```
# clresourcegroup online -eM -n current-node Psft-failover-rg
```

▼ How to Install PeopleSoft Application Server Software

- 1 On the cluster member where the *Psft-failover-rg* resource group is online, become superuser.
- 2 Follow the instructions in “Configuring the Application Server on UNIX” within the guide for your chosen database referenced in document ID 887277.1.

When following these instructions, ensure that you observe the information in [“Configuration Requirements for HA for PeopleSoft Application Server” on page 12.](#)

Verifying Installation and Configuration of the PeopleSoft Application Server Domain

This section contains the procedure to verify successful installation and configuration of the PeopleSoft application server domain.

▼ How to Verify HA for PeopleSoft Application Server Domain Installation and Configuration

- 1 As superuser, log in to the node that currently hosts the *Psft-failover-rg* resource group.

- 2 Start the PeopleSoft application server domain.

```
# su - Psft_User -c "/Psft_Home/appserv/psadmin -c boot -d Psft_Domain"
```

- 3 Verify the status of the PeopleSoft application server domain.

```
# su - Psft_User -c "/Psft_Home/appserv/psadmin -c sstatus -d Psft_Domain"
```

- 4 Stop the PeopleSoft application server domain.

```
# su - Psft_user -c "/Psft_Home/appserv/psadmin -c shutdown -d Psft_Domain"
```

- 5 Switch the PeopleSoft application server resource group to another cluster member.
`# clresourcegroup switch -n node Psft-failover-rg`
- 6 Repeat all steps until you have tested all the potential nodes on which the PeopleSoft application server domain can run.

Installing the HA for PeopleSoft Application Server Data Service Packages

If you did not install the HA for PeopleSoft application server packages during your initial Oracle Solaris Cluster installation, perform this procedure to install the packages.

▼ How to Install the HA for PeopleSoft Application Server Data Service Packages

Perform this procedure on each cluster node where you are installing the HA for PeopleSoft application server packages.

You can run the `installer` program with a command-line interface (CLI) or with a graphical user interface (GUI). The content and sequence of instructions in the CLI and the GUI are similar.

Before You Begin

- Ensure that you have the Oracle Solaris Cluster installation media.
- If you intend to run the `installer` program with a GUI, ensure that your `DISPLAY` environment variable is set.

- 1 On the cluster node where you are installing the data service packages, become superuser.
- 2 Load the installation media into the DVD-ROM drive.
 If the Volume Management daemon `vol(1M)` is running and configured to manage DVD-ROM devices, the daemon automatically mounts the DVD-ROM on the `/cdrom` directory.
- 3 Change to the `installer` directory of the DVD-ROM.
`# cd /cdrom/cdrom0/Solaris_sparc`
- 4 Start the `installer` utility.
`# ./installer`
- 5 When you are prompted, accept the license agreement.

- 6 From the list of Oracle Solaris Cluster agents under Availability Services, select the data service for HA for PeopleSoft Enterprise.
- 7 If you require support for languages other than English, select the option to install multilingual packages.
English language support is always installed.
- 8 When prompted whether to configure the data service now or later, choose **Configure Later**.
Configure Later performs the configuration after the installation.
- 9 Follow the instructions on the screen to install the data service packages on the node.
The installer utility displays the status of the installation. When the installation is complete, the wizard displays an installation summary and the installation logs.
- 10 (GUI only) If you do not want to register the product and receive product updates, deselect the **Product Registration** option.
The Product Registration option is not available with the CLI.
- 11 Exit the installer utility.
- 12 Unload the installation media from the DVD-ROM drive.
 - a. To ensure that the DVD-ROM is not being used, change to a directory that does *not* reside on the DVD-ROM.
 - b. Eject the DVD-ROM.

```
# eject cdrom
```

Next Steps See [“Registering and Configuring HA for PeopleSoft Application Server”](#) on page 16

Registering and Configuring HA for PeopleSoft Application Server

This section contains the procedures to configure or unconfigure HA for PeopleSoft application server.

- [“How to Configure HA for PeopleSoft Application Server”](#) on page 17
- [“How to Remove an HA for PeopleSoft Application Server Domain Resource From a Failover Resource Group”](#) on page 17

▼ How to Configure HA for PeopleSoft Application Server

Before You Begin Install the data service packages during your initial Oracle Solaris Cluster installation.

If you did not install the HA for PeopleSoft application server packages as part of your initial Oracle Solaris Cluster installation, go to [“Installing the HA for PeopleSoft Application Server Data Service Packages”](#) on page 15.

- 1 On the cluster node that hosts the PeopleSoft application server domain, become superuser or assume a role that provides `solaris.cluster.modify` and `solaris.cluster.admin` RBAC authorization.

