

RoboMon NT/2000 - Exchange® Intelligent Solution Set

Automated management for Microsoft® Exchange Server

Manage Any Exchange Environment Better

RoboMon's Exchange Intelligent Solution Set provides easily configurable proactive monitoring and problem solving for any size Exchange environment, from stand-alone email servers to the distributed, clustered messaging and collaboration configurations required by global eBusiness. RoboMon's automated, out-of-the-box Exchange 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 Exchange availability and performance, including:

- Basic operations, such as whether email addresses are reachable and the Exchange services are running,
- Performance criteria, such as failed connections and slow message delivery,
- Efficient use of disk space by the Exchange database and log files, and
- Activity that may signal hacker attacks.

RoboMon can diagnose and correct problems on the spot, or escalate them to your attention at a central monitoring location. Performance and event data are archived to help you evaluate your hardware and software needs, and to plan realistically for growth.

Key Benefits

- Works out of the box, with no setup time
- Automatically configures to any size Exchange environment
- 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 Exchange Intelligent Solution Set Monitors

RoboMon's Exchange Intelligent Solution Set provides comprehensive monitoring and management of running Exchange systems. Specific rules are designed to:

- Note which Exchange components are installed on each server and monitor accordingly
- Report service dependencies and identify when crucial services are not running
- Monitor the Exchange processes use of resources, such as CPU, working set, paged and non-paged pool
- Check basic performance indicators such as CPU, I/O, and memory usage, warning before resources become overtaxed
- Check the free space of the disks where the Exchange database files are stored and the size of the database files, sending an alert before depleted storage space causes the failure of Exchange or other applications
- Check the free space of the disks that hold the Exchange transaction log files, reporting depletion of free space that may ultimately cause Exchange or other applications to fail
- Identify inactive public folders and mailboxes that may be deleted to free up disk space
- Identify public folders and mailboxes that do not have a storage limit check

RoboMon NT/2000 Event Monitor

The screenshot shows the RoboMon Event Monitor interface. The main window displays a table of events with the following data:

EventDateTime	Class	SubClass	Computer	Severity	RuleName
10/28/99 04:02:58 PM	EXCHANGE	CONNECTIVITY	TRAFFIC	1	EMAIL_ADDRESS_REACHABLE
10/28/99 04:00:18 PM	AUTOMATION	NETWORK	EAST	1	UNREACHABLE_COMPUTERS
10/28/99 04:00:18 PM	AUTOMATION	NETWORK	EAST	1	UNREACHABLE_COMPUTERS
10/28/99 02:01:32 PM	IIS	IIS CACHE	GLOBAL	1	IIS_CACHE_ALERT
10/28/99 02:01:28 PM	IIS	IIS PROCESS	GLOBAL	1	IIS_PROCESS_POOL_LEAK
10/27/99 11:00:09 PM	AUTOMATION	PAGE_FILE	GLOBAL	1	PAGE_FILE_LOAD
10/27/99 11:00:01 PM	IIS	IIS SERVICES	EAST	1	IIS_SERVICES

The detailed view of the selected event shows the following text:

Updated severity 1 problem for computer TRAFFIC at 10/28/99 04:02:58 PM.
Generated by rule EMAIL_ADDRESS_REACHABLE of type CONNECTIVITY in EXCHANGE.
administrator@headquarters.com is not reachable.

What RoboMon's Exchange Intelligent Solution Set Monitors cont.

- Raise an alert when the number of messages or total bytes in a public folder exceeds a specified threshold, preventing the unnecessary usage of disk space
- Check for mailboxes that are approaching or have exceeded their number of messages or storage limit check
- Regularly check the reachability and response time of specified e-mail addresses
- Warn of Directory Store access violations that could indicate either a security configuration problem within Exchange, or attempts by users to access Exchange data for which they are not authorized
- Track domains, servers, sites and users receiving or sending excessive mail, activity that could signal mail relaying and other forms of e-mail abuse
- Monitor the number of active users, warning when high numbers of users threaten to put an excessive load on the system
- Report when Message Transfer Agent connection queue or work queue lengths exceed a specified threshold, enabling the administrator to improve Exchange performance either by increasing system resources or restricting users' use of the e-mail system
- Monitor the Internet Mail Connector for high activity, large queue length, excessive number of failed connections or non-delivered inbound or outbound messages, problems that may indicate improper configurations, insufficient system resources, junk mail or denial of service attacks, or failure of remote SMTP mail systems
- Report the size of the Private Information Store's queues, high message rates, and the average time for local and

remote delivery of messages, enabling the administrator to improve Exchange performance either by increasing system resources or restricting users' use of the e-mail system

