



# Sun StorageTek™ Common Array Manager

## SSCS(1M) CLI Quick Reference

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### SSCS Subcommand Summary

SSCS	
login	
logout	
add	hostgroup   license   notification   registeredarray   userrole
create	host   hostgroup   initiator   pool   profile   repset   snapshot   volume   volume-copy
delete	host   hostgroup   initiator   pool   profile   repset   snapshot   volume   volume-copy
export	array   profile
fail	disk
import	array   profile
initialize	disk
list	alarm   array   controller   date   device   devices   disk   event   fcport   fru   host   hostgroup   initiator   jobs   license   log   mgmt-sw   notification   performance   pool   profile   registeredarray   repset   site   snapshot   tray   userrole   vdisk   volume   volume-copy
map	host   hostgroup   snapshot   volume
modify	agent   array   controller   date   disk   fcport   host   hostgroup   initiator   jobs   license   performance   pool   profile   registeredarray   repset   site   snapshot   tray   userrole   vdisk   volume   volume-copy
offline	vdisk
online	vdisk
reconstruct	vdisk
register	storage-system   sun-connection
remove	hostgroup   license   notification   registeredarray   userrole
reset	array   controller
revive	vdisk   disk
snapshot	volume
unmap	host   hostgroup   snapshot   volume
unregister	storage-system

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

## Basic Functions

Task	Steps
Log in to a terminal window on the management software host or log in using a CLI client on a remote host.	<pre>cd /opt/SUNWsesscs/cli/bin/</pre> <pre><b>sscs login -u</b> storage guest <b>-h</b> host-name [<b>-f</b>] [<b>-t</b>]</pre> <p>The following list describes the short and long name command options for the <code>login</code> command:</p> <ul style="list-style-type: none"><li><code>-u, --username</code> Default user names are <code>storage</code> and <code>guest</code>. There are also <code>storage</code> and <code>guest</code> roles that have to be added to the management software host by a system administrator.</li><li><code>-h, --hostname</code> Specifies the network name or IP address of the management host.</li><li><code>-f, --force</code> Forces a login to the management host if another storage user with the same userrole name is already logged in. The other user is logged out.</li><li><code>-t, --http</code> Log the user in using an HTTP connection.</li></ul>
CLI clients for remote hosts can be downloaded for a variety of operating systems from the Storage Management section of <a href="http://www.sun.com/download/">http://www.sun.com/download/</a> .	
<b>Note:</b> The <code>sscs</code> command has an 30 minute inactivity timer before you are logged out.	
Log out of the management host.	<pre><b>sscs logout</b></pre>
Display a brief list of all subcommands.	Type one of the following commands: <pre><b>sscs [-H --help]</b></pre> or <pre><b>sscs -\?</b></pre>
Display information about a specific subcommand.	Type the following command: <pre><b>sscs subcommand [-H --help]</b></pre> <p>For example, to show information about the <code>list</code> command, type <code>sscs list -H</code>. To show information specifically about the <code>list array</code> command, type <code>sscs list -H array</code>.</p>
View the man page introduction.	<pre><b>man -M /opt/SUNWsesscs/cli/man sscs</b></pre>
View the man page for the 6130, 6140, and 6540 arrays.	<pre><b>man -M /opt/SUNWsesscs/cli/man sscs-6130</b></pre> <pre><b>man -M /opt/SUNWsesscs/cli/man sscs-6140</b></pre> <pre><b>man -M /opt/SUNWsesscs/cli/man sscs-6540</b></pre>