- 2 Register the `ORCL.PeopleSoft_app_server` resource type.

```
# clresourcetype register ORCL.PeopleSoft_app_server
```

- 3 Create a PeopleSoft application server domain resource in the failover resource group.

```
# clresource create -g Psft-app-failover-rg -d \
-t ORCL.PeopleSoft_app_server \
-p Psft_User=Psft-username -p Psft_Domain=Psft-domainname \
-p Psft_Home=Psft-home-directory -p Psft_Cfg_Home=Psft-config-home-directory \
-p resource_dependencies=logicalhostname-resource \
-p resource_dependencies_offline_restart=hasp-resource, Psft-app-server-resource
```

- 4 If the database tier is deployed on the same global cluster, configure a strong dependency to the resources for the database instance and database listener.

Do this even if the database tier is deployed in a different zone cluster of the same global cluster.

```
# clresource set -p resource_dependencies+=db-instance-resource,db-listener-resource \
Psft-app-server-resource
```

- 5 Enable the PeopleSoft application server domain resource.

Repeat this step for each PeopleSoft application server domain instance, if multiple instances were created.

```
# clresource status
# clresource enable Psft-app-server-resource
```

▼ How to Remove an HA for PeopleSoft Application Server Domain Resource From a Failover Resource Group

- 1 Become superuser or assume a role that provides `solaris.cluster.modify` and `solaris.cluster.admin` RBAC authorizations.

- 2 Disable and remove the resource that is used by the HA for PeopleSoft application server data service.

```
# clresource disable Psft-app-server-resource
# clresource delete Psft-app-server-resource
```

Verifying Installation and Configuration of the PeopleSoft Application Server Domain Resource

This section contains the procedure to verify successful installation and configuration of the PeopleSoft application server domain resource.

▼ How to Verify HA for PeopleSoft Application Server Domain Resource Installation and Configuration

- 1 As superuser, log in to the node that currently hosts the resource group that contains the PeopleSoft application server guest domain resource.
- 2 Switch the PeopleSoft application server domain resource group to another cluster member.

```
# clresourcegroup switch -n node Psft-app-failover-rg
```
- 3 Verify the status of the PeopleSoft application server domain instance.

```
# su - Psft_User -c "/Psft_Home/appserv/psadmin -c sstatus -d Psft_Domain"
```
- 4 Verify the status of the PeopleSoft application server domain resource.

```
# clresource status Psft-app-server-resource
```
- 5 Repeat all steps until you have tested all the potential nodes on which the PeopleSoft application server domain can run.

Tuning the HA for PeopleSoft Application Server Fault Monitor

This section describes the HA for PeopleSoft application server fault monitor's probing algorithm or functionality, and states the conditions, messages, and recovery actions associated with unsuccessful probing.

- [“Resource Properties” on page 19](#)
- [“Probing Algorithm and Functionality” on page 19](#)
- [“Operations of the PeopleSoft Application Server Probe” on page 19](#)

For conceptual information about fault monitors, see the *Oracle Solaris Cluster Concepts Guide*.

Resource Properties

The HA for PeopleSoft application server fault monitor uses the resource properties that are specified in the resource type `ORCL.PeopleSoft_app_server`. Refer to the `r_properties(5)` man page for a list of general resource properties used. Refer to “`ORCL.PeopleSoft_app_server Extension Properties`” on page 23 for a specific list of resource properties for this resource type.

Probing Algorithm and Functionality

HA for PeopleSoft application server is controlled by extension properties that control the probing frequency. The default values of these properties determine the preset behavior of the fault monitor and are suitable for most Oracle Solaris Cluster installations. You can modify this preset behavior by modifying the following settings:

- The interval between fault monitor probes (`Thorough_probe_interval`)
- The timeout for fault monitor probes (`Probe_timeout`)
- The number of times the fault monitor attempts to restart the resource (`Retry_count`)

The HA for PeopleSoft application server fault monitor checks the domain status within an infinite loop. During each cycle, the fault monitor checks the domain state and reports either a failure or success.

- If the fault monitor is successful, it returns to its infinite loop and continues the next cycle of probing and sleeping.
- If the fault monitor reports a failure, a request is made to the cluster to restart the resource. If the fault monitor reports another failure, another request is made to the cluster to restart the resource. This behavior continues whenever the fault monitor reports a failure. If successive restarts exceed the `Retry_count` within the `Thorough_probe_interval`, a request is made to fail over the resource group onto a different node.

Operations of the PeopleSoft Application Server Probe

The following explains the operations of the PeopleSoft application server probe:

- If the `control_app_server` script for the resource is still running with the start option the probe returns 100. This basically implements “wait for online” during start. Otherwise, the probe continues.

