



# **ASM Pro v3.15**

User's Guide

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## About this Manual

### Purpose

This user's guide aims to give you all the information you need to install, configure and use the software properly.

### Manual Structure

This user's guide consists of 8 chapters and three appendices.

#### ***Chapter 1      Installation***

This chapter describes how to install and use both ASM-Station and ASM-Agent, including system requirements required before installation.

#### ***Chapter 2      Getting Started***

This chapter gives an overview of ASM Pro, including initializing your password, the ASM-Station user interface, and how to use ASM Pro.

#### ***Chapter 3      Server Information***

This chapter describes how to add and remove servers, and how to view a list of currently monitored servers.

#### ***Chapter 4      Configuration Information***

This chapter describes how to view information about each server, such as the server name, its operating system, and drivers being used by that server. Also included is a description of the symbols that appear next to servers in the server list.

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## ***Chapter 5      Performance Monitoring***

This chapter describes how to set polling intervals for system monitoring and how to set and view threshold settings. This chapter also details how to use the PCI bus, memory, NIC, file system, and disk utilization screens, as well as the redirected blocks screen.

## ***Chapter 6      Fault Management***

This chapter describes how to set up event notification, such as paging the system administrator in the event of a fault detection or a threshold value being exceeded.

## ***Chapter 7      ASM Pro Utilities***

This chapter describes the asmconfig utility, the UPS feature, and how to print reports and get online help.

## ***Chapter 8      Troubleshooting***

This chapter provides useful tips on how to correct error conditions.

## ***Chapter 9      ASM Browser***

This chapter describes how to use ASM Browser. It also describes its functions and features.

## ***Appendix A    Menu Bar and Toolbar Descriptions***

This chapter describes the features of ASM Pro's toolbar and menu bar. The toolbar menu is especially useful. It contains ASM Pro's most frequently used features, allowing the user to click on icons instead of using the pull down menus (which are also available).

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### ***Appendix B ASM Pro Mylex RAID and BPB Utility***

This chapter describes how to monitor Mylex RAID and Back Plane Board information.

### ***Appendix C Backplane Board Config Utilities***

This chapter describes the Back Plane Board Config Utility.

### ***Appendix D Unicenter and Managewise***

This chapter describes how to install ASM to Unicenter and Managewise.

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## Conventions

The following conventions are used in this manual:

a, e, s, etc.

Represent the actual keys that you have to press on the keyboard.



### **NOTE**

Gives bits and pieces of additional information related to the current topic.



### **CAUTION**

Gives precautionary measures to avoid possible hardware or software problems.



### **IMPORTANT**

Reminds you to take specific actions relevant to the accomplishment of procedures.

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## Table of Contents

### Chapter 1 Installation

1.1.	Installing ASM-Station.....	1-1
1.2.	Installing ASM-Agent .....	1-2
1.2.1	NetWare Agent Installation.....	1-2
1.2.2	SCO OpenServer Agent Installation .....	1-5
1.2.3	SCO UnixWare Agent Installation.....	1-7
1.2.4	Windows NT Agent Installation .....	1-9
1.3.	Uninstalling ASM Pro .....	1-14
1.3.1	Uninstalling ASM-Station.....	1-14
1.3.2	Uninstalling ASM-Agent (NetWare) .....	1-14
1.3.3	Uninstalling ASM-Agent (SCO OpenServer).....	1-14
1.3.4	Uninstalling ASM Agent (Sco UnixWare).....	1-15
1.3.5	Uninstalling ASM-Agent (Windows NT)....	1-15

### Chapter 2 Getting Started

2.1.	Running ASM-Agent .....	2-1
2.2.	Running ASM-Station.....	2-2
2.2.1	Changing Your Password .....	2-3
2.2.2	ASM-Station User Interface .....	2-4

---

## **Chapter 3      Server Information**

3.1.	System Listing .....	3-1
3.1.1	Moving Around System Listing .....	3-2
3.1.2	Server Symbols.....	3-3
3.1.3	Server Status .....	3-3
3.1.4	Trap Availability .....	3-4
3.2.	Auto Discovery .....	3-5
3.2.1	Adding an IPX or IP Server .....	3-6
3.2.2	Removing an IPX or IP Server .....	3-8
3.2.3	Manually Adding a Server .....	3-9
3.2.4	Sweep .....	3-9
3.2.5	Out of Band Server for NetWare .....	3-10
3.2.6	Out of Band Server for Windows NT .....	3-12

