Sun StorageTek™ Common Array Manager CLI Guide

Release 6.2.0

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Contents

Preface

The *Sun StorageTek Common Array Manager CLI Guide* describes the commands in the `sscs` CLI. Consult the hardware installation guide for your array for information about the initial physical installation of an array.

Related Documentation

Application	Title	Part Number
Software installation information	*Sun StorageTek Common Array Manager Software Installation Guide*	820-5747-*xx*
Late-breaking information not included in the information set	*Sun StorageTek Common Array Manager Software Release Notes*	820-5749-*xx*
	Release Notes for your array hardware	Various

In addition, the Sun StorageTek Common Array Manager includes the following online documentation:

- Sun StorageTek Common Array Manager online help

  Contains system overview and configuration information.

- Service Advisor

  Provides guided, FRU-replacement procedures with system feedback for all arrays. You can access Service Advisor from the Sun StorageTek Common Array Manager software.

- `sscs` man page commands

  Provides help on man page commands available on a management host or on a remote CLI client.

- Documentation for other supported arrays

  All other arrays supported by the software share a common documentation set.

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Sun StorageTek Common Array Manager CLI Guide, Version 6.2.0, part number 820-5748-10.

CHAPTER 1

Overview

This chapter provides an overview of the `sscs` administration command for Sun StorageTek and Sun Storage arrays. It contains the following sections:

Overview of the `sscs` Command

The **sscs** command line interface (CLI) enables you to manage and monitor disk arrays. The CLI can be installed on a local data host or a remote management host.

Local CLI directory location:

- Solaris: /opt/SUNWstkcam/bin/sscs
- Linux: /opt/sun/cam/bin/sscs
- Windows: Program Files > Sun > Common Array Manager > bin folder

Remote CLI directory location:

- Solaris: /opt/SUNWsesscs/cli/bin/sscs
- Linux: /opt/sun/cam/se6x20/cli/bin/sscs
- Windows: Program Files > Sun > Common Array Manager > bin folder

Understanding Command Syntax

Type the `sscs` command with its options from a terminal command line. You can use only the indicated option or options for that subcommand. For a listing of commands and their options, refer to <<XREF to chapter 3 here>>

TABLE 1-1 describes the conventions that apply to the subcommands and variables:

TABLE 1-1 Syntax Conventions for sscs Commands

Convention	Description
Bold	Text in bold should be typed exactly as shown.
Italic	Text in italics is variable and should be replaced with the name or value used at your site. Multiple variables can be separated by a comma and, optionally, a space. **Note:** You cannot use a space alone. The following examples show the correct use of commas and spaces in lists: **`sscs list volume`** `TestVOL,fvm13311` **`sscs list volume`** `TestVol, fvm13311`
[ ] (square brackets)	Text in square brackets is optional.
| (vertical bar)	Text separated by a vertical bar is exclusive. Specify only one of the options.
{ } (braces)	Text inside braces is a required argument
Short and long names	The `sscs` command accepts short or long names for each option. Short name options require a single hyphen (-). Long name options require a double hyphen (--).
Special characters in names	Do not use spaces, commas, colons (:), or any of the following special characters: ? * ! @ % &

Note – Any characters that you enclose within quotation marks are acceptable for names.

Getting Help with Commands and Their Syntax

Use the **`--help`** command to view all available commands, subcommands and their syntax.

TABLE 1-2 describes how to use the **--help** command:

TABLE 1-2

Task	Command Syntax
Get help with command syntax	**sscs --help**
Display a command list specific to a specific array type	**sscs --help -a** <*array-type*> Command example: **sscs --help -a 2510** add create delete export fail ... revive service snapshoot unmap unregister
Display the subcommands available for a command for a specific array type	**sscs** <*subcommand*> **--help -a** <*array-type*> Command example: **sscs list --help -a j4200** Sample Command Output: alarm array date ... site storage-system userrole
Display a detailed option list for a command/subcommand pair for a specific array type	**sscs** <*subcommand*> **--help -a** <*array-type*> <*resource-type*> Command example: **sscs list --help -a j4200 alarm** Sample Command Output: list [-s|--severity <string>] [-f|--faultdevtype <string>] [-a|--advisor] [-S|--Summary] alarm [string[,string...]]

Logging In to the sscs Environment

If you are using the local CLI, no login is required; however, you must have root access in Solaris and Linux or administrator privileges in Windows.

A login is required if using the remote CLI. To log into the remote CLI, follow these steps:

1. **From a terminal window, log in to the management host where sscs resides.**
2. **Enter the following commands:**

```
# cd CLI_directory (Refer to "Overview of the sscs Command" on page 1
for directory information.
# ./sscs login -h localhost -u <user-name>
```

3. **Enter the password for your sscs user account.**

For a thorough description about logging into the sscs using the remote CLI, see the login command and all of its options, go to "login" on page 49

Exit Status Codes

Upon command completion, the sscs CLI reports the following exit status codes:

TABLE 1-3 Exit Status Codes

Exit Status Code	Description
0	Successful completion
15	Object not found error
25	Command parsing failure
30	Command validation error
50	Application error
75	System error
100	Nonspecific error

Command Quick Reference

There are two categories of CLI commands:

- Monitoring and General Administration Commands

  These commands are supported on all arrays supported by CAM, with only a few noted exceptions.

- Array Configuration Commands

  These commands are supported on only those arrays that have one or more RAID controllers.

For a complete listing of arrays supported by CAM, refer to the release notes.

Monitoring and General Administration Commands

The following table lists the commands used to monitor the array and perform general administration tasks. This table identifies the command name and provides basic syntax, a general command description, and identifies the page where you can find a detailed command description.

TABLE 1-4 Monitoring and General Administration Commands

Command	Description
add notification	Set up email or SNMP trap notification.
add registeredarray	Discovers an array or all arrays on the same subnet as the management host and registers them.
add userrole	Adds a user name to the user access list and defines the user privileges.
list alarm	Provides detailed information on a specified alarm or summary information on all alarms
list array	Lists detailed information about specified arrays or all array names.
list date	Lists the current date and time for the array in hours, minutes, and seconds. (Not supported by j450 and B6000 JBODs.)
list device	List the details of a device or the devices being monitored.
list devices	List an overview of a device or the devices being monitored.

TABLE 1-4 Monitoring and General Administration Commands

Command	Description
list disk	List the disk information on an array.
list event	Lists the Fault Management Service (FMS) event log information.
list firmware	Lists the firmware versions of the field-replaceable units (FRU) in this device
list fru	Lists the field-replaceable units (FRUs) in this device.
list jobs	Lists job IDs and status associated with the specified array and optionally specified job ID
list log	Lists the user-initiated actions performed for all registered arrays.
list mgmt-sw	Lists the management software application that you are logged into.
list notification	Lists the remote notification provider and its status.
list registeredarray	Lists registered array information
list storage-system	Lists detailed information about one or more arrays.
list site	Lists pertinent information on the site.
list userrole	Lists the user name and role defining the user's array privileges.
login	Log in to the **sscs** command-line interface (CLI).
logout	Logs out of the remote sscs command-line interface session.
modify agent	Modify the fault management agent parameters.
modify array	Modifies the name assigned to the array.
modify firmware	Modifies the firmware versions of the specified field-replaceable units (FRUs) of the specified array
modify mgmt-sw	Stores the specified storage system name for the session. This command is useful for repeated operations with an array.
modify registeredarray	Change the locally stored password for a registered array.
modify site	Modifies the site properties for this instance of CAM.
modify storage-system	Modifies the array information
modify userrole	Change the user role or the IP address from which the user can log in.
register storage-system	Registers a storage system with the host
register sun-connect	Registers CAM software and all monitored arrays with Auto Service Request (ASR).

TABLE 1-4 Monitoring and General Administration Commands

Command	Description
remove alarm	Removes the current alarms.
remove notification	Removes a local or remote notification.
remove registeredarray	Removes one or more arrays from the list of registered arrays.
remove userrole	Removes a user role assigned to a user name.
service	Perform service-related commands.

Array Configuration Commands

This section identifies the commands used to configure an array. This table identifies the command name and provides basic syntax, a general command description, and identifies the page where you can find a detailed command description.

TABLE 1-5 Array Configuration Commands

Command	Description
add hostgroup	Adds hosts to a host group.
add license	Adds a license to the specified array.
create host	Creates a storage host.
create hostgroup	Creates a storage host group.
create initiator	Creates an initiator.
create iscsi initiator	Creates an iSCSI initiator on a host.
create pool	Creates an empty storage pool on the array
create profile	Creates a storage profile on the array.
create repset	Creates a storage replication set using a peer World Wide Name or remote array name (not applicable to 2500 Series).
create snapshot	Creates a snapshot for the specified volume.
create vdisk	Creates a virtual disk.
create volume	Creates a volume within a specified pool.
create volume-copy	Creates a copy of the volume (not applicable to 2500 Series).
delete host	Deletes one or more hosts.
delete hostgroup	Deletes one or more host groups.
delete initiator	Deletes one or more initiators.

TABLE 1-5 Array Configuration Commands

Command	Description
delete iscsi-session	Deletes an iscsi-session
delete pool	Deletes one or more pools.
delete profile	Deletes one or more profiles.
delete repset	Deletes one or more replication sets (not applicable to 2500 Series).
delete snapshot	Deletes one or more snapshots.
delete vdisk	Deletes one or more named virtual disks.
delete volume	Deletes one or more named volumes.
delete volume-copy	Deletes a volume-copy (not applicable to 2500 Series).
disable snapshot	Disables one or more snapshots.
export array	Renders an extensible markup language (XML) representation of the array
export profile	Exports one or more profiles into an XML representation.
fail disk	Sets a disk to the failed state.
import array	Applies an array configuration file to the specified array.
import profile	Imports one or more profiles from a specified XML file.
initialize disk	Initializes a disk.
list controller	Lists configuration information for the specified controller
list fcport	Lists Fibre Channel port information for the controller of the specified array.
list host	Lists the host names and details for an individual host.
list hostgroup	Lists host group name and hosts for an individual host group.
list initiator	Lists the initiators and provides a description of each.
list iperformance	Displays iSCSI performance statistics for the 2510 array and enables you to define the type of iSCSI performance statistics to monitor.
list iscsi-port	Lists iSCSI ports.
list iscsi-session	Lists iSCSI sessions
list iscsi-target	Lists iSCSI target name configured for the specified array.
list license	Shows all licenses that are associated with the array, along with related licensing details (serial number, controller serial number, and further details)

TABLE 1-5 Array Configuration Commands

Command	Description
list mapping	Lists mappings for the array. You can filter the output by specifying the name of a storage domain, a host, or a host group.
list os-type	Shows all of the operating systems that are supported by the array. The values returned can be used in subsequent requests to create or modify initiators, or to modify the default host type of the array.
list performance	Shows detailed performance statistics. You can use the following options only if a single array is specified.
list pool	Lists storage pool information.
list profile	Lists the named storage profiles
list repset	Lists replication set information (not applicable to 2500 Series).
list sasport	Lists SAS port information.
list snapshot	Lists the specified snapshot or snapshots associated with this array.
list tray	Lists information about one or more storage trays in the array.
list vdisk	Lists virtual disk (vdisk) or virtual disks information associated with this array.
list volume	Lists volume information.
list volume-copy	Lists volume copy information. If neither the source volume nor the target volume is specified, a summary of all volume copies is listed. If the source volume or the target volume is specified, a detailed listing of each is generated.
map host	Maps one or more volumes and snapshots to a host. Any previous mappings for the given volumes and snapshots are removed.
map hostgroup	Maps one or more volumes and snapshots to a host group. Any previous mappings for the given volumes or snapshots are removed.
map initiator	Maps an initiator to a volume or snapshot. Any previous mappings for the given volumes or snapshots are removed.
map snapshot	Maps one or more snapshots to a host or host group. If no host or host group is specified, the snapshot or snapshots are mapped into the Default partition.
map volume	Maps one or more volumes to a host or host group. Any previous mappings for the given volume or volumes are removed.
modify array	Modifies the configuration of the specified array
modify controller	Modifies the controller settings.
modify date	Modifies the date on the array, allowing you to set the time on the array, or to synchronize the time with the management host (that is, setting the array's time to the management host's time.)

TABLE 1-5 Array Configuration Commands

Command	Description
modify disk	Specifies the disk role.
modify fcport	Modifies the Fibre Channel port settings on the specified array.
modify host	Modifies the host name.
modify hostgroup	Modifies the host group name.
modify initiator	Modifies an initiator.
modify iperformance	Modifies the settings for iSCSI performance data.
modify iscsi-port	Modifies an iSCSI port.
modify iscsi-target	Modifies an iSCSI target.
modify jobs	Cancels or prioritizes a running or outstanding job.
modify license	Activates replication set licenses (applicable to 2500 Series only when running firmware version 07.35.*nn.nn* or higher).
modify notification	Modifies notification options.
modify performance	Modifies settings for performance monitoring
modify pool	Modifies the name or description of the storage pool or the profile with which this pool is associated.
modify profile	Modifies a storage profile on the array.
modify repset	Modifies the mode, consistency group, or replication priority of the specified replication set (not applicable to 2500 Series).
modify snapshot	Modifies the specified snapshot
modify tray	Modifies information about one or more storage trays in the array.
modify vdisk	Specifies modifications to a virtual disk.
modify volume	Modifies any of a volume's attributes
modify volume-copy	Modifies a volume copy (not applicable to 2500 Series).
offline vdisk	Sets a virtual disk offline.
online vdisk	Sets a virtual disk online.
reconstruct disk	Initiates a disk reconstruction.
remove hostgroup	Removes one or more hosts from a host group.
remove license	Removes the replication set feature license from the specified array (not applicable to 2500 Series).
remove notification	Removes a local or remote notification provider.
reset array	Resets the specified array.
rreset controller	Resets the specified controller.

TABLE 1-5 Array Configuration Commands

Command	Description
resnap snapshot	Resnaps one or more existing snapshots.
revive disk	Attempts to bring a disk to the optimal state.
revive vdisk	Revives a virtual disk
service fail	Places a field-replaceable unit of an array into a failed state.
service locate	Turns on the drive, tray, or array locator LED.
service redistribute	Redistributes volumes back to their preferred owners.
service revive	Attempts to place the array controller or disk drive into the optimal state. This can create complications. Do not initiate this command without first consulting Sun Customer Service personnel.
snapshoot volume	Creates and manages snapshots.
unmap host	Unmaps one or more snapshots or volumes from a host.
unmap hostgroup	Unmaps one or more snapshots or volumes from a host group.
runmap initiator	Removes the mapping from one or more initiators to a volume or snapshot.
unmap snapshot	Removes the mapping from one or more snapshots to a host or hostgroup.
unmap volume	Unmaps one or more volumes from a host or host group.
unregister storage-system	Unregisters an array.
unregister sun-connection	Unregisters CAM software and all monitored arrays from Auto Service Request (ASR).
version	Shows the versions of software that you are running on this array and the client.

CHAPTER 2

Common Tasks

This chapter provides examples of how to perform a basic task using a series of CLI commands. This chapter contains the following sections:

Discovering Arrays

TABLE 2-1 identifies the sequence of CLI commands used when registering arrays with CAM.

TABLE 2-1 CLI Commands Used When Discovering Arrays

CLI Command	Description
sscs list storage-system	Lists the arrays that are already registered with CAM.
sscs register -d storage-system	Directs CAM to discover all available arrays.
sscs list storage-system	Lists all arrays registered, including the newly discovered arrays.
sscs unregister storage-system	Unregisters select arrays.

Command Sequence

1. **Identify the names of the arrays currently registered with CAM:**

```
sscs list storage-system
Array: Snoopy1
Array: Snoopy2
Array: Linus1
```

2. **Discover all arrays:**

```
sscs register -d storage-system
Name                Type Network Address Serial Number
------------------- ---- --------------- ----------------------
Snoopy1             6140 xx.xx.xx.103    SUN.xxxxx-00.xxxxxxxxxx
unlabeled           6140 xx.xx.xx.112    SUN.xxxxx-00.xxxxxxxxxx
Onyx                2540 xx.xx.xx.9      SUN.xxxxx-00.xxxxxxxxxx
Hal                 6140 xx.xx.xx.72     SUN.xxxxx-00.xxxxxxxxxx
Linus1              6140 xx.xx.xx.16     SUN.xxxxx-00.xxxxxxxxxx
Snoopy2             6140 xx.xx.xx.106    SUN.xxxxx-00.xxxxxxxxxx
Johnny5             6140 xx.xx.xx.67     SUN.xxxxx.
Pedro1              2540 xx.xx.xx.6      SUN.xxxxx-00.xxxxxxxxxx
```

3. **Unregister the array Onyx:**

```
sscs unregister storage-system Onyx
```

4. **Verify the list of registered arrays to ensure that Onyx is no longer registered:**

```
sscs list storage-system
Array: Snoopy1
Array: ulabeled
Array: Hal
Array: Linus1
Array: Snoopy2
Array: Johnny5
Array: Pedro1
```

Creating a Volume

TABLE 2-2 identifies the sequence of CLI commands used when creating a volume.

TABLE 2-2 CLI Commands Used When Creating a Volume Snapshot

CLI Command	Description
sscs list volume	List volumes that already exist on a specified array.
sscs create volume	Create a new volume on an array.
sscs list jobs	Verify that the volume creation job is in progress.
sscs list volumes	Verify the volume characteristics.
sscs list vdisk	Verify the characteristics of the virtual disk used by the newly created volume.
sscs list host	Identify the hosts available for mapping to the volume.
sscs map volume	Map the volume to a host.

Sample Data

In this example, the following sample data are used in the execution of the commands:

TABLE 2-3 Sample Data

Array Name:	den-toi-6130
Pool Name:	den-pool-64k-r5
Volume Name:	vol0-64k-r5
Profile Name:	den-profile-64k-r5
Disk Names:	t1d01, t1d02, t1d03, t1d04

Command Sequence

1. **Identify the names of the volumes that already exist on the array den-toi-6130:**

```
sscs list -a den-toi-6130 volume

Volume: ACC Type: Standard Pool: Default Profile: Default
Volume: RCV Standard Pool: Default Profile: Default.
```

2. **Identify the names of the storage pools that already exist on the array den-toi-6130:**

```
sscs list -a den-toi-6130 pool

Pool: newNFSmirroringPool  Profile: NFS_Mirroring  Configured
Capacity: 0.000 MB
Pool: RAID1-32KB-NoReadAhead  Profile: RAID1-32KB-NoReadAhead
Configured Capacity: 0.000 MB
Pool: RAID5-512KB-NoReadAhead  Profile: RAID5-512KB-NoReadAhead
Configured Capacity: 0.000 MB
Pool: poolFortest6731502Raid5threeDisk  Profile:
test6731502Raid5threeDisk  Configured Capacity: 0.000 MB
Pool: den-pool-64k-r Profile: RAID0-564KB-ReadAhead  Configured
Capacity: 0.000 MB
```

3. **Verify the characteristics of the storage pool `den-pool-64k-r5`:**

```
sscs list -a den-toi-6130 pool den-pool-64k-r

Description:          null
Profile:              RAID5-64KB-ReadAhead
Total Capacity:       0.000 MB
Configured Capacity:  0.000 MB
Available Capacity:   1.197 TB
```

4. **Create a new volume on array den-toi-6130.**

   The new volume is named vol0-64k-r5, uses the storage pool named den-pool-64k-r5, and has 5GB of storage capacity:

```
sscs create -a den-toi-6130 -p den-pool-64k-r5 -s 5GB volume vol0-
64k-r5
```

5. **Verify that the volume creation job is in progress:**

```
sscs list -a den-toi-6130 jobs
Job ID: VOL:0B70418253F6  Status: In progress
```

6. **Verify the characteristics of the volume named vol0-64k-r5:**

```
sscs list -a den-toi-6130 volume vol0-64k-r5
Volume: vol0-64k-r5
Type:                          Standard
WWN:                           60:0A:0B:80:00:13:B9:8B:00:00:0B
                               :70:41:82:53:F6
Pool:                          den-pool-64k-r5
Profile:                       den-profile-64k-r5
Virtual Disk:                  1
```

```
Size:                              5.000 GB
Status:                            Online
Action:                            Ready
Condition:                         Optimal
Read Only:                         No
Controller:                        A
Preferred Controller:              A
Modification Priority:             High
Write Cache:                       Enabled
Write Cache with Mirroring:        Enabled
Write Cache without Batteries:     Disabled
Flush Cache After:                 10 Sec
Disk Scrubbing:                    Enabled
Disk Scrubbing with Redundancy:    Disabled
```

7. **List the virtual disks available on den-toi-6130:**

```
sscs list -a den-toi-6130 vdisk
Virtual Disk: 1
```

8. **Verify the characteristics of the virtual disk named 1:**

```
sscs list -a den-toi-6130 vdisk 1
Virtual Disk: 1
Status:                            Online
Number of Disks:                   4
Maximum Volume Size:               198.599 GB
RAID Level:                        5
Total Capacity:                    203.599 GB
Configured Capacity:               5.000 GB
Available Capacity:          198.599 GB
Disk Type:                   FC
Disk:                        t1d04
Disk:                        t1d03
Disk:                        t1d02
Disk:                        t1d01
Volume:                      vol0-64k-r5
```

9. **Identify the hosts available of the array den-toi-6130:**

```
sscs list -a den-toi-6130 host
Host: 450e
```

10. **Map the volume vol0-64k-r5 to the host 450e:**

```
sscs map -a den-toi-6130 -h 450e -l 1 volume vol0-64k-r5
```

11. **Ensure that the mapping was successful by verifying the characteristics of the volume named vol0-64k-r5:**

```
sscs list -a den-toi-6130 volume vol0-64k-r5

Volume: vol0-64k-r5
Type:                              Standard
WWN:                               60:0A:0B:80:00:13:B9:8B:00:00:0B
                                   :70:41:82:53:F6
Pool:                              den-pool-64k-r5
Profile:                           den-profile-64k-r5
Virtual Disk:                      1
Size:                              5.000 GB
Status:                            Online
Action:                            Ready
Condition:                         Optimal
Read Only:                         No
Controller:                        A
Preferred Controller:              A
Modification Priority:             High
Write Cache:                       Enabled
Write Cache with Mirroring:        Enabled
Write Cache without Batteries:     Disabled
Flush Cache After:                 10 Sec
Disk Scrubbing:                    Enabled
Disk Scrubbing with Redundancy:Disabled
Associations:
Host: 450e  LUN: 1  Initiator: 450e-qlc5  WWN:
21:00:00:E0:8B:06:02:E9
Host: 450e  LUN: 1  Initiator: 450e-qlc6  WWN:
21:00:00:E0:8B:06:FC:E8
```

Creating a Snapshot

The following section will demonstrate the commands used when creating a snapshot of a volume.

Commands Used

TABLE 2-4 identifies the sequence of CLI commands used when creating a volume snapshot.

TABLE 2-4 CLI Commands Used When Creating a Volume Snapshot

CLI Command	Description
sscs list volume	Verify the existence and characteristics of a volume.
sscs create snapshot	Create a snapshot of a volume
sscs list snapshot	Verify the existence and characteristics of the snapshot
sscs list host	Identify the hosts available for mapping to the snapshot.
sscs map snapshot	Map the snapshot to a host.
sscs unmap snapshot	Unmap the snapshot from a host.
sscs delete snapshot	Remove the snapshot.

