# HP Operations Smart Plug-in for Oracle Application Server

For HP Operations Manager for Windows®

Software Version: 7.00

# PDF version of the online help

This document is a PDF version of the online help that is available in the Oracle Application Server SPI. It is provided to allow you to print the help, should you want to do so. Note that some interactive topics are not included because they will not print properly, and that this document does not contain hyperlinks.



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# **HP Operations Smart Plug-in for Oracle Application Server**

The HP Operations Smart Plug-in for Oracle Application Server (Oracle AS SPI) is a full-featured SPI that allows you to manage Oracle Application Servers from an HP Operations Manager console. For detailed information about configuring the HP Operations Smart Plug-in for Oracle Application Server (Oracle AS SPI), refer to the *HP Operations Smart Plug-in for Oracle Application Server Installation and Configuration Guide* located on HP Operations Smart Plug-ins DVD in the file \Documentation\SPI Guides\Oracle\_AppServer\_Install\_Config.pdf.

- Overview
- Getting Started
- Components

# Overview

The Smart Plug-in for Oracle Application Server (Oracle AS SPI) is a full featured SPI that allows you to manage Oracle Application Server from an HP Operations Manager(HPOM) for Windows console. The Oracle AS SPI adds monitoring capabilities otherwise unavailable to HPOM.

**Smart Plug-in integration uses** : The Oracle AS SPI, used in conjunction with HPOM, offers centralized tools that help you monitor and manage systems using Oracle Application Server. From the HPOM console, you can monitor the availability, use, and performance of Oracle Application Servers running on HPOM managed nodes. You can set threshold values for the Oracle AS SPI metrics. When these thresholds are crossed the Oracle AS SPI generates an alarm/message. The metrics can also be consolidated into reports and graphs which help you analyze trends in server usage, availability, and performance. You can integrate the Oracle AS SPI with HP Reporter and HP Performance Manager to get additional reporting and graphing flexibility and capabilities.

**Smart Plug-in data collection:** When you install and configure the Oracle AS SPI, key server-related metrics also get installed. These metrics cover the following areas:

- server availability
- server performance
- JVM memory usage
- EJB client and method wrapper active threads, execution times, and calls processes
- servlet executing times and threads
- JSP service time and active requests
- Java message service connections and messages
- JDBC connection status
- Web application processing and open sessions
- HTTP server active connections and processed data

**Smart Plug-in uses/ customizations:** You can choose the metrics most crucial for the operation of Oracle Application Server by modifying the Oracle AS SPI policies. These policies contain settings that allow incoming data to be measured against predefined rules that generate useful information in the form of messages. These message have severity-level color-coding and can be reviewed for problem analysis and resolution. When you double-click a message, corrective actions appear under the Instructions tab and automatically generated metric reports appear under the Annotations tab.

- Getting Started
- Components

# **Getting Started**

The messaging, reporting, and action-executing capabilities of Oracle Application Server (Oracle AS SPI) Smart Plug-in are based on the HPOM concept of policies. The settings within these policies define various conditions within the Oracle Application Server. After the Oracle AS SPI policies are deployed on the managed nodes, Oracle AS SPI can gather information and send it to the HPOM management server. You can use this information to proactively address potential or existing problems and avoid serious disruptions to Web transaction processing. The Oracle AS SPI helps you perform the following functions:

#### • Collect and interpret server performance/availability information

After you configure and deploy the Oracle AS SPI on the managed nodes, the Oracle AS SPI gathers data that is interpreted and acted upon, according to settings within the deployed policies. The Oracle AS SPI policies define conditions that can occur within the Oracle Application Server, such as throughput rates and execution times. Default thresholds, set within the policies, monitor these conditions and trigger messages to the console when a threshold is exceeded.

#### • Display information

**Messages in the Message Browser:** HP Operations agent software compares the values gathered for Oracle Application Server performance/availability against related policy settings and forwards appropriate messages to the HPOM console. These messages appear with color-coded severity levels in the HPOM Message Browser.

**Instruction Text:** Messages generated by the Oracle AS SPI programs contain instruction text which you can use to diagnose and remedy problems. To view the text, double-click the message and select the **Instructions** tab.

The HPOM management server automatically triggers corrective actions preassigned to events. You can trigger these corrective actions manually also. This text is also available at metric definition .

**ASCII-Text Reports:** In addition to Instruction text, automatic action reports are generated for metrics with alarms, when a defined threshold is exceeded. These reports show conditions of a specific Oracle OC4J/OHS server instance. When a report is available, double-click the message and select the **Annotations** tab.

#### Generate reports using HP Reporter

You can integrate the Oracle AS SPI with HP Reporter to get management-ready, Web-based reports. Policies for generating these reports are included in the Oracle AS SPI Report package,

which you can install on the Reporter Windows system. After you install the Oracle AS SPI Report package and complete basic configuration, new reports of summarized, consolidated data are generated every night. These reports help you assess the performance of Oracle OC4J/OHS server over a period of time.

#### • Graph data with HP Performance Manager

You can integrate the Oracle AS SPI with HP Performance Manager to generate graphs (using the **OASSPI Admin** → **View Graphs** tool) that show the Oracle AS SPI collected metric values. If you have purchased HP Performance Manager, use it according to its instructions.

#### Customize Oracle AS SPI Policies

You can either use the Oracle AS SPI policies without customizing or you can customize them them as you find necessary. The minor modifications and major customizations that you can make are listed below:

- Modify Default Policies: Within a policy, you can change the default settings for:
  - collection interval
  - threshold
  - message text
  - duration
  - severity level of the condition
  - actions assigned to the condition (operator-initiated or automatic)

**Create Custom Policy Groups:** You can create custom policy groups using default policies as a starting point.

- Overview
- Components

# **Oracle AS SPI Components**

The Oracle Application Server Smart Plug-in (Oracle AS SPI) has two components:

- Tools
- Policies

These components allow you to configure and receive data in the form of messages, annotations, and metric reports. These messages (available in the Message Browser), annotations (available through message properties), and metric reports (available through tools) provide information about the condition and performance of the server or servers running on specific managed nodes.

You can configure the management server's connection to named server instances on managed nodes using the Oracle AS SPI configuration tools. After configuring the connection, you can assign policies to the nodes.

The HP Operations agent software that runs on the managed nodes, enables you to use the Oracle AS SPI reporting tools to generate metric reports. In addition, you can generate graphs that show the Oracle AS SPI data (available through message properties).

- Tools
- Policies
- Reports and graphs
- Getting Started
- Overview

# Tools

The Smart Plug-in for Oracle Application Server (Oracle AS SPI) tools include configuration, troubleshooting and report-generating utilities. From the HPOM console, select **Tools**  $\rightarrow$  **SPI for Oracle AS** to access the tools. The Oracle AS SPI tools are divided into four groups:

- OASSPI Admin tools group :These tools allow you to configure, control and troubleshoot Oracle AS SPI.
- Oracle AS SPI tools group : Tools in this group provide access to the functions of Oracle Application Server.
- OASSPI Reports tools group : Oracle AS SPI reports show information about the Oracle Application Server .
- OASSPI Reports (JMX) tools group : OracleAS SPI Reports (JMX) group contains ascii metric reports that display information about the condition of the Oracle Application Server (JMX). This tool group is only available for Oracle Application Server version 10gR3.

- Components
- Policies
- Getting Started

# **OASSPI** Admin tools group

OASSPI Admin tools allow you to configure, control, and troubleshoot the Oracle AS SPI.

For a detailed description of the tools, click the tool name in the table below.

Tool	Description
Create OASSPI Node Groups	Create Oracle AS SPI node groups based on discovered services.
Discover or Configure OASSPI	Launches the Configuration Editor and maintains the Oracle AS SPI configuration or sets basic configuration properties needed for discovery.
Self-Healing Info	Collects data to be sent to your HP support representative.
Start Monitoring	Starts the collection of metrics for one OC4J/OHS server or all OC4J/OHS servers on a managed node.
Stop Monitoring	Stops the collection of metrics for one OC4J/OHS server or all OC4J/OHS servers on a managed node.
Start Tracing	Starts the tracing of the collection of metrics.
Stop Tracing	Stops the tracing of the collection of metrics.
Verify	Verifies that the Oracle AS SPI is installed properly on the server or a managed node.
View Error File	Allows you to view the Oracle AS SPI error log.

- OASSPI Reports tools group
- Oracle AS SPI tools group
- OASSPI Reports (JMX) tools group

# **Create OASSPI Node Groups**

Create OASSPI Node Groups tool allows you to create OASSPI node groups based on discovered services. These node groups contain all the managed nodes on which supported versions of Oracle Application Servers are running.

If you add new managed nodes then you must run Create OASSPI Node Groups tool again to add these managed nodes to the Oracle AS SPI node groups.

## Function

Create OASSPI Node Groups performs the following functions:

- In the Nodes folder, creates the SPI for Oracle Application Server node group.
- Places all HPOM managed nodes running supported version of Oracle Application Server in the node groups.
- Assigns tools, reports, and graphs to the nodes and node groups.

### To launch Create OASSPI Node Groups tool

- 1. From the HPOM console, select Tools ---- SPI for Oracle AS ---- OASSPI Admin .
- 2. Double-click Create OASSPI Node Groups . The Tool Status window opens.
- 3. In the Launched Tools field, check the status of the tool for each node:
  - Started/Starting The tool is running.
  - Succeeded Oracle AS SPI has successfully created the node groups. Scroll to the bottom of the Tool Output field. The message "Done " appears.
  - Failed The tool did not succeed. For more information about the problem scroll through the Tool Output field .
- 4. Click **Close** to close the Tool Status window.
- 5. To verify whether the node group has been created, select Nodes SPI for Oracle Application Server . A node group for each Oracle Application Server version is created. This node group contains the managed nodes running that particular OC4J/OHS server version.

If no managed nodes are running a particular version of the OC4J/OHS server, an empty node

group is created.

# **Discover or Configure OASSPI**

You can run either the discovery or configuration using Discover or Configure OASSPI tool. The tool Discover or Configure OASSPI tool launches the configuration editor. The tool Discover or Configure OASSPI allows you to either identify instances of an Oracle Application Server on a managed node from the HPOM console (on selecting the Launch Discover Tool option) or maintain the Oracle AS SPI configuration by viewing, editing, or setting configuration properties in the configuration editor (on selecting the Launch Configure Tool option).

### Function

The following functions are performed by running the Discover tool:

- Updates the configuration on the HP Operations Manager (HPOM) management server and selected managed nodes.
- Sets the basic configuration properties required for the Oracle AS SPI to discover instances of the Oracle Application Server
- Deploys the Oracle AS SPI discovery policies
- Updates the service map

The following functions are performed by running the Configure tool:

- Updates the configuration on the HPOM management server and selected managed nodes.
- Creates the directories and files required by Oracle AS SPI on the selected managed nodes.
- Sets up data sources for reporting and graphing.
- Sets up the Oracle Application Server log files and Oracle AS SPI error log file for monitoring.

The HPOM management server maintains the configuration information for all Oracle Application servers on HP Operations Manager managed nodes. Each managed node maintains a subset of the configuration information maintained on the management server. The configuration information of Oracle Application servers on a node is maintained on that managed node.

When you make changes to the configuration using the configuration editor, the changes are always saved on the HPOM management server.

If you select a specific HPOM managed node when you launch Discover or Configure OASSPI, then configuration changes affecting Oracle Application Servers running on that node are automatically saved on the node. If you do not select a managed node then the configuration changes are *not* saved

on the managed node.

Configuration changes affecting non-selected managed nodes are saved to the configuration on the HPOM management server and *not* on the non-selected managed node. To save the changes on the node you must select the managed node and re-run the Discover or Configure OASSPI tool.

## To launch Discover or Configure OASSPI tool

To launch the Discover or Configure OASSPI tool, perform these steps:

- 1. From the HPOM console for Windows, select Tools  $\rightarrow$  SPI for Oracle AS  $\rightarrow$  SPI Admin .
- 2. Double-click **Discover or Configure OASSPI** .
- 3. Select the managed nodes on which you want to launch the tool.
- 4. Click Launch.

The "Tool Selector" window opens.

5. To run the discovery, select the Launch Discover Tool radio button and click **OK**. To run the configuration, select the Launch Configure Tool radio button and click **OK**. By default, the Launch Configure Tool radio button is selected.

See *HP Operations Smart Plug-in for Oracle Application Server Installation and Configuration Guide for Windows* for more information on how to launch Discover or Configure OASSPI tool.

# **Self-Healing Info**

Self-Healing Info tool collects data that you can send to your HP support representative.

The data collected by the Self-Healing Info tool is saved in the following file:

- On a UNIX managed node: /tmp/wasspi\_oas\_support.tar
- On a Windows managed node: <code>wasspi\_oas\_support.zip</code> in <code>%TEMP%</code> directory.

### **NOTE:**

## **Required Setup**

If you are collecting data for a problem that can be reproduced, then before launching the Self-Healing Info tool:

- 1. Launch the Start Tracing tool.
- 2. Reproduce the problem.

# **Start Monitoring**

When you run the Start Monitoring tool, the Oracle AS SPI starts collecting metrics for OC4J/OHS server instances on a managed node.

## Function

Start Monitoring tool enables Oracle AS SPI to start collecting the metrics for one or all the OC4J/OHS servers on a managed node.

These metrics generate alarms when thresholds are exceeded. You can also use the metrics to create reports (automatically or manually generated) and graphs. These reports and graphs are used to analyze trends in server usage, availability and performance.

Run the Verify tool to check whether the monitoring has started or stopped. By default, monitoring is on.

## **To launch Start Monitoring tool**

- 1. From the HPOM console, select Tools  $\rightarrow$  SPI for Oracle AS  $\rightarrow$  OASSPI Admin .
- 2. Double-click Start Monitoring .
- 3. Select the managed nodes on which you want to start metric collection.
- 4. Click Launch . The Console Status window and then the Oracle AS SPI Admin Console opens.
- 5. From the Oracle AS SPI Admin Console, select one application server or all application servers on which you want to start metric collection.
- 6. Click **OK** .
- 7. From the Console Status window in the Launched Tool field, check the status of the tool for each node:
  - Started/Starting The tool is running.
  - Finished The Start Monitoring process is complete. For more information scroll through the Tool Output field.
- 8. Click **Close** to close the Console Status window.

# **Stop Monitoring**

When you run the Stop Monitoring tool, the Oracle AS SPI stops collecting metrics for one or all the OC4J/OHS servers on a managed node.

### Function

Stop Monitoring tool stops the collection of metrics for one or all the OC4J/OHS servers on a managed node.

These metrics generate alarms when thresholds are exceeded. You can also use the metrics to create reports (automatically or manually generated) and graphs. These reports and graphs are used to analyze trends in server usage, availability and performance.

Run the Verify tool to check whether the monitoring has started or stopped. By default, monitoring is on.

### **To launch Stop Monitoring tool**

- 1. From the HPOM console, select Tools ---- SPI for Oracle AS ---- OASSPI Admin .
- 2. Double-click Stop Monitoring.
- 3. Select the managed nodes on which you want to stop metric collection.
- 4. Click Launch . The Console Status window and then the Oracle AS SPI Admin Console opens.
- 5. From the Oracle AS SPI Admin Console, select one application server or all application servers on which you want to stop metric collection.
- 6. Click **OK** .
- 7. From the Console Status window in the Launched Tool field, check the status of the tool for each node:
  - Started/Starting The tool is running.
  - Finished The monitoring process is complete. For more information scroll through the Tool Output field.
- 8. Click **Close** to close the Console Status window.

# **Start Tracing**

When you launch the Start Tracing tool, Oracle AS SPI starts gathering the information about each of the activity performed by the SPI on the managed node in a file. You must run this tool only when instructed by your HP support representative.

Self-Healing Info tool collects the files created by the Start Tracing tool as part of its data. This data is used by the HP support representative.

### Function

Start Tracing starts gathering the information about each of the activity performed by the SPI on the managed node in a file. You must run this tool only when instructed by your HP support representative.

### To launch Start Tracing tool

- 1. From the HPOM console, select Tools  $\rightarrow$  SPI for Oracle AS  $\rightarrow$  OASSPI Admin .
- 2. Double-click Start Tracing .
- 3. Select the managed nodes on which you want to start the tracing.
- 4. Select Launch. The Tool Status window opens.
- 5. Check the status of the tool for each node, in the Launched Tools field:
  - Started/Starting The tool is running.
  - Succeeded Tracing successfully started for Oracle AS SPI on the managed node. Select the node in the Launched Tools field and scroll to the end of the Tool Output field. The message "Tracing is ON." appears.
  - Failed The tool did not succeed. For more information about the problem select the node in the Launched Tools field and scroll through the Tool Output field.
- 6. Select **Close** to close the Tool Status window.

# **Stop Tracing**

When you run the Stop Tracing tool the Oracle AS SPI stops gathering the information about each of the activity performed by the SPI on the managed node. Run this tool only when instructed by your HP support representative..

### Function

Stop Tracing stops gathering/saving the information about each of the activity performed by the SPI on the managed node. Run this tool only when instructed by your HP support representative..

### To launch Stop Tracing tool

- 1. From the HPOM console, select Tools  $\rightarrow$  SPI for Oracle AS  $\rightarrow$  OASSPI Admin .
- 2. Double-click Stop Tracing .
- 3. Select the managed nodes on which you want to stop the tracing.
- 4. Select Launch . The Tool Status window opens.
- 5. In the Launched Tools field, check the status of the tool for each node:
  - Started/Starting The tool is running.
  - Succeeded Tracing successfully stopped for Oracle AS SPI on the managed node. Select the node in the Launched Tools field and scroll to the end of the Tool Output field. The message "Tracing is OFF." appears.
  - Failed The tool did not succeed. For more information about the problem select the node in the Launched Tools field and scroll through the Tool Output field.
- 6. Select **Close** to close the Tool Status window.

# Verify

The tool Verify enables you to verify whether the files required for the functioning of the SPI (instrumentation, library, configuration files, and so on) are properly deployed.

## Function

The Verify tool verifies whether the files required for the functioning of the SPI (instrumentation, library, configuration files, and so on) are properly deployed. It gives a list of missing instrumentation files.

#### NOTE:

Before you launch the Verify tool ensure that you have installed the latest version of Self-Healing Service (SHS) component from the SPI DVD.

### To launch Verify tool

- 1. From the HPOM console, select Tools  $\rightarrow$  SPI for Oracle AS  $\rightarrow$  OASSPI Admin .
- 2. Double-click Verify .
- 3. Select the managed nodes on which you want to verify the Oracle AS SPI installation.
- 4. Click **Launch**. The Tool Status window opens.
- 5. In the Launched Tools field, check the status of the tool for each node:
  - Started/Starting The tool is running.
  - Succeeded Oracle AS SPI is installed properly on the managed node. Select the node in the Launched Tools field and scroll to the end of the Tool Output field. The message "Installation is clean" appears.
  - Failed The tool did not succeed. For more information about the problem select the node in the Launched Tools field and scroll through the Tool Output field.
- 6. Click **Close** to close the Tool Status window.

# **View Error Log**

You can use the View Error Log tool to view the contents of the Oracle AS SPI error log file.

#### Function

View Error Log displays the contents of the Oracle AS SPI error log file *<OvAgentDir>* /wasspi/oas/log/errorlog where *<AgentDir>* typically is:

- On UNIX managed nodes: /var/opt/OV or /var/lpp/OV
- On Windows Managed Nodes: \Program Files\HP\HP BTO Software\

### To launch View Error Log tool

- 1. From the HPOM console, select Tools  $\rightarrow$  SPI for Oracle AS  $\rightarrow$  OASSPI Admin .
- 2. Double-click View Error Log.
- 3. Select the managed nodes on which you want to view the Oracle AS SPI error log file.
- 4. Click Launch. The Tool Status window opens.
- 5. In the Launched Tools field, check the status of the tool for each node:
  - Started/Starting The tool is running.
  - Succeeded You can view the Oracle AS SPI error log file. Select the node in the Launched Tools field and scroll through the Tool Output field to view the error log file.
  - Failed The tool did not succeed. For more information about the problem select the node in the Launched Tools field and scroll through the Tool Output field.
- 6. Click **Close** to close the Tool Status window.

# **Oracle AS SPI tools group**

The tools in the Oracle AS SPI group provide you access to the functions of Oracle Application Server from the HPOM console.

For a detailed description of the tools, click the tool name in the table below.

Tool	Description
Launch Oracle AS Console	Launches the Oracle Application Server Admin Console in a web browser.
Start Oracle AS	Starts the Oracle Application server (requires setup).
Stop Oracle AS	Stops the Oracle Application server (requires setup).
View OAS Logs	Allows you to view the Oracle Application server log files.
View Status	Does an interactive status check of the Oracle Application server.

- OASSPI Reports tools group
- OASSPI Reports (JMX) tools group
- OASSPI Admin tools group

# Launch Oracle AS Console

By running the Launch Oracle AS Console tool you can bring up the Oracle Application Server Control Console.

## **Required Setup**

Install OracleAS Enterprise Manager on the managed node to launch the Oracle Enterprise Manager Database Control.

### Function

Launch Oracle AS Console tool launches the following:

• Oracle Application Server Admin Console: Launch Oracle AS Console brings up the Oracle Application Server Admin Console in a web browser for a single application server or all application servers on the selected node.

## To launch Oracle AS Console tool

- 1. From the HPOM console, select Tools  $\rightarrow$  SPI for Oracle AS  $\rightarrow$  OracleAS SPI .
- 2. Double-click Launch Oracle AS Console .
- 3. Select the managed nodes to configure.
- 4. Click Launch . The Oracle AS SPI Admin Console opens in a web browser.
- 5. Select one or more application servers that you want to start.
- 6. Click **Cancel** to quit the tool.

- Start OracleAS
- Stop OracleAS
- View OAS Logs
- View Status

- OASSPI Reports tools group
- OASSPI Admin tools group
- OASSPI Reports (JMX) tools group

# **Start Oracle AS**

You can start one or more instances of Oracle Application Servers from the HP Operations Manager (HPOM) console by running the Start OracleAS tool, without logging in to each individual Oracle Application Server Control Consoles.

#### Function

Start OracleAS tool allows you to start one or all application servers on the selected managed nodes.

### **To launch Start OracleAS tool**

- 1. From the HPOM console, select Tools --> SPI for Oracle AS --> Oracle AS SPI .
- 2. Double-click Start Oracle AS.
- 3. Select the managed nodes on which you want to start Oracle Application Server.
- 4. Click Launch. The Console Status window and then the Oracle AS SPI Admin Console open.
- 5. From the Oracle AS SPI Admin Console, select one or more application servers to start.
- 6. Click **OK** .
- 7. From the Console Status window in the Launched Tool field, check the status of the tool for each node:
  - Started/Starting The tool is running.
  - Finished The process is complete. For more information scroll through the Tool Output field.
- 8. Click **Close** to close the Console Status window.

