
Sun StorageTek™ Common Array Manager CLI Quick Reference

This document lists the `sscs(1M)` subcommands that you can use to administer the Sun StorageTek™ 6130, 6140, 6540, 2500 Series Arrays, and FlexLine 380 Systems from the command-line interface (CLI).

Using the `sscs` Command

Task	Steps
Invoke the <code>sscs</code> command.	<p>To manage the Sun StorageTek arrays, use the <code>/opt/SUNWsesscs/cli/bin/sscs</code> command.</p> <p>From a terminal window, type the <code>sscs</code> command with a subcommand and any applicable parameters.</p> <p>Note: The <code>sscs</code> command has an inactivity timer. The session terminates if you do not issue any <code>sscs</code> commands for 30 minutes. You must log in again after the timeout to issue a command.</p>

Task	Steps
Display a brief list of all subcommands.	Type one of the following commands: sscs [-H --help] or sscs -\?
Display information about a specific subcommand.	Type the following command: sscs subcommand [-H --help] For example, to show information about the list command, type sscs list -H . To show information specifically about the list array command, type sscs list -H array .
View the man page for 6130, 6140, 6540, 2500 Series Arrays, and FlexLine 380 Systems.	man -M /opt/SUNWsesscs/cli/man sscs

Subcommand Syntax and Usage Conventions

Convention	Description
Bold	Text in bold should be typed exactly as shown.
<i>Italic</i>	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: ? * ! @ % &

General Commands

Task	Command
Log in to the system's management host. When you log in, you must specify the type of user you are logging in as and the management host name. The following list describes the short and long name command options for the login command: -u, --username Specifies the user name with which to log in. Valid user names are storage and guest. -s, --system-type Specifies the type of storage system you want to manage with the new login session. You will need to supply this option if you have two or more element management applications installed on the same host. In this case, you must specify which application you want. -h, --hostname Specifies the host name of the management host. -f, --force For management applications that only allow one login per user, this option forces a login to the management host if another storage user with the same user name is already logged in. The other user is logged out. -t, --http Log the user in using an HTTP connection.	sscs login -u storage guest -h host-name [-s 6120 6130 6140 6540 6320 flx380 [-f] [-t]
Log out of the management host.	sscs logout
Display the version of the <i>sscs</i> software running on the management host.	sscs -V
Display the current date and time on the array in hours, minutes, and seconds.	sscs list -a array-name date
Change the date on the array.	sscs modify -a array-name [-G true/false] [-s] date [[mmd] HHMM mmdHHMM [cc] [yy]] [.SS]
List all jobs or only current jobs.	sscs list -a array-name jobs [job-ID,...]
Cancel or prioritize a current or outstanding job.	sscs modify -a array-name [-k] [-p lowest low medium high highest] jobs [job-ID]
List log messages, for a range of time or for the most recent ones.	sscs list [-s { [mmd] HHMM mmdHHMM [cc] yy} [.SS]] [-f { [mmd] HHMM mmdHHMM [cc] yy} [.SS]] [-t number-of-messages] log
Add a user name to the user access list.	sscs add -u user-name userrole storage guest
List the user name and user role information.	sscs list userrole [storage guest]

Task	Command
Modify a user role.	sscs modify [-u <i>user-name</i>] [-p <i>password</i>] [-i ANY <i>IP-address</i> ,...] userrole [storage guest]
Remove user names from a user role (storage or guest).	sscs remove -u <i>username</i> ,... userrole storage guest
List the management software application that you are logged in to.	sscs list mgmt-sw
Show 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.	sscs list -a <i>array-name</i> ,... os-type
Show detailed performance statistics for one or more arrays.	sscs list -a <i>array-name</i> ,... -t array_stats controller_stats volume_stats [-c A B] [-h <i>host-name</i> ,...] [-g <i>host-group-name</i> ,...] [-v <i>volume-name</i> ,...] [-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
Show the current settings for one or more arrays, including state, polling interval, and data retention period.	sscs list -a <i>array-name</i> ,... -T performance
Modify settings for performance monitoring. To reset performance settings, toggle the status to off and back on again.	sscs modify -a <i>array-name</i> [-S on off] [-p 1 5 15] [-r forever 1HR 2HR 4HR 1DAY] performance
List the field replaceable components in this device.	sscs list -d <i>device-name</i> [-t battery ctrl disk midplane pcu sfp all] [-s] [-f <i>string</i>] [-l <i>string</i>] fru [<i>string</i> ,...]

