

## RoboMon NT/2000 - Oracle® Intelligent Solution Set

Automated management for Oracle® 7 and above

### Manage Any Oracle Environment Better

RoboMon's Oracle Intelligent Solution Set provides easily configurable proactive monitoring and problem solving for any size Oracle environment, from a single instance Oracle database running on one server to the clustered or massively parallel processing platforms of global eBusiness. RoboMon's automated, out-of-the-box Oracle 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 Oracle availability and performance, including:

- Basic operations, such as whether crucial services are running,
- Performance criteria, such as CPU, I/O and memory, and
- Storage criteria, such as free disk space, database size and log file size.

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

### RoboMon NT/2000 Event Monitor

The screenshot shows the RoboMon Event Monitor interface. The title bar reads "Robomon Event Monitor - All Events for RoboMon Event Database on \\BASE". The menu bar includes "File", "Monitor", "View", "Event", "Detail", "Tools", and "Help". Below the menu is a toolbar with various icons. The main area contains a table of events:

EventDateTime	Class	SubClass	Computer		RuleName
10/28/99 04:02:58 PM	ORACLE	CLUSTER	VAULT	!	CLUSTER_EXTENTS
10/28/99 04:00:18 PM	AUTOMATION	NETWORK	EAST	×	UNREACHABLE_COMPUTERS
10/28/99 04:00:18 PM	AUTOMATION	NETWORK	EAST	×	UNREACHABLE_COMPUTERS
10/28/99 02:01:32 PM	IIS	IIS CACHE	GLOBAL	×	IIS_CACHE_ALERT
10/28/99 02:01:28 PM	IIS	IIS PROCESS	GLOBAL	×	IIS_PROCESS_POOL_LEAK
10/27/99 11:00:09 PM	AUTOMATION	PAGE_FILE	EAST	×	PAGE_FILE_LOAD
10/27/99 11:00:01 PM	IIS	IIS SERVICES	EAST	×	IIS_SERVICES

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

```
Updated severity 1 problem for computer VAULT at 10/28/99 04:02:58 PM.
Generated by rule CLUSTER_EXTENTS of type CLUSTER in ORACLE.

Cluster FIN2 is nearly out of extents.

As of 04:02:57 PM on 10/28/99, Oracle database FINANCE
reported that cluster FIN2 is
nearly out of extents, with 97 percent of
allocated extents currently in use. To rectify this problem,
the cluster should be altered to add more extents.
```

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

### Key Benefits

- Works out of the box, with no setup time
- Configures to any size Oracle 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 Oracle Intelligent Solution Set Monitors

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

- Report service dependencies and identify when crucial services are not running
- Check basic performance indicators such as CPU, I/O, and memory usage
- Track status of all tablespaces, identifying those that need to be brought back online
- Check the current block size for each database, warning if block size is still set to the default supplied by Oracle, which does not allow Oracle to take advantage of larger devices
- Report when extent sizes will not allow for efficient block usage
- Warn when the size of any cluster exceeds a specified threshold, helping to identify databases with inefficient block usage
- Identify objects allocated in too many extents, which can allow excessive, unplanned growth

## What RoboMon's Oracle Intelligent Solution Set Monitors cont.

- Monitor extent usage to ensure tables, indexes, and rollback segments are allocated sufficient extents, and are using them efficiently
- Raise an alert when there are insufficient rollback segments for the number of users
- Monitor free space available to a tablespace and report when remaining free space falls below a specified minimum
- Monitor database cache hit and dictionary cache hit percentages, and send an alert when these fall below a specified minimum
- Check for library cache fragmentation that may severely degrade application or database performance
- Monitor transactions that cannot complete promptly because they must wait for a buffer free list, a cache buffer chains latch, or a redo log buffer, and raise an alert if it exceeds a specified threshold
- Monitor the hit percentage for the redo log allocation latch and warn if there is a need for more copy latches
- Report when the percentage of sorts done in memory falls below a specified threshold, which increases I/O on the disk and reduces performance
- Warn if members of same redo log group are on the same device, a situation that defeats the purpose of mirroring
- Warn if more than one control file exists on the same device, helping to prevent database failure in the event of device loss
- Monitor control file status, and identify control files that may be corrupt
- Warn when files used by the Oracle database contain errors and require recovery
- Monitor status of various database objects, and raise an alert if they become corrupt
- Warn when the number of DML locks per concurrent user falls below a specified threshold
- Identify objects locked for an excessive period of time, and are thus unavailable, perhaps because a user has logged off the system without releasing the lock

## What Rules Mean to You

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

- Native RoboMon Oracle collector
- Win32 API

## RoboMon's Oracle Rules

### Cluster\_Extents

Generates a problem event if any cluster uses more than the threshold percentage (defined in the RoboMon Solutions Manager) of extents allocated to it.

