



# Sun StorageTek™ Common Array Manager Software Release Notes

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Release 5.1.0.11

Sun Microsystems, Inc.  
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# Sun StorageTek Common Array Manager Software Release Notes

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This document contains important information about release 5.1 of the Sun StorageTek™ Common Array Manager software or information that was not available at the time the product documentation was published. Read this document so that you are aware of issues or requirements that can affect the installation and operation of the Common Array Manager software.

These release notes cover the software released on the Sun StorageTek Common Array Manager Software 5.1 CD.

The Release Notes consist of the following sections:

- [“Features in This Release” on page 1](#)
- [“System Requirements” on page 5](#)
- [“Installing Packages and Patches” on page 9](#)
- [“Known Issues” on page 13](#)
- [“Operational Information” on page 23](#)
- [“Release Documentation” on page 24](#)
- [“Firmware Files” on page 24](#)
- [“Service Contact Information” on page 28](#)
- [“Third-Party Web Sites” on page 28](#)

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## Features in This Release

This section describes the main features of the Sun StorageTek Common Array Manager software in the following sections:

- [“Firmware Features in This Release” on page 2](#)

- [“Common Array Manager Software Features” on page 2](#)
- [“Release Contents” on page 3](#)
- [“Licenses For Optional Premium Features” on page 4](#)

## Firmware Features in This Release

This section describes the main new features of the firmware, including the following:

- [“Array Expansion Tray Support” on page 2](#)

### Array Expansion Tray Support

Controller firmware 06.19.xx.xx allows tray mixing of array controllers and two versions of expansion trays. After installing the firmware, older controllers can use new expansion trays and older expansion trays can be used with the new controllers. There are restrictions on adding trays with data. The following table lists the supported tray intermixing. [TABLE 1](#) lists the supported tray intermixing without data. For adding trays with data, contact your service representative.

**TABLE 1** Supported Expansion Trays - Controller Firmware 06.19.xx.xx

<b>Array Controller</b>	<b>Prior to Controller Firmware 06.19.xx.xx</b>	<b>Expansion Trays without data - Controller Firmware 06.19.xx.xx</b>
Sun StorageTek 6130 Array	CSM100	CSM100, CSM200
Sun StorageTek 6140 Array	CSM200	CSM100, CSM200
Sun StorageTek 6540 Array	CSM200	CSM100, CSM200
Sun StorageTek 2500 Series Array	Note - not supported by this firmware	NA

## Common Array Manager Software Features

The Sun StorageTek Common Array Manager software provides you with an easy-to-use interface to configure, manage, and monitor Sun StorageTek storage arrays.

New features in Release 5.1:



- Sun Connection: registration, telemetry, and automated case generation
- Support for Common Array Manager on Linux operating systems
- 2007 Daylight Savings Time update
- DC power supply support (NEBS compliant) on 6140 array

The Common Array Manager software includes the following functions:

- Browser User Interface (BUI) for array management
- Command Line Interface (CLI) for scripting and non-BUI configuration management
- Storage pools
- Storage profiles
- Storage domains
- Mapping between physical and logical
- Device configuration
- Health monitoring and fault management
- Predictive failure analysis
- Proactive monitoring
- Problem notification
- Component diagnostics
- Troubleshooting and recovery procedures
- System level verification
- Service guidance

The following features are not supported in Release 5.1, even though they may be described elsewhere in the Common Array Manager 5.1 documentation set:

- Support for 2500 Series Arrays

## Release Contents

[TABLE 2](#) lists the version information for the software included in this release.

**TABLE 2** Host CD Contents

Type	Version
Common Array Manager	5.1
Remote scripting CLI client	2.1.4

**TABLE 2** Host CD Contents (*Continued*)

Type	Version
Java Web Console software	2.2.5
Java 2 Software Development Kit	1.4.2
Firmware files, as listed in <a href="#">“Firmware Files”</a> on page 24	

## Licenses For Optional Premium Features

For optional premium features, you must purchase licenses. When you order premium feature licenses, the licenses will be sent to you with instructions on how to activate the features.

The following premium features are available from Sun:

**TABLE 3** Available Premium Features, by Array

Premium Feature	6130 Array	6140 Array	6540 Array
Data Snapshot	X	X	X
Data Volume Copy	X	X	X
Data Replicator	X	X	X
4 Domains		X	X
Upgrade 4 to 8 Domains		X	X
8 Domains		X	X
Upgrade 8 to 16 Domains	X	X	X
16 Domains	X	X	X
Upgrade 16 to 64 Domains	X	X	X
64 Domains	X	X	X
Combo Data Snapshot and 8 Domains		X	X

**TABLE 3** Available Premium Features, by Array (*Continued*)

Premium Feature	6130 Array	6140 Array	6540 Array
Combo Data Snapshot, Data Volume Copy, Data Replicator, and 64 Domains	X	X	X
Combo Data Snapshot, Data Volume Copy	X	X	X
Combo Data Snapshot, Data Volume Copy, and Data Replicator	X	X	X

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## System Requirements

The software and hardware products that have been tested and qualified to work with the Sun StorageTek Common Array Manager software are described in the following sections:

- [“Supported Arrays” on page 5](#)
- [“Supported Platforms” on page 6](#)
- [“Management Host System Requirements” on page 7](#)
- [“Supported Platforms for the Remote Scripting CLI Client” on page 8](#)
- [“Supported Web Browsers” on page 8](#)
- [“Supported Languages” on page 9](#)

## Supported Arrays

Common Array Manager software supports the following Sun storage systems:

- Sun StorEdge 6130 Array
- Sun StorageTek 6140 Array
- Sun StorageTek 6540 Array

# Supported Platforms

The management software runs on the platforms described in [TABLE 4](#).

