



# Release Definitions for SDMS 4.7 CD-ROM Software

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LSI Logic distributes an SDMS Software Device Drivers and Utilities CD-ROM that contains SDMS device drivers and utilities for specific operating systems. This software release represents the SDMS 4.7 CD-ROM version and contains updated software since the SDMS 4.6 version. This document represents the SCSI release definitions and provides details concerning the updated SDMS device drivers and utilities.

The release definitions list the new enhancements, which include the newest features and corrections to previously known problems from subsequent releases. Additionally, this document updates you about existing problems and workaround solutions as well as specific release restrictions. Note that not all the device drivers or utilities have had software updates since the previous SDMS 4.6 release.

The PCI Boot ROM is documented first and followed by the Flash Utility. Then, the device drivers are listed and grouped according to their specific operating system. Utility tools and services that are operating system specific are listed within their appropriate sections.

For ease of reading, this information is presented in tables. One set of tables lists the name, version number, new features, and restrictions being lifted. The other set of tables lists the name, version number, release restrictions, and workaround solutions to certain problems. Any drivers or utilities that have not been updated will have "No Updates" listed in the new features or restrictions lifted columns. However, these same drivers and utilities will still contain their release restrictions and workaround solutions as it reflects the software version currently released and distributed on the SDMS 4.7 CD-ROM.

**Table 1 Release Definitions: New Features/Restrictions Lifted**

<b>SDMS Software/ Version Number</b>	<b>New Features</b>	<b>Problems Corrected/ Restrictions Lifted</b>
<p><i>PCI BootRom</i> 4.18.00</p>	<p>Support for Post Memory Management</p> <p>Support for more LSI53C1010 host adapter versions</p> <p>Extended backward compatibility for EDD, Enhanced Disk Drive 3.0 specification packets size.</p> <p>Changed method of handling INT13 and INT40 chaining to improve compatibility with new generation of system BIOS</p> <p>Changed banner display for Ultra160 devices</p> <p>Ability to locate free memory when Post Memory Management is not supported</p> <p>Added a Configuration Utility selection via Global Settings to work-around the system BIOS that improperly handles INT40. In most cases, you will want the default hook on Interrupt 40h, but some PCs will hang when INT40 is hooked, so an alternative setting is now provided.</p> <p>Gave NVS a higher priority for global settings than NVM so that settings would be more persistent.</p>	<p>Prior versions of this software may not work with the newest versions of the AMI system BIOS due to interrupt chaining methods that conflict. This version of the BIOS is "aware" of its chaining environment and handles the interrupt chain properly.</p> <p>While less convenient than the keypad "+" and "-", some users prefer to use the keys on the top row of the main keyboard area. For their convenience, support for the "+" and "-" keys on the top row was added.</p> <p>Ultra160 devices that support different synchronous offsets when operated at less than Ultra160 do not always report the correct offset for the negotiated speed. Checks were added to ensure the negotiations result in a working offset and speed.</p> <p>The BIOS now forces integrity between the Termination Control settings as follows: if MFG Data indicates that termination is controllable, then the NVM default will be auto/on; otherwise, the default is off.</p> <p>The Configuration Utility now allows configuration of adapters in the boot order which have been disabled for the current boot.</p> <p>The Configuration Utility no longer allows narrow/Ultra160 as a selection. Ultra160 is possible only on a wide bus.</p>

**Table 1 Release Definitions: New Features/Restrictions Lifted (Cont.)**

<b>SDMS Software/ Version Number</b>	<b>New Features</b>	<b>Problems Corrected/ Restrictions Lifted</b>
<i>PCI Flash Utility</i> 1.13.00	Added support for the following flash parts: -Winbond W29C020 -Atmel AT29C020 -AMD 29LV010B -MXIC MX29F001T/P, MX29F002T, MX28F2000P -NexFlash NX29F010  Supports the LSI53C1010 chip (66 MHz)	The menu display allows flashing up to 8 boards at a time.  Correct image sizes are now reported when backing up multiple images.
<i>ASPI8XX.SYS</i> 4.10.00	Support for the LSI53C1010 chip for both 33 MHz and 66 MHz	None
<i>SYMCD.SYS</i> 4.06.00	No Updates	No Updates
<i>SYMDISK.SYS</i> 4.04.00	No Updates	No Updates
<i>ASPI Format Utility</i> 4.01.00	No Updates	No Updates
<i>SYMDIAG (Verify Utility)</i> 4.02.00	No Updates	No Updates
<i>SYM53C8XX Install Utility</i> 4.05.00	No Updates	No Updates
<i>SYM5C8XX Configuration Utility</i> 4.02.00	No Updates	No Updates
<i>Mass Storage DMI Browser-LSIDMI</i> 2.05.00	No Updates	No Updates

**Table 1 Release Definitions: New Features/Restrictions Lifted (Cont.)**

<b>SDMS Software/ Version Number</b>	<b>New Features</b>	<b>Problems Corrected/ Restrictions Lifted</b>
<p><i>Windows NT FLINT SYMC8XX.SYS</i> 4.15.00</p>	<p>Added Domain Validation Support both at a driver initialization and through a user application.</p> <p>Added Nextreme RAID software support</p> <p>Added support for 16-byte SCSI CDBs. Window NT will never issue a 16-byte CDB, but some applications use a 16-byte vendor-unique CDB in SCSI pass-through commands.</p>	<p>Processing of the SCSI Wide Residue byte results now in transferring the correct data to the application.</p> <p>In detecting NVS storage, the search boundaries for the LSI Logic option ROM have been changed to 512 byte boundaries.</p> <p>The Windows NT Flint driver now checks to ensure that the bus master enable bit in the PCI Command register is set.</p> <p>Processing of a SCSI Restore Pointers message results now in passing the correct data to an application.</p>
<p><i>Windows NT SYMHINT SYM_HI.SYS</i> 4.15.00</p>	<p>Added Domain Validation Support both at a driver initialization and through a user application.</p> <p>Added Nextreme RAID software support</p> <p>Added support for 16-byte SCSI CDBs. Window NT will never issue a 16-byte CDB, but some applications use a 16-byte vendor-unique CDB in SCSI pass-through commands.</p>	<p>In detecting NVS storage, the search boundaries for the LSI Logic option ROM have been changed to 512 byte boundaries.</p> <p>The Windows NT SYMHINT driver now checks to ensure that the bus master enable bit in the PCI Command register is set.</p> <p>Processing of a SCSI Restore Pointers message results now in passing the correct data to an application.</p>