## **Chapter 4      Configuration Information**

4.1.	Server System Information .....	4-2
4.1.1	Generic .....	4-2
4.1.2	User .....	4-4
4.1.3	Driver.....	4-4
4.1.4	Volume/File System .....	4-5
4.1.5	Manager.....	4-5
4.2.	System Hardware Configuration.....	4-6
4.2.1	BIOS Characteristics .....	4-6
4.2.2	Base Board Information.....	4-7
4.2.3	Processor Information .....	4-7
4.2.4	Memory Information .....	4-8
4.2.5	Cache Information.....	4-9



---

4.2.6	Resource Information .....	4-9
4.2.7	Slot Information .....	4-12
4.2.8	Connector Information .....	4-12
4.2.9	On Board Devices .....	4-13
4.3.	Storage Subsystem Information .....	4-14
4.4.	I/O Devices Information .....	4-15
4.5.	Network Controller Information.....	4-16

## **Chapter 5      Performance Monitoring**

5.1.	Alive Polling Interval .....	5-2
5.2.	Polling Interval .....	5-3
5.3.	Processor Utilization .....	5-4
5.4.	PCI Bus Utilization .....	5-5
5.4.1	Utilization .....	5-5
5.4.2	Threshold Settings.....	5-6
5.5.	Memory Utilization .....	5-8
5.5.1	Info Folder .....	5-8
5.5.2	Graph Folder .....	5-11
5.5.3	Paging Folder.....	5-12
5.5.4	NT Special Folder.....	5-13
5.6.	NIC Utilization .....	5-14
5.6.1	NIC Utilization Window Items .....	5-15
5.7.	NIC Fault .....	5-16
5.8.	Disk Utilization .....	5-19

---

5.9.	File System Utilization .....	5-22
5.9.1	Threshold Settings .....	5-23
5.10.	BIOS Event Log Utilization .....	5-25
5.10.1	NVRAM.....	5-26

## **Chapter 6      Fault management**

6.1.	Overview .....	6-1
6.1.1	Threshold Settings .....	6-2
6.1.2	Hardware Errors .....	6-3
6.2.	Event Notification and Threshold Setup .....	6-4
6.2.1	Event Types.....	6-5
6.2.2	Event Handling Method.....	6-9
6.2.3	Setting Event Handling Methods .....	6-14
6.3.	Trap Events Log .....	6-16
6.4.	Hardware Environment Information .....	6-19
6.4.1	CPU Voltage .....	6-20
6.4.2	CPU Temperature .....	6-20
6.4.3	System Voltage.....	6-20
6.4.4	Fan Status .....	6-21
6.4.5	Chassis Status.....	6-21
6.4.6	RDM Status .....	6-21

## **Chapter 7      ASM Pro Utilities**

7.1.	Uninterruptible Power Supply (UPS) <sup>¾</sup> Optional Component.....	7-1
7.2.	Redundant Power Supply.....	7-4
7.3.	ASM-Agent Utilities.....	7-5
7.3.1	asmconfig for SCO OpenServer.....	7-5

---

7.3.1.1	SNMP Config.....	7-6
7.3.1.2	Manager Information.....	7-7
7.3.1.3	Event Action .....	7-8
7.3.1.4	Password .....	7-9
7.3.1.5	Threshold.....	7-10
7.3.1.6	Trap Log .....	7-10
7.3.2	asmcfg for SCO UnixWare .....	7-12
7.3.2.1	Config/SNMP .....	7-13
7.3.2.2	Config/ASM_Password .....	7-14
7.3.2.3	Config/Manager_Info .....	7-15
7.3.2.4	Config/Threshold .....	7-15
7.3.2.5	Config/Event_Actions .....	7-16
7.3.3	asmcfg for Windows NT .....	7-16
7.3.3.1	SNMP Config.....	7-17
7.3.3.2	Manager Information.....	7-19
7.3.3.3	Server information .....	7-20
7.3.3.4	Event Action .....	7-21
7.3.3.5	Event Log .....	7-22
7.3.3.6	Password .....	7-23
7.3.3.7	Saving Changes in asmcfg .....	7-24
7.3.4	asmcfg for NetWare .....	7-24
7.3.4.1	Password .....	7-25
7.3.4.2	OOB .....	7-26
7.3.4.3	Manager Information.....	7-26
7.3.4.4	Server Location .....	7-26
7.3.4.5	Event Handling .....	7-26

---

7.3.4.6	Uninstalling ASM-Agent.....	7-27
7.4.	ASM-Station Utilities.....	7-28
7.4.1	Printing Reports .....	7-28
7.4.2	ASM-Station Online Help .....	7-28

