



**EMC ControlCenter**  
5.2 Service Pack 4

**STORAGE PROVISIONING SERVICES COMMAND LINE INTERFACE  
REFERENCE GUIDE**

**P/N 300-002-587  
REV A01**

**EMC Corporation**  
*Corporate Headquarters:*  
Hopkinton, MA 01748-9103  
1-508-435-1000  
[www.emc.com](http://www.emc.com)

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Published January 2006

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*As part of an effort to improve and enhance the performance and capabilities of its product line, EMC from time to time releases revisions of its hardware and software. Therefore, some functions described in this guide may not be supported by all revisions of the software or hardware currently in use. For the most up-to-date information on product features, refer to your product release notes.*

*If a product does not function properly or does not function as described in this guide, please contact your EMC representative.*

### **Audience**

This guide is part of the ControlCenter 5.2 documentation set, and is intended for use by administrators using the ECCAPI command line interface (EACLI) to perform, manage, and view storage provisioning activities. Readers of this guide are expected to be familiar with the operating environments in which ControlCenter is installed on their networks. In addition, readers should be familiar with the terminology associated with Storage Provisioning Services functions.

### **Organization**

This manual describes how to use EACLI for EMC ControlCenter Storage Provisioning Services functions. Storage Provisioning Services automates storage allocation and deallocation tasks in Fibre Channel storage area networks (SANs).

This manual contains the following information:

Chapter 1, *Before You Begin*, discusses the functions that you can perform through the CLI and steps you must take before using the CLI.

Chapter 2, *Installing and Using the EACLI Client*, provides instructions for installing, configuring, and using the CLI.

Chapter 3, *Command Reference*, provides the syntax, sample output, and examples for using the CLI commands.

**Related Documentation**

ControlCenter documentation is available in the following locations:

- ◆ **Documentation /Help CD** provided with your EMC ControlCenter installation kit.
- ◆ **EMC Powerlink** (<http://powerlink.emc.com>).
- ◆ **ControlCenter Documentation Library** available from the ControlCenter Console Help menu after installation.

**Note and Caution Used in this Manual**

EMC uses the following conventions for note and caution notices.

A note presents information that is important, but not hazard-related.



**CAUTION**

A caution contains information essential to avoid damage to the system or equipment. The caution may apply to hardware or software.

**Typographical Conventions**

EMC uses the following type style conventions in this guide:

| AVANT GARDE             | Keystrokes                                                                                                                                                                                                       |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Palatino, bold</b>   | <ul style="list-style-type: none"><li>◆ Dialog box, button, icon, and menu items in text</li><li>◆ Selections you can make from the user interface, including buttons, icons, options, and field names</li></ul> |
| <i>Palatino, italic</i> | <ul style="list-style-type: none"><li>◆ New terms or unique word usage in text</li><li>◆ Command line arguments when used in text</li><li>◆ Book titles</li></ul>                                                |
| <i>Courier, italic</i>  | Arguments used in examples of command line syntax.                                                                                                                                                               |
| Courier                 | System prompts and displays and specific filenames or complete paths. For example: <code>c:\ecc</code>                                                                                                           |
| <b>Courier, bold</b>    | <ul style="list-style-type: none"><li>◆ User entry. For example: <code>mkdir /cdrom</code></li><li>◆ Options in command line syntax</li></ul>                                                                    |

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## Before You Begin

This chapter provides an overview of the Storage Provisioning Services and its associated command line interface (CLI), as well as prerequisites for using the CLI. The chapter contains the following sections:

- Storage Provisioning Services Overview.....1-2
- Functions Supported by the CLI.....1-4
- CLI Components .....1-5
- Prerequisites to Using the CLI .....1-6
- Security and Permissions .....1-7

## Storage Provisioning Services Overview

You can use the Storage Provisioning Services to automate the tasks of adding new storage to a host or host cluster or removing storage that has been allocated to a host.

The Storage Provisioning Services:

- ◆ Support user allocation and deallocation requests
- ◆ Search for devices and paths based on best-fit rules and display the matches
- ◆ Assist you in selecting storage allocation and deallocation options
- ◆ Monitor execution of your requests, display status messages, and warn of problems
- ◆ Include Symmetrix® Disk Reallocation (SDR) functionality

Consider using the Storage Provisioning Service when:

- ◆ A new host is added
- ◆ A new storage array (Symmetrix, CLARiiON®, or StorageWorks) is added
- ◆ A host requires more storage (for example, to extend a database or file system)
- ◆ A host or host device no longer needs storage that has been allocated to it
- ◆ A migration of storage is required (for example, for the purpose of consolidation or expansion)

For a complete overview of the Storage Provisioning Services, refer to the following current documentation:

- ◆ The *EMC ControlCenter Administration/User Guide*, the chapter entitled *Allocating or Deallocating Storage*
- ◆ The *EMC ControlCenter Storage Provisioning Services Allocating and Deallocating Storage in ControlCenter White Paper*

Both documents are available from:

- ◆ **Documentation /Help CD** provided with your EMC ControlCenter installation kit
- ◆ **EMC Powerlink™** at <http://powerlink.emc.com>.

- ◆ **ControlCenter Documentation Library** available from the EMC ControlCenter® Console Help menu after installation

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## Using Storage Provisioning Services in the ControlCenter Console

The ControlCenter Console is the primary user interface for the Storage Provisioning Services. The Console provides wizards for performing both storage allocation and deallocation tasks, and the Console provides the only interface for some Storage Provisioning Services functions, such as:

- ◆ Managing permissions
- ◆ Creating and editing storage pools
- ◆ Creating allocation and deallocation policies
- ◆ Performing deallocation tasks (the CLI does not yet support deallocation)

---

## When to Use the CLI

Use the Storage Provisioning Services CLI for the following purposes:

- ◆ To integrate the Storage Provisioning Services with third-party software, such as a workflow system
- ◆ To allocate storage without having to install and use the ControlCenter Console (assuming you have already configured ControlCenter for provisioning, such as setting up allocation policies)
- ◆ To automate storage allocation
- ◆ To get the complete details of task lists and tasks so that the information can be used in reports or other applications

## Functions Supported by the CLI

You can perform several provisioning, task management, and research functions through the Storage Provisioning Services CLI.