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<b>SDMS Software/ Version Number</b>	<b>New Features</b>	<b>Problems Corrected/ Restrictions Lifted</b>
<p><i>Windows NT SYM_U3.SYS 5.05.00</i></p>	<p>Renamed driver from LSI_U3 to SYM_U3</p> <p>Added support for the LSI53C1010 66 MHz chip and LSI53C1000 chip along with the associated host adapter boards</p> <p>Added Nextreme RAID software support</p> <p>Added Zero-channel RAID support</p> <p>Added support for 16-byte SCSI CDBs. Window NT will never issue a 16-byte CDB, but some applications use a 16-byte vendor-unique CDB in SCSI pass-through commands.</p> <p>Implemented additional error logging at the miniport driver level for SCSI parity errors, SCSI gross errors, and illegal instruction interrupts.</p>	<p>Changed NVS detection code to search on 512 byte blocks instead of 2K blocks</p> <p>The true length of data transferred before the check condition status is now returned correctly to the operating system.</p> <p>A check for context validity on an unexpected disconnect now occurs.</p> <p>The Windows NT SYM_U3 driver now checks to ensure that the bus master enable bit in the PCI Command register is set.</p> <p>Domain Validation and SCSI negotiation code support SCSI-1 devices and SCSI bus expanders better.</p> <p>Corrected an error condition in the common software code.</p> <p>Processing of a SCSI Restore Pointers message results now in passing the correct data to an application.</p> <p>A resync of a mirrored partition no longer causes excessive BUSY returns during operating system boot.</p>
<p><i>NT Configuration Utility 1.06.00</i></p>	<p>Supports the LSI53C1010 66 MHz chip and its associated LSI Logic host adapter boards</p>	<p>None</p>
<p><i>NT DMI CI 2.10</i></p>	<p>No Updates</p>	<p>No Updates</p>

**Table 1 Release Definitions: New Features/Restrictions Lifted (Cont.)**

<b>SDMS Software/ Version Number</b>	<b>New Features</b>	<b>Problems Corrected/ Restrictions Lifted</b>
NT ASPI for Win32 1.06.00	No Updates	No Updates
SCSI Tools for Windows NT & Windows 95/98 1.10.00	No Updates	No Updates
<i>Windows 95/98 FLINT SYMC8XX.MPD 4.15.00</i>	<p>Added Domain Validation Support at a driver initialization.</p> <p>Added support for 16-byte SCSI CDBs. Window 95/98 will never issue a 16-byte CDB, but some applications use a 16-byte vendor-unique CDB in SCSI pass-through commands.</p>	<p>Processing of the SCSI Wide Residue byte results now in transferring the correct data to the application.</p> <p>In detecting NVS storage, the search boundaries for the LSI Logic option ROM have been changed to 512 byte boundaries.</p> <p>The Windows 95/98 Flint driver now checks to ensure that the bus master enable bit in the PCI Command register is set.</p> <p>Processing of a SCSI Restore Pointers message results now in passing the correct data to an application.</p>
<i>Windows 95/98 SYMHINT SYM_HI.MPD 4.15.00</i>	<p>Added Domain Validation Support at a driver initialization.</p> <p>Added support for 16-byte SCSI CDBs. Window 95/98 will never issue a 16-byte CDB, but some applications use a 16-byte vendor-unique CDB in SCSI pass-through commands.</p>	<p>In detecting NVS storage, the search boundaries for the LSI Logic option ROM have been changed to 512 byte boundaries.</p> <p>The Windows 95/98 SYMHINT driver now checks to ensure that the bus master enable bit in the PCI Command register is set.</p> <p>Processing of a SCSI Restore Pointers message results now in passing the correct data to an application.</p>

**Table 1 Release Definitions: New Features/Restrictions Lifted (Cont.)**

<b>SDMS Software/ Version Number</b>	<b>New Features</b>	<b>Problems Corrected/ Restrictions Lifted</b>
<p><i>Windows 95/98 SYM_U3.MPD 5.06.00</i></p>	<p>Renamed driver from LSI_U3 to SYM_U3</p> <p>Added support for the LSI53C1010 66 MHz chip and LSI53C1000 chip along with the associated host adapter boards</p> <p>Added support for 16-byte SCSI CDBs. Window 95/98 will never issue a 16-byte CDB, but some applications use a 16-byte vendor-unique CDB in SCSI pass-through commands.</p> <p>Implemented additional error logging at the miniport driver level for SCSI parity errors, SCSI gross errors, and illegal instruction interrupts.</p>	<p>Processing of a SCSI Restore Pointers message results now in passing the correct data to an application.</p> <p>The Refresh function in the Device Manager allows all devices to be seen or accessible.</p>
<p><i>Windows 2000 FLINT SYMC8XX.SYS 4.15.00</i></p>	<p>Added support for the Windows 2000 operating system (Professional, Server, Advanced Server, Data Center)</p> <p>Supports Domain Validation</p> <p>Added Nextreme RAID support</p> <p>Added support for 16-byte SCSI CDBs. Window 2000 will never issue a 16-byte CDB, but some applications use a 16-byte vendor-unique CDB in SCSI pass-through commands.</p>	<p>Processing of a SCSI Restore Pointers message results now in passing the correct data to an application.</p> <p>Processing of the SCSI Wide Residue byte is now being handled properly.</p> <p>The Windows 2000 FLINT driver now checks to ensure that the bus master enable bit in the PCI Command register is set</p> <p>In detecting NVS storage, the search boundaries for the LSI Logic option ROM have been changed to 512 byte boundaries.</p>

**Table 1 Release Definitions: New Features/Restrictions Lifted (Cont.)**

<b>SDMS Software/ Version Number</b>	<b>New Features</b>	<b>Problems Corrected/ Restrictions Lifted</b>
<p><i>Windows 2000 SYMHINT SYMHI.SYS 4.15.00</i></p>	<p>Added support for the Windows 2000 operating system (Professional, Server, Advanced Server, Data Center)</p> <p>Supports 64-bit DMA allowing direct data access about 4 Gbytes</p> <p>Supports Domain Validation</p> <p>Added Nextreme RAID support</p> <p>Added support for 16-byte SCSI CDBs. Windows 2000 will never issue a 16-byte CDB, but some applications use a 16-byte vendor-unique CDB in SCSI pass-through commands.</p>	<p>In detecting NVS storage, the search boundaries for the LSI Logic option ROM have been changed to 512 byte boundaries.</p> <p>The Windows 2000 SYMHINT driver now checks to ensure that the bus master enable bit in the PCI Command register is set.</p> <p>Processing of a SCSI Restore Pointers message results now in passing the correct data to an application.</p>
<p><i>Windows 2000 SYM_U3.SYS 5.07.00</i></p>	<p>Renamed driver from LSI_U3 to SYM_U3</p> <p>Supports the LSI53C1010 66 MHz chip and LSI53C1000 devices along with their associated host adapter boards</p> <p>Added Nextreme RAID support</p> <p>Added Zero-channel RAID support</p> <p>Implemented additional error logging at the miniport driver level for SCSI parity errors, SCSI gross errors, and illegal instruction interrupts.</p> <p>Added support for 16-byte SCSI CDBs. Windows 2000 will never issue a 16-byte CDB, but some applications use a 16-byte vendor-unique CDB in SCSI pass-through commands.</p>	<p>Changed NVS detection code to search on 512 byte blocks instead of 2K blocks</p> <p>The true length of data transferred before the check condition status is now returned correctly to the operating system.</p> <p>A check for context validity on an unexpected disconnect now occurs.</p> <p>The Windows 2000 SYM_U3 driver now checks to ensure that the bus master enable bit in the PCI Command register is set.</p> <p>Domain Validation and SCSI negotiation code support SCSI-1 devices and SCSI bus expanders better.</p> <p>Processing of a SCSI Restore Pointers message results now in passing the correct data to an application.</p> <p>A resync of a mirrored partition no longer causes excessive BUSY returns during operating system boot.</p>