## **Chapter 8 Troubleshooting**

8.1.	General Troubleshooting.....	8-1
8.2.	Windows NT Troubleshooting .....	8-3
8.3.	NetWare Troubleshooting .....	8-4
8.4.	SCO OpenServer Troubleshooting.....	8-5
8.5.	SCO UnixWare Troubleshooting.....	8-6

## **Chapter 9 ASM Browser**

9.1	ASM Browser User Interface.....	9-2
9.1.1	Menu Bar and Toolbar.....	9-3
9.1.2	Machine List Combo Box.....	9-8
9.1.3	MIB Tree Window.....	9-8
9.1.4	Selection Window.....	9-8
9.1.5	Description Window.....	9-9
9.1.6	Status Bar .....	9-9
9.2	Browser Functions .....	9-10
9.2.1	Selecting Networks .....	9-11
9.2.2	Setting Polling Intervals .....	9-13
9.2.3	Saving Information/Defining a New Query .....	9-14
9.2.4	Selecting a Query .....	9-16
9.2.5	Initializing the Database .....	9-17
9.2.6	Adding a New MIB .....	9-18

---

9.2.7	Removing a MIB .....	9-19
9.2.8	Adding an OID .....	9-20
9.2.9	Removing an OID .....	9-20
9.2.10	Browsing OIDs (SNMP Table) .....	9-21
9.2.11	Taking a Walk through the MIB .....	9-26
9.2.12	Finding an OID .....	9-28

## **Appendix A Menu Bar and Toolbar Descriptions**

A.1.	Menu Bar .....	A-1
A.1.1	File Menu .....	A-1
A.1.2	Setup Menu .....	A-2
A.1.3	Information Menu .....	A-2
A.1.4	Inventory Menu .....	A-4
A.1.5	Tools Menu .....	A-4
A.1.6	OOB Menu .....	A-4
A.1.7	View Menu .....	A-4
A.1.8	Window Menu .....	A-5
A.1.9	Help Menu.....	A-5
A.2.	Toolbar .....	A-6
A.2.1	Toolbar Buttons .....	A-6

## **Appendix B ASM Pro Mylex RAID and BPB Utility**

B.1.	Mylex RAID Controller Monitor Window .....	B-1
B.1.1	Controller Tab .....	B-2
B.1.2	Disk Tab.....	B-4
B.1.3	Controller Statistic Tab .....	B-5
B.1.4	Controller Statistic Graphic Tab.....	B-6

---

B.1.5	Disk Statistic Tab .....	B-7
B.1.6	Physical Disk Statistic Graph Tab.....	B-8
B.1.7	Logical Disk Statistic Graph Tab.....	B-9
B.2.	BackPlane Board Monitor Window.....	B-10
B.2.1	Icon Description .....	B-10
B.2.2	Drive Information .....	B-11

## **Appendix C    Backplane Board Config Utilities**

C.1.	bpbconfig for SCO OpenServer .....	C-1
C.1.1	Running bpbconfig .....	C-1
C.1.2	Using bpbconfig .....	C-3
C.2.	bpbcfg for SCO UnixWare .....	C-5
C.2.1	Using bpbcfg .....	C-5
C.3.	bpbcfg for Windows NT .....	C-7
C.3.1	Displaying Hard Disk Drive Information ...	C-8
C.3.2	Testing the Backplane Board.....	C-9
C.3.3	Changing the location and slots of hard disk drive along the Backplane Board.....	C-9
C.3.4	Monitoring Hard Disk Drive.....	C-10
C.4.	BPB Console for NetWare .....	C-11
C.4.1	Running BPB Console.....	C-11

## **Appendix D    Unicenter and Managewise**

D.1.	Unicenter .....	D-1
D.2.	Managewise.....	D-2

# ***Introduction***

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## **Overview**

Advanced Server Manager (ASM) Pro is a server management tool. It is especially designed for server supervisors and management information system (MIS) personnel, helping them spot errors or potential trouble spots in their network servers through a single management station.


From the ASM-Station, ASM Pro can send a query to a remote server over the network to request information such as system hardware and software configurations, system resource usage, and system performance. In addition, ASM Pro can also set threshold values of a remote server to generate an alarm signal in the event of a server failure. ASM Pro is designed to support Acer's new high-end servers.