- Launch Oracle AS Console
- Stop OracleAS
- View OAS Logs
- View Status
- OASSPI Reports tools group
- OASSPI Admin tools group
- OASSPI Reports (JMX) tools group

## **Stop Oracle AS**

You can stop one or more application servers on the selected managed nodes without logging in to individual Oracle Application Server Control Consoles.

### Function

Stop Oracle AS tool allows you to stop one or all application servers on the selected managed nodes.

### To launch Stop Oracle AS tool

- 1. From the HPOM console, select Tools  $\rightarrow$  SPI for Oracle AS  $\rightarrow$  Oracle AS SPI .
- 2. Double-click Stop Oracle AS .
- 3. Select the managed nodes on which you want to stop Oracle Application Server
- 4. Click Launch . The Console Status window and then the Oracle AS SPI Admin Console open.
- 5. From the Oracle AS SPI Admin Console, select one or more application servers to stop.
- 6. Click **OK** .
- 7. From the Console Status window in the Launched Tool field, check the status of the tool for each node:
  - Started/Starting The tool is running.
  - Finished The process is complete. For more information scroll through the Tool Output field.
- 8. Click **Close** to close the Console Status window.

#### **Related Topics:**

- Launch Oracle AS Console
- Start OracleAS
- View OAS Logs
- View Status
- OASSPI Reports tools group
- OASSPI Admin tools group

• OASSPI Reports (JMX) tools group

## **View OAS Logs**

You can use View OAS Logs tool to view Oracle Application Server log files without logging in to the system on which the Oracle Application Server is running.

#### Function

View OAS Logs tool performs the following functions:

- If you run View OAS Logs without a parameter, the tool displays a numbered list of available log files for the selected managed node.
- If you run View OAS Logs with an invalid parameter (a non numeric value or a number that does not correspond to the list of available log files), the tool displays a numbered list of available log files for the selected managed node.
- If you run View OAS Logs with an valid parameter, the tool displays the contents of the corresponding log file for the selected managed node.

You can enter only one numeric value in the parameter field and view the log file corresponding to that number.

Select one log file to view per managed node every time you launch the View OAS Logs tool.

If you keep the Application Status window open and relaunch the tool, the output in the Application Status window accumulates.

### To launch View OAS Logs tool

- 1. From the HPOM console, select Tools --> SPI for Oracle AS --> Oracle AS SPI .
- 2. Double-click View OAS Logs.
- 3. Select the managed nodes for which you want to view the Oracle Application Server log file.
- 4. Click **Launch**. The Edit Parameters window opens. If you know the number of the log file you want to view, enter it into the Parameters field. Otherwise, leave this field blank. The tool will list all log files available for viewing.
- 5. Click Launch . The Tool Status window opens.
- 6. In the Launched Tools field, check the status of the tool for each node:

- Started/Starting The tool is running.
- Succeeded A list of log files available for viewing appears. Select the node in the Launched Tools field and scroll through the Tool Output field to view the list of available log files.
- Failed The tool did not succeed. For more information about the problem select the node in the Launched Tools field and scroll through the Tool Output field.

Do not close the Tool Status window yet.

- 7. Double-click View OAS Logs.
- 8. Select the managed nodes for which you want to view the Oracle Application Server log file.
- 9. Click Launch . The Edit Parameters window opens.
- 10. In the Parameters box, enter the number of the log file you want to view. Only one log file can be selected.

#### 🔍 NOTE:

If you do not remember the number of the log file, go to the Tool Status window, select the node in the Launched Tools field, scroll through the Tool Output field to view the list of available log files, and enter the number of the log file you want to view in the Parameters box.

#### 11. Click Launch.

- 12. In the Tool Status window, select the node for which you want to view the selected log file and scroll through the Tool Output field to view the log file.
- 13. Repeat steps 7 12 for each log file that you want to view.
- 14. After viewing the log files, Click Close to close the Tool Status window.

#### **Related Topics:**

- Launch Oracle AS Console
- Start OracleAS
- Stop OracleAS
- View Status
- OASSPI Reports tools group
- OASSPI Admin tools group
- OASSPI Reports (JMX) tools group

### **View Status**

The View Status tool displays a status report of the Oracle Application Servers running on a selected managed node. You can use this tool to check the status of each application server running on the node.

### Function

The View Status tool displays the following information for each application server on the selected managed nodes:

Server Name	The name of the Oracle Application Server.
Server State	The status of Oracle Application Server.
Start Date	The date on which the Oracle Application Server was started.
Admin Server State	The status of the Oracle Application Server Administrative Console.
Admin Server Start Date	The date on which the Oracle Application Server Administrative Console was started.

If the Oracle AS SPI has been configured not to collect metrics for Oracle Application Server, the following message appears:

Collection is temporarily OFF for <server\_name >.

### To launch View OAS Logs tool

- 1. From the HPOM console, select Tools --> SPI for Oracle AS --> Oracle AS SPI .
- 2. Double-click View Status .
- 3. Select the managed nodes for which you want to view the status of the OC4J/OHS servers.
- 4. Click Launch . The Tool Status window displays.
- 5. In the Launched Tools field, check the Status of the tool for each node:
  - Started/Starting The tool is running.
  - Succeeded A status report is available for each instance of the Oracle Application Server on the managed node. Select the node in the Launched Tools field and scroll through the Tool

Output field.

- Failed The tool did not succeed. For more information about the problem, select the node in the Launched Tools field and scroll through the Tool Output field .
- 6. Click **Close** to close the Tool Status window.

### **R** elated Topics:

- Launch Oracle AS Console
- Start OracleAS
- Stop OracleAS
- View OAS Logs
- OASSPI Reports tools group
- OASSPI Admin tools group
- OASSPI Reports (JMX) tools group

### **OASSPI Reports tools group**

OASSPI reports show information on Oracle Application Server conditions in the server. Each report shows the condition of all configured server instances on the managed node in relation to the metric.

To manually generate a report, do the following:

- 1. From the HPOM console, select Tools  $\rightarrow$  SPI for Oracle AS  $\rightarrow$  OASSPI Reports .
- 2. Double-click a report.
- 3. Select the node for which you want to generate the report.
- 4. Select Launch.

### **Oracle AS SPI Reports Generated from Alarms**

An Oracle AS SPI report can also be generated by an alarm condition. The report is *automatically* generated in such a situation. Reports generated from alarms are context sensitive and relate only to a single server on the managed node. The alarm condition generates the information in the report. To view the report right-click the message and select **Annotations**.

When you configure your message browser to display the *A* column, an "S" under the *A* column (adjacent to the message) indicates that the report is generated *successfully* and is waiting in the Annotations of the message.

### **Oracle AS SPI Metric Reports Description**

Click the metric name in the table below to get detailed description of the metric.

Name/Associated Metric	Description
C005_JVMMemUtilPct	Percentage of heap space used in the JVM.
C010_CPUUtilPct	Percentage of CPU time used by the OHS server
C011_MemoryUtilPct	Percentage of the physical memory used over the collection interval
C100_HTTPSvrActConn	Number of active HTTP connections
C220_EJBClActThreads	Number of client active threads accessing the actual implementation of an EJB method
C221_EJBClAvgExecTime	Average time spent inside the actual implementation of a specific EJB method (msec)
C222_EJBClCallsPrcRt	Total number of requests processed by the actual implementation of methods for each EJB over the collection interval (per minute)
C230_EJBWrpActThrds	Number of active threads accessing the automatically generated wrapper of an EJB method
C231_EJBWrpAvExecTim	Average time spent inside the automatically generated wrapper of a specific EJB method (msecs)
C232_EJBWrpCallPrcRt	Total number of requests processed by the automatically generated wrapper of methods for each EJB over the collection interval (per minute)
C240_SrvltAvgExecTim	Average time spent on the servlet's service () call (msec) over the collection interval
C242_SrvltActThreads	Current number of threads servicing the servlet
C245_JSPAvgExecTim	Average time to serve a JSP (msec) over the collection interval
C247_JSPActRequests	Current number of active requests for the JSP
C050_JMSConnCreated	Frequency of the JMS connections created over the collection interval
C251_JMSTotalMsgCt	Total number of messages contained in the message store
C260_JDBCacheMissPct	Average time spent servicing web modules per request processed over the collection interval (msec)
C280_WebCntxtAvRqPrc	Average time spent servicing web modules per request processed over the collection interval (msec)
C281_WebCntxtActSess	Current number of active sessions for a web module within an application

### **Related Topics:**

- OASSPI Admin tools group
- Oracle AS SPI tools group
- OASSPI Reports (JMX) group

# Metric C005\_JVMMemUtilPct

Policy Name	OASSPI_0005
Metric Name	C005_JVMMemUtilPct
Metric Type	Alarming, Graphing
Description	Percentage of heap space used in the JVM
Available OAS Version	All
Severity: Condition with Threshold	Critical: OASSPI-0005.1, threshold 98 Major: OASSPI-0005.2, threshold 95
Collection Interval	5 m
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0005.1: % of heap space used (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]
	OASSPI-0005.2: % of heap space used (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]
Instruction Text	<b>Probable cause</b> : The JVM is running out of available heap space. The JVM heap size may be set too low for the client load.
	<b>Potential impact</b> : The JVM heap size determines how often and how long the VM spends collecting garbage (de-allocating unused Java objects). The Java heap is where the objects of a Java program live. When an object can no longer be reached from any pointer in the running program, the object is garbage. Garbage collection affects performance because JVM work cannot proceed during full garbage collection. An acceptable rate for garbage collection is application specific and should be adjusted after analyzing the actual time and frequency of

	garbage collections.
	The goal of tuning your heap size is to minimize the time that you spend doing garbage collection while maximizing the number of clients that you can handle at a given time.
	If you set a large heap size, full garbage collection is slower, but it occurs less frequently. For a smaller heap size, full garbage collection is faster, but occurs more frequently.
	<b>Suggested action</b> : While the amount of heap size required varies with each application and the amount of available memory, for most OC4J server applications, a minimum heap size of 256MB is advised. If you have additional memory available, a heap size of 512MB or larger is preferred.
	To change the heap size allocated to the OC4J processes in an OC4J instance, use the procedures outlined in "Using Application Server Control Console to Change the JVM command Line Options" in the OAS Performance Guide to set the following Java options:
	-Xms <size>m -Xmx<size>m</size></size>
	where <i><size></size></i> is the desired Java heap size, in megabytes. For additional details, see the OAS Performance Guide, Setting the JVM Heap Size for OC4J Processes.
Report Type	Automatic
Area	JVM (OC4J)

## Metric C010\_CPUUtilPct

Policy Name	OASSPI_0010
Metric Name	C010_CPUUtilPct
Metric Type	Alarming, Graphing, Reporting
Description	CPU Time Utilization - Percent
Available OAS Version	All
Severity: Condition with Threshold	Critical: OASSPI-0010.1, threshold 98 for 20 minutes Major: OASSPI-0010.2, threshold 95 for 20 minutes
Collection Interval	5 m
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0010.x: % of CPU time used (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]
Instruction Text	Probable Cause :For the Oracle HTTP Server (OHS) ComponentThe OHS process is saturating the amount of CPU being used on this node. Thistypically means that there is a need to increase CPU by moving to a larger node orby distributing the load to another OHS running on a second node. Distributingload to another OHS running on a second node. Distributingload to another OHS running on a second node. Distributingload to another OHS running on a second node. Distributingload to another OHS running on a second node. Distributingload to another OHS can be accomplished by deploying Oracle Web Cache infront of the OHS's. See the Oracle Application Server Enterprise DeploymentGuide for more information on setting updifferent topologies.For the OC4J Component

	The OC4J JVM's are saturating the amount of CPU being used on this node. This typically means that there is a need to increase CPU power by moving to a larger node or by distributing the load to more OC4J JVM's running on another node. Distributing load can be done by creating another OC4J instance on a new node and including it in an OracleAS cluster where the original OC4J instance is running. The one or more OHS's running will then load balance requests across the OC4J's running on both nodes. See the Distributed Configuration Management Administrator's Guide and the Oracle Application Server High Availability Guide for more information. Potential Impact : N/A Suggested Action : N/A
Report Type	Automatic
Area	Process

# Metric C011\_MemoryUtilPct

Policy Name	OASSPI_0011
Metric Name	C011_MemoryUtilPct
Metric Type	Alarming, Graphing, Reporting
Description	Percentage of the physical memory used over the collection interval
Available OAS Version	All
Severity: Condition with Threshold	Critical: OASSPI-0011.1, threshold 98 for 20 minutes Major: OASSPI-0011.2, threshold 95 for 20 minutes
Collection Interval	5 m
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0011.x: % of physical memory used (<\$VALUE>%) too high (>=<\$THRESHOLD>%)
Instruction Text	Oracle HTTP Server (OHS) Component The OHS process is saturating the amount of memory being used on this node. This typically means that there is a need to increase memory on this node or distribute the load to another OHS running on a second node. Distributing load can be accomplished by deploying Oracle Web Cache in front of the OHS's. See the Oracle Application Server Enterprise Deployment Guide for more information on setting up different topologies. Another way to possibly reduce the memory footprint of OHS is to unload any Apache modules you are not using. The Perl and PHP modules may be candidates for unloading if you are not using them. See the Oracle HTTP Server Administrator's Guide and the Oracle Application Server Performance Guide for more information.

	For OC4J Component
	The OC4J JVM's are saturating the amount of memory being used on this node. This typically means that there is a need to increase memory on this node or distribute the load to more OC4J JVM's running on a second node. Distributing load can be accomplished by creating another OC4J instance on a new node and including it in an OracleAS cluster where the original OC4J instance is running. The one or more OHS's running will then load balance requests across the OC4J's running on both nodes. See the Distributed Configuration Management Administrator's Guide and the Oracle Application Server High Availability Guide for more information.
Report Type	Automatic
Area	Process

# Metric C050\_JMSConnCreated

Policy Name	OASSPI_0050
Metric Name	C050_JMSConnCreated
Metric Type	Alarming, Reporting, Graphing
Description	Frequency of the JMS connections created over the collection interval
Available OAS Version	All
Severity: Condition with Threshold	Critical: OASSPI-0050.1, threshold 98
Collection Interval	15 m
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0050.1: Number of JMS connections created (<\$VALUE>) too high (>= <\$THRESHOLD>) [Policy: <\$NAME>]
Instruction Text	<ul> <li>Probable Cause : This metric monitors the load of JMS connection on the system.</li> <li>Refer to the Oracle Application Server Performance Guide for information on tuning the performance of the application server.</li> <li>Potential Impact : N/A</li> <li>Suggested Action : N/A</li> </ul>
Report Type	Automatic
Area	JMS (OC4J)

# Metric C100\_HTTPSvrActConn

Policy Name	OASSPI_0100
Metric Name	C100_HTTPSvrActConn
Metric Type	Alarming, Reporting, Graphing
Description	Number of active HTTP connections
Available OAS Version	All
Severity: Condition with Threshold	Warning: OASSPI-0100.1, threshold 100
Collection Interval	15 m
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0100.1: Number of active HTTP connections (<\$VALUE>) too high (>= <\$THRESHOLD>) [Policy: <\$NAME>]
Instruction Text	Probable Cause : This metric measures the number of connections to the Oracle HTTP Server currently open. The server is approaching the maximum allowable connections configured for this OHS. If your system can support the increased load you can increase the maximum allowable connections using the MaxClients directive which is configured in the OHS configuration file, httpd.conf. See "Configuring the MaxClients Directive" in the Oracle Application Server Performance Guide for more information. The Oracle HTTP Administrator's Guide should also be reviewed. Potential Impact : N/A
	Suggested Action : N/A

Report Type	Automatic
Area	HTTP (OHS)

# Metric C220\_EJBClThreads

Policy Name	OASSPI_220
Metric Name	C220_EJBClActThreads
Metric Type	Alarming, Reporting
Description	Number of client active threads accessing the actual implementation of an EJB method.
Available OAS Version	All
Severity: Condition with Threshold	Warning: OASSPI-0220.1, threshold 100
Collection Interval	1 h
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-220.1: Number of EJB method client threads (<\$VALUE>) too high (>= <\$THRESHOLD>) [Policy: <\$NAME>]
Instruction Text	<b>Probable Cause</b> : The specific EJB method within an application that caused the violation can be found in the object field of the message. Refer to the Oracle Application Server Performance Guide for information on tuning the performance of the application server.
	Potential Impact : N/A
	Suggested Action : N/A
Report Type	Automatic
Area	EJB (OC4J)

# Metric C221\_EJBClAvgExecTim

Policy Name	OASSPI_0221
Metric Name	C221_EJBClAvgExecTim
Metric Type	Alarming, Reporting
Description	EJB Method Client Avg Execution Time - msecs
Available OAS Version	All
Severity: Condition with Threshold	Major: OASSPI-0221.1, threshold 5,000 Warning: OASSPI-0221.2, threshold 1,000
Collection Interval	1 h
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0221.1: Average execution time for EJB method (<\$VALUE> msecs) too high (>= <\$THRESHOLD> msecs) [Policy: <\$NAME>]
	OASSPI-0221.2: Average execution time for EJB method (<\$VALUE> msecs) too high (>= <\$THRESHOLD> msecs) [Policy: <\$NAME>]
Instruction Text	<ul> <li>Probable Cause : The specific EJB method within an application that caused the violation can be found in the object field of the message. This metric monitors the response time of specific methods. Refer to the Oracle Application Server Performance Guide for information on tuning the performance of the application server.</li> <li>Potential Impact : N/A</li> <li>Suggested Action : N/A</li> </ul>
Report Type	Automatic

Area

EJB (OC4J)

# Metric C222\_EJBClCallsPrcRt

Policy Name	OASSPI_0222
Metric Name	C222_EJBClCallsPrcRt
Metric Type	Alarming, Reporting
Description	Total number of requests (per minute) processed by the actual implementation of methods for each EJB over the collection interval
Available OAS Version	All
Severity: Condition with Threshold	Warning: OASSPI-0222.1, threshold 10,000
Collection Interval	1 h
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0222.1: Processing rate for EJB method calls (<\$VALUE> per minute) too high (>= <\$THRESHOLD> per minute) [Policy: <\$NAME>]
Instruction Text	<ul> <li>Probable Cause : The specific EJB method within an application that caused the violation can be found in the object field of the message. This metric monitors throughput of an application. Refer to the Oracle Application Server Performance Guide for information on tuning the performance of the application server.</li> <li>Potential Impact : N/A</li> </ul>
	Suggested Action : N/A
Report Type	Automatic
Area	EJB (OC4J)

# Metric C230\_EJBWrapActThrds

Policy Name	OASSPI_0230
Metric Name	C230_EJBWrapActThrds
Metric Type	Alarming, Reporting
Description	Number of active threads accessing the automatically generated wrapper of an EJB method.
Available OAS Version	All
Severity: Condition with Threshold	Warning: OASSPI-0230.1, threshold 100
Collection Interval	1 h
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0230.1: Number of EJB wrapper method threads (<\$VALUE>) too high (>= <\$THRESHOLD>) [Policy: <\$NAME>]
Instruction Text	<ul> <li>Probable Cause : The specific EJB method within an application that caused the violation can be found in the object field of the message. Refer to the Oracle Application Server Performance Guide for information on tuning the performance of the application server.</li> <li>Potential Impact : N/A</li> <li>Suggested Action : N/A</li> </ul>
Report Type	Automatic
Area	EJB (OC4J)

# Metric C231\_EJBWrpAvExecTim

Policy Name	OASSPI_0231
Metric Name	C231_EJBWrpAvExecTim
Metric Type	Alarming, Reporting
Description	Average time (in milliseconds) spent inside the automatically generated wrapper of a specific EJB method.
Available OAS Version	All
Severity: Condition with Threshold	Major: OASSPI-0231.1, threshold 5,000 Warning: OASSPI-0231.2, threshold 1,000
Collection Interval	1 h
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0231.1: Average execution time for EJB wrapper method (<\$VALUE> msecs) too high (>= <\$THRESHOLD> msecs) [Policy: <\$NAME>]
	OASSPI-0231.2: Average execution time for EJB wrapper method (<\$VALUE> msecs) too high (>= <\$THRESHOLD> msecs) [Policy: <\$NAME>]
Instruction Text	<b>Probable Cause</b> : The specific EJB method within an application that caused the violation can be found in the object field of the message. This metric monitors the response time of specific methods. Refer to the Oracle Application Server Performance Guide for information on tuning the performance of the application server.
	Potential Impact : N/A
	Suggested Action : N/A

Report Type	Automatic
Area	EJB (OC4J)

# Metric C232\_EJBWrpCallPrcRt

Policy Name	OASSPI_0232
Metric Name	C232_EJBWrpCallPrcRt
Metric Type	Alarming, Reporting
Description	Total number of requests processed (per minute) by the automatically generated wrapper of methods for each EJB over the collection interval.
Available OAS Version	All
Severity: Condition with Threshold	Warning: OASSPI-0232.2, threshold 10,000
Collection Interval	1 h
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0232.1: Processing rate for EJB wrapper method calls (<\$VALUE> per minute) too high (>= <\$THRESHOLD> per minute) [Policy: <\$NAME>]
Instruction Text	<b>Probable Cause</b> : The specific EJB method within an application that caused the violation can be found in the object field of the message. This metric monitors throughput of an application. Refer to the Oracle Application Server Performance Guide for information on tuning the performance of the application server.
	Potential Impact : N/A
	Suggested Action : N/A
Report Type	Automatic
Area	EJB (OC4J)

# Metric C240\_SrvltAvgExecTim

Policy Name	OASSPI_0240
Metric Name	C240_SrvltAvgExecTim
Metric Type	Alarming, Reporting
Description	Average time spend (in milliseconds) on the servlet's service() call over the collection interval.
Available OAS Version	All
Severity: Condition with Threshold	Major: OASSPI-0240.1, threshold 5,000 Warning: OASSPI-0240.2, threshold 1,000
Collection Interval	1 h
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0240.1: Average execution time for the servlet (<\$VALUE> msecs) too high (>= <\$THRESHOLD> msecs) [Policy: <\$NAME>]
	OASSPI-0240.2: Average execution time for the servlet (<\$VALUE> msecs) too high (>= <\$THRESHOLD> msecs) [Policy: <\$NAME>]
Instruction Text	<b>Probable Cause</b> : The specific servlet within an application that caused the violation can be found in the object field of the message. This metric monitors the response time of specific servlets. Refer to the Oracle Application Server Performance Guide for information on tuning the performance of the application server.
	Potential Impact : N/A
	Suggested Action : N/A
Report Type	Automatic

Area

Servlet (OC4J)