**TABLE 4** Management Host Platforms

<b>Platform</b>	<b>Operating System</b>
SPARC server or workstation	Solaris 8 OS 4/01 Solaris 9 OS 8/03 Solaris OS 10
Windows Servers	Windows 2000 with Service Pack 4 or higher Windows 2003 with Service Pack 1 or higher Windows XP Pro with Service Pack 2 or higher*
x64 computer	Red Hat Enterprise Linux AS Release 4 SuSE Linux 10
x86 computer	Solaris OS 10

\* Windows XP Home is NOT supported.

# Management Host System Requirements

The management host on which the management software resides must meet the system requirements described in [TABLE 5](#).

**TABLE 5** Management Host System Requirements

Host System Feature	Requirement
Platform and Operating system (OS)	SPARC server or workstation or Solaris x86 running one of the following: <ul style="list-style-type: none"><li>• Solaris 8 OS 4/01</li><li>• Solaris 9 OS 8/03</li><li>• Solaris OS 10</li></ul> Windows servers with 800 MBytes on system drive running one of the following: <ul style="list-style-type: none"><li>• Windows 2000 with Service Pack 4 or higher</li><li>• Windows 2003 with Service Pack 1 or higher</li><li>• Windows XP with Service Pack 2 or higher</li></ul> x64 computer running one of the following Linux versions: <ul style="list-style-type: none"><li>• Red Hat Enterprise AS Release 3 and Release 4 update 2 or higher</li><li>• SuSE Linux 10</li></ul>
Disk space	555 Mbytes (Solaris); 530 Mbytes (Windows) (see complete list of disk space requirements in <a href="#">“File Space Requirements”</a> on page 10).
CPU	Solaris: UltraSPARC 3 or better (750 Mhz) Windows: 1.5 Ghz PC
Minimum memory (2 arrays, 2 users)	512 MB shared memory

# Supported Platforms for the Remote Scripting CLI Client

The remote scripting CLI client sends commands to a management host, which in turn sends the commands to the array. [TABLE 6](#) lists remote platforms that can run the CLI client.

**TABLE 6** Remote CLI Client Platforms

<b>OS</b>	<b>Version</b>
Solaris 8 SPARC	4/01
Solaris 9 SPARC	8/03
Solaris 10 SPARC	any
Solaris 10 x86	any
Windows 2000 Server	Server (SP4) and Advanced Server (SP4)
Windows Server 2003	Standard/Web/ Enterprise Edition; SP2
Windows XP	SP1
Red Hat Linux	3, 4
SuSE Linux	10
IBM AIX	5.2, 5.3
HP-UX	B.11.23, B.11.11

# Supported Web Browsers

The Sun StorageTek Common Array Manager software supports the web browsers listed in [TABLE 7](#).

**TABLE 7** Supported Web Browsers

<b>Browser</b>	<b>Minimum Version</b>
Netscape Navigator	6.2
Mozilla	1.4
Firefox	1.0
Microsoft Internet Explorer	5.5

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**Note** – The software requires that you enable pop-up windows in your web browser.

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**Note** – On some browser configurations, if the Proxy setting is not disabled, the browser may appear to hang, time out, or generate incorrect error messages. To avoid these potential problems, specify No Proxy for the Common Array Manager host. On some browsers, you do this by going to Preferences>Advanced>Proxies and add the CAM management host hostname to the “No Proxy for:” section.

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## Supported Languages

The browser user interface for the Sun StorageTek Common Array Manager is available in:

For Solaris and Linux:

- English
- Simplified Chinese
- Japanese
- French

For Windows:

- English

The command line interface, online help, and the man pages are available in:

- English

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## Installing Packages and Patches

The array installation procedures are described in the *Sun StorageTek Common Array Manager Software Installation Guide* (part number 820-0213-nn). This section describes release-specific steps for firmware and management software patch upgrades that you must perform:

- [“Before You Begin” on page 10](#)
- [“File Space Requirements” on page 10](#)
- [“Installing and Upgrading Common Array Manager Software” on page 11](#)

- [“Upgrading Firmware” on page 12](#)
- [“Upgrading Firmware for Adding Expansion Trays” on page 12](#)

## Before You Begin

The Sun management software is distributed on the Sun StorageTek Common Array Manager Software CD. The installation script on that CD verifies host requirements. In particular, it ensures that there are at least 550 Mbytes of disk space available before starting the installation script. Be sure to do the following before performing the upgrade:

- Verify that you have license certificates for all premium features, including storage domains. You must have licenses to use premium features.
- Read the upgrade instructions completely.
- Use the upgrade program on the Sun StorageTek Common Array Manager Software CD or downloaded from the Sun Download Center:  
<http://www.sun.com/download/>  
(look for Systems Administration>Storage Management).
- Log in as `root` (Solaris and Linux) or as a user with administrator privilege (Windows) on the management host.

Should an installation failure occur, be sure to check the available disk space again. Then consult the system log for more information.