Sample Data

In this example, the sample data listed in TABLE 2-5 are used in the execution of the commands:

TABLE 2-5 Sample Data

Array Name:	den-toi-6130
Pool Name:	den-pool-64k-r5
Volume Name:	vol0-64k-r5
Profile Name:	den-profile-64k-r5
Snapshot Name:	snapshot-vol0
Reserve Volume Name:	reserve-vol0
Host Name:	450e

Command Sequence

1. **Verify the existence and characteristics of the volume vol0-64k-r5:**

```
sscs list -a den-toi-6130 volume vol0-64k-r5
Volume: vol0-64k-r5
Type:                           Standard
```

```
WWN:                              60:0A:0B:80:00:13:B9:8B:00:00:0B
                                  :70:41:82:53:F6
Pool:                             den-pool-64k-r5
Profile:                          den-profile-64k-r5
Virtual Disk:                     1
Size:                             15.000 GB
Status:                           Online
Action:                           Ready
Condition:                        Optimal
Read Only:                        No
Controller:                       A
Preferred Controller:             A
Modification Priority:            Highest
Write Cache:                      Enabled
Write Cache with Mirroring:       Enabled
Write Cache without Batteries:    Disabled
Flush Cache After:                10 Sec
Disk Scrubbing:                   Enabled
Disk Scrubbing with Redundancy:Disabled
Associations:
Host: 450e  LUN: 1  Initiator: 450e-qlc5  WWN:
21:00:00:E0:8B:06:02:E9
Host: 450e  LUN: 1  Initiator: 450e-qlc6  WWN:
21:00:00:E0:8B:06:FC:E8
```

2. **Create the snapshot volume names snapshot-vol0.**

   `sscs create -a den-toi-6130 -V vol0-64k-r5 -L full -f failsnapshot -m reserve-vol0 -w 100 snapshot snapshot-vol0`

3. **Verify that the specified volume, vol0-64k-r5, now has a snapshot named snapshot-vol0 associated with it.**

   `sscs list -a den-toi-6130 volume vol0-64k-r5`

```
Volume: vol0-64k-r5
Type:                             Standard
WWN:                              60:0A:0B:80:00:13:B9:8B:00:00:0B
                                  :70:41:82:53:F6
Pool:                             den-pool-64k-r5
Profile:                          den-profile-64k-r5
Virtual Disk:                     1
Size:                             15.000 GB
Status:                           Online
Action:                           Ready
Condition:                        Optimal
Read Only:                        No
Controller:                       A
```

```
Preferred Controller:          A
Modification Priority:         Highest
Write Cache:                   Enabled
Write Cache with Mirroring:    Enabled
Write Cache without Batteries: Disabled
Flush Cache After:             10 Sec
Disk Scrubbing:                Enabled
Disk Scrubbing with Redundancy:Disabled
Snapshots:
Snapshot Volume: vol0-snap1  Creation Date: Sat Oct 25 07:40:00
36797  Reserve Volume: res-vol0
Snapshot Volume: snapshot-vol0  Creation Date: Mon Apr 25 11:40:00
36805  Reserve Volume: reserve-vol0
Associations:
Host: 450e  LUN: 1  Initiator: 450e-qlc5  WWN:
21:00:00:E0:8B:06:02:E9
Host: 450e  LUN: 1  Initiator: 450e-qlc6  WWN:
21:00:00:E0:8B:06:FC:E8
```

4. **Verify the characteristics assigned to the snapshot volume,** `snapshot-vol0`.

```
sscs list -a den-toi-6130 snapshot snapshot-vol0
Volume: snapshot-vol0
        Type:                              Snapshot
        WWN: 60:0A:0B:80:00:13:B9:8B:00:00:0B:7A:41:86:0B:02
        Virtual Disk:                      1
        Size:                              14.999 GB
        Status:                            Active
        Action:                            Ready
        Condition:                         Optimal
        Controller:                        A
        Preferred Controller:              A
        Modification Priority:             High
        Write Cache:                       Enabled
        Write Cache with Mirroring:        Enabled
        Write Cache without Batteries:     Disabled
        Flush Cache After:                 10 Sec
        Disk Scrubbing:                    Enabled
        Disk Scrubbing with Redundancy:    Disabled
        Percent Full:                      0
        Failure Policy:                    failsnapshot
        Warning Threshold:                 100
        Creation Date:                     Mon Apr 25 11:40:00 36805
        Base Volume:                       vol0-64k-r5
        Reserve Volume:                    reserve-vol0
        Reserve Status:                    Online
```

```
        Reserve Size:                    14.999 GB
```

5. **Identify the hosts available ob the array den-toi-6130:**

```
sscs list -a den-toi-6130 host
Host: 450e
```

6. **Map a snapshot to the host 450e:**

```
sscs map -a den-toi-6130 -h 450e snapshot snapshot-vol0
```

7. **Verify the characteristics assigned to the snapshot volume, snapshot-vol0.**

```
sscs list -a den-toi-6130 snapshot snapshot-vol0
Volume: snapshot-vol0
Type:                           Snapshot
WWN:                            60:0A:0B:80:00:13:B9:8B:00:00:0B:
                                7A:41:86:0B:02
Virtual Disk:                   1
Size:                           14.999 GB
Status:                         Active
Action:                         Ready
Condition:                      Optimal
Controller:                     A
Preferred Controller:           A
Modification Priority:          High
Write Cache:                    Enabled
Write Cache with Mirroring:     Enabled
Write Cache without Batteries:  Disabled
Flush Cache After:              10 Sec
Disk Scrubbing:                 Enabled
Disk Scrubbing with Redundancy:Disabled
Percent Full:                   0
Failure Policy:                 failsnapshot
Warning Threshold:              100
Creation Date:                  Mon Apr 25 11:40:00 36805
Base Volume:                    vol0-64k-r5
Reserve Volume:                 reserve-vol0
Reserve Status:                 Online
Reserve Size:                   14.999 GB
Associations:
Host: 450e  LUN: 2  Initiator: 450e-qlc5  WWN:
21:00:00:E0:8B:06:02:E9
Host: 450e  LUN: 2  Initiator: 450e-qlc6  WWN:
21:00:00:E0:8B:06:FC:E8
```

8. **Unmap the snapshot names snapshot-vol0.**

```
sscs unmap -a den-toi-6130 -h 450e snapshot snapshot-vol0
```

9. **Verify that snapshot-vol0 was successfully unmapped.**

```
sscs list -a den-toi-6130 snapshot snapshot-vol0
Volume: snapshot-vol0
Type:                              Snapshot
WWN:                               60:0A:0B:80:00:13:B9:8B:00:00:0B
                                   :7A:41:86:0B:02
Virtual Disk:                      1
Size:                              14.999 GB
Status:                            Active
Action:                            Ready
Condition:                         Optimal
Controller:                        A
Preferred Controller:              A
Modification Priority:             High
Write Cache:                       Enabled
Write Cache with Mirroring:        Enabled
Write Cache without Batteries:     Disabled
Flush Cache After:                 10 Sec
Disk Scrubbing:                    Enabled
Disk Scrubbing with Redundancy:    Disabled
Percent Full:                      0
Failure Policy:                    failsnapshot
Warning Threshold:                 100
Creation Date:                     Mon Apr 25 11:40:00 36805
Base Volume:                       vol0-64k-r5
Reserve Volume:                    reserve-vol0
Reserve Status:                    Online
Reserve Size:                      14.999 GB
```

10. **Delete the snapshot names snapshot-vol0:**

```
sscs delete -a den-toi-6130 snapshot snapshot-vol0
```

CHAPTER 3

Monitoring and Administration Commands for All Arrays

This chapter describes the `sscs` commands and their options for monitoring and administrating all Sun arrays, including Sun Storage J4200, J4400, and J4500 arrays, Sun StorEdge™ 6130 array, Sun StorageTek™ 6140 and 6540 arrays, Sun Storage 6580 and 6780 arrays, Sun StorageTek 2500 Series arrays, and FlexLine™ 240, 280, and 380 Systems. For the configuration and other commands that apply only to arrays with raid controllers, see Chapter 4.

add notification

Sets up email or SNMP trap notification.

Synopsis

Add email notification:

add [**-e** <*email-address,...*>] [**-c** <*array_type*>] [**-r** pager | email] [**-m** **down** | **critical** | **major** | **minor**] [**-f**] [**-s**] [**-d**] [**-g**] **notification local_email**

Add an SNMP trap notification:

add **-i** <*IP-address,...*> [**-o** <*port_id*>] [**-t** 1 | 2 | 3 | 4 | 5] [**-l** warning | error | down] [**-m**| <down | critical | major | minor>] [**-c** <*community-string*>] [**-g**] **notification trap**

Add an email filter:

add **-n** <*event-id*> **-s** info | none **notification email-filter**

Turn on the SNMP trap notifier:

add notification trap

Description

Sets up email and SNMP trap notification. You can add one or more email addresses for notifications.

Options

-e, **--email** *<email-address,...>*

Specifies that all notifications are sent to the given email addresses.

-i,--ip *<IP-address,...>*

Specifies the IP address of the host that will receive the SNMP trap data.

-l,--traplevel `warning | error | down`

Specifies the trap level associated with this notification.

-o,--port *<port-id>*

Specifies the port ID used to transfer notifications.

-c,--components *<array_type>*

Specifies the array model number. For example, j4200 or j4400.

-r,--format `pager | email`

Specifies the format of the message: email or pager. If no value is specified, the command defaults to email.

-m,--alarm-level `down | critical | major | minor`

Specifies the minimum priority level of alerts to be sent out. By default, all alerts will be sent out.

-f,--filter `true | false`

Enables or disables email filters. The default is false.

-s, **--skip-aggregated** `true | false`

Skips components of aggregated events if set to true.

-d, **--advisor** `true | false`

Adds Service Advisor information to the email if set to true. The default is false.

-g, **--config-change** `true | false`

Sends configuration event emails as well as alert e-mails. The default is false.

-n, **--event-number** *<event_id>*

Specifies the event code to filter.

-s,**--severity** info | none

Specifies the severity of events to report.

-t,**--trapnumber** 1 | 2 | 3 | 4 | 5

Specifies the trap number associated with this notification.

notification local_email | email-filter | trap

Specifies that all notifications of the specified type are sent to the given addresses.

local-email - Specifies that you want to receive the notification at your local email address.

email-filter - Specifies that you want to filter the notification.

trap - Specifies that you want to receive notification using the SNMP trap notification.

Examples

sscs add -t *2* **-i** *10.10.10.1* **notification** trap

add registeredarray

Discovers an array or all arrays on the same subnet as the management host and registers them.

Synopsis

add -d registeredarray

add -i [-q] registeredarray

Description

Discovers an array by specifying its IP address or all arrays on the same subnet as the management host and registers them. Also queries registered arrays for the remote proxy password.

Options

-i,--ipaddress

Specifies the IP address of the device.

-d,**--discover**

Automatically discovers all arrays on the same subnet as the management host and registers them. If discover is specified, all other options are ignored and arrays are automatically discovered.

-q,--query-for-password

Queries for the current password for remote proxy for the registered array.

Examples

sscs add -i *10.10.10.1* **registeredarray**

add userrole

Adds a user name to the user access list and defines the user privileges.

Synopsis

add -u <*user-name*> **userrole storage** | **guest**

Description

Adds a user name to the user access list and defines the user role as having storage or guest privileges.

Options

-u,**--username** <*user-name*>

Specifies a user name. The <*user-name*> must already be defined on the computer in the operating system.

userrole storage | guest

Specifies the new user's role.

storage - Provides full storage configuration and monitoring access.

guest - Allows user to view but not change storage configurations.

list alarm

Provides detailed information on a specified alarm or summary information on all alarms.

Synopsis

list [**-s** <*1..3*>] [**-f** <*device-type*>] [**-a** <*service-advisor-ID*>] [**-S**] **alarm** [<*alarm_ID*>]

Description

Provides detailed information on a specified alarms. When alarm IDs are not specified, it provides summary information on all alarms.

Options

-a,**--advisor** *service-advisor-ID*

Lists the Service Advisor ID.

-s,**--severity** <*1..3*>

Specifies a severity level at which to filter alarms so that only the alarms of that severity level are listed.

Severity Levels:

0 – minor

1 – major

2 – critical

3 - failure

-f,**--faultdevtype** <*device-type*>

Specifies the type of device to list.

-S, --Summary

Specifies that the system return a summary of alarm information.

alarm [<*alarm_ID*>]

Specifies the alarm or alarms to display. If no alarm is specified, summary information on all alarms is displayed.

Examples

```
sscs list -f j4200 alarm

sscs list -s 2 alarm

sscs list -s 1 -a alarm
```

Response Format

(when no advisor option is specified)

Alarm ID: *ID*

Severity: *severity*

Type: *type*

Topic: *topic*

Event Code: *event-code*

Date: *date*

Device: *device-id*

Descrip.: *Description*

Response Format

(when the advisor option is specified)

Alarm ID: *ID*

Severity: *severity*

Type: *type*

Topic: *topic*

SERVICE ADVISOR

EventCode: *event-code*

EventType: *event-type*

Severity: *severity-level*

Sample Description: *event-Description*

Information: *event-information*

Probable Cause: *probable-cause*

Recommended Action: *recommended-action*

Date: *date*

Device: *device-ID*

Descrip.: *Description*

list array

Lists detailed information about specified arrays or all array names.

Synopsis

list array [<*array-name,...*>]

Description

Lists detailed information about one or more arrays. If you do not specify an array name, then all array names are listed.

Examples

Summary of arrays when no <*array-name*> value is specified:

sscs list array

Response Format

Array: *array-name*

...

Array: *array-name*

Detail of array when the <*array-name*> value is specified (shows array with raid controller):

sscs list array array00

Response Format

Array: *array-name*

Array Type: *array-type*

Serial Number: *serial-number*

Firmware Version: *firmware-version*

Array WWN: *array-WWN*

Health Status: OK | Degraded

Hot-Spare Pool Disks: *number-of-hot-spare-drives* (FC, SATA, and SAS)

Node WWN: *node-WWN*

Default Host Type: *host-type*

Default Cache Block Size: 4K | 16K

Default Cache Start %: *<0..100>*

Default Cache Stop %: *<0..100>*

Disk Scrubbing: Disabled | Enabled

Failover Alert Delay: *1..300* minutes

Health: OK | Lost Contact |...

Tray ID: *tray-ID*

Host: *host-name*

...

Host: *host-name*

Host Group: *host-group*

...

Host Group: *host-group*

Pool: *pool-name*

...

Pool: *pool-name*

list date

Lists the current date and time for the array in hours, minutes, and seconds. (Not supported by j450 and B6000 JBODs.)

Synopsis

list -a <*array-name*> date

Description

Lists the current date and time for the array in hours, minutes, and seconds. The time zone of the management system is assumed to be the time zone of the array.

Options

-a, **--array** <*array-name*>

Specifies the array for which you want to see the date.

Examples

sscs list -a *array00* **date**

Response Format

Date: *weekday month day HH:MM:SS YYYY*

Example

Tue Dec 20 16:09:36 2004

list device

Provides detailed information on a specified device or summary information on all devices.

Synopsis

list [**-n** <*device-name*>] [**-i** <*IP-address*>] **device** [*device-ID* [, *device-ID...*]]

list devices

Description

List the details of a device or the devices being monitored.

Options

-n, **--name** *<device-name>*

Specifies the device name for which you want to see the details. If no device is specified, summary information for all devices is displayed.

-i, **--ip** *<IP-address>*

Specifies the IP address of the connected host when using remote proxy.

device-ID

Specifies one or more device IDs.

Examples

sscs list -n 2540_array1 device

```
Device Name      : 2540_array1
Type             : 2540
IP Address       : 10.nn.nn.n
Monitored On     : sp-72
Key              : SUN.14617-00.0617053335
Active           : Y
WWN              : 200400a0b82458a0
Alternate IP     : 10.nn.nn.n
Alt IP Number    : 10.nn.nn.n
Management Level : D
Said             : 600A0B800024588100000000045A7B14E
Time Added       : 2008-10-03 11:44:11
Port WWNs        :
200400a0b82458a1,200400a0b82458a2,200500a0b82458a1,200500a0b82458a2
```

sscs list -i *10.1.1.1* **device**

```
sscs list device
```

Response Format

DeviceName: *device-ID*

Type: *type*

IP Address: *IP-address*

Monitored On: *interface*

Key: *device-key*

Active: `Is the device active? Y | N`

WWN: *World Wide Name*

MgmtLevel: *management-level*

Said: *Storage-Automated-Diagnostic-Environment-Identifier*

Time Added: *time added*

list devices

Provides summary information on all devices.

Synopsis

list devices

Description

List a summary of the devices being monitored.

Options

--

Examples

```
list devices
```

```
MonitoredOn Device       Type IP Address    WWN              Active ASR
---------   ------------ ---- ------------ ---------------- ------ ---
sp-72       2540_array1  2540 10.nn.nn.n    200400a0bnnnnnnn  Y      N
sp-72       6140_array2  6140 10.nn.nn.n    200400a0bnnnnnnn  Y      N
sp-72       6140_array3  6140 10.nn.nn.n    200400a0bnnnnnnn  Y      N
```

Response Format

Monitored On:*interface*

Device	*Array/system being monitored*
Type	*Array/system model*
IP Address	*IP-address*
WWN	*World Wide Name*
Active	Is the device active? Y | N
ASR	Is Auto Service Request on? Y | N

list disk

List the disk information on an array.

Synopsis

list -a <*array-name*> **disk** [<*disk-name,...*>]

Description

Lists disk information.

Options

-a,**--array** <*array-name*>

Specifies the name of the array where the disk resides.

disk <*disk-name,...*>

This option provides detailed information on the specified disks. When disks are not specified, this option provides detailed information on all the disks in the tray.

Examples

sscs list -a *array00* **-t 1 disk**

Response Format

Tray: *tray-ID* **Disk**: *disk-name*

Capacity: *disk-capacity*

Type: SAS | SATA

Speed (RPM): *speed-in-revolutions-per-minute*

Status: Optimal | In-use | Available | Failed

State: Enabled | Disabled

Role: Data

Firmware: *firmware-version-number*

Serial number: *serial-number*

WWN: *WWN-number*

list event

Lists the Fault Management Service (FMS) event log information.

Synopsis

list [**-s** <*1..3*>] [**-d** <*device_id*>] [**-t** <*type*>] [**-a**] [**-f** <*keyword*>] [**-l** <*limit*>] **event** [<*event_Id*>]

Description

Lists the FMS event log information. You can filter by device type and severity level.

Options

-s,**--severity** <*1..3*>

Specifies a severity level at which to filter events so that only the events of that severity level are listed.

Severity Levels:

0 – warning

1 – error

2 – critical

3 - failure

-d,--device *<device_id>*

List only events for the given device.

-t,--type *<type>*

List only events of the given event type.

-a,--aggregated

Specifies that all events are listed and aggregated so that related events are grouped together.

-f, --filter *<keyword>*

Filter output on the event Description by using the given keyword parameter.

-l,--last *<limit>*

Limit the number of events printed by the given number.

event *<event_id>*

Specifies the event ID.

Examples

```
sscs list -s 3 event
```

Response Format

```
Severity    : Minor

Date        : Fri Mar 10 10:39:57 MST 2006

Device      : diag-lsi1 (J4200)

Component   : Sim.0

Type        : Problem
```

```
 Event Code  :

 Aggregated  : No

 Description : New problem

REC_NON_FRU_BATTERY_NEAR_EXPIRATION t0ctrl2:39 discovered on diag-
lsi1 "t0ctrl2".
```

list firmware

Lists the firmware versions of the field-replaceable units (FRU) in this device.

Synopsis

list [**-a** <*array-name*>] [**-t** <*type*>] [**-x** <*component_type1 [,component_type1...]*>] **firmware**

Description

Lists the firmware versions of the field-replaceable units in this device. You can define the FRUs to include or exclude.

Options

-a,--array <*array-name*>

Shows the firmware revision level of the field-replaceable units for the specified array only.

-t <*component_type*>

Shows the firmware revision level for the specified component type.

-x, --exclude <*component_type*>

Excludes the specified component type from the list of firmware revision levels.

Examples

List the component firmware revisions for all arrays.

sscs list firmware

List the component firmware revisions for a specified array.

```
sscs list -a jbod1 firmware
```

list fru

Lists the field-replaceable units (FRUs) in this device.

Synopsis

list -d <*device-name*> [**-t** <*type-name*>] [**-s**] **fru** [*string,...*]

Description

Lists the field-replaceable units in this array. You can filter by component type.

Options

-d, --device <*device-name*>

The array name or array ID.

-t,--type <*type-name*>

Specifies the type of field-replaceable units installed in this device to list. Use the **-s** option to see which FRU types would be valid for the chosen device. For example, for the JBOD arrays valid types are:

```
disk | fans | power supplies | sim | all
```

-s,--summary

Lists a summary of this field-replaceable unit.

fru [*string,...*]

Lists the field-replaceable unit or units in this device.

Examples

```
sscs list -d jbod1 fru
```

Output includes the component name, FRU type, alarm state, status, revision, and unique ID.

sscs list -d *nenc-447* **-t all -s fru**

```
Type     Description Alarm    Installed Slot Count
```

```
-------- ----------- -------- --------- ----------
battery  battery     Major    2         2
ctrl     ctrl        Critical 2         2
disk     disk        -        10        32
icc      icc         -        1         1
iom      iom         -        4         4
midplane midplane    -        3         3
pcu      pcu         Critical 6         6
sfp      sfp         Critical 8         24
```

list jobs

Lists job IDs and status associated with the specified array and optionally specified job ID.

Synopsis

list -a *array-name* **jobs** [*job-id* [,*job-id*...]]

Description

Lists job IDs and status associated with the specified array and optionally specified job ID.

Options

-a,--array <*array-name*>

Specifies the name of the array.

job-id

Specifies the job ID.

Examples

sscs list -a jbod1 **jobs**

Job ID: Install:task27 Status: Done

Job ID: Install:task36 Status: Done

Job ID: Install:task32 Status: Done

Job ID: Install:task35 Status: Done

Job ID: Install:task25 Status: Done

Job ID: Install:task24 Status: Done

Job ID: Install:task45 Status: Done

Job ID: Install:task30 Status: Done

Job ID: Install:task33 Status: Done

Job ID: Install:task34 Status: Done

sscs list -a jbod1 **jobs Install:task27**

Job ID: Install:task27

Type: Firmware Upgrade

Status: Done

% Complete: 100

Time to Completion: 00:00:00

Priority: Unknown

list log

Lists the user-initiated actions performed for all registered arrays.

Synopsis

list [**-s** { [*mmdd*] *HHMM* | *mmddHHMM* [*cc*] *yy* } [*.SS*]] [**-f** { [*mmdd*] *HHMM* | *mmddHHMM* [*cc*] *yy* } [*.SS*]] [**-t** <*number-of-messages*>] **log**

Description

Lists the user-initiated actions performed for all registered arrays. You can filter the listings by date and time or most recent entries. If you do not specify any options, all log messages are displayed.

Options

-s, **--start** { [*mmdd*] *HHMM* | *mmddHHMM* [*cc*] *yy* } [*.SS*]

Lists all log messages starting at the date specified by the date options. Use with the **-f**,**--finish** subcommand to specify a date range.

-f,**--finish** { [*mmdd*] *HHMM* | *mmddHHMM* [*cc*] *yy* } [*.SS*]

Lists all log messages ending at the date specified by the date options. Use with the `-s,--start` subcommand to specify a date range.

mmdd

Specifies the month and day. For example, 0331 for March 31.

HHMM

Specifies the hour and minute. The hour is based on a 24-hour clock. For example, 1:30 p.m. is 1330.

cc

Specifies the century part of the year.

yy

Specifies the two-digit year.

.SS

Specifies the seconds of the hour.

-t,**--tail** <*number*>

Lists the most recent log messages as specified by *number*.

Examples

sscs list -t *100* **log**

Lists the last 100 messages.

Response Format

Timestamp : *message*

list mgmt-sw

Synopsis

list mgmt-sw

Description

Lists the management software application that you are logged into.

Examples

sscs list mgmt-sw

Response Format

Application Name: "Sun StorageTek(TM) Common Array Manager"

User: storage

Current Logins: 2

Server: 10.8.88.173

Server OS: SunOS

Server OS Version: 5.10

Product Version: 4.2.0.0

Build Date: 2005/12/03

Install Info: 4.2.0.0 Build 61

Critical Alarms: 13

Down Alarms: 0

Major Alarms: 24

Minor Alarms: 0

list notification

Synopsis

list notification

Description

Lists the remote notification provider and its status.

Examples

sscs list notification

Response Format

Entry	**Email/Events**	**Type**	**Device**	**Priority**	**Events**
enter-no	*email-address*	*notification-type*	*device-type*	*priority*	*events*

Provider	**Active**	**Heartbeat (hrs)**	**IP**
provider	*active-flag*	*frequency*	*IP Address*

Trap #	**IP Name/Address**	**Port**	**Min Alert Level**
trap-no	*IP Address*	*Port*	*Trap level*

list registeredarray

Lists registered array information.

Synopsis

list -a [*<array-name,...>*] **registeredarray**

Description

Lists registered array information or the names of all arrays.

Options

-a, **--array** *<array-name,....>*

Specifies the registered array or arrays to list. If no arrays are specified, a list of all array names is provided (optional).

Examples

sscs list -a *array01* **registeredarray**

Response Format

(summary if no <*array-name*> values are specified)

Array Name: *array-name*

...

Array Name: *array-name*

Response Format

(detail if <*array-name*> values are specified)

Array Name: *array-name*

IP Address: *IP-address*

...

IP Address: *IP-address*

list site

Synopsis

list site

Description

Lists pertinent information on the site.

Example

sscs list site

```
*Company Name        : Sun Microsystems
*Site Name           : Interop Lab
```

```
Address             :
Address 2           :
Mail Stop           :
*City               : Broomfield
State               :
*Country            : USA
*Contact First Name : Fred
*Contact Last Name  : Jones
Telephone Number    :
Extension           :
*Contact Email      : Fred.Jones@sun.com
```

list storage-system

Lists detailed information about one or more arrays.

Synopsis

list storage-system [*<array_name,...>*]

Description

Lists detailed information about one or more arrays. If you do not specify an array name, then all array names are listed.

Examples

sscs list storage-system

Response Format

(Summary of arrays when no <array-name> value is specified)

Array: *array-name*

...

Array: *array-name*

Detail of array when the <*array-name*> value is specified)

```
./sscs list storage-system Flx380-1
Name:                  Flx380-1
  ID:                  Flx380-1
  Type:                6140
  Version:             06.19.25.26
  Vendor:              SUN Microsystems
  Model:               Sun StorEdge 6140 System
  Capacity:            367039329280
  Available Capacity:  110674668544
```

list userrole

Lists the user name and role defining the user's array privileges.

Synopsis

list userrole [**storage** | **guest**]

Description

Lists the user name and role defining the array privileges.

Options

userrole storage | guest

List the users with the specified role. The storage role allows write access so that the user can configure the array. The guest role can only monitor the array.

Example

sscs list userrole storage

Response Format

User Name: *user-name* **User Role:** *user-role*

. . .