# Metric C242\_SrvltActThreads

Policy Name	OASSPI_0242
Metric Name	C242_SrvltActThreads
Metric Type	Alarming, Reporting
Description	The number of threads currently servicing the servlet
Available OAS Version	All
Severity: Condition with Threshold	Warning: OASSPI-0242.1, threshold 10,000
Collection Interval	1 h
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0242.1: Number of servlet active threads (<\$VALUE>) too high (>= <\$THRESHOLD>) [Policy: <\$NAME>]
Instruction Text	<ul> <li>Probable Cause : The specific servlet within an application that caused the violation can be found in the object field of the message. This metric monitors the load of specific servlets on the system. Refer to the Oracle Application Server Performance Guide for information on tuning the performance of the application server.</li> <li>Potential Impact : N/A</li> </ul>
	Suggested Action : N/A
Report Type	Automatic
Area	Servlet (OC4J)

# Metric C245\_JSPAvgExecTime

Policy Name	OASSPI_0245
Metric Name	C245_JSPAvgExecTime
Metric Type	Alarming, Reporting
Description	Average time to serve a JSP (in milliseconds) over the collection interval.
Available OAS Version	10gR1
Severity: Condition with Threshold	Major: OASSPI-0245.1, threshold 5,000 Warning: OASSPI-0245.2, threshold 1,000
Collection Interval	1 h
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0245.1: Average service time for the JSP (<\$VALUE> msecs) too high (>= <\$THRESHOLD> msecs) [Policy: <\$NAME>]
	OASSPI-0245.2: Average service time for the JSP (<\$VALUE> msecs) too high (>= <\$THRESHOLD> msecs) [Policy: <\$NAME>]
Instruction Text	<ul> <li>Probable Cause : The specific JSP within an application that caused the violation can be found in the object field of the message. This metric monitors the response time of specific JSPs. Refer to the Oracle Application Server Performance Guide for information about tuning the performance of the application server.</li> <li>Potential Impact : N/A</li> <li>Suggested Action : N/A</li> </ul>
Report Type	Automatic

Area

JSP (OC4J)

# Metric C247\_JSPActRequests

Policy Name	OASSPI_0247
Metric Name	C247_JSPActRequests
Metric Type	Alarming, Reporting
Description	The number of requests currently active for the JSP
Available OAS Version	All
Severity: Condition with Threshold	Warning: OASSPI-0247.1, threshold 10000
Collection Interval	1 h
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0247.1: Number of JSP requests (<\$VALUE>) too high (>= <\$THRESHOLD>) [Policy: <\$NAME>]
Instruction Text	<ul> <li>Probable Cause : The specific JSP within an application that caused the violation can be found in the object field of the message. This metric monitors the load of specific JSPs on the system. Refer to the Oracle Application Server Performance Guide for information on tuning the performance of the application server.</li> <li>Potential Impact : N/A</li> <li>Suggested Action : N/A</li> </ul>
Report Type	Automatic
Area	JSP (OC4J)

# Metric C251\_JMSTotalMsgCt

Policy Name	OASSPI_0251
Metric Name	C251_JMSTotalMsgCt
Metric Type	Alarming, Reporting
Description	Total number of JMS messages contained in the message store
Available OAS Version	All
Severity: Condition with Threshold	Critical: OASSPI-0251.1, threshold 100
Collection Interval	15 m
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0251.1: Number of JMS messages in the store (<\$VALUE>) too high (>= <\$THRESHOLD>) [Policy: <\$NAME>]
Instruction Text	<ul> <li>Probable Cause : The specific JMS that caused the violation can be found in the object field of the message. This metric monitors the backlog of the JMS message store. Refer to the Oracle Application Server Performance Guide for information about tuning the performance of the application server.</li> <li>Potential Impact : N/A</li> <li>Suggested Action : N/A</li> </ul>
Report Type	Automatic
Area	JMS (OC4J)

# Metric C260\_JDBCacheMissPct

Policy Name	OASSPI_0260
Metric Name	C260_JDBCacheMissPct
Metric Type	Alarming, Reporting
Description	Percentage of failed cache connection requests
Available OAS Version	All
Severity: Condition with Threshold	Major: OASSPI-0260.1, threshold 90 Warning: OASSPI-0260.2, threshold 80
Collection Interval	5 m
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0260.1: JDBC connection cache misses (<\$VALUE>%) too high (>= <\$THRESHOLD>%) [Policy: <\$NAME>]
	OASSPI-0260.2: JDBC connection cache misses (<\$VALUE>%) too high (>= <\$THRESHOLD>%) [Policy: <\$NAME>]
Instruction Text	<b>Probable Cause</b> : The specific JDBC connection cache instance can be found in the object field of the message. This alarm might indicate that the connection cache size should be increased. Refer to the Oracle Application Server Performance Guide for information about tuning the performance of the application server.
	Potential Impact : N/A
	Suggested Action : N/A
Report Type	Automatic
Area	JDBC (OC4J)
# Metric C280\_WebCntxtAvRqPrc

Policy Name	OASSPI_0280
Metric Name	C280_WebCntxtAvRqPrc
Metric Type	Alarming, Reporting, Graphing
Description	Average time spent (in milliseconds) servicing web modules per request processed over the collection interval
Available OAS Version	All
Severity: Condition with Threshold	Major: OASSPI-0280.1, threshold 5000 Warning: OASSPI-0280.2, threshold 1000
Collection Interval	15 m
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0280.1: Average Web context request processing time (<\$VALUE> msecs) too high (>= <\$THRESHOLD> msecs) [Policy: <\$NAME>]
	OASSPI-0280.2: Average Web context request processing time (<\$VALUE> msecs) too high (>= <\$THRESHOLD> msecs) [Policy: <\$NAME>]
Instruction Text	<b>Probable Cause</b> : The specific Web module instance of an application can be found in the object field of the message. This metric monitors the response time of the Web module within each J2EE application. Refer to the Oracle Application Server Performance Guide for information on tuning the performance of the application server.
	Suggested Action $\cdot N/A$
Report Type	Automatic
	Automatic

Online Help

Area Web Context (OC4J)

# Metric C281\_WebCntxtActSess

Policy Name	OASSPI_0281
Metric Name	C281_WebCntxtActSess
Metric Type	Alarming, Reporting, Graphing
Description	Number of sessions currently active for a Web module within an application
Available OAS Version	All
Severity: Condition with Threshold	Warning: OASSPI-0281.1, threshold 10000
Collection Interval	15 m
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0281.1: Number of Web context active sessions (<\$VALUE>) too high (>= <\$THRESHOLD>) [Policy: <\$NAME>]
Instruction Text	<b>Probable Cause</b> : The specific Web module instance of an application can be found in the object field of the message. This metric monitors the load of the Web module within each J2EE application. Refer the Oracle Application Server Performance Guide for information on tuning the performance of the application server.
	Potential Impact : NA
	Suggested Action : NA
Report Type	Automatic
Area	Web Context (OC4J)

### **OASSPI Reports (JMX) tools group**

Oracle AS SPI Reports (JMX) group contains ASCII metric reports that display information about the condition of the Oracle Application Server (JMX). These reports are only available for Oracle Application Server version 10gR3.

To manually generate a report, do the following:

- 1. From the HPOM console, select Tools ---- SPI for Oracle AS ---- OASSPI Reports (JMX).
- 2. Double-click a report.
- 3. Select the node for which you want to generate the report.
- 4. Select Launch.

#### **Oracle AS SPI Metric Reports Description**

Click the metric name in the table below to get detailed description of the metric.

Name/Associated Metric	Description
C005_JVMMemUtilPct	Percentage of heap space used in the JVM.
C010_CPUUtilPct	Percent of the CPU time utilized over the collection interval
C243_ServletReqRate	Number of requests for a servlet per second
C245_JSPAvgExecTime	Average time to serve a JSP (in msecs) over the collection interval
C248_JSPReqRate	Number of requests for a jsp per second
J272_TranRollbackResourceRt	Number of transactions rolledback due to and error in an enlisted resource per second
J340_SrvltAvgExecTim	Average response time of a servlet (in msecs) over the collection interval
J352_JMSPendingMessages	The total number of pending messages over the collection interval
J353_JMSMessageExpired	The total number of messages that have expired over the collection interval
J360_JDBCConnPoolUtil	Percentage utilization of available JDBC connections in connection pool

J362_JDBCConPlWtCntSum	The total number of threads waiting for a connection
J363_JDBCAvgUseTim	Average time spend using a connection (in msecs) over the collection interval
J364_JDBCAvgWaitTim	Average time spend waiting for a connection (in msecs) over the collection interval
J365_JCAConnPoolUtil	Percentage utilization of available JDBC connections in connection pool
J367_JCAConPlWtCntSum	The total number of threads waiting for a connection
J368_JCAAvgUseTim	Average time spend using a connection (in msecs) over the collection interval
J369_JCAAvgWaitTim	Average time spend waiting for a connection (in msecs) over the collection interval
J371_TranRollbackRt	Number of transactions rolledback per second

- OASSPI Admin tools group
- Oracle AS SPI tools group
- OASSPI Reports tools group

## Metric C243\_ServletReqRate

Policy Name	OASSPI_0243
Metric Name	C243_ServletReqRate
Metric Type	Alarming, Reporting
Description	Number of requests for a servlet per second
Available OAS Version	10gR2, 10gR3
Severity: Condition with Threshold	Major: OASSPI-00243.1, threshold >=90 Warning: OASSPI-0243.2, threshold >=80
Collection Interval	
Threshold type	Maximum
Message Group	OracleAS
Message Text	
Instruction Text	
Report Type	
Area	

# Metric C248\_JSPReqRate

Policy Name	OASSPI_0248
Metric Name	C248_JSPReqRate
Metric Type	
Description	Number of requests for a JSP per second
Available OAS Version	All
Severity: Condition with Threshold	
Collection Interval	
Threshold type	
Message Group	OracleAS
Message Text	
Instruction Text	
Report Type	
Area	

## Metric C272\_TranRollbackResourceRt

Policy Name	OASSPI_0272
Metric Name	C272_TranRollbackResourceRt
Metric Type	Alarming, Reporting
Description	Number of transactions rolledback due to and error in an enlisted resource per second
Available OAS Version	10gR3
Severity: Condition with Threshold	Major: OASSPI-0272.1, threshold >=90 Warning: OASSPI-0272.2, threshold >=80
Collection Interval	5m
Threshold type	Maximum
Message Group	OracleAS
Message Text	OASSPI-0272.1: % of transactions rolled back due to resource error (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]
Instruction Text	<ul> <li>Probable cause : The percent of transactions rolled back due to resource errors has exceeded the threshold value. Transactions are not successfully completing due to resource errors.</li> <li>Potential impact : Fewer user requests are being successfully completed.</li> <li>Suggested action : The administrator can monitor individual transactions from the Administration Console. In addition to displaying statistics, the following information can also be displayed:</li> <li>1. Transactions by name, including rollback and time active information.</li> <li>2. Transactions by resource, including statistics on total, committed, and rolled back transactions.</li> <li>All active transactions, including information on status, servers, resources,</li> </ul>

	properties, and the transaction identifier.
Report Type	Application Bank: ASCII report
Area	Transactions

# Metric J340\_SrvltAvgExecTim

Policy Name	JMXSPI_0340
Metric Name	J340_SrvltAvgExecTim
Metric Type	Alarming, Reporting
Description	Average response time of a servlet (in msecs) over the collection interval
Available OAS Version	10gR3
Severity: Condition with Threshold	Warning: JMXSPI_0340.1, threshold 1000
Collection Interval	1h
Threshold type	Maximum
Message Group	Generic JMX
Message Text	OASSPI-0340.1: Ave. execution time for a servlet (<\$VALUE>ms) belongs to application <\$OPTION(applicationname)> too high (>=<\$THRESHOLD>ms) [Policy: <\$NAME>]
Instruction Text	Probable Cause :N/A
	Potential Impact : N/A
	Suggested Action : N/A
Report Type	Application Bank: ASCII report
Area	Servlets

# Metric J360\_JDBCConnPoolUtil

Policy Name	JMXSPI_0360
Metric Name	J360_JDBCConnPoolUtil
Metric Type	Alarming, Reporting, Graphing
Description	The utilization, in percentage, of the JDBC connections available in the connection pool
Available OAS Version	10gR3
Severity: Condition with Threshold	Critical: JMXSPI-0360.1, threshold 98% Major: JMXSPI-0360.2, threshold 95%
Collection Interval	5m
Threshold type	Maximum
Message Group	Generic JMX
Message Text	JMXSPI-0360.1: % utilization of available JDBC connections in connection pool (<\$VALUE>%) for application (<\$OPTION(applicationname)>) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>] JMXSPI-0360.2: % utilization of available JDBC connections in connection pool (<\$VALUE>%) for application (<\$OPTION(applicationname)>) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]
Instruction Text	Probable Cause : N/A
	Potential Impact : N/A
	Suggested Action : N/A
Report Type	Application Bank: ASCII report
Area	JDBC

# Metric J362\_JDBCConPlWtCntSum

Policy Name	JMXSPI_0362
Metric Name	J362_JDBCConPlWtCntSum
Metric Type	Alarming, Reporting, Graphing
Description	The total number of threads waiting for a connection
Available OAS Version	10gR3
Severity: Condition with Threshold	Critical: JMXSPI-0362.1, threshold 98 Major: JMXSPI-0362.2, threshold 95
Collection Interval	5m
Threshold type	Maximum
Message Group	Generic JMX
Message Text	JMXSPI-0362.1: % utilization of available JDBC connections in connection pool (<\$VALUE>%) for application (<\$OPTION(applicationname)>) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>] JMXSPI-0362.2: % utilization of available JDBC connections in connection pool (<\$VALUE>%) for application (<\$OPTION(applicationname)>) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]
Instruction Text	Probable Cause : N/A
	Potential Impact : N/A
	Suggested Action : N/A
Report Type	Application Bank: ASCII report
Area	JDBC

# Metric J364\_JDBCAvgWaitTim

Policy Name	JMXSPI_0364
Metric Name	J364_JDBCAvgWaitTim
Metric Type	Alarming, Reporting
Description	Average time spend waiting for a connection (in msecs) over the collection interval
Available OAS Version	10gR3
Severity: Condition with Threshold	Critical: JMXSPI-0364.1, threshold 98 Major: JMXSPI-0364.2, threshold 95
Collection Interval	5m
Threshold type	Maximum
Message Group	Generic JMX
Message Text	JMXSPI-0364.1: % utilization of available JDBC connections in connection pool (<\$VALUE>%) for application (<\$OPTION(applicationname)>) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>] JMXSPI-0364.2: % utilization of available JDBC connections in connection pool (<\$VALUE>%) for application (<\$OPTION(applicationname)>) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]
Instruction Text	Probable Cause : N/A
	Potential Impact : N/A
	Suggested Action : N/A
Report Type	Application Bank: ASCII report
Area	JDBC

# Metric J365\_JCAConnPoolUtil

Policy Name	JMXSPI_0365
Metric Name	J365_JCAConnPoolUtil
Metric Type	Alarming, Reporting, Graphing
Description	Utilization, in percentage, of JCA connections available in the connection pool
Available OAS Version	10gR3
Severity: Condition with Threshold	JMXSPI_0365.1: Critical threshold, threshold = 98 MXSPI_0365.2: Major threshold, threshold = 95
Collection Interval	
Threshold type	Maximum
Magaza Casua	
Message Group	Generic JMX
Message Text	Generic JMX JMXSPI_0365.1: % utilization of available JCA connections in connection pool (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>] JMXSPI_0365.2: % utilization of available JCA connections in connection pool (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]
Message Group Message Text Instruction Text	Generic JMX JMXSPI_0365.1: % utilization of available JCA connections in connection pool (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>] JMXSPI_0365.2: % utilization of available JCA connections in connection pool (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>] Probable Cause : N/A
Message Group       Message Text       Instruction Text	Generic JMX         JMXSPI_0365.1: % utilization of available JCA connections in connection         pool (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy:         <\$NAME>]         JMXSPI_0365.2: % utilization of available JCA connections in connection         pool (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy:         <\$NAME>]         Probable Cause : N/A         Potential Impact : N/A
Message Group Message Text Instruction Text	Generic JMX JMXSPI_0365.1: % utilization of available JCA connections in connection pool (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>] JMXSPI_0365.2: % utilization of available JCA connections in connection pool (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>] Probable Cause : N/A Potential Impact : N/A Suggested Action : N/A
Message Group         Message Text         Instruction Text         Report Type	Generic JMX JMXSPI_0365.1: % utilization of available JCA connections in connection pool (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>] JMXSPI_0365.2: % utilization of available JCA connections in connection pool (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>] Probable Cause : N/A Potential Impact : N/A Suggested Action : N/A Automatic Action: ASCII report

# Metric J367\_JCAConPlWtCntSum

Policy Name	JMXSPI_0367
Metric Name	J367_JCAConPlWtCntSum
Metric Type	Alarming, Reporting, Graphing
Description	The total number of threads waiting for a connection
Available OAS Version	10gR3
Severity: Condition with Threshold	JMXSPI_0367.1: Critical threshold, threshold = 98 JMXSPI_0367.2: Major threshold, threshold = 95
Collection Interval	
Threshold type	Maximum
Message Group	Generic JMX
Message Text	JMXSPI_0367.1: % utilization of available JDBC connections in connection pool (<\$VALUE>%) for application (<\$OPTION(applicationname)>) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>] JMXSPI_0367.2: % utilization of available JDBC connections in connection pool (<\$VALUE>%) for application (<\$OPTION(applicationname)>) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]
Instruction Text	Probable cause : N/A Potential impact : N/A Suggested action : N/A
Report Type	
Area	

# Metric J369\_JCAAvgWaitTim

Policy Name	JMXSPI_0369
Metric Name	J369_JCAAvgWaitTim
Metric Type	Alarming
Description	Average time spent (in msecs) waiting for a connection over the collection interval
Available OAS Version	10gR3
Severity: Condition with Threshold	JMXSPI_0369.1: Critical threshold, threshold = 98 JMXSPI_0369.2: Major threshold, threshold = 95
Collection Interval	
Threshold type	Maximum
Message Group	Generic JMX
Message Text	JMXSPI_0369.1: % utilization of available JDBC connections in connection pool (<\$VALUE>%) for application (<\$OPTION(applicationname)>) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>] JMXSPI_0369.2: % utilization of available JDBC connections in connection pool (<\$VALUE>%) for application (<\$OPTION(applicationname)>) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]
Instruction Text	Probable cause : N/A Potential impact : N/A Suggested action : N/A
Report Type	
Area	

### Metric J371\_TranRollbackRt

Policy Name	JMXSPI_0371
Metric Name	J371_TranRollbackRt
Metric Type	Alarming, Reporting
Description	Number of transactions rolled back per second
Available OAS Version	10gR3
Severity: Condition with Threshold	Minor: OASSPI-0371.1, threshold, 1
Collection Interval	5m
Threshold type	Maximum
Message Group	Generic JMX
Message Text	OASSPI-0371.1: % of transactions rolled back (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]
Instruction Text	Probable Cause : N/A
	Potential Impact : N/A
	Suggested Action : N/A
Report Type	Application Bank: ASCII report
Area	Transactions

# Metric J352\_JMSPendingMessages

Policy Name	OASSPI_0352
Metric Name	J352_JMSPendingMessages
Metric Type	
Description	The total number of pending messages over the collection interval
Available OAS Version	All
Severity: Condition with Threshold	
Collection Interval	
Threshold type	
Message Group	OracleAS
Message Text	
Instruction Text	
Report Type	
Area	

# Metric J353\_JMSMessageExpired

Policy Name	OASSPI_0353
Metric Name	J353_JMSMessageExpired
Metric Type	
Description	The total number of messages that have expired over the collection interval
Available OAS Version	All
Severity: Condition with Threshold	
Collection Interval	
Threshold type	
Message Group	OracleAS
Message Text	
Instruction Text	
Report Type	
Area	

# Metric J363\_JDBCAvgUseTim

Policy Name	OASSPI_0363
Metric Name	J363_JDBCAvgUseTim
Metric Type	
Description	Average time spend using a connection (in msecs) over the collection interval
Available OAS Version	All
Severity: Condition with Threshold	
Collection Interval	
Threshold type	
Message Group	OracleAS
Message Text	
Instruction Text	
Report Type	
Area	

# Metric J368\_JCAAvgUseTim

Policy Name	OASSPI_0368
Metric Name	J368_JCAAvgUseTim
Metric Type	
Description	Average time spend using a connection (in msecs) over the collection interval
Available OAS Version	All
Severity: Condition with Threshold	
Collection Interval	
Threshold type	
Message Group	OracleAS
Message Text	
Instruction Text	
Report Type	
Area	

## Policies

The Oracle AS SPI policy groups organize various HPOM policies.

The primary SPI for Oracle AS policy group contains the following policy groups and individual policies:

#### **OASSPI**:

• **OASSPI-Logfiles :** This policy group contains policies that generate messages depending on log file and error text detected in both the Oracle Application Server log files and in the Oracle AS SPI log files.

The information captured from these log files includes errors that occur in the operation of the Oracle Application Server or the Oracle AS SPI and changes to the Oracle Application Server configuration.

• **OASSPI-Metrics :** Contains metric policies that monitor the performance levels and availability of Oracle OC4J/OHS servers.

Each metric policy determines the threshold conditions for the monitored metric, the message text that is sent to the HPOM message browser when the threshold is exceeded, the actions to execute, and the instructions that appear.

- **OASSPI-Metrics [JMX] :** Contains JMX metric policies that monitor the performance levels and availability of Oracle OC4J/OHS servers version 10gR3.
- **OASSPI-Monitors :** This policy group contains collector policies that specify the collection interval of metric policies. Within the name of each collector policy is its collection interval. For example, the collection interval of the policy OASSPI-10-OHS-15min is 15 minutes. Collector policies are assigned a collection interval of 5 minutes, 15 minutes, or 1 hour. The collector policies:
  - $\circ~$  Run the collector/analyzer at each collection interval.
  - Specify which metrics are collected.
- **OASSPI-Monitors [JMX] :** Contains JMX collector policies that specify the collection interval of the JMX metric templates. These policies are only for Oracle AS version 10gR3.
- **OASSPI-Messages:** This policy intercepts Oracle AS SPI messages for the HPOM message browser.

#### **OASSPI-Discovery**

OASSPI-Messages: This policy intercepts Oracle AS SPI messages for the HPOM message

browser.

• **OASSPI Service Discovery** : This policy updates the configuration on the HPOM management server and managed nodes.

- Components
- Tools
- Getting Started

### Logfiles

The Smart Plug-in for Oracle Application Server (Oracle AS SPI) logfile policies monitor information logged in both Oracle Application Server and Oracle AS SPI files.