## Subcommand Syntax and Usage Conventions

Convention	Description
<b>Bold</b>	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. <b>Note:</b> You cannot use a space alone. The following examples show the correct use of commas and spaces in lists:  <pre><b>sscs list volume</b> TestVOL, fvm13311 <b>sscs list volume</b> TestVol, fvm13311</pre>
[ ] (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 <code>sscs</code> 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
Display the version of the <code>sscs</code> software running on the management host.	<b>sscs -V</b>
Display the current date and time on the array in hours, minutes, and seconds.	<b>sscs list -a array-name date</b>
Change the date on the array.	<b>sscs modify -a array-name [-G true false] [-s] date</b> [ [mmdd] HHMM mmddHHMM [cc] [yy]] [.SS]
Display the field replaceable units (FRUs) in the array.	<b>list -d [device-name   device-id] -t device-type -s fru</b> [fru-id,...]
List all jobs or only current jobs.	<b>sscs list -a array-name jobs [job-ID,...]</b>
Cancel or prioritize a current or outstanding job.	<b>sscs modify -a array-name [-k] [-p lowest low medium high highest] jobs [job-ID]</b>
List the administrative information about the array site and contacts.	<b>sscs list site</b>
Modify a site contact field. Required fields are customer, name, city, country, contact, and email.	<b>sscs modify [-r contact-field] site contact-field=contact-value</b>
List log messages, for a range of time or for the most recent ones.	<b>sscs list [-s { [mmdd] HHMM mmddHHMM [cc] yy} [.SS] } [-f { [mmdd]HHMM mmddHHMM [cc] yy} [.SS] } [-t number-of-messages] log</b>
Add a user name to the user access list.	<b>sscs add -u user-name userrole storage guest</b>

Task	Command
List the user name and user role information.	<b>sscs list userrole</b> [storage guest]
Modify a user role.	<b>sscs modify</b> [-u <i>user-name</i> ] [-p <i>password</i> ] [-i ANY  <i>IP-address</i> ,...] <b>userrole</b> [storage guest]
Remove user names from a user role (storage or guest).	<b>sscs remove -u</b> <i>username</i> ,... <b>userrole</b> storage guest
List the management software application that you are logged in to.	<b>sscs list mgmt-sw</b>
Show all of the operating systems running on data hosts 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.	<b>sscs list -a</b> <i>array-name</i> ,... <b>os-type</b>
Show detailed performance statistics for one or more arrays.	<b>sscs list -a</b> <i>array-name</i> ,... <b>-t</b> 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] <b>performance</b>
Show the current settings for one or more arrays, including state, polling interval, and data retention period.	<b>sscs list -a</b> <i>array-name</i> ,... <b>-T performance</b>
Modify settings for performance monitoring. To reset performance settings, toggle the status to off and back on again.	<b>sscs modify -a</b> <i>array-name</i> [-S on off] [-p 1 5 15] [-r forever 1HR 2HR 4HR 1DAY] <b>performance</b>

## Fault Management Commands

Task	Command
List the devices that are being monitored, or list specific information about one device.	<b>sscs list</b> [-n <i>device-ID</i> ] [-i <i>IP-address</i> ] <b>device</b> <b>sscs list devices</b>
Display detailed information on the specified events	<b>list</b> [-s 1..3] [-d <i>device-type</i> ] [-t <i>event-type</i> ] [-a aggregated] [-f <i>filter-string</i> ] [-l <i>last-type</i> ] <b>event</b> <i>event-id</i>
Display a list of alarms with date and severity, or display specific information about one alarm.	<b>sscs list</b> [-s 1..3] [-f <i>device-type</i> ] [-a <i>service-advisor-ID</i> ] [-S] <b>alarm</b> <i>alarm-ID</i>
Delete an alarm.	<b>sscs remove</b> [-f <i>device-type</i> ] [-s 1 2 3] [-A] <b>alarm</b>
Display the current notifications for alarms.	<b>sscs list notification</b>