User Name: *user-name* **User Role:** *user-role*

login

Log in to the **sscs** command-line interface (CLI).

Synopsis

login -h <*host-name*> [**-s CAM | Legacy**] [**-t**] [**-f**] **-u** <*user-name*>

Description

Log in to the **sscs** command-line interface (CLI) on the management system specified by the **-h** <*host-name*>. This command starts a CLI session on the management host.

There are two forms of the CLI:

- Local
- Remote

The only difference is that the local CLI requires a user has to run the command as administrator from a shell on the management host and because of this limitation the login and logout commands aren't supported.

Both CLIs can manage any array that has been registered and added to the Common Array Manager inventory in the same way that the browser interface can manage any array in the inventory. The array type and array management path (in-band, out-of-band, proxy agents) has no limitations with local or remote CLI usage. Both CLIs manage the same arrays with the same command set.

Logging In and Out Using the CLI

The following explains how to log in to and out of a the management host using the CLI. The options for accessing the CLI are presented in the next section.

There are different CLI directories for the remote and local CLIs.

1. Telnet or ssh to the CAM workstation.

ssh root@cam_workstation1

2. **Change to the CLI directory (varies by operating system).**

   a. **Access the remote** `CLI` **directory:**

   - Solaris - `/opt/SUNWsesscs/cli/bin`
   - Linux - `/opt/sun/cam/se6x20/cli/bin/sscs`
   - Windows - <*system drive*>`:\Program Files\Sun\Common Array Manager\Component\sscs\bin`

3. **Log into the remote CLI by typing the following command:**

```
% sscs login -h <host-name> -u <user-name>
```

Note – The Local CLI on a data host does not require the login command. You will need the terminal window login to the host.

---

   b. **Access the local** `CLI` **directory:**

   - Solaris - `/opt/SUNWstkcam/bin`
   - Linux - `/opt/sun/cam/bin`
   - Windows - <*system drive*>`:\Program Files\Sun\Common Array Manager\bin`

NOTE: sscs has an inactivity timer. The session terminates if you do not enter any **sscs** commands for 30 minutes. You must log in again before you can enter a command after the timeout.

Options

-h, **--hostname** <*host-name*>

Required. Specifies the management host name.

-s, **--system-type** `CAM` | Legacy

Optional. This option specifies whether you are logging into any of the current arrays supported by the Common Array Manager or the now legacy 6920 array. In some cases, using the **-s CAM** option may log you in faster as it skips a step of listening for a response from the legacy array.

You no longer have to specify the array-type to login.

-t, **--http**

Enables you to use the HTTP protocol to connect to the CAM server, instead of HTTPS. An HTTP connector is configured in Tomcat, the servlet container in Java, for the Java Web Console at port 6789. If SSL is not functioning between the client and the server, this might be required.

-f,**--force**

Exists for backward compatibility with legacy management applications that only allow one login per user. This option forces a login to the management host. If another user with the same user name is already logged on, the duplicate user is then logged off.

-u,**--username** *<user-name>*

Specifies the user name that to log in.

Example

```
./sscs login -h localhost -u root
```

logout

Synopsis

```
logout
```

Description

Logs out of the remote sscs command-line interface session.

modify agent

Modify the fault management agent parameters.

Synopsis

modify [**-a**] [**-d**] [**-r**] [**-i** *<integer>*] **agent** [*<agent_id>*]

Description

Modify the fault management agent parameters. Fault Management Service (FMS) periodically scans devices for new messages and updated health status. This command allows changing the scan interval as well as enabling or disabling the scan. If no options are given the current agent settings are printed out.

Internal agent properties can be set by using name=value for the strings on the agent.

The most common property to be set is debug=0,1,2,3 to turn on agent debugging.

sscs modify agent debug=3

All other properties are for service only.

Options

-a,--activate

Specifies that the system activate the monitoring agent.

-d,--deactivate

Specifies that the system deactivate or turn off the monitoring agent.

-r,--run

Specifies that the system schedule the agent to run either immediately or as soon as the currently scheduled run has finished.

-i,--interval *<integer>*

Specifies the interval, in minutes, before the agent scan runs.

agent [*<agent_id>*]

Specifies the agent that you want to modify. The name of the agent monitoring the device can be retrieved using the `list device` command

Examples

sscs modify -i *5* **agent**

modify array

Synopsis

modify [**-N** *<new-array-name>*] **array** *<array-ID>*

Description

Modifies the name assigned to the array.

Note – Refer to the `modify array` command in Chapter 4 for the extensive configuration options that apply to arrays with raid controller.

Options

-N,**--new-array-name** <*array-name*>

Specifies the new name of the array.

array <*array-ID*>

Specifies the name of the array to be modified.

Examples

```
sscs modify -n array2 array jbod1
```

modify firmware

Modifies the firmware versions of the specified field-replaceable units (FRUs) of the specified array.

Synopsis

```
modify -a <array-name> [ -f ] -o [ -t sim | disk ] [ -x sim | disk ] [
-p <path>] [ -c <field-name>] [ -w ]  firmware
```

Description

Modifies the firmware versions of the specified field-replaceable units of the specified array.

Options

-a,--array <*array-name*>

Modifies the firmware revision level of the specified field-replaceable units for the specified array only.

-c,--component *<field-name>*

Modifies the firmware for the selected components. To get the valid values, execute the `sscs list -a` *<array-name>* firmware command. Use either the Name or Model field values.

-f,--force

Modifies the firmware revision level of the all field-replaceable units even if the firmware revision level is already at the baseline level.

-o,--offline

Performs an offline upgrade of the specified component(s).

-p,--path *<path>*

Specifies the path of the firmware image file. Loads firmware from a file directly onto the array. Caution should be exercised when using this command because unsupported firmware can be loaded onto a field-replaceable unit. If -p option is provided, the -c option is required.

-t,--type *<fru-type>*

Modifies the firmware revision level of the field-replaceable units of the specified type only.

-w,--no-warn

Modifies the firmware without displaying the standard warning.

-x,--exclude `sim | disk`

Excludes the specified component from being upgraded.

Examples

```
modify - a MyArray -f firmware
```

modify mgmt-sw

Synopsis

modify -X *<storage-system-name>* **mgmt-sw**

Description

Stores the specified storage system name for the session. This command is useful for repeated operations with an array. After this command is executed, the -a option for subsequent sscs commands is not necessary.

Options

-X,--storage-system <*storage-system-name*>

Specifies the name of the storage system.

Example

```
modify -X MyArray mgmt-sw
```

modify registeredarray

Change the locally stored password for a registered array.

Synopsis

modify -a <*array-name*> **-q registeredarray**

Description

Modifies the locally stored password for a registered array or queries for the current password.

Options

-a,**--array** <*array-name*>

Specifies the name of the array to be modified.

-q,**--query-for-password**

Queries for the current password for the registered array.

Examples

sscs modify -a *array00* **-q registeredarray**

New Password: *myregisteredarray*

```
Re-enter New Password: myregisteredarray
```

modify site

Modifies the site properties for this instance of CAM.

Synopsis

modify [**-r** < *site_info* >,...] **site** [< *site_info* = *value* >,...]

Description

Modifies the site properties for this instance of CAM. The site properties contain information about the site and provides information needed for the notification providers.

Options

-r,--remove < *site_info* >

Removes the specified site information.

site < *site_info* = *value* >

Modifies existing site settings or adds new site information. Possible values for *site_info* are: **customer, contract, name, address, address2, mailStop, city, state, country, contact, phone, email.** Possible values for *value* consist of an alphanumeric string. If the string includes spaces, enclose the values in quotes.

Examples

```
sscs modify site name="Development Lab"
```

```
sscs modify -r name site
```

modify storage-system

Modifies the array information.

Synopsis

modify [**-N** <*storage-system-name*>] [**-d** <*Description-text*>] [**-u** <*user-name*>] [**-q**] [**-U** <*user-name*>] [**-Q**] **storage-system** <*storage-system-name*>

Description

Modifies array information such as array name, description, and user name.

Options

-d,--Description

Provides a textual description of the array.

-N,--new-name

Changes the array name.

-q,--query-for-password

Changes the array password.

-u,--user-name

Changes a username on the array.

storage-system <*storage-system-name*>

Specifies the array where the changes will take effect.

Example

```
sscs modify -q storage-system MyArray
Enter the array password:
Confirm password:
```

modify userrole

Change the user role or the IP address from which the user can log in.

Synopsis

sscs modify -u <*user-name*> **-p** <*password*> **-i** ANY | <*IP-address,...*> **userrole** [**storage** | **guest**]

Description

Modifies a user role or the IP address from which the user can log in. The storage role can perform configuration changes while the guest role can just monitor an array.

Options

-u,**--username** *<user-name>*

Specifies the user name that has an assigned role (storage or guest).

-p,**--password-required** true | false

Specifies whether to require user login with a password.

-i,**--ip-address** ANY | *<IP-address,...>*

Specifies the IP addresses from which the user can log in. You can let the user log in from anywhere or restrict access to specified IP addresses.

userrole storage | guest

Specifies the role assigned to the user.

Examples

```
sscs modify -u bsmith -p true -i ANY userrole guest
```

register storage-system

Synopsis

register -i *<ip-address>* [**-p** *<port-id>*] [**-u** *<user-name>*] [**-q**] [**-U** *<user-name>*] [**-Q**] **storage-system**

register -d storage-system

Description

Registers a storage system with the host.

Options

-d,--discover

Specifies that the host will discover a registered array.

-i,--ipaddress *<ip-address>*

Specifies the IP address of the storage system that you want to register.

-p,--port *<port-id>*

Specifies the port ID of the storage system that you want to register.

-u,--user `storage | root | guest`

Specifies the user name that has an assigned role.

-q,--query-for-password

Specifies whether to query for a password for this registered storage system.

-U,--device-specific-user *<user-name>*

Specifies a specific name for this device.

-Q,--query-for-device-specific-password

Specifies whether to query for a specific password for this registered device.

register sun-connect

Registers CAM software and all monitored arrays with Auto Service Request.

Synopsis

register [**-u** <*sun_online_account_username*>] [**-H** <*proxy-host-name*>] [**-P** <*proxy-port_number*>] [**-U** <*proxy_username*>] [**-e all** | **telemetry**] [**-d** <**all** | **telemetry**>] **sun-connect**

Description

Registers CAM software and all monitored arrays with Auto Service Request. Auto Service Request monitors the array system health and performance and automatically notifies the Sun Technical Support Center when critical events occur. Critical alarms generate an Auto Service Request case. The notifications enable Sun Service to respond faster and more accurately to critical on-site issues. All newly discovered arrays will also be registered with the saved registration options.

Options

-d,**--disable** `all | telemetry`

Disables all telemetry mechanisms.

-e,**--enable** all | telemetry

Enables all telemetry mechanisms.

-H,**--proxyHost** <*proxy-host-name*>

Specifies the proxy host name.

-P,**--proxyPort** <*proxy-port_number*>

Specifies the proxy port number.

-U, **--proxyUser** <*username*>

A proxy host authenticated user name.

-u,**--user** <*sun_online_account_username*>

Specifies a valid Sun online account user name. To get one go to: https://portal.sun.com/portal/dt/

sun-connect

Specifies that you are registering the CAM software and all monitored arrays with Auto Service Request.

Examples

```
sscs register -H Proxy1 -P 8080 -u MySunAcctId -e telemetry sun-
connect
```

remove alarm

Synopsis

remove [**-f** <*device-type*>] [**-s 0** | **1** | **2** | **3**] [**-A**] **alarm** [<*alarm-ID,...*>]

Description

Removes the current alarms.

Options

-f,**--faultdevtype** <*device-type*>

Removes alarms by the device type using a device key filter.

-s, **--severity** *string*

Specifies the severity level for which you want to remove alarms.

Severity Levels:

0 – minor

1 – major

2 – critical

3 - failure

-A,**--All** <*alarm*>

Removes all of the alarms.

alarm <*alarm-ID,...*>

Specifies the alarm ID or alarm IDs you want to remove.

Examples

```
sscs remove -f 6140 alarm

sscs remove -s 2 alarm

sscs remove -A alarm
```

remove notification

Removes a local or remote notification.

Synopsis

remove [**-e** <*string*[,*string...*]>] **notification local_email** | **email-filter** | **trap**

remove [**-i** <*IP-address*>] [**-o** <*string*>] [**-t 1** | **2** | **3** | **4** | **5**] **notification local_email** | **email-filter** | **trap**

remove **-d** <*string*[,*string...*]> **notification local_email** | **email-filter** | **trap**

remove [**-c** <*category-id*>] [**-e** <*event-id*>] [**-a**] **notification** <*emailAddress*[,*emailAddress...*]>

Description

Removes a local or remote notification.

Options

-a, **--all**

Specifies that all notifications should be removed.

-c, **--category** <*category-id*>

Removes the specified category ID notification.

-d, **--id** <*string,string...*>

Removes the specified device ID notification.

-e,**--email** <*string*[,*string...*]>

Stops notifications to the specified recipient.

-e, **--event** <*event-id*>

Stops email notifications with the specified event ID.

-i, **--ip** <*IP-address*>

Stops sending SNMP trap data to the IP address of the specified host.

-t,**--trapnumber** 1 | 2 | 3 | 4 | 5

Stop notifications for the specified trap number.

-o,--port <*port-id*>

Specifies the port ID used to transfer notifications.

local-email

Removes the notification from your local email address.

email-filter

Removes the email filter from the notification.

trap

Removes the SNMP trap notification.

Examples

sscs remove -e *john.doe@address.com* **notification local_email**

```
sscs remove notification nscc_email

sscs remove -t 2 notification trap
```

remove registeredarray

Removes one or more arrays from the list of registered arrays.

Synopsis

remove -a *<array-name,...>* **registeredarray**

Description

Removes one or more arrays from the list of registered arrays.

Options

-a, **--array** *<array-name,...>*

Specifies the registered arrays to remove.

Example

sscs remove -a *array00* **registeredarray**

remove userrole

Removes a user role assigned to a user name.

Synopsis

remove -u *<user-name,...>* **userrole storage** | **guest**

Description

Removes the privileges (storage or guest role) assigned to a user name.

Options

-u,**--username** <*user-name,...*>

Specifies the user name.

userrole storage | guest

Specifies the user's role to remove.

Examples

sscs remove -u *jf39992* **userrole guest**

service

Perform service-related commands.

Synopsis

service -a <*array-name*> [**contact** | **locate** [**-o**] | **print** [**-t** <**arrayprofile** | **log** | *drive_id*>] **enable** | **disable** | **set name=**<*new-name*> | **syncTime**]

Description

Use this command to perform inband communication tests, locate an array by turning its LED on or off, print the contents of the array profile or log file, change the name of the array, and synchronize the time of a JBOD array with the attached data host.

Options

-a,**--array** <*array-name*>

Specifies the array to perform a service.

-t,**--target** arrayprofile | log

Specifies the target file to print.

-o,**--off**

Turns off the locator LED.

contact

Tests connectivity to the array (inband communication test).

disable

Disables the specified target drive.

enable

Enables the specified target drive.

locate

Locates the array by turning LED on.

name=<*new-name*>

Changes the name of the array to the specified name.

print

Prints all physical information available for the specified array.

syncTime

Synchronize the time of the JBOD array with the attached host.

Examples

Turn off all LED locate indicators on the specified arrays.

```
sscs service -d "JBOD(2029QTF0802QCK00E)" -t off locate
```

Set the JBOD name to J4200_box1

```
sscs service -d "JBOD(2029QTF0802QCK00E)"  name=J4200_box1 set
```

Disable drive00 on the array named J4400_box3.

```
sscs service -a j4400_box3 -t drive00 disable
```

unregister storage-system

Synopsis

unregister storage-system <*storage-system-name,...*>

Description

Unregisters an array from the list of registered storage systems.

Options

storage-system *<storage-system-name,...>*

Specifies the storage system or storage systems that you want to unregister from the list of registered storage-systems.

Example

sscs unregister storage-system *array19*

unregister sun-connection

Stop notifications of system health and performance to Sun using the Auto Service Request (ASR) feature.

Synopsis

unregister sun-connection

Description

Stops sending system health and performance information on monitored arrays back to Sun. Newly discovered arrays will not be activated with ASR.

Examples

sscs unregister sun-connect

version

Shows the versions of software that you are running on the management host and the SSCS client.

Synopsis

-V, --version

Description

Shows the versions of software that you are running on this array and the client.

Examples

```
sscs -V
Sun StorageTek(TM) Common Array Manager v6.1.1.0
sscs client v1.1.4
```

CHAPTER 4

Configuration Commands for Arrays with RAID Controllers

This chapter describes the `sscs` commands and their options for arrays with raid controllers, including the Sun StorEdge™ 6130 array, Sun StorageTek™ 6140 and 6540 arrays, Sun Storage 6580 and 6780 arrays, Sun StorageTek 2500 Series arrays, and FlexLine™ 240, 280, and 380 Systems.

.

add hostgroup

Synopsis

Adds hosts to a host group.

`add -a` *<array-name>* **`-h`** *<host-name,...>* **`hostgroup`** *<host-group-name>*

Description

Adds hosts to a host group.

Options

`-a`, **`--array`** *<array-name>*

Specifies the array associated with this host.

-h, **--host** <*host-name,...*>

Specifies the host or hosts that you want to add to the host group.

hostgroup <*host-group-name*>

Specifies a host group name of up to 16 alphanumeric characters, underscores, dashes, and spaces.

Examples

sscs add -a array00 **-h** host01,host02 **hostgroup** `hg01`

add license

Adds a license to the specified array.

Synopsis

add -a <*array-name*> `[` **-l** <*license-location*> | **-v** <*version-number*> **-c** <*capability-number*> **-d** <*digest-key*> `]` **license**

Description

Adds a license to the specified array. Specify either the `-l` option alone, or the `-v`, `-c`, and `-d` options together.

Options

-a, **--array** <*array-name*>

Specifies the array to associate with this license.

-c, **--capability** <*license-type*>

Specifies the type of license to be added: Snapshots, Storage Domains, Replication Sets (not applicable to 2500 Series running firmware version 07.35.04.10), and Volume Copy Pairs (not applicable to 2500 Series).

-d, **--digest** <*digest-key*>

Specifies the security digest key for access to this license.

-l, **--license** <*license-location*>

Specifies the license to associate with this array. The license location should specify the location of the 6140 array license file. This can be in the form of a URL (http://... or file:///...) or a file name.

-v, **--version** *<version-number>*

Specifies the number of the license version.

Examples

sscs add -a corporate **-l** http://server/6140/snapshot-license **license**

Adds a license to the corporate array from the specified URL.

sscs add -a corporate **-v** *1* **-c** ReplicationSet **-d** 7A906509CBB33911C06F83BD2BCA1B3375789AB7 **license**

Adds replication set feature licenses to the sample corporate array for version 1 using the license digest string provided by Sun Microsystems.

create host

Creates a storage host.

Synopsis

create -a *<array-name>* [**-g** *<host-group-name>*] **host** *<host-name>*

create -a *<array-name>* [**-g** *<hostgroup-name>*] [**-w** *<string[,string...]>*] [**-d** *<description-text>*] **host** *<host-name>*

Description

Creates a storage host where data is initiated. You can create up to 256 hosts per array on the 6130/6140 arrays and 32 hosts on the 6540 array.

Options

-a,--array *<array-name>*

Specifies the name of the array on which you want to create a host. For cross-platform compatibility, you can substitute `-X, --storage-device` in place of the `-a, --array` option.

-w,--wwn *<string>*

Specifies the initiator World Wide Name (WWN).

-d,--description <*description-text*>

Specifies the host description.

-g,--hostgroup <*host-group-name*>

Specifies a host group with which you associate this new host.

host

Specifies the name of the host that you want to create, using up to 16 alphanumeric characters, underscores, dashes, and spaces.

Examples

sscs create -a array00 **host** host1

create hostgroup

Creates a storage host group.

Synopsis

create -a <*array-name*> **hostgroup** <*host-group-name*>

Description

Creates a group of hosts to share storage. You can create up to 256 host groups per array. You can create up to 256 host groups per array on the 6130/6140 arrays and 32 host groups on the 6540 array.

Options

-a, **--array** <*array-name*>

Specifies the array on which you want to create a host group.

hostgroup <*host-group-name*>

Specifies the name of the host group that you want to create, using up to 16 alphanumeric characters, underscores, dashes, and spaces.

Examples

sscs create -a array00 **hostgroup** hg1

create initiator

Creates an initiator.

Synopsis

create -a <*array-name*> **-w** <*initiator-WWN*> [**-h** <*host-name*>] [**-o** <*OS-type-name*> **solaris_dmp | solaris** | **sun_storedge** | **sun_storedge_nas_gateway** | **aix** | **hpux** | **linux** | **lnxavt** | **irix** | **ptx** | **netware_failover** | **netware_non_failover** | **win2k_clustered** | **win2k_non_clustered** | **winnt** | **winnt_non_clustered** | **win2k_non_clustered_dmp** | **win2k_clustered_dmp** | **dsp** | **aixavt** | **winnt_clustered**]**initiator** <*initiator-name*>

Description

Creates a FC initiator on a host.

Options

-a,**--array** <*array-name*>

Specifies the array. For cross-platform compatibility, you can substitute `-X, --storage-device` in place of the `-a, --array` option.

-w,**--wwn** <*initiator-WWN*>

Specifies the initiator World Wide Name (WWN). For example: 210000e08b047212.

-h,**--host** <*host-name*>

Specifies the data storage host name.

-o,**--os-type** <*OS-type-name*>

Use the command **sscs list -a** *array-name* **os-type** to view all of the operating systems that are supported by the array.

initiator <*initiator-name*>

Specifies an initiator name of up to 16 alphanumeric characters, underscores, dashes, and spaces.

Examples

sscs create -a array00 **-w** 210000e08b047212 **-h** host01 **-o** aix **initiator** myInitiator-01

create iscsi initiator

Creates an iSCSI initiator on a host.

Synopsis

create -a *<array-name>* **[-h** *<host-name>* **][-o** <**solaris_dmp | solaris** | **sun_storedge** | **sun_storedge_nas_gateway** | **aix** | **hpux** | **linux** | **irix** | **ptx** | **netware_failover** | **netware_non_failover** | **win2k_clustered** | **win2k_non_clustered** | **winnt** | **winnt_non_clustered** | **win2k_non_clustered_dmp** | **win2k_clustered_dmp** | **aixavt** | **winnt_clustered**>**]** [**-i** *<iqn-string>*] [**-u** <**none** | **CHAP**>] [**-c** *<string>*] **initiator** *<initiator-name>*

Description

Creates an iSCSI initiator on a host.

Options

-a,--array *<array-name>*

Specifies the array. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-h, **--host** *<host-name>*

Specifies the data storage host name.

-o, **--os-type** *<OS-type-name>*

Use the command **sscs list -a** *array-name* **os-type** to view all of the operating systems that are supported by the array.

-i,--IQN *<iqn-string>*

Specifies the iSCSI qualified name (IQN) for the initiator.

-u,--authentication <none|CHAP>

Specifies to use the Challenge Handshake Authentication Protocol (CHAP) authentication method for accessing the target. Values are CHAP or none.

-c,--chap-secret <*string*>

Specifies the CHAP secret ID (up to 256 alphanumeric characters) used to authenticate the target.

initiator <*initiator-name*>

Specifies an initiator name of up to 16 alphanumeric characters, underscores, dashes, and spaces.

Examples

```
sscs create -a IEC_iSCSI_LCA -h Myhost_19852 -o solaris -i iqn.2001-
06.com.sun:fvt3init21.sys1 -u CHAP -c 123123123123123123 initiator
initiSCSI
```

create pool

Creates an empty storage pool on the array.

Synopsis

create -a <*array-name*> **-p** <*profile-name*> **[-d** <*description*> **]** **pool** <*pool-name*>

Description

Creates an empty storage pool on the array and assigns a profile to it.

Options

-a,**--array** <*array-name*>

Specifies the array. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-d,**--description** <*description*>

Specifies a description of the pool. The description can be up to 256 alphanumeric characters, which can include underscores, dashes, colons, commas, parentheses, curly brackets, square brackets, ticks, tildes, bars, periods, or spaces.

-p, **--profile** <*profile-name*>

Specifies a profile to associate with the pool.

pool <*pool-name*>

Specifies a pool name of up to 16 alphanumeric characters, underscores, dashes, and spaces.

Examples

sscs create -a array00 **-p** Database **pool** SP048763

create profile

Creates a storage profile on the array.

Synopsis

create -a <array-name> **-r** <**0|1**> **-s** <**16K|32K|64K|128K|256K|512K**> **-h** <**on|off**> **-n** <**variable|1..224**> [**-k** <**ANY|FC|SAS|SATA**>] [**-H** <**yes|no**>] [**-d** <*profile-description*>] **profile** <*profile-name*>

create -a <array-name> **-r** <**3|5|6**> **-s** <**16K|32K|64K|128K|256K|512K**> **-h** <**on|off**> **-n** <**variable|1..30**> [**-k** <**ANY|FC|SAS|SATA**>] [**-H** <**yes|no**>] [**-d** <*profile-description*>] **profile** <*profile-name*>

Description

Profiles for the most common configurations come with the software. This command creates a custom storage profile and assigns it to an array.