Logfiles Policy Name		Description
OASSPI Error Log		Monitors the OASSPI error log
OASSPI-Logfile-Monitor		Oracle Application Server Logfile Monitor
OracleAS Log		Monitors the OracleAS log files.
OASSPI Java Discovery Error Log		Monitors the OASSPI Java Discovery error log.
OASSPI Java Collector Error Log		Monitors the OASSPI Java Collector error log.

- Metrics
- Monitors
- Policies
- Golden Metrics
- Metric Naming/Numbering Conventions

# **OASSPI Error Log**

This logfile policy monitors the OASSPI log file located at %OvAgentdir%\wasspi\oas\log\wasspi\_perl.log.

Description	Monitors the OASSPI error log
Severity	Critical
Category	OracleAS
Туре	Logfile Entry
Message Group	OASSPI
Help Text	Refer to the specific error message listed in OASSPI error messages for information about the error message.

- Metrics
- Monitors
- Policies
- Metric Naming/Numbering Conventions

## **OASSPI-Logfile-Monitor**

Description	Oracle Application Server Logfile Monitor	
Severity		
Category	OracleAS	
Туре	Measurement Threshold	
Message Group	OASSPI	
Help Text	Refer to the specific error message listed in OASSPI error messages for information about the error message.	

- Metrics
- Monitors
- Policies
- Metric Naming/Numbering Conventions

## **OracleAS Logs**

Description	Monitors the OracleAS log files.
Severity	Critical Warning
Category	OracleAS
Туре	Logfile Entry
Message Group	OracleAS
Help Text	<ul> <li>Probable Cause : <ul> <li>A message with the indicator 'EMERGENCY' or 'FATAL' was detected in the Oracle Application Server log file.</li> <li>OR</li> <li>A message with the indicator 'NOTICE', 'ERROR', or 'ALERT' was detected in the Oracle Application Server log file.</li> </ul> </li> <li>Suggested Action : Examine the error and for more information about the error refer to the Oracle Application Server Installation and Configuration Guide or online help.</li> </ul>

- Metrics
- Monitors
- Policies
- Metric Naming/Numbering Conventions

## **OASSPI Java Discovery Error Log**

This logfile policy monitors the OASSPI discovery error log file located at <code>%OvAgentdir%\wasspi\oas\log\Discovery.log</code>.

Description	Monitors the OASSPI Java Discovery Error Log.
Polling Interval	30s
Severity	Normal Major Critical Warning
Category	OracleAS
Туре	Logfile Entry
Message Group	OASSPI
Help Text	Available for each error as detected: WASSPI-1 through WASSPI-241. For detailed help text for all error messages, see the specific error message listed in Oracle AS SPI error messages for information about the error message.

## **OASSPI Java Collector Error Log**

This logfile policy monitors the OASSPI collector error log file located at <code>%OvAgentdir%\wasspi\oas\log\Collector.log</code>.

Description	Monitors the OASSPI Java Collector Error Log.
Polling Interval	30s
Severity	Normal Major Critical Warning
Category	OracleAS
Туре	Logfile Entry
Message Group	OASSPI
Help Text	Available for each error as detected: WASSPI-1 through WASSPI-241. For detailed help text for all error messages, see the specific error message listed in Oracle AS SPI error messages for information about the error message.

### **Metrics**

A metric is a measurement that defines a specific operational or performance characteristic. The Smart Plug-in for Oracle Application Server (Oracle AS SPI) metric policies have pre-defined settings that simplify setup tasks for the Oracle AS SPI. You can customize these setting based on the requirements of your IT environment.

Click the following lists to view all metrics policies by metric area. Click a metric name in the metric summary table to view details of the metric. There are no policy settings for reporting/graphing metrics.

Metrics are available for all versions of Oracle Application Server.

#### **Availability Metrics**

ID	Metric Name	Policy Name	Description	Туре	Severity	Area
1	C001_ServerStatus	OASSPI_0001	Server Status	A	Critical	Availability

### JVM (OC4J) Metrics

ID	Metric Name	Policy Name	Description	Туре	Severity	Area
5	C005_JVMMemUtilPct	OASSPI_0005	JVM Heap Memory Utilization - Percent	GA	Critical, Major	JVM

#### **Process Metrics**

ID	Metric Name	Policy Name	Description	Туре	Severity	Area
10	C010_CPUUtilPct	OASSPI_0010	CPU Time Utilization - Percent	GRA	Critical, Warning	Process
11	C011_MemoryUtilPct	OASSPI_0011	Physical Memory Utilization - Percent	GRA	Critical, Warning	Performance

### EJB (OC4J) Metrics

ID	Metric Name	Policy Name	Description	Туре	Severity	Area
220	C220_EJBClActThreads	OASSPI_0220	EJB Method Client Active Threads Count	RA	Warning	EJB (OC4J)
221	C221_EJBClAvgExecTim	OASSPI_221	EJB Method Client Avg Execution Time - msecs	RA	Major, Warning	EJB (OC4J)
222	C222_EJBClCallsPrcRt	OASSPI_222	EJB Method Client Calls Process Rate - # per minute	RA	Warning	EJB (OC4J)
230	C230_EJBWrapActThrds	OASSPI_0230	EJB Wrapper Method Active Threads Count	RA	Warning	EJB (OC4J)
231	C231_EJBWrpAvExecTim	OASSPI_0231	EJB Wrapper Method Avg Execution Time - msecs	RA	Major, Warning	EJB (OC4J)
232	C232_EJBWrpCallPrcRt	OASSPI_0232	EJB Wrapper Method Calls Process Rate - # per minute	RA	Warning	EJB (OC4J)

### Servlets (OC4J) Metrics

ID	Metric Name	Policy Name	Description	Туре	Severity	Area
240	C240_SrvltAvgExecTim	OASSPI_240	Servlet Average Execution Time - msecs	RA	Major, Warning	Servlet (OC4J)
242	C242_SrvltActThreads	OASSPI_0242	Servlet Active Threads count	RA	Warning	Servlet (OC4J)

### JSP (OC4J) Metrics

ID	Metric Name	Policy Name	Description	Туре	Severity	Area
245	C245_JSPAvgExecTime	OASSPI_0245	JSP Average Service Time - msecs	RA	Major, Warning	JSP (OC4J)
247	C247_JSPActRequests	OASSPI_0247	JSP Active Requests Count	RA	Warning	JSP (OC4J)

### JMS (OC4J) Metrics

ID	Metric Name	Policy Name	Description	Туре	Severity	Area
50	C050_JMSConnCreated	OASSPI_0050	JMS Connections Created during Collection Interval	GRA	Critical	JMS (OC4J)
251	C251_JMSTotalMsgCt	OASSPI_0251	JMS Number of Messages in the Store	RA	Critical	JMS (OC4J)

### JDBC (OC4J) Metrics

ID	Metric Name	Policy Name	Description	Туре	Severity	Area
260	C260_JDBCacheMissPct	OASSPI_0260	JDBC Connection Cache Misses Percent	RA	Major, Warning	JDBC (OC4J)

#### Web Context (OC4J) Metrics

ID	Metric Name	Policy Name	Description	Туре	Severity	Area
280	C280_WebCntxtAvRqPrc	OASSPI_0280	OC4J Web Context Avg Request Process Time - msecs	GRA	Major, Warning	Web Context (OC4J)
281	C281_WebCntxtActSess	OASSPI_0281	OC4J Web Context Active Sessions Count	GRA	Warning	Web Context (OC4J)

### HTTP (OC4J) Metrics

ID	Metric Name	Policy Name	Description	Туре	Severity	Area
100	C100_HTTPSvrActConn	OASSPI_0100	Active HTTP Connections Count	GRA	Warning	HTTP (OC4J)

- Golden Metrics
- Metric Naming/Numbering Conventions
- Monitors
- Logfiles

## **Golden Metrics**

Golden metrics are a set of metrics which monitor the basic functionality of your Oracle Application Server. The golden metrics cover the critical areas (such as server status) for which you would like to receive messages as a critical or major event happens on the Oracle Application Server. Implementing golden metrics and taking action against the events generated by these metrics ensure the smooth functioning of the Oracle Application Server.

Metric Type	Metric Name
Availability	Metric C001_ServerStatus
JVM (OC4J)	Metric C005_JVMMemUtilPct
Process	Metric C010_CPUUtilPct
	Metric C011_MemoryUtilPct
OHS	Metric C013_ServerStatus
ThreadPool	Metric C014_ThreadPoolUtil
	Metric C015_ThreadPoolWaitCnt
HTTP(OHS)	Metric C100_HTTPSvrActConn
JDBC	Metric J233_StlesSsnBnPlUt
	Metric J234_StfulSsnBnPlUtl
	Metric J235_EntityBnPlUtl
Servlet (OC4J)	Metric C240_SrvltAvgExecTim
Servlets	Metric C243_ServletReqRate

The Oracle AS SPI contains the following golden metrics:

JSP (OC4J)	Metric C247_JSPActRequests
	Metric C248_JSPReqRate
JMS (OC4J)	Metric C251_JMSTotalMsgCt
JDBC	Metric C272_TranRollbackResourceRt
	Metric C273_TranRollbackAppRt
	Metric C274_TranRollbackTimedoutRt
	Metric C275_TranRollbackAdminRt
Web Context (OC4J)	Metric C281_WebCntxtActSess

- Metrics
- Metric Naming/Numbering Conventions
- Monitors
- Logfiles

## Metric C001\_ServerStatus

Policy Name	OASSPI_0001	
Metric Name	C001_ServerStatus	
Metric Type	Alarming	
Description	Status of the server	
Available OAS Version	All	
Severity: Condition with Threshold	Critical: OASSPI-0001.1, threshold 1.5 Critical: OASSPI-0001.2, threshold 2.5 Critical: OASSPI-0001.3, threshold 3.5 Critical: OASSPI-0001.4, threshold 4.5 Critical: OASSPI-0001.5, threshold 5.5 Critical: OASSPI-0001.6, threshold 6.5 Critical: OASSPI-0001.7, threshold 7.5 Critical: OASSPI-0001.8, threshold 8.5	
Collection Interval	5 m	
Threshold type	Minimum	
Message Group	OracleAS	
Message Text	OASSPI-0001.1: Server Status: Unknown OASSPI-0001.2: Server Status: BounceFail OASSPI-0001.3: Server Status: InitFail OASSPI-0001.4: Server Status: Stopped OASSPI-0001.5: Server Status: Stop OASSPI-0001.6: Server Status: Restart OASSPI-0001.7: Server Status: Bounce OASSPI-0001.8: Server Status: Init	
Instruction Text	<b>Probable cause</b> : For each server, this metric reports the status of the HTTP server and the OC4J components for the Oracle Application Server (OAS). If the server is not in the Alive state, the following events may have occurred:	
	1. The server is being initialized, bounced, or restarted.	
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	2. The server is being stopped or has been stopped.	
	3. The server has failed to initialize or bounce.	
	4. The server may have gone down for other reasons.	
	<b>Potential Impact</b> : If the server is in the Init, Bounce, or Restart state, it should be Alive soon. If the server is stopped or in the process of being stopped, the server is no longer available. If the server status is InitFail, BounceFail, or Unknown, it is not in the operational state and the OAS administrator should be notified.	
	<b>Suggested action</b> : If the designated server is not running, the OAS Administrator should start the server using the appropriate script or the Oracle Enterprise Manager console. It is important to note if this is the HTTP server or an OC4J instance, since the startup process is different for each type. If the server has been stopped, it may have been placed in this state for a reason.	
Report Type	N/A	
Area	Availability	

#### Metric C013\_ServerStatus

Policy Name	OASSPI_0013
Metric Name	C013_ServerStatus
Metric Type	Alarming
Description	Status of the OHS server
Available OAS Version	10gR3
Severity: Condition with Threshold	Major: OASSPI-0013.1, threshold >=90 Warning: OASSPI-0013.2, threshold >=80
Collection Interval	
Threshold type	Maximum
Message Group	OracleAS
Message Text	
Instruction Text	
Report Type	
Area	

#### Metric C014\_ThreadPoolUtil

Policy Name	OASSPI_0014
Metric Name	C014_ThreadPoolUtil
Metric Type	Alarming, Graphing, Reporting
Description	Percentage utilization of available connections in thread pool
Available OAS Version	10gR3
Severity: Condition with Threshold	Major: OASSPI-0014.1, threshold >=90 Warning: OASSPI-0014.2, threshold >=80
Collection Interval	
Threshold type	Maximum
Message Group	OracleAS
Message Text	
Instruction Text	
Report Type	
Area	

#### Metric C015\_ThreadPoolWaitCnt

Policy Name	OASSPI_0015
Metric Name	C015_ThreadPoolWaitCnt
Metric Type	Alarming, Graphing, Reporting
Description	Number of task(s) waiting in the queue for a thread to become available
Available OAS Version	10gR3
Severity: Condition with Threshold	Major: OASSPI-0015.1, threshold >=90 Warning: OASSPI-0015.2, threshold >=80
Collection Interval	
Threshold type	Maximum
Message Group	OracleAS
Message Text	
Instruction Text	
Report Type	
Area	

#### Metric J233\_StlesSsnBnPlUt

Policy Name	OASSPI_0233	
Metric Name	J233_StlesSsnBnPlUt	
Metric Type	Alarming, Reporting	
Description	Indicates Utilization of Stateless Session Bean Pool	
Available OAS Version	10gR3	
Severity: Condition with Threshold	Major: OASSPI-0233.1, threshold >=90 Warning: OASSPI-0233.2, threshold >=80	
Collection Interval	5m	
Threshold type	Maximum	
Message Group	OracleAS	
Message Text	OASSPI-0233.1: JDBC connection cache misses (<\$VALUE>%) too high (>= <\$THRESHOLD>%) [Policy: <\$NAME>] OASSPI-0233.2: JDBC connection cache misses (<\$VALUE>%) too high (>= <\$THRESHOLD>%) [Policy: <\$NAME>>]	
Instruction Text	The specific JDBC connection cache instance can be found in the object field of the message. This alarms might indicate that the connection cache size should be increased. Refer to the <i>Oracle Application Server Performance Guide</i> for information on tuning the performance of the application server.	
Report Type	Automatic	
Area	JDBC	

## Metric J234\_StfulSsnBnPlUtl

Policy Name	OASSPI_0234	
Metric Name	J234_StfulSsnBnPlUtl	
Metric Type	Alarming, Reporting	
Description	Indicates Utilization of Stateful Session Bean Pool	
Available OAS Version	10gR3	
Severity: Condition with Threshold	Major: OASSPI-00234.1, threshold >=90 Warning: OASSPI-0234.2, threshold >=80	
Collection Interval	5m	
Threshold type	Maximum	
Message Group	OracleAS	
Message Text	OASSPI-0234.1: JDBC connection cache misses (<\$VALUE>%) too high (>= <\$THRESHOLD>%) [Policy: <\$NAME>] OASSPI-0234.2: JDBC connection cache misses (<\$VALUE>%) too high (>= <\$THRESHOLD>%) [Policy: <\$NAME>]	
Instruction Text	The specific JDBC connection cache instance can be found in the object field of the message. This alarms might indicate that the connection cache size should be increased. Refer to the <i>Oracle Application Server Performance Guide</i> for information on tuning the performance of the application server.	
Report Type	Automatic	
Area	JDBC	

## Metric J235\_EntityBnPlUtl

Policy Name	OASSPI_0235	
Metric Name	J235_EntityBnPlUtl	
Metric Type	Alarming, Reporting	
Description	Indicates Utilization of Entity Bean Pool	
Available OAS Version	10gR3	
Severity: Condition with Threshold	Major: OASSPI-0235.1, threshold >=90 Warning: OASSPI-0235.2, threshold >=80	
Collection Interval	5m	
Threshold type	Maximum	
Message Group	OracleAS	
Message Text	OASSPI-0235.1: JDBC connection cache misses (<\$VALUE>%) too high (>= <\$THRESHOLD>%) [Policy: <\$NAME>] OASSPI-0235.2: JDBC connection cache misses (<\$VALUE>%) too high (>= <\$THRESHOLD>%) [Policy: <\$NAME>]	
Instruction Text	The specific JDBC connection cache instance can be found in the object field of the message. This alarms might indicate that the connection cache size should be increased. Refer to the <i>Oracle Application Server Performance Guide</i> for information on tuning the performance of the application server.	
Report Type	Automatic	
Area	JDBC	

#### Metric C273\_TranRollbackAppRt

Policy Name	OASSPI_0273	
Metric Name	C273_TranRollbackAppRt	
Metric Type	Alarming, Reporting	
Description	Number of transactions rolledback due to the application calling setRollbackOnly or rollback explicitly per second	
Available OAS Version	10gR3	
Severity: Condition with Threshold	Major: OASSPI-00273.1, threshold >=90 Warning: OASSPI-0273.2, threshold >=80	
Collection Interval	5m	
Threshold type	Maximum	
Message Group	OracleAS	
Message Text	OASSPI-0273.1: % of transactions rolled back due to application error (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]	
Instruction Text	<ul> <li>Probable cause : The percent of transactions rolled back due to application errors has exceeded the threshold value. Transactions are not successfully completing due to application errors.</li> <li>Potential impact : Fewer user requests are being successfully completed.</li> <li>Suggested action : The administrator can monitor individual transactions from the Administration Console. In addition to displaying statistics, the following information can also be displayed:</li> </ul>	
	<ol> <li>Transactions by name, including rollback and time active information.</li> <li>Transactions by resource, including statistics on total, committed, and rolled back transactions.</li> <li>All active transactions, including information on status, servers, resources, properties, and the transaction identifier.</li> </ol>	
Report Type	Operator-initiated graph; Application Bank: ASCII report	

Area

Transactions

#### Metric C274\_TranRollbackTimedoutRt

Policy Name	OASSPI_0274	
Metric Name	C274_TranRollbackTimedoutRt	
Metric Type	Alarming, Reporting	
Description	Number of transactions rolledback due to timeout per second	
Available OAS Version	10gR3	
Severity: Condition with Threshold	Major: OASSPI-0274.1, threshold >=90 Warning: OASSPI-0274.2, threshold >=80	
Collection Interval	5m	
Threshold type	Maximum	
Message Group	OracleAS	
Message Text	OASSPI-0274.1: % of transactions rolled back due to timeout error (<\$VALUE>%) too high (>=<\$THRESHOLD>%) [Policy: <\$NAME>]	
Instruction Text	<ul> <li>Probable cause : The percent of transactions rolled back due to timeout errors has exceeded the threshold value. Transactions are not successfully completing due to timeout errors.</li> <li>Potential impact : Fewer user requests are being successfully completed.</li> <li>Suggested action : The administrator can monitor individual transactions from the Administration Console. In addition to displaying statistics, the following information can also be displayed:</li> <li>1. Transactions by name, including rollback and time active information.</li> <li>2. Transactions by resource, including statistics on total, committed, and rolled back transactions.</li> <li>All active transactions, including information on status, servers, resources,</li> </ul>	
	properties, and the transaction identifier.	

Report Type	Operator-initiated graph; Application Bank: ASCII report
Area	Transactions

#### Metric C275\_TranRollbackAdminRt

Policy Name	OASSPI_0275
Metric Name	C275_TranRollbackAdminRt
Metric Type	Alarming, Reporting
Description	Number of transactions rolledback due to administrative action per second
Available OAS Version	10gR3
Severity: Condition with Threshold	Major: OASSPI-0275.1, threshold >=90 Warning: OASSPI-0275.2, threshold >=80
Collection Interval	
Threshold type	Maximum
Message Group	OracleAS
Message Text	
Instruction Text	
Report Type	Operator-initiated graph; Application Bank: ASCII report
Area	Transactions

#### **Metric naming/numbering conventions**

The Smart Plug-in for Oracle Application Server (Oracle AS SPI) metrics are identified by a metric name/number. These numbers also appear in the policies and reports (if either exists for the parallel metric). The naming/numbering conventions are as follows:

- *metric names/numbers* : The 'C' preceding each metric number designates the metric as an Oracle Application Server SPI metric. Oracle AS SPI metrics can then be identified as CXXX, where XXX represents the number assigned to the metric; for example, C005.
- *metric number ranges* : Oracle AS SPI numbers range from 0000 to 0999. The range 1000 to 1999 is reserved for User Defined Metrics.
- *report names* : If available for a specific Oracle AS SPI metric, the report name is the metric number followed by an underscore and the abbreviated metric name; for example, C005\_JVMMemUtilPct.
- *policy names* : Metric policy names do not contain "C". The names begin with OASSPI followed by an underscore and the metric number. Zeroes are used as necessary to total a four-digit number; for example, metric number C005 = policy OASSPI\_0005

<b>Metric Specification I</b>	Description
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Policy Name	Always begins with 'OASSPI', followed by the metric number. Within the policy you can change settings as described in the definition; for example you can change the settings for threshold value or severity.	
Metric Name	The name assigned to the metric.	
Metric Type	Shows how the metric is used, such as:	
	• Alarming (using policy settings)	
	• <i>Reporting</i> (within a report of the separately purchased HP Reporter)	
	• <i>Graphing</i> (within a graph of the separately purchased HP Performance Manager)	
Description	What the metric represents.	
Available OAS Version	The Oracle Application Server version for which the metric is available.	
Severity:	The severity of the exceeded threshold condition. (Critical, Major, Minor,	

Condition with Threshold	Warning, Normal). If multiple conditionsfor example, graduated thresholds are defined within the metric, severity levels are identified according to the specific condition. Metrics with a threshold value of 0 are set at 0.5 because alarms must occur at less than-equal to or greater than-equal to values. Since a 0 value would always trigger an alarm, the threshold is set to 0.5.	
Collection Interval	How often the metric is collected and analyzed (for example, 5 min, 15 min, 1 hour, 1 time daily).	
Threshold Type	<ul> <li>The type of threshold for a monitor that causes a message to be generated:</li> <li>Minimum - a message is generated if the monitored value equals or drops below the minimum acceptable limit.</li> <li>Maximum - a message is generated if the monitored value equals or exceeds the maximum limit.</li> </ul>	
Message Generation	Describes how alarms/messages are generated. Because this setting is the same for all Oracle Application Server metrics (without reset), it is omitted. Message generation without reset generates alarms when the monitoring threshold is exceeded. Alarms are reset automatically when metric values are no longer in violation of the thresholds.	
Message Group	<ul> <li>The message group to which the metric belongs:</li> <li>OASSPI : conditions occurring in the Oracle AS SPI</li> <li>OracleAS : conditions occurring in Oracle Application Server.</li> </ul>	
Message Text	The message displayed for each condition.	
Instruction Text	Problem-solving information (Probable causes, Potential impact, Suggested actions, and Reports).	
Report Type	<ul> <li>When a report or graph is available, the method in which it is generated.</li> <li>(Application Bank, Automatic, Operator-initiated, N/A).</li> <li>Application Bank - Reports can be generated from the Application Bank in HPOM and are created for all Oracle OC4J/OHS server instances on the managed node.</li> <li>Automatic - A report is generated automatically when an event is detected for a single Oracle OC4J/OHS server instance (the instance on which the event is detected).</li> <li>Operator-initiated - A report or graph manually generated by the operator for the metric whose exceeded threshold generated the message along with other related metric values.</li> </ul>	

	• N/A - No report nor graph is planned.
Area	The logical area to which the metric belongs (Availability, Process, EJB, Servlet, JSP, JMS, JDBC, Web Context, or HTTP).