### Provisioning Functions

Use the CLI to perform the following provisioning functions:

- ◆ Allocate storage to a host
- ◆ Extend volume groups
- ◆ Extend logical volumes
- ◆ Extend file systems
- ◆ View storage allocation policies and details of allocation tasks

### Task Management Functions

Use the CLI to view and manage Storage Provisioning Services task lists and tasks; however you cannot use the CLI to manage task lists and tasks that were not created by the Storage Provisioning Services, such as installation or SAN management task lists.

- ◆ Execute task lists (including task lists that failed previously)
- ◆ Delete tasks
- ◆ Rename task lists and tasks and move tasks between task lists
- ◆ View names and statuses of tasks lists
- ◆ View names, operation types (allocation to host, extension of file system, and so on), dates, and statuses of tasks
- ◆ View names, dates, statuses, messages, and details for actions

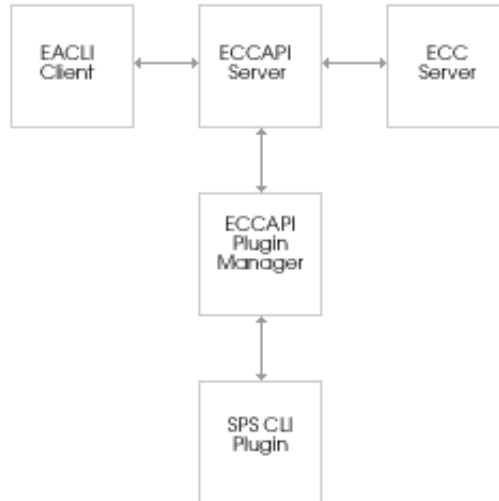
### Host Information Functions

Use the CLI to retrieve information from the ControlCenter Repository that will be helpful in specifying the parameters for CLI commands. For example, look up the exact host name for use in an `allocate` command.

- ◆ List host names, operating systems, and whether the Storage Provisioning Services support a host type
- ◆ List all file systems on a host, including names, sizes, and utilization statistics
- ◆ List all volume groups on a host, including names, sizes, and utilization statistics
- ◆ List all logical volumes in a volume group, including names, sizes, and utilization statistics

## CLI Components

Figure 1-1 depicts the EACLI components and components of the ControlCenter architecture that are used by the CLI.



**Figure 1-1 ControlCenter CLI Components**

**EACLI Client** provides an interactive or batch interface for executing CLI commands. You must install the EACLI on a client before you can use it. Refer to *Installing the EACLI Client* on page 2-2.

**ECCAPI Server** processes commands from CLIs, APIs, and other ControlCenter components, like the Web Console, and sends them to the ECC Server. The ECCAPI Server must be installed and running to use the EACLI. Refer to the current *EMC ControlCenter Planning and Installation Guide, Volume 1* at <http://powerlink.emc.com>.

**ECCAPI Plugin Manager** processes commands for plugins to the ECCAPI Server. Currently, the **SPS CLI** is the only **CLI Plugin** available. As other ControlCenter components expose functionality through CLIs, the ECCAPI Plugin Manager will ensure that functions such as user authentication and batch mode operation are handled consistently.

The **ECC Server** is the central communication point between ControlCenter components. Refer to *EMC ControlCenter 5.2 Service Pack 4 Overview Guide* for more information on the ControlCenter architecture.

## Prerequisites to Using the CLI

Before you use the CLI, ensure that you verify the prerequisites discussed in this section.

---

### Environment

Ensure that the ControlCenter environment is configured for provisioning, for example:

- ◆ Infrastructure components such as the ECC Server, Repository, and ECCAPI Server are running
- ◆ Required agents, especially storage agents, are running
- ◆ Hosts and storage systems are physically connected to the SAN fabric

For a complete discussion about configuring your environment for provisioning, refer to the current *EMC ControlCenter Storage Provisioning Services Allocating and Deallocating Storage in ControlCenter* at <http://powerlink.emc.com>.

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### Compatibility

Refer to the current *EMC ControlCenter Support Matrix* at <http://powerlink.emc.com>, for supported models and versions of hosts, switches, and arrays.

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### Licensing

To use the Storage Provisioning Services and the CLI, an Automated Resource Manager™ license must be enabled in your ControlCenter environment.

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## Security and Permissions

The CLI secures transactions by:

- ◆ Using the SSL protocol for all transactions.
- ◆ Authorizing and authenticating users through the ControlCenter security subsystem.

When you start an EACLI session, you are prompted for your ControlCenter username and password. The ControlCenter security infrastructure controls the commands that you can execute based on the permissions assigned to your username.

If you are executing the CLI in batch mode, you must create a security credentials file before executing your batch scripts. Each credentials file applies to a specific username on a specific computer.

---

### Permissions

To manage allocation policies and create and manage allocation tasks, you must have the appropriate ControlCenter permissions, which include:

- ◆ Allocation Administration
- ◆ Allocation Reservation
- ◆ Allocation Execution

Refer to the current *EMC ControlCenter Storage Provisioning Services Allocating and Deallocating Storage in ControlCenter* at <http://powerlink.emc.com>, for a complete discussion of Storage Provisioning Services permissions.