Options

-a, **--array** <*array-name*>

Specifies the array name.

--d, **--description** <*profile-description*>

Specifies a profile description of up to 256 alphanumeric characters, which can include underscores, dashes, colons, commas, parentheses, curly brackets, square brackets, ticks, tildes, bars, periods, or spaces.

-k, **--disk-type** ANY | FC | SAS | SATA

Specifies the disk type:

ANY - Any type of disk, including FC, SATA, or SAS

FC - Fibre Channel

SATA - Serial Advanced Technology Attachment

SAS - Serial Attached SCSI

-h,**--readahead** on | off

Specifies whether the read ahead option is on or off.

-H,**--hot-spare** yes | no

Specifies whether you want this disk to be a designated hot-spare.

-n,**--number-of-disks** variable | *<1..224>*

Specifies the number of disks from 1to 224, in combination with raid levels 0 or 1. Variable indicates that the number of disks is not fixed and can change.

-n,**--number-of-disks** variable | *<1..30>*

Specifies the number of disks from 1to 30, in combination with raid levels 3, 5, and 6. Variable indicates that the number of disks is not fixed and can change.

-r,**--raid-level** 0 | 1

Specifies RAID level 0 or 1, in combination with number-of-disks 1 to 224.

-r,**--raid-level** 3 | 5 | 6

Specifies RAID level 3, 5, or 6, in combination with number-of-disks 1 to 30.

-s,**--segment-size** 16K | 32K | 64K | 128K | 256K | 512K

Specifies the segment size.

profile *<profile-name>*

Specifies a profile name of up to 32 alphanumeric characters, underscores, dashes, and spaces.

Examples

sscs create -a array00 **-r** 1 **-s** 64K **-h** on **-n** variable **-D** FC **-d** Custom-Database-Profile **profile** DatabaseProfile

create repset

Creates a storage replication set using a peer World Wide Name or remote array name (not applicable to 2500 Series).

Synopsis

create -a *<array-name>* **-l** *<volume-name>* **-w** *<peer-WWN>* **-o** *<volume-name>* **-m sync**| **async** [**-G yes** | **no**] [**-R lowest** | **low** | **medium** | **high** | **highest**] [**-s enable** | **disable**] **repset**

create -a *<array-name>* **-l** *<volume-name>* **-A** *<remote-array-name>* **-o** *<volume-name>* **-m sync**| **async** [**-G yes** | **no**] [**-R lowest** | **low** | **medium** | **high** | **highest**] [**-s enable** | **disable**] **repset**

Description

Creates a storage replication set linking the local volume with the remote volume via a peer World Wide Name or remote array name (not applicable to 2500 Series).

Options

-a,**--array** *<array-name>*

Specifies the array. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-A,**--remote-array** *<remote-array-name>*

Specifies the remote array. Options `-A` and `-w` are mutually exclusive.

-G,**--consistency-group** `yes | no`

Specifies whether or not you want to add this replication set to the array consistency group. Note that the default value (no) is only allowed with the asynchronous mode option.

-l,**--local-volume** *<volume-name>*

Specifies the local volume name.

-m,**--mode** `sync | async`

Specifies whether the mode is synchronous or asynchronous.

-o,**--remote-volume** *<remote-volume-name>*

Specifies the remote volume name.

-R,**--replication-priority** lowest | low | medium | high | highest

Specifies the priority of this replication set. If no priority is specified, the default is medium.

-s,**--auto-sync** enable | disable

Specifies whether the auto synchronization policy is enabled. If it is not specified, the default is disabled.

-w,**--peer-wwn** *<peer-WWN>*

Specifies the peer World Wide Name.

Examples

sscs create -a europe **-l** euro_sales **-w** 17:76:18:12:18:49:18:62:19:14:19:39:19:47:19:61 **-o** euro_sales **-m** async **-G** no **-R** medium **-s** enable **repset**

Creates a replication set of the euro_sales volume that exists on the array named europe. In the process, it uses the euro_sales volume on the array whose WWN is 17:76:18:12:18:49:18:62:19:14:19:39:19:47:19:61 and sets it to synchronize asynchronously with a medium priority with the write order not preserved and resynchronization performed automatically. This repset is called euro_sales/1.

sscs create -a corp_west **-l** crm-sales **-w** 17:76:18:12:18:49:18:62:19:14:19:39:19:47:19:61 **-o** crm-sales **-m** async **-G** no **-R** medium **-s** enable **repset**

Creates a replication set of the crm-sales volume that exists on the array named corp_west. In so doing, it uses the crm-sales volume on the array whose WWN is 17:76:18:12:18:49:18:62:19:14:19:39:19:47:19:61 and sets it to synchronize asynchronously with the highest priority with the write order preserved and resynchronization performed automatically. This repset is called crm-sales/1.

sscs create -a europe **-l** euro_sales **-A** corporate **-o** euro_sales **-m** async **-G** no **-R** medium **-s** enable **repset**

Creates a replication set of the euro_sales volume that exists on the array named europe. In the process, it uses the euro_sales volume on the corporate array and sets it to synchronize asynchronously with a medium priority with the write order not preserved and resynchronization performed automatically. This repset is called euro_sales/1.

sscs create -a corp_west **-l** crm-sales **-A** corporate **-o** crm-sales **-m** async **-G** yes **-R** highest **-s** enable **repset**

```
Creates a replication set of the crm-sales volume that exists on the
array named corp_west. In so doing, it uses the crm-sales volume on
the corporate array and sets it to synchronize asynchronously with
the highest priority with the write order preserved and
resynchronization performed automatically. This repset is called
crm-sales/1.
```

create snapshot

Creates a snapshot for the specified volume.

Synopsis

create -a *<array-name>* **-V** *<volume-name>* **[-f** **<failbasewrite|failsnapshot>**] [**-v** *<virtual-disk-name>*] [**-m** *<volume-name>*] [**-w** *<0..100>*] [**-n** *<1..224>*] [**-d** *<disk-name[,disk-name...]>*] [**-r** <**0|1**>] [**-k** <**ANY|FC|SAS|SATA**>] [**-Z** *<number*<**TB|GB|MB|KB|Bytes|BLK|BV**>>] [**-C** *<integer>*] [**-L** <**low|verylittle|little|average|high|full**>] [**-l** *<0..100>*] [**-P** *<pool-name>*] [**-D** *<description-text>*] **snapshot** *<snapshot-name>*

create -a *<array-name>* **-V** *<volume-name>* **[-f** **<failbasewrite|failsnapshot>**] [**-v** *<virtual-disk-name>*] [**-m** *<volume-name>*] [**-w** *<0..100>*] [**-n** *<1..30>*] [**-d** *<disk-name[,disk-name...]>*] [**-r** <**3|5|6**>] [**-k** <**ANY|FC|SAS|SATA**>] [**-Z** *<number*<**TB|GB|MB|KB|Bytes|BLK|BV**>>] [**-C** *<integer>*] [**-L** <**low|verylittle|little|average|high|full**>] [**-l** *<0..100>*] [**-P** *<pool-name>*] [**-D** *<description-text>*] **snapshot** *<snapshot-name>*

Description

Creates a snapshot for the specified volume. Once the snapshot volume is created, it can be treated as any other volume, with the exception that it cannot be used to create another snapshot.

Options

-a,**--array** *<array-name>*

Specifies the array associated with this snapshot. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-C,--snapshot-count *<integer>*

Specifies the number of intended snapshots for the volume.

-D,--description *<description-text>*

Specifies a description of the snapshot.

-d,**--disk** *<disk-name,...>*

Specifies the name of the disk or disks that will be used to create the snapshot volume.

The arguments `-d` and `-n` cannot be used at the same time, and specification of either one results in a new virtual disk being created.

-f,**--full-policy** `failbasewrite | failsnapshot`

The full policy specifies what to do if and when the snapshot fills up:

failbasewrite - Stop allowing writes to the base volume.

failsnapshot - Stop allowing writes to the snapshot. This is the default.

-k,**--disk-type**

Specifies the disk type:

ANY - Any type of disk, including FC, SATA, or SAS

FC - Fibre Channel

SATA - Serial Advanced Technology Attachment

SAS - Serial Attached SCSI

-L,**--snapshot-level** `low | verylittle | little | average | high | full`

The snapshot level should be set to the percentage of the base volume that is expected to be overwritten during the snapshot's lifetime. This determines the amount of storage allocated to the snapshot (that is, the size of its reserve volume). To maintain the snapshot of the base volume's state, data in the base volume that is about to be overwritten is copied into the snapshot reserve space.

The snapshot levels equate to the following percentages:

10% - low

25% - verylittle

40% - little

50% - average

75% - high

100% - full

-l,--snapshot-percentage *<0..100>*

Specifies what percentage of the volume is to be used for snapshot creation.

-m, **--reserve-name** *<volume-name>*

Specifies the name of the reserve volume. If no name is specified, a name is created and assigned automatically.

-n, **--number-of-disks** *<1..224>*

Specifies the number of disks in the snapshot volume, 1 to 224, in combination with RAID levels 0 and 1.

-n, **--number-of-disks** *<1..30>*

Specifies the number of disks in the snapshot volume, 1 to 30, in combination with RAID levels 3, 5, and 6.

-P, **--snapshot-pool** *<pool-name>*

Specifies the name of the snapshot.

-r, **--raid-level** `0 | 1`

Specifies RAID level 0 or 1, in combination with number-of-disks 1 to 224.

-r, **--raid-level** `3 | 5 | 6`

Specifies RAID level 3, 5, or 6, in combination with number-of-disks 1 to 30.

-v, **--reserve-vdisk** *<virtual-disk-name>*

This option is mutually exclusive from the `-d, -k`, `-n`, and `-r` options.

If a reserve virtual disk is not specified:

- An existing virtual disk is used if possible.

- If no existing virtual disk is found, a new virtual disk is created, if that possibility exists; otherwise, an error message is reported.

If a reserve virtual disk is specified:

- If it is incompatible with the reserve volume, it results in a failure.

- If there is not enough free space, it results in an error.

-V, **--volume** *<source-volume-name>*

Specifies the source volume from which to take a snapshot.

-w, **--warning-threshold** *<0..100>*

Specifies when to inform you that the snapshot reserve volume is near capacity. If a warning threshold is not specified, 50% is used.

-Z, **--snapshot-reserve-size** *<size>*

Specifies the amount of space you want to reserve for capacity of the snapshot reserve volume. Specify this snapshot reserve volume capacity as a percentage of the base volume. You can increase or decrease the percentage until the Snapshot Reserve Volume Capacity value matches the estimated capacity that you calculated. Some rounding up may be required.

snapshot *<snapshot-name>*

Specifies the snapshot name of up to 16 alphanumeric using characters, underscores, dashes, and spaces.

Examples

sscs create -a array00 **-V** vol0 **snapshot** vol01_snap

create vdisk

Creates a virtual disk.

Synopsis

create -a *<array-name>* **-p** *<pool-name>* [**-d** *<disk-name[,disk-name...]* **vdisk** *<virtual-disk-name>*

create -a *<array-name>* **-p** *<pool-name>* **-n** *<integer>*] **vdisk** *<virtual-disk-name>*

Description

Creates a virtual disk.

Options

-a,**--array** *<array-name>*

Specifies the array associated with this virtual disk.

-d,**--disk** *<disk-name,...>*

Specifies particular disks to be added to the virtual disk.

-n,**--number-of-disks** *<1...X>*

Specifies the number of disks to be added to the virtual disk.

-p,**--pool** *<pool-name>*

Specifies the storage pool associated with this virtual disk.

vdisk *<virtual-disk-name>*

Specifies the virtual disk that you want to modify.

Examples

```
sscs create -a array00 vdisk vdisk1
```

create volume

Creates a volume within a specified pool.

Synopsis

create -a *<array-name>* **-p** *<pool-name>* **-s** *<number><***TB|GB|MB|KB|Bytes|BLK|BV***>>* [**-v** *<virtual-disk-name>*] [**-n** *<1..30>*] [**-d** *<disk-name[,disk-name...]>*] [**-c** *<***A|B***>*] **volume** *<volume-name>*

create -a *<array-name>* **-p** *<pool-name>* **-s** *<number><***TB|GB|MB|KB|Bytes|BLK|BV***>>* **-C** <integer> **-L** *<***low|verylittle|little|average|high|full***>* [**-v** *<virtual-disk-name>*] [**-n** *<1..30>*] [**-d** *<disk-name[,disk-name...]>*] [**-f** *<***volume|snapshot***>*] [**-w** *<0..100>*] [**-P** *<pool-name>*] [**-V** *<virtual-disk-name>*] [**-c** *<***A|B***>*] **volume** *<volume-name>*

create -a *<array-name>* **-p** *<pool-name>* **-s** *<number><***TB|GB|MB|KB|Bytes|BLK|BV***>>* **-Z** *<number><***TB|GB|MB|KB|Bytes|BLK|BV***>>* [**-v** *<virtual-disk-name>*] [**-n** *<1..224>*] [**-d** *<disk-name[,disk-name...]>*] [**-f** *<***volume|snapshot***>*] [**-w** *<0..100>*] [**-P** *<pool-name>*] [**-V** *<virtual-disk-name>*] [**-c** *<***A|B***>*] **volume** *<volume-name>*

create -a *<array-name>* **-p** *<pool-name>* **-s** *<number><***TB|GB|MB|KB|Bytes|BLK|BV***>>* **-C** *<integer>* **-l** *<0..100>* [**-v** *<virtual-disk-name>*] [**-n** *<1..30>*] [**-d** *<disk-name[,disk-name...]>*] [**-f** *<***volume|snapshot***>*] [**-w** *<0..100>*] [**-P** *<pool-name>*] [**-V** *<virtual-disk-name>*] [**-c** *<***A|B***>*] **volume** *<volume-name>*

Description

Creates a volume within a specified pool. You can have up to 2048 volumes per array.

Options

-a,--array <*array-name*>

Specifies the array. For cross-platform compatibility, you can substitute `-X, --storage-device` in place of the `-a, --array` option.

-C,--snapshot-count <*integer*>

Specifies the number of intended snapshots for the volume.

-c,--controller A | B

Specifies the controller.

-d,--disk <*disk-name,...*>

Specifies the name of the disk. You can use this option with either the -n option or the -v option, but not with both -n and -v at the same time.

-f,--favor volume | snapshot

Favors the volume or snapshot.

-L,--snapshot-level <low | verylittle | little | average | high | full>

Specifies the level of snapshot activity as either low, verylittle, little, average, high, or full. The snapshot levels equate to the following percentages:

low - 10%

verylittle - 25%

little - 40%

average - 50%

high - 75%

full - 100%

-l,--snapshot-percentage <*0..100*>

Specifies what percentage of the volume is to be used for snapshot creation.

-n,--number-of-disks <*1..30*> or <*1..224*>

Specifies the number of disks in the volume. You can use this option with either the -d option or the -v option, but not with both -d and -v at the same time. Number-of-disks <1..30> is used in combination with a RAID level set at 3, 5, and 6. Number-of-disks <1..224> is used in combination with a RAID level set at 0 or 1.

-P,--snapshot-pool <*pool-name*>

Specifies the name of the snapshot.

-p,--pool <*pool-name*>

Specifies the name of the snapshot pool.

-s,--size tb | gb | mb | kb | bytes | blk | bv

Specifies the volume size. Sizes can be in terabytes, gigabytes, megabytes, kilobytes, bytes, blocks, or base volume

-V,--reserve-vdisk <*virtual-disk-name*>

Specifies a reserve virtual disk.

-v,--vdisk <*virtual-disk-name*>

Specifies the name of the virtual disk. You can use this option with either the -d option or the -n option, but not with both -d and -n at the same time.

-w,--warning-threshold <*0..100*>

Specifies when to inform you that the snapshot reserve volume is near capacity. If a warning-threshold is not specified, 50% is the default.

Z,--snapshot-reserve-size <*number*<TB | GB | MB | KB | Bytes | BLK | BV

Specifies the amount of space you want to reserve for capacity of the snapshot reserve volume.

volume <*volume-name*>

Specifies the volume name of up to 16 alphanumeric characters.

Examples

sscs create -a array01 **-p** pool1 **-s** 20GB **volume** ORACLE-1

create volume-copy

Creates a copy of the volume (not applicable to 2500 Series).

Synopsis

create -a <*array-name*> **-s** <*source-volume-name*> **-t** <*target-volume-name*> **[-p lowest** | **low** | **medium** | **high** | **highest] volume-copy**

Description

Creates a copy of the volume.

-a,**--array** <*array-name*>

Specifies the array associated with this volume.

-p,**--priority** `lowest | low | medium | high | highest`

Specifies the priority of this volume copy. If no priority is specified, the default is medium.

-s,**--source-volume** <*volume-name*>

Specifies the source volume name associated with this volume copy.

-t,**--target-volume** <*volume-name*>

Specifies the target volume name associated with this volume copy.

Examples

sscs create -a array00 **-s** vol01 **-t** vol02 **volume-copy**

delete host

Deletes one or more hosts.

Synopsis

delete -a <*array-name*> **host** <*host-name,...*>

Description

Deletes one or more hosts.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this host. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

host <*host-name,...*>

Specifies the host or hosts to delete.

Examples

sscs delete -a array00 **host** host01

delete hostgroup

Deletes one or more host groups.

Synopsis

delete -a <*array-name*> **hostgroup** <*host-group-name,...*>

Description

Deletes one or more host groups.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this host group.

hostgroup <*host-group-name,...*>

Specifies the host group or host groups to delete.

Examples

sscs delete -a array00 **hostgroup** hg01

delete initiator

Deletes one or more initiators.

Synopsis

delete -a <*array-name*> [**-T** <*wwn* | *initiator_name*>] **initiator** <*initiator-ID,...*>

Description

Deletes one or more initiators. The initiator or initiators must be unmapped or the command will fail.

Options

-a,**--array** *<array-name>*

Specifies the array associated with this initiator or initiators. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-T,**--name-type** *<wwn | iqn | initiator_name>*

Specifies the initiator type, either an iSCSI initiator or FC initiator. For iSCSI, specify the iSCSI qualified name (IQN) or name of the initiator. For FC, specify the World Wide Name or name of the initiator.

initiator *<initiator-ID,...>*

Specifies the initiator identifier.

Examples

sscs delete -a array00 **initiator** myInitiator-01,myInitiator-02

delete iscsi-session

Deletes an iscsi-session.

Synopsis

delete -a *<array-name>* **iscsi-session** *<session-identifier[,session-identifier...]>*

Description

Deletes iSCSI sessions associated with a specified array.

Options

-a,**--array** *<array-name>*

Specifies the name of the array.

iscsi-session <*session-identifier*>

Specifies one or more iSCSI sessions to delete.

Examples

sscs delete --array iSCSILCA2 **iscsi-session** 40:00:01:37:00:05:8

Deletes iSCSI session 40:00:01:37:00:05:8 for array iSCSILCA2.

delete pool

Deletes one or more pools.

Synopsis

delete -a <*array-name*> **pool** <*pool-name,...*>

Description

Deletes one or more storage pools. This operation removes all associated virtual disks and volumes during the deletion of the storage pool. You can perform this action only when all volumes in the pool are unmapped.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this pool. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

pool <*pool-name,...*>

Specifies the storage pool or list of pools to delete.

Examples

sscs delete -a array00 **pool** SP048763

delete profile

Deletes one or more profiles.

Synopsis

delete -a <*array-name*> **profile** <*profile-name,...*>

Description

Deletes one or more storage profiles. You can only perform this function on a storage profile that has no storage pools associated with it.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this profile.

profile <*profile-name,...*>

Specifies the profile or profiles to delete.

Examples

sscs delete -a array00 **profile** MyProfile

delete repset

Deletes one or more replication sets (not applicable to 2500 Series).

Synopsis

delete -a <*array-name*> **repset** <*repset-name,...*>

Description

Deletes one or more replication sets.

Options

-a, **--array** <*array-name*>

Specifies the array from which you want to delete the replication set. For cross-platform compatibility, you can substitute `-X, --storage-device` in place of the `-a, --array` option.

repset <*repset-name,...*>

Specifies the replication set or sets to delete.

Examples

sscs delete -a corporate **repset** finance/1

Deletes the replication of the finance volume on the array named corporate.

sscs delete -a corp_west **repset** crm-sales/1

Deletes the replication of the crm-sales volume on the array named corp_west.

delete snapshot

Deletes one or more snapshots.

Synopsis

delete -a <*array-name*> **snapshot** <*snapshot-name,...*>

Description

Deletes the specified snapshot.

Options

-a, **--array** <*array-name*>

Specifies the array associated with this snapshot. For cross-platform compatibility, you can substitute `-X, --storage-device` in place of the `-a, --array` option.

snapshot <*snapshot-name,...*>

Specifies the snapshot or snapshots to delete.

Examples

sscs delete -a array00 **snapshot** snap1

delete vdisk

Deletes one or more named virtual disks.

Synopsis

delete -a <*array-name*> **vdisk** <*vdisk-name,...*>

Description

Deletes one or more specified virtual disks.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this virtual disk. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

vdisk <*vdisk-name,...*>

Specifies the vdisk or vdisks to delete.

Examples

sscs delete -a array00 **vdisk** vdisk1

delete volume

Deletes one or more named volumes.

Synopsis

delete -a <*array-name*> **volume** <*volume-name,…*>

Description

Deletes one or more named volumes. The volume must be unmapped or the deletion fails.

Options

-a,**--array** *<array-name>*

Specifies the array associated with this volumes. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

volumes *<vdisk-name,…>*

Specifies the volumes or volumes to delete.

Examples

sscs delete -a array00 **volume** ORACLE-1

delete volume-copy

Deletes a volume-copy (not applicable to 2500 Series).

Synopsis

delete -a [*<array-name>*] **-s** [*<source-volume-name>*] **-t** [*<target-volume-name>*] **volume-copy**

Description

Deletes a volume copy. This operation breaks the copy relationship between the two volumes, but it does not delete the volumes themselves. It also removes the read-only permission on the target volume.

Options

-a,**--array** *<array-name>*

Specifies the array associated with this volume copy.

-s,**--source-volume** *<volume-name>*

Specifies the source volume associated with this volume copy.

-t, **--target-volume** <*volume-name*>

Specifies the target volume associated with this volume copy.

Examples

sscs delete -a array00 **-s** vol01 **-t** vol02 **volume-copy**

disable snapshot

Disables one or more snapshots.

Synopsis

disable -a <*array-name*> **snapshot** <*snapshot-name[,snapshot-name...]*>

Description

Disables one or more snapshots. Disabling a volume snapshot does not remove either the volume snapshot or its associated reserve volume.

When you disable a volume snapshot, only the specified snapshots are disabled. All other snapshots remain functional.

Options

-a, **--array** <*array-name*>

Specifies the array associated with this snapshot.

snapshot <*snapshot-name,...*>

Specifies the names of the snapshots that you want to resnap.

Examples

sscs disable -a array00 **snapshot** snapshot1, snapshot2

Disables snapshot1 and snapshot2 on array00.

export array

Renders an extensible markup language (XML) representation of the array.

Synopsis

export array *<array-name>*

Description

The export array command renders an extensible markup language (XML) representation. This outputs to standard output, and then you redirect it to a file or another mechanism.

array *<array-name>*

Specifies the array that you want to export.

Examples

```
sscs export array array00 > /tmp/array00_backup.xml
```

export profile

Exports one or more profiles into an XML representation.

Synopsis

export -a *<array-name>* **profile** > [*<profile-name,...>*]

Description

Exports one or more profiles into an XML representation. This outputs to standard output, and then you redirect it to a file or another mechanism.

Options

-a, **--array** *<array-name>*

Specifies the array from which you want to export the profile.

profile *<profile-name,...>*

Specifies the profile or profiles to export. If no profiles are specified, all profiles are exported.

Examples

```
sscs export -a array00 profile > /tmp/all_profiles.xml
```

fail disk

Sets a disk to the failed state.

Synopsis

fail -a *<array-name>* [**-t** *<tray-name>*] **disk** *<disk-name>*

Description

Sets a disk to the failed state. This can create complications. Do not initiate this command without first consulting Sun Customer Service personnel.

Options

-a,**--array** *<array-name>*

Specifies the array on which you want to fail the disk.

-t,**--tray** *<tray-name>*

Identifies the tray where the disk resides.

disk

Specifies the name of the disk.

Examples

```
sscs fail -a Array01 -t Tray20 disk t20d16
sscs fail -a Array01 disk t20d16
```

import array

Applies an array configuration file to the specified array.

Synopsis

import -x <*XML-location*> [**-L** <*list*>] [**-n**] **array** <*array-name*>

Description

Applies an array configuration file to the specified array. This enables you to import the configuration file from one array to overwrite the configuration for this array.

Use the **-n** option to preserve the current array configuration, including the mapping between the access LUN (LUN 31) and the management host. This mapping is required for in-band management of the array.

Options

-x, **--xml** <*XML-location*>

Specifies the location of the XML file to be imported. The XML location can be in the form of a url (http://... or file:///...) or a file name.

-L, **--list**

Specifies that no import take place. Instead, the array is checked against the XML file to ensure that it is compatible.

-n, **--noclear**

Specifies that the current array configuration will not be cleared.

array <*array-name*>

Specifies the array to which the configuration file is applied.