**Table 1 Release Definitions: New Features/Restrictions Lifted (Cont.)**

<b>SDMS Software/ Version Number</b>	<b>New Features</b>	<b>Problems Corrected/ Restrictions Lifted</b>
<p><i>Windows 2000 SYM_895A.SYS 4.15.00</i></p>	<p>Disabled support for LSI53C896 and LSI53C1510 devices</p> <p>Renamed the driver to support fresh installation of Windows 2000 using an LSI53C895A device or LSI8953U host adapter board</p> <p>Supports 64-bit DMA allowing direct data access above 4 Gbytes</p> <p>Supports Domain Validation</p> <p>Added Nextreme RAID support</p> <p>Added support for 16-byte SCSI CDBs. Windows 2000 will never issue a 16-byte CDB, but some applications use a 16-byte vendor-unique CDB in SCSI pass-through commands.</p>	<p>Changed NVS detection code to search on 512 byte blocks instead of 2K blocks</p> <p>The Windows 2000 SYM_895A driver now checks to ensure that the bus master enable bit in the PCI Command register is set.</p> <p>Processing of a SCSI Restore Pointers message results now in passing the correct data to an application.</p>
<p>NetWare NWPA SYM8XXNW.HAM 4.08.00</p>	<p>No Updates</p>	<p>No Updates</p>
<p>NetWare NWPA SYM_HINW.HAM 4.08.00</p>	<p>No Updates</p>	<p>No Updates</p>
<p><i>NetWare NWPA SYM_U3NW.HAM 5.02.00</i></p>	<p>Supports LSI53C1010 66 MHz chip</p>	<p>None</p>
<p>NetWare DMI CI 2.09.00</p>	<p>No Updates</p>	<p>No Updates</p>

**Table 1 Release Definitions: New Features/Restrictions Lifted (Cont.)**

SDMS Software/ Version Number	New Features	Problems Corrected/ Restrictions Lifted
OS/2 SYM8XX.ADD 4.11.00	No Updates	No Updates
OS/2 SYMHI.ADD 4.12.00	<p>Supports the LSI53C895A device and LSI8953U host adapter board</p> <p>Supports LSI53C1010 33 MHz and 66 MHz chip along with their associated host adapter boards</p> <p>Supports LSI53C1000 devices and the LSI8955U host adapter board</p> <p>Allows up to 32 devices on a system</p> <p>Allows quiet failure when no adapter is present and the /V option is not set on the command line</p> <p>Supports Ultra160 data transfers</p> <p>Supports Parallel Protocol Request (PPR)</p> <p>Permits use of command line options to increase the negotiated synchronous transfer rate or the negotiated width.</p>	<p>Devices that report data overruns or underruns are now detected.</p> <p>Added timer to check if the reset line is still active during a SCSI bus reset.</p> <p>Added bus mode reporting capabilities.</p> <p>I/Os are managed properly on removable-media devices that receive sense data indicating a power on, reset, or bus device reset.</p> <p>The system now handles switching an LVD-capable part from non-HVD to HVD properly.</p> <p>If the reset bit is set when attempting to abort SCRIPTS, the abort completes successfully.</p> <p>When disconnects are allowed on an automatic request sense with heavy I/Os, the first request sense completes successfully now.</p> <p>The value of the STEST4 register that was saved during the last mode change is used when SCRIPTS are running instead of reading the register.</p> <p>After a phase mismatch in message out or command phase, SCRIPTS are restarted at ClearAck instead of PhaseSwitch. This clears ATN so the device won't immediately go back to a message out phase when the message out byte count has been zeroed out.</p>

**Table 1 Release Definitions: New Features/Restrictions Lifted (Cont.)**

<b>SDMS Software/ Version Number</b>	<b>New Features</b>	<b>Problems Corrected/ Restrictions Lifted</b>
<i>Linux SYM53C8XX 1.6b</i>	<p>Supports the LSI53C1010-66 MHz chip</p> <p>Upgraded SCRIPTs support</p> <p>Modified the DMA memory mapping algorithm</p>	<p>Added capability to use PPR negotiation without running Domain Validation to provide Ultra160 support when integrity checking code is not executing.</p> <p>Driver now sets the maximum data offset based on the transfer mode.</p>
<i>UnixWare 2.1x SCSI Driver DDI7 4.08.00</i>	No Updates	No Updates
<i>UnixWare 7 SCSI Driver DDI8 4.24.00</i>	<p>Supports LSI53C1010 66 MHz chip</p> <p>Supports Double Transition data transfers operating on a 66 MHz bus</p>	None
<i>SCO UNIX OpenServer BTL D 4.11.00</i>	Supports LSI53C1010 66 MHz chip	None
<i>Solaris 7 SYMHISL 4.06.00</i>	<p>Supports the LSI53C1010 33 MHz and 66 MHz chip</p> <p>Supports the LSI53C1000 chip</p>	The SYMHISL ITU will now install in systems whose LSI Logic SCSI controllers have subsystem vendor IDs other than 1000h and subsystem IDs other than 1010h
<i>Solaris 8 SYMHISL 4.07.00</i>	<p>Supports the LSI53C1010 33 MHz and 66 MHz chip</p> <p>Supports the LSI53C1000 chip</p> <p>Supports the Solaris 8 operating system only</p> <p>Added new realmode driver for Solaris 8</p> <p>Supports hot swapping of devices</p>	None
<i>Solaris DMI CI 2.10.00</i>	The Solaris DMI CI is based on the existing LSI Logic CI products. It is designed to work with the Symbios2.mif version 2.11.	None

**Table 2 Release Definitions: Restrictions/Workarounds**

SDMS Software/ Version Number	Release Restrictions	Problems and Workarounds in this release
<p><i>PCI Boot ROM 4.18.00</i></p>	<p>Versions of the Boot ROM prior to 4.05 cannot detect a BIOS Boot Specification (BBS) enabled Boot ROM that is loaded before the BBS version. The BBS enabled ROM can detect both previous versions, and BBS versions that are loaded before it.</p> <p>When operated in a non-BBS PC, this software will operate in a "legacy" mode. Legacy in this definition means that Spin Up and El Torito CD boot without BBS will execute. BBS will be ignored.</p> <p>In general, advanced operating systems do not use INT13 after they are loaded. Until those operating systems are rewritten to have knowledge of the BIOS Boot Specification (BBS), problems with drive order may occur on BBS-enabled platforms.</p> <p>*****  <b>Problems and Workarounds in this release (Continued)</b>            *****</p> <p><b>Problem:</b> On some machines, the CTRL keys (A, E, and N) cannot be entered before the BIOS initializes.</p> <p><b>Solution:</b> Hold down the CTRL key during the boot up process and the BIOS will wait until it is released. The desired key (A, E, and N) can then be tapped and released with CTRL. On many PCs, the best time to depress the CTRL key is during memory scan.</p> <p><b>Problem:</b> On some machines, the CTRL-C message that displays when all adapters are off disappears before it can be responded to.</p> <p><b>Solution:</b> Hold down the CTRL key during the boot up process and wait for the system to execute the LSI Logic BIOS. Then tap the C key.</p>	<p><b>Problem:</b> Windows NT 4.0 and earlier replace INT13h calls with their own drivers which causes the drive number ordering selected by the user to be replaced by internal numbering.</p> <p><b>Solution:</b> On BBS enabled PCs, it will be necessary to make the Boot Connection list match the list in order presented at Boot ROM initialization time.</p> <p><b>Problem:</b> Boot Connection lists greater than 8 cause a system BIOS failure and will not boot up.</p> <p><b>Solution:</b> Use less than 8 boot connection devices. <u>Caution:</u> Even devices that do not exist can cause a failure. The system BIOS creates an entry for an IDE driver even if it does not exist. This means that the limit is actually 7 SCSI drives in many instances.</p> <p><b>Problem:</b> If Adaptec's driver is loaded first and all adapters are disabled in our BIOS, the CTRL-A sequence will invoke Adaptec's configuration utility rather than enabling all of our adapters.</p> <p><b>Solution:</b> Use the CTRL-E keypress instead.</p> <p><b>Problem:</b> On some machines with AMI system BIOS, the assignment of IRQs 14 and 15 may cause the adapter to fail.</p> <p><b>Solution:</b> Do not assign IRQ 14 or 15 to PCI slots with a LSI53C8XX adapter.</p>