Alarm Commands

Task	Command
List the devices that are being monitored, or list specific information about one device.	sscs list [-n <i>device-ID</i>] [-i <i>IP-address</i>] device
Display a list of alarms with date and severity, or display specific information about one alarm.	sscs list [-s <i>string</i>] [-f <i>device-type</i>] [-a <i>service-advisor-ID</i>] alarm
Delete an alarm.	sscs remove [-f <i>device-type</i>] [-s 1 2 3] [-A] alarm

Task	Command
Display the current notifications for alarms.	sscs list notification
Enable remote notification or add a new notification.	sscs add [-e <i>email-address</i> ,...] [-i <i>IP-address</i> ,...] [-t 1 2 3 4 5] [-l warning error down] notification local_email nsc_email netconnect trap
Remove a notification, from a specific source to a specific address, or of a specific type.	sscs remove [-e <i>email-address</i> ,...] [-i <i>IP-address</i> ,...] [-t 1 2 3 4 5] notification local_email nsc_email netconnect trap

Port and Network Configuration Commands

Task	Command
Display the IP address of the devices being monitored.	sscs list [-n <i>device-name</i>] [-i <i>IP-address</i>] device
Display all outward-facing Fibre Channel ports.	sscs list -a array-name fcport
Display status about one or more Fibre Channel ports.	sscs list -a array-name [-c A B] fcport <i>FC-port-ID</i> ,...
Display status about one or more SAS ports.	sscs list -a array-name [-c A B] sasport <i>sas-port-ID</i> ,...
Change the Fibre Channel preferred loop ID.	sscs modify -a array-name [-c A B] -l 0..127 N/A Any fcport <i>FC-port-ID</i>

Array, Tray, Controller, and Disk Commands

Task	Command
Display all current arrays and the summary information for each array.	sscs list array
Display configuration information for the named array or for all arrays.	sscs list array [<i>array-name</i> ,...]
Display information about all disks in an array or tray, or display detailed information about a specific disk.	sscs list -a array-name [-t tray-ID] disk [<i>disk-name</i> ,...]
Specify the disk role, including the designation of hot-spare.	sscs modify -a array-name -h true false disk <i>disk-name</i>
Set a disk to the failed state. This can create complications. Do not initiate this command without first consulting Sun Customer Service personnel.	sscs fail -a array-name [-t tray-ID] disk <i>disk-name</i>

Task	Command
Display information about all the trays in an array, or display detailed information about a specific tray.	<code>sscs list -a array-name tray [tray-ID,...]</code>
Change the configuration of an array.	<code>sscs 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] [-T wwn array_name] [-N new-array-name] [-p password] array array-ID</code>
Attempt to move all volumes that are not currently running on the preferred controller to the preferred controller.	<code>sscs modify -R [-T wwn array-name] array array-name</code>
Change the identification of one or more trays, enable or disable an alternate master tray, or unconfigure a controller tray.	<code>sscs modify -a array-name -N 0..99 tray tray-ID,...</code>
Add an array to the list of registered arrays.	<code>sscs add [-i IP-address] [-q] registeredarray</code>
Discover all arrays on the same subnet as the management host and register them.	<code>sscs add -d registeredarray</code>
List registered array information.	<code>sscs list -a [array-name,...] registeredarray</code>
Modify the locally stored password for a registered array.	<code>sscs modify -a array-name -q registeredarray</code>
Remove one or more arrays from the list of registered arrays.	<code>sscs remove -a array-name,... registeredarray</code>
Render an extensible markup language (XML) representation of the array. This outputs to standard output, and then you redirect it to a file or another mechanism.	<code>sscs export array array-name</code>
Apply 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.	<code>sscs import -x XML-location [-L list] array array-name</code>
Reset the specified array. Caution: Resetting the array destroys all user data, including volumes, hosts, initiators, and so forth.	<code>sscs reset array array-name</code>
List configuration information for the specified controller.	<code>sscs list -a array-name controller [A B]</code>
Modify the Ethernet port of a controller using the specified IP parameters.	<code>sscs modify -a array-name [-e 1 2] [-d off] [-g gateway-address] [-i IP-address] [-m netMask] controller A B</code>