#### **Related Topics:**

- Metrics
- Golden Metrics
- Monitors
- Logfiles

Online Help

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C001	C030	C220	C245
C002	C031	C221	C246
C005	C032	C222	C247
C010	C042	C230	C251
C011	C047	C231	C260
C020	C050	C232	C280
C021	C100	C240	C281
C022	C108	C241	
	C109	C242	

#### **Metrics by numbers**

#### Metric C002\_ServerStatusRep

Policy Name	N/A—Used in a report generated by HP Reporter
Metric Name	C002_ServerStatusRep
Metric Type	Reporting
Description	Status of the server—reporting
Available OAS Version	All
Severity: Condition with Threshold	N/A
Collection Interval	5 m
Threshold type	N/A
Message Group	N/A
Message Text	N/A
Instruction Text	N/A
Report Type	N/A—Used in a report generated by HP Reporter
Area	Availability

## Metric C012\_CPUUtilPctHTTP

Policy Name	OASSPI_0012
Metric Name	C012_CPUUtilPctHTTP
Metric Type	Alarming, Graphing, Reporting
Description	Percent of the CPU time utilized by HTTP server over the collection interval
Available OAS Version	10gR2, 10gR3
Severity: Condition with Threshold	Major: OASSPI-0012.1, threshold >=90 Warning: OASSPI-0012.2, threshold >=80
Collection Interval	
Threshold type	Maximum
Message Group	OracleAS
Message Text	
Instruction Text	
Report Type	
Area	

# Metric C020\_EJBClThreads

Policy Name	OASSPI_020
Metric Name	C020_EJBClActThrd
Metric Type	Reporting, Graphing
Description	Total number of EJB client active threads accessing the actual implementation of all methods for the entire server.
Available OAS Version	All
Severity: Condition with Threshold	N/A
Collection Interval	1 h
Threshold type	N/A
Message Group	N/A
Message Text	N/A
Instruction Text	N/A
Report Type	N/A
Area	EJB (OC4J)

## Metric C021\_EJBClAvgExecTim

Policy Name	OASSPI_021
Metric Name	C021_EJBClAvgExecTim
Metric Type	Reporting, Graphing
Description	Average time (in milliseconds) EJB method clients spent inside the actual implementations of all methods.
Available OAS Version	All
Severity: Condition with Threshold	N/A
Collection Interval	1 h
Threshold type	N/A
Message Group	N/A
Message Text	N/A
Instruction Text	N/A
Report Type	N/A
Area	EJB (OC4J)

# Metric C022\_EJBClCallsPrcRt

Policy Name	OASSPI_022
Metric Name	C022_EJBClCallsPrcRt
Metric Type	Reporting, Graphing
Description	Total number of requests (per minute) processed by the actual implementation of all EJB methods over the collection interval
Available OAS Version	All
Severity: Condition with Threshold	N/A
Collection Interval	1 h
Threshold type	N/A
Message Group	N/A
Message Text	N/A
Instruction Text	N/A
Report Type	N/A
Area	EJB (OC4J)

## Metric C030\_EJBWrapActThrds

Policy Name	OASSPI_030
Metric Name	C030_EJBWrapActThrds
Metric Type	Reporting, Graphing
Description	Total number of EJB active threads accessing the automatically generated wrapper of all methods for the entire server
Available OAS Version	All
Severity: Condition with Threshold	N/A
Collection Interval	1 h
Threshold type	N/A
Message Group	N/A
Message Text	N/A
Instruction Text	N/A
Report Type	N/A
Area	EJB (OC4J)

# Metric C031\_EJBWrpAvExecTim

Policy Name	OASSPI_031
Metric Name	C031_EJBWrpAvExecTim
Metric Type	Reporting, Graphing
Description	Average time (in milliseconds) spent inside all automatically generated wrappers of all EJB methods.
Available OAS Version	All
Severity: Condition with Threshold	N/A
Collection Interval	1 h
Threshold type	N/A
Message Group	N/A
Message Text	N/A
Instruction Text	N/A
Report Type	N/A
Area	EJB (OC4J)

# Metric C032\_EJBWrpCallPrcRt

Policy Name	OASSPI_032
Metric Name	C032_EJBWrpCallPrcRt
Metric Type	Reporting, Graphing
Description	Total number of requests processed (per minute) by the automatically generated wrapper of all EJB methods over the collection interval
Available OAS Version	All
Severity: Condition with Threshold	N/A
Collection Interval	1 h
Threshold type	N/A
Message Group	N/A
Message Text	N/A
Instruction Text	N/A
Report Type	N/A
Area	EJB (OC4J)

## Metric C042\_SrvltActThreads

Policy Name	OASSPI_042
Metric Name	C042_SrvltActThreads
Metric Type	Reporting, Graphing
Description	Total number of threads servicing all servlets
Available OAS Version	All
Severity: Condition with Threshold	N/A
Collection Interval	1 h
Threshold type	N/A
Message Group	N/A
Message Text	N/A
Instruction Text	N/A
Report Type	N/A
Area	Servlet (OC4J)

## Metric C047\_JSPActRequests

Policy Name	OASSPI_047
Metric Name	C047_JSPActRequests
Metric Type	Reporting, Graphing
Description	Total number of active requests for all JSPs
Available OAS Version	All
Severity: Condition with Threshold	N/A
Collection Interval	1 h
Threshold type	N/A
Message Group	N/A
Message Text	N/A
Instruction Text	N/A
Report Type	N/A
Area	JSP (OC4J)

# Metric C108\_HTTPAvgRespSzRq

Policy Name	OASSPI_0108		
Metric Name	C108_HTTPAvgRespSzRq		
Metric Type	Reporting, Graphing		
Description	Average size of the response data (in Kilobytes) per request completed by the HTTP server.		
Available OAS Version	All		
Severity: Condition with Threshold	N/A		
Collection Interval	15 m		
Threshold type	N/A		
Message Group	N/A		
Message Text	N/A		
Instruction Text	N/A		
Report Type	N/A		
Area	HTTP (OHS)		

# Metric C109\_HTTPVHAvRspSzRq

Policy Name	OASSPI_0109
Metric Name	C109_HTTPVHAvRspSzRq
Metric Type	Reporting, Graphing
Description	Average size of the response data (in Kilobytes) per request completed by the HTTP server virtual host.
Available OAS Version	All
Severity: Condition with Threshold	N/A
Collection Interval	15 m
Threshold type	N/A
Message Group	N/A
Message Text	N/A
Instruction Text	N/A
Report Type	N/A
Area	HTTP (OHS)

# Metric C241\_SrvltExecTime

Policy Name	OASSPI_0241		
Metric Name	C241_SrvltExecTime		
Metric Type	Reporting		
Description	Total number (in milliseconds) spent on the servlet's service() call over the collection interval		
Available OAS Version	All		
Severity: Condition with Threshold	N/A		
Collection Interval	1 h		
Threshold type	N/A		
Message Group	N/A		
Message Text	N/A		
Instruction Text	N/A		
Report Type	N/A		
Area	Servlet (OC4J)		

# Metric C246\_JSPExecTime

Policy Name	OASSPI_0246	
Metric Name	C246_JSPExecTime	
Metric Type	Reporting	
Description	Total time to serve a JSP (in milliseconds) over the collection interval	
Available OAS Version	All	
Severity: Condition with Threshold	N/A	
Collection Interval	1 h	
Threshold type	N/A	
Message Group	N/A	
Message Text	N/A	
Instruction Text	N/A	
Report Type	N/A	
Area	JSP (OC4J)	

#### **Data Store Table for Oracle Application Server**

The Oracle AS SPI creates the following data tables for Oracle AS SPI metrics in the data store on the node to facilitate the data-collection procedure.

Table Name	Area	Metric Description	Column Name
OASSPI_RPT_METRICS	Server	Status of the server	C002_ServerStatusRep
OASSPI_METRICS	JVM	Status of the server - reporting	C005_JVMMemUtilPct
	Server	Percentage of heap space used in the JVM	C010_CPUUtilPct
		Percentage of CPU time utilized by the OHS server	C011_MemoryUtilPct
	JVM	Percent of the CPU time utilized by the HTTP server during the collection interval	C012_CPUUtilPctHTTP
	Server	The utilization of available connections in thread pool in percentage	C014_ThreadPoolUtil
		Number of task(s) waiting in the queue for the availabilty of a thread	C015_ThrdPoolWaitCnt
	ThreadPool	Total number of EJB client active threads	

OASSPI_METRICS OASSPI_RPT_METRICS		accessing the actual implementation of all methods for the entire server	C020_EJBClActThreads
	EJB	Average time of EJB method clients spent inside the actual implementations of all methods (msec)	C021_EJBClAvgExecTim
		Total number of requests processed by the actual implementation of all EJB methods over the collection interval (per minute)	C022_EJBClCallsPrcRt
		Total number of EJB active threads accessing the automatically generated wrapper of all methods for the entire server	C030_EJBWrapActThrds
		Average time spent inside the automatically generated wrapper of all EJB methods (msec)	C031_EJBWrpAvExecTim
		Total number of requests processed by the automatically generated wrapper of all EJB methods over the collection interval (per minute)	C032_EJBWrpCallPrcRt

	WebModule	Total number of threads servicing all servlets	C042_SrvltActThreads
		Total number of active requests for all JSPs	C047_JSPActRequests
	JMS	Frequency of the JMS connections created over the collection interval	C050_JMSConnCreated
	WebModule	Number of active HTTP connections	C100_HTTPSvrActConn
		Average size of the response data (KB) per request completed by the HTTP server	C108_HTTPAvgRespSzRq
		Average size of the response data (KB) per request completed by the HTTP server virtual host	C109_HTTPVHAvRspSzRq
OASSPI_RPT_METRICS		Number of client active threads accessing the actual implementation of an EJB method	C220_EJBClActThreads
OASSPI_METRICS OASSPI_RPT_METRICS		Average time spent inside the actual implementation of a specific EJB method (msec)	C221_EJBClAvgExecTim

OASSPI_RPT_METRICS EJB		Total number of requests processed by the actual implementation of methods for each EJB over the collection interval (per minute)	C222_EJBClCallsPrcRt
	E ID	Number of active threads accessing the automatically generated wrapper of an EJB method	C230_EJBWrapActThrds
	ЕЈВ	Average time spent inside the automatically generated wrapper of a specific EJB method (msec)	C231_EJBWrpAvExecTim
		Total number of requests processed by the automatically generated wrapper of methods for each EJB over the collection interval (per minute)	C232_EJBWrpCallPrcRt
		Indicates Utilization of Stateless Session Bean Pool	J233_StlesSsnBnPlUtl
OASSPI_METRICS OASSPI_RPT_METRICS		Indicates Utilization of Stateful Session Bean Pool	J234_StfulSsnBnPlUtl

_	_		
		Indicates Utilization of Entity Bean Pool	J235_EntityBnPlUtl
		Average time spent on the servlet's service() call (msec) over the collection interval	C240_SrvltAvgExecTim
		Total time spent on the servlet's service() call (msec) over the collection interval	C241_SrvltExecTimes
	WebModule	Current number of threads servicing the servlet	C242_SrvltActThreads
		Number of requests for a servlet per second	C243_ServletReqRate
		Average time to serve a JSP (msec) over the collection interval	C245_JSPAvgExecTime
		Total time to serve a JSP (msec) over the collection interval	C246_JSPExecTime
		Current number of active requests for the JSP	C247_JSPActRequests
OASSEL DET METDICS		Number of requests, per second, for a JSP	C248_JSPReqRate

	JMS	Total number of messages contained in the message store	C251_JMSTotalMsgCt
		Percentage of failed cache connection requests	C260_JDBCCachMissPct
		Number of transactions rolled back, per second, because of an error in an enlisted resource	J272_TrnRollbkRsrcRt
JDBC	JDBC	Number of transactions rolled back, per second, because of the application calling the setRollbackOnly or rollback processes explicitly per second	J273_TrnRollbkAppRt
		Number of transactions rolled back, per second, because of timeout	J274_TrnRolbkTmoutRt
		Number of transactions rolled back, per second, because of administrative action	J275_TrnRolbkAdminRt
		Average time spent servicing web modules per request processed over the collection interval	C280_WebCntxtAvRqPrc
OASSPI_METRICS OASSPI_RPT_METRICS	WebModule	(msec)	
--------------------------------------	-----------	---	----------------------
		Current number of active sessions for a web module within an application	C281_WebCntxtActSess

# Metrics [JMX]

Metrics [JMX] are available for 10gR3 version of Oracle Application Server.

- OASSPI\_0001
- OASSPI\_0005
- OASSPI\_0012
- OASSPI\_0013
- OASSPI\_0014
- OASSPI\_0015
- OASSPI\_0233
- OASSPI\_0234
- OASSPI\_0235
- OASSPI\_0243
- OASSPI\_0245
- OASSPI\_0248
- OASSPI\_0272
- OASSPI\_0273
- OASSPI\_0274
- OASSPI\_0275
- OASSPI\_0290

- Golden Metrics
- Metric Naming/Numbering Conventions
- Monitors
- Monitors [JMX]
- Logfiles

### Metric C290\_TimerServiceStatus

Policy Name	OASSPI_0290		
Metric Name	C290_TimerServiceStatus		
Metric Type	Alarming		
Description	Status of the Timer service		
Available OAS Version	10gR2, 10gR3		
Severity: Condition with Threshold	Major: OASSPI-0290.1, threshold >=90 Warning: OASSPI-0290.2, threshold >=80		
Collection Interval			
Threshold type	Maximum		
Message Group	OracleAS		
Message Text			
Instruction Text			
Report Type			
Area	Timer Service		

# Monitors

Smart Plug-in for Oracle Application Server (Oracle AS SPI) Monitors policy group contains:

- Collector policies
- OASSPI-ConfigCheck policy
- OASSPI-Performance policy

### **Collector policies**

Collector policies control what metrics are collected by running the collector/analyzer at the specified polling interval and defining the metrics that are collected.

Collector Policy Name	Policy Description	Polling Interval	Metrics Collected	
OASSPI-OC4J- 1h	Runs the Oracle AS 10g SPI (OC4J) collector/analyzer every 1 hour	59 m	20-22, 220-222, 30-32, 230- 232, 42, 240-242, 47, 245- 247, 251	
OASSPI-OC4J- 15min	Runs the Oracle AS 10g SPI (OC4J) collector/analyzer every 15 minutes	14 m	50, 280, 281	
OASSPI-OC4J- 05min	Runs the Oracle AS 10g SPI (OC4J) collector/analyzer every 5 minutes	5 m	1, 2, 5, 10, 11, 260	
OASSPI-OHS- 15min	Runs the Oracle AS 10g SPI (HTTP_Server) collector/analyzer every 15 minutes	14 m	100, 108, 109	
OASSPI-OHS- 05min	Runs the Oracle AS 10g SPI (HTTP_Server) collector/analyzer every 5 minutes	5 m	1, 2, 10, 11	

### OASSPI-ConfigCheck

OASSPI-ConfigCheck checks if the managed node is configured.

### **OASSPI-Performance**

OASSPI-Performance logs Oracle AS SPI performance data every 5 minutes.

- Metrics
- Logfiles
- Golden Metrics
- Metric Naming/Numbering Conventions

# **Monitors [JMX]**

Smart Plug-in for Oracle Application Server (Oracle AS SPI) Monitors policy group contains:

- Collector policies
- OASSPI-ConfigCheck policy
- OASSPI-Performance policy

### **Collector policies**

Collector policies control what metrics are collected by running the collector/analyzer at the specified polling interval and defining the metrics that are collected.

Collector	Policy Description	Polling	Metrics
Policy Name		Interval	Collected
OASSPI-OC4J- 15minRuns the Oracle AS 10g SPI (OC4J) collector/analyzer every 15 minutes		15 m	
OASSPI-OHS- 05min	Runs the Oracle AS 10g SPI (HTTP_Server) collector/analyzer every 5 minutes	5 m	
OASSPI-OC4J-	Runs the Oracle AS 10g SPI (OC4J)	5 m	1, 2, 5, 10, 11,
05min	collector/analyzer every 5 minutes		260

### OASSPI-ConfigCheck

OASSPI-ConfigCheck checks if the managed node is configured.

### **OASSPI-Performance**

OASSPI-Performance logs Oracle AS SPI performance data every 5 minutes.

- Metrics
- Logfiles

- Golden Metrics
- Metric Naming/Numbering Conventions

# **Configuration editor-overview**

The Smart Plug-in for Oracle Application Server (Oracle AS SPI) maintains a configuration that consists of property values that are discovered by the discovery process or are user defined. The configuration editor is a graphical user interface that you can use to view and edit the configuration. The Discover or Configure OASSPI tool uses the configuration editor.

- The configuration editor-getting started
- Components of configuration editor
- Sample configurations
- Configuration properties

# The configuration editor-getting started

The Smart Plug-in for Oracle Application Server (Oracle AS SPI) maintains the configuration that consists of property values that are discovered by the discovery process or are user defined.

On the HPOM management server, the configuration maintains information for your entire environment and contains information for all OC4J/OHS servers on the managed nodes.

On a managed node, the configuration contains information only for the OC4J/OHS servers running on that node. This information is extracted from the configuration on the management server.

### The structure

The structure of the configuration is as below (lines beginning with "#" are treated as comments and ignored):

```
# Global Properties
    <config_property >=<value > ...
# GROUP Block
    GROUP <group_name >
    {
        <nodename > ...
    }
# NODE Block
    NODE [<group_name > | <nodename >]
    {
        <config_property >=<value > ...
    }
```

Click the links below to get detailed information about each level:

Global Properties

```
# Global Properties
<config_property >=<value > ...
```

Properties defined at the global level apply to all nodes. However, these global properties can be overridden by properties set within a GROUP or NODE block or by server-specific properties.

To view, set, or edit global properties, in the configuration editor select the Default Properties item under the Defaults folder. Using the configuration editor, view, set, or edit global properties by selecting the Default Properties item in the Defaults folder.

#### • **GROUP Block**



You can use GROUP blocks to group together nodes having common properties.

<group\_name > denotes a group of nodes with common properties. If you repeat a GROUP block
<group\_name > within the configuration file, then the last definition takes precedence.

<nodename > lists the nodes in the group and is the primary node name configured in HPOM.

You can set the common properties using the NODE block.

To view, set, or edit GROUP block properties, in the configuration editor select the Default Properties item under the *<Group\_Name>* folder.

#### • NODE Block

Properties set in a NODE block apply to nodes belonging to the group defined by *<group\_name* > (to set common properties for a group) or to the specified *<nodename* > (to set properties for a single node).

To set properties for a group, enter the *<group\_name* > defined by the GROUP block and define the

common properties.

To set properties for a single node, enter the *<nodename* > and define the properties.

<*nodename* > is the primary node name configured in HPOM.

If you repeat a property definition within the NODE block, the last definition takes precedence.

To view, set, or edit GROUP block properties, in the configuration editor select the Default Properties item under the *<Node\_Name>* folder.

#### Server-specific properties

Apart from the high level properties you can also view, set, or edit properties specific to a server. Each property specified as SERVER $< n > _config_property$  refers to a specific OC4J/OHS server instance. When more than one OC4J/OHS servers are running on a given managed node, the number < n > differentiates the servers. Numbering begins at "1" and each OC4J/OHS server instance is assigned a unique number.

To view, set, or edit server specific properties, in the configuration editor select <*Application\_Server\_Name>* under the OC4J/OHS folder.

### **Configuration property precedence**

The order of precedence of properties defined in the configuration are:

- 1. SERVER<*n*>\_*config\_property* (server-specific)
- 2. NODE nodename block config\_property
- 3. NODE group\_name block config\_property
- 4. Global config\_property

### Primary node name

The *<nodename* > specified in a GROUP and NODE block is the primary node name configured in HPOM. To view the primary node name, do the following:

- 1. From the HPOM console, select **Operations Manager**  $\rightarrow$  **Nodes**.
- 2. Right-click the node and select **Properties** .

3. Select the **Network** tab.

### **Configuration location**

Click the links below to view a list of locations of the configuration file. You must, however, edit the configuration using the configuration editor only.

• On management server <ShareInstallDir> \SPI-Share\wasspi\oas\conf\SiteConfig

where <code><ShareInstallDir></code> is typically C:\Documents and Settings\All Users\Application Data\HP\HP BTO Software\shared

This file contains all configuration information for all managed nodes on which OC4J/OHS is running.

• On Windows managed node <OvAgentDir> \wasspi\oas\conf\SiteConfig

```
where <OvAgentDir> is typically \Program Files\HP\HP BTO Software\ Or
C:\Program Files\HP OpenView\Installed Packages\{790C06B4-844E-11D2-972B-
080009EF8C2A}
```

This file contains the local configuration information for this managed node on which OC4J/OHS is running.

• On UNIX managed node <OvAgentDir> /conf/oasspi/SiteConfig

where <AgentDir> is typically /var/opt/OV/ or /var/lpp/OV/

This file contains the local configuration information for this managed node on which OC4J/OHS is running.

- Configuration editor-overview
- Sample configurations
- Components of configuration editor

# **Components of configuration editor**

You can use the Oracle Application Server Smart Plug-in (Oracle AS SPI) configuration editor to view and edit the configuration. You must update the configuration using the configuration editor only.

The configuration editor has three components:

#### • The configuration editor tree

The Configuration Editor - Tree displays the Oracle AS SPI configuration file in a tree structure. You can view the configuration tree in the left pane of the Discover or Configure OASSPI Tool: Configuration Editor window.

The following is an example of the tree.

#### NOTE:

If no application servers or groups are configured, the Application Servers and Groups folders do not appear. If you do not select any node when launching the Discover or Configure OASSPI tool for the first time then the Nodes folder does not appear in the tree.



The icon denotes that you can view configuration properties.

The 🖆 icon denotes that you can view and set configuration properties.