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<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p><i>PCI Flash Utility 1.13.00</i></p>	<p>Boards with Flash parts and LSI Logic LS153C885 Revision 0 and Revision 1 chips cannot be updated across a PCI bridge. Installation of these boards on a PCI bridge will result in a system halt upon execution of the Flash 8x5 utility.</p> <p>Boards with flash parts and LSI Logic LS153C875 Revision 0 and Revision 1 chips installed on PCI Bus 1 of a PEER Bus system cannot be flashed.</p> <p>Maximum flash image size is 256 Kbytes.</p> <p>Boot diskette must not load any memory managers.</p>	<p><b>Problem:</b> Only LSI8951U cards will flash correctly in bus 0 of the Proliant 7000 system.</p> <p><b>Solution:</b> Use another PCI bus in the system to flash other LSI Logic host adapter cards.</p> <p><b>Problem:</b> Memory managers may conflict with mapping memory space to the flash ROM.</p> <p><b>Solution:</b> Run the program from a bootable floppy diskette that does not load a memory manager.</p> <p><b>Problem:</b> Low memory error handling is not working correctly.</p> <p><b>Solution:</b> Ensure a minimum of 200 Kbytes free memory is available.</p> <p><b>Problem:</b> The F2 SCSI BIOS file list option has a potential limitation. Only the first 18 BIOS files are user-selectable from the F2 menu.</p> <p><b>Solution:</b> If more than 18 BIOS image files are required, spread them into different directories and enter that directory path prior to pressing the F2 key.</p> <p><b>Problem:</b> Cards do not flash when installed in the 64-bit PCI slots on Proliant 7000.</p> <p><b>Solution:</b> Move them to another PCI bus in order to update them with a new image.</p> <p><b>Problem:</b> Cards do not flash in certain PCI slots on the HP LH4 system with a network card is installed.</p> <p><b>Solution:</b> Use another PCI bus in the system to flash other LSI Logic cards.</p>

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<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p><i>ASPI8XX.SYS</i> 4.10.00</p>	<p>None</p>	<p><b>Problem:</b> The DOS ASPI Manager has experienced problems when a PCI SCSI adapter has been assigned an IRQ level of 14 and Windows version 3.1x is run. This is a system BIOS problem.</p> <p><b>Solution:</b> Refer to the Boot ROM section regarding problems when the user assigns IRQ 14 to a PCI device.</p> <p><b>Problem:</b> QEMM 7.5 works without DOS-UP and stealth mapping. When these features are enabled, the system cannot find the command interpreter or device drivers.</p> <p><b>Solution:</b> Reboot the system with a floppy diskette, and manually edit out the changes made to the CONFIG.SYS file. Do not use QEMM 7.5 with DOS-UP and stealth mapping enabled.</p> <p><b>Problem:</b> APSI8XX.SYS will hang (waits forever) during boot if the following condition exists if termination is not present on the SCSI bus and has not been disabled.</p> <p><b>Solution:</b> Provide required termination to prevent the hang condition.</p> <p><b>Problem:</b> When using the /DC with the /D command line option, both the /D and the /DC actions will occur.</p> <p><b>Solution:</b> None. Displays only verbose information on the screen and does not cause any side effects.</p>
<p>SYMCD.SYS 4.06.00</p>	<p>None</p>	<p><b>Problem:</b> The Pioneer DR-5068.32x CD-ROM (FW: 1.05) is not supported when it is set for Ultra or Ultra2 in the BIOS or ASPI command line.</p> <p><b>Solution:</b> Set to asynchronous regular SCSI or Fast in the SCSI BIOS Configuration Utility (or on the ASPI command).</p>

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<p>SYMDISK.SYS 4.04.00</p>	<p>This driver no longer supports drives that have INT13h support before SYMDISK.SYS is loaded.</p> <p>For removable media, SYMDISK.SYS assumes a 2048-byte sector size as a default when no media is present.</p> <p><b>Note:</b> When using the SYMCONFIG Utility, the help text for SYMDISK.SYS under the sector size switch usage states: "In the case of removable media, SYMDISK.SYS assumes a 512-byte sector size when no media is present." For all versions of SYMDISK.SYS 4.03.00 and greater this statement is incorrect. The default has been changed to 2048 bytes.</p>	<p><b>Problem:</b> When repartitioning a used 1 Kbyte media, the formatted partition size is 4 times the actual size. This problem occurs only on Magneto Optical (MO) devices that use 1 Kbyte block size media.</p> <p><b>Solution:</b> Low-level format devices that use 1 Kbyte media by using a format utility. Recommend using ASPIFMT and/or BIOS Format Utility.</p> <p><b>Problem:</b> Cannot format 1024, 2048, or 4096 sector size HDDs or MOs with SYMDISK.SYS.</p> <p><b>Solution:</b> Use an earlier version (4.00.04.20) of SYMDISK to format the non-512 sector size drives. Once formatted, SYMDISK.SYS behaves normally.</p>
<p>ASPI Format Utility 4.01.00</p>	<p>This utility formats the drive in the native sector size for that drive (not necessarily 512-byte sector sizes).</p> <p><b>Note:</b> The BIOS Format Utility formats all drives to 512-byte sector size.</p>	<p><b>Problem:</b> The ASPIFMT Utility screen is unreadable due to a possible graphics card problem.</p> <p><b>Solution:</b> ASPI Format Utility requires a VGA monitor.</p>
<p>SYMDIAG (Verify Utility) 4.02.00</p>	<p>None</p>	<p><b>Problem:</b> The Sony CDU-920S shows up as a Magneto Optical device.</p> <p><b>Solution:</b> None.</p> <p><b>Problem:</b> When locating SCSI CD-ROM drives, the event log MSG subsection may misstate that no CD-ROM drives were found.</p> <p><b>Solution:</b> None.</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