Solaris: `/var/sadm/install/se6000/se6000_Host_SW.log`

Linux: `/var/opt/cam`

Windows: `\Program Files\Common Files\Sun Microsystems\se6000`

If a requirement is not met, the script informs you and then cleans up afterward, where appropriate. The script prompts you for input or fails and exits if it detects any of the following in the system:

- Pre-installed versions of the Sun Storage Automated Diagnostic Environment, or the `sscs` CLI
- Unsupported versions of operating systems or software
- Insufficient disk space

## File Space Requirements

The total size of the installation files is approximately 555 Mbytes when the files are extracted from the CD or download file. The management host software requires 530 MBytes on a Windows platform or the following available space for successful installation on Solaris:



- root – 5 Mbytes
- /tmp – 110 Mbytes
- /usr – 15 Mbytes
- /var – 145 Mbytes
- /opt – 280 Mbytes

On a Linux platform this is:

- root – 5 Mbytes
- /tmp – 120 Mbytes
- /usr – 140 Mbytes
- /var – 95 Mbytes
- /opt – 300 Mbytes

## Installing and Upgrading Common Array Manager Software

If you are installing the array and the management software, follow the entire installation and configuration procedure described in the *Sun StorageTek Common Array Manager Software Installation Guide*.

After the initial installation and configuration, you will be able to upgrade the management software and firmware with each release.

When you run the RunMe wizard, it will search for earlier versions and determine if a new installation or an upgrade is necessary. If the script detects that there is no earlier version installed, it will perform a complete new installation. The procedures for upgrading the array manager software are the same as those for installing the software, as described in the Sun StorageTek Common Array Manager Software Installation Guide. When performing an upgrade, it is not necessary to uninstall the existing software. The installer also installs the firmware update bundle on the host server. To upgrade the firmware on the array, see [“To Upgrade the Array Firmware” on page 12](#).

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**Note** – On Linux and 64-bit Windows 2003 platforms, you must remove previous Common Array Manager 5.1 versions and perform a clean install of 5.1.0.11. See [“Cannot Upgrade From 5.1.0.10 to 5.1.0.11 on Linux and Windows; Clean Install Required” on page 17](#).

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# Upgrading Firmware

Upgrade the firmware on the arrays after you install the Common Array Manager software on the management host. If you are adding new expansion trays, upgrade the firmware on the existing trays before you add the new trays to the array. See [“Upgrading Firmware for Adding Expansion Trays”](#) on page 12.

## ▼ To Upgrade the Array Firmware

This procedure downloads the firmware binary on the management host to the array and upgrades the firmware running in the array. It is not necessary to uninstall the existing firmware. You can also upgrade firmware from the management software.

1. **On the Java Web Console page, click Sun StorageTek Common Array Manager.**
2. **Go to the Storage System Summary page and select the arrays to be upgraded.**
3. **Click the Upgrade Firmware button.**
4. **Follow the prompts.**

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**Note** – An upgrade will fail for an array in a degraded state.

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# Upgrading Firmware for Adding Expansion Trays

Before you cable a newly supported expansion tray to an array, you must upgrade the existing controller and trays to Controller Firmware 06.19.xx.xx. If you want to add an existing expansion tray to a new array, it is also safest to install the new controller and trays first, complete the upgrade, add the existing expansion tray, and then upgrade the whole array again.

## ▼ To Upgrade Firmware for Additional Expansion Trays

For adding trays to arrays managed by Sun StorageTek Common Array Manager Software:

1. **Do not cable the additional expansion tray.**
2. **Install Release 5.1 or later following the standard installation procedure.**

There are separate procedures for Solaris, Windows, and Linux management hosts. The software update places a copy of the latest firmware on the management software server.

3. **Register the array, if needed.**

#### 4. Upgrade the array.

The upgrade function is available as part of the Registration procedure or in the Sun StorageTek Common Array Manager software. The software prompts you if the array needs to update its firmware.

#### 5. Accept the upgrade.

The firmware is installed on the array.

#### 6. Use Service Advisor to cable the new expansion tray and add it to the array.

#### 7. Upgrade the array again to update the firmware on the new tray.

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## Known Issues

The following sections provide information about known issues and bugs filed against this product release:

- [“Common Array Manager-Specific Issues” on page 13](#)
- [“Installation Issues” on page 17](#)
- [“Solaris OS 10 Issues” on page 18](#)
- [“Storage Configuration Issues” on page 19](#)
- [“Firmware Issues” on page 19](#)
- [“Documentation Issues” on page 21](#)
- [“Localization Issues” on page 22](#)

If a recommended workaround is available for a bug, it follows the bug description.

## Common Array Manager-Specific Issues

### *Common Array Manager Cannot Distinguish Tray Types in Mixed Tray Configurations*

**Bug 6523157** – Common Array Manager does not distinguish between tray types. Now that it supports mixed tray type configurations, the Tray Summary/Details page needs to indicate the tray type of each tray.

**Workaround** – In mixed tray configurations, a user wishing to create a new VDisk spanning trays of different types should do as follows:

1. Use the manual creation mode in the volume creation wizard.
2. Instead of entering a number of disks, manually select the disks.

### *Job Completion and Elapsed Time Estimates Are Not Updating*

**Bug 6522922** – Job completion and elapsed time estimates are not updating during unmapping operations.

### *Volume Copy Job Stops at 90% When Volume is Degraded*

**Bug 6522808** – The Volume Copy job stops at 90% if the source volume is in the Degraded state.

### *Incorrect Message Shown When Unmapping Volumes Through Host and Hostgroup Details Page*

**Bug 6521739** – When a user tries to unmap the volumes from a Host or Hostgroup Details page, the message displayed afterward is “The selected objects were deleted”. The correct message should be “All selected volumes/snapshots have been unmapped”.

