



JMX: Base Pack *BETA* PowerPack Release Notes

Version 100

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Overview

Version 100 is the initial version of the *JMX: Base Pack *BETA** PowerPack. It includes Dynamic Applications and sample Credentials for monitoring Java Management Extensions (JMX) resources from Oracle and IBM vendors.

- **Minimum Required SL1 Version:** 8.10.0
- **Support Status:** Beta
- **Models Supported:** HotSpot, IBM J9 (JVM), OpenJDK

This document describes:

- [Pre-installation or pre-upgrade information](#)
- [The installation process for the PowerPack](#)
- [The features included in version 100](#)

Before You Install

Ensure that you are running SL1 version 8.10.0 or later before installing the *JMX: Base Pack *BETA** PowerPack version 100.

NOTE: For details on upgrading SL1, see the appropriate SL1 [Release Notes](#).

Installing JMX: Base Pack *BETA* PowerPack version 100

To install the *JMX: Base Pack *BETA** PowerPack, perform the following steps:

1. See the [Before You Install](#) section. If you have not done so already, upgrade your system to the 8.10.0 or later release.
2. Download version 100 of the *JMX: Base Pack *BETA** PowerPack from the Customer Portal to a local computer.
3. Go to the **PowerPack Manager** page (System > Manage > PowerPacks). Click the **[Actions]** menu and choose *Import PowerPack*. When prompted, import version 100 of the *JMX: Base Pack *BETA** PowerPack.
4. After importing the PowerPack, you will be prompted to install the PowerPack. Click the **[Install]** button to install the PowerPack.
5. See the manual *Monitoring Java Management Extensions (JMX)* for instructions on using the PowerPack.

Features

JMX: Base Pack *BETA* PowerPack version 100 includes the following features:

- Dynamic Applications to monitor JMX resources:
 - JMX: Base Configuration (Sample)
 - JMX: Base Performance (Sample)
 - JMX: Class Loading Performance
 - JMX: Compilation Configuration
 - JMX: Garbage Collector Concurrent Mark Sweep Performance
 - JMX: Garbage Collector Configuration (HotSpot)
 - JMX: Garbage Collector Configuration (IBM)
 - JMX: Garbage Collector Copy Performance
 - JMX: Garbage Collector Global Performance (IBM)
 - JMX: Garbage Collector Mark Sweep Compact Performance
 - JMX: Garbage Collector Par New Performance
 - JMX: Garbage Collector Scavenge Performance (IBM)
 - JMX: Inventory
 - JMX: Java Nio BufferPool Direct Performance
 - JMX: Java Nio BufferPool Mapped Performance
 - JMX: JVM CPU Monitor Configuration (IBM)
 - JMX: MBean Server Configuration
 - JMX: Memory Configuration
 - JMX: Memory Manager Configuration
 - JMX: Memory Performance
 - JMX: MemoryPool Class Storage Performance
 - JMX: MemoryPool CMS Old Gen Performance (HotSpot)
 - JMX: MemoryPool CMS Perm Gen Performance (HotSpot)
 - JMX: MemoryPool Code Cache Performance (HotSpot)
 - JMX: MemoryPool Compressed ClassSpace Performance (HS)
 - JMX: MemoryPool Configuration (HotSpot)
 - JMX: MemoryPool Configuration (IBM)
 - JMX: MemoryPool Java Heap Performance (IBM)
 - JMX: MemoryPool JIT Code Cache Performance
 - JMX: MemoryPool JIT Data Cache Performance

- JMX: MemoryPool Metaspace Performance (HotSpot)
- JMX: MemoryPool Miscellaneous Non-Heap Storage Perf
- JMX: MemoryPool Nursery Allocate Performance (IBM)
- JMX: MemoryPool Nursery Survivor Performance (IBM)
- JMX: MemoryPool Par Eden Performance (HotSpot)
- JMX: MemoryPool Par Survivor Space Performance (HotSpot)
- JMX: MemoryPool PS Eden Space Performance (HotSpot)
- JMX: MemoryPool PS Old Gen Performance (HotSpot)
- JMX: MemoryPool PS Survivor Space Performance (HotSpot)
- JMX: MemoryPool Tenured LOA Performance
- JMX: MemoryPool Tenured SOA Performance
- JMX: Operating System Configuration
- JMX: Operating System Performance
- JMX: Runtime Configuration
- JMX: Runtime Performance (IBM)
- JMX: Threading Configuration
- JMX: Threading Performance
- JMX: WebSphere Configuration (IBM)

NOTE: For the most part, the Dynamic Applications in the *JMX: Base Pack *BETA** PowerPack align to MBeans that are exposed in the server being monitored. A single MBean will generally have a performance Dynamic Application and a configuration Dynamic Application aligned to it.

NOTE: The "JMX: Base Configuration (Sample)" and "JMX: Base Performance (Sample)" Dynamic Applications provide an overview of the server metrics and thus span multiple MBeans.

NOTE: Dynamic Applications with names appended by "(IBM)" are used to collect data from IBM servers, while those appended by "(HotSpot)" collect data from servers that are using HotSpot or OpenJDK. Dynamic Applications with names that are not appended by "(IBM)" or "(HotSpot)" are compatible with both. However, some of these Dynamic Applications, such as "JMX: Memory Configuration", might collect more or different data from one source over the other, depending on the detail of the server type being monitored. This behavior is expected.

NOTE: The "JMX: Inventory" Dynamic Application provides a list of all JMX values that the system exports and their most recent values. You can then use that information to check that all necessary values are available for the system or create a new Dynamic Application to collect specific metrics that are not collected by other Dynamic Applications in the *JMX: Base Pack *BETA** PowerPack. Because of the possible load it can place on the Data Collector in some situations, it is not automatically aligned; if you want to use it, you must manually align it to your JMX system.

NOTE: If a performance collection is disabled on the server being monitored, the corresponding metric in SL1 will appear as a zero value.

NOTE: If you collect the same data from different ports, then the configuration Dynamic Applications in the *JMX: Base Pack *BETA** PowerPack will display the data for each port separately in the Configuration Report. Performance Dynamic Applications will display the metrics for all ports monitored by a particular Dynamic Application as different lines on its corresponding performance graph.

- Two sample Credentials that you can use to create your own JMX Credentials:
 - JMX Example (Basic/Snippet)
 - JMX Multiport (SOAP/XML)

NOTE: The Basic/Snippet Credential can be used when monitoring only a single port. When monitoring multiple ports, use the SOAP/XML Credential.

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800-SCI-LOGIC (1-800-724-5644)

International: +1-703-354-1010