SDMS Software/ Version Number	Release Restrictions	Problems and Workarounds in this release
<p>SYM53C8XX Install Utility 4.05.00</p>	<p>When the EMM386.EXE version 4.48 or lower is used, the /noems switch is set, and the drivers are loaded high, the system may hang. Several alternatives can be utilized to avoid a system hang up (system waits forever):</p> <ol style="list-style-type: none"> <li>1. Upgrade EMM386.EXE to version 4.49 for the executable file; or</li> <li>2. Remove the /noems switch; or</li> <li>3. Load the device driver low.</li> </ol>	<p><b>Problem:</b> If Selectable is chosen, newly added drivers are inadvertently loaded in front of the ASPI8XX.SYS-driver. This occurs when some but not all of the drivers had been loaded in a previous installation.</p> <p><b>Solution:</b> Edit the CONFIG.SYS file and manually move SYMCD.SYS or SYMDISK.SYS after the ASPI8XX.SYS driver.</p> <p><b>Problem:</b> If multiple /D switches exist on the MSCDEX.EXE line in the AUTOEXEC.BAT file, the install program may not correctly update both the SYMCD.SYS /D switch and the MSCDEX.EXE line correctly.</p> <p><b>Solution:</b> Manually check all multiple /D switches to ensure they match, which is necessary for the drive to be recognized.</p>
<p>SYM53C8XX Configuration Utility 4.02.00</p>	<p>When using the SYMCONFIG Utility, the help text for SYMDISK.SYS under the sector size switch usage states:</p> <p>“In the case of removable media, SYMDISK.SYS assumes a 512-byte sector size when no media is present.”</p> <p>For all versions SYMDISK.SYS 4.03.00 and greater this statement is incorrect. The default has been changed to 2048 bytes.</p>	<p><b>Problem:</b> If multiple /D switches exist on the MSCDEX.EXE line in the AUTOEXEC.BAT file, the install program may not correctly update both the SYMCD.SYS /D switch and the MSCDEX.EXE line correctly.</p> <p><b>Solution:</b> Manually check all multiple /D switches to ensure they match, which is necessary for the drive to be recognized.</p> <p><b>Problem:</b> When the MSCDEX line exists in the AUTOEXEC.BAT file and is rewritten during the configuration process, /DCDROM_NAME is placed before the MSCDEX key word. Thus, the CDROM driver is not recognized.</p> <p><b>Solution:</b> Manually edit the MSCDEX line, and move /DCDROM_NAME after the MSCDEX key work. For lost CDROM, manually reinstall the CDROM drive. Enter /DLOST_CDRON_NAME after the MSCDEX line.</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

SDMS Software/ Version Number	Release Restrictions	Problems and Workarounds in this release
<p><i>Windows NT Flint SYMC8XX.SYS 4.15.00</i></p>	<p>When upgrading to a newer version of Windows NT, make sure that the FLINT driver is active. It is possible that a previous driver like NCRSDMS.SYS, NCRC810.SYS, SYMC810.SYS, or an older version of SYMC8XX.SYS may instead be active, even after upgrading.</p> <p>In this case, you should delete the old driver using Start--&gt;Settings --&gt;Control Panel--&gt;SCSI Adapters and activate the newer one. To check the version of the driver, highlight the file in Windows Explorer and select File--&gt;Properties.</p> <p>Device exclusion functionality (driver not controlling an 8XX device) was removed from the driver. Device exclusion cannot be performed within the miniport driver.</p> <p>For Windows NT 4.0 and above, the FLINT driver supports the Windows NT limitation of 255 scatter/gather entries (or 1 Mbyte - 8 Kbytes). The default maximum size is 64 Kbytes, but this can be increased by using a registry entry.</p> <p>Some older SCSI devices do not adhere to the SCSI specification and do not support Domain Validation. Domain Validation can be disabled for these devices individually by using the SCSI BIOS Configuration Utility. The other alternative is to disable Domain Validation for the entire SCSI channel by using a registry entry.</p> <p>Nextreme RAID software requires an LSI Logic PCI RAID BIOS to be active on the system.</p>	<p><b>Problem:</b> The SCRIPTS “Store” command does not properly flush the prefetch buffer.</p> <p><b>Solution:</b> Devices that support Load/Store commands (LSI53C810A, LSI53C860, LSI53C875, LSI53C876, LSI53C885, LSI53C895) have PCI prefetch turned off in this release.</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p><i>Windows NT SYMHIINT SYM_HI.SYS 4.15.00</i></p>	<p>For Windows NT 4.0 and above, the SYMHINT driver supports the Windows NT limitation of 255 scatter/gather entries (or 1 Mbyte - 8 Kbytes). The default maximum size is 64 Kbytes, but this can be increased by using a registry entry.</p> <p>Some older SCSI devices do not adhere to the SCSI specification and do not support Domain Validation. Domain Validation can be disabled for these devices individually by using the SCSI BIOS Configuration Utility. The other alternative is to disable Domain Validation for the entire SCSI channel by using a registry entry.</p> <p>Nextreme RAID software requires an LSI Logic PCI RAID BIOS to be active on the system.</p>	<p>None</p>
<p><i>Windows NT SYM_U3.SYS</i></p>	<p>For Windows NT 4.0 and above, the SYM_U3.SYS driver supports the Windows NT limitation of 255 scatter/gather entries (or 1 Mbyte - 8 Kbytes). The default maximum size is 64 Kbytes, but this can be increased by using a registry entry.</p> <p>Some older SCSI devices do not adhere to the SCSI specification and do not support Domain Validation. Domain Validation can be disabled for these devices individually by using the SCSI BIOS Configuration Utility. The other alternative is to disable Domain Validation for the entire SCSI channel by using a registry entry.</p> <p>Nextreme RAID software requires an LSI Logic PCI RAID BIOS to be active on the system.</p>	<p><b>Problem:</b> When using an LSI53C1010 66MHz revision A1 device, multiple SCSI devices running at different speeds may experience I/O timeouts or SCSI bus hang conditions.</p> <p><b>Solution:</b> Do not mix SCSI devices of different speeds on the same SCSI bus. Another alternative would be to set the sync speed settings in the LSI Logic PCI SCSI BIOS Configuration Utility on all devices to the speed of the slowest device on the SCSI bus.</p> <p><b>Problem:</b> Usage of dissimilar SCSI cables, types, and widths may result in one or more devices being unavailable.</p> <p><b>Solution:</b> For higher speed devices (Ultra2, Ultra160 in LVD mode, or Ultra in SE mode) do not use older SCSI-1 cables or wide/narrow bus converters. All data lines on the SCSI bus must be terminated correctly for proper operation.</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<i>NT Configuration Utility 1.06.00</i>	Supports English language only.	<p><b>Problem:</b> Sync speed choices displayed in the Domain Validation test menu may not reflect the bus width setting.</p> <p><b>Solution:</b> Choices displayed are synchronized again once both values have been changed once. Initial values displayed are based on current stored settings and not current negotiated settings.</p>
<i>NT DMI CI 2.10.00</i>	<p>The issuing and format of AMS events has not been verified.</p> <p>Minimum testing under LanDesk.</p> <p>No testing under Windows 2000 Release Candidate.</p> <p>Minimum testing for SYMI2)M driver.</p>	None
<i>NT ASPI for Win32 1.06.00</i>	None	None
<i>SCSI Tools for Windows NT and Windows 95/98 1.10.00</i>	None	None