Task	Command
Enable notification of alerts to local email and SNMP trap providers and add email addresses for notifications.	<b>sscs add</b> [-e <i>email-address,...</i> ] [-i <i>IP-address,...</i> ] [-t <i>trap number,...</i> ] [-l <i>warning error down</i> ] <b>notification</b> <i>local_email trap</i>
Remove a notification, from a specific source to a specific address, or of a specific type.	<b>sscs remove</b> [-e <i>email-address,...</i> ] [-i <i>IP-address,...</i> ] [-t <i>trap number,...</i> ] <b>notification</b> <i>local_email trap</i>
Change the scan run interval and activate or deactivate the scan of a fault management agent.	<b>modify</b> - [-a ] [-d ] [-r ] [-i <i>minutes</i> ] <b>agent</b> <i>agent-id</i>

## Port and Network Configuration Commands

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

## Array, Tray, Controller, and Disk Commands

Task	Command
Display all current arrays and the summary information for each array.	<b>sscs list array</b>
Display configuration information for the named array or for all arrays.	<b>sscs list array</b> [ <i>array-name,...</i> ]
Display information about all disks in an array or tray, or display detailed information about a specific disk.	<b>sscs list -a</b> <i>array-name</i> [-t <i>tray-ID</i> ] <b>disk</b> [ <i>disk-name,...</i> ]
Specify the disk role, including the designation of hot-spare.	<b>sscs modify -a</b> <i>array-name</i> -h <i>true false</i> <b>disk</b> <i>disk-name</i>
Display information about all the trays in an array, or display detailed information about a specific tray.	<b>sscs list -a</b> <i>array-name</i> <b>tray</b> [ <i>tray-ID,...</i> ]
Change the configuration of an array.	<b>sscs modify</b> [-o <i>os-type</i> ] [-s <i>0..100</i> ] [-s <i>0..100</i> ] [-k <i>disable 1..30</i> ] [-f <i>0..60</i> ] [-h <i>0..8</i> ] [-T <i>won array-name</i> ] [-N <i>array-name</i> ] [-p] <b>array</b> <i>array-name</i>

Task	Command
Attempt to move all volumes that are not currently running on the preferred controller to the preferred controller.	<b>sscs modify -R</b> [-T <i>wwn</i>   <i>array-name</i> ] <b>array</b> <i>array-name</i>
Change the identification of one or more trays, enable or disable an alternate master tray, or unconfigure a controller tray.	<b>sscs modify -a</b> <i>array-name</i> <b>-N</b> 0..99 <b>tray</b> <i>tray-ID</i> ,...
Add an array to the list of registered arrays.	<b>sscs add</b> [-i <i>IP-address</i> ] [-q] <b>registeredarray</b>
Discover all arrays on the same subnet as the management host and register them.	<b>sscs add -d</b> <b>registeredarray</b>
List registered array information.	<b>sscs list -a</b> [ <i>array-name</i> ,...] <b>registeredarray</b>
Modify the locally stored password for a registered array.	<b>sscs modify -a</b> <i>array-name</i> <b>-q</b> <b>registeredarray</b>
Remove one or more arrays from the list of registered arrays.	<b>sscs remove -a</b> <i>array-name</i> ,... <b>registeredarray</b>
Save the configuration of an array as an extensible markup language (XML) file. You can import the file to add the configuration to another array using the <code>import array</code> command. You can also output the XML file to standard output, and redirect it to a file or another mechanism.	<b>sscs export array</b> <i>array-name</i>
Import the configuration of an array saved as an XML file using the <code>export array</code> command and apply the configuration to the specified array. This overwrites the existing configuration on this array.	<b>sscs import -x</b> <i>XML-location</i> [-L <i>list</i> ] <b>array</b> <i>array-name</i>
Reset the specified array. <b>Caution:</b> Resetting the array destroys all user data, including volumes, hosts, initiators, and so forth.	<b>reset array</b> <i>array-name</i>
List configuration information for the specified controller.	<b>sscs list -a</b> <i>array-name</i> <b>controller</b> [A B]
Modify the Ethernet port of a controller using the specified IP parameters.	<b>sscs modify -a</b> <i>array-name</i> [-e 1 2] [-d off] [-g <i>gateway-address</i> ] [-i <i>IP-address</i> ] [-m <i>netMask</i> ] <b>controller</b> A B
Modify the IP parameters of a controller's Ethernet port using the Dynamic Host Control Protocol (DHCP).	<b>sscs modify -a</b> <i>array-name</i> [-e 1 2] <b>-d on</b> <b>controller</b> A B
Verify the network connectivity between the array controller and the management software.	<b>sscs modify -a</b> <i>array-name</i> <b>-E</b> <b>controller</b> A B
Reset the specified controller.	<b>sscs reset -a</b> <i>array-name</i> <b>controller</b> A B