### *Navigation Pane Not Updated with Addition/Removal of Arrays*

**Bug 6521695** – The Common Array Manager navigation pane (left-side pane) sometimes fails to update when an array is added or removed.

**Workaround** – Reload the page by clicking on the Reload button on the browser.

### *Common Array Manager Unable to Map Volumes to Default Storage Domain When Multiple Volumes are Selected*

**Bug 6505546** – When multiple volumes are selected from the Volume Summary, the Common Array Manager is not able to map them to the default storage domain.

**Workaround** – If you are unable to map all of the volumes in one command, map them one at a time.

### *Common Array Manager Incorrectly Reports the Array Password is Valid*

**Bug 6441062** – At certain points in the upgrade during the registration process, the wizard reports an invalid password as valid. This can be confusing later on when the operation fails.

**Workaround** – Re-attempting the upgrade after it is registered will correctly report the invalidity of the password.

### *Unable to Change Volume Permissions From Read Only to Read/Write Via CLI*

**Bug 6504473** – While mapping to a host or host group, permission to a volume remains set to Read/Write even if set to readonly by the `sscs map volume` command.

**Workaround** – Change the permissions using the browser user interface.

### *Able to Create Unlicensed Host Groups*

**Bug 6486712** – If the Storage Domains license is disabled the user can still create Host groups. They will be unable to map to them and get an error message when they try.

**Workaround** – The license must be added for mapping.

### *Register Storage System Scan Stops at 99%*

**Bug 6475717** – On subnets with many arrays the registration wizard may time out when scanning the subnet.

**Workaround** – Remove any "web proxy" from the browser settings, or register arrays via IPs.

### *Remove and Upgrade Buttons Highlighted, When No Array Selected*

**Bug 6438016** – Both the Remove and Upgrade buttons on the Storage Systems Summary page are highlighted, even when no array is selected. This issue occurs only on Mozilla 1.7 browsers.

**Workaround** – There are no adverse effects of having these buttons enabled with no array selected.

## *Problems with Help Window*

**Bug 6356119** – When a user first logs into Common Array Manager and opens a help window, unexpected behavior occurs with the main application session: the main pane displays the Java Web Console app menu screen, instead of the proper page. Clicking on another node in the tree opens a new main window.

**Workaround** – Once the problem happens, return to the console and reenter the app. At this point, the help window will not interfere with the session. It only happens initially when first logging in the app and opening the help window.

## *Zh Locale Installation Result Page Shows Garbled Characters*

**Bug 6444324** – In the zh (Chinese) locale, when an installation is finished the results page shows garbled characters.

## *Repeat Notifications Of Battery Removal/Failure*

**Bug 6419579** – When a battery fails or is removed, the problem is reported multiple times in both alarms and email notifications.

## *Addition and Removal of Initiators From Zones in Fabric Are Not Dynamically Detected*

**Bug 6329784** - When an initiator is added or removed from a zone in a fabric, the Configuration Service software does not dynamically detect the change. The WWNs of initiators newly added to the SAN are not displayed.

**Workaround** – If the WWN of a new initiator is not in the drop-down list on the New initiator page, try creating the initiator by manually entering the new WWN. This will force the page to refresh. When you create another new initiator, the WWN will be in the list.

## *Help Button Interferes With Session*

**Bug 6356119** - The first time the online help window is displayed, the application might log you out.

**Workaround** - Re-enter the application from the main Java Web Console page.

### *Volumes Associated With Bypassed Drives Are Displayed as Missing*

**Bug 6371462** - The switch setting 2 Gbits/sec or 4 Gbits/sec applies to the speed of the internal FC data path to disk drives. When a 2-Gbits/sec drive is set to 4 Gbits/sec, the drive enters a status of Bypassed.

Volumes on Bypassed drives are marked as Missing and lose their pool assignments. They are displayed on a separate Ghost Volumes list, with minimal info available.

### *Following Login Timeout, The Login Page Is Redirected Into The Browser Main Frame*

**Bug 6413457** - If two browsers are open and one user logs out, when the other user initiates any action in the browser, the login page is displayed in the browser's main content frame instead of on its own page. This has also been seen to happen with single user login time outs. This requires the user to relaunch the application.

**Workaround:** Click on the Console button in the masthead (the top frame of the browser). The browser redisplay the web console page, where you must click on the management software link to relaunch the application.

### *Right-Clicking To Open A Component Causes Errors*

**Bug 6429827** - Right- clicking on a component to open a new window causes system errors in some cases, and displays the wrong pages for some others. In some cases, the correct page displays.

**Workaround** - The right-click and open page in new window or tab function is not supported. Do not use the right-click function.

## Installation Issues

This section describes issues related to Common Array Manager installation.

### *Cannot Upgrade From 5.1.0.10 to 5.1.0.11 on Linux and Windows; Clean Install Required*

**Bug 6527565** – On Linux and 64-bit Windows 2003 platforms, Common Array Manager cannot be upgraded from 5.1.0.10 to 5.1.0.11.

**Workaround** – On these platforms it is necessary to remove (uninstall) 5.1.0.10 first, then do a clean reinstall of 5.1.0.11.