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p><i>Windows 95/98 FLINT SYM8XX.MPD 4.15.00</i></p>	<p>Device exclusion functionality (driver not controlling an 8XX device) was removed from the driver. Device exclusion cannot be performed within the miniport driver.</p> <p>For Windows 95/98 Microsoft has requested that SCSI miniport drivers support a maximum transfer size of 64K.</p> <p>Some older SCSI devices do not adhere to the SCSI specification and do not support Domain Validation. Domain Validation can be disabled for these devices individually by using the SCSI BIOS Configuration Utility. The other alternative is to disable Domain Validation for the entire SCSI channel by using a registry entry.</p>	<p><b>Problem:</b> The SCRIPTS “Store” command does not properly flush the prefetch buffer.</p> <p><b>Solution:</b> Devices that support Load/Store commands (SYM53C810A, SYM53C860, SYM53C875, SYM53C876, SYM53C885, SYM53C895) have PCI prefetch turned off in this release.</p> <p><b>Problem:</b> The Refresh function in Device Manager will sometimes result in a newly arrived device not being seen or accessible</p> <p><b>Solution:</b> Perform the refresh twice.</p>
<p><i>Windows 95/98 SYMHINT SYM_HI.MPD 4.15.00</i></p>	<p>For Windows 95/98 Microsoft has requested that SCSI miniport drivers support a maximum transfer size of 64K.</p> <p>Some older SCSI devices do not adhere to the SCSI specification and do not support Domain Validation. Domain Validation can be disabled for these devices individually by using the SCSI BIOS Configuration Utility. The other alternative is to disable Domain Validation for the entire SCSI channel by using a registry entry.</p>	<p><b>Problem:</b> The Refresh function in Device Manager will sometimes result in a newly arrived device not being seen or accessible</p> <p><b>Solution:</b> Perform the refresh twice.</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p><i>Windows 95/98 SYM_U3.MPD 5.06.00</i></p>	<p>For Windows 95/98 Microsoft has requested that SCSI miniport drivers support a maximum transfer size of 64K.</p> <p>Some older SCSI devices do not adhere to the SCSI specification and do not support Domain Validation. Domain Validation can be disabled for these devices individually by using the SCSI BIOS Configuration Utility. The other alternative is to disable Domain Validation for the entire SCSI channel by using a registry entry.</p>	<p><b>Problem:</b> When using an LSI53C1010 66MHz revision A1 device, multiple SCSI devices running at different speeds may experience I/O timeouts or SCSI bus hang conditions.</p> <p><b>Solution:</b> Do not mix SCSI devices of different speeds on the same SCSI bus. Another alternative would be to set the sync speed settings in the LSI Logic PCI SCSI BIOS Configuration Utility on all devices to the speed of the slowest device on the SCSI bus.</p> <p><b>Problem:</b> Usage of dissimilar SCSI cables, types, and widths may result in one or more devices being unavailable.</p> <p><b>Solution:</b> For higher speed devices (Ultra2, Ultra160 in LVD mode, or Ultra in SE mode) do not use older SCSI-1 cables or wide/narrow bus converters. All data lines on the SCSI bus must be terminated correctly for proper operation.</p>
<p><i>Windows 2000 FLINT SYMC8XX.SYS 4.15.00</i></p>	<p>The Windows 2000 installation CD-ROM contains a bundled version of the FLINT driver and it cannot be overridden by a driver installed from a flex disk using the F6 key. A fresh installation can be performed using the bundled FLINT driver. Once installation has completed, the driver can be upgraded using the Device Manager.</p> <p>The FLINT driver supports the Windows 2000 limitation of 255 scatter/gather entries (or 1 Mbyte - 8 Kbytes). The default maximum size is 64 Kbytes, but this can be increased by using a registry entry.</p>	<p><b>Problem:</b> The SCRIPTS “Store” command does not properly flush the prefetch buffer.</p> <p><b>Solution:</b> Devices that support Load/Store commands (LSI53C810A, LSI53C860, LSI53C875, LSI53C876, LSI53C885, LSI53C895) have PCI prefetch turned off in this release.</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p><i>Windows 2000 FLINT SYMC8XX.SYS 4.15.00 (Continued)</i></p>	<p>Some older SCSI devices do not adhere to the SCSI specification and do not support Domain Validation. Domain Validation can be disabled for these devices individually by using the SCSI BIOS Configuration Utility. The other alternative is to disable Domain Validation for the entire SCSI channel by using a registry entry.</p> <p>Nextreme RAID software requires an LSI Logic PCI RAID BIOS to be active on the system.</p>	<p>(Listed on previous page)</p>
<p><i>Windows 2000 SYMHINT SYM_HI.SYS 4.15.00</i></p>	<p>The SYMHINT driver supports the Windows 2000 limitation of 255 scatter/gather entries (or 1 Mbyte - 8 Kbytes). The default maximum size is 64 Kbytes, but this can be increased by using a registry entry.</p> <p>Some older SCSI devices do not adhere to the SCSI specification and do not support Domain Validation. Domain Validation can be disabled for these devices individually by using the SCSI BIOS Configuration Utility. The other alternative is to disable Domain Validation for the entire SCSI channel by using a registry entry.</p> <p>Nextreme RAID software requires an LSI Logic PCI RAID BIOS to be active on the system.</p>	<p>None</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p><i>Windows 2000 SYM_U3.SYS</i></p>	<p>The SYM_U3 driver supports the Windows 2000 limitation of 255 scatter/gather entries (or 1 Mbyte - 8 Kbytes). The default maximum size is 64 Kbytes, but this can be increased by using a registry entry.</p> <p>Some older SCSI devices do not adhere to the SCSI specification and do not support Domain Validation. Domain Validation can be disabled for these devices individually by using the SCSI BIOS Configuration Utility. The other alternative is to disable Domain Validation for the entire SCSI channel by using a registry entry.</p> <p>Nextreme RAID software requires an LSI Logic PCI RAID BIOS to be active on the system.</p>	<p><b>Problem:</b> When using an LSI53C1010 66MHz revision A1 device, multiple SCSI devices running at different speeds may experience I/O timeouts or SCSI bus hang conditions.</p> <p><b>Solution:</b> Do not mix SCSI devices of different speeds on the same SCSI bus. Another alternative would be to set the sync speed settings in the LSI Logic PCI SCSI BIOS Configuration Utility on all devices to the speed of the slowest device on the SCSI bus.</p> <p><b>Problem:</b> Usage of dissimilar SCSI cables, types, and widths may result in one or more devices being unavailable.</p> <p><b>Solution:</b> For higher speed devices (Ultra2, Ultra160 in LVD mode, or Ultra in SE mode) do not use older SCSI-1 cables or wide/narrow bus converters. All data lines on the SCSI bus must be terminated correctly for proper operation.</p>
<p><i>Windows 2000 SYM_895A.SYS</i></p>	<p>The SYM_895A driver supports the Windows 2000 limitation of 255 scatter/gather entries (or 1 Mbyte - 8 Kbytes). The default maximum size is 64 Kbytes, but this can be increased by using a registry entry.</p> <p>Some older SCSI devices do not adhere to the SCSI specification and do not support Domain Validation. Domain Validation can be disabled for these devices individually by using the SCSI BIOS Configuration Utility. The other alternative is to disable Domain Validation for the entire SCSI channel by using a registry entry.</p> <p>Nextreme RAID software requires an LSI Logic PCI RAID BIOS to be active on the system.</p>	<p>None.</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p>NetWare NWPA SYM8XXNW.HAM 4.08.00</p>	<p>The final SCSIHD.CDM and SCSIHD.DDI should be dated July 23, 1998 or newer.</p> <p>NWPA.NLM must be version 2.32f, dated February 9, 1998 or newer.</p> <p>SCAM level I and II are not supported by NetWare. If SCAM is enabled in the BIOS NVM, manually disable SCAM or the driver may not load for that adapter.</p> <p>New minimum ASPI8XX.SYS and BIOS versions are required. The ASPI8XX.SYS driver must be at least 4.09 or the driver will not load. The BIOS version for the LSI53C896 support must be 4.11 or later. When the ASPI8XX.SYS driver is not present, then the minimum BIOS version is 4.16 for all LSI53C8XX hardware.</p> <p>Device that return vendor unique ASC and ASCQ codes may require a custom CDM (Custom Device Module). This has been observed on RAID devices.</p> <p>Does not support Driver Hot Swap in the NWPA Functional Specification.</p>	<p><b>Problem:</b> The EXABYTE tape CDM has a bug that causes our driver to hang during the loading of the exatape.cdm.</p> <p><b>Solution:</b> None.</p> <p><b>Problem:</b> SBACKUP software operations using tape retention and restore may fail.</p> <p><b>Solution:</b> Use an alternative backup program to do these operations.</p>
