

Nimsoft Monitor for Tomcat

Optimizing Performance and Availability of Web Applications

Features

- Robust, intuitive management interface makes all administrative tasks fast and easy.
- Enables central management of multiple Tomcat servers.
- Includes automatic resource discovery capabilities for simplified management configuration.
- Supports agentless monitoring of Tomcat servers running on any supported platform.

Benefits

- Enjoy cost and time savings through streamlined, centralized administration of complex Web environments.
- Boost operational efficiency through improved resource visibility and capacity management.
- Ensure SLA compliance of business critical services.

Introduction

Open source products have achieved a level of market penetration and deployment sophistication that would have been unimaginable just a few years ago. Today, Tomcat, a free open-source Java server, is increasingly being used in enterprise deployments in which high-end application servers like WebLogic and WebSphere would have been traditionally been deployed.

As the product gets deployed in increasingly large-scale, mission-critical deployments, administrators often find that Tomcat's inherent complexity and lack of bundled monitoring capabilities present real challenges—making it time consuming and difficult to ensure optimal performance, scalability, and availability.

How can administrators efficiently monitor multiple Tomcat servers in distributed environments, and ensure they're performing optimally? How can they gain the insights they need to proactively manage the performance of these open source systems?

The Solution

Nimsoft Monitor for Tomcat helps organizations gain enterprise-grade performance and availability from their Tomcat servers. With Nimsoft Monitor, administrators can centrally monitor any number of distributed servers, and ensure that any potential issues or irregularities are detected at the earliest possible stage.

The quality of service data provided by Nimsoft Monitor makes it possible to detect performance trends, enabling administrators to take precautionary actions before users notice any service degradation, and so more effectively optimize performance and availability.

Nimsoft Monitor offers an array of features specifically designed to make it easy to configure and manage the monitoring of large, distributed Tomcat environments:

- **Agentless monitoring.** Utilizing Tomcat's native JMX interface, Nimsoft Monitor gathers a wealth of availability and performance metrics—without requiring any agents or other software to be added to the Web server host.
- **Automatic discovery.** Nimsoft Monitor automatically discovers the Tomcat installation on a host machine, as well as all sub components.

Data Sheet

- **Centralized administration.** With Nimsoft Monitor, administrators can monitor any number of servers through a single, intuitive interface.

Monitoring Features that Yield Practical Insights

Nimsoft Monitor:

- Offers central, agentless monitoring of multiple Tomcat servers.
- Monitors server performance and response time, and status of individual requested resources.
- Monitors standard and custom-developed MBeans.
- Enables real-time alerts that ensure administrators are apprised immediately of issues.

- Provides quality of service data for trend analysis.
- Monitors compliance with service level agreements.

With these robust capabilities, administrators can:

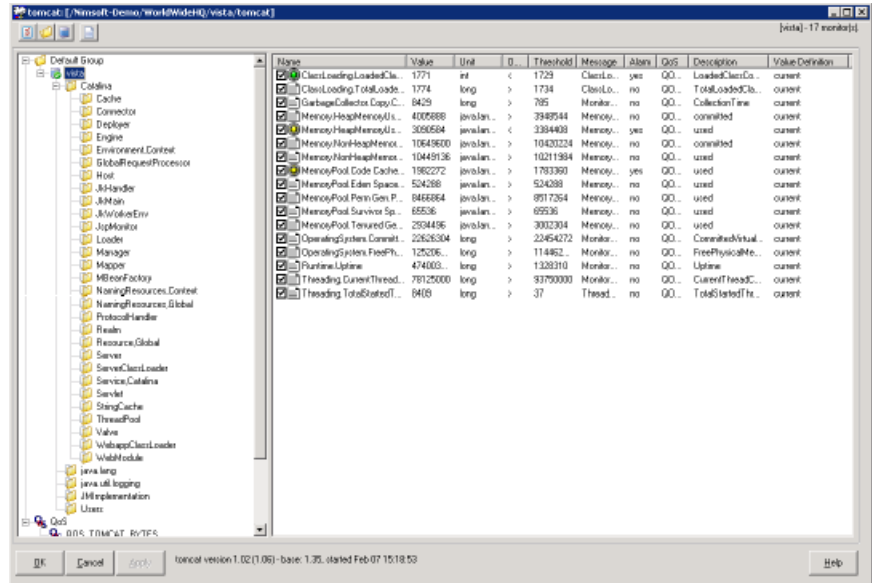
- Detect Tomcat server problems and degradations more quickly.
- Immediately identify the source of bottlenecks and failures.
- More proactively control service levels and minimize downtime.