Task	Command
Modify the IP parameters of a controller's Ethernet port using the Dynamic Host Control Protocol (DHCP).	sscs modify -a array-name [-e 1 2] -d on controller A B
Verify the network connectivity between the array controller and the management software.	sscs modify -a array-name -E controller A B
Reset the specified controller.	sscs reset -a array-name controller A B
Unregister an array from the list of registered storage-systems.	sscs unregister storage-system storage-system-name,...
Unregister CAM software and all monitored arrays from Sun Connection. Newly discovered arrays will not be registered with the saved registration options.	sscs unregister sun-connection

Storage Pool Commands

Task	Command
Display summary information about all current storage pools.	sscs list -a array-name pool
Display detailed information about specific storage pools.	sscs list -a array-name pool [pool-name,...]
Create a storage pool, using the specified profile.	sscs create -a array-name -p profile-name [-d pool-description] pool pool-name
Delete one or more storage pools, including all virtual disks and volumes in the storage pools.	sscs delete -a array-name pool pool-name,...
Change the description of a storage pool or its associated storage profile.	sscs modify -a array-name [-N new-pool-name] [-d description] [-p new-profile-name] pool pool-name

Storage Profile Commands

Task	Command
Display a list of all default storage profiles or customer-created profiles. You can also display detailed information for a specific profile.	sscs list -a array-name profile [profile-name,...]
Create a storage profile.	sscs create -a array-name -r 0 1 3 5 -s 8K 16K 32K 64K 128K 256K 512K -h on off -n variable 2..30 [-k ANY FC SAS SATA] [-H hot-spare yes no] [-d profile-description] profile profile-name
Delete one or more storage profiles, providing that no storage pools are currently using the profile.	sscs delete -a array-name profile profile-name,...

Task	Command
Change a storage profile, providing that no storage pools are currently using the profile.	<code>sscs modify -a array-name [-r 0 1 3 5 -s 8K 16K 32K 64K 128K 256K 512K] [-N new-profile-name] [-d profile-description] [-h on off] [-n variable 2..30] [-H hot-spare yes no] [-k ANY FC SAS SATA] profile profile-name</code>
Import one or more profiles from a specified XML file. This enables you to import the configuration profile from one array to overwrite the configuration profile for this array.	<code>sscs import -a array-name -x XML-location [-f] -L profile [profile-name,...]</code>
Export one or more profiles into an XML representation. This outputs to standard output, and then you redirect it to a file or another mechanism.	<code>sscs export -a array-name profile [profile-name,...]</code>

Initiator Commands

Task	Command
Display a list of all initiators or detailed information for a specific initiator.	<code>sscs list -a array-name [-T WWN initiator_name] initiator [initiator-ID,...]</code>
Create an initiator.	<code>sscs 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 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</code>
Delete one or more unmapped initiators.	<code>sscs delete -a array-name [-T WWN initiator_name] initiator initiator-ID,...</code>
Change an initiator. Note: You can modify the World Wide Name (WWN) only when the initiator is offline.	<code>sscs 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 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</code>

Virtual Disk Commands

Task	Command
Display summary information about all current virtual disks or detailed information about a specific virtual disk.	sscs list -a array-name vdisk [<i>virtual-disk-name,...</i>]
Create a volume using a virtual disk.	sscs create -a array-name -p pool-name -s size [-v <i>virtual-disk-name</i>] [-n 2..30] [-d <i>disk-name,...</i>] volume volume-name
Change the number of supplied disks for a virtual disk, and defragment the virtual disk.	sscs modify -a array-name [-d <i>disk-name,...</i>] [-f] vdisk virtual-disk-name