## *Registration Page Displays Upon Initial Installation*

When you install the Common Array Manager software for the first time, upon logging into the browser user interface, a registration page will display. Fill out the information before continuing.

## *Windows Firewalls*

To set up a firewall on a Windows management host, after the installation is complete you must allow an exception for port 6789. Common Array Manager will not work through a firewall without this. Some firewall programs prompt for your agreement to allow new programs to communicate through the firewall, and set the port for you. Refer to your firewall documentation for instructions on how to open a port through the firewall.

## *Admin Name With Space Characters Causes Error*

**Bug 6458282** – If the installer is run by a Windows admin user with a space character in the user name, when any user tries to log in there will be a system error and the login will fail.

**Workaround** – The installer must be run by an administrative user without space characters in the user name.

## **Solaris OS 10 Issues**

This section describes issues related to Solaris OS 10 incompatibilities.

### *Java Console Cannot Upgrade on (Early) Solaris 10*

**Bug 6442868** - Common Array Manager cannot be installed in a non-global zone on early versions of Solaris 10 when the Java Console needs to be upgraded, because the Java Console cannot upgrade as part of the CAM installation (Java Console requires installation in a global zone).

**Workaround** - Common Array Manager now supports Java Console 3.x. In Solaris 10 Update 3, Java Console is pre-installed. In earlier Solaris 10 versions, perform an upgrade of the Java Console to 3.0 or later in a global zone before installing the Common Array Manager. The Java Console 3.0 packages can be accessed from the extracted CAM distribution under  
`/var/opt/CommonArrayManager/Host_Software_5.1.0.xx/components/lockhartSo`



laris. Use the setup script under lockhartSolaris (**not** the Common Array Manager installer setup script) to install the core packages. The localization packages need to be installed manually.

## Storage Configuration Issues

This section describes known issues and bugs related to storage configuration.

### *Modifying the “Disk Scrubbing With Redundancy Enabled” Parameter Does Not Work*

**Bug 6408489** - When you use the software to set the Disk Scrubbing With Redundancy Enabled parameter from True to False while the Disk Scrubbing Enabled parameter is set to False, the page reports success, but the value of Disk Scrubbing Enabled remains False. When you make this change using the CLI, the prompt returns without a message, but the disk scrubbing setting remains the same as it was.

### *Array Locking Is Not Global*

**Bugs 6246249, 6335727** - When multiple management stations are accessing the array, there is no reservation message to inform the users that the array is locked, and there is no notice of reserving a host for maintenance.

**Workaround** - Inform users of other management stations that may be accessing the same array of pending array operations, to prevent attempts at making configuration changes from a different host.

## Firmware Issues

### *System Restarts when IOM Canister is Reinserted*

**Bug 6518063** - When replacing an IOM unit after removing it earlier, the unit will will subsequently beep and restart the array.

**Workaround** – Remove the IOM and reinsert it.

### *When Reinserting Two Drives, Only One Rebuilds*

**Bug 6502481** - Reinserting two drives into two critical LUN will cause the system to rebuild only one of the LUNs. The other LUN will stay in the critical/degraded state.

### *LUN Map/Unmap or AVT Event causes Host Side FC Bus to Reset*

**Bug 6518942** - Whenever a LUN is mapped or unmapped and also when an AVT event occurs, the controllers host ports can reset the bus after the events occur. This occurs no matter how many volumes are already mapped to a host.

### *Failure or Replacement of PSU in CSM200 Tray Isn't Logged*

**Bug 6509206** - When there is a power failure or a replacement of a power supply in a CSM200 tray, the event is not logged in syslog nor is there an email notice of the failure or replacement.

### *Amber LED's Will Not Signal an Over Temp Alarm on 6140*

**Bug 6490889** - When there is an over temperature alarm signaling on a 6140 array, there should be tray fault LED's shown. However, the tray fault LED's will not turn on, thus giving no visual signal of the over temperature alarm.

### *Problem Reconciling LUNS When Initiators are Assigned to Hosts on an Array*

**Bug 6503637** - MPP is only able to reconcile 2 out of the 4 LUNs when 4 initiators are assigned to 2 hosts on the same array.

**Workaround** -

1. **Assign all 4 initiators to just one host.**
2. **Assign different LUN numbers to the volumes from each host.**
3. **Assign both hosts to a host group then map the volumes to that host group.**

### *Incorrect Sending of Email Error Saying Filesystem is Full*

**Bug 6517078** - The user gets an email message stating a log of a critical error that the filesystem is full. This message is sent in error because the filesystem is not full.

### *Problems Restoring LUN Paths with a CSM200 Expansion Tray Behind a 6130 Controller*

**Bug 6520741**- Can not restore LUN paths after removing controller B and reinserting it. An empty (ghost) LUN appears.

**Workaround** - This condition requires a service call.

### *LUN Remains in Degraded State after Reinserting Multiple Drives*

**Bug 6502481** – Removing multiple hotspare drives from a CSM200 tray and reinserting them can result in one drive causing its LUN to remain in a degraded state.

### *The I/O fails on the 6130 array with multiple volume mappings to the host*

**Bug 6486677**- When creating another volume on the 6130 and mapping it to the host instead of the host group, the I/O terminates with errors.

**Workaround:** Map volume to corresponding host group instead of the host itself.

## Documentation Issues

The current Getting Started Guides for the 6130 and 6140 arrays contain software installation instructions that are superseded by the *Sun StorageTek Common Array Manager Software Installation Guide*. Installation of array hardware is now covered in Hardware Installation Guides for these arrays. Refer to the *Sun StorageTek Common Array Manager Software Installation Guide* for information about Common Array Manager software installation and logging into the browser interface and sscs CLI man pages.