Requirements

Requires JSR 160 and Java 1.5 or above

Checkpoints Monitored

The list of all checkpoints available for monitoring with Nimsoft Monitor is too long to include in this document. Following is a subset of the list, featuring some of the more broadly relevant checkpoints:



Name	Value	Unit	D.	Threshold	Message	Alerts	QOS	Description	Value Definition
ClassLoadingLoadedCls...	1771	#	<	1729	ClassLo...	yes	QO...	LoadedClassC...	current
ClassLoadingTotalLoad...	1774	long	>	1734	ClassLo...	no	QO...	TotalLoadedCls...	current
GarbageCollectorCopyC...	8429	long	>	795	Memor...	no	QO...	CollectionTime	current
MemoryHeapMemoryUs...	4005688	java.lang...	<	3384938	Memor...	no	QO...	committed	current
MemoryHeapMemoryUs...	3096584	java.lang...	<	3384938	Memor...	yes	QO...	used	current
MemoryNonHeapMemor...	10649600	java.lang...	>	10430324	Memor...	no	QO...	committed	current
MemoryNonHeapMemor...	10449136	java.lang...	>	10211984	Memor...	no	QO...	used	current
MemoryPoolCodeCache...	1982272	java.lang...	>	1783380	Memor...	yes	QO...	used	current
MemoryPoolEdenSpace...	524268	java.lang...	>	524288	Memor...	no	QO...	used	current
MemoryPoolPermGenP...	8466864	java.lang...	>	8517264	Memor...	no	QO...	used	current
MemoryPoolSurvivorSp...	65536	java.lang...	>	65536	Memor...	no	QO...	used	current
MemoryPoolTenuredGe...	2934496	java.lang...	>	3003204	Memor...	no	QO...	used	current
OperatingSystemCommitt...	22626304	long	>	22454272	Memor...	no	QO...	CommittedVirtual...	current
OperatingSystemFreePh...	125236...	long	>	114862...	Memor...	no	QO...	FreePhysicalMe...	current
RunnableCount	474003	long	>	1328310	Memor...	no	QO...	Uptime	current
ThreadingCurrentThrea...	78125000	long	>	83790000	Memor...	no	QO...	CurrentThreadC...	current
ThreadingTotalStarted...	8408	long	>	37	Threa...	no	QO...	TotalStartedTh...	current

- Memory
- Heap Memory Usage
- Non heap Memory Usage
- Memory Pool “Eden Space”
- Memory Pool “Survivor Space”
- Memory Pool “Tenured Gen”
- Memory Pool “Code Cach”
- Memory Pool “Perm Gen”
- Threads
- Number of Threads/Total Started
- Number of Threads/Peak
- Number of Threads/Live Threads
- Classes
- Number of Loaded Classes/Total Loaded
- Number of Loaded Classes/Loaded

Part of the Nimsoft Monitor Family

With Nimsoft service level management solutions, enterprises and service

providers gain a centralized, cohesive view of their entire infrastructure. Whether an IT organization wants to monitor a specific network element, or the entire infrastructure on which a mission-critical application is based—including the associated network elements, databases, application servers, and more—they can do it all with the Nimsoft Monitor product suite.

In addition to Nimsoft Monitor, the Nimsoft Monitor product family includes probes for Apache, RedHat Linux, BEA WebLogic, IBM WebSphere, Microsoft Active Directory, Citrix, JBoss, Microsoft Exchange, Microsoft IIS, IBM Lotus Notes, SAP R/3, and other widely deployed applications. These are complemented by database modules for IBM DB/2, IBM Informix, Oracle, Microsoft SQL Server, and Sybase ASE; server platform solutions for Windows, UNIX, Linux, AS400/iSeries, and Novell Netware; and solutions for managing network infrastructure, including routers, switches, and firewalls.



About Nimsoft

Nimsoft is a global leader in IT Management-as-a-Service. The company's lightweight ITMaaS solutions make it easy for enterprises and service providers to implement comprehensive, adaptable monitoring and service desk capabilities essential for managing today's dynamic computing environments. Learn more at www.nimsoft.com.

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