

StorageTek Automated Cartridge System Library Software

Quick Reference

Version 7.3.1



Part Number: E22334-01
March 2011

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Summary

Part Number	Date	Description
E22334-01	March 2011	ACSL S 7.3.1 supports: <ul style="list-style-type: none">• Redundant Electronics.• HP-LTO5• IBM-LTO5• T10000C• Software no longer enforces the right-to-use license nor checks for a valid license key

Summary

ACSLs Quick Reference

1

Throughout this quick reference, underlines show valid command and keyword abbreviations. For example, aud is an abbreviation of the audit command. Brackets [] enclose optional parameters. A vertical bar (|) separates parameter choices.

Command Identifiers

Each command identifier corresponds to a type and consists of one or more components separated by commas.

<i>acs_id</i>	acs(0-31)
<i>cap_id</i>	acs(0-31),lsm(0-99),cap(0-11) An asterisk (*) in a <i>cap_id</i> does the following:
	acs,lsm,* causes ACSLS to select the highest priority available CAP in the LSM.
	acs,* causes ACSLS to select the highest priority available CAP in the ACS
	* for an enter request causes ACSLS to select the CAP in the ACS with the most free cells.
	* for an eject request causes ACSLS to select the highest priority CAP in each ACS with a volume designated for ejection.
<i>cell_id</i>	acs(0-31),lsm(0-99),panel(0-50),row(0-41),column(0-23)
<i>drive_id</i>	acs(0-31),lsm(0-99),panel(0-50),drive(0-31)
<i>drive_type</i>	Up to 10 characters transport type identifier; can be any combination of numbers (0-9) or letters (A-Z).
<i>lock_id</i>	decimal number (0-32767)
<i>lsm_id</i>	acs(0-31),lsm(0-99)
<i>media_type</i>	Up to 10 characters media type identifier; can be any combination of numbers (0-9) or letters (A-Z). Spaces are not allowed. A common media type is the STK1R.
<i>owner_id</i>	volume owner
<i>panel_id</i>	acs(0-31),lsm(0-99),panel(0-50)
<i>pool_id</i>	decimal number (0-65535) Specifying an asterisk (*) for the <i>pool_id</i> reassigns a volume to its current <i>pool_id</i>
<i>port_id</i>	acs(0-31),port(0-15)

<i>request_id</i>	unique decimal number (0-65535) assigned by the ACSLS.
<i>subpanel_id</i>	acs(0-31),lsm(0-99),panel(0-50),startrow(0-41),startcolumn(0-23),endrow(0-41),endcolumn(0-23)
<i>vol_id</i>	Six-character identifier consisting of any combination of numbers (0-9), letters (A-Z, a-z, or mixed case (except for use in volrpt)), dollar sign (\$), pound sign (#), and leading and/or trailing spaces (). Use single or double quotes to enclose <i>vol_ids</i> with leading or trailing spaces. <i>Do not</i> specify <i>vol_ids</i> with embedded spaces.
<i>volrange</i>	Specifies an ascending range of volumes separated by a dash. For volranges in query, enter, and eject commands: If it is a numeric range, specify only the right most numeric portions of the <i>vol_ids</i> as the range. All preceding characters <i>must</i> be identical. The display commands support full alphanumeric volranges and allow wildcards '*' and '_'. '_'

Auditing the Library

Audit the entire library - updates library configuration	<u>audit cap_id server</u>
Audit an ACS	<u>audit cap_id acs acs_id</u>
Audit an LSM	<u>audit cap_id lsm lsm_id</u>
Audit an LSM panel	<u>audit cap_id panel panel_id</u>
Audit an LSM subpanel	<u>audit cap_id subpanel subpanel_id</u>

Configuration

Run the configuration script	acsss_config
Display values of dynamic options	dv_print
Display values of static options	dv_config -s
Display values of dynamic and static options	dv_config -d

Configuration - Dynamic

<p>ACS</p> <p>Add a new ACS</p> <p>Reconfigure an existing ACS</p>	<p>config acs new</p> <p>config acs <i>acs_id</i></p>
<p>Drives</p> <p>Reconfigure all drives on an existing drive panel. This includes adding drives, updating drive types and serial numbers for existing drives, and deleting drives that were removed from the database.</p>	<p>config drive(s) <i>panel_id</i></p>
<p>LSMs</p> <p>Reconfigure an existing LSM and all its components, which include CAPs and panels.</p> <p>Note: Use config acs to add or delete an LSM in an ACS</p>	<p>config lsm <i>lsm_id</i></p>
<p>Ports</p> <p>Reconfigure port connections to an ACS.</p>	<p>config port(s) <i>acs_id</i></p>