## Installing and Using the EACLI Client

This chapter provides instructions for installing and configuring the EACLI client and for running EACLI sessions:

- ◆ Installing the EACLI Client .....2-2
- ◆ CLI Session Overview .....2-6

## Installing the EACLI Client

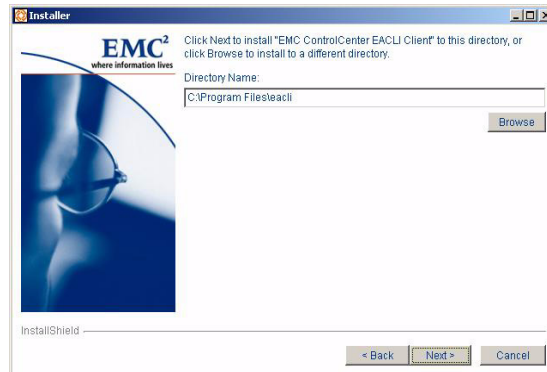
The EACLI client provides the framework for all ControlCenter command line interfaces (CLIs). You install and invoke the EACLI client to access Storage Provisioning Services (SPS) CLI commands.

To install the EACLI client:

1. Ensure that the ECC Server is running.
2. Ensure that you have entered the Automated Resources Manager (ARM) license key (refer to the current *EMC ControlCenter Planning and Installation Guide, Vol. 1* at <http://powerlink.emc.com> for details). If you must enter the ARM license key, stop and restart the **EMC ControlCenter ECCAPI Server** service after entering the key, to enable functions associated with the license.
3. On the host where you plan to run the CLI, ensure that Java runtime environment (JRE) version 1.4.2 or later is installed and included in the PATH.
4. Insert ControlCenter installation CD #1 (unless it is already in the CD-ROM drive).
5. Change to the following directory (which resides in the root directory of CD #1):  
`ControlCenterCLI`
6. Do one of the following to install the EACLI client:
  - **Windows:** Run the following batch file:  
`eacli_install.bat`
  - **UNIX:** Run the following C shell script at the xhost Console:  
`eacli_install.csh`
7. The installation wizard starts and takes you through the following steps as shown in Figure 2-1, Figure 2-2, and Figure 2-3.

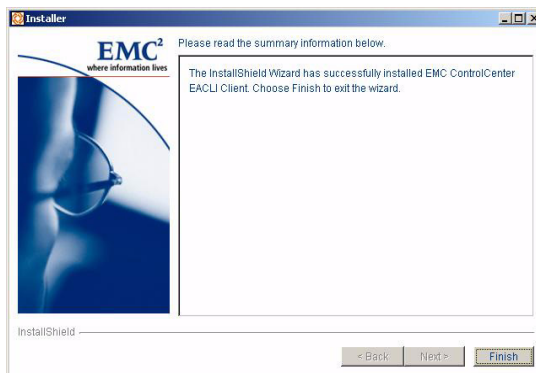


**Figure 2-1** Installation Welcome Screen — click Next



**Figure 2-2** Installation Directory Screen — accept default — click Next

The UNIX installation has an additional installation screen that opens here that confirms logging out to complete the install. Click **Next**.



**Figure 2-3 Installation Complete Screen — click Finish**

You are now ready to configure the EACLI session and run the EACLI tasks detailed in *CLI Session Overview* on page 2-6.

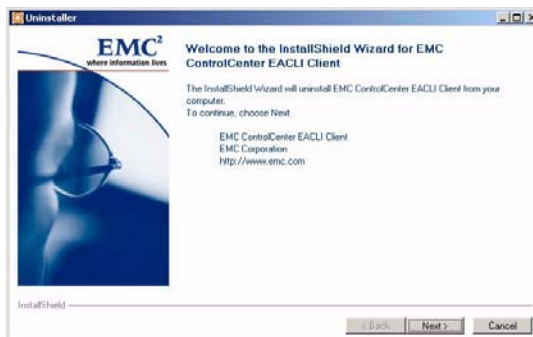
## Uninstalling EACLI

To uninstall the EACLI client:

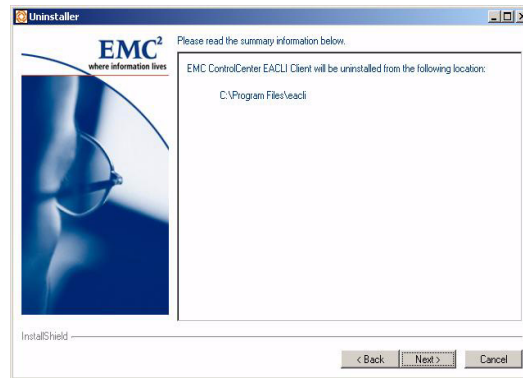
- ◆ **Windows:** From Add/Remove Programs, select **EMC ControlCenter EACLI Client**.
- ◆ **UNIX:** Change to the root directory (`cd /`) and run the following command:  

```
java -jar <EACLI_INSTALL_DIR>/_uninst/uninstall.jar
```

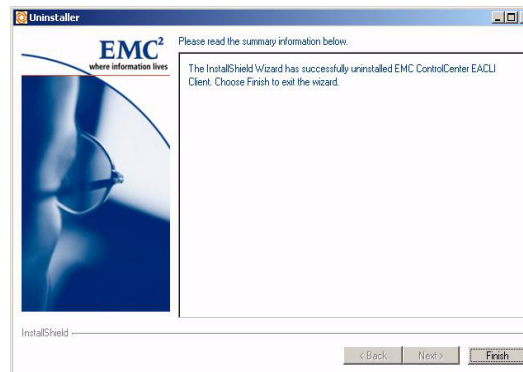
The uninstallation wizard starts and takes you through the following steps as shown in Figure 2-4, Figure 2-5, and Figure 2-6.



**Figure 2-4 Uninstallation Welcome Screen — click Next**



**Figure 2-5** Uninstallation Remove Directory Screen — click Next



**Figure 2-6** Uninstallation Complete Screen — click Finish

# CLI Session Overview

The EACLI can be run in two modes.