### Control\_File\_Location\_Alert

Raises an alert if more than one control file is located on the same device.

### Control\_File\_Status

Monitors the status of all control files for monitored databases.

### Corrupt\_Objects

Monitors various database objects, generating an alert if they become corrupt.

### Database\_Block\_Size

Checks the block size for the database.

### Database\_Cache\_Efficiency

Monitors the database cache efficiency (percentage).

### Dictionary\_Cache\_Efficiency

Monitors the dictionary cache hit percentage.

### DML\_Locks

Raises an alert if the ratio of DML locks per concurrent user drops below a threshold defined in Solutions Manager.

### Extent\_Sizes

Generates an informational message if extent sizes will not allow for efficient block usage.

### File\_Errors

Monitors files used by the Oracle database, which may occasionally require recovery.

### Free\_List\_Contention

Monitors the percentage of transactions that must wait for a buffer free list, slowing performance.

## RoboMon's Oracle Rules cont.

### Index\_Extents

Monitors the percentage of extents allocated to an index that are currently in use.

### Latch\_Contention

Monitors the percentage of transactions required to wait for a Cache Buffer Chains latch to complete.

### Library\_Cache

Checks for library cache fragmentation.

### Locked\_Objects

Monitors for objects locked for an excessive period of time.

### Object\_Extents

Checks for objects with more extents allocated than the threshold defined in the RoboMon Solutions Manager, in order to prevent excessive unexpected growth.

### Oracle\_Performance\_Checks

Checks some basic performance indicators.

### Oracle\_Services

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

### Redo\_Log\_Allocation\_Latch

Monitors the hit percentage for the redo log allocation latch.

### Redo\_Log\_Buffer

Raises an alert if the number of transactions waiting exceeds the threshold defined in the RoboMon Solutions Manager, in order to ensure that transactions do not have to wait for a redo log buffer.

### Redo\_Log\_Device\_Alert

Generates an alert if members of the same redo log group are on the same device, which defeats the purpose of mirroring.

### Rollback\_Segment\_Exhausted

Raises an alert if the percentage of extents allocated to a rollback segment exceeds the threshold defined in the RoboMon Solutions Manager.

### Rollback\_Segment\_Size

Generates an alert if the number of extents is below the threshold defined in the RoboMon Solutions Manager.

### Sorts\_In\_Memory

Monitors the percentage of sorts done in memory as opposed to on disk.

### Table\_Extents

Monitors the percentage of allocated extents in use by a table.

### Tablespace\_Full

Monitors the amount of free space available to a tablespace.

### Tablespace\_Status

Verifies the status of all tablespaces on monitored databases (i.e. 'online' or 'offline').

### Users\_Per\_Rollback\_Segment

A minimum ratio of users per rollback segment must be maintained in order to avoid users having to wait for a rollback segment. If the ratio of users per rollback segment exceeds the threshold defined in the RoboMon Solutions Manager, an alert is generated.

*Microsoft, Windows, and the Windows Logo are registered trademarks of Microsoft Corporation in the United States and/or other countries.*

---



**Find it. Fix it. Forget it.**

[www.heroix.com](http://www.heroix.com)

### Corporate Headquarters

120 Wells Avenue

Newton, MA 02459

tel: 800.229.6500 / 617.627.1550

fax: 617.527.6132 : email: [info@heroix.com](mailto:info@heroix.com)

Boston ■ New York ■ Atlanta ■ Chicago ■ Dallas ■ San Francisco

Features and support may vary by platform. Heroix Corporation believes that the information in this document is accurate as of its publication date; such information is subject to change without notice. Heroix is not responsible for any inadvertent errors.

Heroix, the Heroix logo, and Heroix eQ are trademarks of Heroix Corporation. All other trademarks are property of their respective owners.

© 2003 Heroix Corporation. All rights reserved.