Sun GlassFish Enterprise Manager Performance Advisor 1.0 Release Notes

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GlassFish Performance Advisor Release Notes

The GlassFish Enterprise Manager Performance Advisor provides performance tuning assistance and performance alerts for Sun GlassFish™ Enterprise Server version 2.1.

These *Release Notes* provide the latest Performance Advisor updates in the following sections:

- "Revision History" on page 3
- "System Requirements" on page 4
- "Known Issues and Limitations" on page 4
- "How to Report Problems and Provide Feedback" on page 8
- "Additional Resources" on page 9
- "Accessibility Features" on page 9

For information on installation and basic use, see the *Sun GlassFish Enterprise Manager Performance Advisor 1.0 Installation and Quick Start Guide*. See also the documentation set for Sun GlassFish Enterprise Server (`http://docs.sun.com/coll/1343.6`).

Revision History

This section provides a record of changes in these *Release Notes*.

TABLE 1 Revision History

Date	Description of Changes
January 2009	Initial release.

System Requirements

Before you can download and install the Performance Advisor, you must do the following:

1. Install Sun GlassFish Enterprise Server version 2.1, available at (`http://www.sun.com/software/products/appsrvr/get_it.jsp`). You can install a domain with any profile: developer, cluster, enterprise, or custom. For more information about Enterprise Server installation, see the *Sun GlassFish Enterprise Server 2.1 Installation Guide*.
2. Purchase support for Enterprise Server, available at (`http://www.sun.com/software/products/appsrvr/support.xml`). This gives you an account that entitles you to download extra Enterprise Server features. It is important to remember your support username and password.

System requirements for the Performance Advisor are the same as those for Sun GlassFish Enterprise Server version 2.1, except that the Performance Advisor is not supported on the AIX platform. For Sun GlassFish Enterprise Server version 2.1 system requirements, see the *Sun GlassFish Enterprise Server 2.1 Release Notes*.

Known Issues and Limitations

This section lists the following known issues with the Performance Advisor:

- "Management Rules Logger" on page 4
- "AIX Platform Not Supported (6795945)" on page 5
- "Server Restart Needed to Re-enable a Rule (6797485)" on page 5
- "Domain Restart Needed for Management Rules (6794005 6796385 6796423 6796461)" on page 6
- "User Threshold for GC Pause Time Alert Shown in Notification Is Incorrect (6797924)" on page 6
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- "Tuner Expects `-d64` Option for Linux 64–Bit JVM (6797035)" on page 7
- "Maximum Pool Size Recalculation Doesn't Appear in All Instance Logs (6798998)" on page 7
- "Maximum Pool Size Recalculation Incorrect for New Pool in Cluster (6799380)" on page 8

Management Rules Logger

Description

The management rules send notifications to the server log, but the logger for messages from the management rules subsystem itself is `com.sun.enterprise.management.runtimetuner`. By

default, the log level for this logger is `WARNING`. To get more information from this logger, you must add a property to the configuration. The property name is `com.sun.enterprise.management.runtimetuner` and the value is `FINE`.

Workaround

You can add this property on the Log Levels page in the Admin Console. For details, see the Admin Console online help.

You can also use the following `asadmin set` command to add this property. Substitute the name of the server instance or cluster for `server`. For example:

```
asadmin set
server.log-service.module-log-levels.property.com\\.sun\\.enterprise\\.management\\.runtimetuner=FINE
```

For more information about the `asadmin set` command, see the *Sun GlassFish Enterprise Server 2.1 Reference Manual*.

AIX Platform Not Supported (6795945)

Description

The Performance Advisor is not supported on the AIX platform even though Sun GlassFish Enterprise Server version 2.1 is supported on the AIX platform.

Workaround

None.

Server Restart Needed to Re-enable a Rule (6797485)

Description

The Admin Console does not tell you to restart the server after disabling and then re-enabling a rule. The rule is not enabled completely and alerts are not sent when user-specified thresholds are crossed.

Workaround

After you disable and re-enable a management rule for a cluster or stand-alone server instance, you must restart the cluster or instance for the rule to take effect.

Domain Restart Needed for Management Rules (6794005 6796385 6796423 6796461)

Description

Dynamic reconfiguration is not supported for management rules.