**Interactive mode** - the user logs into the EACLI session and can run individual CLI commands and access subsystem commands and arguments.

**Batch mode** - from the command prompt the user can run EACLI commands without logging into the EACLI session. Access to EACLI commands needs to be authenticated by a credentials file prior to any CLI commands being issued.

## CLI Interactive Mode

This section describes how to establish and end an EACLI session, and consists of the following sections:

- ◆ *Creating a Session Startup File (optional)*
- ◆ *Establishing the EACLI Session*
- ◆ *Ending the EACLI Session*

### Creating a Session Startup File (optional)

The session startup file specifies the ECCAPI Server host and port as well as output and format options. If you don't create a session startup file, you can still use the EACLI by manually entering the configuration parameters to initiate a session.

The session startup file configuration parameter is `-eccrcfile` not to be confused with `-eccrfile`, the credentials file configuration parameter used in batch mode.

Table 2-1, lists the configuration parameters used in the startup file.

Table 2-1

EACLI Configuration Parameters

| Parameter                               | Description                                                                                                                                        |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-ecchost</code> <i>Hostname</i>   | Hostname or IP address of the host running the ECCAPI Server. You do not need this parameter if you are running the CLI on the ECCAPI Server host. |
| <code>-eccport</code> <i>PortNumber</i> | ECCAPI Server port number (38988 by default). You do not need this parameter if you are running the CLI on the ECCAPI Server host.                 |
| <code>-eccrcfile</code> <i>FilePath</i> | Full path and name of the file that contains the startup settings for the session.                                                                 |

Table 2-1 EACLI Configuration Parameters (continued)

| Parameter                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-eccout <i>OutputFile</i></code>    | Name (and, optionally, path) of file where the output of EACLI commands are sent. This parameter is optional unless you specify the <code>xml</code> output format option.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <code>-eccformat <i>FormatSpec</i></code> | One of the following output format specifications:<br><code>f[ormatted]</code> — Data is returned in XML format, along with an XSL style sheet. The CLI client applies the style sheet to format the output. The output is sent to the standard output stream or to an output file if you use the <code>-eccout</code> argument.<br><code>x[ml]</code> — Data is returned in raw XML format and saved to the file specified by the <code>-eccout</code> parameter. You must use the <code>-eccout</code> parameter with this option.<br><code>u[nformatted]</code> — Plain text is returned. Blank spaces are used to format the output for readability. Output is returned to the standard output stream or to an output file if you use the <code>-eccout</code> parameter. |
| <code>-eccverbose</code>                  | Returns debugging information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

To create a session startup file:

1. Open Notepad and create a file using the example below.

```
# Eacli startup file

ecchost 123.45.67.89
eccport 38988
eccformat formatted
eccout "cli_output.txt"
eccverbose
```

2. Name the file **eacli.rc** and save it to the eacli install directory (for example **C:\program files\eacli** for Windows or **/opt/eacli** for Unix) on the local host.

## Establishing the EACLI Session

To establish the EACLI session:

1. Run the configuration parameters. This can be done one of two ways:
  - Run the session startup file using the following syntax, **C:\>eacli -eccrcfile <Session Startup File>**. For example: **C:\>eacli -eccrcfile c:\progra~1\eacli\eacli.rc**

or

- Manually enter the configuration parameters at the command prompt. Refer to Table 2-1, *EACLI Configuration Parameters*.

2. Enter your ControlCenter username and password when prompted.
3. After your username and password are verified, the command prompt changes to **EccCli>**.

You are now logged into the CLI session and can enter commands for the SPS, Task, and Host subsystems. You do not need to prefix the subsystem commands with `eacli`. The CLI is not case sensitive.

Refer to Chapter 3, *Command Reference*, for more information about subsystem commands or at the prompt enter **help <subsystem name>** to list the commands available for each subsystem.

### Ending the EACLI Session

Type **exit** to log out of the EACLI interactive session.

Table 2-2 provides additional information about how some parameters behave when you use them in a session startup file.

**Table 2-2 Notes on Using EACLI Parameters in a Session Startup File**

| Parameter                      | Description                                                                                                                                        |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>eccout OutputFile</code> | If you specify this parameter in the startup file, output is sent directly to the file. In interactive mode, the output is not sent to the screen. |
| <code>eccverbose</code>        | Do not include this parameter if you do not want to see debugging information in the command output.                                               |

When you issue the `eacli` command with the `-eccrcfile` parameter, the parameters defined in the startup file override any parameters that are duplicated at the command line.

### Interactive Mode Timeout Period

If you leave your interactive CLI session inactive for more than 15 minutes, it will timeout, and you will have to reestablish it. You can configure the timeout period in the ECCAPI Server's initialization file (`ecc_apiserver.ini`).

## CLI Batch Mode

This section describes how to run EACLI commands in Batch Mode and consists of the following sections:

- ◆ *Creating a Credentials File*
- ◆ *Batch Command Syntax*
- ◆ *Batch Command Example*

### Creating a Credentials File

The EACLI uses a credentials file to authorize and authenticate batch commands. Credentials files are specific to a user and host and it must be created before you can use the EACLI in batch mode. If you use the EACLI on a different host, you must create a new credentials file. Another user cannot use your credentials file.

To create a credentials file:

1. If you are currently in an EACLI session, end that session. Refer to *Ending the EACLI Session* on page 2-8.
2. At a command prompt, execute the following configuration parameters:

```
eacli -eccreatetoken [-ecchost Hostname] [-eccport  
PortNumber] -eccrfile credentials_file_name
```

The credentials file configuration parameter is `-eccrfile` not to be confused with `-eccrcfile`, the session startup file configuration parameter used in the interactive mode.