### *Profile Segment Size Mentioned in Help Not Available*

**Bug 6442690** – The Common Array Manager online help for creating a profile mentions a segment size option of 8 kb. The 8k segment size is not available, since it was removed from the product due to other issues.

## *Domains and Premium Features*

The Common Array Manager online help refers to a default of 8 domains for 6140 and 6540 arrays. These arrays have only one default domain each, and it is not a storage domain. Normally storage domains are pre-purchased and installed at the factory with the array. Storage domains can be purchased in the following allotments:

- 6140-2Gb: 4/8/16 domains
- 6140-4Gb: 4/8/16/64 domains
- 6540: 4/8/16/64 domains

Storage domains and other premium features require *licenses*. You can purchase additional domain and premium feature licenses at any time from your Sun Sales office.

## Localization Issues

This section describes known issues and bugs related to localization.

### *Common Array Manager Installation Fails on Localized Version of Windows*

**Bug 6498568** – Common Array Manager can not be installed on any non-English, fully localized version of Windows. It can be installed only on English base versions of Windows that have language packs.

### *Java Web Console Not Localized on Windows*

**Bug 6442523** – There are no localized versions of Java Web Console installable on Windows. Therefore a localized version of Common Array Manager cannot be enabled on a Windows server.

**Workaround** – Use the English version of the product on a Windows server.

### *Non-ASCII Characters Not Supported in CLI Commands*

**Bug 6447044** – Non-ASCII characters are not supported in CLI commands.

**Workaround** – Use ASCII characters only in CLI applications and for array and volume names. Also, the CLI does not support double-byte character set array data, such as Korean. In cases such as this, use the browser user interface.

### *SuSE Linux Displays Chinese Characters as Square*

**Bug 6495952** – SuSe Linux displays square for Chinese characters when installing the CAM 5.1 software. The same problem occurs on the pie charts after installation.

**Workaround** – Use Red Hat linux on server for Chinese or Japanese locale. There is no Java Asian support on SuSE linux.

### *Characters Appear as Squares When Locale is English*

**Bug 6516766** – Localized characters are displayed as small squares on the pie charts when server locale is English.

**Workaround** – Use the supported locale for server.

### *Service Advisor Files Only Partially Translated*

**Bug 6520459** – Service advisor files are partially translated for release 5.1.

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## Operational Information

This section provides useful operational information not documented elsewhere.

### *Firefox And Mozilla Browsers Share Session Information*

Firefox and Mozilla browsers on the same machine share session information among multiple tabs or browser windows when pointed to the Common Array Manager URL. For example, if you log in to Common Array Manager and then open another browser instance or tab pointed to the same URL, you access it through the same user session and you do not have to log in again. The Current Logins field in the Common Array Manager does not increment to include the new window as another login.

If you require a different user session, you must define a different profile or log in from a different machine. This does not happen with Microsoft Internet Explorer browsers, so you could also open a new session that way.

## *When Performing an Array Import Using The CLI, Do Not Modify Management Objects*

If you create management objects while an “import array” job is running, it might interfere with the import. Be sure that everyone who uses the destination array does not modify or create any objects (including volumes, initiators, mappings, and so on) while the import is in progress.

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## Release Documentation

Following is a list of documents related to the Sun StorageTek Common Array Manager. For any document number with *nn* as a version suffix, use the most current version available.

<b>Application</b>	<b>Title</b>	<b>Part Number</b>
CLI command reference	<i>Sun StorageTek Common Array Manager sscs (1M) CLI Quick Reference</i>	820-0029- <i>nn</i>
Installation and initial configuration instructions	<i>Sun StorageTek Common Array Manager Software Installation Guide</i>	820-0213- <i>nn</i>

In addition, the Common Array Manager software includes online help and man pages for CLI commands.

For array hardware information, refer to the array’s release notes and hardware installation guide.

You can search for this documentation online at <http://www.sun.com/documentation>.

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## Firmware Files

This section lists the firmware files included in the Common Array Manager 5.1, by array type.

The firmware files are named as follows:

- CRM-F/ contains controller firmware
- CRM-F-NVSRAM/ contains controller non-volatile system random access memory (NVSRAM)

- IOM/ contains the FC switched bunch of disks (SBOD) input/output module (IOM) firmware
- DISK/ contains disk drive firmware

Firmware file directories each contain a link, `image.fw`, that points to the firmware image, as well as a text file, `baseline.txt`, that contains the version of the firmware image.

[TABLE 8](#) lists the firmware files for the StorEdge 6130 Array included in this release. These files are located in `/var/sadm/swimages/6130`.