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Item Name	Description	
Application Servers	A folder that contains a list of all the OC4J/OHS servers. This folder can appear under Defaults (global properties level ), Group_Name (GROUP level ), or Node_Name (NODE level ).	
<application_server_name></application_server_name>	The server name as defined in Oracle Application Server.	
Configuration	A folder that contains all Oracle AS SPI configuration information for the Oracle Application Server environment.	
Default Properties	Lists the configuration properties that have been set. This item appears under Defaults (global properties level ), Group_Name (GROUP level ), or Node_Name (NODE level ).	
Defaults	This folder represents the global properties level . Default properties set at this level apply to all nodes. But, these properties can be overridden by properties set under the <i><group_name< i=""> <i>&gt; <node_name< i=""> <i>&gt;</i>folders.</node_name<></i></group_name<></i>	
Groups	This folder represents the GROUP level .	
<group_name></group_name>	This folder identifies the name of a group of nodes with common properties. Default properties set at this level apply to all nodes that belong to the specific group. These properties can be overridden by properties set under the <i><node_name></node_name></i> folder	
Nodes	This folder represents the NODE level .	
<node_name></node_name>	This folder represents a single node whose name matches the value returned by the HPOM variable <code>\$OPC_NODES</code> . This is the primary node name configured in HPOM. Default properties set at this level apply to the specified node only.	

The following table lists each item in the tree and a brief description of the item.

#### • Actions to perform

The actions that you can perform depend on the item that you select in the tree. You can perform the actions listed in the table below either by using the Actions menu or by right-clicking an item in the tree.

In the following table, click the action for a more detailed description (if available) of how to perform that action.

Action	Description	Selected Tree Item	
Add OC4J/OHS Server	You can add an OC4J/OHS server to the managed node.	<pre>OC4J/OHS Servers Defaults </pre> <i>Contemp</i> Content Con	
Add Group	You can create a group to which you can assign nodes that have common properties.	Any item in the tree Any item in the tree	
Add Node	You can add a managed node to the Nodes folder.	Any item in the tree Any item in the tree	
Exit	To exit the Discover or Configure OASSPI tool. This action is available from the File menu. If you make any changes that are saved, the Confirm Cancel window pop-up window opens.	Any item in the tree Any item in the tree	
Remove OC4J/OHS Server/Remove ALL OC4J/OHS Servers	You can remove one instance of the OC4J/OHS server or remove all listed OC4J/OHS servers from the managed node.	<pre>OC4J/OHS Servers</pre>	
Remove Group/Remove ALL Groups	Remove one Oracle AS SPI group or all listed oas-SPI groups.	<pre>Groups Group_Name &gt;</pre>	
Remove Node/Remove ALL Nodes	Remove one managed node or remove all managed nodes.	<pre>Image: Image: Imag</pre>	
Save	To save changes to the configuration file. This action is available from the File menu only if you make any changes to the configuration file.	Any item in the tree Any item in the tree	
Set Configuration Properties tab	You can click the Set Configuration Properties tab and set configuration properties for the Oracle AS SPI.	<pre>Image: Server_Name Server_Name Server_Name Server_Name</pre>	
View Current Configuration tab	You can click the View Current Configuration tab to view Oracle AS SPI configuration properties.	Any item in the tree Any item in the tree	

#### • The configuration editor buttons

Button	Description			
Cancel	I To exit the OASSPI configuration editor.			
	If you have set configuration properties without saving them, these changes are not saved.			
	If you add or remove an OC4J/OHS server, A node, or a group without saving the changer or if you modify a configuration property, a Configure OASSPI Tool: Configuration Editor window: Confirm Cancel pop-up window opens. Select <b>Save and Exit</b> to save the changes before exiting, <b>Exit without Save</b> to exit without saving the changes, or <b>Return</b> <b>to Editing</b> to continue editing the configuration file (changes are not saved).			
Next	To exit OASSPI configuration editor. When you click this button the Confirm Operation window opens. The nodes that you selected when launching Discover or Configure OASSPI, are listed in this window. The configuration of the selected managed node are updated with your changes. If you make changes to nodes that are not selected (are not listed in the Confirm Operation window), the changes are saved to the HPOM management server's configuration file. To save these changes to the specific, managed node's configuration file, you must relaunch the Discover or Configure OASSPI tool, select those nodes, and then exit.			
Finish	To exit the OASSPI configuration editor. This button appears instead of the <b>Next</b> button if you launch the Discover or Configure OASSPI tool without selecting any node.			
Save	To save changes to the HPOM management server's configuration file and continue editing the configuration file. You may also select <b>File</b> — <b>Save</b> to save your changes.			

You can use the buttons available in the Oracle AS SPI configuration editor to perform several functions.

- The configuration editor-overview
- Sample configurations

# Add OC4J/OHS Server

You can add an Oracle OC4J/OHS Server instance at the global properties , GROUP , or NODE level in the Oracle AS SPI configuration.

To add an OC4J/OHS server, do the following:

- Right-click one of the following items in the tree: Defaults (global properties level), OC4J/OHS Servers (global properties level), <*Group\_Name* > (GROUP level), or <*Node\_Name* > (NODE level) and select Add OC4J/OHS Server. The OASSPI Configure Tool: Add App Server window opens.
- 2. Enter the server name in the OC4J/OHS Server Name box. This is the name of the OC4J/OHS server as defined in Oracle Application Server and is case-sensitive.
- 3. Click **OK**. The NAME property is set.

The OC4J/OHS server is added and you can view its properties. You may also set additional configuration properties for this server. For more information see Set Configuration Settings tab .

- 4. Click **Save** to save your changes.
- 5. If you do not want to add this OC4J/OHS server, right-click the OC4J/OHS server name, select Remove OC4J/OHS Server , and click **Save** .

After you add an OC4J/OHS server instance, the SPI starts monitoring that server instance on the particular node or nodes in the group.

- Add Group
- Add Node
- Remove OC4J/OHS Server/Remove ALL OC4J/OHS Servers
- Remove Group/Remove ALL Groups
- Remove Node/Remove ALL Nodes
- Set configuration properties
- View current configuration

- The configuration editor-getting started
- Components of configuration editor

# **Add Group**

You can assign nodes with common properties to a specific group in the Oracle AS SPI configuration.

To add a group, do the following:

- 1. Right-click any item in the tree and select **Add Group** . The Configure OASSPI Tool: Add Group window opens.
- 2. Enter a group name in the Group Name box. This group name identifies the group containing nodes with common properties and is NOT case-sensitive.
- 3. Click **OK**. The group is added and the Set Configuration Properties tab for the group is enabled.
- 4. Select **Add Node to Group**, select one node from the list to add to the group, and then click **OK**. Repeat this step to add the remaining nodes to the group.
- 5. Set the configuration properties for this group using the **Select a Property to Set...** list. Refer to Set Configuration Properties tab for more information.
- 6. Click **Save** to save your changes.

If you do not want to add the group, right-click the group name, select Remove Group , and click **Save** .

- Add OC4J/OHS Server
- Add Node
- Remove OC4J/OHS Server/Remove ALL OC4J/OHS Servers
- Remove Group/Remove ALL Groups
- Remove Node/Remove ALL Nodes
- Set configuration properties
- View current configuration
- The configuration editor-getting started
- Components of configuration editor

# Add Node

You can add a managed node to the Oracle AS SPI configuration. After you add the node the SPI will start monitoring the node.

To add a node, do the following:

1. Right-click any item in the tree and select Add Node .

If no additional managed nodes are available to add to the configuration file, the message "All available managed nodes have been added to the configuration." appears . Click **OK** to exit this action.

Otherwise, the Configure OASSPI Tool: Add Node window opens.

- 2. From the menu, select a node to add.
- 3. Click **OK** . The node is added and the Set Configuration Properties tab for the node is enabled.
- 4. Set the configuration properties for this node using the Select a Property to Set... drop-down list. Refer to Set Configuration Properties for more information.
- 5. Click **Save** to save your changes.

If you do not want to add the node, right-click the node name, select Remove Node , and click **Save** .

- Add OC4J/OHS Server
- Add Group
- Remove OC4J/OHS Server/Remove ALL OC4J/OHS Servers
- Remove Group/Remove ALL Groups
- Remove Node/Remove ALL Nodes
- Set configuration properties
- View current configuration
- The configuration editor-getting started

• Components of configuration editor

# **Remove OC4J/OHS Server/Remove ALL OC4J/OHS Servers**

You can remove a single OC4J/OHS server or all listed OC4J/OHS servers from the Oracle AS SPI configuration.

To remove an OC4J/OHS server, do the following:

1. Right-click the OC4J/OHS server name and select Remove OC4J/OHS Server .

The selected OC4J/OHS server name is removed from the list and its configuration properties are removed from the configuration.

2. Click **Save** to permanently remove the OC4J/OHS server.

Click **Cancel** to cancel the removal of the OC4J/OHS server (the application server name appears the next time you launch the Discover or Configure OASSPI tool). In the Confirm Cancel window, click **Exit without Save**.

To remove ALL OC4J/OHS servers, do the following:

1. Right-click the OC4J/OHS Servers folder and select Remove ALL App Servers .

The selected OC4J/OHS Servers folder and all OC4J/OHS servers listed under the selected folder are removed (all configuration properties for the listed OC4J/OHS servers are removed from the configuration).

2. Click **Save** to permanently remove the OC4J/OHS servers.

Click **Cancel** to cancel the removal of all OC4J/OHS servers (the OC4J/OHS Servers folder and all OC4J/OHS server listed under the folder appear the next time you launch the Discover or Configure OASSPI tool). In the Confirm Cancel window, click **Exit without Save** .

- Add OC4J/OHS Server
- Add Group

- Add Node
- Remove Group/Remove ALL Groups
- Remove Node/Remove ALL Nodes
- Set configuration properties
- View current configuration
- The configuration editor-getting started
- Components of configuration editor

### **Remove Group/Remove ALL Groups**

You can remove a single Oracle AS SPI group or all listed Oracle AS SPI groups from the Oracle AS SPI configuration.

To remove a group, do the following:

- 1. Right-click the group server name and select **Remove Group**. The selected group is removed from the list and its configuration properties are removed from the configuration.
- 2. Click **Save** to permanently remove the group.

Click **Cancel** to cancel the removal of the group (the group name appears the next time you run the Discover or Configure OASSPI tool). In the Confirm Cancel window, click **Exit without Save**.

To remove ALL groups, do the following:

- 1. Right-click the Groups folder and select **Remove ALL Groups**. The selected Groups folder and all groups listed under the selected folder are removed (all configuration properties for the listed groups are removed from the configuration).
- 2. Select **Save** to permanently remove the groups.

Click **Cancel** to cancel the removal of all groups (the Groups folder and all group names listed under the folder appear the next time you launch the Discover or Configure OASSPI tool). In the Confirm Cancel window, click **Exit without Save**.

- Add OC4J/OHS Server
- Add Group
- Add Node
- Remove OC4J/OHS Server/Remove ALL OC4J/OHS Servers
- Remove Node/Remove ALL Nodes
- Set configuration properties

- View current configuration
- The configuration editor-getting started
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# **Remove Node/Remove ALL Nodes**

You can remove a single managed node or all listed managed nodes from the Oracle AS SPI configuration file.

To remove a node, do the following:

- 1. Right-click the node name and select **Remove Node**. The selected node is removed from the list and its configuration properties are removed from the configuration.
- 2. Click **Save** to permanently remove the node.

Click **Cancel** to cancel the removal of the node (the node name appears the next time you launch the Discover or Configure OASSPI tool). In the Confirm Cancel window, click **Exit without Save**.

To remove ALL nodes, do the following:

- 1. Right-click the Nodes folder and select **Remove ALL Nodes**. The selected Nodes folder and all nodes listed under the selected folder are removed (all configuration properties for the listed nodes are removed from the configuration).
- 2. Click **Save** to permanently remove the nodes.

Click **Cancel** to cancel the removal of all nodes (the Nodes folder and all node names listed in the folder appear the next time you run Discover or Configure OASSPI). In the Confirm Cancel window, click **Exit without Save**.

- Add OC4J/OHS Server
- Add Group
- Add Node
- Remove OC4J/OHS Server/Remove ALL OC4J/OHS Servers
- Remove Group/Remove ALL Groups
- Set configuration properties
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# **Set configuration properties**

You can set the Oracle AS SPI configuration properties at the global properties level or for the selected application server, group(GROUP level ), or node (NODE level ) using the **Set Configurations Properties** tab.

You can set configuration properties (Default Properties and *Application\_Server\_Name* >) only for items with the right icon. To set the configuration properties of an item, select the item and click the **Set Configuration Properties** tab in the right pane.

You can perform the following actions using the Set Configuration Property tab:

#### • Set a property

To set a property in the configuration, do the following:

- 1. Select a property from the Select a Property to Set drop-down menu.
- 2. Select **Set Property** . The property and an empty value field appear in the table.
- 3. Click in the empty value field and enter a value.
- 4. Repeat steps 1 3 for each property to set.
- 5. Click **Save** to save the changes.

#### **NOTE:**

For the LOGIN and PASSWORD properties, when you select **Set Property**, a separate window opens. Enter the login and password values in this window.

Refer to Configuration properties for more information about individual properties.

#### • Modify a property

To modify a property (except LOGIN) in the configuration file, do the following:

- 1. Select the property from the table.
- 2. Double-click the value field.
- 3. Edit the value.
- 4. Repeat steps 1 3 for each property to modify.

5. Click **Save** to save the changes.

To modify the LOGIN property in the configuration file, do the following:

- 1. Select LOGIN/PASSWORD from the Select a Property to Set... drop-down menu.
- 2. Select Set Property . The Set Access Info for Default Properties window opens.
- 3. Enter a new password and verify the password.
- 4. Click **OK**.
- 5. Click **Save** to save the changes.

Refer to Configuration properties for more information about individual properties.

#### Remove a property

To remove a property from the configuration file, do the following:

- 1. Select the property from the table in the configuration editor.
- 2. Click Remove Property .
- 3. Repeat steps 1 2 for each property to remove.
- 4. Click **Save** to save the changes.

- Add OC4J/OHS Server
- Add Group
- Add Node
- Remove OC4J/OHS Server/Remove ALL OC4J/OHS Servers
- Remove Group/Remove ALL Groups
- Remove Node/Remove ALL Nodes
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# **View Current Configuration**

You can view the Master Configuration for the Oracle AS SPI set in the HPOM management server's configuration or the Oracle AS SPI configuration properties set for the selected application servers, groups, or nodes.

To view the configuration properties of an item, select the item and click the **View Current Configuration** tab in the right pane.

Item Name	Description of View	
Application Servers	View all configuration properties set for all the listed application servers.	
<application_server_name></application_server_name>	View all configuration properties set for the application server (these properties can be modified by selecting the Set Configuration Properties tab).	
Configurations	View the Master Configuration saved on the HPOM management server's configuration.	
Default Properties	View all set configuration properties (these properties can be modified by selecting the Set Configuration Properties tab)	
Defaults	View all configuration properties set at the global properties level .	
Groups	View all configuration properties set for all the listed groups.	
<group_name></group_name>	View all configuration properties set for the specific group.	
Nodes	View all configuration properties set for all the listed nodes.	
<pre></pre> <pre></pre> <pre></pre> <pre>View all configuration properties set for the specific node.</pre>		

The following table describes the view when the specified item is selected.

### **View Inherited Properties**

A View Inherited Properties check box appears near the bottom of the window. You must select this check box if you want to view the inherited properties. Inherited properties are properties defined at a global properties level or GROUP level that affect the selected item. Inherited properties are denoted by "<\*>" appearing after the property.

If you do not select the View Inherited Properties check box then the configuration editor view will

show only the level specific configuration properties for the selected item.

You can modify an inherited properties only at the level at which it is set. If "<\*>" appears after the property, then you cannot modify the property at that level. For example, if the property HOME is set at the global properties level (under the Defaults folder), you can only modify it at the the Default Properties level listed under the Defaults folder.

Properties set lower in the configuration tree take precedence over the properties set higher in the tree. For example, if the property HOME is set at the global properties level (under the Defaults folder) and also at the GROUP level, the GROUP level property value takes precedence. For Property precedence refer to The configuration editor-getting started.

- Add OC4J/OHS Server
- Add Group
- Add Node
- Remove OC4J/OHS Server/Remove ALL OC4J/OHS Servers
- Remove Group/Remove ALL Groups
- Remove Node/Remove ALL Nodes
- Set configuration properties
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# **Configuration properties**

The Smart Plug-in for Oracle Application Server (Oracle AS SPI) maintains a configuration that consists of property values that are discovered by the discovery process or are user defined.

If you are not using the discovery process, you must configure all the required properties.

The following table lists:

- required configuration properties
- conditional configuration properties
- optional configuration properties

To view the description of each property, click the property name in the table below, or use the dropdown menu at the bottom of the page. To display the descriptions of all properties based on configuration requirements (required, conditional, or optional), use the drop-down menu at the bottom of the page.

Do not use the **Back** button to navigate to any properties viewed previously. Instead, use the dropdown menu at the bottom of the page.

	Configuration	Discovery	Automatically Discovered	Level of Configuration	
Property				Default Properties	Application Server
HOME	Required	Required	$\checkmark$	$\checkmark$	<ul> <li>Image: A start of the start of</li></ul>
HOME_LIST	Required	Required	$\checkmark$	$\checkmark$	<ul> <li>Image: A set of the set of the</li></ul>
JAVA_HOME	Required	Required	$\checkmark$	$\checkmark$	<ul> <li>✓</li> </ul>
LOGIN	Required	Required		$\checkmark$	<ul> <li>Image: A start of the start of</li></ul>
MAP_KEY_PREFIX	Required	Required	$\checkmark$	$\checkmark$	<ul> <li>Image: A start of the start of</li></ul>
NAME	Required	N/A	$\checkmark$		<ul> <li>✓</li> </ul>
PASSWORD	Required	Required		$\checkmark$	<ul> <li>✓</li> </ul>
URL_PATH	Required	Required	$\checkmark$	$\checkmark$	<ul> <li>✓</li> </ul>
JMB_JAVA_HOME	Conditional	Optional		$\checkmark$	$\checkmark$
ALIAS	Conditional	N/A			$\checkmark$

GRAPH_URL	Optional	N/A		$\checkmark$	
RMID_PORT	Conditional	N/A		$\checkmark$	
RMID_START_TIME	Conditional	N/A		$\checkmark$	
ТҮРЕ	Conditional	N/A	$\checkmark$		<ul> <li>✓</li> </ul>
USER	Conditional	N/A		$\checkmark$	<ul> <li>✓</li> </ul>
VERSION	Conditional	N/A	$\checkmark$		<ul> <li>✓</li> </ul>
START_CMD	Optional	N/A		$\checkmark$	<ul> <li>✓</li> </ul>
STOP_CMD	Optional	N/A			✓
TIMEOUT	Optional	N/A		✓	<ul> <li>✓</li> </ul>

- The configuration editor-getting started
- Components of configuration editor
- Sample configurations

# **Sample Configurations**

The sample Smart Plug-in for Oracle Application Server (Oracle AS SPI) configuration files illustrate various features and utilization methods. This sample configuration would be displayed at the Defaults level by selecting the View Current Configuration tab.

### **Example 1: single node/two servers**

This example is for a single node running two servers: an OC4J server and a HTTP server. The properties HOME, JAVA\_HOME, MAP\_KEY\_PREFIX, and VERSION are global defaults that apply to all servers and nodes.

```
HOME=C:/OraHome_1
JAVA_HOME=C:/OraHome/jdk
MAP_KEY_PREFIX=
VERSION=10.1 2
NUM_SERVERS=2
NODE some_node.hp.com
{
SERVER1_NAME=HTTP_Server
SERVER1_TYPE=ohs
SERVER2_NAME=home
SERVER2_TYPE=ajp13
}
```

### **Example 2: multiple nodes/repeated properties**

This example shows you how to configure a group of related systems that have numerous properties in common. Some nodes, however, may have one or two properties that you must set differently. Follow these steps:

- 1. Use the Add Group action in the configuration editor to name the group, specify the nodes in the group, and set the configuration properties.
- 2. Use the Add Node action in the configuration editor to define individual node properties (either for nodes not in the group or for nodes that are in the group but have unique/separate properties).

### Click here to view the sample configuration

HOME = /opt/oracle/appsrv JAVA\_HOME = /opt/oracle/appsrv/jdk MAP\_KEY\_PREFIX = /appsrv.hp.com VERSION = 10.1.2**GROUP** production { mercury.hp.com venus.hp.com mars.hp.com jupiter.hp.com } NODE production SERVER1\_NAME = HTTP\_Server  $SERVER1_TYPE = ohs$ SERVER2\_NAME = OC4J\_Portal SERVER2\_TYPE = ajp13SERVER3 NAME = home SERVER3\_TYPE = ajp13SERVER4\_NAME = HTTP\_Server SERVER4\_TYPE = ohs SERVER4\_HOME = /opt/oracle/infra SERVER4\_JAVA\_HOME = /opt/oracle/infra/jdk SERVER4\_MAP\_KEY\_PREFIX = /oasspi/infra.hp.com SERVER5\_NAME = OC4J\_SECURITY SERVER5\_TYPE = ajp13SERVER5\_HOME = /opt/oracle/infra SERVER5\_JAVA\_HOME = /opt/oracle/infra/jdk SERVER5\_MAP\_KEY\_PREFIX = /oasspi/infra.hp.com } NODE europa.hp.com { SERVER1 NAME = OC4J SECURITY SERVER1\_TYPE = ajp13SERVER1\_HOME = /opt/oracle/infra SERVER1\_JAVA\_HOME = /opt/oracle/infra/jdk SERVER1\_MAP\_KEY\_PREFIX = /oasspi/infra.hp.com }

- The configuration editor-getting started
- Components of configuration editor
- Configuration properties
#### **Reports and graphs**

In addition to metric reports and operator-initiated graphs, the Smart Plug-in for Oracle Application Server (Oracle AS SPI) provides a limited version of HP Reporter reports and HP Performance Manager graphs. These reports and graphs show consolidated data on server performance and availability on all Oracle Application Server systems.

Reports are generated at 2 A.M. daily. You can view a report only after one full day of metric collection (the 'SPI for Oracle Application Server' folder does not appear before that).

Graphs are generated at the time they are run. You can view the graphs after installing Oracle AS SPI (the 'SPI for Oracle Application Server' folder is available). However, if you try generating graphs before the data is collected an error message appears.

Oracle AS SPI can be integrated with HP Reporter and HP Performance Manager (both products must be purchased separately) to provide additional reporting and graphing flexibility and capabilities. For more information about integrating Oracle AS SPI with HP Reporter and HP Performance Manager, refer to *HP Operations Smart Plug-in for Oracle Application Server Installation and Configuration Guide* available on the HP Operations Smart Plug-ins DVD in the file \Documentation\SPI Guides\Oracle\_AppServer\_Install\_Config.pdf.

#### **Related Topics:**

- Tools
- Policies

#### **Data Store Details for Reports**

The Oracle AS SPI creates the following data store details for reports for Oracle Application Server.

