

RoboMon NT/2000 - CIM[®] Solution Set

Automated management for CIM[®]

Manage Any Insight Manager Environment Better

RoboMon's Insight Manager Intelligent Solution Set provides easily configurable proactive monitoring and problem solving for any size Compaq server environment managed by Compaq Insight Manager (CIM). This provides increased reliability and efficiency for crucial operations such as those of eBusiness. RoboMon's automated, out-of-the-box Insight Manager Intelligent Solution Set operates through an integrated set of rules to detect and correct problems before your users experience failures or slowdowns. It monitors all aspects of Compaq server availability and performance, including:

- Hardware-related problems, such as drive conditions, fan status, power supply issues, etc.

It also monitors the functioning of Insight Manager itself:

- From the failure of critical services to the malfunctioning of specific features such as Automatic Server Recovery.

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, customizing itself to each Compaq server
- Configures to any size Compaq 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 Insight Manager Intelligent Solution Set Monitors

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

(Insight Manager)

- Check the status of Compaq Insight Manager services, and restart them if necessary
- Detect which Insight Manager features are running on each server, and tailor monitoring accordingly
- Check the status of the Integrated Remote Console feature, and optionally enable or disable it
- Check the status and condition of the Automatic Server Recovery feature, optionally restarting it, and raise an alert at failure or degraded performance
- Watch for an increase in the number of errors recorded in the Correctable Memory and Critical Error logs, and for problems with the logs themselves that might prevent their ability to record further errors
- Monitor Insight Manager's Power On Self Test for errors that may cause Insight Manager to overlook problems with the server's memory, modem, battery, serial ports, etc.
- Track the number of undelivered Remote Insight Alerts, which may be due to communication failure between the server and the CIM management console
- Monitor the health of the firmware interface to Insight Manager's Remote Insight Board, raising an alert when it fails to respond
- Check the state of the Remote Insight Battery, warning when the battery needs to be recharged, reconnected or replaced

RoboMon NT/2000 Event Monitor

The screenshot shows the RoboMon Event Monitor application 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	INSIGHT MAN...	UPS	LIVEWIRE	1	UPS_STATUS
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	EAST	1	PAGE_FILE_LOAD
10/27/99 11:00:01 PM	IIS	IIS SERVICES	EAST	1	IIS_SERVICES

Below the table, there is a detailed view of the selected event (UPS_STATUS) for computer LIVEWIRE at 10/28/99 04:02:58 PM. The text reads:

```
Updated severity 1 problem for computer LIVEWIRE at 10/28/99 04:02:58 PM.
Generated by rule UPS_STATUS of type UPS in INSIGHT MANAGER.

AC line input to UPS has failed.

The AC line input to the UPS system on LIVEWIRE has failed.
The UPS has approximately 9 minutes of battery power
remaining (a value of (-1) indicates that this information cannot be retrieved
at this time). There will be a delay of -1 before the
system is automatically shut down (a value of (-1) indicates no automatic
shutdown will occur).
Remedy:
Ensure that all AC input lines are properly connected. If power to the system
has been interrupted, make sure that all applications are closed, and all
information is saved, and shut down the system.
```

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



(Compaq server)

- Flag problems with each node or resource in a cluster, identifying elements that have gone offline
- Raise an alert when it detects degraded performance or failure of a Compaq monitor
- Monitor the condition of hardware and hardware interfaces, including SCSI, FCA, IDA and IDE drive systems, the EISA bus, and Hot Plug Slots, and warn of failure or of degraded performance that could indicate future failure
- Check the overall condition of the system batteries, identifying problems such as battery failure and foreign objects in the battery slot
- Monitor the condition of the Fault Tolerant Power Supply sub-system, and warn of failure or of degraded performance that could indicate future failure
- Check the status and remaining capacity of the Uninterrupted Power Supply (UPS) system, and raise an alert if conditions exist that could result in a shutdown of the system
- Monitor the server's overall thermal environment, including the status of individual fans, and watch the temp sensing equipment itself, guarding against heat-related damage or shutdown of the system

What Rules Mean to You

RoboMon rules work out-of-the-box, with no tweaking, for any size Compaq 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 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 Insight Manager Intelligent Solution Set Gets Its Data

- SNMP via the Compaq Insight Manager Management Information Base (MIB)
- Win32 API

RoboMon's Insight Manager Rules

ASR_Condition

Monitors the condition of Compaq Insight Manager's Automatic Server Recovery feature.