**TABLE 8** 6130 Array and Disk Firmware

Type	Version
CRM-F-NVSRAM	N2882-619843-001
CRM-F	06.19.25.10
DISK/HDS7240SBSUN400G	KFAOAC7A
DISK/HDS7250SASUN500G	0604
DISK/HUS1014FASUN146G	2A08
DISK/HUS1073FASUN72G	2A08
DISK/MAT3073FSUN72G	1403
DISK/MAT3147FSUN146G	1403
DISK/MAT3300FSUN300G	1403
DISK/MAW3147FCSUN146G	1303
DISK/MAW3073FCSUN72G	1303
DISK/MAW3300FCSUN300G	1303
DISK/ST314680FSUN146G	0407
DISK/ST373307FSUN72G	0407
DISK/ST373453FSUN72G	0449
DISK/ST314670FSUN146G	055A
DISK/ST314685FSUN146G	042D
DISK/ST314695FSUN146G	0409
DISK/ST330000FSUN300G	055A
DISK/ST373207FSUN72G	055A
DISK/ST373454FSUN72G	042D
DISK/ST373554FSUN72G	0409

**TABLE 8** 6130 Array and Disk Firmware (*Continued*)

Type	Version
IOM	9884
IOM-F	9643
IOM-S	9726

**TABLE 9** lists the firmware files for the StorageTek 6140 Array included in this release. These files are located in `/var/sadm/swimages/6140`.

**TABLE 9** 6140 Array and Disk Firmware

Type	Version
CRM-F-NVSRAM	N399X-619843-004
CRM-F	06.19.25.10
DISK/HDS7240SBSUN400G	KFAOAC7A
DISK/HDS7250SBSUN500G	0604
DISK/HUS1014FASUN146G	2A08
DISK/HUS1073FASUN72G	2A08
DISK/MAT3073FSUN72G	1403
DISK/MAT3147FSUN146G	1403
DISK/MAT3300FSUN300G	1403
DISK/MAW3073FCSUN72G	1303
DISK/MAW3300FCSUN300G	1303
DISK/MAW3147FCSUN146G	1303
DISK/ST314680FSUN146G	0407
DISK/ST373307FSUN72G	0407
DISK/ST373453FSUN72G	0449
DISK/ST314670FSUN146G	055A
DISK/ST314685FSUN146G	042D
DISK/ST314695FSUN146G	0409
DISK/ST330000FSUN300G	055A
DISK/ST373207FSUN72G	055A
DISK/ST373454FSUN72G	042D
DISK/ST373554FSUN72G	0409



**TABLE 9** 6140 Array and Disk Firmware (Continued)

Type	Version
IOM	9884
IOM-F	9643
IOM-S	9726

**TABLE 10** lists the firmware files for the StorageTek 6540 Array included in this release. These files are located in `/var/sadm/swimages/6540`.

**TABLE 10** 6540 Array and Disk Firmware

Type	Version
CRM-F-NVSRAM	N6091-619843-002
CRM-F	06.19.25.10
DISK/HDS7240SBSUN400G	KFAOAC7A
DISK/HDS7250SBSUN500G	0604
DISK/HUS1014FASUN146G	2A08
DISK/HUS1073FASUN72G	2A08
DISK/MAT3073FSUN72G	1403
DISK/MAT3147FSUN146G	1403
DISK/MAT3300FSUN300G	1403
DISK/MAW3073FCSUN72G	1303
DISK/MAW3147FCSUN146G	1303
DISK/MAW3300FCSUN300G	1303
DISK/ST314680FSUN146G	0407
DISK/ST373307FSUN72G	0407
DISK/ST373453FSUN72G	0449
DISK/ST314670FSUN146G	055A
DISK/ST314685FSUN146G	042D
DISK/ST314695FSUN146G	0409
DISK/ST330000FSUN300G	055A
DISK/ST373207FSUN72G	055A
DISK/ST373454FSUN72G	042D
DISK/ST373554FSUN72G	0409

**TABLE 10** 6540 Array and Disk Firmware (*Continued*)

Type	Version
IOM	9884
IOM-F	9643
IOM-S	9726

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## Service Contact Information

If you need help installing or using this product, go to:

<http://www.sun.com/service/contacting>

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## Third-Party Web Sites

Sun is not responsible for the availability of third-party web sites mentioned in this document. Sun does not endorse and is not responsible or liable for any content, advertising, products, or other materials that are available on or through such sites or resources. Sun will not be responsible or liable for any actual or alleged damage or loss caused by or in connection with the use of or reliance on any such content, goods, or services that are available on or through such sites or resources.

## Adding User Roles to Windows

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This appendix provides the information you need to create users in Windows and assign them to groups for privileges. The created users can sign into the Java Web Console to access the Sun StorageTek Common Array Manager software.

This appendix contains the following section:

- [“Adding an Administrator User” on page 29](#)
- [“Adding New Users” on page 32](#)

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### Adding an Administrator User

The Sun StorageTek Common Array Manager software needs a user with Windows administrative privileges to be available for the initial installation.

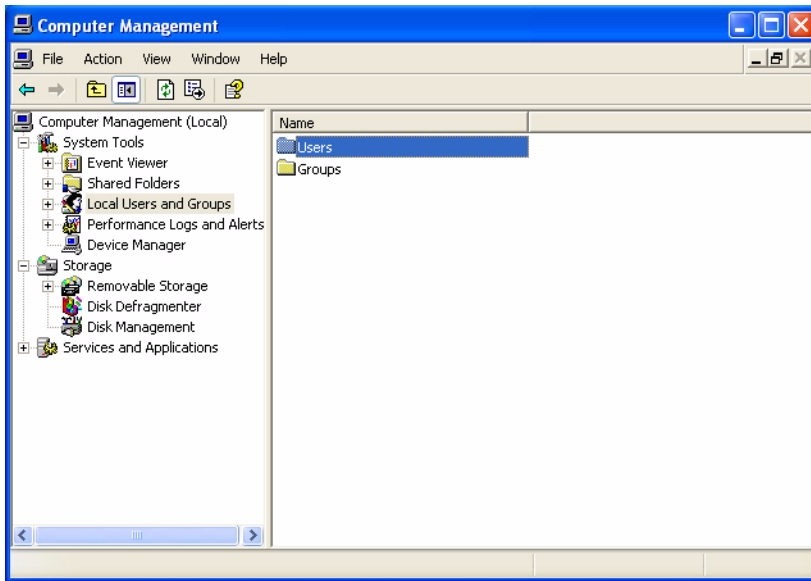
These instructions show you an example of how to configure a administrative user in standard Windows XP. Other versions of Windows software may vary slightly. Consult the Windows documentation.