- If the output from `psadmin` for the boot option contains the string `ERROR:`, the probe returns 100 to indicate a failed start. Otherwise, the probe continues.
- If the output for the `psadmin -c sstatus -d ${Psft_Domain}` command contains the string `ERROR:`, the probe checks for the following specific message:

Can not find DBBL on master and backup nodes.

- If that string is detected, it assumes the critical BBL service has failed and tries to restart the BBL by sending the `bbc` command, using `tmadmin`. The probe returns 50, which puts the service into degraded mode. If on a subsequent probe the same error is detected, the return code is 50 again, which totals 100, resulting in a failed probe.
 - If the specific error message is not matched, the probe immediately returns 100.
 - If no error message is found, the probe continues.
- The probe checks whether at least one of each of the services that are defined as critical is running. The following services are regarded as critical:
 - BBL
 - PSAPPSRV
 - PSMONITORSRV
 - PSSAMSRV
 - PSWATCHSRV.

If the probe does not detect that all of the critical services are running, the probe returns 100, otherwise it returns 0.

- If the PeopleSoft application server guest-domain resource is repeatedly restarted and subsequently exhausts the `Retry_count` within the `Retry_interval`, and if `Failover_enabled` is set to `TRUE`, a failover to another node is initiated for the resource group.

Debugging HA for PeopleSoft Application Server

HA for PeopleSoft application server has an extension property named `debug_level`. This extension property enables you to activate debugging for PeopleSoft application server guest-domain resources.

▼ How to Activate Debugging for HA for PeopleSoft Application Server

Perform this procedure to activate debugging.

Note – To deactivate debugging, repeat all steps in this procedure with the following changes:

- Change `daemon.debug` to `daemon.notice`.
 - Change the `debug_level` property to 0.
-

1 Determine whether debugging for PeopleSoft application server domain is active.

```
# grep daemon /etc/syslog.conf
*.err;kern.debug;daemon.notice;mail.crit      /var/adm/messages
*.alert;kern.err;daemon.err                    operator
#
```

- If debugging is active, `daemon.debug` is set in the file `/etc/syslog.conf`. You do not need to continue this procedure.
- If debugging is inactive, `daemon.notice` is set in the file `/etc/syslog.conf` of the appropriate node. Perform the remaining steps in this procedure to activate debugging.

2 If debugging is inactive, edit the `/etc/syslog.conf` file in the appropriate node to change `daemon.notice` to `daemon.debug`.

3 Confirm that debugging for PeopleSoft application server domain is active.

```
# grep daemon /etc/syslog.conf
*.err;kern.debug;daemon.debug;mail.crit      /var/adm/messages
*.alert;kern.err;daemon.err                    operator
#
```

4 Restart the `syslogd` daemon.

```
# svcadm refresh svc:/system/system-log:default
```

5 Set the property `debug_level` to level 2.

```
# clresource set -p debug_level=2 Psft-app-server-resource
```


HA for PeopleSoft Application Server Extension Properties

Extension properties for HA for PeopleSoft application server resource types are described in the following section:

- “[ORCL.PeopleSoft_app_server Extension Properties](#)” on page 23

For details about system-defined properties, see the [r_properties\(5\)](#) and [rg_properties\(5\)](#) man pages.

For details about properties that are inherited from the generic data service, see the [SUNW.gds\(5\)](#) man page.

ORCL.PeopleSoft_app_server Extension Properties

The `ORCL.PeopleSoft_app_server` resource type represents the PeopleSoft application server server in an Oracle Solaris Cluster configuration. The extension properties of this resource type are as follows:

`Psft_user`

Defines the username to use to run the PeopleSoft Enterprise application server domain.

Data Type: String

Default: None

Tunable: When disabled

`Psft_Home`

Defines the installation directory for the PeopleSoft Enterprise application server binaries. Provide exactly the same value as for `PS_HOME` during configuration of the PeopleSoft application server domain. This value must match the definition in the output for `psadmin -env`.

Data Type: String

Default: None

Tunable: When disabled

Psft_Cfg_Home

Defines the directory for the PeopleSoft Enterprise application server domain configuration. If you configure this property, provide exactly the same value as for PS_CFG_HOME during configuration of the PeopleSoft application server domain. The value must match the definition in the output for psadmin -env.

Data Type: String

Default: Empty String

Tunable: When disabled

Psft_Domain

Defines the name of the PeopleSoft Enterprise application server domain.

Data Type: String

Default: None

Tunable: When disabled

Debug_level

Debug level for the control script and its functions.

Data Type: Integer

Default: 0

Tunable: Anytime

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