- `-ecchost` is the ECCAPI Server host name or IP address and `-eccport` is the listening port. These arguments are optional if you are running the EACLI on the same host as the ECCAPI Server.
  - `credentials_file_name` is the full path and name of the credentials file you are creating. If you do not include a full path, the file is created in the directory in which you are running the EACLI.
3. When prompted, enter your ControlCenter username and password.
  4. The EACLI creates the credentials file and the token.txt file.

You can now enter EACLI commands in batch as shown in *Batch Command Example* on page 2-11.

**Batch Command Syntax**

Use the following syntax to set CLI configuration parameters in batch mode:

```
eacli -ecchost Hostname -eccport PortNumber -eccrfile  
      CredentialsFile -eccformat FormatSpec -eccout  
      OutputFile
```

Table 2-3 lists the parameters used in EACLI batch mode.

**Table 2-3 EACLI Configuration Parameters**

| Parameter                                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-ecchost <i>Hostname</i></code>             | Hostname or IP address of the host running the ECCAPI Server. You do not need this parameter if you are running the CLI on the ECCAPI Server host.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <code>-eccport <i>PortNumber</i></code>           | ECCAPI Server port number (38988 by default). You do not need this parameter if you are running the CLI on the ECCAPI Server host.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <code>-ecccreatetoken</code>                      | Creates a token.txt file in the directory where you are running the command prompt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <code>-eccrfile<br/><i>CredentialsFile</i></code> | Name and full path of your credentials file. You do not need to specify the full path if the credentials file is in the same directory where you are running the command prompt. This parameter is required in batch mode.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <code>-eccout <i>OutputFile</i></code>            | Name (and, optionally, path) of file where the output of EACLI commands are sent. This parameter is optional unless you specify the <code>xml</code> output format option.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <code>-eccformat <i>FormatSpec</i></code>         | One of the following output format specifications:<br><br><code>f[ormatted]</code> — Data is returned in XML format, along with an XSL style sheet. The CLI client applies the style sheet to format the output. The output is sent to the standard output stream or to an output file if you use the <code>-eccout</code> parameter.<br><code>x[ml]</code> — Data is returned in raw XML format and saved to the file specified by the <code>-eccout</code> argument. You must use the <code>-eccout</code> parameter with this option.<br><code>u[nformatted]</code> — Plain text is returned. Blank spaces are used to format the output for readability. Output is returned to the standard output stream or to an output file if you use the <code>-eccout</code> parameter. |
| <code>-eccverbose</code>                          | Returns debugging information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

Refer to Chapter 3, *Command Reference*, for information on the subsystem commands and arguments.

**Batch Command Example**

The following example demonstrates how to use EACLI in batch mode to retrieve the list of available hosts.

If you have not created a credentials file, refer to *Creating a Credentials File* on page 2-9.

```
C:\> eaccli -ecchost losao162 -ecccrfile  
c:\progra~1\eaccli\credfile host list -hosts
```

**Host Listing**

| Name | Operating System | Can Allocate |
|------|------------------|--------------|
|------|------------------|--------------|

|          |               |     |
|----------|---------------|-----|
| losao136 | Windows 2000  | YES |
| losao135 | Windows 2000  | YES |
| LOSAO162 | Windows 2000  | NO  |
| losan168 | HP-UX B.11.11 | YES |
| losao060 | Solaris 2.8   | YES |
| losao064 | Solaris 2.8   | NO  |
| losao175 | Solaris 2.8   | YES |
| losan198 | HP-UX B.11.11 | YES |
| losan048 | Solaris 2.9   | NO  |
| losao176 | Solaris 2.8   | YES |

```
C:\>
```



## Command Reference

This chapter lists the commands provided by the Storage Provisioning Services CLI. The chapter contains the following sections:

- ◆ Introduction .....3-2
- ◆ Command Summary .....3-3
- ◆ SPS Subsystem Commands .....3-4
- ◆ Task Subsystem Commands.....3-16
- ◆ Host Information Subsystem Commands.....3-26

---

## Introduction

This chapter provides the syntax and arguments for all Storage Provisioning Services CLI commands. The chapter also provides sample output and examples for using each command.

The CLI commands are not case sensitive. However, some commands and arguments in this chapter may use case sensitivity to improve readability.

To issue multiple commands at once, separate the commands with a semi-colon.

## Command Summary

Table 3-1 provides a summary of all the SPS CLI commands.

**Table 3-1 SPS CLI Commands**

| Command                                    | Description                                                                                                                                                                                                                                    | Page |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| <b>SPS Subsystem Commands</b>              |                                                                                                                                                                                                                                                |      |
| allocate                                   | Allocates storage from an array to a host.                                                                                                                                                                                                     | 3-4  |
| extendvg                                   | Extends a host volume group.                                                                                                                                                                                                                   | 3-6  |
| extendlv                                   | Extends a host logical volume.                                                                                                                                                                                                                 | 3-8  |
| extendfs                                   | Extends a host file system.                                                                                                                                                                                                                    | 3-10 |
| list                                       | Lists the allocation policies or tasks in a task list.                                                                                                                                                                                         | 3-12 |
| show                                       | Provides details of an allocation policy or task.                                                                                                                                                                                              | 3-14 |
| <b>Task Subsystem Commands</b>             |                                                                                                                                                                                                                                                |      |
| execute                                    | Executes a task list.                                                                                                                                                                                                                          | 3-16 |
| rename                                     | Renames a task list.                                                                                                                                                                                                                           | 3-17 |
| move                                       | Moves a task from one task list to another.                                                                                                                                                                                                    | 3-18 |
| delete                                     | Deletes tasks.                                                                                                                                                                                                                                 | 3-19 |
| list                                       | Lists all task lists and tasks.                                                                                                                                                                                                                | 3-20 |
| show                                       | Shows details of a task list or task.                                                                                                                                                                                                          | 3-24 |
| <b>Host Information Subsystem Commands</b> |                                                                                                                                                                                                                                                |      |
| list                                       | Lists hosts visible to the ECC Server or file systems, volume groups, and logical volumes on a specific host. This command also indicates whether SPS can allocate storage to a host or expand a file system, volume group, or logical volume. | 3-26 |

## SPS Subsystem Commands

These commands allow you to perform basic provisioning operations, such as allocating storage to a host or extending a logical volume.