Workaround

After you create or change a management rule, you must restart the domain for the rule or the changes to take effect.

User Threshold for GC Pause Time Alert Shown in Notification Is Incorrect (6797924)

Description

The value for the User Threshold of the GC Pause Time Alert shown in the server log and email is incorrect. The above-threshold data is reported correctly but the threshold is shown as ten times its actual value.

Workaround

None.

Tuner's Memory Calculation Does Not Allow Acceptable Differences (6794606)

Description

When the Tuner is evaluating whether a cluster is heterogeneous or homogeneous, it sometimes determines that a cluster is heterogeneous based solely on differences between machines in physical memory that are too small to be significant.

Workaround

None.

Tuner Expects `-d64` Option for Linux 64–Bit JVM (6797035)

Description

When the Linux AMD 64–bit JDK is used without the `-d64` option, the server runs as a 64–bit server. However, without the `-d64` option, the Tuner does not allow the maximum heap memory to be set above 1400 MB.

Workaround

Add the `-d64` option as a JVM option to the server or cluster you wish to tune. To use the Admin Console, go to the JVM Settings page for the configuration, select the JVM Options tab, select the Add JVM Option button, and enter the `-d64` option. Or use the `asadmin create-jvm-options` command. For example:

```
asadmin create-jvm-options --target server \\-d64
```

For more information about the `asadmin create-jvm-options` command, see the *Sun GlassFish Enterprise Server 2.1 Reference Manual*.

Maximum Pool Size Recalculation Doesn't Appear in All Instance Logs (6798998)

Description

When a rule is established on a cluster, and a new server instance is added to that cluster, the Maximum Pool Size (`max-pool-size`) setting is recalculated only for the newly created instance. The already existing instances are not synchronized with the latest information about the newly added instance.

Workaround

Restarting the cluster synchronizes all server instances, and the Maximum Pool Size of the JDBC connection pool specified in the rule is applied across all instances.

Maximum Pool Size Recalculation Incorrect for New Pool in Cluster (6799380)

Description

When a JDBC Pool Manager rule is established on a cluster, Maximum Pool Size (`max-pool-size`) recalculation issues occur when * (applies to All Current and Future JDBC Connection Pools) is selected and a new JDBC connection pool is added to the cluster configuration. Since all pools are selected for automatic tuning, the Maximum Pool Size of the new pool is set to the default Maximum Pool Size setting instead of being calculated according to number of server instances present in the cluster. For example, suppose you have the following settings:

- Default Max Connections: 100
- Pool Name: * (applies to All Current and Future JDBC Connection Pools)
- Max Connections: no value set

If there are two server instances in the cluster, then for all existing active JDBC connection pools, the Maximum Pool Size is recalculated to 50 by each of the instances. However, for any newly added JDBC connection pool, the Maximum Pool Size is recalculated to 100 by each of the instances.

Workaround

Restart the cluster to recalculate the Maximum Pool Size for all JDBC connection pools on all server instances.

Selecting individual JDBC connection pool names with individual Max Connections values instead of selecting * (applies to All Current and Future JDBC Connection Pools) can prevent this issue in real-time production environments.

How to Report Problems and Provide Feedback

If you have problems with Sun GlassFish Enterprise Server version 2.1, provide feedback through one of the following mechanisms:

- GlassFish mailing lists (`https://glassfish.dev.java.net/servlets/ProjectMailingListList`) — A variety of GlassFish community mailing lists for various interests and feedback
- GlassFish forum (`http://forums.java.net/jive/forum.jspa?forumID=56`) — A forum for discussing the GlassFish project

Additional Resources

Useful information can be found at the following locations:

- GlassFish Community (`https://glassfish.dev.java.net/`)
- Sun Developer Information (`http://developers.sun.com/`)
- Sun Developer Support Services (`http://www.sun.com/developers/support`)
- Sun Microsystems product documentation (`http://docs.sun.com/`)

Accessibility Features

To obtain accessibility features that have been released since the publication of these media, consult Section 508 product assessments available from Sun upon request to determine which versions are best suited for deploying accessible solutions. Updated versions of applications can be found at `http://sun.com/software/javaenterprisesystem/get.html`. For information on Sun's commitment to accessibility, visit `http://www.sun.com/accessibility/`.