- Report the size of the Public Information Store's queues, high message rates, and the average time for local and remote delivery of messages, enabling the administrator to improve Exchange performance either by increasing system resources or re-configuring the replication of public folders
- Collect and report Exchange errors and warnings from the Exchange event log
- Keep an historic record of Exchange performance for use in resource planning

What Rules Mean to You

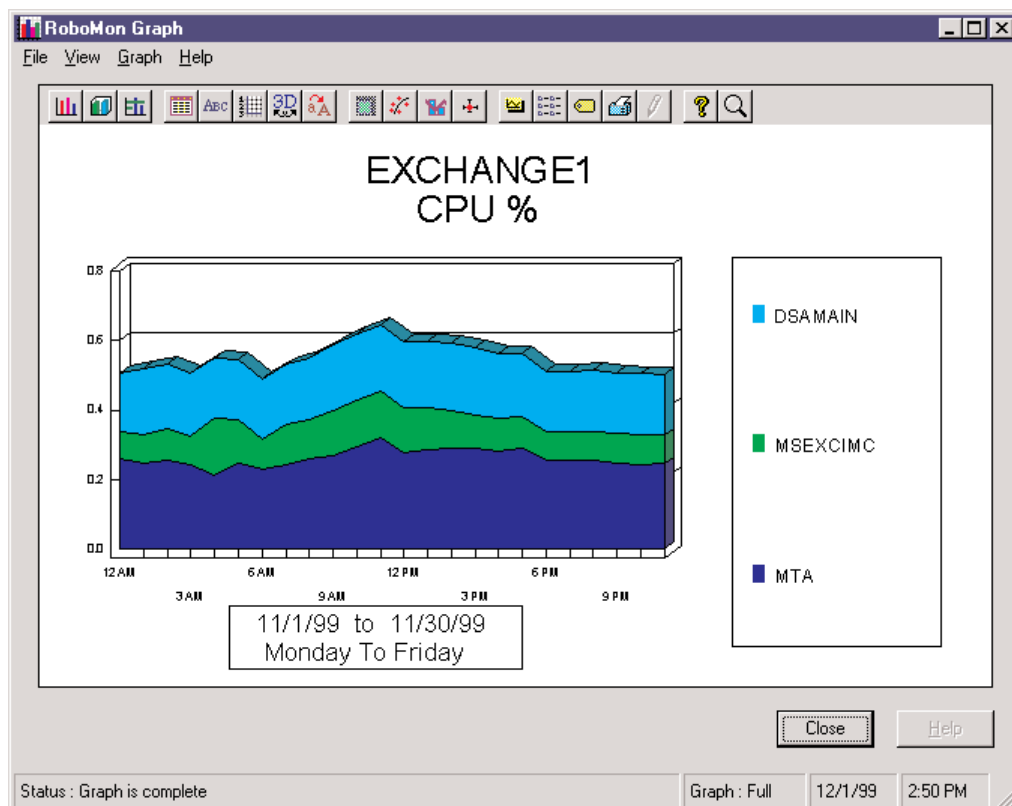
RoboMon rules work out-of-the-box, with no tweaking, for any size Exchange configuration. In addition, each RoboMon rule may be completely customized, allowing precise control over threshold settings through the Solutions Manager, as well as actions to be taken, required notifications and alerts.

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 NT/2000 Graphing



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 include paging, e-mail, SNMP trap, net send messages, and centralized event reporting through the Event Monitor, enabling it to integrate with and supplement your current staff notification practices.