Examples

sscs import -x file:///tmp/array00_configuration.xml **array** array00

Response Format

(when the list option is used)

`Array` *array-name* `is [not] compatible with XML file` *XML-location.*

import profile

Imports one or more profiles from a specified XML file.

Synopsis

`import -a` <*array-name*> **`-x`** <*XML-location*> `[` **`-f`** `]` **`profile`** `[` <*profile-name,...*> `]`

`import -a` <*array-name*> **`-x`** <*XML-location*> **`-L profile`** `[` <*profile-name,...*> `]`

Description

Imports one or more profiles from a specified XML file. This allows you to import the configuration profile from one array to overwrite the configuration profile for this array.

Options

`array` <*array-name*>

Specifies the array to which you want to import the profile.

`-x`, **`--xml`** <*XML-location*>

Specifies the location of an XML file containing the profiles to be imported. The XML location can be in the form of a URL (http://... or file:///...) or a file name.

`-f`, **`--force`**

Specifies the following actions when conflicts occur with the profiles:

Exists – Profiles are not imported.

Duplicate Settings – Profiles are imported, creating a new profile.

Conflicting – Profiles are imported, replacing the current profile of the same name.

In Use – Profiles are not imported.

New – Profiles are imported.

If the force option is not specified, the following occurs:

Exists – Profiles are not imported.

Duplicate Settings – Profiles are not imported.

Conflicting – Profiles are not imported.

In Use – Profiles are not imported.

New – Profiles are imported.

In all cases, both successful and failed imports are reported.

-L,--list

Lists all profiles. If the list option is specified, no import takes place. All profiles in the XML file (or all those specified by way of the <profile-name>) are listed, and each is identified as follows:

Exists – The profile already exists with all of the same parameter values.

Duplicate Settings – A profile with exactly the same parameters (the description and version can be different), but a different name exists, and no profile with the given name is in use by the system.

Conflicting – A profile with the same name exists, has different parameters, and is not currently in use by the system.

In Use – A profile with the same name exists, has different parameters, and is currently in use by the system.

New – None of the above labels apply.

profile *<profile-name,...>*

Specifies the profile or profiles to import. If no profile names are specified, all profiles in the given XML location are used.

Examples

sscs import -a array00 **-f -x** file:///tmp/all_profiles.xml **profile**

Response Format

(when --list option is used**)**

profile_name: Exists

```
profile_name: Duplicate Settings

profile_name: New

profile_name: Conflicting
```

initialize disk

Initializes a disk.

Synopsis

initialize -a *<array-name>* [**-t** *<tray-name>*] **disk** [*<disk-name>*]

Description

Initializes a disk. If a disk from another array is inserted, and you want to use it in a different array, you might need to initialize it to remove any latent virtual disk information. All data on the disk will be lost. This can create complications. Do not initiate this command without first consulting Sun Customer Service personnel.

Options

-a,**--array** *<array-name>*

Specifies the array on which you want to initialize the disk.

-t,**--tray** *<tray-name>*

Identifies the tray where the disk resides.

disk

Specifies the name of the disk.

Examples

```
sscs initialize -a Array01 -t Tray2 disk Disk6
```

list controller

Lists configuration information for the specified controller.

Synopsis

list -a <*array-name*> **controller** [**A** | **B**]

Description

Lists configuration information for the specified controller.

Options

-a, **--array** <*array-name*>

Specifies the array for which you want to view controller information.

controller A | **B**

Specifies the controller for which you want to view information. If no controller is specified, summary information for both controllers is displayed.

Examples

sscs list -a array01 **controller**

Response Format

Controller: A | B

Mode: Active | Inactive

Quiesced: True | False

Status: Removed | Optimal | RPA Par Error | Failed | Service Mode

Drive Interface: Fibre Channel | SATA | SAS

Cache Memory Size: *n* MB

Manufacturer: *manufacturer*

Serial Number: *serial-number*

Ethernet Port: 1

Use DHCP/BOOTP: On | Off

IP Address: *IP-address*

Gateway: *IP-address*

Net Mask: *net-mask*

list fcport

Lists Fibre Channel port information for the controller of the specified array.

Synopsis

list -a <*array-name*> [**-c A** | **B**] **fcport** [<*FC-port-ID,...*>]

Description

Lists Fibre Channel (FC) port information for the controller of the specified array.

Options

-a,**--array** <*array-name*>

Specifies the name of the array where the controller resides.

-c,**--controller A** | **B**

Specifies the controller for which you want Fibre Channel port information.

fcport <*fcport-ID,...*>

Specifies the Fibre Channel port or ports for which you want information. Ports are specified as A/1 to A/4 and B/1 to B/4. If no FC port is specified, details for all ports are displayed.

Examples

sscs list -a array00 **fcport** A/1

Response Format

Array: *array-name* **Controller: A** | **B FCPort:** *fcport-ID*

Port WWN: *port-WWN*

Node WWN: *node-WWN*

Topology: ARB Loop | **Fabric** | **PTP** | **FAB Loop** | **Unknown**

Speed: *current-speed* Gb/s (Giga bits per second)

Maximum Speed: *maximum-speed* Gb/s

Loop ID: *0..127* | **N/A** | **Any**

Preferred Loop ID: *0..127* | **N/A** | **Any**

Channel Number: *channel-number*

Channel Joined With Another: True | **False**

Link Status: Up | **Down**

list host

Lists the host names and details for an individual host.

Synopsis

list -a <*array-name*> **host** [<*host-name,...*>]

Description

Lists the host names and details for an individual host.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this host. For cross-platform compatibility, you can substitute -X,--storage-device in place of the -a,--array option.

host <*host-name,...*>

Specifies the host or hosts that you want to view in detail. When no host is specified, the names of all the hosts in the array are listed.

Examples

sscs list -a array00 **host**

Response Format

(when no <*host-name*> value is specified)

Host: *host-name*

. . .

Host: *host-name*

Response Format

(host detail when <*host-name*> value is specified)

Host: *host-name*

Host Group: *hostgroup-name*

Initiator: *initiator-name*

. . .

Initiator: *initiator-name*

Volume: *volume-name* **LUN**:*LUN-ID*

. . .

Volume: *volume-name* **LUN**:*LUN-ID*

list hostgroup

Lists host group name and hosts for an individual host group.

Synopsis

list -a <*array-name*> **hostgroup** [<*host-group-name,...*>]

Description

Lists host group name and hosts for an individual host group.

Options

-a, **--array** *<array-name>*

Specifies the array associated with this host group.

hostgroup *<host-group-name,...>*

Specifies the host group that you want to view. When no host group is specified, the names of all the host groups in the array are listed.

Examples

sscs list -a array00 **hostgroup**

Response Format

(when no *<host-group-name>* value is specified)

Host Group: *host-group-name*

. . .

Host Group: *host-group-name*

Response Format

(host detail when the *<host-group-name>* value is specified)

Host Group: *host-group-name*

Host: *host-name*

. . .

Host: *host-name*

Volume: *volume-name* **LUN**:*LUN-ID*

. . .

Volume: *volume-name* **LUN**:*LUN-ID*

list initiator

Lists the initiators and provides a description of each.

Synopsis

list -a <*array-name*> [**-T** <**wwn** | **initiator_name**>] **initiator** [<*initiator-ID,...*>]

Description

Lists the initiators and provides a description of each.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this initiator. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-T,**--name-type** <wwn | iqn | initiator_name>

Specifies the initiator identifier; a World Wide Name, iSCSI qualified name (IQN), or a named initiator.

initiator <*initiator-ID,...*>

Specifies the initiator identifier.

Examples

sscs list -a array01 **-T** initiator_name **initiator** myInitiator-01

sscs list -a array01 **initiator** myInitiator-01

sscs list -a iSCSILCA_2 **-T** iqn **initiator**

Response Format

(list of initiators when no <*initiator-ID*> value is specified)

Initiator: *initiator-ID*

...

Initiator: *initiator-ID*

Response Format

(detail about the initiator when an <*initiator-ID*> value is specified)

Initiator: *initiator-ID*

WWN: *initiator-WWN*

Host: *host-name*

OS Type: *host-type*

list iperformance

Displays iSCSI performance statistics for the 2510 array and enables you to define the type of iSCSI performance statistics to monitor.

Synopsis

To display the performance statistics:

list -a <*array-name*[,*array-name...*]> **-T** [**-b** <**true** | **false**>] **iperformance**

To define the type of iSCSI performance statistics to monitor and the sort order of the output:

list -a <*array-name*[,*array-name...*]> **-t** <**array_stats** | **controller_stats** | **volume_stats**> [**-c** <**A**|**B**>] [**-h** <*host-name*[,*host-name...*]>] [**-g** <*hostgroup-name*[,*hostgroup-name...*]>] [**-v** <*volume-name*[,*volume-name...*]>] [**-s** <**name** | **total_iops** | **read_percent** | **write_percent** | **total_data** | **avg_read_size** | **avg_read_rate** | **peak_read_rate** | **avg_write_size** | **avg_write_rate** | **peak_write_rate** | **cache_hit_percent**>] [**-b** <**true**|**false**>] **iperformance**

Description

Displays iSCSI performance statistics for the 2510 array and enables you to define the type of iSCSI performance statistics to monitor and the sort order of the output.

Only valid for 2510 arrays running firmware version 07.35.*nn.nn* or higher.

Options

-a,**--array** <*array-name*>

Specifies the name of the array associated with this iSCSI performance request.

-b,**--baseline** <**true** | **false**>

Sets the baseline time for the iSCSI array. If true, the current array time is used as the baseline time.

-t,**--type** <array_stats | controller_stats | volume_stats>

Specifies the type of statistics to list: array, controller, or volume.

-c,**--controller** <**A** | **B**>

Specifies controller A or controller B.

-h,**--host** <*host-name*[,*host-name...*]>]

Specifies the host name of one or more hosts.

-g,**--hostgroup** <*hostgroup-name*[,*hostgroup-name...*]>

Specifies the name of one or more host groups.

-v,**--volume** <*volume-name*[,*volume-name*...]>

Specifies one or more volumes.

-s,**--sort** <name | total_iops|read_percent|write_percent | total_data | avg_read_size |avg_read_rate| peak_read_rate | avg_write_size | avg_write_rate | peak_write_rate | cache_hit_percent>]

Specifies the value for sorting the performance output.

Examples

Display Statistics:

sscs list -a iSCSILCA_2 **-T iperformance**

▼ Response Format

Array: iSCSILCA_2

State: Off

Polling Interval: 1 minute

Data Retention Period: 1 hour

BASELINE STATISTICS

Controller A Baseline Time: *date* **at** *time*

Controller B Baseline Time: *date* **at** *time*

MAC Transmit Statistics

MAC Receive Statistics

TCP Statistics

IPv4 Statistics

IPv6 Statistics

Target (Protocol) Statistics

Define statistics to display:

```
sscs list --array iSCSILCA_2 --type array_stats --sort total_iops
iperformance
```

List array statistics for iSCSILCA_2 and sort by total I/O operations per second.

list iscsi-port

Lists iSCSI ports.

Synopsis

list -a <*array-name*> [**-c** <**A**|**B**>] **iscsi-port** [*iscsiport-id*[,*iscsiport-id*...]]

Description

Lists information for one or more iSCSI ports configured for a specified array.

Options

-a,**--array** <*array-name*>

Specifies the name of the array.

-c,**--controller** <**A** | **B**>

Specifies controller A or B for which you want information.

[*iscsiport-id*[,*iscsiport-id*...]]

Specifies one or more iSCSI port IDs. For a detailed listing, specify controller/port.

Examples

sscs list --array iSCSILCA_2 **iscsi-port** B/1

Lists detail for iSCSI port 1 on controller B for array iSCSILCA_2.

Response Format

Array: iSCSILCA_2

Controller: A

iSCSI Port: B/1

Port MAC: 00:A0:B8:20:34:69

Speed: 100 Mbps

Maximum Speed: 1 Gbps

Link Status: Up

Listening Port: 3260

MTU: 1500

ICMP Ping Responses: Enabled

IPv4: Enabled

DHCP: Off

IP Address: 10.8.88.167

Gateway: 10.8.88.1

Netmask: 255.255.255.0

VLAN: Disabled

VLAN ID: 0

Ethernet Priority: Disabled

Priority: 3

list iscsi-session

Lists iSCSI sessions.

Synopsis

list -a <*array-name*> **iscsi-session** [*session-identifier*[**,***session-identifier*...]]

Description

Lists iSCSI sessions associated with a specified array. To list details of a specific iSCSI session, include the iSCSI session ID.

Options

-a, **--array** <*array-name*>

Specifies the name of the array.

iscsi-session [*session-identifier*[,*session-identifier*...]]

Specifies the iSCSI session ID.

Examples

sscs list -a iSCSILCA_2 **iscsi-session** 40:00:01:37:00:00:8003

Response Format

iSCSI Session

iSCSI Target: iqn.1992-01.com.lsi:1535.600a0b80003487c10000000046cc4a1d

iSCSI Session Identifier (SSID): 40:00:01:37:00:00:8003

Initiator Session Identifier (ISID): 40:00:01:37:00:00

Target Portal Group Tag: 2

Initiator iSCSI Name: iqn.1991-05.com.microsoft:funk.sun.com

Initiator iSCSI Label: i1193868006

Initiator iSCSI Alias: fi1193868006

Host: fh1193262432

i**SCSI Session Connection ID(s)**

Connection ID (CID): 0x1

Ethernet Port: Controller B, Port 2

Initiator IP Address: 10.8.88.103

Negotiated Login Parameters

Authentication Method: None

Header Digest Method: None

Data Digest Method: None

Maximum Connections: 4

Target Alias: iSCSI_LCA2

Initiator Alias: fi1193868006

Target IP Address: 10.8.88.175

Target Portal Group Tag: 2

Initial R2T: Yes

Maximum Burst Length: 262144 Bytes

First Burst Length: 8192 Bytes

Default Time to Wait: 0 Seconds

Default Time to Retain: 60 Seconds

Maximum Outstanding R2T: 16

Error Recovery Level: 0

Maximum Receive Data Segment Length: 65536 Bytes

list iscsi-target

Lists iSCSI targets.

Synopsis

list -a *<array-name>* **iscsi-target** *target-name*

Description

Lists iSCSI target name configured for the specified array. To list details, specify the iSCSI target name. Target name is the iSCSI qualified name (IQN), for example: iqn.199201.com.sun:1535.600a0b80002f9da0000000000461255f9.

Options

-a, **--array** *<array-name>*

Specifies the name of the array.

iscsi-target *target-name*

Specifies the iSCSI qualified name of the iSCSI target.

Examples

```
sscs list --array iSCSILCA_2 iscsi-target
```

Response Format

```
iSCSI Target Name:  iqn.1992-01.com.sun:1535.
600a0b80003487c10000000046cc4a1d
```

```
sscs list --array iSCSILCA_2 iscsi-target iqn.1992-
01.com.sun:1535.600a0b80003487c10000000046cc4a1d
```

Response Format

```
iSCSI Target Name:   iqn.1992-01.com.lsi:1535.
600a0b80003487c10000000046cc4a1d

 Alias: iSCSI_LCA2

 Authentication: NONE

 CHAP Secret: *****

 Unnamed Discovery:  Enabled

 Sessions: 1

 iSNS: Enabled

  IPv4: 10.8.88.56

  DHCP: Off

  Port: 3205

 Initiators

  server1: iqn.1991-05.com.microsoft:sun-pojdhrbx7tt

  server2: iqn.1991-05.com.sun.microsoft.jcz
```

server3: iqn.1991-05.com.microsoft:sun-pojdhrbx7rr

server4: iqn.1986-03.com.sun:01:0003ba3145ed.47032ecf

server5: iqn.1986-03.com.sun:01:00144f010116.46fa5d9a

server6: iqn.1986-03.com.sun:01:0003ba0442dd.47062a0f

server7: iqn.1991-05.com.microsoft:sun-pojdhrbx7qq

server8: iqn.2001-04.com.example.storage.tape:sys1.xyz

server9: iqn.1991-05.com.microsoft:funk.sun.com

server10: iqn.1991-05.com.microsoft:jim.bur.sun.com

server11: iqn.1991-05.com.microsoft:parash.india.sun.com

server12: iqn.1991-05.com.microsoft:pookawinxp

server13: iqn.1991-05.com.microsoft:nms-lab8

list license

Shows all licenses that are associated with the array, and related licensing details.

Synopsis

list -a <*array-name*> **license** [<*license-name,...*>]

Description

Shows all licenses that are associated with the array, along with related licensing details (serial number, controller serial number, and further details).

-a, **--array** <*array-name*>

Specifies the array associated with this license.

license <*license-name,...*>

Specifies the name of a license or licenses. If you list specific licenses, then only the details of those licenses are shown.

Examples

sscs list -a corporate **license** <*license-name,...*>

Lists all of the licenses on the corporate array.

sscs list -a corp_west **license** ReplicationSet

Lists the details of the replication set license on the corp_west array.

▼ Response Format

(when no <*license-name*> values are specified)

Array: *array-name*

WWN: *World-Wide-name*

Serial Number: *serial-number*

Featured Enable Identifier: *identifier*

License: *license-name*

Description: *description*

Status: `Enabled | Disabled`

Quantity Licensed: *quantity*

Quantity Used: *quantity*

Response Format

(when <*license-name*> values are specified)

Array: *array-name*

WWN: *World-Wide-name*

Serial Number: *serial-number*

Featured Enable Identifier: *identifier*

License: *license-name*

Description: *description*

Status: `enabled | disabled`

Quantity Licensed: *quantity*

Quantity Used: *quantity*

Replication License Status: `Activated | Deactivated`

Repository Volume: *replication-repository-name* **Size:** *number-of-megabytes* **Vdisk:** *virtual-disk-identifier*

Licensed Items Sample Formats:

Snapshot:

Licensed Items:

Base Volume:vol_b13 Snapshot Volume:new-snap

Base Volume:dk_rep3 Snapshot Volume:dk_snap1

StorageDomain:

Licensed Items:

Host Group: t_hostgroup_2

Host: MIG-1

VolumeCopy

Licensed Items:

Source Volume:dk_rep1 Target Volume:dk_rep2

Source Volume:dk_vol3 Target Volume:dk_rep4

list mapping

Lists the mapping for each host, host group, and storage domain.

Synopsis

list -a <array-name> **mapping**
[**DefaultStorageDomain**|**Host**|**HostGroup**[**,DefaultStorageDomain**|**Host**|**HostGroup...**]]

Description

Lists mappings for the array. You can filter the output by specifying the name of a storage domain, a host, or a host group.

Options

-a,**--array** <*array-name*>

Lists all mappings for the specified array. Filters the output based on the name of a storage domain, host, or host group supplied.

mapping
[DefaultStorageDomain|Host|HostGroup[,DefaultStorageDomain|Host|HostGroup...]]

Lists mapping for the specified storage domain.

Examples

sscs list -s array1 **mapping host** host1

Lists all of the mappings on array1 for host1.

Response Format

```
Volume:JKTest  LUN: 0  Mapped To: diag-e4500a  Target Type: Host
Permission: Read/Write
```

list os-type

Shows the operating system types on this array.

Synopsis

list -a <*array-name*> **os-type**

Description

Shows all of the operating systems that are supported by the array. The values returned can be used in subsequent requests to create or modify initiators, or to modify the default host type of the array.

Options

-a, **--array** <*array-name*>

Shows the array name.

os-type

Shows all of the operating systems that are supported by the array.

Response Format

WNTNCLSP5 - Windows NT nonclustered (SP 5 or higher)
W2KNETNCL - Windows 2000/Server 2003 nonclustered
SOL - Solaris (with Traffic Manager)
HPX - HP-UX
AIX - AIX
IRX - Irix
LNX - Linux
WNTCLSP5 - Windows NT clustered (SP 5 or higher)
W2KNETCL - Windows 2000/Server 2003 clustered
AIXAVT - AIX (with Veritas DMP)
W2KNETCLDMP - Windows 2000 clustered DMP
NWRFO - Netware failover
IRX_FO
AIX_FO
SOLAVT - Solaris (with Veritas DMP or other)
W2KNETNCLDMP - Windows 2000 nonclustered DMP

list performance

Shows detailed performance statistics.

Synopsis

list -a <*array-name,...*> **-T performance**

list -a <*array-name,...*> **-t array_stats** | **controller_stats** | **volume_stats** [**-c A** | **B**] [**-h** <*host-name,...*>] [**-g** <*host-group-name,...*>] [**-v** <*volume-name,...*>] [**-s name** | **total_iops** | **read_percent** | **write_percent** | **total_data** | **avg_read_size** | **avg_read_rate** | **peak_read_rate** | **avg_write_size** | **avg_write_rate** | **peak_write_rate**] **performance**

Description

Shows detailed performance statistics. You can use the following options only if a single array is specified:

--controller, --volume, --host, and --hostgroup

Options

-a, **--array** <*array-name*>

Specifies the array or arrays associated with this performance request.

-T,**--settings**

Shows the current settings for the array, including state, polling interval, and data retention period. If this option is specified, all other options (except array) are ignored.

-t,**--type** array_stats | controller_stats | volume_stats

Specifies the type of statistics to list: array, controller, or volume.

-c,**--controller A** | **B**

Specifies the controller name.

-v,**--volume** *<volume-name,...>*

Specifies the volume name or volume names associated with this performance request.

-h,**--host** *<host-name,...>*

Specifies the host name or host names associated with this volume.

-g,**--hostgroup** *<host-group-name,...>*

Specifies the host group or host groups associated with this volume.

-s,**--sort** name | total_iops | read_percent | write_percent | total_data | avg_read_size | avg_read_rate | peak_read_rate | avg_write_size | avg_write_rate | peak_write_rate | cache_hit_percent

Specifies the sorting mechanism.

performance

Specifies the performance subcommand.

Response Format

(if settings are specified)

Array: *array-name*

State: on | off

Polling Interval: 1 minute | 5 minutes | 15 minutes

Data Retention Period: forever | 1 hour | 2 hours | 4 hours | 1 day

Response Format

```
NAME TOT IOPS READ % WRITE% TOT DATA AVG R SIZE AVG R /s PEAK R /s
....

==== ======== ====== ====== ======== ========== ======== ==========

vol1      0.0   0.00   0.00      0.0        0.0      0.0        0.0

...

vol2      3.6   7.32  34.77   1030.3       32.7      4.5       10.4
```

list pool

Lists storage pool information.

Synopsis

list -a <*array-name*> **pool** [<*pool-name,...*>]

Description

Lists storage pool information.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this pool. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

pool <*pool-name,...*>

Specifies the pool or pools for which you want detailed information. If no pools are specified, this subcommand lists summary information for all pools.

Examples

sscs list -a array01 **pool** `SP048763`

Response Format

(summary of all pools when no <*pool-name*> value is specified)

Pool: *pool-name* **Profile:** *profile-name* **Configured Capacity:** *capacity*

....

Pool: *pool-name* **Profile:** *profile-name* **Configured Capacity:** *capacity*

Response Format

(detail of a pool when a <*pool-name*> value is specified)

Pool: *pool-name*

Description: *description*

Profile: *profile-name*

Total Capacity: *capacity* MB | GB | TB

Configured Capacity: *capacity* MB | GB | TB

Available Capacity: *capacity* MB | GB | TB

  Volume: *volume-name1*

  Volume: *volume-name2*

list profile

Lists the named storage profiles.

Synopsis

list -a <*array-name*> **profile** [<*profile-name,...*>]

Description

Lists the named storage profiles.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this profile.

profile <*profile-name,...*>

Specifies the profile or profiles for which you want detailed information. If no profiles are specified, this subcommand lists summary information for all profiles.

Examples

sscs list -a array00 **profile** MyProfile

Response Format

(summary of all profiles when no <*profile-name*> value is specified)

Profile: *profile-name*

...

Profile: *profile-name*

Response Format

(detail of a profile when a <*profile-name*> value is specified)

Profile: *profile-name*

Profile in Use: yes | no

Factory Profile: yes | no

Description: *profile-description*

RAID Level: 0 | 1 | 3 | 5 | 6

Segment Size: 8 KB | 16 KB | 32 KB | 64KB | 256KB

Read Ahead: on | off

Optimal Number of Drives: variable | *2..30*

Disk Type: ANY | FC | SATA | SAS

Pool: *pool-name*

....

Pool: *pool-name*

list repset

Lists replication set information (not applicable to 2500 Series).

Synopsis

list -a <*array-name*> **repset** [<*repset-name,...*>]

Description

Lists replication set information.

Options

-a, **--array** <*array-name*>

Specifies the array from which you want to obtain replication set information. For cross-platform compatibility, you can substitute `-X, --storage-device` in place of the `-a, --array` option.

repset <*repset-name,...*>

Specifies the replication set or sets. If you do not specify a replication set, then a summary of all the replication sets on the array is listed.

Examples

sscs list -a corporate **repset**

Lists all of the repsets on the array named corporate.

sscs list -a corporate **repset** mail/1

Lists the details of the replication set mail/1 on the array named corporate.

Response Format

(summary of all replication sets when no replication set name is specified)

Replication set: *local-volume-name/1* **Consistency Group:** yes | no **Remote volume:** *remote-vol* **Replication Peer:** *replication-peer-name*

...