Report Name	Report Table Name <i>and</i> Data Store Class Name	Report Table Attributes	Policy Logging Data
a_oas_availability.rpt g_oas_availability.rpt s_oas_availability_details.rpt a_oas_availability.rpt g_oas_availability.rpt s_oas_availability_details.rpt a_oas_availability.rpt g_oas_availability.rpt s_oas_availability.rpt			OASSPI_OHS_05min OASSPI_OC4J_05min OASSPI_JMX_OC4J_05mi
s_oas_sys_resource_util.rpt s_oas_sys_resource_util.rpt s_oas_sys_resource_util.rpt			OASSPI_0010 OASSPI_OHS_ 05min OASSPI_OC4J _05min
a_oas_ejb_meth_call_rate_top.rpt g_oas_ejb_meth_call_rate_top.rpt s_oas_ejb_meth_call_rate_top.rpt a_oas_ejb_meth_call_rate_top.rpt g_oas_ejb_meth_call_rate_top.rpt s_oas_ejb_meth_call_rate_top.rpt a_oas_ejb_meth_call_rate_top.rpt g_oas_ejb_meth_call_rate_top.rpt s_oas_ejb_meth_call_rate_top.rpt		ID SYSTEMNAME DATETIME	OASSPI_OC4J_1h
a_oas_servlet_act_threads.rpt g_oas_servlet_act_threads.rpt a_oas_servlet_act_threads.rpt g_oas_servlet_act_threads.rpt a_oas_servlet_act_threads.rpt	ORACLE_AS	GMT SHIFTNAME METRICID OBJECTNAME SERVERNAME	OASSPI_OC4J_1h

g_oas_servlet_act_threads.rpt	VALUE APPLICATION	
s_oas_ohs_connections.rpt s_oas_ohs_connections.rpt s_oas_ohs_connections.rpt	INSTALLATION	OASSPI_0100 OASSPI_OHS_ 15min
a_oas_servlet_avg_exec_time.rpt g_oas_servlet_avg_exec_time.rpt s_oas_servlet_avg_exec_time.rpt a_oas_servlet_avg_exec_time.rpt g_oas_servlet_avg_exec_time.rpt s_oas_servlet_avg_exec_time.rpt a_oas_servlet_avg_exec_time.rpt g_oas_servlet_avg_exec_time.rpt s_oas_servlet_avg_exec_time.rpt		OASSPI_0240 OASSPI_OC4J_1h
s_oas_db_conn_cache_ util.rpt s_oas_db_conn_cache_ util.rpt s_oas_db_conn_cache_ util.rpt		OASSPI_0260 OASSPI_OC4J _05min
s_oas_oc4j_webcntx_sessions.rpt s_oas_oc4j_webcntx_sessions.rpt s_oas_oc4j_webcntx_sessions.rpt		OASSPI_0281 OASSPI_OC4J _15min

#### **Data Store Details for Graphs**

The Oracle AS SPI creates the following data store details for graphs for Oracle Application Server.

Graph Name	Policy Logging Data	Spec File	Data StoreData Class
JVM Memory Utilization	OASSPI_0005 OASSPI_OC4J_05min OASSPI_JMX_OC4J_05min		
CPU and Memory Utilization	OASSPI_0010 OASSPI_OHS_05min OASSPI_OC4J_05min		
Oracle Container for J2EE EJB Threads	OASSPI_OC4J_1h		
Oracle Container for J2EE EJB Execution Time	OASSPI_OC4J_1h		
Oracle Container for J2EE EJB Calls Process Rate	OASSPI_OC4J_1h		
Oracle Container for J2EE Servlet	OASSPI_OC4J_1h	wasspi_oas_graph.sp	wasspi_oas_graph
Oracle Container for J2EE JSP	OASSPI_OC4J_1h		
JMS Connections	OASSPI_0050 OASSPI_OC4J_15min		

HTTP Server Active Connections	OASSPI_0100 OASSPI_OHS_15min
HTTP Server Response Data	OASSPI_OHS_15min
Oracle Container for J2EE Web Context Request	OASSPI_0280 OASSPI_OC4J_15min
Oracle Container for J2EE Web Context Sessions	OASSPI_0281 OASSPI_OC4J_15min

#### **Error messages**

The error messages listed here result from conditions detected in the operation of the Smart Plug-in for Oracle Application Server (Oracle AS SPI) and not Oracle Application Server itself. For any given problem, only the most recent error message appears (the older error message is automatically acknowledged). This reduces the number of error messages that appear in the message browser.

Most error messages have a help text associated with them. This help text shows the probable cause of the error, potential impact, and suggested action to rectify the error. To view this help text right-click the error message and select Instructions. The Message Properties window opens. The help text (if any) appears in this window under the Instructions tab.

1 - 24	26 - 43	201 - 226	227 +
WASSPI-1	WASSPI-26	WASSPI-201	WASSPI-227
WASSPI-2	WASSPI-27	WASSPI-202	WASSPI-228
WASSPI-3	WASSPI-28	WASSPI-203	WASSPI-229
WASSPI-4	WASSPI-29	WASSPI-204	WASSPI-230
WASSPI-5	WASSPI-30	WASSPI-205	WASSPI-231
WASSPI-6	WASSPI-31	WASSPI-206	WASSPI-232
WASSPI-7	WASSPI-32	WASSPI-207	WASSPI-234
WASSPI-8	WASSPI-33	WASSPI-208	WASSPI-235
WASSPI-9	WASSPI-34	WASSPI-209	WASSPI-236
WASSPI-10	WASSPI-35	WASSPI-210	WASSPI-237
WASSPI-11	WASSPI-36	WASSPI-211	WASSPI-241

Click the error message number, in the table below, to get detailed information about that error.

WASSPI-12	WASSPI-37	WASSPI-213	All other errors
WASSPI-13	WASSPI-38	WASSPI-214	
WASSPI-14	WASSPI-39	WASSPI-216	
WASSPI-15	WASSPI-40	WASSPI-218	
WASSPI-16	WASSPI-41	WASSPI-219	
WASSPI-18	WASSPI-42	WASSPI-221	
WASSPI-19	WASSPI-43	WASSPI-222	
WASSPI-20		WASSPI-223	
WASSPI-21		WASSPI-224	
WASSPI-23		WASSPI-225	
WASSPI-24		WASSPI-226	

Description	Unable to create the lock file <i><filename></filename></i> . File already exists.
Severity	Critical
Help Text	<ul> <li>Probable Cause Temporary lock files are used to avoid collisions when multiple Oracle Application Server SPI data collector processes attempt to access the same data file. This error occurs when the lock file could not be created after several attempts because it already exists. Suggested Action If a file by the same name already exists, it may not have been deleted by a previous run of the Oracle Application Server SPI data collector. You should delete this file manually.</li></ul>

Description	Cannot access the SPI configuration.	
Severity	Critical	
Help Text	<ul> <li>Probable Cause An Oracle Application Server SPI configuration file could not be located or accessed. Either they do not exist or there was a problem reading the files. </li> <li>Suggested Action <ol> <li>Verify that the Oracle Application Server SPI has been configured correctly by running the OASSPI Admin → Verify tool. If the configuration is not correct, run the OASSPI Admin → Discover or Configure OASSPI tool.</li> <li>Refer to the text following the error message in the OASSPI error log to help identify the underlying cause of the problem. For example, an I/O exception. You can view the SPI error log for a managed node by using the OASSPI Admin → View Error Log tool. The error message can be identified by the date/time stamp.</li> </ol> </li> </ul>	

Description	Error parsing command line.	
Severity	Critical	
Help Text	<ul><li>Probable Cause</li><li>The OASSPI data collector command line is incorrectly specified in a monitor policy.</li><li>Suggested Action</li></ul>	
	<ol> <li>Refer to the text following the error message in the OASSPI error log to help identify the data collector command line syntax error. You can view the SPI error log for a managed node by using the OASSPI Admin -&gt; View Error Log tool. The error message can be identified by the date/time stamp.</li> </ol>	
	<ol> <li>Correct the policy that contains the incorrect command line and redeploy. Refer to the <i>HP Operations Manager Smart Plug-in for Oracle Application Server</i> <i>Installation and Configuration Guide</i> for more information on the Oracle Application Server SPI data collector command line.</li> </ol>	

Description	Error getting the metric definitions.	
Severity	Critical	
Help Text	<b>Probable Cause</b> The OASSPI data collector could not read the metric definitions XML document. This error can be caused by a missing configuration property, an I/O error, an XML parsing error, a missing file, or a corrupted serialized data file.	
	Suggested Action	
	<ol> <li>Refer to the text following the error message in the OASSPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the OASSPI Admin → View Error Log tool. The error message can be identified by the date/time stamp</li> </ol>	
	<ol> <li>If the UDM_DEFINITIONS_FILE property is missing from the OASSPI configuration file, run the OASSPI Admin → Discover or Configure OASSPI tool and set the value for this property.</li> </ol>	
	3. If the problem is with the metric definitions file (MetricDefinitions.xml) that is shipped with the SPI for Oracle Application Server, then reinstall the SPI for Oracle Application Server. Run the OASSPI Admin → Discover or Configure OASSPI tool.	
	4. If the problem is with a user-defined metric definitions file that is not shipped with the SPI for Oracle Application Server, verify that this XML file adheres to the MetricDefinitions.dtd specification. Refer to the HP Operations Manager Smart Plug-in for Oracle Application Server Installation and Configuration Guide for more information on writing user-defined metrics. Reinstall your user-defined metric definition file. Run the OASSPI Admin → Discover or Configure OASSPI tool and verify that the UDM_DEFINITIONS_FILE property in the SPI configuration, is specified correctly.	
	5. If the underlying error is 'ClassNotFound', this is an internal error. Report the problem to HP support.	

Description	Error processing metric < <i>metric_number</i> >.
Severity	Major
Help Text	<ul> <li>Probable Cause An error occurred while trying to collect data or perform calculations for the specified metric. </li> <li>Suggested Action Refer to the text following the error message in the OASSPI error log to help identify the underlying cause of the problem. The error messages previous to this one may also provide more information about the problem. You can view the OASSPI error log for a managed node by using the OASSPI Admin → View Error Log tool. The error message can be identified by the date/time stamp.</li></ul>

Description	Required property <property_name> is missing from the OAS SPI configuration.</property_name>	
Severity	Major	
Help Text	<ul><li>Probable Cause</li><li>The specified required property is missing from the OASSPI configuration file.</li><li>Suggested Action</li></ul>	
	<ol> <li>Run the OASSPI Admin          Discover or Configure OASSPI tool. Verify that you have specified the correct server information for the Oracle Application Servers on this managed node.     </li> </ol>	
	<ol> <li>Verify the property is specified correctly in the OASSPI configuration file (/var/opt/OV/conf/oasspi/SiteConfig on Unix platforms or %OvAgentDir%\wasspi\\oas\\conf\\SiteConfig on Windows platforms) on the managed node in question.</li> </ol>	

Description	Unable to contact server <i>&lt; server_name &gt;</i> at url= <i><url></url></i> , port= <i><port></port></i> .
Severity	Major
Help Text	Probable CauseThe specified server is not running at the specified port.Suggested Action
	<ol> <li>Run the OASSPI Admin          Discover or Configure OASSPI tool. Verify that you have specified the correct server name and port information for the Oracle Application Servers on this managed node.     </li> </ol>
	2. Verify that the property SERVERx_NAME is specified correctly in the OASSPI configuration file (/var/opt/OV/conf/oasspi/SiteConfig on Unix platforms or %OvAgentDir%\wasspi\oas\\conf\SiteConfig on Windows platforms) on the managed node in question.
	3. Verify that the Oracle Application Server is running on the managed node.

Description	Error saving graphing or reporting data to file <i><file_name></file_name></i> .
Severity	Critical
Help Text	<b>Probable Cause</b> The specified graphing or reporting data file could not be found or an I/O error occurred when trying to access the file.
	Suggested Action
	<ol> <li>Refer to the text following the error message in the OASSPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the OASSPI Admin → View Error Log tool. The error message can be identified by the date/time stamp.</li> </ol>
	2. Identify the steps to reproduce the problem.
	3. Run the <b>OASSPI Admin</b> → <b>Start Tracing</b> tool to turn on tracing. Try to reproduce the problem.
	4. Run the <b>OASSPI Admin</b> - Self-Healing Info tool. Contact HP support with the information gathered by this tool.

Description	Unable to retrieve property <property_name> .</property_name>
Severity	Critical
Help Text	<ul> <li>Probable Cause</li> <li>A required property is missing from one of the Oracle Application Server SPI configuration files.</li> <li>Suggested Action</li> </ul>
	<ol> <li>Refer to the text following the error message in the OASSPI error log to help identify the missing property. You can view the SPI error log for a managed node by using the OASSPI Admin → View Error Log tool. The error message can be identified by the date/time stamp.</li> </ol>
	<ol> <li>Run the OASSPI Admin - Discover or Configure OASSPI tool. Verify that you have specified the correct information for the Oracle Application Servers on the managed node in question.</li> </ol>
	3. Verify that the missing property is now specified in the OASSPI configuration file (/var/opt/OV/conf/oasspi/SiteConfig on Unix platforms or %OvAgentDir%\wasspi\oas\conf\SiteConfig on Windows platforms) on the managed node in question.

Severity       Critical         Help Text       Probable Cause The specified file could not be found, created, or accessed. This file could be a temporary file.         Suggested Action       1. Refer to the text following the error message in the OASSPI error log to help identify the file in question and the underlying cause of the problem. You can	Description	Encountered problem accessing file <i><filename></filename></i> .
Help Text       Probable Cause         The specified file could not be found, created, or accessed. This file could be a temporary file.         Suggested Action         1. Refer to the text following the error message in the OASSPI error log to help identify the file in question and the underlying cause of the problem. You can	Severity	Critical
<ul> <li>view the SPI error log for a managed node by using the OASSPI Admin</li> <li>View Error Log tool. The error message can be identified by the date/time stamp.</li> <li>2. Verify that you have enough disk space to create temporary files.</li> </ul>	Help Text	<ul> <li>Probable Cause The specified file could not be found, created, or accessed. This file could be a temporary file. </li> <li>Suggested Action <ol> <li>Refer to the text following the error message in the OASSPI error log to help identify the file in question and the underlying cause of the problem. You can view the SPI error log for a managed node by using the OASSPI Admin → View Error Log tool. The error message can be identified by the date/time stamp.</li> <li>Verify that you have enough disk space to create temporary files.</li> </ol> </li> </ul>

Description	No servers have been specified in the OASSPI configuration file.
Severity	Major
Help Text	<b>Probable Cause</b> The number of Oracle Application Servers specified in the OASSPI configuration file for the managed node in question is 0.
	Suggested Action
	<ol> <li>Run the OASSPI Admin - Discover or Configure OASSPI tool. Verify that you have specified the correct server name and port information for the Oracle Application Servers on this managed node.</li> </ol>
	<ol> <li>Verify that the property NUM_SERVERS in the OASSPI configuration file (/var/opt/OV/conf/oas/SiteConfig on UNIX platforms or /usr/OV/wasspi/oas/conf/SiteConfig on Windows platforms) is set to the number of Oracle Application Server on this managed node.</li> </ol>

Description	Operation of the command of the comm
Severity	Critical
Help Text	<b>Probable Cause</b> A command started by the OASSPI collector has returned an error (non-zero) exit code.
	Suggested Action
	1. Identify the steps to reproduce the problem.
	2. Run the <b>OASSPI Admin</b> - Start Tracing tool to turn on tracing.
	3. Reproduce the problem.
	4. Run the <b>OASSPI Admin</b> - Stop Tracing tool to turn off tracing.
	<ol> <li>Run the OASSPI Admin -&gt; Self-Healing Info tool. Contact HP support with the information gathered by this tool.</li> </ol>

Description	Exception occurred while running an opcmon process.
Severity	Critical
Help Text	<ul> <li>Probable Cause The OASSPI data collector attempted to run a process to execute an operation call. Either the process could not be created or was interrupted. </li> <li>Suggested Action For Unix systems make sure the kernel configurable parameters NPROC and MAXUPRC are set high enough to allow process creation.</li></ul>

Description	Unable to find file <i><file_name></file_name></i> .
Severity	Critical
Help Text	Probable CauseA file required by the OASSPI data collector could not be found.Suggested Action
	<ol> <li>Refer to the text following the error message in the OASSPI error log to help identify the file in question and the underlying cause of the problem. You can view the SPI error log for a managed node by using the OASSPI Admin</li></ol>

Description	Error parsing XML document < <i>file_name</i> >.
Severity	Critical
Help Text	Probable Cause An error occurred while parsing the specified XML document. Suggested Action
	<ol> <li>Refer to the text following the error message in the OASSPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the OASSPI Admin -&gt; View Error Log tool. The error message can be identified by the date/time stamp.</li> </ol>
	2. If the XML document was provided by the user, correct the document. Refer to the <i>HP Operations Manager Smart Plug-in for Oracle Application Server Installation and Configuration Guide</i> for more information on writing user-defined metrics.
	<ol> <li>If the XML document is a document that is shipped with the OASSPI, run the OASSPI Admin → Discover or Configure OASSPI tool to reinstall the OASSPI configuration files.</li> </ol>

Description	A bad filter was specified for metric <metric_number>.</metric_number>
Severity	Major
Help Text	<ul><li>Probable Cause</li><li>A metric filter is incorrectly specified in the metric definitions XML document.</li><li>Suggested Action</li></ul>
	1. If the metric is specified in an XML document that was provided by the user, correct the document. Refer to the <i>HP Operations Manager Smart Plug-in for Oracle Application Server Installation and Configuration Guide</i> for more information about the correct format for a user-defined metric definition document.
	<ol> <li>If the metric is a pre-defined metric that is shipped with the Oracle Application Server SPI, run the OASSPI Admin -&gt; Discover or Configure OASSPI tool to reinstall the OASSPI configuration files.</li> </ol>

Description	Error logging to datasource < <i>datasource_classname</i> >. Logging process returned exit code < <i>exit_code</i> >.
Severity	Critical
Help Text	Probable Cause         The ddflog process started by the OASSPI data collector returned a non-zero error code.         Suggested Action
	<ol> <li>Identify the steps to reproduce the problem.</li> <li>Run the OASSPI Admin → Start Tracing tool to turn on tracing. Try to reproduce the problem.</li> <li>Run the OASSPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.</li> </ol>

Description	Encountered problem instantiating XSLT transformer with < <i>file_name</i> >.
Severity	Major
Help Text	Probable Cause The XSL document that specifies the auto action report output contains errors. Suggested Action Run the OASSPI Admin → Discover or Configure OASSPI tool with the managed node selected.

Description	Encountered problem creating report for metric < <i>metric_number</i> >.
Severity	Major
Help Text	Probable Cause An error occurred while producing a text report for the specified metric. Suggested Action Run the OASSPI Admin → Discover or Configure OASSPI tool with the managed node selected.

Description	Encountered problem instantiating factory implementation '< <i>class name</i> >.'
Severity	Critical
Help Text	<ul> <li>Probable Cause The java property specifying the class name is incorrect or the class does not implement the AppServerFactory interface. </li> <li>Suggested Action Verify java property, appserver.implementation is set to the fully qualified name of the class which implements the AppServerFactory interface. For example, if set on the java command-line: -Dappserver.implementation=com.hp.openview.wasspi.OASAppServerFactory.</li></ul>

Description	Error initializing collector analyzer for server < <i>server_name</i> >.	
Severity	Critical	
Help Text	<ul> <li>Probable Cause</li> <li>An exception was encountered while preparing to monitor server <i><server_name></server_name></i>.</li> <li>Suggested Action</li> </ul>	
	<ol> <li>Refer to the text following the error message in the OASSPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the OASSPI Admin → View Error Log tool. The error message can be identified by the date/time stamp.</li> </ol>	
	2. Identify the steps to reproduce the problem.	
	3. Run the <b>OASSPI Admin</b> → <b>Start Tracing</b> tool to turn on tracing. Try to reproduce the problem.	
	<ol> <li>Run the OASSPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.</li> </ol>	

Description	Error logging in to server <i><server_name></server_name></i> with login <i><login></login></i> .
Severity	Critical
Help Text	<ul> <li>Probable Cause A security exception occurred while logging in to server <i><server_name></server_name></i>. </li> <li>Suggested Action <ol> <li>Run the OASSPI Admin → Discover or Configure OASSPI tool on the managed node on which the error occurred and verify that you have specified the correct login and password properties.</li> <li>Verify the login has appropriate permissions.</li> </ol> </li> </ul>

Description	The data logging process for <i><server_name></server_name></i> timed-out.
Severity	Major
Help Text	Probable Cause         Depending on your configuration, either HP Performance Agent or CODA failed to         exit before         the time-out.         Suggested Action         1. Restart HP Performance Agent using command mwa restart .         2. Restart CODA using command opcagt -start .

Description	RMI collector unable to process < <i>command</i> >.	
Severity	Warning	
Help Text	Probable CauseAn exception was encountered while performing an rmid related operation.Suggested Action	
	<ol> <li>Refer to the text following the error message in the OASSPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the OASSPI Admin → View Error Log tool. The error message can be identified by the date/time stamp.</li> </ol>	
	2. Identify the steps to reproduce the problem.	
	3. Run the <b>OASSPI Admin</b> → <b>Start Tracing</b> tool to turn on tracing. Try to reproduce the problem.	
	<ol> <li>Run the OASSPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.</li> </ol>	

Description	RMID on port <i><port></port></i> has been <i><status></status></i> .
Severity	Normal

Description	Collector server <i><server id=""></server></i> for Java home <i><path></path></i> has been started.
Severity	Normal

Description	Failed to start < <i>rmid_path</i> > on port < <i>port</i> >.
Severity	Critical
Help Text	Probable Cause The specified port is already in use. Suggested Action Run the OASSPI Admin → Discover or Configure OASSPI tool. Set the RMID_PORT property to a port number which is not currently in use.

Description	Lost connection to RMI collector while processing < command>.
Severity	Warning

Description	Unable to retrieve metadata for mbean <i><jmx-objectname></jmx-objectname></i> .
Severity	Warning
Description	No actions matched server <server_name>, version <version>.</version></server_name>
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Severity	Warning
Help Text	Probable CauseJMXAction elements define FromVersion and ToVersion tags which do not match the server version.Suggested Action
	If the action is valid on the server, then either adjust the JMXAction definition's FromVersion/ToVersion elements or the server's VERSION property.

Description	Metric <i><metric_id></metric_id></i> does not define any actions.
Severity	Warning
Help Text	<ul> <li>Probable Cause</li> <li>The metric ID specified with the -m option does not define a JMXActions element.</li> <li>Suggested Action</li> <li>Correct the -m option if an incorrect metric ID was specified. Otherwise, add a JMXActions definition to the metric definition.</li> </ul>

Description	Error executing action < action_command-line > .
Severity	Major
Help Text	Probable CauseAn unexpected error occurred while executing the action.Suggested ActionView the managed node's errorlog to determine the root cause which is logged following the error message.