Displaying Status

Display CAP information	<code>display cap cap_id ... [-availability cap_availability ...] [-status cap_status ...][-priority cap_priority ...] [-state cap_state ...] [-manual -automatic] [-condition cap_condition ...] [[-c] [-f field ...] [-s sort_field ...] [-n n]]</code>
Display cell information	<code>display cell cell_loc ... [-status cell_status ...] [[-c] [-f field ...] [-s sortfield ...] [-n n]]</code>
Display drive information	<code>display drive drive_id ... [-status drive_status ...] [-state drive_state ...] [-type drive_type ...] [-volume vol_id ...] [-lock lock_id...] [-serial drive_serial_num ...] [-condition drive_condition ...] [[-c] [-f field ...] [-s sortfield ...] [-n n]]</code>
Display lock information	<code>display lock lock_id ... [-user user_id ...] [[-c] [-f field ...] [-s sortfield ...] [-n n]]</code>
Display LSM information	<code>display lsm lsm_id ... [-status lsm_status ...] [-state lsm_state ...] [-free_cells cell_count ...] [-type lsm_type ...] [-serial lsm_serial_num ...] [-condition lsm_condition] [-door_open -door_closed] [[-c] [-f field ...] [-s sort_field ...] [-n n]]</code>
Display panel information	<code>display panel panel_id ... [-type panel_type ...] [[-c] [-f field ...] [-s sortfield ...] [-n n]]</code>
Display pool information	<code>display pool pool_id ... [-low_water low_water_mark ... - high_water high_water_mark...] [-overflow -no_overflow] [[-c] [-f field ...] [-s sort_field ...] [-n n]]</code>
Display port information	<code>display port port_id ... [-online -offline] [-name port_name ...] [[-c] [-f field ...] [-s sort_field ...] [-n n]]</code>
Display volume information	<code>display volume vol_id ... [-home acs,lsm,panel,row,column...] [- drive drive_loc ...] [-data -scratch -clean] [-media media_type ...] [-pool pool_id...] [-standard -virtual] [-status vol_status ...] [-entry entry_date ...] [-access access_date ...] [-lock lock_id ...] [[-c] [-f field ...] [-s sort_field ...] [-n n]] [-max_use max_use] [-lock_time lock_time]</code>

Maintaining the Database

Export database table data and ACSLS control database files to tape or a file. Use when reinstalling ACSLS or upgrading to a new ACSLS version using the same database.	<code>db_export.sh -f [<i>db_file</i> <i>tape_device</i>]</code>
Import database table data and ACSLS control database files from the export tape or file. Use when reinstalling ACSLS or upgrading to a new ACSLS version using the same database.	<code>db_import.sh -f [<i>db_file</i> <i>tape_device</i>]</code>
Back up the database	<code>bdb.acsss -f [<i>backup_file</i> <i>tape_device</i>]</code>
Start up or shuts down the database	<code>db_command start stop status log_normal log_verbose log_level stop_force</code>
Recover the database after a database failure	<code>rdb.acsss</code>

Managing CAPS

Set CAP's entry mode (manual or automatic)	<code><u>set cap mode</u> manual <u>automatic</u> <i>cap_id</i></code>
Set CAP's automatic selection priority	<code><u>set cap priority</u> <i>cap_priority</i> <i>cap_id</i></code>
Make manual mode CAP ready to enter labelled carts	<code><u>enter</u> <i>cap_id</i></code>
Make multiple CAPs in an LSM ready	<code><u>enter</u> <i>lsm_id</i></code>
Make CAP ready to enter unlabeled carts into library	<code><u>venter</u> <i>cap_id</i> <i>vol_id</i></code>

Managing Dual LMU

Display LMU and port status for both single-LMU and dual-LMU ACS configurations	<code>query lmu acs_id ... all</code>
Manually switch ACS management from the ACS's master LMU to the standby LMU	<code>switch lmu acs_id</code>

Managing Locks

Set your lock ID	<code>set lock lock_id</code>
Display your current lock ID or user ID	<code>show lock user</code>
Lock a volume or drive (to your current lock ID)	<code>lock drive volume identifier</code>
Remove active locks (to your current lock ID) on specified drives or volumes or all active locks	<code>unlock drive volume identifier ... all</code>
Remove all active and pending locks on specified drives or volumes	<code>clear lock drive volume identifier</code>

Managing Scratch Pools/Volumes

Create or modify scratch pools	<u>define</u> <u>pool</u> <i>low_water_mark high_water_mark pool_id</i> ... <u>[overflow]</u>
Display scratch pool attributes	<u>query</u> <u>pool</u> <i>pool_id ...</i> <u>all</u>
Display the status of scratch volumes in a pool	<u>query</u> <u>scratch</u> <i>pool_id ...</i> <u>all</u>
Set volume's scratch attribute and assign the volume to a scratch pool	<u>set</u> <u>scratch</u> <i>pool_id vol_id</i> <i>volrange</i>
Change volume from scratch to data	<u>set</u> <u>scratch</u> <u>off</u> <i>pool_id vol_id</i> <i>volrange</i>
Delete an empty scratch pool	<u>delete</u> <u>pool</u> <i>pool_id ...</i> <u>all</u>
Mount a scratch volume from a specified pool (single media libraries)	<u>mount</u> * <i>drive_id pool_id</i>
Mount a scratch volume from the common pool (single media libraries)	<u>mount</u> * <i>drive_id</i>
Mount a scratch volume from a specified pool with specific media type	<u>mount</u> * <i>drive_id pool_id</i> <u>media</u> <i>media_type</i>
Mount a scratch volume from a specific pool, media type based on scratch preferences defined	<u>mount</u> * <i>drive_id pool_id</i> <u>media</u> *
Mount a scratch volume from common pool, media type based on defined scratch preferences	<u>mount</u> * <i>drive_id</i> <u>media</u> *
Mount a scratch volume from common pool with specified media type	<u>mount</u> * <i>drive_id</i> <u>media</u> <i>media_type</i>
Display scratch pool information for a specific pool or for all pools	<u>display</u> <u>pool</u> <i>pool_id ...</i> *