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## Storage Pool Commands

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

## 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.	<b>sscs list -a array-name profile [profile-name,...]</b>
Create a storage profile.	<b>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 SATA] [-d profile-description] profile profile-name</b>
Delete one or more storage profiles, providing that no storage pools are currently using the profile.	<b>sscs delete -a array-name profile profile-name,...</b>
Change a storage profile, providing that no storage pools are currently using the profile.	<b>sscs modify -a array-name [-d profile-description] [-N new-profile-name] [-r 0 1 3 5] [-s 8K 16K 32K 64K 128K 256K 512K] [-h on off] [-n variable 2..30] [-k ANY FC SATA] profile profile-name</b>
Import one or more profiles from a specified XML file. This enables you to import the configuration profile from one pool to overwrite the configuration profile for this array.	<b>sscs import -a array-name -x XML-location [-f] -L profile [profile-name,...]</b>
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.	<b>sscs export -a array-name profile [profile-name,...]</b>

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## Initiator Commands

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

## Virtual Disk Commands

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

## Host and Host Group Commands

Task	Command
Add hosts to a host group.	<b>sscs add -a</b> <i>array-name</i> -h <i>host-name</i> ,... <b>hostgroup</b> <i>host-group-name</i>
Create a storage host. You can create up to 256 hosts per array.	<b>sscs create -a</b> <i>array-name</i> [-g <i>host-group-name</i> ] <b>host</b> <i>host-name</i>
Create a storage host group. You can create up to 256 host groups per array.	<b>sscs create -a</b> <i>array-name</i> <b>hostgroup</b> <i>host-group-name</i>
Delete one or more hosts.	<b>sscs delete -a</b> <i>array-name</i> <b>host</b> <i>host-name</i> ,...
Delete one or more host groups.	<b>sscs delete -a</b> <i>array-name</i> <b>hostgroup</b> <i>host-group-name</i> ,...
List the host names and details for an individual host.	<b>sscs list -a</b> <i>array-name</i> <b>host</b> [ <i>host-name</i> ,...]



Task	Command
List the host group name and hosts for an individual host group.	<b>sscs list -a</b> <i>array-name</i> <b>hostgroup</b> [ <i>host-group-name</i> ,...]
Modify a host name.	<b>sscs modify -a</b> <i>array-name</i> [- <b>N</b> <i>host-name</i> ] [- <b>g</b> <i>host-group-name</i> ] <b>host</b> <i>host-name</i>
Modify a host group name.	<b>sscs modify -a</b> <i>array-name</i> - <b>N</b> <i>host-group-name</i> <b>hostgroup</b> <i>host-group-name</i>
Remove one or more hosts from a host group.	<b>sscs remove -a</b> <i>array-name</i> - <b>h</b> <i>host-name</i> ,... <b>hostgroup</b> <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.	<b>sscs map -a</b> <i>array-name</i> [- <b>v</b> <i>volume-name</i> ,...] [- <b>s</b> <i>snapshot-volume-name</i> ,...] [- <b>l</b> 0..255] <b>host</b> <i>host-name</i>
Map one or more volumes to a host group. Any previous mappings for the given volumes and snapshots are removed.	<b>sscs map -a</b> <i>array-name</i> - <b>v</b> <i>volume-name</i> ,...   - <b>s</b> <i>snapshot-volume-name</i> ,... [- <b>l</b> 0..255] <b>hostgroup</b> <i>host-group-name</i>
Unmap one or more snapshots or volumes from a host.	<b>sscs unmap -a</b> <i>array-name</i> [- <b>s</b> <i>snapshot-name</i> ,...] [- <b>v</b> <i>volume-name</i> ,...] <b>host</b> <i>host-name</i>
Unmap one or more snapshots or volumes from a host group.	<b>sscs unmap -a</b> <i>array-name</i> [- <b>s</b> <i>snapshot-name</i> ,...] - <b>v</b> <i>volume-name</i> ,... <b>hostgroup</b> <i>host-group-name</i>