Host and Host Group Commands

Task	Command
Add hosts to a host group.	sscs add -a array-name -h host-name,... hostgroup <i>host-group-name</i>
Create a storage host. You can create up to 256 hosts per array.	sscs create -a array-name [-g <i>host-group-name</i>] host host-name
Create a storage host group. You can create up to 256 host groups per array.	sscs create -a array-name hostgroup <i>host-group-name</i>
Delete one or more hosts.	sscs delete -a array-name host <i>host-name,...</i>
Delete one or more host groups.	sscs delete -a array-name hostgroup <i>host-group-name,...</i>
List the host names and details for an individual host.	sscs list -a array-name host [<i>host-name,...</i>]
List the host group name and hosts for an individual host group.	sscs list -a array-name hostgroup [<i>host-group-name,...</i>]
Modify a host name.	sscs modify -a array-name [-N <i>host-name</i>] [-g <i>host-group-name</i>] host <i>host-name</i>
Modify a host group name.	sscs modify -a array-name -N <i>host-group-name</i> hostgroup <i>host-group-name</i>
Remove one or more hosts from a host group.	sscs remove -a array-name -h <i>host-name,...</i> hostgroup <i>host-group-name</i>
Map one or more volumes and snapshots to a host. Any previous mappings for the given volumes and snapshots are removed.	sscs map -a array-name [-v <i>volume-name,...</i>] [-s <i>snapshot-volume-name,...</i>] [-l 0..255] host <i>host-name</i>
Map one or more volumes to a host group. Any previous mappings for the given volumes and snapshots are removed.	sscs map -a array-name -v <i>volume-name,...</i> -s <i>snapshot-volume-name,...</i> [-l 0..255] hostgroup <i>host-group-name</i>

Task	Command
Unmap one or more snapshots or volumes from a host.	sscs unmap -a <i>array-name</i> [-s <i>snapshot-name</i> ,...] [-v <i>volume-name</i> ,...] host <i>host-name</i>
Unmap one or more snapshots or volumes from a host group.	sscs unmap -a <i>array-name</i> [-s <i>snapshot-name</i> ,...] [-v <i>volume-name</i> ,...] hostgroup <i>host-group-name</i>

Volume Commands

Task	Command
Display summary information about all current volumes or detailed information about a specific volume.	sscs list -a <i>array-name</i> [-p <i>pool-name</i>] [-v <i>virtual-disk-name</i>] volume [<i>volume-name</i> ,...]
Create a volume.	sscs create -a <i>array-name</i> -p <i>pool-name</i> -s <i>tb gb mb blk</i> [-v <i>virtual-disk-name</i>] [-n 2..30] [-d <i>disk-name</i> ,...] volume <i>volume-name</i>
List volume information.	sscs list -a <i>array-name</i> [-p <i>pool-name</i>] [-v <i>virtual-disk-name</i>] volume [<i>volume-name</i> ,...]
Create a volume copy.	sscs create -a <i>array-name</i> -s <i>source-volume-name</i> -t <i>target-volume-name</i> [-p <i>lowest low medium high highest</i>] volume-copy
Delete one or more unmapped volumes.	sscs delete -a <i>array-name</i> volume <i>volume-name</i> ,...
List 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.	sscs list -a <i>array-name</i> [-s <i>source-volume-name</i> ,...] [-t <i>target-volume-name</i> ,...] volume-copy
Delete a volume copy.	sscs delete -a <i>array-name</i> -s <i>source-volume-name</i> -t <i>target-volume-name</i> volume-copy
Change a volume's attributes.	sscs modify -a <i>array-name</i> -p <i>pool-name</i> [-e <i>extend-size</i>] [-N <i>new-volume-name</i>] [-c A B] [-m <i>modification-priority</i> <i>lowest low medium high highest</i>] [-W <i>enable disable</i>] [-M <i>enable disable</i>] [-b <i>enable disable</i>] [-k <i>enable disable</i>] [-r <i>enable disable</i>] volume <i>volume-name</i>

Task	Command
Change a volume copy's attributes.	sscs 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
Map one or more volumes to a host or host group.	sscs map -a array-name [-h host-name] [-g host-group] [-l 0..255] volume volume-name,...
Unmap one or more volumes from a host or host group.	sscs unmap -a array-name [-h host-name] [-g host-group-name] volume volume-name,...