Display status of media-compatible transports for a specified scratch pool (or volume media type within the pool)	<code>query mount * pool_id ... [media media_type media *]</code>
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Managing Volumes

Mount a data volume or cleaning cartridge	<code>mount vol_id drive_id [bypass] [readonly]</code>
Dismount a data volume or cleaning cartridge	<code>dismount vol_id drive_id [force]</code>
Create a volume report	<code>volrpt [-s vol loc use] [-d] [-f filename][-z] [-a -l -v identifier_list]</code>
Use Display for dynamic reporting of library components and/or volumes.	See Display commands.
Set volume ownership	<code>set owner owner_id volume vol_id volrange</code>
Eject volumes from the library	<code>eject cap_id vol_id volrange ...</code>
Move volumes to a specified LSM	<code>move vol_id lsm_id</code>
Delete a volume in an offline LSM	<code>del_vol vol_id -n -q</code>
Move multiple cartridges to one or more LSMs.	<code>moving.sh -f vol_list_file -t lsm_id...</code>
Set cleaning cartridge attributes	<code>set clean max_usage vol_id volrange</code>
Set cleaning attributes back to data cartridges	<code>set clean off vol_id volrange</code>
Display volume information for cleaning cartridges	<code>display volume vol_id vol_range *-clean</code>

Query Status

ACSLs and library status	<code>query <u>s</u>erver</code>
ACS status	<code>query <u>a</u>cs <i>acs_id</i> ... <u>a</u>ll</code>
LSM status	<code>query <u>l</u>sm <i>lsm_id</i> ... <u>a</u>ll</code>
CAP status	<code>query <u>c</u>ap <i>cap_id</i> ... <u>a</u>ll</code>
Transport status	<code>query <u>d</u>rive <i>drive_id</i> ... <u>a</u>ll</code>
LMU and port status for both single-LMU and dual-LMU ACS configurations	<code>query <u>l</u>mu <i>acs_id</i> ... <u>a</u>ll</code>
Media-compatible transports for a specified data volume	<code>query <u>m</u>ount <i>vol_id</i></code>
Media-compatible transports for a specified scratch pool (or volume media type within the pool)	<code>query <u>m</u>ount * <i>pool_id</i> ... [<u>m</u>edia <i>media_type</i> <u>m</u>edia *]</code>
Port status	<code>query <u>p</u>ort <i>port_id</i> ... <u>a</u>ll</code>
Location of a volume	<code>query <u>v</u>olume <i>vol_id</i> ... <u>a</u>ll</code>
Cleaning cartridge status	<code>query <u>c</u>lean <i>vol_id</i> ... <u>a</u>ll</code>
Scratch volumes in a pool	<code>query <u>s</u>cratch <i>pool_id</i> ... <u>a</u>ll</code>
Scratch pool attributes	<code>query <u>p</u>ool <i>pool_id</i> ... <u>a</u>ll</code>
Request status	<code>query <u>r</u>equ<u>e</u>st <i>request_id</i> ... <u>a</u>ll</code>
Display the lock status of a transport or volume	<code>query <u>l</u>ock <u>d</u>rive <u>v</u>olume <i>identifier</i> ... <u>a</u>ll</code>
Display cleaning cartridge attributes	<code>query <u>c</u>lean <i>vol_id</i>... <u>a</u>ll</code>

Varying Library Components

Change the state of an ACS	<code>vary <u>acs</u> <i>acs_id</i> ... <u>online</u> <u>offline</u> <u>diagnostic</u> [force]</code>
Change the state of an LSM	<code>vary <u>lsm</u> <i>lsm_id</i> ... <u>online</u> <u>offline</u> <u>diagnostic</u> [force]</code>
Change the state of a CAP	<code>vary <u>cap</u> <i>cap_id</i> ... <u>online</u> <u>offline</u> <u>diagnostic</u> [force]</code>
Change the state of a transport	<code>vary <u>drive</u> <i>drive_id</i> ... <u>online</u> <u>offline</u> <u>diagnostic</u> [force]</code>
Change the state of a port	<code>vary <u>port</u> <i>_port_id</i> ... <u>online</u> <u>offline</u></code>