Perfmon4j ™

Perfmon4j - JBoss Configuration Guide

Performance Monitoring API for Java Enterprise Applications

Purpose

This document provides a step by step guide on how to add Perfmon4j performance monitoring to a JBoss 4.x or JBoss 5.x server installation.

Note:

- The installation constructions assume you are using the "default" server configuration, if you are using one of the other pre installed server configurations ("all" or "minimal"), or your own server configuration you must modify the instructions accordingly.

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Installation

Step 1) Install Perfmon4j java agent

- Copy the perfmon4j.jar file (included with the perfmon4j distribution) into your "jboss/lib/endorsed" folder.
- Copy the javassist.jar file from "jboss/client" to "jboss/lib/endorsed" (Note: do **NOT** use the javassist.jar file shipped with perfmon4j).
- Copy the following jar files (included with the perfmon4j distribution) into your "jboss/server/**default**/lib" folder: perfmon4j-servlet.jar and perfmon4j-tomcat55.jar.
- (**Windows ONLY**) Set the JAVA_OPTS environment variable to configure the perfmon4j java agent. Set JAVA_OPTS to the following value: (!! **Important!!** – please note the **"-"** before the **"f"** in "– f.\bin\perfmonconfig.xml")

```
-javaagent:../lib/endorsed/perfmon4j.jar=-f.\bin\perfmonconfig.xml
```

- (**Linux ONLY**) Set the JAVA_OPTS environment variable to configure the perfmon4j java agent. Set JAVA_OPTS to the following value: (!! **Important!!** – please note the **"-"** before the **"f"** in "– f.\bin\perfmonconfig.xml")   Important – the jboss run.sh script will lose the –Xmx configuration if you preset JAVA_OPTS – To work around this also include –Xmx512m and include the whole string in quotes.

```
"-Xmx512m -javaagent:../lib/endorsed/perfmon4j.jar=-f../bin/perfmonconfig.xml"
```

Step 2) Configure log4j logging to enable perfmon4j output.

- Add the following lines to the jboss/server/**default**/conf/jboss-log4j.xml file:

```
<!-- =============== -->
<!-- Limit categories -->
<!-- =============== -->
```

```
<category name="org.perfmon4j">
    <priority value="INFO"/>
</category>
```

Step 3) Install PerfMonValve to enable monitoring of web request.

- For JBoss 4.x

    ◦ Edit "jboss4x/server/**default/**deploy/jboss-web.deployer/server.xml"

- For JBoss 5.x

    ◦ Edit "jboss5x/server/**default**/deploy/jbossweb.sar/server.xml"

- Find the <Engine name="jboss.web" defaultHost="localhost"> section and add the following line to the section: <Valve className="org.perfmon4j.extras.tomcat55.PerfMonValve"/>

Step 4) Create perfmon4j configuration file

- Copy the file perfmonconfig.xml included with the Perfmon4j distribution (in the "perfmon4j/doc" folder) into the "jboss/bin" folder.

- Note this sample configuration will output data every minute for web request and various system metrics (Garbage collection, Thread pools, etc)

- To configure the frequency of output simply edit the perfmonconfig.xml file and change all occurrences of "1 minute" to an alternate duration. Perfmon4j accepts various time durations - i.e. (20 minutes, 1 hour, 30 seconds)

- Perfmon4j will monitor the perfmonconfig.xml file for change every 60 seconds. If a change is found it will be reloaded.

Step 5) Test your installation

- Start JBoss (using "jboss/bin/run") within 2-3 minutes perfmon4j logging information, similar to the example below, should appear on the JBoss console and in the server log.

    Example output:

```
2009-09-09 11:16:49,583 INFO  [org.perfmon4j.TextAppender]
***************************************************************************
WebRequest
11:15:49:533 -> 11:16:49:536
 Max Active Threads. 0
 Throughput........ 0.00 per minute
 Average Duration... 0.00
 Median Duration.... NA
 > 2 seconds....... 0.00%
 > 5 seconds....... 0.00%
 > 10 seconds...... 0.00%
 Standard Deviation. 0.00
 Max Duration....... 0
 Min Duration...... 0
 Total Hits........ 0
 Total Completions.. 0
Lifetime (2009-09-09 11:15:49):
 Max Active Threads. 0
 Max Throughput..... 0.00 (2009-09-09 11:15:49 -> 2009-09-09 11:16:49)
 Average Duration... 0.00
 Standard Deviation. 0.00
 Max Duration....... 0
 Min Duration....... 0
***************************************************************************
```

For more information

- The Perfmon4j-UserGuide contains an overview of the features of Perfmon4j
- Sample configurations can be found in the Perfmon4j-ConfigSamples document.
- Visit the perfmon4j web site for links for brief videos on perfmon4j.

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