This example sets up a root user with Windows administrator privileges. Normally root is a role associated with Unix. By using the root user concept with Windows you can have a common storage administrator’s role across platforms.

- 1. Click Start and select Administrative Tools -> Computer Management.**

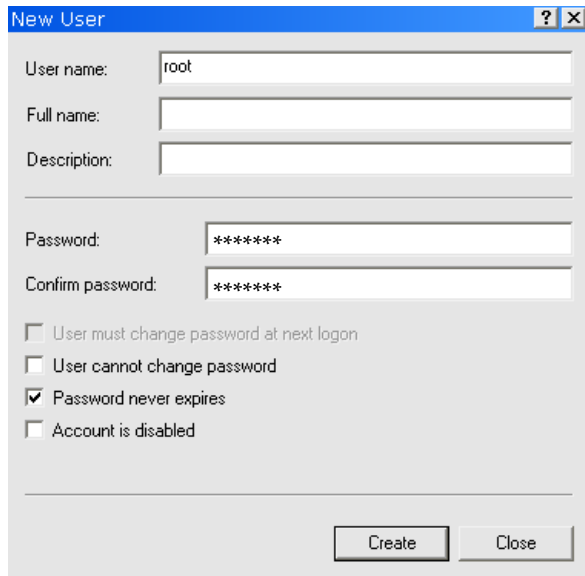
The Computer Management window displays.

2. In the Computer Management window, select Local Users and Groups -> Users.



3. Right click and select New User.

The New User window displays.



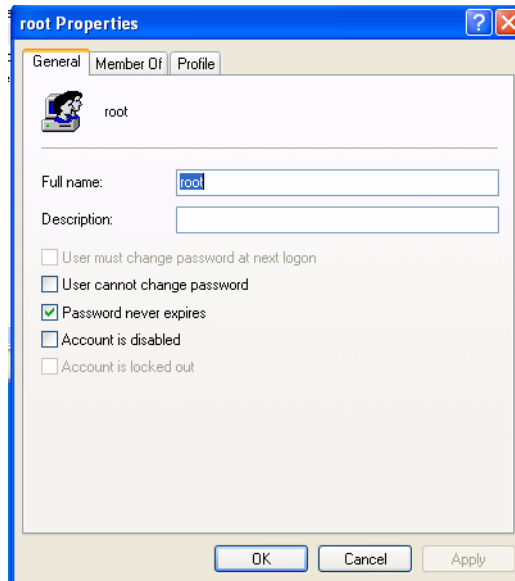
**4. Complete the New User window as follows:**

- a. Enter `root` in the User name box.
- b. Create a password and confirm it.
- c. Uncheck the box labeled **User must change password at next logon**.
- d. Check **Password never expires**.
- e. Click **Create**.

The Computer Management window displays.

- f. Select **Users**, right click on `root`, and select **Properties**.

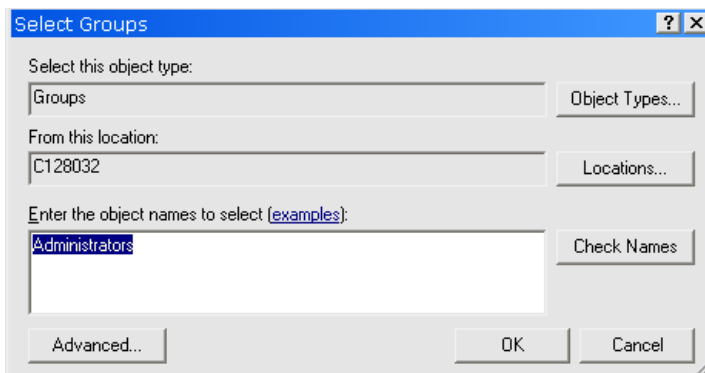
The Root Properties window displays.



**5. Select the Member Of tab.**

**6. Select Add.**

The Select Groups window displays.



7. In the Enter the object names box, type Administrators and click Check Names.

The system displays the *computer-name*\Administrator group in the box labeled “Enter the object names to select”.

8. Click OK.

The root Properties window shows that root is a member of the Users and Administrators groups. The root user now has Windows Administrator privileges.

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**Note** – To maintain security on the server running the management host software, only use the root user name and password the first time you log in. After the first login, create at least one user and assign it to the storage group. The storage role can perform all available management functions, including adding or modifying users.

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## Adding New Users

You will need a *storage* user and other users in Windows. To set up subsequent users, follow the same steps as “[Adding an Administrator User](#)” on page 29, but substitute a *user name* for *root* and *storage* for the Administrator role.

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**Note** – Do not create Windows administrator users with space characters in the user name. Space characters in Windows admin user names can cause system errors later on.

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When done, check the *user* Properties window and Member of tab to verify that the user is assigned to the Users and storage groups.