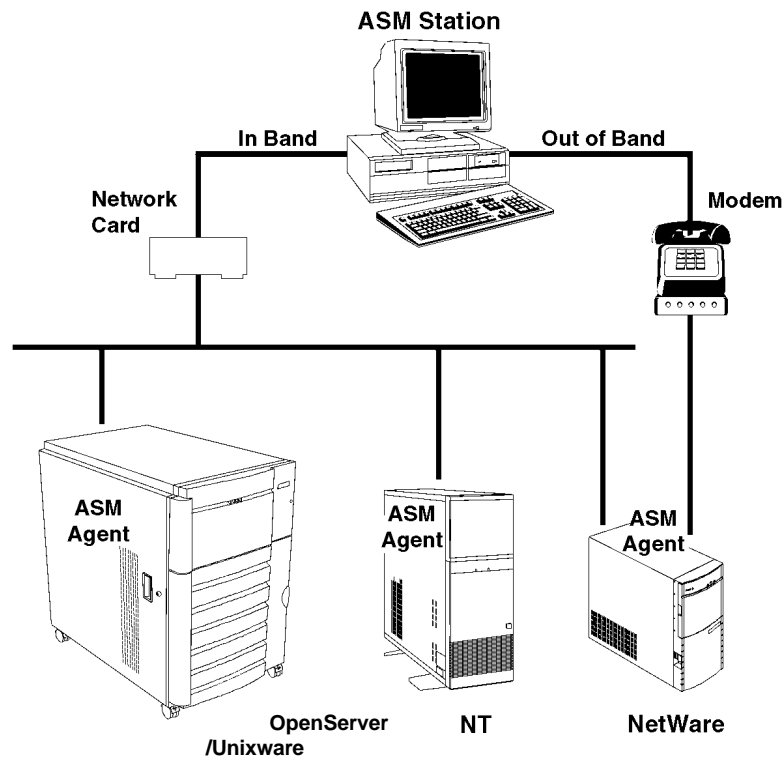
The complete ASM package consists of two major parts — the ASM-Agent(s) and the ASM-Station. The ASM-Agent(s) are the servers to be managed on the network. The ASM-Station is a Windows-based monitoring station that communicates with the ASM-Agents and can be installed on any agent's workstation on the network. This powerful management software supports agents running under Novell NetWare, SCO OpenServer, SCO UnixWare, and Microsoft Windows NT. ASM Pro is based on the Simple Network Management Protocol (SNMP) for network access and connectivity.

The ASM-Agent software contains drivers which are necessary for two separate standalone functions, UPS and RDM. Both of these functions require Acer-provided hardware. For more on the UPS function, see "Uninterruptible Power Supply (UPS)" in the ASM Pro Utilities chapter later in this manual.

***User's Guide***

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*Sample ASM Configuration*

Two types of connections are supported by the ASM Pro: (1) *in band* and (2) *out of band*. The *in band* option connects the ASM-Agent and ASM-Station through the Ethernet network card using either IPX or IP protocol. The *out of band* configuration is used to connect the ASM-Agent and ASM-Station through a telephone modem. See the Server Information chapter later in this manual for details on how to configure an *out of band* connection.

A typical ASM configuration is shown in the figure above. In the configuration shown, the ASM-Station is monitoring four agents, each agent running a different operating system (SCO OpenServer, SCO UnixWare, Windows NT, and NetWare). Notice the dual monitoring



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capability of the NetWare server. In this diagram, the NetWare server is connected to the network through the network card, while also connected out of band, through a telephone modem.

To start ASM-Station, simply select **Programs ▸ ASM Pro**. After you enter the station password, the ASM-Station is up and running and the following functions are available:

- ASM-Agent servers can be added to the server list by selecting the **Auto Discovery** toolbar button from the ASM-Station toolbar.
- Once a server is added to the list, ASM Pro establishes a connection link between the ASM-Station and the ASM-Agent server (through a network for in band; through a modem for out of band).
- After the connection is established, the user can click toolbar buttons to obtain information about the server, such as operating system, environment information, configuration information, and system performance.

For more information about creating a server list, see Chapter 3, Server Information.

## **ASM Pro Management Functions**

ASM Pro management functions include the following:

- Fault management
- Performance management
- Configuration management
- Remote management
- UPS (Uninterruptible Power Supply) (applies only to certain systems)
- RDM (Remote Diagnostic Manager)

### ***Introduction***

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## **Fault Management**

Fault management detects errors or flaws on managed agents on the network. ASM Pro checks for faults (such as temperature, voltage, storage devices, and system memory). Alarm thresholds can be set to notify the system administrator of fault events. Once a particular error has occurred or a threshold value exceeded, ASM Pro informs the system administrator using a specified notification method. The system administrator can then take necessary steps to correct this problem promptly. ASM Pro saves you time and money through early fault detection by preventing more critical errors from occurring.

