## Revision History

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2010</td>
<td>AA</td>
<td>Supports Redundant Electronics.</td>
</tr>
</tbody>
</table>
CHAPTER 1

Quick Reference

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.

Start and Stop Commands

The acsss command is used to start, stop, and monitor the status of the various services associated with ACSLS 8.0.2.

<table>
<thead>
<tr>
<th>Command</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>acsss enable</td>
<td>This is the default method to bring up ACSLS. It checks for dependencies and activates, in the proper order, the five ACSLS services and the ACSLS GUI. When this method is used, the services are configured to restart automatically after a system reboot.</td>
</tr>
<tr>
<td>acsss temp-enable</td>
<td>Same as acsss enable but services are not restarted after a system reboot.</td>
</tr>
<tr>
<td>acsss maint-enable</td>
<td>Intended for maintenance operations, this option brings up the ACSLS database and the GUI infrastructure. This method is used in contexts of database maintenance (restore, import, export), library configuration (acsss_config), and minor software patch installations. Neither the acs1s nor the smce service are enabled.</td>
</tr>
<tr>
<td>acsss disable</td>
<td>This is the default method used to halt ACSLS operation. It is not a complete shutdown and allows for the database and any GUI login sessions to remain active for maintenance operations after the acs1s and smce services have been disabled. The resulting state is identical to that of acsss maint-enable . This is the safest method to bring down the server since ACSLS and the library are placed in an idle state before the services are disabled.</td>
</tr>
<tr>
<td>acsss force-disable</td>
<td>Same as acsss disable but the operation does not wait for an idle state before disabling acs1s and smce.</td>
</tr>
<tr>
<td>acsss shutdown</td>
<td>This renders a complete shutdown of all ACSLS services. It is intended for contexts of software installation and de-installation, and other maintenance contexts that require the database (acsdb) or the GUI infrastructure (rmi-registry and surrogate) to be shutdown.</td>
</tr>
</tbody>
</table>
Command Identifiers

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

<table>
<thead>
<tr>
<th>Command Identifier</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>acs_id</code></td>
<td>acs(0-31)</td>
</tr>
<tr>
<td><code>cap_id</code></td>
<td>acs(0-31), lsm(0-99), cap(0-11)</td>
</tr>
<tr>
<td></td>
<td>An asterisk (*) in a <code>cap_id</code> does the following:</td>
</tr>
<tr>
<td></td>
<td>acs, lsm,* causes ACSLS to select the highest priority available CAP in the LSM.</td>
</tr>
<tr>
<td></td>
<td>acs,* causes ACSLS to select the highest priority available CAP in the ACS</td>
</tr>
<tr>
<td></td>
<td>* for an enter request causes ACSLS to select the CAP in the ACS with the most free cells.</td>
</tr>
<tr>
<td></td>
<td>* for an eject request causes ACSLS to select the highest priority CAP in each ACS with a volume designated for ejection.</td>
</tr>
<tr>
<td><code>cell_id</code></td>
<td>acs(0-31), lsm(0-99), panel(0-50), row(0-41), column(0-23)</td>
</tr>
<tr>
<td><code>drive_id</code></td>
<td>acs(0-31), lsm(0-99), panel(0-50), drive(0-31)</td>
</tr>
<tr>
<td><code>drive_type</code></td>
<td>Up to 10 characters transport type identifier; can be any combination of numbers (0-9) or letters (A-Z).</td>
</tr>
<tr>
<td><code>lock_id</code></td>
<td>decimal number (0-32767)</td>
</tr>
<tr>
<td><code>lsm_id</code></td>
<td>acs(0-31), lsm(0-99)</td>
</tr>
<tr>
<td><code>media_type</code></td>
<td>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.</td>
</tr>
<tr>
<td><code>owner_id</code></td>
<td>volume owner</td>
</tr>
<tr>
<td><code>panel_id</code></td>
<td>acs(0-31), lsm(0-99), panel(0-50)</td>
</tr>
<tr>
<td><code>pool_id</code></td>
<td>decimal number (0-65535) Specifying an asterisk (*) for the <code>pool_id</code> reassigns a volume to its current <code>pool_id</code></td>
</tr>
<tr>
<td><code>port_id</code></td>
<td>acs(0-31), port(0-15)</td>
</tr>
<tr>
<td><code>request_id</code></td>
<td>unique decimal number (0-65535) assigned by the ACSLS.</td>
</tr>
</tbody>
</table>
Auditing the Library

<table>
<thead>
<tr>
<th>subpanel_id</th>
<th>acs(0-31), lsm(0-99), panel(0-50), startrow(0-41), startcolumn(0-23), endrow(0-41), endcolumn(0-23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>vol_id</td>
<td>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 vol_ids with leading or trailing spaces. Do not specify vol_ids with embedded spaces.</td>
</tr>
<tr>
<td>volrange</td>
<td>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 vol_ids as the range. All preceding characters must be identical. The display commands support full alphanumeric volranges and allow wildcards '*' and '_'.</td>
</tr>
</tbody>
</table>