## Volume Commands

Task	Command
Display summary information about all current volumes or detailed information about a specific volume.	<b>sscs list -a</b> <i>array-name</i> [- <b>p</b> <i>pool-name</i> ] [- <b>v</b> <i>virtual-disk-name</i> ] <b>volume</b> [ <i>volume-name</i> ,...]
Create a volume.	<b>sscs create -a</b> <i>array-name</i> - <b>p</b> <i>pool-name</i> - <b>s</b> <i>tb gb mb blk</i> [- <b>v</b> <i>virtual-disk-name</i> ] [- <b>n</b> 2..30] [- <b>d</b> <i>disk-name</i> ,...] <b>volume</b> <i>volume-name</i>
List volume information.	<b>sscs list -a</b> <i>array-name</i> [- <b>p</b> <i>pool-name</i> ] [- <b>v</b> <i>virtual-disk-name</i> ] <b>volume</b> [ <i>volume-name</i> ,...]
Create a volume copy.	<b>sscs create -a</b> <i>array-name</i> - <b>s</b> <i>source-volume-name</i> - <b>t</b> <i>target-volume-name</i> [- <b>p</b> <i>lowest low medium high </i> <i>highest</i> ] <b>volume-copy</b>
Delete one or more unmapped volumes.	<b>sscs delete -a</b> <i>array-name</i> <b>volume</b> <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.	<b>sscs list -a</b> <i>array-name</i> [- <b>s</b> <i>source-volume-name</i> ,...] [- <b>t</b> <i>target-volume-name</i> ,...] <b>volume-copy</b>

Task	Command
Delete a volume copy.	<b>sscs delete -a array-name -s source-volume-name -t target-volume-name volume-copy</b>
Change a volume's attributes.	<b>sscs modify -a array-name -p pool-name [-e extend-size] [-N new-volume-name] [-c A B] [-m modification-priority lowest low medium high highest] [-W enable disable] [-M enable disable] [-b enable disable] [-k enable disable] [-r enable disable] volume volume-name</b>
Change a volume copy's attributes.	<b>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</b>
Map one or more volumes to a host or host group.	<b>sscs map -a array-name [-h host-name] [-g host-group] [-l 0..255] volume volume-name,...</b>
Unmap one or more volumes from a host or host group.	<b>sscs unmap -a array-name [-h host-name] [-g host-group-name] volume volume-name,...</b>

## Snapshot Commands

Task	Command
Create a snapshot for a volume.	<b>sscs create -a array-name -V volume-name [-L low verylittle little average high full] [-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 SATA] snapshot snapshot-name</b>
Modify properties of a snapshot.	<b>sscs modify -a array-name [-N snapshot-name] [-f failbasewrite failsnapshot] [-w 0..100] snapshot snapshot-name</b>
Extend the snapshot reserve volume size by a specified amount.	<b>sscs modify -a array-name -e extend-size snapshot snapshot-name</b>
Disable the snapshot.	<b>sscs modify -a array-name -S snapshot snapshot-name</b>
Resnap the snapshot.	<b>sscs modify -a array-name -R snapshot snapshot-name</b>
Modify the volume properties of the snapshot reserve volume.	<b>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</b>
Delete one or more snapshots.	<b>sscs delete -a array-name snapshot snapshot-name,...</b>
List the specified snapshot or snapshots associated with this array.	<b>sscs list -a array-name snapshot [snapshot-name,...</b>
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.	<b>sscs map -a array-name [-h host-name] [-g host-group-name] [-l 0..255] snapshot snapshot-name,...</b>