Where RoboMon's Exchange Intelligent Solution Set Gets Its Data

- Perfmon counters
- Win32 API
- ASCII log files, including Exchange tracking log
- NT event log

RoboMon's Exchange Rules

Database_Disks

Checks the free space of the disks that hold the Exchange database files.

Database_Size

Checks the size of the database files.

Domns_Receiving_Excessive_Mail

Checks the tracking log table in the Performance database for domains receiving excessive mail.

Domns_Sending_Excessive_Mail

Checks the tracking log table in the Performance database for domains sending excessive mail.

DS_Access_Violations

Checks the Directory Store access violations.

Email_Address_Reachable

Tests if an email address is reachable with Microsoft Exchange. It also tests the time it takes to send the email and receive notification.

Exchange_Events

Reports Exchange errors and warnings from the application event log.

Exchange_Performance_Checks

Checks some basic performance indicators.

Exchange_Process_Resources

Checks if any of the Exchange processes is using abnormally high resources.

Exchange_Service_Not_Running

Checks for Exchange services that are auto-started, but not running.

Folder_Inactive

Checks for public folders that have been inactive for too long (based on last access date).

Folder_Too_Many_Messages

Checks for public folders with too many messages.

Folder_Too_Much_Storage

Checks for public folders with too many bytes of total storage.

IMC_Activity

Checks for high IMC activity and large IMC queue lengths.

IMC_Failed_Connections

Checks for failed connections by the IMC.

IMC_Non_Delivered_Messages

Checks for non-delivered inbound and outbound messages.

IMC_Receiving_Excessive_Mail

Checks the tracking log table in the Performance database for the Internet Mail Connector receiving excessive mail.

IMC_Sending_Excessive_Mail

Checks the tracking log table in the Performance database for the Internet Mail Connector sending excessive mail.

IS_Private_Local_Delivery

Checks the Private Information Store's average time for local delivery.

IS_Private_Queue

Checks the size of the private Information Store queues.

IS_Private_Remote_Delivery

Checks the Private Information Store's average time for remote delivery.

IS_Private_Usage

Checks the Private Information Store's message recipients delivered rate and message submitted rate.

IS_Public_Local_Delivery

Checks the Public Information Store's average time for local delivery.

IS_Public_Queue

Checks the size of the public Information Store queues.

IS_Public_Remote_Delivery

Checks the Public Information Store's average time for remote delivery.

IS_Public_Usage

Checks the Public Information Store's message recipients delivered rate and message submitted rate.

Mailbox_Inactive

Checks for mailboxes that have been inactive for too long.

Mailbox_No_Limit_Check

Checks for mailboxes that do not have a limit check.

Mailbox_Reaching_Limit

Checks for mailboxes whose storage limit status is either "ISSUE_WARNING" or "PROHIBIT_SEND".

Mailbox_Too_Many_Messages

Checks for mailboxes with too many messages.

Mailbox_Too_Much_Storage

Checks for mailboxes with too many bytes of total storage.

MTA_Connections_Queue

Checks the length of the MTA Connections queues.

MTA_Work_Queue

Checks the length of the MTA work queue.

Process_Tracking_Log

Executes a program that reads a MS Exchange Server tracking log file and updates daily and hourly tracking log table(s) in the Performance database.

Srvrs_Receiving_Excessive_Mail

Checks the tracking log table in the Performance database for servers receiving excessive mail.

RoboMon's Exchange Rules cont.

Servrs_Sending_Excessive_Mail

Checks the tracking log table in the Performance database for servers sending excessive mail.

Set_Exchange_Flags

Reads the registry for the location of the Exchange images, and sets a flag for each Exchange component, indicating whether or not the component is installed.

Sites_Receiving_Excessive_Mail

Checks the tracking log table in the Performance database for sites receiving excessive mail.

Sites_Sending_Excessive_Mail

Checks the tracking log table in the Performance database for sites sending excessive mail.

Transaction_Log_Disks

Checks the free space of the disks that hold the Exchange transaction log files.

Users_Receiving_Excessive_Mail

Checks the tracking log table in the Performance database for users receiving excessive mail.

Users_Sending_Excessive_Mail

Checks the tracking log table in the Performance database for users sending excessive mail.

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