



StorageTek™ ACSL

AUTOMATED CARTRIDGE SYSTEM LIBRARY SOFTWARE

QUICK REFERENCE

312572406

Version: 7.1/7.1.1

Automated Cartridge System Library Software

Quick Reference

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Summary of Changes

EC released document table

EC	Date	Edition	Description
128921	May 2004	First	This document applies to ACSLS 7.1.
132082	October 2004	Second	New error messages were added.
132225	February 2005	Third	This document applies to ACSLS 7.1.
132322	February 2006	Fourth	This document applies to ACSLS 7.1 and includes PUT0601.
132803	November 2006	Fifth	This release supports PUT0602S (7.1 Solaris SPARC), PUT0602A (7.1 AIX), and PUT0602X (7.1.1 Solaris 10 x86).
132982	March 2007	Sixth	This release supports PUT0701 for ACSLS 7.1/7.1.1.

Summary of Changes

ACSLs Quick Reference

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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(0-126)
<i>cap_id</i>	acs(0-126),lsm(0-23),cap(0-2) 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(0-126),lsm(0-23),panel(0-19),row(0-41),column(0-23)
<i>drive_id</i>	acs(0-126),lsm(0-23),panel(0-19),drive(0-19)
<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(0-126),lsm(0-23)
<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. Two common media types are 3480 and 3490E.
<i>owner_id</i>	volume owner
<i>panel_id</i>	acs(0-126),lsm(0-23),panel(0-19)
<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(0-126),port(0-15)

<i>request_id</i>	unique decimal number (0-65535) assigned by the ACSLS.
<i>subpanel_id</i>	acs(0-126),lsm(0-23),panel(0-19),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 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: 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	acs _{ss} _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>Delete an existing ACS</p>	<p>config acs new</p> <p>config acs <i>acs_id</i></p> <p>config acs <i>acs_id</i> delete</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>

Cleaning Transports

Set cleaning cartridge attributes	<u>set clean</u> <i>max_usage</i> <i>vol_id</i> <i>volrange</i>
Set cleaning attributes back to data cartridges	<u>set clean</u> off <i>vol_id</i> <i>volrange</i>
Display volume information for cleaning cartridges	<u>display</u> volume <i>vol_id</i> <i>vol_range</i> *-clean
Display cleaning cartridge attributes	<u>query clean</u> <i>vol_id...</i> <u>all</u>

Displaying Status

Display CAP information	<code>display cap cap_id ... [-status cap_status ...] [-priority cap_priority ...] [-state cap_state ...] [-manual - automatic] [-condition cap_condition ...] [[-c] [-f field ...] [-s sortfield ...] [-n nnn]]</code>
Display cell information	<code>display cell cell_loc ... [-status cell_status ...] [[-c] [-f field ...] [-s sortfield ...] [-n nnn]]</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# ...] [-condition drive_condition ...] [[-c] [-f field ...] [-s sortfield ...] [-n nnn]]</code>
Display lock information	<code>display lock lock_id ... [-user user_id ...] [[-c] [-f field ...] [-s sortfield ...] [-n nnn]]</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# ...] [-condition lsm_condition] [-door_open -door_closed] [[-c] [-f field ...] [-s sortfield ...] [-n nnn]]</code>
Display panel information	<code>display panel panel_id ... [-type panel_type ...] [[-c] [-f field ...] [-s sortfield ...] [-n nnn]]</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 sortfield ...] [-n nnn]]</code>
Display port information	<code>display port port_id ... [-online -offline] [-name port_name ...] [[-c] [-f field ...] [-s sortfield ...] [-n nnn]]</code>
Display volume information	<code>display volume vol_id ... [-acs acs_id ... -home home_loc ... -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 sortfield ...] [-n nnn]]</code>

Installing a Second Disk

Initialize the second disk	<code>sd_mgr.sh</code>
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Maintaining the Database

Export database table data and miscellaneous 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 db_file</code>
Import database table data and miscellaneous 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 db_file</code>
Back up the database	<code>bdb.acsss [-f filename tape_device] [-o]</code>
Start up or shuts down the database	<code>db_command start stop stop_force</code>
Recover the database after a database failure	<code>rdb.acsss</code>

Managing CAPS

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

Managing Dual LMU

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

Managing Locks

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

Managing Scratch Pools/Volumes

Create or modify scratch pools	<code><u>define</u> <u>pool</u> <i>low_water_mark</i> <i>high_water_mark</i> <i>pool_id</i> ... [<u>overflow</u>]</code>
Display scratch pool attributes	<code><u>query</u> <u>pool</u> <i>pool_id</i> ... <u>all</u></code>
Display the status of scratch volumes in a pool	<code><u>query</u> <u>scratch</u> <i>pool_id</i> ... <u>all</u></code>
Set volume's scratch attribute and assign the volume to a scratch pool	<code><u>set</u> <u>scratch</u> <i>pool_id</i> <i>vol_id</i> <i>volrange</i></code>
Change volume from scratch to data	<code><u>set</u> <u>scratch</u> <u>off</u> <i>pool_id</i> <i>vol_id</i> <i>volrange</i></code>
Delete an empty scratch pool	<code><u>delete</u> <u>pool</u> <i>pool_id</i> ... <u>all</u></code>

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 media 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 media *</i>
Mount a scratch volume from common pool, media type based on defined scratch preferences	<u>mount</u> * <i>drive_id media *</i>
Mount a scratch volume from common pool with specified media type	<u>mount</u> * <i>drive_id media media_type</i>
Display scratch pool information for a specific pool or for all pools	<u>display</u> pool <i>pool_id ...</i> *
Display status of media-compatible transports for a specified scratch pool (or volume media type within the pool)	<u>query</u> <u>mount</u> * <i>pool_id ... [media media_type media *]</i>

Managing Volumes

Mount a data volume or cleaning cartridge	<u>mount</u> <i>vol_id drive_id [bypass] [readonly]</i>
Dismount a data volume or cleaning cartridge	<u>dismount</u> <i>vol_id drive_id [force]</i>
Create a volume report	<u>volrpt</u> [-s <i>vol loc use</i>] [-d] [-f <i>filename</i>][-z] [-a -l -v <i>identifier_list</i>]
Use Display for dynamic reporting of library components and/or volumes.	See Display commands.
Set volume ownership	<u>set</u> <u>owner</u> <i>owner_id volume vol_id volrange</i>

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>

Query Status

ACSLS and library status	<code>query server</code>
ACS status	<code>query acs acs_id ... all</code>
LSM status	<code>query lsm lsm_id ... all</code>
CAP status	<code>query cap cap_id ... all</code>
Transport status	<code>query drive drive_id ... all</code>
LMU and port status for both single-LMU and dual-LMU ACS configurations	<code>query lmu acs_id ... all</code>
Media-compatible transports for a specified data volume	<code>query mount vol_id</code>
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>
Port status	<code>query port port_id ... all</code>
Location of a volume	<code>query volume vol_id ... all</code>
Cleaning cartridge status	<code>query clean vol_id ... all</code>
Scratch volumes in a pool	<code>query scratch pool_id ... all</code>
Scratch pool attributes	<code>query pool pool_id ... all</code>
Request status	<code>query request request_id ... all</code>
Display the lock status of a transport or volume	<code>query lock drive volume identifier ... all</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>

