

RoboMon for Windows NT/2000 - Lotus Notes/Domino Intelligent Solution Set

Automated management for Lotus Notes/Domino R4.6 & R5.0

Manage Any Lotus Notes/Domino R4.6 Environment Better

RoboMon's Lotus Notes/Domino Intelligent Solution Set provides easily configurable proactive monitoring and problem solving for any size Lotus Notes/Domino R4.6 environment, from a small workgroup with one standalone server, to the most complex eBusiness with thousands of nodes and multiple servers running integrated messaging and Web-based applications.

RoboMon's automated, out-of-the-box Lotus Notes/Domino Intelligent Solution Set operates through an integrated set of rules that detect and correct problems before your users experience failures or slowdowns. It monitors all aspects of Lotus Notes/Domino availability and performance, including:

- Basic operations, such as whether critical services are running,
- Performance criteria, such as network efficiency, CPU, memory and I/O bottlenecks, and
- Security issues, such as changes in the Lotus Notes database access control lists.

RoboMon can diagnose and correct problems on the spot, or escalate them to your attention at a central monitoring location.

Key Benefits

- Works out of the box, with no setup time
- Fixes problems automatically, focuses your staff's time on the issues you target
- Allows centralized monitoring of remote systems
- May be precisely customized for each environment
- Provides intuitive, graphical interface for management and customization
- Integrates with RoboMon's enterprise-wide total eBusiness infrastructure management solution (see below)

What RoboMon's Lotus Notes/Domino Intelligent Solution Set Monitors

RoboMon's Lotus Notes/Domino Intelligent Solution Set provides comprehensive monitoring and management of running Notes/Domino systems.

Specific rules are designed to:

- Detect which version of Domino Server is installed and whether it is running
- Monitor changes in the database access control lists, alerting you to possible security threats
- Monitor specific server tasks running on the Domino server, alerting you when any has gone down
- Investigate bottlenecks in CPU, file I/O and memory, alerting you to potential performance degradation and provide recommendations for improving performance
- Identify Domino processes using significant resources
- Detect unusually high numbers of HTTP requests, concurrent users, or overall transactions, allowing you to redistribute the load to underutilized servers, add servers, or upgrade current servers
- Detect a high number of user sessions dropped in mid-transaction, often a sign that very poor server performance is causing users to abort transactions before they complete
- Flag high numbers of dead mail messages, mail transfer failures and waiting messages, alerting you to the presence of routing or addressing problems, problems with connectivity, or excessive server workload
- Monitor the number of URL request failures, possibly caused by invalid URLs

RoboMon NT/2000 Event Monitor

The screenshot shows the RoboMon Event Monitor window titled "Robomon Event Monitor - All Events for RoboMon Event Database on \\BASE". The window has a menu bar (File, Monitor, View, Event, Detail, Tools, Help) and a toolbar with various icons. Below the toolbar is a table of events:

EventDateTime	Class	SubClass	Computer	Severity	RuleName
10/28/99 04:02:58 PM	LOTUS 4.6	HTTP_REQUESTS	SALES	3	HTTP_REQUESTS_HIGH
10/28/99 04:00:18 PM	AUTOMATION	NETWORK	EAST	2	UNREACHABLE_COMPUTERS
10/28/99 04:00:18 PM	AUTOMATION	NETWORK	EAST	2	UNREACHABLE_COMPUTERS
10/28/99 02:01:32 PM	IIS	IIS CACHE	GLOBAL	2	IIS_CACHE_ALERT
10/28/99 02:01:28 PM	IIS	IIS PROCESS	GLOBAL	2	IIS_PROCESS_POOL_LEAK
10/27/99 11:00:09 PM	AUTOMATION	PAGE_FILE	EAST	2	PAGE_FILE_LOAD
10/27/99 11:00:01 PM	IIS	IIS SERVICES	EAST	2	IIS_SERVICES

Below the table, there is a detailed description of the selected event:

Updated severity 1 problem for computer SALES at 10/28/99 04:02:58 PM.
Generated by rule HTTP_REQUESTS_HIGH of type HTTP REQUESTS in LOTUS 4.6.

Domino server SALES is receiving excessive HTTP requests.

During the last 15 minutes, Domino server SALES has received 1079 HTTP requests. The maximum acceptable limit, as defined in the RoboMon Solutions Manager, is 1000 requests per interval.

Excessive HTTP requests can seriously degrade Domino server performance. Check the RoboMon Event Monitor for events concerning server performance. If this condition persists, either move some of this server's workload to other Domino servers, upgrade this server's CPU and memory, or add additional Domino servers.

The status bar at the bottom shows "Ready", "7 events", and "10/28/99 4:15:26 PM".