<p>NetWare NWPA SYMHINW.HAM 4.08.00</p>	<p>The final SCSIHD.CDM and SCSIHD.DDI should be dated July 23, 1998 or newer.</p> <p>NWPA.NLM must be version 2.32f, dated February 9, 1998 or newer.</p> <p>SCAM level I and II are not supported by NetWare. If SCAM is enabled in the BIOS NVM, manually disable SCAM or the driver may not load for that adapter.</p>	<p><b>Problem:</b> The EXABYTE tape CDM has a bug that causes our driver to hang during the loading of the exatape.cdm.</p> <p><b>Solution:</b> None.</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p>NetWare NWPA SYMHNW.HAM 4.08.00 (Continued)</p>	<p>New minimum ASPI8XX.SYS and BIOS versions are required. The ASPI8XX.SYS driver must be at least 4.10 or the driver will not load. The BIOS version for the SYM53C896 support must be 4.11 or later. When the ASPI8XX.SYS driver is not present, then the minimum BIOS version is 4.16 for all SYM53C8XX hardware.</p> <p>Devices that return vendor unique ASC and ASCQ codes may require a custom CDM (Custom Device Module). This has been observed on RAID devices.</p> <p>Does not support Driver Hot Swap in the NWPA Functional Specification.</p>	<p><b>Problem:</b> SBACKUP software operations using tape retention and restore may fail.</p> <p><b>Solution:</b> Use an alternative backup program to do these operations.</p>
<p>NetWare NWPA SYM_U3NW.HAM 5.02.00</p>	<p>The final SCSIHD.CDM and SCSIHD.DDI should be dated July 23, 1998 or newer.</p> <p>NWPA.NLM must be version 2.32f, dated February 9, 1998 or newer.</p> <p>SCAM level I and II are not supported by NetWare. If SCAM is enabled in the BIOS NVM, manually disable SCAM or the driver may not load for that adapter.</p> <p>New minimum ASPI8XX.SYS and BIOS versions are required. The ASPI8XX.SYS driver must be at least 4.10 or the driver will not load. The BIOS version for the LSI53C1010 support must be 4.16 or later. When the ASPI8XX.SYS driver is not present, then the minimum BIOS version is 4.16 for all LSI53C8XX hardware.</p>	<p>None</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p><i>NetWare NWPA SYM_U3NW.HAM 5.02.00 (Continued)</i></p>	<p>Devices that return vendor unique ASC and ASCQ codes may require a custom CDM (Custom Device Module). This has been observed on RAID devices.</p> <p>Does not support Driver Hot Swap in the NWPA Functional Specification.</p> <p>If the SYM_U3NW driver is loaded when ASPI8XX is already loaded, Ultra160 devices that are controlled by ASPI must be limited to Ultra2 for ASPI8XX. The devices must retain their Ultra3 settings in BIOS NVM to run at Ultra3 under NetWare. ASPI8XX devices can be set to Ultra2. Modify the CONFIG.SYS file to DEVICE=[PATH]ASPI8XX.SYS /SYNCH_RATE=40&lt;hba_number&gt;. The hba_number is the zero-based host adapter board number.</p> <p>Compatibility with all software configurations has not been fully tested, except for the SDMS 4.XX SCSI boot ROM without ASPI8XX.SYS, SYMCD.SYS, or SYMDISK.SYS loaded.</p>	<p>None</p>
<p><i>OS/2 SYM8XX.ADD 4.11.00</i></p>	<p>RAID devices have not been tested.</p> <p>A system dump can only be obtained with BIOS 4.13.00 or later versions when the boot drive is accessed through an 8XX controller.</p> <p>A BIOS version 4.13.00 or later is necessary to guarantee the driver will recognize the presence of NVRAM. With an earlier version of the boot ROM, NVRAM settings may be duplicated using the driver's command line options if the driver does not see NVRAM.</p>	<p>None</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p>OS/2 SYMHI.ADD 4.12.00</p>	<p>RAID devices have not been tested.</p> <p>If the boot drive is attached to an LSI53C895A, LSI53C896, LSI53C1010, or LSI53C1010 controller, a system dump can only be obtained when using the LSI Logic boot ROM version 4.13 or later.</p> <p>The LSI Logic Boot ROM version 4.13 or later is necessary to guarantee the driver will recognize the presence of NVRAM. With an earlier version of the boot ROM, NVRAM settings may be duplicated using the driver's command line options if the driver does not see NVRAM.</p>	<p><b>Problem:</b> A wide device that allows disconnects may time out on I/O transfers when attached to an LSI53C1010 33 MHz chip. Error messages such as "The &lt;drive letter&gt;: device is not ready", "The &lt;drive letter&gt;: device is not functioning" or "A program in this session encountered a problem and cannot continue" are indications of this problem.</p> <p><b>Solution:</b> Use the SCSI BIOS Configuration Utility or the device driver's command line option to disable disconnects for the device.</p>
<p>Linux SYM53C8XX 1.6b</p>	<p>Driver requires chips to support Load/Store commands:</p> <p>LSI53C810A, LSI53C825A, LSI53C860, LSI53C875, LSI53C876, LSI53C895A, LSI53C896, LSI53C1010 (33 and 66 MHz)</p> <p>(Note: ncr53C8xx driver supports:</p> <p>LSI53C810, LSI53C810A, LSI53C825, LSI53C825A, LSI53C860, LSI53C875, LSI53C876, LSI53C895A, LSI53C896)</p> <p>Tested on Linux 2.2.5 and 2.2.13 kernels using Red Hat 6.0 and Red Hat 6.1 base with Intel I386 architecture platform. Patches available only for 2.2.5, 2.2.12, 2.2.13, 2.2.14, 2.2.15, 2.3.99-pre8, Red Hat 6.1 and Red Hat 6.2 kernels.</p>	<p><b>Problem:</b> Wide-narrow-wide SCSI bus configuration results in device not attaching.</p> <p><b>Solution:</b> None. This problem will be corrected in the next release.</p> <p><b>Problem:</b> Negotiates to non-existent LUNs when attached to a target-initiated negotiation disk.</p> <p><b>Solution:</b> This is a cosmetic problem and of no significant consequence.</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<i>Linux SYM53C8XX 1.6b</i>	<p>Applixware Software application would not install during test.</p> <p>Installation may occur only to those 8XX devices supported by the version of the driver bundled in the kernel shipped by your vendor. Therefore, installation is not possible to a disk attached to an LSI53C1010 device at this time. However, once installation has completed and the driver has been upgraded to recognize the new chip, reboot is possible.</p>	<p><b>Problem:</b> Unlimited retries if a disk is powered off during a write cycle.</p> <p><b>Solution:</b> Do not power off a disk during a write cycle. The driver does not support hot plug.</p> <p><b>Problem:</b> Unlimited retries if a disk responds with the wrong phase after selection.</p> <p><b>Solution:</b> SCSI standard requires targets to switch to Message Out phase after selection with attention. Disks that violate this requirement will cause major failure. Use disks that meet the SCSI standard.</p>
<i>SCO UNIX BTL D 4.11.00</i>	None	None
<i>Solaris 7 SYMHISL 4.06.00</i>	SCAM level I or II is not supported by Solaris. If it is enabled in the BIOS NVM, it must be manually disabled or the driver may not load for that adapter.	The SYMHISL ITU will now install on systems with LSI Logic SCSI controllers that have Subsystem Vendor IDs other than 1000h and Subsystem IDs other than 1010h.
<i>Solaris 8 SYMHISL 4.0700</i>	<p>Does not support Solaris 7.</p> <p>SCAM level I or II is not supported by Solaris. If it is enabled in the BIOS NVM, it must be manually disabled or the driver may not load for that adapter.</p>	None