### allocate

Use this command to create a storage allocation task (as well as a task list to store it in, if necessary) to allocate storage to a host.

#### Syntax

```
SPS allocate {-host Hostname,Hostname2,Hostname3}
             -allocPolicy PolicyName
             {-atLeast Size | -atMost Size |
             -minSize MinSize -maxSize MaxSize}
             [-minDev MinDev -maxDev MaxDev]
             [-tasklist TaskListName]
             [-task TaskName]
```

Table 3-2 allocate Command Arguments

| Argument                                                                                  | Description                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-host Hostname, Hostname2, Hostname3</code>                                         | Host(s) to which to allocate additional storage. Use commas to separate multiple hostnames. This argument is required.                                                                                                                                                                                                                                                                                               |
| <code>-allocPolicy PolicyName</code>                                                      | Allocation policy to use for the allocation.                                                                                                                                                                                                                                                                                                                                                                         |
| <code>-atLeast Size  <br/>-atMost Size  <br/>-minSize MinSize<br/>-maxSize MaxSize</code> | This specification is required, and the options are mutually exclusive:<br><code>-atleast</code> — Minimum amount of storage to allocate in GB, with no upper limit.<br><code>-atMost</code> — Maximum amount of storage to allocate in GB, with no lower limit.<br><code>-minSize -maxSize</code> — Range of storage to allocate in GB. If you use this argument, you must specify both a minimum and maximum size. |

Table 3-2 allocate Command Arguments (continued)

| Argument                                                                 | Description                                                                                                                                           |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-minDev <i>MinDev</i></code><br><code>-maxDev <i>MaxDev</i></code> | The minimum and maximum device numbers to use in the allocation. If you use this argument, you must specify both a minimum and maximum device number. |
| <code>-tasklist <i>TaskListName</i></code>                               | A new or existing task list name. If you do not use this argument, a task list name is automatically generated.                                       |
| <code>-task <i>TaskName</i></code>                                       | Task name. If you do not use this argument, a task name is automatically generated.                                                                   |

---

If a task list or task name contains spaces, you must enclose the name within quotation marks.

---

**Example**

```
SPS allocate -host losbe051 -allocpolicy RDF_policy
-minsize 0.5 -maxsize 4.0 -mindev 1 -maxdev 15 -tasklist
Allocate_to_RDF -task losbe051
```

**Sample Output**

```
Task losbe051 has successfully been created in task list
Allocate_to_RDF

Allocate to losbe051 between 0.50 GB and 4.00 GB using
between 1 and 15 devices using allocation policy Primary
+ Remote RDF_policy
```

**extendvg**

Use this command to extend a volume group on a UNIX host. This command is not valid for Windows hosts.

**Syntax**

```
SPS extendvg {-host Hostname} -vg VolumeGroup
             {-atLeast Size | -atMost Size |
              -minSize MinSize -maxSize MaxSize}
             [-minDev MinDev] [-maxDev MaxDev]
             [-tasklist TaskListName] [-task TaskName]
```

**Table 3-3 extendvg Command Arguments**

| Argument                                                                                              | Description                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -host <i>Hostname</i>                                                                                 | Host on which the volume group you want to extend resides. This argument is required.                                                                                                                                                                                                                                                                                         |
| -vg <i>VolumeGroup</i>                                                                                | Volume group name.                                                                                                                                                                                                                                                                                                                                                            |
| -allocPolicy <i>PolicyName</i>                                                                        | Allocation policy to use for the allocation.                                                                                                                                                                                                                                                                                                                                  |
| -atLeast <i>Size</i>  <br>-atMost <i>Size</i>  <br>-minSize <i>MinSize</i><br>-maxSize <i>MaxSize</i> | This specification is required, and the options are mutually exclusive:<br>-atleast — Minimum amount of storage to allocate in GB, with no upper limit.<br>-atMost — Maximum amount of storage to allocate in GB, with no lower limit.<br>-minSize -maxSize — Range of storage to allocate in GB. If you use this argument, you must specify both a minimum and maximum size. |
| -minDev <i>MinDev</i><br>-maxDev <i>MaxDev</i>                                                        | The minimum and maximum device numbers to use in the allocation. If you use this argument, you must specify both a minimum and maximum device number.                                                                                                                                                                                                                         |
| -tasklist <i>TaskListName</i>                                                                         | A new or existing task list name. If you do not use this argument, a task list name is automatically generated.                                                                                                                                                                                                                                                               |
| -task <i>TaskName</i>                                                                                 | Task name. If you do not use this argument, a task name is automatically generated.                                                                                                                                                                                                                                                                                           |

If a task list or task name contains spaces, you must enclose the name within quotation marks.

**Example**      `SPS extendvg -host losbe051 -vg rootdg -atleast 2.0  
-tasklist Extend_VG -task losbe051_rootdg`

**Sample Output**      `Task losbe051_rootdg has successfully been created in  
task list Extend_VG  
Extend volume group rootdg on host losbe051 to at least  
2.00 GB`

**extendlv**

Use this command to extend a logical volume on a host.