- Flag high numbers of dead mail messages, mail transfer failures and waiting messages, alerting you to the presence of routing or addressing problems, problems with connectivity, or excessive server workload
- Monitor the number of URL request failures, possibly caused by invalid URLs
- Monitor use and efficiency of the Domino database cache, alerting you to bottlenecks before they seriously affect users
- Warn when the size of any database exceeds set thresholds to prevent unchecked growth of databases, which can lead to low disk space and server degradation
- Raise an alert when excessive whitespace threatens to degrade database performance
- Report low free space on writeable hard disks before server performance degrades and database growth is restricted
- Raise an alert at an excessive number of database replication failures
- Centralize the reporting of messages from the Statistics and Events database
- Search the Notes Log database using customizable criteria to detect such events as errors, failures, corruption and invalid conditions
- Keep an historic record of Lotus Notes/Domino performance for use in resource planning

In addition, the solution sets have rules specific to releases 4.6 and 5.0:

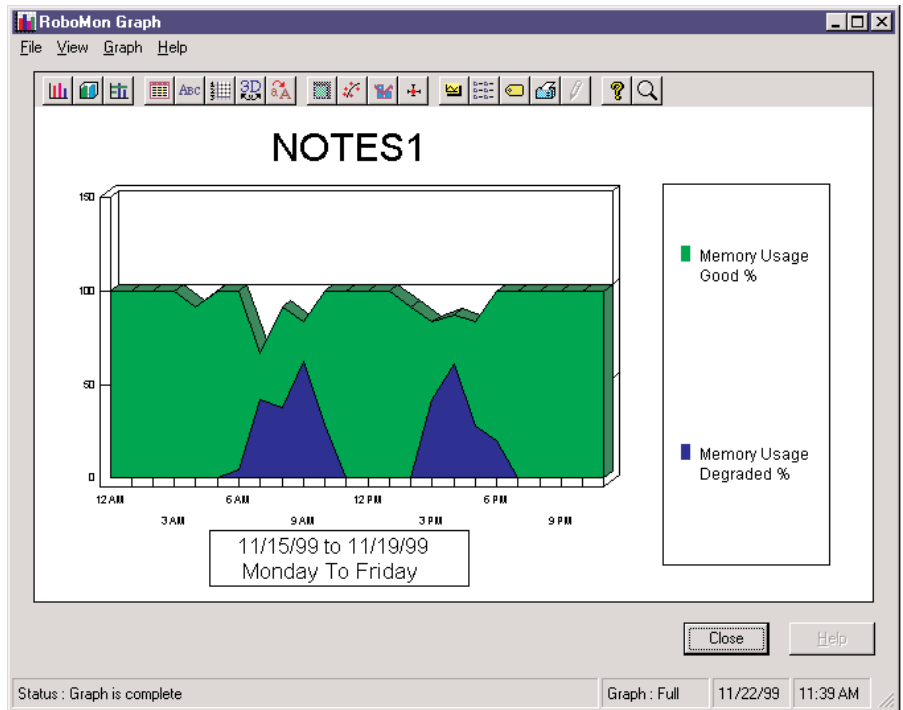
Release 5.0:

- Report when byte rate of the Domino Web Server or throughput of mail messages exceeds a specified threshold
- Check for low hit rate on the Domino Web Server cache
- Warn when Domino Server availability drops below an acceptable level
- Alert you to databases that have been inactive for specified periods of time

Release 4.6:

- Alert you to a high number of CRC (Cyclic Redundancy Check) errors and tried transmissions, which may indicate connectivity problems, noisy transmission lines, or network interface card problems
- Send notice of excessive number of serial port errors or transmissions retried due to error, which may indicate noisy transmission lines, port driver buffer overflows, or parity errors

RoboMon NT/2000 Graphing



What Rules Mean to You

RoboMon rules work out-of-the-box, with no tweaking, for any size Lotus Notes/Domino configuration. In addition, each RoboMon rule may be completely customized, allowing precise control over threshold settings through the Solutions Manager, as well as actions to be taken, required notifications and alerts. RoboMon's intuitive, graphical Rule Designer allows you to tailor rules and create new rules without writing a single line of code. Customized rules may be deployed to individual machines, domains or throughout the enterprise, via simple, efficient, drag & drop operations in the RoboMon Enterprise Manager.

The Total RoboMon Solution

RoboMon for Windows NT/2000 is automated eBusiness infrastructure management software that detects and corrects complex application, system and network problems to ensure the highest levels of availability and performance.

RoboMon includes a suite of pre-defined rules, called Intelligent Solution Sets, that work out of the box to detect and correct problems with applications, systems and networks, including Windows NT/2000, Microsoft BackOffice, and SNMP-based network components.

RoboMon may be configured to notify staff of problems in real time, or to take corrective action independently and monitor the results for success. RoboMon's many notification options

Where RoboMon's Lotus Notes/Domino Intelligent Solution Set Gets Its Data

- Notes Log database
- Statistics and Events database
- All or selected Lotus Notes databases
- Lotus Notes Win32 API

RoboMon's Lotus Notes/Domino Rules

Release 5.0 Rules

R50_ACL_Changes

Monitors changes in Domino database access control lists.

R50_Check_Tasks

Checks that Lotus tasks are running.

R50_Concurrent_Users

Monitors the number of concurrently logged on users.

R50_Database_Cache_Exhausted

Monitors both the number and percentage of entries in the database cache remaining free.

50_Database_Cache_Hit

Monitors the percentage of database requests satisfied from the database cache.