ASR_Disable

When fired, disables Compaq Insight Manager's Automatic Server Recovery feature.

ASR_Enable

When fired, enables Compaq Insight Manager's Automatic Server Recovery feature.

ASR_Status

Monitors the enabled/disabled status of Compaq Insight Manager's Automatic Server Recovery feature.

Cluster_Node_Condition

Monitors the condition of individual nodes of a cluster.

Cluster_Resource_Condition

Monitors the condition of individual nodes of a cluster.

Confirm_Features

Checks the Compaq server for the features upon which the Insight Manager rules are based. If a feature is not supported, the corresponding rules will be disabled.

Correctable_Memory_Log_Condition

Monitors the overall condition of the Correctable Memory Log.

Correctable_Memory_Errors

Monitors the Correctable Memory Log for new entries.

Crit_Error_Log_Condition

Monitors the overall condition of the Critical Error Log.

Critical_Error_Log

Monitors the Insight Manager Critical Error Log for new entries.

EISA_Bus_Condition

Monitors EISA bus utilization as a percentage of the theoretical maximum.

Fan_Status

Monitors the status of individual fans on the server.

Fault_Tol_Power_Supply

Monitors the condition of the Fault Tolerant Power Supply sub-system.

FCA_Condition

Monitors the overall condition of the Fibre Channel Array system.

Hot_Plug_Slot_Condition

Monitors the overall condition of the Hot Plug Slot(s) on the computer.

RoboMon's Insight Manager Rules cont.

IDA_Condition

Monitors the overall condition of the Intelligent Drive Array system, including Controllers, Logical, Physical, and Spare drives.

IDE_Condition

Monitors the overall condition of the IDE drive(s) attached to the computer.

IM_Services_Monitor

Monitors the services associated with the Compaq Insight Manager at start-up and at regular intervals, and restarts them if necessary.

IRC_Disable

When fired, disables Compaq Insight Manager's Integrated Remote Console feature.

IRC_Enable

When fired, enables Compaq Insight Manager's Integrated Remote Console feature.

IRC_Status

Monitors the enabled/disabled status of Compaq Insight Manager's Integrated Remote Console feature.

Monitor_Condition

Monitors the condition of the monitor on a Compaq server.

Remote_Insight_Alerts

Monitors for undelivered Remote Insight Alerts.

Remote_Insight_Battery_Charge

Monitors the recharge level of the Remote Insight batteries.

Remote_Insight_Battery_Status

Monitors the status of the Remote Insight Batteries.

Remote_Insight_Interface

Monitors the condition of the Remote Insight Board firmware interface.

Remote_Insight_POST

Checks for Remote Insight Power On Self Test errors.

SCSI_Condition

Monitors the overall condition of the SCSI system, including SCSI drives, tape drives, and their associated controllers.

SCSI_Drive_Errors

Monitors for increases in the Hard Reset Count, Soft Reset Count, Command Timeout Count, and the number of unrecoverable read/write errors.

System_Battery_Condition

Monitors the overall condition of the system batteries.

Thermal_Condition

Monitors the overall condition of the server's thermal environment. If a problem is detected with any of the server's thermal equipment, rules will be fired to gather further information about the thermal equipment.

UPS_Capacity

Monitors the remaining capacity of the Uninterrupted Power Supply.

UPS_Status

Monitors the status of the UPS system.

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