Snapshot Commands

Task	Command
Create a snapshot for a volume.	sscs create -a array-name -V volume-name [-f failbasewrite failsnapshot] [-v virtual-disk-name] [-m volume-name] [-w 0..100] [-n 2..30] [-d disk-name,...] [-r 0 1 3 5] [-k ANY FC SAS SATA] [-Z snapshot-reserve-size] [-C snapshot-count] [-L low verylittle little average high full] [-P snapshot-pool] [-D description] snapshot snapshot-name
Modifies properties of a snapshot.	sscs modify -a array-name [-N snapshot-name] [-f failbasewrite failsnapshot] [-w 0..100] [-D profile-description] snapshot snapshot-name
Extend the snapshot reserve volume size by a specified amount.	sscs modify -a array-name -e extend-size snapshot snapshot-name
Disable the snapshot.	sscs modify -a array-name -S snapshot snapshot-name
Resnap the snapshot.	sscs modify -a array-name -R snapshot snapshot-name
Modify the volume properties of the snapshot reserve volume.	sscs 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
Delete one or more snapshots.	sscs delete -a array-name snapshot snapshot-name,...
List the specified snapshot or snapshots associated with this array.	sscs list -a array-name snapshot [snapshot-name,...]
Map 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.	sscs map -a array-name [-h host-name -g host-group-name] [-l 0..255] snapshot snapshot-name,...
Unmap a host or host group from one or more snapshots.	sscs unmap -a array-name [-h host-name] [-g host-group-name] snapshot [snapshot-name,...]

Task	Command
Note: The following two subcommands provide cross-compatibility with scripts that are written for the Sun StorageTek 6920 system. The preferred snapshot subcommands are Create Snapshot and Modify Snapshot.	
Create a snapshot for a volume.	sscs snapshot -X <i>storage-device-name</i> -v <i>volume-name</i> [-C 1] [-L low verylittle little average high full] [-f failsnapshot failbasewrite] [-m reserve-volume-name] volume <i>snapshot-volume-name</i>
Resnap a volume.	sscs snapshot -X <i>storage-device-name</i> -R volume <i>snapshot-volume-name</i>

Remote Replication Commands

Task	Command
Create a storage replication set linking the local volume with the remote volume through a peer World Wide Name.	sscs create -a <i>array-name</i> -l <i>volume-name</i> -w <i>peer-WWN</i> -o <i>volume-name</i> -m <i>sync async</i> [-G yes no] [-R lowest low medium high highest] [-s enable disable] repset
Create a replication set linking the local volume with the remote volume through a remote array name.	sscs create -a <i>array-name</i> -l <i>volume-name</i> -A <i>remote-array-name</i> -o <i>volume-name</i> -m <i>sync async</i> [-G yes no] [-R lowest low medium high highest] [-s enable disable] repset
Delete one or more replication sets.	sscs delete -a <i>array-name</i> repset <i>repset-name,...</i>
List replication set information.	sscs list -a <i>array-name</i> repset [<i>repset-name,...</i>]
Modify the mode, consistency group, or replication priority of the specified replication set.	sscs modify -a <i>array-name</i> -A -r 1 3 5 -n 2..30 [-k ANY FC SAS SATA] license ReplicationSet
Modify the role of the local volume on the specified array.	sscs modify -a <i>array-name</i> [-r primary secondary] [-f] repset <i>repset-name</i>
Suspend replication on the specified array.	sscs modify -a <i>array-name</i> -c repset <i>repset-name</i>
Resume replication on the specified array.	sscs modify -a <i>array-name</i> -z repset <i>repset-name</i>
Test whether the primary volume on the specified array is communicating correctly with its replica (primary or secondary).	sscs modify -a <i>array-name</i> -E repset <i>repset-name</i>

License Commands

Task	Command
Adds a license to the specified array. Specify either the -l option alone, or the -v , -c , and -d options together.	sscs add -a <i>array-name</i> [-l license-location -v version-number -c capability-number -d digest-key] license

Task	Command
Activate replication set licenses on the specified array using the designated virtual disk for replication set repository volumes.	sscs modify -a array-name -A [-v virtual-disk-name] license ReplicationSet
Activate 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.	sscs modify -a array-name -A -r 1 3 5 -n 2..30 -k ANY FC SAS SATA license ReplicationSet
Activate 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.	sscs modify -a array-name -A -r 1 3 5 -d disk-name,... license ReplicationSet
Deactivate replication set licenses on the specified array, and delete the replication set repository volumes.	sscs modify -a array-name -I license ReplicationSet
Remove a license from the specified array.	sscs remove -a array-name license license-name

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