50_Database_Cache_Overcrowded

Monitors the level of requests for entry to the database cache rejected due to overcrowding.

50_Database_Size

Raises an alert if the size of any database exceeds the threshold defined in the RoboMon Solutions Manager.

50_Database_Usage_Low

Monitors each of the databases on a Lotus Domino server for inactivity, raising an alert if a database has not been used during a specified number of intervals.

50_Database_Whitespace

Monitors the percentage of space used vs. whitespace in Domino databases.

50_Dead_Mail

Monitors for dead mail in the Domino server's MAIL.BOX, raising an alert if the number of dead messages exceeds the threshold set in the RoboMon Solutions Manager.

50_Disk_Space

Reports low free space on writeable hard disks.

50_Domino_Events

Generates a message event for each event from the Domino Stats and Events Database matching the severities defined in the RoboMon Solutions Manager.

50_Dropped_Sessions

Monitors number of user sessions dropped in mid-transaction.

50_HTTP_Requests_High

Monitors number of HTTP requests per interval, raising alert if threshold defined in RoboMon Solutions Manager is exceeded.

R50_Mail_Throughput

Monitors the throughput of mail messages routed through the Domino Server

50_Memory_Availability

Monitors the status of memory availability to Domino.

50_Notes_Log

Searches the Notes Log database (log.nsf) for matches against search strings defined in the RoboMon Solutions Manager.

R50_Performance_Checks

Checks some basic performance indicators, such as CPU busy percentage, file I/O rate, and physical memory used.

R50_Process_Resources

Reports processes using significant resources.

50_Replication_Failures

Raises an alert if the number of replication failures during a given interval exceeds the threshold defined in the RoboMon Solutions Manager.

R50_Server_Availability

Monitors the Domino Server's availability, raising an alert if the AvailabilityIndex is below the AvailabilityThreshold.

50_Task_Running

Monitors the list of tasks in the RoboMon Solutions Manager to ensure that they are running.

50_Total_Pending_Mail

Monitors the total number of mail messages pending in the Domino server's mailbox.

50_Transactions_High

Raises an alert if the number of transactions on the server exceeds the threshold defined in the RoboMon Solutions Manager.

50_Transfer_Failures

Monitors the number of mail transfer failures.

50_Web_Cache_Efficiency

Checks for low hit rate on the Domino Web Server cache.

50_Web_Retriever

Monitors the number of URL request failures for the Web Retriever.

R50_Web_Server_Activity

Warns if the rate of bytes sent and received in the last interval is too high for the Domino Web Server.

Release 4.6 Rules:

ACL_Changes

Monitors changes in Domino database access control lists.

Collect_Perfobjects_Stats

Collects all of the Lotus46 Perfobjects statistics and stores their values in variables.

Concurrent_Users

Monitors the number of concurrently logged on users.

RoboMon's Lotus Notes/Domino Rules, cont.

CRC_Errors

Monitors the number of CRC (Cyclic Redundancy Check) errors reported by the Domino server.

Database_Cache_Exhausted

Monitors both the number and percentage of entries in the database cache remaining free.

Database_Cache_Hit

Monitors the percentage of database requests satisfied from the database cache.

Database_Cache_Overcrowded

Monitors the level of requests for entry to the database cache rejected due to overcrowding.

Database_Size

Raises an alert if the size of any database exceeds the threshold defined in the RoboMon Solutions Manager.

Database_Whitespace

Monitors the percentage of space used vs. whitespace in Domino databases.

Dead_Mail

Monitors for dead mail in the Domino server's MAIL.BOX, raising an alert if the number of dead messages exceeds the threshold set in the RoboMon Solutions Manager.

Disk_Space

Reports low free space on writeable hard disks.

Domino_Events

Generates a message event for each event from the Domino Stats and Events Database matching the severities defined in the RoboMon Solutions Manager.

Dropped_Sessions

Monitors number of user sessions dropped in mid-transaction.

HTTP_Requests_High

Monitors the number of HTTP requests per interval, raising an alert if the threshold defined in the RoboMon Solutions Manager is exceeded.

Lotus46_Performance_Checks

Checks some basic performance indicators.

Lotus46_Process_Resources

Reports processes using significant resources.

Memory_Availability

Monitors the status of memory availability to Domino.

Notes_Log

Searches the Notes Log database (log.nsf) for matches against search strings defined in the RoboMon Solutions Manager.

Replication_Failures

Raises an alert if the number of replication failures during a given interval exceeds the threshold defined in the RoboMon Solutions Manager.

Retried_Transmissions

Monitors the number of transmissions retried due to errors, raising an alert if the threshold defined in the RoboMon Solutions Manager is exceeded.

Serial_Port_Errors

Monitors the number of general port errors reported by the Domino server.

Task_Running

Monitors the list of tasks in the RoboMon Solutions Manager to ensure that they are running.

Transactions_High

Raises an alert if the number of transactions on server exceeds the threshold defined in the RoboMon Solutions Manager.

Transfer_Failures

Monitors the number of mail transfer failures.

Waiting_Mail

Monitors the number of mail messages on the Domino server waiting for delivery.

Web_Retriever

Monitors number of URL request failures for Web Retriever.

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