Auditing the Library

<table>
<thead>
<tr>
<th>Audit the entire library - updates library configuration</th>
<th>audit cap_id server</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit an ACS</td>
<td>audit cap_id acs acs_id</td>
</tr>
<tr>
<td>Audit an LSM</td>
<td>audit cap_id lsm lsm_id</td>
</tr>
<tr>
<td>Audit an LSM panel</td>
<td>audit cap_id panel panel_id</td>
</tr>
<tr>
<td>Audit an LSM subpanel</td>
<td>audit cap_id subpanel subpanel_id</td>
</tr>
</tbody>
</table>

Configuration

<table>
<thead>
<tr>
<th>Run the configuration script</th>
<th>acsss_config</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display values of dynamic options</td>
<td>dv_print</td>
</tr>
<tr>
<td>Display values of static options</td>
<td>dv_config -s</td>
</tr>
<tr>
<td>Display values of dynamic and static options</td>
<td>dv_config -d</td>
</tr>
</tbody>
</table>
## Configuration - Dynamic

<table>
<thead>
<tr>
<th>ACS</th>
<th>Add a new ACS</th>
<th>config acs new</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reconfigure an existing ACS</td>
<td>config acs acs_id</td>
</tr>
</tbody>
</table>

| Drives | 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. | config drive(s) panel_id |

| LSMs | Reconfigure an existing LSM and all its components, which include CAPs and panels. Note: Use config acs to add or delete an LSM in an ACS | config lsm lsm_id |

| Ports | Reconfigure port connections to an ACS. | config port(s) acs_id |

## Displaying Status

| Display CAP information | 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 ] |

| Display cell information | display cell cell_loc ... [ -status cell_status ... ] [ -c ] | [ -f field ... ] [ -s sortfield ... ] [ -n n ] |

| Display drive information | 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 sort_field ... ] [ -n n ] |

| Display lock information | display lock lock_id ... [ -status lock_status ... ] [ -user user_id ... ] [ -c ] | [ -f field ... ] [ -s sort_field ... ] [ -n n ] |
## Maintaining the Database

### Display LSM information

<table>
<thead>
<tr>
<th>Command</th>
<th>Usage</th>
</tr>
</thead>
</table>
Managing CAPS

| Display CAP status | query cap cap_id ... | all or display cap cap_id ...|* |
|-------------------|-----------------------|-------------------------------|
| Set CAP’s entry mode (manual or automatic) | set cap mode manual | automatic cap_id |
| Set CAP’s automatic selection priority | set cap priority cap_priority cap_id |
| Make manual mode CAP ready to enter labelled carts | enter cap_id |
| Make multiple CAPs in an LSM ready | enter Ism_id |
| Make CAP ready to enter unlabeled carts into library | venter cap_id vol_id |

Managing Dual LMU

<table>
<thead>
<tr>
<th>Display LMU and port status for both single-LMU and dual-LMU ACS configurations and desired state for ACSs and ports.</th>
<th>query lmu acs_id ...</th>
<th>all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manually switch ACS management from the ACS’s master LMU to the standby LMU</td>
<td>switch lm acs_id</td>
<td></td>
</tr>
</tbody>
</table>

Managing Locks

<table>
<thead>
<tr>
<th>Set your lock ID</th>
<th>set lock lock_id</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display your current lock ID or user ID</td>
<td>show lock</td>
</tr>
<tr>
<td>Lock a volume or drive (to your current lock ID)</td>
<td>lock drive</td>
</tr>
<tr>
<td>Remove active locks (to your current lock ID) on specified drives or volumes or all active locks</td>
<td>unlock drive</td>
</tr>
<tr>
<td>Remove all active and pending locks on specified drives or volumes</td>
<td>clear lock drive</td>
</tr>
</tbody>
</table>
## Managing Scratch Pools/Volumes