## **Performance Management**

Performance management deals with gauging the utilization of resources on your agent, such as storage devices, network interface card, memory, and the server CPU & PCI bus. You may also set thresholds here. Information gathered here comes in handy when determining agent load, the times when the agent is found to be busiest or idle, or even comparing components installed on different agents.

## **Configuration Management**

Configuration management shows component specifications. Product names, models, capacities, plus information about disk controllers, Network Interface Cards, system board, and the server system are all shown here. This function serves as a reference for replacing components in the agent or when making comparisons between machines.

## **Remote Management (out of band)**

For situations where connecting to an agent through the network is not possible, ASM Pro can establish a connection via modem with its *out of band* connection capability. Windows 95 and Windows NT use RAS support to utilize an out of band connection while Novell NetWare uses a proprietary out of band connection. Out of band is

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not supported in SCO OpenServer due to an operating system limitation.



*Out of band connections provide the same features as in band connections. However, ASM-Station cannot receive traps from the monitored Agent via out of band connection.*

*Out of band performance is slower than an in band connection. This is due to the speed of a modem versus the speed of a network card.*

### **UPS (Uninterruptible Power Supply)**

A UPS system is built into the server. The UPS function ensures a graceful system shutdown on the monitored server in the event of an AC power supply failure. This feature works in conjunction with the ASM-Agent software; **it will not work without the ASM-Agent software installed.** See Chapter 7, ASM Pro Utilities, for more information about UPS.

For systems with a Redundant Power Supply installed (available for Windows NT and NetWare), you can monitor and control the Redundant Power Supply remotely through the ASM-Station. See Chapter 7, ASM Pro Utilities, for more on information about the Redundant Power Supply.

### **RDM (Remote Diagnostic Manager)**

RDM is a standalone utility that informs the system administrator in the event of a system hardware failure. The system administrator can then run diagnostic programs from a remote console, and then reboot the system. Please refer to the *RDM User's Guide* for more information on this feature.

### ***Introduction***

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## Glossary of Terms

The following terms are used throughout this manual:

**Agent.** A server system being monitored by ASM-Station. Throughout this manual, the words "Agent," "ASM-Agent," and "server" are used interchangeably.

**Broadcast message.** A message sent to the monitored server's screen to notify the occurrence of an event.

**Event.** A pre-defined condition occurrence.

**Out of band.** A method used by ASM to indicate that instead of monitoring the server through the network, ASM-Station is monitoring the server through a modem connection. Windows 95 and Windows NT use RAS support to utilize an out of band connection while Novell NetWare uses a proprietary out of band connection. Out of band is not supported in SCO OpenServer due to an operating system limitation.

**Password.** A 3 through 16 case-sensitive alpha numeric string used by both ASM-Station and ASM-Agent. Password protection prevents unauthorized access to both ASM-Station and ASM-Agent. The ASM-Station and ASM-Agent passwords are two separate passwords (the ASM-Station password is created at ASM-Station; the ASM-Agent password is created at the ASM-Agent).

**Polling.** ASM's method of obtaining data from monitored ASM-Agents. ASM-Station reads the ASM-Agent's required system resource data at defined intervals. Polling refers to the act of reading the data; the interval is the time in between each poll.



*ASM-Station's polling does not cause ASM-Agent to poll its (the Agent's) hardware. Station's polling simply reads the data from the last time that ASM-Agent polled its hardware.*

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**Redirected blocks.** The NetWare operating system supports disk block remapping. A portion of disk blocks on the physical disk are allocated for bad block remapping. In the case of a damaged block, the blocks allocated for remapping are used to replace the damaged blocks. These blocks are called redirected blocks.

**Station.** A client system used to monitor one or more Agents. ASM-Station can monitor many Agents. Throughout this manual, the words “Station,” “ASM-Station,” and “client” are used interchangeably.

**Threshold.** An upper limit that the user can specify for a specific item being monitored by ASM-Station. When this upper limit, or threshold, is exceeded, ASM-Station either takes corrective action or notifies the system administrator (depending on the error handling method selected by the system administrator).

**Trap.** An alarm signal used by ASM-Agent to inform the ASM-Station that an event has occurred.

**UPS.** Uninterruptible Power Supply. A unit containing a battery backup power supply. The battery supplies power to the server in the event of an AC power failure, allowing users to gracefully shut down their systems.

## ***Introduction***