Replication set: *local-volume-name/1* **Consistency Group:** `yes` | `no` **Remote volume:** *remote-vol* **Replication Peer:** *replication-peer-name*

Response Format

(details when a replication set name is specified)

Replication set: *repset-name*

Local volume: *volume-name*

Synchronization progress: Replicating | Unsynchronized | Synchronization in progress | Suspended | Failed | Not Ready | Failed Suspended

Role: Primary | Secondary

Size: *size-in-megabytes*

Replication peer: *remote-array-name*

Replication peer WWN: *remote-array-WWN*

Remote volume: *remote-volume-name*

Remote volume WWN: *remote-volume-WWN*

Mode: Synchronous | Asynchronous

Consistency group: yes | no

Replication priority: lowest | low | medium | high | highest

Auto synchronize: Enabled | Disabled

list sasport

Lists SAS port information.

Synopsis

list -a <*array-name*> [**-c A** | **B**] **sasport** [*sasport-id,..*]

Description

Lists pertinent SAS port information.

Options

-a,**--array** *<array-name>*

Specifies the array for which you want to obtain SAS port information.

-c,--controller A | **B**

Specifies the controller for which you want to view SAS port information. If no controller is specified, summary information for both controllers is displayed.

sasport *<sasport-ID,...>*

Specifies the SAS port or ports for which you want information. Ports are specified as A/1 to A/4 and B/1 to B/4. If no SAS port is specified, details for all ports are displayed.

Examples

```
sscs list -a Quartz sasport

Array: Quartz

 Controller:      B

 SAS Port:        B/1

 Port WWN:        50:0A:0B:81:D2:BA:60:04

 Speed:           1 Gb/s

 Maximum Speed:   7 Gb/s

 Channel Number:  1

 Link Status:     Up


Array: Quartz

 Controller:      B

 SAS Port:        B/2

 Port WWN:        50:0A:0B:81:D2:BA:60:0C

 Speed:           1 Gb/s

 Maximum Speed:   7 Gb/s

 Channel Number:  2

 Link Status:     Up
```

```
Array: Quartz
 Controller:      B
 SAS Port:        B/3
 Port WWN:        50:0A:0B:81:D2:BA:60:08
 Speed:           1 Gb/s
 Maximum Speed:   7 Gb/s
 Channel Number:  3
 Link Status:     Up

Array: Quartz
 Controller:      A
 SAS Port:        A/1
 Port WWN:        50:0A:0B:81:D2:BB:10:04
 Speed:           1 Gb/s
 Maximum Speed:   7 Gb/s
 Channel Number:  1
 Link Status:     Up

Array: Quartz
 Controller:      A
 SAS Port:        A/2
 Port WWN:        50:0A:0B:81:D2:BB:10:0C
 Speed:           1 Gb/s
 Maximum Speed:   7 Gb/s
 Channel Number:  2
 Link Status:     Up
```

```
Array: Quartz
 Controller:       A
 SAS Port:         A/3
 Port WWN:         50:0A:0B:81:D2:BB:10:08
 Speed:            1 Gb/s
 Maximum Speed:    7 Gb/s
 Channel Number:   3
 Link Status:      Up
```

list snapshot

Lists the specified snapshot or snapshots associated with this array.

Synopsis

list -a <*array-name*> **snapshot** [<*snapshot-name,...*>]

Description

Lists the specified snapshot or snapshots associated with this array.

Options

-a, **--array** <*array-name*>

Specifies the array associated with this snapshot.

snapshot <*snapshot-name,...*>

Specifies the snapshot or snapshots you want to view. If you do not specify a snapshot, the names of all the snapshots in the array are listed.

Examples

sscs list -a array00 **snapshot** snap1

Response Format

(when no <*snapshot-name*> value is specified)

Snapshot: *snapshot-name*

...

Snapshot: *snapshot-name*

Response Format

(detailed output if one or more <*snapshot-name*> values are specified)

Volume: *snapshot-volume-name*

Type: *snapshot*

WWN: *WWN*

Virtual Disk: *virtual-disk-name-of-parent-volume*

Size: *size-of-parent* MB

State: *state*

Status: *status*

Action: *action*

Condition: Optimal | Degraded | Failed | Impaired

Controller: A | B

Preferred Controller: A | B

Modification Priority: lowest | low | medium | high | highest

Write Cache: Enabled | Disabled

Write Cache With Replication: Enabled | Disabled

Write Cache Without Batteries: Enabled | Disabled

Flush Cache After: *time*

Disk Scrubbing: Enabled | Disabled

Disk Scrubbing With Redundancy: Enabled | Disabled

Percent Full: *0..100*%

Failure Policy: failbasewrite | failsnapshot

Warning Threshold: *0..100*

Creation Date: *date*

Base Volume: *base-volume-name*

Reserve Volume: *reserve-volume-name*

Reserve Status: `online | offline`

Reserve Size: *n*

Response Format Notes:

Pools and profiles may be empty, and represented by the symbol '-' (dash).

For a standard volume, this indicates that the current configuration for the volume does not fall into any pool's defined parameters. For snapshot volumes these values will always be empty.

list tray

Lists information about one or more storage trays in the array.

Synopsis

list -a <*array-name*> **tray** [<*tray-name,...*>]

Description

Lists information about one or more storage trays in the array.

Options

-a, **--array** <*array-name*>

Specifies the array associated with this tray.

tray <*tray-name,...*>

Specifies the tray ID or tray IDs you want to display. If no tray ID is specified, then the names of all the trays in the array are listed.

Examples

sscs list -a array01 **tray** 1

Response Format

(summary of all trays when no <*tray-ID*> value is specified)

Tray: *tray-ID*

....

Tray: *tray-ID*

Response Format

(detail of a tray when a <*tray-ID*> value is specified)

Tray: *tray-ID*

Array Type: 6140

Role: Drive Module | Controller Module | Unknown

State: Enabled | Disabled

Status: OK | ID mismatch | ID conflict | ESM firmware mismatch ESM miswire | minihub speed mismatch | unsupported

Disk Type: Fibre Channel | SATA | SAS

Number of Disks: *n*

list vdisk

Lists virtual disk (vdisk) or virtual disks information associated with this array.

Synopsis

list -a <*array-name*> **vdisk** [<*virtual-disk-name,...*>]

Description

Lists virtual disk (vdisk) or virtual disks information associated with this array.

Options

-a,**--array** <*array-name*>

Specifies the array or arrays associated with this virtual disk.

vdisk *<virtual-disk-name,...>*

Specifies the virtual disk or disks you want to show. If no virtual disk names are specified, all virtual disk names are listed.

Examples

sscs list -a array01 **vdisk** disk 1,2,3,4

Response Format

(summary of all vdisks when no *<virtual-disk-name>* value is specified)

VDisk: *virtual-disk-name*

....

VDisk: *virtual-disk-name*

Response Format

(detail of a vdisk when a *<virtual-disk-name>* value is specified)

Virtual Disk: *virtual-disk-name*

Status: Optimal | Degraded | Failed | Impaired

State: *State (Ready, Degraded, etc.)*

Number of Disks: *number-of-disks*

RAID Level: 0 | 1 | 3 | 5 | 6

Total Capacity: *capacity*

Configured Capacity: *capacity*

Available Capacity: *capacity*

Array Name: *array-name*

Array Type: *array-type*

Disk Type: FC | SATA | SAS

Maximum Volume Size: *size*

Associated Disks:

Disk: *disk-name*

....

Disk: *disk-name*

Associated Volumes:

Volume: *volume-name*

....

Volume: *volume-name*

list volume

Lists volume information.

Synopsis

list -a <*array-name*> [**-p** <*pool-name*>] [**-v** <*virtual-disk-name*>] **volume** [<*volume-name,...*>]

Description

Lists volume information.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this volume. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-p,**--pool** <*pool-name*>

Specifies the pool name associated with this volume. If a pool is specified, all volumes in that pool are listed.

-**v**,**--vdisk** <*virtual-disk-name*>

Specifies the *virtual-disk* associated with this volume.

volume <*volume-name,...*>

Specifies the volume name or names associated with this array. If no volumes are specified, a summary of all volumes is listed. Use pool and virtual-disk to display listed volumes.

Examples

sscs list -a array01 **-p** *pool1* **volume** ORACLE-1

Response Format

(summary of all volumes when no <*volume-name*> value is specified)

Volume: *volume-name* **Type:** *type* **Pool:** *pool-name* **Profile** *profile-name*

....

Volume: *volume-name* **Type:** *type* **Pool:** *pool-name* **Profile** *profile-name*

Response Format

(detailed output if specified volume is a standard, source, or target volume)

Volume: *volume-name*

Type: Standard | Source | Target | Replicated

WWN: *WWN*

Pool: *pool-name*

Profile: *profile-name*

Virtual Disk: *virtual-disk-name*

Size: *size*

State: Free | Mapped

Status: Online | Offline

Action: *current-action*

Condition: Optimal | Degraded | Failed | Impaired

Read Only: Yes | No

Controller: A | B

Preferred Controller: A | B

Modification Priority: Lowest | Low | Medium | High | Highest

Write Cache: Enabled | Disabled

Write Cache With Replication: Enabled | Disabled

Write Cache Without Batteries: Enabled | Disabled

Flush Cache After: *time*

Disk Scrubbing: Enabled | Disabled

Disk Scrubbing With Redundancy: Enabled | Disabled

Volume Copy Targets:

Target Volume: *volume-name*

...

Target Volume: *volume-name*

Snapshot: *snapshot-name* **Creation Time:** *time* **Reserve:** *reserve*

...

Snapshot: *snapshot-name* **Creation Time:** *time* **Reserve:** *reserve*

Associations:

Host: *host-name* **LUN:** *LUN-ID* **Initiator:** *initiator* **WWN:** *WWN*

or

Host Group: *hostgroup-name* **LUN:** *LUN-ID* **Initiator:** *initiator* **WWN:** *WWN*

Response Format Notes:

Pools and profiles can be empty, in which case they are represented by the symbol '-' (dash).

For a standard volume, this indicates that the current configuration for the volume does not fall into any pool's defined parameters.

list volume-copy

Lists volume-copy information (not applicable to 2500 Series).

Synopsis

list -a <*array-name*> [**-s** <*source-volume-name,...*>] [**-t** <*target-volume-name,...*>] **volume-copy**

Description

Lists volume copy information. If neither the source volume nor the target volume is specified, a summary of all volume copies is listed. If the source volume or the target volume is specified, a detailed listing of each is generated.

Options

-a,**--array** *<array-name>*

Specifies the array associated with the volumes that you want to list.

-s,**--source-volume** *<source-volume-name,...>*

Specifies the source volume or volumes that you want to list.

-t,**--target-volume** *<target-volume-name,...>*

Specifies the target volume or volumes that you want to list.

Examples

sscs list -a array00 **-s** *vol1,vol3* **volume-copy**

Response Format

(summary of all volume copies when no volume copy name is specified)

Source Volume: *source-volume-name* **Target Volume:** *target-volume-name*

...

Source Volume: *source-volume-name* **Target Volume:** *target-volume-name*

Response Format

(detailed output if a *<volume-copy> value is specified*)

Volume Copy:

Source Volume: *source-volume-name*

Target Volume: *target-volume-name*

Target Read Only: Enabled | Disabled

Status: In Progress | Completed | Stopped

Percent Complete: 0...100

Priority: lowest | low | medium | high | highest

Copy Start Timestamp: *timestamp*

Copy Completion Timestamp: *timestamp*

map host

Maps one or more volumes to a host.

Synopsis

map -a <*array-name*> [**-P readwrite | readonly**] [**-v** <*volume-name,...*>] [**-s** <*snapshot-volume-name,...*>] [**-l** <*0..255*>] **host** <*host-name*>

Description

Maps one or more volumes and snapshots to a host. Any previous mappings for the given volumes and snapshots are removed.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this host. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-l,**--lun-id** <*0..255*>

Specifies a logical unit number (LUN). A LUN can be specified only when mapping a single volume.

If no LUN is specified, as many successive unused LUNs as needed are used, starting with the first available LUN.

You can have up to 256 or 32 LUNs per host or hostgroup. The 6540 and FLX380 arrays allow 32 LUN IDs only.

-P, --permission `readwrite | readonly`

Specifies that the permission for accessing this snapshot is read-write or read-only.

-s,**--snapshot** <*snapshot-volume-name,...*>

Specifies the snapshot volume name or names associated with this host.

-v,**--volume** <*volume-name,...*>

Specifies the volume associated with this host.

host *<host-name>*

Specifies the host that you want to map to the volume.

Examples

sscs map -a array00 **-v** vol01,vol02 **host** host01

map hostgroup

Maps one or more volumes to a host group.

Synopsis

map -a *<array-name>* [**-s** *<snapshot-name[,snapshot-name...]>*] [**-v** *<volume-name[,volume-name...]>*] [**-l** <0..255>] **hostgroup** *<hostgroup-name>*

Description

Maps one or more volumes and snapshots to a host group. Any previous mappings for the given volumes or snapshots are removed.

Options

-a,**--array** *<array-name>*

Specifies the array associated with this host group.

-v,**--volume** *<volume-name[,volume-name...]>*

Specifies the volumes to be mapped to this host group.

-s,**--snapshot** *<snapshot-name[,snapshot-name...]>*

Specifies the snapshot volumes to be mapped to this host group.

-l,**--lun-id** *<0..255>*

Specifies the LUN ID of the initiator that you want to map to this host group.

A LUN can be specified only when mapping a single volume. If no LUN is specified, as many successive unused LUNs as necessary are used, starting with the first available unused LUN.

You can have up to 256 or 32 LUNs per host or hostgroup. The 6540 allows 32 LUN IDs only.

hostgroup *<host-group-name>*

Specifies the host group name.

Examples

sscs map -a array00 **-v** vol01,vol02 **hostgroup** hg01

map initiator

Maps one or more initiators to a volume or snapshot.

Synopsis

map -a *<array-name>* [**-P readwrite** | **readonly**] [**-v** *<volume-name,...>* [**-s** *<snapshot-volume-name,...>*] [**-l** *<0..255>*] **initiator** *<initiator-name,...>*

Description

Maps an initiator to a volume or snapshot. Any previous mappings for the given volumes or snapshots are removed.

Options

-a,**--array** *<array-name>*

Specifies the array associated with the initiator. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-l,**--lun-id** *<0..255>*

Specifies the logical unit number of this initiator.

A LUN can be specified only when mapping a single initiator. If no LUN is specified, the first available LUN is used.

You can have up to 256 or 32 LUNs per host or hostgroup. The 6540 allows 32 LUN IDs only.

-P, --permission `readwrite | readonly`

Specifies that the permission for accessing this volume is read-write or read-only.

-s,**--snapshot** *<snapshot-volume-name,...>*

Specifies the snapshot volumes to be mapped to this initiator.

-v,**--volume** *<volume-name,...>*

Specifies the volumes to be mapped to this initiator.

initiator *<initiator-name,...>*

Specifies the initiator name to which the array is being mapped.

If no volume or snapshot is specified, the initiator is mapped into the default partition.

Examples

sscs map -a array00 **-v** v01 **initiator** init01

map snapshot

Maps one or more snapshots to a host or host group.

Synopsis

map -a *<array-name>* [**-P readwrite** | **readonly**] [**-i** *<initiator-name>*] [**-h** *<host-name>*| **-g** *<host-group-name>*] [**-l** *<0..255>*] **snapshot** *<snapshot-name,...>*

Description

Maps one or more snapshots to a host or host group. If no host or host group is specified, the snapshot or snapshots are mapped into the Default partition.

Options

-a,**--array** *<array-name>*

Specifies the array associated with this snapshot. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-g,**--hostgroup** *<host-group-name>*

Specifies the host group that you want to map to the snapshots.

-h,**--hostname** *<host-name>*

Specifies the host that you want to map to the snapshot.

-i,**--initiator** <*initiator-name*>

Specifies the initiator that you want to map to the snapshot.

-l,**--lun-id** <*0..255*>

Specifies the logical unit number of this initiator.

A LUN can be specified only when mapping a single volume. If no LUN is specified, the first available LUN is used.

You can have up to 256 or 32 LUNs per host or hostgroup. The 6540 allows 32 LUN IDs only.

-P, --permission readwrite | readonly

Specifies that the permission for accessing this snapshot is read-write or read-only.

snapshot <*snapshot-name,...*>

Specifies the name or names of the snapshot you want to map. Any previous mappings for the snapshots will be removed.

Examples

sscs map -a array00 **-g** hg01 **snapshot** snap1, snap2

map volume

Maps one or more volumes to a host or host group.

Synopsis

map -a <*array-name*> [**-P readwrite** | **readonly**] [**-i** <*initiator-name*>] [**-h** <*host-name*>] [**-g** <*host-group*>] [**-l** <*0..255*> **]** **volume** <*volume-name,...*>

Description

Maps one or more volumes to a host or host group. Any previous mappings for the given volume or volumes are removed.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this volume. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

`-g,--hostgroup` *<host-group-name>*

Specifies the host group name associated with this volume.

`-h,--hostname` *<host-name>*

Specifies the host that you want to map to the volume.

-i,--initiator *<initiator-name>*

Specifies the initiator that you want to map to the volume.

`-l,--lun-id` *<0..255>*

Specifies the logical unit number of this initiator.

A LUN can be specified only when mapping a single volume. If no LUN is specified, the first available LUN is used.

You can have up to 256 or 32 LUNs per host or hostgroup. The 6540 allows 32 LUN IDs only.

`-P, --permission` `readwrite | readonly`

Specifies that the permission for accessing this volume is read-write or read-only.

`volume` *<volume-name,...>*

Specifies the volume name to which the array is being mapped.

If no host or host group is specified, the volume or volumes are mapped into the default partition.

Examples

`sscs map -a` array00 **`-g`** hg01 **`volume`** vol01,vol02

modify array

Modifies the configuration of the specified array.

Synopsis

modify [**-o solaris_dmp | solaris** | **sun_storedge** | **sun_storedge_nas_gateway** | **aix** | **hpux** | **linux** | **irix** | **ptx** | **netware_failover** | **netware_non_failover** | **win2k_clustered** | **win2k_non_clustered** | **winnt** | **winnt_non_clustered** | **win2k_non_clustered_dmp** | **win2k_clustered_dmp** | **dsp** | **aixavt** | **winnt_clustered**][**-s** *<0..100>*] [**-S** *<0..100>*] [**-k disable** | *<1..30>*] [**- f** *<0..60>*] [**-h** *<0..8>*] [**-b** <**4K|8K|16K**>] [**-T** <wwn | array_name>] [**-N** *<new-array-name>*] [**-p** *<password>*] **array** *<array-ID>*

Description

Modifies the configuration of the specified array.

Options

-o,**--os-type** *<OS-type-name>*

Specifies the operating system type. Use the command **sscs list -a** *array-name* **os-type** to view all of the operating systems that are supported by the array.

-b,--cache-block-size <**4K|8K|16K>**

Specifies the cache block size.

-f,**--failover-alert** *<0..60>*

Specifies the LUN failover alert time frame, in seconds. The system alerts you to an array failover at the allotted time.

-h,**--hot-spare** *<hot-spare-drive-count>*

Specifies the hot-spare count for the array. When a hot-spare drive count is specified, an algorithm distributes hot-spare drives across the trays of the array. To specify a drive, use the subcommand modify disk. The hot-spare count limit is dependent on the array:

15 for 6130 running firmware version 07.10.*nn.nn* or lower

15 for 6140 and 6540 running firmware version 07.10.*nn.nn* or lower, OR firmware version 07.15.*nn.nn* or higher.

15 for 2500 series arrays running firmware version 07.10.*nn.nn* or lower, OR firmware version 07.35.*nn.nn* or higher.

Unlimited for 6580 and 6780 arrays.

-k,**--disk-scrubbing** disable | *<1..30>*

Specifies the interim after which the system scrubs the disk.

-N,**--new-name** *<array-name>*

Specifies the new name of the array.

-p,**--password** *<password>*

Specifies the array password.

-s,**--cache-start** *<0..100>*

Specifies the array cache start.

-S,**--cache-stop** *<0..100>*

Specifies the array cache stop.

-T,**--name-type** <wwn | array_name>

Specifies the array naming type.

array *<array-ID>*

Specifies the name of the array to be modified.

Examples

```
sscs modify -f 30 -T array-name array ARRAY1
```

modify controller

Modifies the controller settings.

Synopsis

modify -a *<array-name>* [**-e** <**1**|**2**>] [**-d** <**on**|**off**>] [**-i** *<ip-address>*] [**-g** *<ip-address>*] [**-m** <**netMask**>] **controller** <**A**|**B**>

Modifies the Ethernet port of a controller using the specified IP parameters.

modify -a *<array-name>* [**-e 1** | **2**] **-d** <**on**|**off**> **controller** <**A**|**B**>

Modifies the IP parameters of a controller's Ethernet port using the Dynamic Host Control Protocol (DHCP).

modify -a *<array-name>* **-E controller <A**|**B>**

Verifies the network connectivity between the array controller and the management software.

modify -a <*array-name*> **-e** <**1|2**> [**-v** <**enable|disable**>] [**-d** <**on|off**>] [**-i** <*ip-address*>] [**-g** <*ip-address*>] [**-m** <*netMask*>] **controller** <**A|B**>

Modifies controller IP parameters, including option to enable or disable IPv4. NOTE: Only supported on 6580 and 6780.

modify -a <*array-name*> **-e** <**1|2**> [**-V** <**enable|disable**>] [**-d** <**on|off**>] [**-I** <*v6-ip-address*>] [**-r** <*v6-ip-address*>] [**-m** <**enable|disable**>] [**-d** <**full|half**>] [**-s** <**PORT_SPEED_NONE|PORT_AUTO_NEGOTIATED|PORT_10MBPS_HALF_DUPLEX|PORT_10MBPS_FULL_DUPLEX|PORT_100MBPS_HALF_DUPLEX|PORT_100MBPS_FULL_DUPLEX|PORT_1000MBPS_HALF_DUPLEX|PORT_1000MBPS_FULL_DUPLEX**>] **controller** <**A|B**>

Modifies controller Ethernet port and IP parameters, including IPv6 options and port speed. NOTE: IPv6 only supported on 6140 and 6540 arrays with firmware version 07.15.*nn.nn* or higher, 2500 series arrays with firmware version 07.35.*nn.nn* or higher, and 6580 and 6780 arrays. Port speed option only supported on 6580 and 6780 arrays.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this controller.

-d,**--dhcp** on | off

Specifies whether the dynamic host control protocol (DHCP) is active.

-d,--duplex <**full|half**>

Specifies port capability, full or half duplex.

-e,**--ethernet-port** 1 | 2

Specifies the Ethernet port number.

-E,**--test-communication**

Verifies the network connectivity between the array controller and the management software.

-g,**--gateway** <*gateway-address*>

Specifies the gateway IP address. IP addresses can be either Domain Name System (DNS) names or dotted decimal addresses.

-i,**--ipaddress** <*IP-address*>

Specifies the controller's IP address. IP addresses can be either Domain Name System (DNS) names or dotted decimal addresses.

-I,--v6-address *<v6-ip-address>*

Specifies IPv6 IP address.

-m, **--netmask** *<netmask>*

Specifies the controller's network mask.

-m,--mode <**enable**|**disable**>

Enables or disables port mode.

-r,--router *<v6-ip-address>*

Specifies router IP address.

-s,--speed
<**PORT_SPEED_NONE**|**PORT_AUTO_NEGOTIATED**|**PORT_10MBPS_HALF_DUPLEX**|**PORT_10MBPS_FULL_DUPLEX**|**PORT_100MBPS_HALF_DUPLEX**|**PORT_100MBPS_FULL_DUPLEX**|**PORT_1000MBPS_HALF_DUPLEX**|**PORT_1000MBPS_FULL_DUPLEX**>

Specifies the port speed. Port speed option only supported on 6580 and 6780 arrays.

-V,--ip-v6 <**enable**|**disable**>

Enables or disables IPv6. IPv6 only supported on 6140 and 6540 arrays with firmware version 07.15.*nn.nn* or higher, 2500 series arrays with firmware version 07.35.*nn.nn* or higher, and 6580 and 6780 arrays.

-v,--ip-v4 <**enable**|**disable**>

Enables or disables IPv4.

controller A | **B**

Specifies the controller to modify.

Examples

sscs modify -a array00 **-g** 10.0.5.2 **controller A**

sscs modify -a array00 **-e** 2 **-d** on **controller A**

sscs modify -a array00 **-E controller B**

modify date

Modifies the date on the array.

Synopsis

modify -a *<array-name>* [**-G** <**true | false**>] [**-s**] **date** <**HHMM|mmddHHMM|mmddHHMM.SS|mmddHHMMyy|mmddHHMMccyy|mmddHHMMccyy.SS**>

Description

Modifies the date on the array, allowing you to set the time on the array, or to synchronize the time with the management host (that is, setting the array's time to the management host's time.)

Options

-a,**--array** *<array-name>*

Specifies the array for which you want to specify date information.

-G,**--GMT** true | false

Specifies whether to set Greenwich Mean Time (GMT) to true or false. If GMT is set to true, the date is GMT time. If GMT is set to false, the local time zone on the host system is assumed.