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p><i>Solaris DMI CI 2.10.00</i></p>	<p>Does not support AMS events.</p> <p>Component Instrumentation does not have support enabled for SAF-TE, Network Adapters, or Fibre Channel groups.</p>	<p><b>Problem:</b> Ultra160 hard drives on LSI53C1010 adapters show as having a negotiated speed under Bus Port Association of 152 Mbytes/s instead of 106 Mbytes/s.</p> <p>Removable media devices have a check condition status after media insertion which causes the CI to report "Media loaded: False" after media insertion.</p> <p><b>Solution:</b> None</p> <p><b>Problem:</b> When the CI attempts to add a new device, the service provider corrupts the data, specifically the Media Data Block Size and Formatted Media Capacity fields displayed under Storage Devices. The service provider also causes spaces to appear in the console window. The two things occur as a result of the same Service Provider call.</p> <p><b>Solution:</b> This bug has been reported against the Solaris Service provider.</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

<b>SDMS Software/ Version Number</b>	<b>Release Restrictions</b>	<b>Problems and Workarounds in this release</b>
<p>UnixWare 2.1x SCSI Driver DDI7 4.08.00</p>	<p>None</p> <p>*****</p> <p><b>Problems/Workarounds (continued)</b></p> <p>*****</p> <p><b>Problem:</b> Commands issued to devices attached to LSI Logic host adapters will timeout with no command completions due to the failure of the operating system.</p> <p><b>Solution:</b> Patch ptf4019a may need to be installed on certain Compaq multiprocessor machines when the SMP package is being installed with UnixWare 2.1.3 version.</p>	<p><b>Problem:</b> Under certain conditions, if a device is powered down during heavy I/O activity, the system may perform erratically</p> <p><b>Solution:</b> If a device is to be removed from an actively running system without bringing down the system, use the "pdirm" command to logically remove the device from the system before a power down is performed. Avoid powering down target devices that are performing heavy I/O activity.</p> <p><b>Problem:</b> Commands issued to devices attached to LSI Logic host adapters will timeout with no command completions due to the failure of the operating system.</p> <p><b>Solution:</b> Patch ptf3152c may need to be installed on certain multiprocessor machines when the SMP package is being installed with UnixWare 2.1, 2.1.1, and 2.1.2 versions.</p>
<p><i>UnixWare 7 SCSI Driver DDI8 4.24.00</i></p>	<p>Under certain conditions, if a device is powered down during heavy I/O activity, the system may perform erratically. Avoid powering down target devices which are performing heaving I/O activity. If a device is to be removed from an actively running system without bringing down the system, use the "sdirm" command to logically remove the device from the system before a power down is performed.</p>	<p>None</p>

**Table 2 Release Definitions: Restrictions/Workarounds**

SDMS Software/ Version Number	Release Restrictions	Problems and Workarounds in this release
<p><i>Mass Storage DMI Browser-LSIDMI 2.05.00</i></p>	<p>None</p> <p>*****</p> <p><b>Problems and Workarounds</b></p> <p>*****</p> <p><b>Problem:</b> On some systems, after a reboot the first time a connection is attempted through the proxy server, it will return a failure that it is unable to connect.</p> <p><b>Solution:</b> A reconnection through the proxy server will work, as will any other subsequent reconnection until the next time the system reobots.</p> <p><b>Problem:</b> On some systems, if your browser is Netscape, you will get an error dialog when you bring up the HTML page that states a component could not be found.</p> <p><b>Solution:</b> Click continue, and the Netscape browser will be able to find all the components. The error dialog is incorrect.</p>	<p><b>Problem:</b> No commercial Certificate Authorities exist for issuing certificates for HotJava. Without a trust root certificate, the browser will not run as is under HotJava.</p> <p><b>Solution:</b> In order to run the browser under HotJava, the browser must trust the LSI Logic Certificate. The digital signature of LSIDMI.JAR is generated by LSI Logic, and thus not issued by a Certificate Authority.</p> <p><b>Take the following steps:</b></p> <ol style="list-style-type: none"> <li>1. Load the lsidmiHJ.htm page under HotJava.</li> <li>2. From the menu bar, select Edit -&gt;Preferences--&gt;Applet Security. A window appears.</li> <li>3. Select Low Security for Digitally Signed Applets, and click on the Apply button.</li> <li>4. Click on the Advanced button. You will see the LSI Logic certificate in the list of certificates. Select this certificate and click on the Details button. A window appears.</li> <li>5. Check the Fingerprint Verified box, and click on the OK button.</li> <li>6. A warning message appears if the procedure worked stating "Warning: Applet Window" in subsequent LSI DMI Browser windows</li> </ol>