Description	MBean <i><jmx_objectname></jmx_objectname></i> on server <i><server_name></server_name></i> does not expose operation <i><operation_name></operation_name></i> .
Severity	Warning
Help Text	<b>Probable Cause</b> An action's JMXCalls element defines an operation not exposed by the specified MBean.
	<b>Suggested Action</b> Correct the JMXCalls element or remove the operation from the element.

Description	MBean <i><jmx_objectname></jmx_objectname></i> on server <i><server_name></server_name></i> does not expose attribute <i><attribute_name></attribute_name></i> for write.
Severity	Warning
Help Text	<b>Probable Cause</b> An action's JMXCalls element defines a write attribute exposed by the specified MBean as read-only.
	<b>Suggested Action</b> If it's a custom MBean, update the MBean's management interface so the attribute is writable, otherwise remove the attribute definition from the JMXCalls element.

Description	MBean <i><jmx_objectname></jmx_objectname></i> on server <i><server_name></server_name></i> does not expose attribute <i><attribute_name></attribute_name></i> .
Severity	Warning
Help Text	<b>Probable Cause</b> An action's JMXCalls element defines an attribute not exposed by the specified MBean ObjectName.
	<b>Suggested Action</b> Correct the JMXCalls element or remove the attribute from the element.

Description	Error invoking operation < operation_name > on MBean < JMX_objectname >.
Severity	Major
Help Text	<ul> <li>Probable Cause</li> <li>An unexpected error occurred while invoking an operation on the specified MBean.</li> <li>The managed resource may have thrown an exception.</li> <li>Suggested Action</li> <li>View the managed node's errorlog to determine the root cause which is logged</li> </ul>
	following the error message.

Description	Error setting attribute <attribute_name> on MBean <jmx_objectname> .</jmx_objectname></attribute_name>
Severity	Major
Help Text	<ul> <li>Probable Cause</li> <li>An unexpected error occurred while setting an attribute on the specified</li> <li>MBean. The managed resource may have thrown an exception.</li> <li>Suggested Action</li> <li>View the managed node's errorlog to determine the root cause which is logged following the error message.</li> </ul>

Description	Error getting attribute <attribute_name> from MBean <jmx_objectname> .</jmx_objectname></attribute_name>
Severity	Major
Help Text	<ul> <li>Probable Cause An unexpected error occurred while getting an attribute from the specified MBean. The managed resource may have thrown an exception. </li> <li>Suggested Action View the managed node's errorlog to determine the root cause which is logged following the error message.</li></ul>

Description	Error running command < command>.
Severity	Critical
Help Text	Probable Cause         A command started by the OAS-SPI collector reported an error.         Suggested Action
	1. Identify the steps to reproduce the problem.
	2. Run the <b>OASSPI Admin</b> - Start Tracing tool to turn on tracing.
	3. Reproduce the problem.
	4. Run the <b>OASSPI Admin</b> - Stop Tracing tool to turn off tracing.
	<ol> <li>Run the OASSPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.</li> </ol>

Description	Error publishing event < <i>event-type</i> >.
Severity	Major
Help Text	<b>Probable Cause</b> An unexpected error occurred while a publisher was handling a metric or collect event.
	<b>Suggested Action</b> View the managed node's errorlog to determine the root cause which is logged following the error message.

Description	File <i><filename></filename></i> not found.
Severity	Critical
Help Text	Probable Cause A configuration file could not be found. Suggested Action Run the OASSPI Admin → Discover or Configure OASSPI tool. Verify that the correct information has been specified for the Oracle Application Servers on the managed node on which the error occurred.

Description	Cannot read file <i><filename></filename></i> .
Severity	Critical
Help Text	Probable Cause
	<ol> <li>A file could not be opened or it could not be found.</li> <li>Permissions may be incorrect or a directory may be corrupt.</li> <li>Suggested Action</li> <li>Run the OASSPI Admin -&gt; Discover or Configure OASSPI tool. Verify that</li> </ol>
	you have specified the correct information for the Oracle Application Servers on the managed node on which the error occurred.
	2. Verify that the permissions are correct for the HP Operations agent user to read this file.

Description	Cannot write file <i><filename></filename></i> .
Severity	Critical
Help Text	Probable CausePermissions may be incorrect or a file or directory may be corrupt.Suggested Action
	<ol> <li>Run the OASSPI Admin - Discover or Configure OASSPI tool. Verify that you have specified the correct information for the Oracle Application Servers on the managed node on which the error occurred.</li> <li>Verify that the permissions are correct for the UD Operations egent user to write</li> </ol>
	2. Verify that the permissions are correct for the HP Operations agent user to write this file.

Description	Error sending opcmsg < message > .
Severity	Critical
Help Text	<ul> <li>Probable Cause</li> <li>There was a problem running opcmsg . opcmsg may be missing or not have permissions to execute (HPOM installation errors) or the system process table may be full.</li> <li>Suggested Action</li> <li>Confirm that the OASSPI-Messages policy has been deployed on the managed node.</li> </ul>

Description	Error sending opcmsg < <i>command</i> >.
Severity	Critical
Help Text	<ul> <li>Probable Cause There was a problem running opcmon. opcmon may be missing or not have permissions to execute (HPOM installation errors) or the system process table may be full. </li> <li>Suggested Action Confirm that HPOM is properly installed and deployed to the managed node. Ensure that the process table is not full. If it is, consider having the system administrator increase it.</li></ul>

Description	Cannot read directory < directory > .
Severity	Critical
Help Text	<b>Probable Cause</b> The permissions on the directory prevent the HPOM user from reading it or the directory is corrupt.
	<b>Suggested Action</b> Verify that the permissions are correct for the HPOM user for this directory.

Description	Cannot move <i><filename></filename></i> to <i><filename></filename></i> .
Severity	Critical
Help Text	Probable Cause
	<ol> <li>Insufficient permissions.</li> <li>Insufficient disk space.</li> <li>File table problems.</li> </ol> Suggested Action
	1. Verify that the permissions are correct for the HP Operations agent user.
	2. Verify that there is enough disk space to create files.
	3. Run the OASSPI Admin> Discover or Configure OASSPI tool.

Description	The SPI must be configured before it can be used.
Severity	Critical
Help Text	Probable CauseThe OAS SPI has not been configured on this node.Suggested Action
	<ol> <li>Run the OASSPI Admin          Discover or Configure OASSPI tool. Verify that you have specified the correct information for the Oracle Application Servers on the managed node on which the error occurred.     </li> </ol>
	<ol> <li>Run the OASSPI Admin → Verify tool on the managed node to confirm that the SPI has been successfully configured.</li> </ol>

Description	Cannot contact Oracle Application Server.
Severity	Critical
Help Text	Probable Cause
	<ol> <li>The server could be down or not responding.</li> <li>The SPI may be configured incorrectly.</li> <li>Suggested Action</li> </ol>
	<ol> <li>Verify that the Oracle Application Server is up and running properly.</li> <li>Run the OASSPI Admin - Discover or Configure OASSPI tool.</li> </ol>
	<ol> <li>Run the OASSPI Admin - Verify tool on the managed node to confirm that the SPI has been successfully configured.</li> </ol>

Description	Cannot configure Oracle Application Server SPI.
Severity	Critical
Help Text	<ul> <li>Probable Cause The SPI configuration process failed. </li> <li>Suggested Action <ol> <li>Refer to the text following the error message in the Oracle Application Server SPI error log to help identify the underlying cause of the problem. The error messages previous to this one will provide more information about the problem. You can view the SPI error log for a managed node by using the OASSPI Admin → View Error Log tool. The error message can be identified by the date/time stamp</li> </ol></li></ul>
	2. Run the OASSPI Admin Discover or Configure OASSPI tool.

Description	Cannot create directory < <i>directory</i> >.
Severity	Critical
Help Text	<ul> <li>Probable Cause</li> <li>There are insufficient permissions for the HP Operations agent user to create the directory or there is insufficient disk space.</li> <li>Suggested Action</li> </ul>
	<ol> <li>Verify that the permissions are correct for the HP Operations agent user for this directory.</li> <li>Verify that there is enough disk space.</li> </ol>

Description	Improper parameters to program <i><name></name></i> . Usage: <i><usage></usage></i> .
Severity	Critical
Help Text	<b>Probable Cause</b> The parameters to the program are incorrect.
	Suggested Action Correct the parameters.

Description	Cannot run program < <i>program_name</i> > .
Severity	Critical
Help Text	<ul><li>Probable Cause</li><li>The program failed to run. It may be missing, permissions may be incorrect, the process table may be full.</li><li>Suggested Action</li></ul>
	<ol> <li>Verify that the file exists. If it is a SPI program and the file is missing, run the OASSPI Admin - Discover or Configure OASSPI tool with the managed node selected.</li> <li>Verify that the permissions are correct for the HP Operations agent user.</li> </ol>

Description	Configuration variable < <i>name</i> > missing for server < <i>server_name</i> >.
Severity	Critical
Help Text	Probable Cause         A required SPI configuration variable was not found.         Suggested Action
	1. Run the OASSPI Admin - Discover or Configure OASSPI tool.
	2. Verify that the correct information has been specified in the configuration for the managed node on which the error occurred.

Description	Oracle Application Server monitoring has been turned OFF for <i><server_name></server_name></i> .
Severity	Warning
Help Text	Probable Cause Collection has been turned off for the specified server. Suggested Action If desired, collection can be turned on by running the OASSPI Admin → Start Monitoring tool.

Description	Oracle Application Server monitoring has been turned ON for <i><server_name></server_name></i> .
Severity	Critical
Help Text	<ul> <li>Probable Cause</li> <li>Collection has been turned on for the specified server.</li> <li>Suggested Action</li> <li>If desired, collection can be turned off by running the OASSPI Admin → Stop</li> <li>Monitoring tool.</li> </ul>

Description	<i><filename></filename></i> does not exist.
Severity	Critical
Help Text	<ul> <li>Probable Cause The specified file does not exist. If it is a log file, no entries have ever been logged to it. If it is a property file, then it has not been configured. </li> <li>Suggested Action <ul> <li>Log files: If there have never been any entries written to the file, no action is necessary. Otherwise, run the OASSPI Admin → Discover or Configure OASSPI tool.</li> <li>Property files: Run the OASSPI Admin → Discover or Configure OASSPI tool.</li> </ul> </li> </ul>

Description	<i><filename></filename></i> is empty.
Severity	Critical
Help Text	<ul> <li>Probable Cause</li> <li>The specified file is empty. If it is a log file, no entries have ever been logged to it, or the entries have been cleaned out. If it is a property file, then it is not properly configured.</li> <li>Suggested Action</li> <li>If the file is a configuration file, run the OASSPI Admin → Discover or Configure</li> <li>OASSPI tool</li> </ul>

Description	Cannot read <i><filename></filename></i> .
Severity	Critical
Help Text	Probable Cause
	<ol> <li>A file could not be opened or it could not be found.</li> <li>Permissions may be incorrect or a directory may be corrupt.</li> <li>Suggested Action</li> <li>Run the OASSPI Admin - Discover or Configure OASSPI tool. Verify that you have specified the correct information for the Oracle Application Servers on the managed node on which the error occurred</li> </ol>
	2. Verify that the permissions are correct for the HP Operations agent user to read this file.

Description	ddfcomp returned an error configuring <i><name></name></i> .
Severity	Warning
Help Text	<ul> <li>Probable Cause</li> <li>ddfcomp returned an error. This could be because neither HP Performance Agent nor</li> <li>CODA is installed on the system or because an error occurred while configuring the</li> <li>performance agent.</li> <li>Suggested Action</li> </ul>
	<ol> <li>If the performance agent is not installed, this error can be ignored.</li> <li>Otherwise, identify the steps to reproduce the problem.</li> <li>Run the OASSPI Admin - Start Tracing tool to turn on tracing. Try to reproduce the problem.</li> <li>Pun the OASSPI Admin - Self Healing Info tool. Contact UD support with the</li> </ol>
	<ol> <li>Run the OASSPI Admin - Self-Healing Info tool. Contact HP support with the information gathered by this tool.</li> </ol>

Description	No logfiles were found. Did you run OASSPI Config?
Severity	Critical
Help Text	Probable Cause
	Suggested Action
	Run the OASSPI Admin Discover or Configure OASSPI tool.

Description	Cannot read file <i><filename></filename></i> .
Severity	Critical
Help Text	Probable Cause
	<ol> <li>A file could not be opened or it could not be found.</li> <li>Permissions may be incorrect or a directory may be corrupt.</li> </ol> Suggested Action
	1. Run the OASSPI Admin - Discover or Configure OASSPI tool.
	2. Verify that you have specified the correct information for the Oracle Application Server on the managed node on which the error occurred.
	3. Verify that the permissions are correct for the HP Operations agent user to read this file.

Description	HP Performance Agent is not installed. Data source will not be configured.
Severity	Warning
Help Text	<b>Probable Cause</b> If HP Performance Agent is available, the SPI will integrate with it. This warning indicates that none is available.
	<b>Suggested Action</b> If you should have HP Performance Agent installed, verify that it is installed correctly and is running; reinstall it if necessary. Otherwise, this message can be ignored.

Description	ddflog returned an error logging <logfile-name> : <system-error-msg></system-error-msg></logfile-name>
Severity	Critical
Help Text	<b>Probable Cause</b> ddflog returned an error. This could be because the SPI was not properly configured to support logging performance data.
	Suggested Action
	1. Redeploy SPI for Oracle Application Server and SPI Data Collector instrumentation on the node having the problem.
	2. Otherwise, examine the system error message, if any, for clues to the problem.
	3. Run the <b>OASSPI Admin</b> → <b>Start Tracing</b> tool to turn on tracing. Try to reproduce the problem.
	<ol> <li>Run the OASSPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.</li> </ol>

Description	Cannot connect to directory <directory_name></directory_name>
Severity	Critical
Help Text	<b>Probable Cause</b> The directory does not exist, or the user the agent is running under does not have appropriate permissions to the directory.
	Suggested Action Run the OASSPI Admin → Discover or Configure OASSPI tool.
Description	Cannot get lock < <i>file</i> > after < <i>time</i> >
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Severity	Critical
Help Text	<ul> <li>Probable Cause</li> <li>The lock file <i><file></file></i> was not cleared in the <i><time></time></i> indicated. This could be due to a very slow running or hung SPI process. Also could be a SPI process that had a lock and was killed before the lock it had open had been cleared.</li> <li>Suggested Action</li> <li>Make sure no SPI processes are running. Manually remove the lock file.</li> </ul>

Description	Error starting JRE < <i>JVM_file</i> > : < <i>message</i> >
Severity	Critical
Help Text	<ul> <li>Probable Cause</li> <li>Some error occurred starting or running Java. This could be that the specified JVM does not exist, or that the collector had some error. The JAVA_HOME variable in the SPI configuration is not set correctly.</li> <li>Suggested Action</li> <li>Check for other errors generated at the same time, they may indicate the real cause. If the specified file does not exist, check your JAVA_HOME or HOME variables in the SPI configuration.</li> </ul>

Description	Server <i><name></name></i> specified on command line, but not in configuration.
Severity	Critical
Help Text	<ul> <li>Probable Cause</li> <li>There was a -i or -e specified on the collector command line which specified a server name that was not listed in the SPI configuration. The collector only knows about servers listed in the configuration file.</li> <li>Suggested Action</li> </ul>
	<ol> <li>Specify a correct server name on the command line.</li> <li>Run the OASSPI Admin - Discover or Configure OASSPI tool.</li> </ol>
	3. Verify the Oracle Application Server names are correctly listed and spelled in the SPI configuration. Note that the server name is case-sensitive.

Description	Error running program <i><file></file></i> , return value: <i><n></n></i> .
Severity	Critical
Help Text	Probable CauseThe SPI attempted to run some tool or auxiliary program and encountered an errordoing so. The tools or program is shown in the message as $$ and the return codefrom attempting to run it is shown as $$ .Suggested ActionIf the tool is a SPI tool, make sure the SPI has been installed and configured correctly.If not, reinstall or reconfigure. If it is a system tool, ensure that there are no systemproblems that prevent the tool from running.

Description	Restart of HP Performance Agent failed.
Severity	Warning
Help Text	<ul> <li>Probable Cause</li> <li>The SPI attempted to automatically restart HP Performance Agent and the automatic attempt failed.</li> <li>Potential Impact : NA</li> <li>Suggested Action</li> </ul>
	Restart HP Performance Agent manually with the mwa restart server command.

Description	Failure when running XSLT on <i><xml></xml></i> with stylesheet <i><xsl></xsl></i> : <message>.</message>
Severity	Critical
Help Text	<b>Probable Cause</b> As part of setting up graphing for user defined metrics, the UDM XML is translated. This message indicated that the translation failed for some reason.
	<b>Suggested Action</b> Review the message shown. It is most likely that there is an error in the XML.

Description	This is an informational message that an HP Performance Manager or HP Performance Agent datasource was set up.
Severity	Normal

Description	Cannot delete file <i><file></file></i> .
Severity	Critical
Help Text	Probable Cause The SPI attempted to delete a file, but was unable to do so. It may be that the protection of the file is set so that the HP Operations agent user cannot delete it, or that there is some system problem preventing the file from being deleted. Suggested Action
	Make sure the protection of the file is correct.

Description	Retrieving OAS SPI configuration in HPOM management server
Severity	Normal
Help Text	<b>Probable Cause</b> The managed node has requested a copy of the master SiteConfig file.
	Potential Impact : NA
	Suggested Action : NA

Description	Updating OAS-SPI configuration in HPOM management server
Severity	Normal
Help Text	<ul> <li>Probable Cause This is a normal operation performed by the discovery tool. If the operation is successful, the entry in the "A" (action) column for this message changes from "R" (running) to "S" (success). </li> <li>Potential Impact : NA Suggested Action If the operation is not successful, the entry in the "A" (action) column for this message changes from "R" (running) to "F" (fail). Select this node and run the Discover or Configure OASSPI tool. If the problem persists, configure the OAS-SPI manually</li></ul>

Description	Updated OracleAS SPI configuration in HPOM management server
Severity	Normal
Help Text	Probable Cause         The discovery tool has discovered some OracleAS instances on the manged node. It         has updated the OAS SPI configuration on the HPOM management server.         Potential Impact : NA         Suggested Action : NA

Description	OracleAS Discovery Failed
Severity	Critical
Help Text	Probable Cause
<u>Help Text</u>	<ul> <li>Probable Cause</li> <li>OracleAS was not installed on the managed node.</li> <li>There are no OracleAS instances running on the managed node.</li> <li>Discovery needs more information to find all OracleAS instances running on the managed node.</li> <li>The OAS SPI does not have the correct configuration information for the OracleAS instances</li> <li>Potential Impact : NA</li> <li>Suggested Action Install OracleAS or verify that OracleAS is installed on the managed node. </li> <li>Make sure that all OracleAS instances you want to monitor are up and running before running the Discover or Configure OASSPI tool. Discovery only finds OracleAS Control Console. </li> <li>Run the Discover or Configure OASSPI tool (be sure to select the managed node before starting the tool) and set the HOME_LIST property. Then, run the Discover or Configure OASSPI tool</li> </ul>
	<ul> <li>Verify the information set for the following properties: LOGIN, PASSWORD, HOME, NAME, and HOME_LIST. If you modify information for any of these</li> </ul>
	properties, run the Discover or Configure OASSPI tool. If the problem persists, configure the OAS SPI manually. If manual configuration fails, run the Self-Healing Info tool accessed from the OASSPI Admin tools group. Contact your HP support representative with the gathered information.

Description	Could not find OAS home directory: <i><directory></directory></i>
Severity	Critical
Help Text	<b>Probable Cause</b> The specified directory was set in the HOME_LIST property but the directory does not exist.
	Potential Impact : NA
	Suggested Action
	1. Verify that the directory exists on the managed node.
	2. Use the Discover or Configure OASSPI tool to verify that the HOME_LIST property contains the specified directory and modify the value.
	3. Run the Discover or Configure OASSPI tool.

Description	OracleAS version not found
Severity	Critical
Help Text	<ul> <li>Probable Cause The OraclesAS version string was not found. OracleAS may not be installed on the managed node. </li> <li>Potential Impact : NA Suggested Action Install OracleAS or verify that OracleAS is installed on the managed node.</li></ul>

Description	Windows Registry Error
Severity	Normal
Help Text	Probable Cause
	<ul> <li>The Oracle Application Server installation may have failed.</li> <li>Oracle Application Server might not be installed.</li> <li>Potential Impact : NA</li> <li>Suggested Action : NA</li> </ul>

Description	<pre>wasspi_oas_discovery.pl:Command not found: D:\product\10.1.3\OracleAS/dcm/bin/dcmctl.bat missing</pre>
Severity	Warning
Help Text	Probable Cause         The specified directory does not exist.         Potential Impact : NA         Suggested Action
	<ol> <li>Refer to the text following the error message in the OASSPI error log to help identify the problem. You can view the SPI error log for a managed node by using the OASSPI Admin → View Error Log tool. The error message can be identified by the date/time stamp.</li> </ol>
	2. Identify the steps to reproduce the problem.
	3. Run the <b>OASSPI Admin</b> → <b>Start Tracing</b> tool to turn on tracing. Try to reproduce the problem.
	4. Run the <b>OASSPI Admin</b> - Self-Healing Info tool. Contact HP support with the information gathered by this tool.

Description	Command Failed
Severity	Normal
Help Text	Probable Cause
	<ul><li>Oracle Application Server might not be installed.</li><li>The command or script failed with a non-zero exit code.</li></ul>
	Potential Impact : NA
	Suggested Action : NA

Description	XML Parse Error
Severity	Normal
Help Text	Probable Cause The wasspi_oas_XMLParser may be missing or the xml may be malformed
	Potential Impact : NA
	Suggested Action : NA

Description	Discovery Error
Severity	Normal
Help Text	Probable Cause
	Discovery failed, see the errorlog and the wasspi_oas_discovery.trc files on the masspi_oas_discovery.trc fi
	Potential Impact : NA
	Suggested Action : NA

# All other errors

Description	OTHER
Severity	Warning
Help Text	Suggested Action
	<ol> <li>Refer to the text following the error message in the OASSPI error log to help identify the problem. You can view the SPI error log for a managed node by using the OASSPI AdminView Error Log tool. The error message can be identified by the date/time stamp.</li> </ol>
	2. Identify the steps to reproduce the problem.
	3. Run the <b>OASSPI Admin</b> → <b>Start Tracing</b> tool to turn on tracing. Try to reproduce the problem.
	4. Run the <b>OASSPI Admin</b> - Self-Healing Info tool. Contact HP support with the information gathered by this tool.

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