-s,**--synchronize**

Specifies whether to synchronize the date with the date on the element manager host. If this option is already set, you will not be able to specify a date.

date

Specifies the date.

mmdd

Specifies the month and day. For example, 0331 is March 31.

HHMM

Specifies the hour and minute. The hour is based on a 24-hour clock. For example, 1:30 p.m. is 1330.

cc

Specifies the century part of the year.

yy

Specifies the two-digit year.

.SS

Specifies the seconds of the hour.

Examples

sscs modify -G false date 010112002003.00

modify disk

Specifies the disk role.

Synopsis

modify -a <*array-name*> **-h true** | **false disk** <*disk-name*>

Description

Specifies the disk role.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this disk.

-h,**--hot-spare** `true | false`

Specifies whether you want this disk to be a designated hot-spare.

disk <*disk-name*>

Specifies the disk that you want to modify.

Examples

sscs modify -a array00 **-h true disk** t0d01

modify fcport

Modifies the Fibre Channel port settings on the specified array.

Synopsis

modify -a *<array-name>* **-c A** | **B -l** *<0..127>*| N/A | Any **fcport** *<FC-port-ID>*

Description

Modifies the Fibre Channel port settings on the specified array.

Options

-a,**--array** *<array-name>*

Specifies the array associated with this controller.

-c,**--controller A** | **B**

Specifies the controller.

-l,**--loop-id** *<0..127>* | N/A | Any

Specifies the preferred loop ID.

fcport *<FC-port-ID>*

Specifies the Fibre Channel port number that you want to modify. Ports are specified as A/1 to A/4 and B/1 to B/4. If no FC port is specified, details for all ports are displayed.

Examples

sscs modify -a array00 **-c B -l** 125 **fcport** 1

modify host

Modifies the host name.

Synopsis

modify -a *<array-name>* [**-N** *<host-name>*] [**-g** *<host-group-name>*] **host** *<host-name>*

Description

Modifies the host name. You can have up to 256 hosts per array on the 6130/6140 arrays. The 6540 allows 32 hosts only.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this host. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-N,**--new-name** <*host-name*>

Specifies the new name for the host.

-g,**--hostgroup** <*host-group-name*>

Specifies the host group into which to include this host.

host <*host-name*>

Specifies the current host name.

Examples

sscs modify -a array00 **-N** host02 **host** host01

modify hostgroup

Modifies the host group name.

Synopsis

modify -a <*array-name*> **-N** <*host-group-name*> **hostgroup** <*host-group-name*>

Modifies the host group name. You can have up to 256 host groups per array on the 6130/6140 arrays. The 6540 allows 32 host groups only.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this host group.

-N,**--new-name** <*host-group-name*>

Specifies the new name for the host group.

hostgroup <*host-group-name*>

Specifies the current name of the host group that you want to rename.

Examples

```
sscs modify -a array00 -N hg02 hostgroup hg01
```

modify initiator

Modifies an initiator.

Synopsis

```
modify -a <array-name> [ -h <host-name>] [ -N <initiator-name> ] [ -T wwn
| initiator_name ] [ -o solaris_dmp | solaris | sun_storedge |
sun_storedge_nas_gateway | aix | hpux | linux | lnxavt | irix | ptx
| netware_failover | netware_non_failover | win2k_clustered |
win2k_non_clustered | winnt | winnt_non_clustered |
win2k_non_clustered_dmp | win2k_clustered_dmp | dsp | aixavt |
winnt_clustered ]initiator <initiator-ID>
```

Description

Modifies the initiator.

Options

-a,**--array-name** *<array-name>*

Specifies the array for which you want to modify the initiator. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-h,**--hostname** *<host-name>*

Specifies the new host to be associated with this initiator.

-N,**--new-name** *<initiator-name>*

Specifies the new initiator name.

-T,**--name-type** `wwn | initiator_name`

Specifies the World Wide Name or the initiator name. If *name-type* is not specified, the *initiator-ID* is assumed to be an initiator name. You can modify the WWN if the initiator is offline only.

-o,**--os-type** *<OS-type-name>*

Specifies the operating system type. Use the command **sscs list -a** *array-name* **os-type** to view all of the operating systems that are supported by the array.

initiator <*initiator-ID*>

Specifies the initiator identifier.

Examples

```
sscs modify -a array00 -N Lexington_01 initiator myInitiator_01
```

modify iperformance

Modifies the settings for iSCSI performance data.

Synopsis

```
modify  -a <array-name> [-S <on|off>] [-p <1|5|15>] [-r
<forever|1HR|2HR|4HR|1DAY>] [-b <true | false>] iperformance
```

Description

Modifies the settings for iSCSI performance data.

Options

-a,**--array** <*array-name*>

Specifies the name of the array for which you want to modify.

-S,**--status** <**on**|**off**>

Enables or disables iSCSI performance monitoring.

-p,**--poll** <**1**|**5**|**15**>

Specifies the poll interval frequency as 1, 5, or 15 minutes.

-r,--retention <**forever**|**1HR**|**2HR**|**4HR**|**1DAY**>

Specifies the period of time you want to retain the performance data in cache.

-b,**--baseline** <**true** | **false**>

Sets the baseline time for the iSCSI array. If true, the current array time is used as the baseline time.

Examples

```
sscs modify -a iSCSILCA_2 -S on -p 5 iperformance
```

modify iscsi-port

Modifies an iSCSI port.

Synopsis

modify -a *<array-name>* [**-c** <**A**|**B**>] [**-p** <**3260**|**49152..65535**>] [**-m** *<1500..9000>*] [**-P** <**enable**|**disable**>] [**-d** <**on**|**off**>] [**-i** *<ip-address>*] [**-g** *<ip-address>*] [**-n** *<netMask>*] [**-v** <**enable**|**disable**>] [**-V** *<0..4096>*] [**-e** <**enable**|**disable**>] [**-E** *<0..7>*] **iscsi-port** *<iscsi-port-id>*

Description

Modifies an iSCSI port configured for a specified array.

Options

a,**--array** *<array-name>*

Specifies the array for which you want to modify the iSCSI port.

-c,--controller <**A** | **B**>

Specifies the controller.

-d,--dhcp <**on** | **off**>

Turns DHCP on or off.

-E,--ethernet-priority-value *<0..7>*

Specifies the ethernet priority value.

-e,--ethernet-priority <**enable** | **disable**>

Enables or disables the ethernet priority.

-g,--gateway *<ip-address>*

Specifies the IP address gateway.

-i,--ipaddress *<ip-address>*

Specifies the IP address.

-m,--max-trans-unit *<1500..9000>*

Specifies the max-trans-unit.

-n|,-netmask *<netMask>*

Specifies the netMask.

-P,--icmp-ping <**enable | disable**>

Enables or disables the ICMP ping feature.

-p,--port <**3260 | 49152..65535**>

Specifies the default port number, 3260, or a port number from 49152 to 65535.

-v,--VLAN <**enable|disable**>

Enables or disables the VLAN feature.

-V,--VLAN-id *<0..4096>*

Specifies the VLAN ID.

iscsi-port *<iscsi-port-id>*

Specifies the iSCSI port ID.

modify iscsi-target

Modifies an iSCSI target.

Synopsis

modify -a <*array-name*> [**-A** <*alias-name*>] **iscsi-target** <*target-name*>

modify -a <*array-name*> **-p** <**3205**|**49152...65535**> **iscsi-target** <*target-name*>

modify -a <*array-name*> **-u** <**none**|**CHAP**|**BOTH**> **iscsi-target** <*target-name*>

modify -a <*array-name*> **-n** <**enable**|**disable**> **iscsi-target** <*target-name*>

modify -a <*array-name*> **-p** <**3205**|**49152...65535**> **-i** <**enable**|**disable**> **-d** <**on**|**off**> **-q** <*string*> **iscsi-target** <*target-name*>

modify -a <array-name> **-i** <**enable**|**disable**> **-s** <**enable**|**disable**> [**-h** <*string*>] [**-p** <**3205**|**49152..65535**>] **iscsi-target** <*target-name*>

modify -a <*array-name*> **-i** <**enable**|**disable**> **-d** <**on**|**off**> [**-q** <*string*>] [**-p** <**3205**|**49152..65535**>] **iscsi-target** <*target-name*>

Description

Modifies an iSCSI target configured for a specified array.

Options

-a,**--array** <*array-name*>

Specifies the array for which you want to modify the iSCSI target.

-A,**--alias** <*alias-name*>

An alias defined for the array.

-p,**--port** <**3205**|**49152..65535**>

Specifies the default port number, 3205, or a port number from 49152 to 65535.

-u,**--authentication** <**none**|**CHAP**|**BOTH**>

Specifies authentication as none, CHAP, or both.

-n,**--unnamed-discovery** <**enable**|**disable**>

Specifies to enable or disable unnamed discovery.

-s,--stateless <**enable**|**disable**>

Specifies to enable or disable stateless.

-h,--ip-v6-address <*string*>

Specifies the IPv6 address.

-i,**--isns** <**enable**|**disable**>

Specifies to enable or disable iSNS.

-**d**,**--dhcp** <**on**|**off**>

Specifies to set DHCP to on or off.

-q,**--ip-address** <*string*>

Specifies to set the IP address to IPv4.

iscsi-target <*target-name*>

Specifies the iSCSI qualified target name. For example: iqn.1992-01.com.sun:1535.600a0b80002f9da000000000461255f9

Examples

```
sscs modify --alias fred iscsi-target
iqn.199201.com.sun:1535.600a0b80002f9da000000000461255f9
```

modify jobs

Cancels or prioritizes a running or outstanding job.

Synopsis

modify -a *<array-name>* [**-k**] [**-p lowest** | **low** | **medium** | **high** | **highest**] **jobs** [*<job-ID>*]

Description

Cancels or prioritizes a running or outstanding job using the job identification number.

Options

-a,**--array** *<array-name>*

Specifies the array for which you want to modify the job or jobs.

-k,--**kill**

Cancels a running or outstanding job or jobs.

-p,**--priority** lowest | low | medium | high | highest]

Specifies an order of priority from which to determine the action of the modification.

jobs *<job-id>*

Specifies the job to be cancelled or prioritized.

Examples

```
sscs modify -p low jobs VOL:00C1408F84C2
```

modify license

Activates replication set licenses (applicable to 2500 Series only when running firmware version 07.35.*nn.nn* or higher).

Synopsis

modify -a <*array-name*> **-A** [**-v** <*virtual-disk-name*>] **license ReplicationSet**

Activates replication set licenses on the specified array using the designated virtual disk for replication set repository volumes. If the virtual disk is omitted, the manager chooses an appropriate virtual disk to create the repository volumes.

modify -a <*array-name*> **-A -r 1 -n** <*1..224*> [**-k ANY** | **FC** | **SAS** | **SATA**] **license ReplicationSet**

Activates replication set licenses on the specified array, creating a new virtual disk with the designated RAID level and disk type for the replication set repository volumes. RAID level 1 is used in combination with number-of-disks 1 to 224.

modify -a <*array-name*> **-A -r 3 | 5 | 6 | -n** <*1..30*> [**-k ANY** | **FC** | **SAS** | **SATA**] **license ReplicationSet**

Activates replication set licenses on the specified array, creating a new virtual disk with the designated RAID level and disk type for the replication set repository volumes. RAID levels 3, 5, or 6 are used in combination with number-of-disks 1 to 30.

modify -a <*array-name*> **-A -r 1** | **3** | **5** | **6 -d** <*disk-name,...*> **license ReplicationSet**

Activates replication set licenses on the specified array, creating a new virtual disk with the designated RAID level and names of disks to be used for the replication set repository volumes.

modify -a <*array-name*> **-I license ReplicationSet**

Deactivates replication set licenses on the specified array and deletes the replication set repository volumes.

Options

-a,**--array** <*array-name*>

Specifies the array for which you want to activate or deactivate a replication set license. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-A, **--activate**

Activates a replication set license.

-I (that is, uppercase letter "i"), **--deactivate**

Deactivates a replication set license.

-v, **--virtual-disk** *<virtual-disk-name>*

Specifies the virtual disk that you want to select.

-r, **--raid-level 1**

Specifies the RAID level 1, in combination with number-of-disks 1 to 224.

-r, **--raid-level 3 | 5 | 6**

Specifies RAID level 3, 5, or 6, in combination with number-of-disks 1 to 30.

-n, **--number-of-disks** *<1..224>*

Specifies the number of disks, 1 to 224, in combination with RAID level 1.

-n, **--number-of-disks** *<1..30>*

Specifies the number of disks, 1 to 30, in combination with RAID levels 3, 5, or 6.

-k, **--disk-type** ANY | FC | SATA | SAS

Specifies the disk type:

ANY - Any type of disk, including FC, SATA, or SAS.

FC - Fibre Channel

SATA - Serial Advanced Technology Attachment

SAS - Serial Attached SCSI

-d, **--disk** *<disk-name>*

Specifies the named disk.

license

Specifies that you want to modify a license.

ReplicationSet

Specifies the license that you want to modify.

Examples

sscs modify -a europe **-A -v** 3 **license ReplicationSet**

Activates replication set licenses on the array named europe using existing virtual disk 3 for the replication set repository volumes.

sscs modify -a corporate **-A -r** 3 **-n** 3 **-D** *FC* **license ReplicationSet**

Activates replication set licenses on the array named corporate, creating a new virtual disk of RAID level 3 with 3 Fibre Channel disks for the replication set repository volumes.

sscs modify -a corporate **-A -r** 1 **-d** t1d01,t2d02 **license ReplicationSet**

Activates replication set licenses on the corporate array, creating a new virtual disk of RAID level 1 with 2 specific disks for the replication set repository volumes.

sscs modify -a europe **-I license ReplicationSet**

Deactivates replication set licenses on the europe array. The replication set repository volumes will be deleted.

modify notification

Modifies notification options.

Synopsis

modify -d notification <**local_email**|**trap**>

modify -e notification <**local_email**|**trap**>

modify -p <*string*>] [**-i** <*string*>] [**-k** <**true**|**false**>] [**-f** <*string*>] [**-f** <*string*>] [**-u** <*string*>] [**-q**] [**-z** <**2**|**4**|**6**|**8**|**10**|**15**|**20**|**30**|**40**|**50**>] [**-o** <*integer*>] **notification** <**local_email**|**trap**>

modify -m <*string*> **-r** <*string*> **notification** <**local_email**|**trap**>

Description

Modifies notification options.

Options

-d,--disable

Disables notification.

-e,--enable

Enables notification.

-f,--from *<string>*

Specifies the origin of the notification message.

-i,--ip *<string>*

Specifies the IP address of the device.

-k,--secure `<true | false>`

Specifies whether security is used.

-m,--test-message *<string>*

Specifies to send test message.

-o,--port *<integer>*

Specifies the port.

-p,--path <*string***>**

Specifies the path.

-q,--query-for-password

Queries for the current password for the registered array.

-r,--test-address *<string>*

Specifies address where test message will be sent.

-u,--user *<string>*

Specifies the user for which notification will be modified.

-z,--max-size `<2 | 4 | 6 | 8 | 10 | 15 | 20 | 30 | 40 | 50>`

Specifies the maximum size of the notification message.

notification `<local_email | trap>`

local-email

Specifies your local email address at which you want to modify the notification.

trap

Specifies the SNMP trap notification method to use to receive the notification.

modify performance

Modifies settings for performance monitoring.

Synopsis

modify -a <*array-name*> **[-S on** | **off] [-p 1** | **5** | **15] [-r forever** | **1HR** | **2HR** | **4HR** | **1DAY] performance**

Description

Modifies settings for performance monitoring. To reset performance settings, toggle the status to off and back on again.

Options

-a,**--array** <*array-name*>

Specifies the array for which you want to modify the performance.

-S,**--status** on | off

Enables or disables performance monitoring.

-p,**--poll** 1 | 5 | 15

Specifies the poll interval frequency in minutes. The default is 15.

-r,**--retention** forever | 1HR | 2HR | 4HR | 1DAY

Specifies the amount of time to retain data in cache. The default data retention period is 1 hour.

Examples

sscs modify –a array00 **-S on -p 5 performance**

modify pool

Modifies the name or description of the storage pool or the profile with which this pool is associated.

Synopsis

modify -a <*array-name*> [**-N** <*new-pool-name*>] [**-d** <*description*>] [**-p** <*new-profile-name*>] **pool** <*pool-name*>

Description

Modifies the name or description of the storage pool or the profile with which this pool is associated.

You can change the segment size of a volume by a factor of 2 only. For example, a volume with segment size of 32K can only be changed to a segment size of 64K or 16K. To change the segment size to 256K, the volume would first need to be changed to 64K, then 128K, then 256K. Any changes made to the profile of a pool must maintain this segment size restriction for all affected volumes.

Options

-a, **--array** <*array-name*>

Specifies the name of the array to associate with this pool. For cross-platform compatibility, you can substitute `-X, --storage-device` in place of the `-a, --array` option.

-N, **--new-name** <*new-pool-name*>

Specifies a new name for this pool.

-d, **--description** <*description*>

Specifies a description of the pool. The description can be up to 256 alphanumeric characters, which can include underscores, dashes, colons, commas, parentheses, curly brackets, square brackets, ticks, tildes, bars, periods, or spaces.

-p, **--profile** <*profile-name*>

Specifies the name of the profile to associate with this pool.

pool <*pool-name*>

Specifies the pool that you want to modify.

Examples

sscs modify -a array00 -**d** Lexington_01 **pool** SP048763

modify profile

Modifies a storage profile on the array.

Synopsis

modify -a *<array-name>* [**-r 0** | **1**] [**-s 8K** | **16K** | **32K** | **64K** | **128K** | **256K** | **512K**] [**-N** *<new-profile-name>*] [**-d** *<profile-description>*] [**-h on** | **off**] [**-n variable** | *<1..224>*] [**-H** *<hot-spare>* **yes | no**] [**-k ANY** | **FC** | **SAS** | **SATA**] **profile** *<profile-name>*

modify -a *<array-name>* [**-r 3** | **5** | **6**] [**-s 8K** | **16K** | **32K** | **64K** | **128K** | **256K** | **512K**] [**-N** *<new-profile-name>*] [**-d** *<profile-description>*] [**-h on** | **off**] [**-n variable** | *<1..30>*] [**-H** *<hot-spare>* **yes | no**] [**-k ANY** | **FC** | **SAS** | **SATA**] **profile** *<profile-name>*

Description

Modifies a storage profile on the array. You cannot modify a profile that is in use and is associated with a storage pool.

Options

-a,**--array** *<array-name>*

Specifies the name of the array to associate with this profile.

-r,**--raid-level** 0 | 1

Specifies the RAID level: 0 or 1, in combination with number-of-disks 1 to 224.

-r,**--raid-level** 3 | 5 | 6

Specifies the RAID level: 3, 5, or 6, in combination with number-of-disks 1 to 30.

-s,**--segsize** 8K | 16K | 32K | 64K | 128K | 256K | 512K

Specifies the segment size.

-N,**--new-name** *<new-profile-name>*

Specifies a new name for the profile.

-d,**--description** *<profile-description>*

Specifies a profile description. The description can be up to 256 alphanumeric characters, which can include underscores, dashes, colons, commas, parentheses, curly brackets, square brackets, ticks, tildes, bars, periods, or spaces. Enclosing the description in quotation marks retains it exactly as you want it.

-h,**--readahead** on | off

Specifies if the readahead setting is on or off.

-n,**--number-of-disks** variable | *<1..30>*

Specifies the number of disks, 1 to 30, in combination with RAID level 3, 5, or 6.

-n,**--number-of-disks** variable | *<1..224>*

Specifies the number of disks, 1 to 224, in combination with RAID levels 0 or 1.

-H,**--hot-spare** yes | no

Specifies whether you want this disk to be a designated hot-spare.

-k,**--disk-type** ANY | FC | SATA | SAS

Specifies the disk type:

ANY - Any type of disk, including FC or SATA.

FC - Fibre Channel

SATA - Serial Advanced Technology Attachment

SAS - Serial Attached SCSI

profile *<profile-name>*

Specifies the name of the profile to be modified. The profile-name can be up to 12 alphanumeric characters.

Examples

sscs modify -d "my profile description" **profile** random_5

modify repset

Modifies the mode, consistency group, or replication priority of the specified replication set (not applicable to 2500 Series).

Synopsis

modify -a *<array-name>* [**-m sync** | **async**] [**-G yes** | **no**] [**-R lowest** | **low** | **medium** | **high** | **highest**] [**-s enable** | **disable**] **repset** *<repset-name>*

Modifies the role, mode, consistency group, or replication priority of the specified replication set.

modify -a *<array-name>* [**-r primary** | **secondary**] [**-f**] **repset** *<repset-name>*

Changes the role of the local volume on the specified array.

modify -a *<array-name>* **-c repset** *<repset-name>*

Suspends replication on the specified array.

modify -a *<array-name>* **-z repset** *<repset-name>*

Resumes replication on the specified array.

modify -a *<array-name>* **-E repset** *<repset-name>*

Tests to determine if the primary volume on the specified array is communicating correctly with its replica (primary or secondary).

Options

-a,**--array** *<array-name>*

Specifies the array for which you want to activate or deactivate a replication set license. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-m,**--mode** `sync | async`

Specifies whether the mode is synchronous or asynchronous.

-G,**--consistency-group** `yes | no`

Specifies whether or not the replication set is part of a consistency group.

-R,**--replication-priority** `lowest | low | medium | high | highest`

Specifies the priority level for this replication set.

-s,**--auto-sync** `enable | disable`

Specifies whether or not the auto synchronization policy is enabled. If it is not specified, the default is disable.

-r,**--role** `primary | secondary`

Specifies whether the role is primary or secondary.

-f,**--force**

If specified, it works with the -r option to reverse roles. If communication with the replication peer is not functioning, the role change is still forced on the local volume.

-c,**--suspend**

Suspends temporarily the replication activity. If the replication set is part of a replication consistency group, then all of the replication sets in that group are suspended.

-z,**--resume**

Resumes replicating a replication set that has been suspended, or starts replicating a replication set. If the replication set is part of a replication consistency group, then it sets all of the replication sets in that group to synchronize.

-E,**--test-communication**

Tests communications to a replication set.

Examples

sscs modify -a corporate **-r** secondary **repset** oracle/1

Changes the role of the local volume on the oracle/1 repset to secondary on the array named corporate.

sscs modify -a corp_west **-r** primary **-f repset** mail/1

Forces the role of the local volume on the mail/1 repset to primary on the sample corp_west array, even if communications cannot be established with the current primary.

sscs modify -a corporate **-c repset** sap_central/1

Suspends replication on the sap_central/1 repset on the corporate array.

sscs modify -a corporate **-z repset** sap_central/1

Resumes replication on the sap_central/1 repset on the corporate array.

sscs modify -a corporate **-E repset** finance/1

Tests to determine if the primary volume finance on the corporate array is communicating correctly with its replica (primary or secondary).

modify snapshot

Modifies the specified snapshot.

Synopsis

modify -a <*array-name*> [**-N** <*snapshot-name*>] [**-f** <**failbasewrite**|**failsnapshot**>] [**-w** <*0..100*>] [**-D** <*profile-description*>] **snapshot** <*snapshot-name*>

Modifies properties of the snapshot.

modify -a <*array-name*> **-e** <*extend-size*> **snapshot** <*snapshot-name*>

Extends the snapshot reserve volume size by a specified amount. This option is mutually exclusive and cannot be used with any other option.

modify -a <*array-name*> **-S snapshot** <*snapshot-name*>

Disables the snapshot. This option is mutually exclusive and cannot be used with any other option.

modify -a <*array-name*> **-R snapshot** <*snapshot-name*>

Resnaps the snapshot. This option is mutually exclusive and cannot be used with any other option.

modify -a <*array-name*> [**-m** <*volume-name*>] [**-c A** | **B**] [**-W enable** | **disable**] [**-M enable** | **disable**] [**-b enable** | **disable**] [**-k enable** | **disable**] [**-r enable** | **disable**] **snapshot** <*snapshot-name*>

Modifies the volume properties of the snapshot reserve volume.

modify -a <*array-name*> [**-m** <*volume-name*>] [**-c** <**A**|**B**>] [**-W** <**enable**|**disable**>] [**-M** <**enable**|**disable**>] [**-b** <**enable**|**disable**>] [**-k** <**enable**|**disable**>] [**-r** <**enable**|**disable**>] [**-d** <*description-text*>] **snapshot** <*snapshot-name*>

Modifies the volume properties of the snapshot reserve volume, with snapshot description.

Description

Modifies the specified snapshot. The arguments resnap and extend are mutually exclusive.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this snapshot. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-b,**--write-cache-without-batteries** `enable | disable`

Specifies whether write-cache-without-batteries is enabled.

-c,**--controller A** | **B**

Specifies the controller.

-D,**--description** <*snapshot-description*>

Specifies a snapshot description. The description can be up to 256 alphanumeric characters, which can include underscores, dashes, colons, commas, parentheses, curly brackets, square brackets, ticks, tildes, bars, periods, or spaces. Enclosing the description in quotation marks retains it exactly as you want it.

-d,--description <*description-text*>

Specifies snapshot description.

-e,**--extend** <*extend-size*>

Extends the snapshot reserve volume size by a specified amount.

-f,**--full-policy** `failbasewrite | failsnapshot`

The full-policy specifies what to do if and when the snapshot fills up:

Failbasewrite - Stop allowing writes to the base volume.