**Syntax**

```
SPS extendlv {-host Hostname} -vg VolumeGroup
             -lv LogicalVolume
             {-atLeast Size | -atMost Size |
             -minSize MinSize -maxSize MaxSize}
             [-minDev MinDev -maxDev MaxDev]
             [-tasklist TaskListName]
             [-task TaskName]
```

**Table 3-4 extendlv Command Arguments**

| Argument                                                                                              | Description                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -host <i>Hostname</i>                                                                                 | Host on which the volume group you want to extend resides. This argument is required.                                                                                                                                                                                                                                                                                         |
| -vg <i>VolumeGroup</i>                                                                                | Volume group in which the logical volume resides. You do not need to specify this argument for Windows hosts.                                                                                                                                                                                                                                                                 |
| -lv <i>LogicalVolume</i>                                                                              | Logical volume you want to extend.                                                                                                                                                                                                                                                                                                                                            |
| -atLeast <i>Size</i>  <br>-atMost <i>Size</i>  <br>-minSize <i>MinSize</i><br>-maxSize <i>MaxSize</i> | This specification is required, and the options are mutually exclusive:<br>-atleast — Minimum amount of storage to allocate in GB, with no upper limit.<br>-atMost — Maximum amount of storage to allocate in GB, with no lower limit.<br>-minSize -maxSize — Range of storage to allocate in GB. If you use this argument, you must specify both a minimum and maximum size. |
| -minDev <i>MinDev</i><br>-maxDev <i>MaxDev</i>                                                        | The minimum and maximum device numbers to use in the allocation. If you use this argument, you must specify both a minimum and maximum device number.                                                                                                                                                                                                                         |
| -tasklist <i>TaskListName</i>                                                                         | A new or existing task list name. If you do not use this argument, a task list name is automatically generated.                                                                                                                                                                                                                                                               |
| -task <i>TaskName</i>                                                                                 | Task name. If you do not use this argument, a task name is automatically generated.                                                                                                                                                                                                                                                                                           |

If a task list or task name contains spaces, you must enclose the name within quotation marks.

**Example**      `SPS extendlv -host losbe051 -vg pvg01 -lv powervol01  
-atleast 2.0 -tasklist Extend_LV -task  
1_losbe051_powervol01`

**Sample Output**      Task 1\_losbe051\_powervol01 has successfully been created  
in task list Extend\_LV  
  
Extend logical volume powervol01 in volume group pvg01 on  
host losbe051 to at least 2.00 GB using between 1 and 20  
devices

**extendfs**

Use this command to extend a host file system.

**Syntax**

```
SPS extendfs {-host Hostname} -fs FileSystem
             {-atLeast Size | -atMost Size |
             -minSize MinSize -maxSize MaxSize}
             [-minDev MinDev -maxDev MaxDev]
             [-tasklist TaskListName] [-task TaskName]
```

**Table 3-5 extendfs Command Arguments**

| Argument                                                                                              | Description                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -host <i>Hostname</i>                                                                                 | Host on which the file system to extend resides. This argument is required.                                                                                                                                                                                                                                                                                                   |
| -fs <i>FileSystem</i>                                                                                 | File system to extend. Specify the file system by its mount point name, for example <code>/mnt/foo</code> on UNIX or <code>E:\</code> on Windows.                                                                                                                                                                                                                             |
| -atLeast <i>Size</i>  <br>-atMost <i>Size</i>  <br>-minSize <i>MinSize</i><br>-maxSize <i>MaxSize</i> | This specification is required, and the options are mutually exclusive:<br>-atLeast — Minimum amount of storage to allocate in GB, with no upper limit.<br>-atMost — Maximum amount of storage to allocate in GB, with no lower limit.<br>-minSize -maxSize — Range of storage to allocate in GB. If you use this argument, you must specify both a minimum and maximum size. |
| -minDev <i>MinDev</i><br>-maxDev <i>MaxDev</i>                                                        | The minimum and maximum device numbers to use in the allocation. If you use this argument, you must specify both a minimum and maximum device number.                                                                                                                                                                                                                         |
| -tasklist <i>TaskListName</i>                                                                         | A new or existing task list name. If you do not use this argument, a task list name is automatically generated.                                                                                                                                                                                                                                                               |
| -task <i>TaskName</i>                                                                                 | Task name. If you do not use this argument, a task name is automatically generated.                                                                                                                                                                                                                                                                                           |

If a task list or task name contains spaces, you must enclose the name within quotation marks.

**Example**

```
SPS extendfs -host losbe053 -fs F:\ -atmost 5.0  
-tasklist Extend_FS -task 2_losbe053_F:\
```

**Sample Output**

```
Task 2_losbe053_F:\ has successfully been created in task  
list Extend_FS  
Extend file system F:\ on host losbe053 to at most 5.00  
GB
```

**list**

This command allows you to list the allocation policies or allocation tasks in a task list.

**Syntax**

```
SPS list {-allocPolicies|
          -tasks -tasklist TaskListName} [-v[erbose]]
```

Table 3-6

**list Command Arguments**

| Argument                      | Description                                                                                                                                               |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| -allocPolicies                | Lists all allocations policies. This is mutually exclusive with the -task -tasklist arguments.                                                            |
| -tasks                        | Lists the allocation tasks associated with a task list. You must also specify the task list name.                                                         |
| -tasklist <i>TaskListName</i> | Task list for which you want to list the tasks.                                                                                                           |
| [-v[erbose]]                  | Displays detailed information about policies and tasks. The output from the verbose argument is the same as the output from the show command (page 3-14). |

If a task list or task name contains spaces, you must enclose the name within quotation marks.