Task	Command
Unmap a host or host group from one or more snapshots.	<b>sscs unmap -a</b> <i>array-name</i> [-h <i>host-name</i> ] [-g <i>host-group-name</i> ] <b>snapshot</b> [ <i>snapshot-name,...</i> ]
<b>Note:</b> 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.	<b>sscs snapshot -X</b> <i>storage-device-name</i> -v <i>volume-name</i> [-C 1] [-L low verylittle little average high full] [-f failsnapshot failbasewrite] [-m <i>reserve-volume-name</i> ] <b>volume</b> <i>snapshot-volume-name</i>
Resnap a volume.	<b>sscs snapshot -X</b> <i>storage-device-name</i> -R <b>volume</b> <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.	<b>sscs create -a</b> <i>array-name</i> -l <i>volume-name</i> -w <b>peer-WWN</b> -o <i>volume-name</i> -m sync async [-G yes no] [-R lowest  low medium high highest] [-s enable disable] <b>repset</b>
Create a replication set linking the local volume with the remote volume through a remote array name.	<b>sscs create -a</b> <i>array-name</i> -l <i>volume-name</i> -A <i>remote-array-name</i> -o <i>volume-name</i> -m sync async [-G yes  no] [-R lowest low medium high highest] [-s enable  disable] <b>repset</b>
Delete one or more replication sets.	<b>sscs delete -a</b> <i>array-name</i> <b>repset</b> <i>repset-name,...</i>
List replication set information.	<b>sscs list -a</b> <i>array-name</i> <b>repset</b> [ <i>repset-name,...</i> ]
Modify the mode, consistency group, or replication priority of the specified replication set.	<b>sscs modify -a</b> <i>array-name</i> [-m sync async] [-G yes no] [-R lowest low medium high highest] [-s enable  disable] <b>repset</b> <i>repset-name</i>
Modify the role of the local volume on the specified array.	<b>sscs modify -a</b> <i>array-name</i> [-r primary secondary] [-f] <b>repset</b> <i>repset-name</i>
Suspend replication on the specified array.	<b>sscs modify -a</b> <i>array-name</i> -c <b>repset</b> <i>repset-name</i>
Resume replication on the specified array.	<b>sscs modify -a</b> <i>array-name</i> -z <b>repset</b> <i>repset-name</i>
Test whether the primary volume on the specified array is communicating correctly with its replica (primary or secondary).	<b>sscs modify -a</b> <i>array-name</i> -E <b>repset</b> <i>repset-name</i>

## License Commands

Task	Command
Add a license to the specified array. Specify either the <code>-l</code> option alone, or the <code>-v</code> , <code>-c</code> , and <code>-d</code> options together.	<code>add -a array-name [-l license-location   -v version-number -c capability-number -d digest-key] license</code>
Activate replication set licenses on the specified array using the designated virtual disk for replication set repository volumes.	<code>sscs modify -a array-name -A [-v virtual-disk-name] license ReplicationSet</code>
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.	<code>sscs modify -a array-name -A -r 1 3 5 -n 2..30 -k ANY FC SATA license ReplicationSet</code>
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.	<code>sscs modify -a array-name -A -r 1 3 5 -d disk-name,... license ReplicationSet</code>
Deactivate replication set licenses on the specified array, and delete the replication set repository volumes.	<code>sscs modify -a array-name -I license ReplicationSet</code>
Remove a license from the specified array.	<code>sscs remove -a array-name license license-name</code>

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