Failsnapshot - Stop allowing writes to the snapshot. This is the default.

-k,**--disk-scrubbing** `enable | disable`

Specifies whether disk scrubbing is enabled.

-m,**--reserve-name** <*reserve-volume-name*>

Specifies the name of the reserve volume.

-M,**--write-cache-with-mirroring** `enable | disable`

Specifies whether write-cache-with-mirroring is enabled.

-N,**--new-name** <*new-snapshot-name*>

Specifies a new name for the snapshot.

-r,**--disk-scrubbing-with-redundancy** `enable | disable`

Specifies whether disk scrubbing-with-redundancy is enabled.

-R,**--resnap**

Resnaps the snapshot.

-S,**--disable**

Disables the snapshot.

-w,**--warning-threshold** *<0..100>*

Specifies when to inform you that the snapshot reserve volume is near capacity. If a warning-threshold is not specified, 50% is the default.

-W,**--write-cache** `enable | disable`

Specifies whether the write cache is enabled.

snapshot *snapshot-name*

Specifies the name of the snapshot to modify.

Examples

sscs modify -a array00 **-V** vol0 **snapshot** vol01_snap

modify tray

Modifies information about one or more storage trays in the array.

Synopsis

modify -a *<array-name>* `[` **-N** *<0..99>* `]` **tray** `[` *<tray-name>* `]`

Description

Modifies information about one or more storage trays in the array.

Options

-a,**--array** *<array-name>*

Specifies the array associated with this tray.

-N,**--new-name** *<0..99>*

Specifies the new tray name.

tray *<tray-name>*

Specifies the tray ID or tray IDs you want to modify. If no tray ID is specified, then the names of all the trays in the array are listed.

Examples

```
sscs modify -a array00 -n 99 tray 0
```

modify vdisk

Specifies modifications to a virtual disk.

Synopsis

modify -a *<array-name>* [**-N** *<virtual-disk-name>*] [**-d** *<disk-name[,disk-name...]>*] [**-f**] **vdisk** *<virtual-disk-name>*

modify -a *<array-name>* [**-d** *<disk-name[,disk-name...]>*] [**-f**] **vdisk** *<virtual-disk-name>*

Description

Specifies modifications to a virtual disk.

Options

a,**--array** *<array-name>*

Specifies the array that is associated with the virtual disk changes.

-d,**--disk** *<disk-name,...>*

Specifies particular disks to be added to the virtual disk.

-f,**--defragment**

Specifies whether to defragment the virtual disk or virtual disks.

-N,--new-name *<virtual-disk-name>*

Specifies new virtual disk name.

vdisk *<virtual-disk-name>*

Specifies the virtual disk that you want to modify.

Examples

```
sscs modify -a array00 -d t0d01,t0d02 vdisk vdisk01
```

modify volume

Modifies any of a volume's attributes.

Synopsis

modify -a *<array-name>* [**-p** *<pool-name>*] [**-e** *<string>*] [**-N** *<volume-name>*] [**-c** <**A**|**B**>] [**-m** <**lowest**|**low**|**medium**|**high**|**highest**>] [**-W** <**enable**|**disable**>] [**-M** <**enable**|**disable**>] [**-b** <**enable**|**disable**>] [**-k** <**enable**|**disable**>] [**-r** <**enable**|**disable**>] [**-Z** *<number*<**TB**|**GB**|**MB**|**KB**|**Bytes**|**BLK**|**BV**>>] [**-C** *<integer>*] [**-L** <**low**|**verylittle**|**little**|**average**|**high**|**full**>] [**-l** *<0..100>*] [**-f** <**volume**|**snapshot**>] [**-w** *<0..100>*] [**-P** *<pool-name>*] [**-V** *<virtual-disk-name>*] [**-D** *<description-text>*] **volume** *<volume-name>*

Description

Modifies a volume's attributes with one or more of the following arguments.

You can change the segment size of a volume by a factor of two only. For example, a volume with segment size of 32K can only be changed to a segment size of 64K or 16K. To change the segment size to 256K, the volume would first need to be changed to 64K, then 128K, then 256K. Any changes made to the profile of a pool must maintain this segment size restriction for all affected volumes.

Options

a,**--array** *<array-name>*

Specifies the array whose volume you want to modify. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-b,**--write-cache-without-batteries** `enable | disable`

Specifies whether write-cache-without-batteries is enabled.

-C,--snapshot-count *<integer>*

Specifies the number of intended snapshots for the volume.

-c,**--controller A** | **B**

Specifies the controller associated with this array.

-D,--description *<description-text>*

Specifies a description of the snapshot.

-e,**--extend** *<extend-size>*

Extends the volume size by a specified amount.

-f,**--favor** volume | snapshot

Favors the volume or snapshot.

-k,**--disk-scrubbing** enable | disable

Specifies whether disk scrubbing is enabled.

-L,--snapshot-level low | **verylittle** | **little** | **average** | **high** | **full**

Specifies the level of snapshot activity as either low, verylittle, little, average, high, or full. The snapshot levels equate to the following percentages:

low - 10%

verylittle - 25%

little - 40%

average - 50%

high - 75%

full - 100%

-l,--snapshot-percentage *<0..100>*

Specifies what percentage of the volume is to be used for snapshot creation.

-m *<modification-priority>* **lowest** | **low** | **medium** | **high** | **highest**

Specifies the priority of this modification.

-M,**--write-cache-with-mirroring** enable | disable

Specifies whether write-cache-with-mirroring is enabled.

-N,**--new-name** *<new-volume-name>*

Specifies a new name for the volume that is being modified.

-P,--snapshot-pool *<pool-name>*

Specifies the name of the snapshot.

-p, **--pool** <*pool-name*>

Specifies the pool in which the volume resides.

CODE EXAMPLE 4-1 **-r,--disk-scrubbing-with-redundancy** enable | disable

Specifies whether disk scrubbing-with-redundancy is enabled.

-V,--reserve-vdisk <*virtual-disk-name*>

Specifies a reserve virtual disk.

volume <*volume-name*>

Specifies the volume name.

-w,--warning-threshold <*0..100*>

Specifies when to inform you that the snapshot reserve volume is near capacity. If a warning-threshold is not specified, 50% is the default.

-W,**--write-cache** enable | disable

Specifies whether the write cache is enabled.

-Z,--snapshot-reserve-size <*number*<TB | GB | MB | KB | Bytes | BLK | BV

Specifies the amount of space you want to reserve for capacity of the snapshot reserve volume.

Examples

sscs modify -a array01 **-p** pool1 **-e 10GB volume** V1

modify volume-copy

Modifies a volume copy (not applicable to 2500 Series).

Synopsis

modify -a <*array-name*> **-s** [<*source-volume-name*>] **-t** [<*target-volume-name*>] [**-p lowest**|**low**|**medium**|**high**|**highest**] [**-r enable** | **disable**] [**-R**] [**-S**] **volume-copy**

modify -a <*array-name*> **-s** <*volume-name*> **-t** <*volume-name*> [**-p** <**lowest**|**low**|**medium**|**high**|**highest**>] [**-r** <**enable**|**disable**>] **volume-copy**

modify -a <*array-name*> **-s** <*volume-name*> **-t** <*volume-name*> **-R volume-copy**

modify -a *<array-name>* **-s** *<volume-name>* **-t** *<volume-name>* **-S volume-copy**

Description

Modifies a volume copy.

Options

-a,**--array** *<array-name>*

Specifies the array associated with this volume copy.

-s,**--source-volume** *<source-volume-name>*

Specifies the source volume name associated with this volume copy.

-t,**--target-volume** *<target-volume-name>*

Specifies the target volume name associated with this volume copy.

-p,**--priority** `lowest | low | medium | high | highest`

Specifies the priority level for this volume copy.

-r,**--readonly** `enable | disable`

Specifies whether this volume copy is read only or modifiable.

-R,**--recopy**

Specifies that you want to recopy this volume copy.

-S,**--stop**

Specifies that you want to stop this volume copy while in progress.

volume-copy *<volume-copy-name>*

Specifies the name of the volume copy that you want to modify.

Examples

sscs modify -a array00 **-s** vol1 **-t** vol2 **-S volume-copy**

offline vdisk

Sets a virtual disk offline.

Synopsis

offline -a *<array-name>* **vdisk** [*<virtual-disk-name>*]

Description

Sets a virtual disk offline. This can create complications. Do not initiate this command without first consulting Sun Customer Service personnel.

Options

-a,**--array** *<array-name>*

Specifies the array on which you want to set the virtual disk offline.

vdisk

Specifies the name of the virtual disk.

Examples

```
sscs offline -a Array01 vdisk VirtualDisk33
```

online vdisk

Sets a virtual disk online.

Synopsis

online -a *<array-name>* **vdisk** [*<virtual-disk-name>*]

Description

Sets a virtual disk online. This can create complications. Do not initiate this command without first consulting Sun Customer Service personnel.

Options

-a,**--array** *<array-name>*

Specifies the array on which you want to set the vdisk online.

vdisk

Specifies the name of the virtual disk.

Examples

```
sscs online -a Array01 vdisk
```

reconstruct disk

Initiates a disk reconstruction.

Synopsis

reconstruct -a *<array-name>* [**-t** *<tray-name>*] **disk** [*<disk-name>*]

Description

Reconstructs a disk. This can create complications. Do not initiate this command without first consulting Sun Customer Service personnel.

Options

-a,**--array** *<array-name>*

Specifies the array on which you want to reconstruct the disk.

-t,**--tray** *<tray-name>*

Identifies the tray where the physical disk resides.

disk

Specifies the name of the disk.

Examples

```
sscs reconstruct -a Array01 -t Tray2
```

remove hostgroup

Removes one or more hosts from a host group.

Synopsis

remove -a <*array-name*> **-h** <*host-name,...*> **hostgroup** <*host-group-name*>

Description

Removes one or more hosts from a host group.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this host group.

-h,**--host** <*host-name,...*>

Specifies the host or hosts that you want to remove from this host group.

hostgroup <*host-group-name*>

Specifies the host group from which you want to remove hosts.

Examples

sscs remove -a array00 **-h** host01,host02 **hostgroup** hg01

remove license

Removes the replication set feature license from the specified array (not applicable to 2500 Series).

Synopsis

remove -a <*array-name*> **license** <*license-name*>

Description

Removes the specified feature license from the array.

Options

-a,**--array** <*array-name*>

Specifies the array associated with this license.

license <*license-name*>

Specifies the license that you want to remove from the array. The license name is one of the well-known license names. Use the command sscs list license to see these names.

Examples

sscs remove -a corp_west **license** ReplicationSet

Removes a replication set feature license from the array named corp_west.

remove notification

Removes a local or remote notification provider.

Synopsis

remove [**-e** <*string[,string...]*>] **notification** <**local_email|email-filter|trap**>

remove [**-i** <*string*>] [**-o** <*string*>] [**-t** <*string[,string...]*>] **notification** <**local_email|email-filter|trap**>

remove -d <*string[,string...]*> **notification** <**local_email|email-filter|trap**>

Description

Removes a local or remote notification provider.

Options

-d,--id <*string[,string...]*>

Specifies the notification ID being removed.

-e, **--email** <*string[,string...]*>

Specifies the email address for notification removal.

-i, **--ip** <*string*>

Specifies the IP address for notification removal.

-o,--port <*string*>

Specifies the port for notification removal.

-t,**--trapnumber** *<string[,string...]>*

Specifies the trap number associated with notification removal.

notification local_email | **email-filter** | **tra**p

Specifies that all notifications of the specified type are removed from the given addresses.

local-email

Specifies your local email address at which you want to remove the notification.

email-filter

Specifies that you want the email filter used.

trap

Specifies the SNMP trap notification method to use to remove the notification.

Examples

sscs remove -e john.doe@address.com **notification local_email**

sscs remove -t 2 notification trap

reset array

Resets the specified array.

Synopsis

reset -a *<array-name>* **-l** <**array**|**volume**> **array**

Description

Resets the specified array.

Caution: Resetting the array destroys all user data, including volumes, hosts, initiators, and so forth.

Options

-a,**--array** *<array-name>*

Specifies the array you want to reset.

-l,--level <**array | volume**>

Specifies either array or volume to reset. If **volume** option is used, only volume information is erased, while array configuration is retained.

reset controller

Resets the specified controller.

Synopsis

reset -a <*array-name*> **controller A**| **B**

reset -a <*array-name*> **controller** <*controller-name*>

Description

Resets the specified controller.

Options

-a, **--array** <*array-name*>

Specifies the array whose controller you want to reset.

controller A | **B**

Specifies the name of the controller to reset, A or B.

controller

Specifies the name of the controller to reset.

Examples

sscs reset -a array00 **controller** A

resnap snapshot

Resnaps one or more existing snapshots.

Synopsis

resnap -a <*array-name*> **snapshot** <*snapshot-name[,snapshot-name...]*>

Description

Resnaps one or more existing snapshots. When you resnap a group of snapshots, an array job is created.

When resnapping a group of snapshots, if the resnap operation fails for one snapshot, then the entire resnap operation is cancelled.

Options

-a, **--array** <*array-name*>

Specifies the array associated with this snapshot.

snapshot <*snapshot-name,...*>

Specifies the names of the snapshots that you want to resnap.

Examples

sscs resnap -a array00 **snapshot** snapshot1, snapshot2

Resnaps snapshot1 and snapshot2 on array00.

revive disk

Attempts to bring a disk to the optimal state.

Synopsis

revive -a <*array-name*> [**-t** <*tray-id*>] **disk** [<*disk-name*>]

Description

Attempts to bring a disk to the optimal state. This can create complications. Do not initiate this command without first consulting Sun Customer Service personnel.

Options

-a, **--array** <*array-name*>

Specifies the array on which you want to revive the disk.

-t,**--tray** *<tray-ID>*

Identifies the tray where the disk resides.

disk

Specifies the name of the disk.

Examples

```
sscs revive -a Array01 -t Tray1 disk Disk7
```

revive vdisk

Revives a virtual disk.

Synopsis

```
revive -a <array-name> vdisk [ <virtual-disk-name> ]
```

Description

Revives a virtual disk. This can create complications. Do not initiate this command without first consulting Sun Customer Service personnel.

Options

-a,**--array** *<array-name>*

Specifies the array on which you want to revive the virtual disk.

vdisk

Specifies the name of the virtual disk.

Examples

```
sscs revive -a Array01 vdisk VirtualDisk33
```

service fail

Places a field-replaceable unit of an array into a failed state.

Synopsis

```
service -a <array-name> -t <target-fru-name> fail
```

Description

Places the specified field-replaceable unit of the array into a failed state. This can create complications. Do not initiate this command without first consulting Sun Customer Service personnel.

Options

-a,**--array** *<array-name>*

Specifies the array to be placed into a failed state.

-t,**--target** *<target-fru-name>*

Specifies the name of the field-replaceable unit to be placed into a failed state. This parameter needs to be set to either the FRU name or the FRU ID. For a list of FRU names, use the `sscs fru list` command. For a list of FRU IDs, use the `sscs list` command.

Examples

```
service -a myarray -t t0drive12 fail
```

service locate

Turns on the drive, tray, or array locator LED.

Synopsis

```
service -a <array-name> [ -t <target-fru-name> ] [ -o ] locate
```

Description

Identifies the array whose locator LED will be turned on.

Options

-a,**--array** *<array-name>*

Specifies the array to be placed into a failed state.

-t,**--target** *<target-fru-name>*

Specifies the name of the field-replaceable unit whose locator LED will be turned on. This parameter needs to be set to either the FRU name or the FRU ID. For a list of FRU names, use the `sscs fru list` command. For a list of FRU IDs, use the `sscs list` command.

-o,**--off**

Specifies to turn off the locate LED.

Examples

service -a *<array-name>* **-t** *<target-fru-name>* **locate**

service redistribute

Redistributes volumes back to their preferred owners.

Synopsis

service -a *<array-name>* **redistribute**

Description

Redistributes volumes back to their preferred owners.

Options

-a,**--array** *<array-name>*

Specifies the array to be to be redistributed.

Examples

```
service -a Myarray redistribute
```

service revive

Attempts to place the array controller or disk drive into the optimal state. This can create complications. Do not initiate this command without first consulting Sun Customer Service personnel.

Synopsis

service -a *<array-name>* **-t** *<target-fru-name>* [**-w**] **revive**

Description

Attempts to place the controller or disk drive of the specified array into the optimal state.

Options

-a,**--array** *<array-name>*

Specifies the array to be placed into a optimal state.

-t,**--target** *<target-fru-name>*

Specifies the name of the field-replaceable unit to be placed into a failed state. This parameter needs to be set to either the FRU name or the FRU ID. For a list of FRU names, use the `sscs fru list` command. For a list of FRU IDs, use the `sscs list` command.

-w,--no warn

Skips the warning prompt.

Examples

```
sscs service -a myarray -t t0drive12 -n revive
```

snapshoot volume

Creates and manages snapshots.

Note: This command provides cross-compatibility with scripts that are written for the Sun StorageTek 6920 System. The preferred snapshot commands are Create Snapshot and Modify Snapshot.

Synopsis

snapshoot -a *<array-name>* **-v** *<volume-name>* [**-C** *<integer>*] [**-L** *<***low|verylittle|little|average|high|full***>*] [**-l** *<0..100>*] [**-Z** *<number<***TB|GB|MB|KB|Bytes|BLK|BV***>>*] [**-f** *<***volume|snapshot***>*] [**-w** *<0..100>*] [**-P** *<reserve-volume-name>*] [**-V** *<virtual-disk-name>*] **volume** *<string>*

Creates a snapshot for a volume *<source-volume-name>*.

snapshoot -a *<array-name>* **-R volume** *<string>*

Resnaps a volume.

snapshoot -a *<array-name>* **-r volume** *<string>*

Removes a snapshot pool.

Options

-a, **--array** *<array-name>*

Specifies the array to be placed into a failed state.

-v,--volume *<source-volume-name>*

Specifies the volume for which to take a snapshot.

-C,--snapshot-count

Specifies the number of intended snapshots for the volume.

-l,--snapshot-percentage *<0..100>*

Specifies what percentage of the volume is to be used for snapshot creation.

-L, **--snapshot-level** low | verylittle | little | average | high | full

Specifies the level of snapshot activity as either low, verylittle, little, average, high, or full. The snapshot levels equate to the following percentages:

```
low - 10%
```

verylittle - 25%

little - 40%

average - 50%

high - 75%

full - 100%

-Z,--snapshot_reserve_size *<integer>* **TB** | **GB** | **MB** | **KB** | **Bytes** | **BLK** | **BV**

-f,**--favor volume**| **snapshot**

Favors the volume or snapshot.

-w,--warning_threshold

Specifies the threshold, as a percentage, at which the management software will generate messages to indicate the level of space left in the reserve volume. By default, the software generates a warning notification when data in the reserve volume reaches 50 percent of the available capacity. Possible values for the warning threshold are 1 to 100 percent.

-P,**--snapshot_pool** *<reserve-volume-name>*

Specifies the name to give to the reserve volume.

-V,--reserve_name *<snapshot-volume-name>*

Specifies the name to give to the reserve virtual disk.

-R,**--resnap** *<reserve-disk-name>*

Resnaps a volume.

-r,--remove_pool

Removes a snapshot from a storage pool.

volume *<snapshot-volume-name>* | *<new-snapshot-name>*

Specifies the volume or volumes for the snapshot argument. Once the snapshot volume is created, you can treat it the same as any other volume, except that it cannot be used to create another snapshot.

Examples

To create a snapshot named volume vol01 from the source volume vol0, type:

```
sscs snapshoot -v vol0 volume vol01
```

To resnap the snapshot volume MySnapshot in the storage device MyDevice, type:

```
sscs snapshoot -S MyDevice -R volume MySnapshot
```

unmap host

Unmaps one or more snapshots or volumes from a host.

Synopsis

unmap -a <*array-name*> [**-s** <*snapshot-name,...*>] [**-v** <*volume-name,...*>] **host** <*host-name*>

Description

Unmaps one or more snapshots or volumes from a host.

Options

-a, **--array** <*array-name*>

Specifies the array on which this volume resides. For cross-platform compatibility, you can substitute `-X, --storage-device` in place of the `-a, --array` option.

-s, **--snapshot** <*snapshot-name,...*>

Specifies the snapshot or snapshots to unmap from the host.

-v, **--volume** <*volume-name,...*>

Specifies the volume or volumes to unmap from the host.

host <*host-name*>

Specifies the host that you want to unmap from the snapshot or volume.

Examples

sscs unmap -a array00 **-v** vol01,vol02 **host** host01

unmap hostgroup

Unmaps one or more snapshots or volumes from a host group.

Synopsis

unmap -a <*array-name*> [**-s** <*snapshot-name,...*>] **-v** <*volume-name,...*> **hostgroup** <*host-group-name*>

Description

Unmaps one or more snapshots or volumes from a host group.

Options

-a,**--array** <*array-name*>

Specifies the array containing the volume that you want to unmap from the host group.

-s,**--snapshot** <*snapshot-name,...*>

Specifies the snapshot or snapshots to unmap from the host group.

-v,**--volume** <*volume-name,...*>

Specifies the volume or volumes that you want to unmap from the host group.

hostgroup <*host-group-name*>

Specifies the host group that you want to unmap from the snapshot or volume.

Examples

```
sscs unmap -a array00 -v vol01,vol02 hostgroup hg01
```

unmap initiator

Removes the mapping from one or more initiators to a volume or snapshot.

Synopsis

unmap -a <*array-name*> [**-s** <*snapshot-volume-name,...*>] [**-v** <*volume-name,...*>] **initiator** <*initiator-name,...*>

Description

Removes the mapping from an initiator to a snapshot or volume.

Options

-a,**--array** <*array-name*>

Specifies the array associated with the volume or snapshot to be unmapped. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-s,**--snapshot** <*snapshot-volume-name,...*>

Specifies the snapshot volumes to be unmapped from this initiator.

-v,**--volume** <*volume-name,...*>

Specifies the volumes to be unmapped from this initiator.

initiator <*initiator-name,...*>

Specifies the initiator name to be unmapped.

Examples

sscs unmap -a array00 **-v** vol01 **initiator** init1

unmap snapshot

Removes the mapping from one or more snapshots to a host or hostgroup.

Synopsis

unmap -a <*array-name*> [**-i** <*initiator-name*>] [**-h** <*host-name*>] [**-g** <*hostgroup-name*>] **snapshot** <*snapshot-name[,snapshot-name...]*>

Description

Removes the mapping from one or more snapshots to a host or hostgroup.

Options

-a,--array <*array-name*>

Specifies the array.

-i,--initiator <*initiator-name*>

Specifies the initiator that you want to unmap from the snapshot.

-h,--host *<host-name>*

Specifies the host that you want to unmap from the snapshot.

-g,--hostgroup *<hostgroup-name>*

Specifies the hostgroup that you want to unmap from the snapshot.

snapshot *<snapshot-name[,snapshot-name...]>*

Specifies the snapshot or snapshots to be unmapped.

unmap volume

Unmaps one or more volumes from a host or host group.

Synopsis

unmap -a *<array-name>* [**-h** *<host-name>* | **-g** *<host-group-name>*] **volume** *<volume-name,...>*

unmap -a *<array-name>* [**-i** *<initiator-name>*] [**-h** *<host-name>*] [**-g** *<hostgroup-name>*] **volume** *<volume-name[,volume-name...]>*

Description

Unmaps one or more volumes from a host or host group.

Options

-a,**--array** *<array-name>*

Specifies the array containing the volume that you want to unmap from the host or host group. For cross-platform compatibility, you can substitute `-X,--storage-device` in place of the `-a,--array` option.

-i,--initiator *<initiator-name>*

Specifies the initiator that you want to unmap from the volume.

-h,--host *<host-name>*

Specifies the host that you want to unmap from the volume.

-g,--hostgroup *<host-group-name>*

Specifies the host group that you want to unmap from the volume.

volume <*volume-name,...*>

Specifies the volume or volumes to unmap from the host.

Examples

sscs unmap -a array00 **-g** hg01 **volume** vol01,vol02

unregister storage-system

Unregisters an array.

Synopsis

unregister storage-system <*storage-system-name,...*>

Description

Unregisters an array from the list of registered storage-systems.

Options

storage-system <*storage-system-name,...*>

Specifies the storage system or storage systems that you want to unregister from the list of registered storage-systems.

Examples

sscs unregister storage-system *array19*

unregister sun-connection

Unregisters CAM software and all monitored arrays from Auto Service Request (ASR).

Synopsis

unregister sun-connection

Description

Unregisters CAM software and all monitored arrays from Auto Service Request (ASR) which monitors the array system health and performance and automatically notifies the Sun Technical Support Center when critical events occur. Newly discovered arrays will not be registered with the saved registration options.

Examples

```
sscs unregister sun-connect
```

version

Shows the versions of software that you are running on this array and the client.

Synopsis

```
-V, --version
```

Description

Shows the versions of software that you are running on this array and the client.

Examples

```
sscs -V
Sun StorageTek[TM] Configuration Service v5.1.0.9
sscs client v2.1.4
EXIT      STATUS
0          Successful completion
15         Object not found error
25         Command parsing failure
30         Command validation error
50         Application error
75         System error
100        Nonspecific error
```

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