<table>
<thead>
<tr>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create or modify scratch pools</td>
</tr>
<tr>
<td>Display scratch pool attributes</td>
</tr>
<tr>
<td>Display the status of scratch volumes in a pool</td>
</tr>
<tr>
<td>Set volume's scratch attribute and assign the volume to a scratch pool</td>
</tr>
<tr>
<td>Change volume from scratch to data</td>
</tr>
<tr>
<td>Delete an empty scratch pool</td>
</tr>
<tr>
<td>Mount a scratch volume from a specified pool (single media libraries)</td>
</tr>
<tr>
<td>Mount a scratch volume from the common pool (single media libraries)</td>
</tr>
<tr>
<td>Mount a scratch volume from a specified pool with specific media type</td>
</tr>
<tr>
<td>Mount a scratch volume from a specific pool, media type based on scratch preferences defined</td>
</tr>
<tr>
<td>Mount a scratch volume from common pool, media type based on defined scratch preferences</td>
</tr>
<tr>
<td>Mount a scratch volume from common pool with specified media type</td>
</tr>
<tr>
<td>Display scratch pool information for a specific pool or for all pools</td>
</tr>
<tr>
<td>Review pre-defined policies for volumes that are: newly entered discovered by audit or cartridge recovery re-activated by audit, cartridge recovery, or an enter</td>
</tr>
<tr>
<td>Display status of media-compatible transports for a specified scratch pool (or volume media type within the pool)</td>
</tr>
</tbody>
</table>
# Managing Volumes

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>mount vol_id drive_id [bypass] [readonly]</code></td>
<td>Mount a data volume or cleaning cartridge</td>
</tr>
<tr>
<td><code>dismount vol_id drive_id [force]</code></td>
<td>Dismount a data volume or cleaning cartridge</td>
</tr>
<tr>
<td>`vlorpt [-s vol</td>
<td>loc</td>
</tr>
<tr>
<td><code>See Display commands.</code></td>
<td>Use Display for dynamic reporting of library components and/or volumes.</td>
</tr>
<tr>
<td>`set owner owner_id volume vol_id</td>
<td>volrange`</td>
</tr>
<tr>
<td><code>move vol_id lsm_id</code></td>
<td>Move volumes to a specified LSM</td>
</tr>
<tr>
<td><code>moving.sh -f vol_list_file -t lsm_id...</code></td>
<td>Move multiple cartridges to one or more LSMS.</td>
</tr>
<tr>
<td>`set clean max_usage</td>
<td>vol_id</td>
</tr>
<tr>
<td>`set clean off vol_id</td>
<td>volrange`</td>
</tr>
<tr>
<td>`display volume vol_id</td>
<td>vol_range</td>
</tr>
<tr>
<td><code>display volume * [-media media type] -f media end_of_life warranty_life -s end_of_life</code></td>
<td>Display volume end of warranty and end of life percentages, sorted by end of life</td>
</tr>
</tbody>
</table>

# Query Status

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>query server</code></td>
<td>ACSLS and library status</td>
</tr>
<tr>
<td>`query acs acs_id ...</td>
<td>all`</td>
</tr>
<tr>
<td>`query lsm lsm_id ...</td>
<td>all`</td>
</tr>
<tr>
<td>`query cap cap_id ...</td>
<td>all`</td>
</tr>
<tr>
<td>`query drive drive_id ...</td>
<td>all`</td>
</tr>
<tr>
<td>`query lmu acs_id ...</td>
<td>all`</td>
</tr>
<tr>
<td><code>query mount vol_id</code></td>
<td>Media-compatible transports for a specified data volume</td>
</tr>
<tr>
<td>`query mount * pool_id ... [ media media_type</td>
<td>media *]`</td>
</tr>
</tbody>
</table>
### Varying Library Components

<table>
<thead>
<tr>
<th>Port status</th>
<th>query port port_id ....</th>
<th>all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location of a volume</td>
<td>query volume vol_id ...</td>
<td>all</td>
</tr>
<tr>
<td>Cleaning cartridge status</td>
<td>query clean vol_id ...</td>
<td>all</td>
</tr>
<tr>
<td>Scratch volumes in a pool</td>
<td>query scratch pool_id ...</td>
<td>all</td>
</tr>
<tr>
<td>Scratch pool attributes</td>
<td>query pool pool_id ...</td>
<td>all</td>
</tr>
<tr>
<td>Request status</td>
<td>query request request_id ...</td>
<td>all</td>
</tr>
<tr>
<td>Display the lock status of a transport or volume</td>
<td>query lock drive</td>
<td>volume identifier ...</td>
</tr>
<tr>
<td>Display cleaning cartridge attributes</td>
<td>query clean vol_id...</td>
<td>all</td>
</tr>
<tr>
<td>Monitor and manage the free cells in libraries managed by ACSLS</td>
<td>free_cell.sh</td>
<td></td>
</tr>
<tr>
<td>Display license key information</td>
<td>get_license.sh</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Varying Library Components</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Change the desired state and the state of an ACS</strong></td>
</tr>
<tr>
<td><strong>Change the state of an LSM</strong></td>
</tr>
<tr>
<td><strong>Change the state of a CAP</strong></td>
</tr>
<tr>
<td><strong>Change the state of a transport</strong></td>
</tr>
<tr>
<td><strong>Change the desired state and the state of a port</strong></td>
</tr>
</tbody>
</table>
Varying Library Components