**Example (Policies)**

```
SPS list -allocpolicies
```

**Sample Output  
(Policies)**

```
Policy Listing
Name,Storage Pool,Storage Type
Clar_prim,clariion_pool,CLARiion
RDF_policy,symm_0217_6192,Symmetrix
symm_prim,symm_0217_6192,Symmetrix
SW_policy,SW_pool,StorageWorks
```

**Example  
(Verbose Policies)**

```
SPS list -allocpolicies -v
```

**Sample Output  
(Verbose Policies)**

```
Verbose Policy Listing
Name,Replica Class,Storage Element,Storage Pool,Storage
Type,RAID Level,Port Balancing,# Paths,Mapped Device
Only,Zoned Storage Only,Zoning Type,Disable Host Actions
Clar_prim,Primary Only,Primary
Device,clariion_pool,CLARiion,RAID_3,Host
Based,1,true,false,WWN Zoning,false
```

```
RDF_policy,Primary + Remote,Primary
Device,symm_0217_6192,Symmetrix,RAID_0,Host
Based,1,false,false,WWN Zoning,false

Remote Replica,symm_0217_6192,Symmetrix,RAID_0,Host
Based,1,false,false,WWN Zoning,false

symm_prim,Primary Only,Primary
Device,symm_0217_6192,Symmetrix,RAID_1,Host
Based,1,false,false,WWN Zoning,false

SW_policy,Primary Only,Primary
Device,SW_pool,StorageWorks,RAID_1,Host
Based,1,true,false,WWN Zoning,false
```

**Example (Tasks)**

```
SPS list -tasks -tasklist Allocate_to_Symm
```

**Sample Output (Tasks)**

```
Task List Listing
Tasklist: Allocate_to_Symm

=====

losbe051 : Allocate to losbe051 at most 4.50 GB using
between 1 and 20 devices using allocation policy Primary
Only symm_prim

losbe053 : Allocate to losbe053 at least 0.50 GB using
between 1 and 20 devices using allocation policy Primary
Only symm_prim
```

**Example  
(Tasks Verbose)**

```
SPS list -tasks -tasklist Allocate_to_Symm -v
```

**Sample Output (Tasks  
Verbose)**

```
Task List Listing
Tasklist: Allocate_to_Symm

=====

losbe051 : Allocate to losbe051 at most 4.50 GB using
between 1 and 20 devices using allocation policy Primary
Only symm_prim

losbe053 : Allocate to losbe053 at least 0.50 GB using
between 1 and 20 devices using allocation policy Primary
Only symm_prim
```

**show**

Use this command to view the details of an allocation policy or task. For an allocation policy, the results include information such as the replication class, number of required paths, and port balancing preference. For tasks, the results include host ports, fabric, storage ports, devices, and device addresses.

**Syntax**

```
SPS show {-allocPolicy PolicyName |
          -tasklist TaskListName -task TaskName}
```

Table 3-7

**show Command Arguments**

| Argument                                    | Description                                                                                                                           |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <code>-allocPolicy <i>PolicyName</i></code> | Allocation policy for which to show details. This is mutually exclusive with the <code>-tasklist</code> <code>-task</code> arguments. |
| <code>-tasklist <i>TaskListName</i></code>  | Task list containing the task for which you want to show details. You must also specify a task name.                                  |
| <code>-task <i>Task</i></code>              | Task for which you want to show details.                                                                                              |

If a task list or task name contains spaces, you must enclose the name within quotation marks.

**Example (Policy)**

```
SPS show -allocpolicy symm_prim
```

**Sample Output (Policy)**

```
Policy Details View
Replica Class,Storage Element,Storage Pool,Storage
Type,RAID Level,Port Balancing,# Paths,Mapped Device
Only,Zoned Storage Only,Zoning Type,Disable Host Actions
Primary Only,Primary
Device,symm_0217_6192,Symmetrix,RAID_1,Host
Based,1,false,false,WWN Zoning,false
```

**Example (Task)**

```
SPS show -tasklist Allocate_to_Symm -task losbe053
```

**Sample Output (Task)**

```
Task Listing
```

```
Tasklist: Allocate_to_Symm
```

```
=====
```

```
losbe053 : Allocate to losbe053 at least 0.50 GB using  
between 1 and 20 devices using allocation policy Primary  
Only    symm_prim
```

## Task Subsystem Commands

Use the task subsystem commands to view detailed information about ControlCenter task lists, tasks, and actions. The task subsystem commands also allow you to control tasks, such as executing or deleting them.

### execute

Use this command to execute a task list. The task list must already exist.

#### Syntax

```
TASK execute -tasklist TaskListName
```

Table 3-8

**execute Command Arguments**

| Argument                                   | Description                                                                                                                  |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <code>-tasklist <i>TaskListName</i></code> | Task list that you want to execute. If the task list name contains spaces, you must enclose the name within quotation marks. |

#### Example

```
TASK execute -tasklist tasklist1
```

#### Sample Output

Success: The task list, tasklist1, has started execution.

**rename**

Use this command to rename a task list or task.

**Syntax**

```
TASK rename -tasklist TaskListName {-totasklist
NewTaskListName | -task Task -totask NewTaskName}
```

**Table 3-9****rename Command Arguments**

| Argument                              | Description                                                                       |
|---------------------------------------|-----------------------------------------------------------------------------------|
| -tasklist <i>TaskListName</i>         | Task list you want to rename or task list containing the task you want to rename. |
| -totasklist<br><i>NewTaskListName</i> | New task list name.                                                               |
| -task <i>Task</i>                     | Task you want to rename.                                                          |
| -totask <i>NewTaskName</i>            | New task name.                                                                    |

If a task list or task name contains spaces, you must enclose the name within quotation marks.

**Example (Task List)**

```
TASK rename -tasklist Allocate_to_Symm -totasklist
Allocate_to_Symm_renamed
```

**Sample Output (Task)**

```
Tasklist Allocate_to_Symm has been renamed to
Allocate_to_Symm_renamed.
```

**Example (Task)**

```
TASK rename -tasklist Allocate_to_Symm -task losbe051
-totask renamed_losbe051
```

**Sample Output (Task)**

```
Task losbe051 has been renamed to renamed_losbe051.
```

---

**move**

Use this command to move a task between task lists.

**Syntax**

```
TASK move -tasklist TaskListName -task Task
          -totasklist ToTasklistName
```

**Table 3-10 move Command Arguments**

| Argument                      | Description                                        |
|-------------------------------|----------------------------------------------------|
| -tasklist <i>TaskListName</i> | Task list that contains the task you want to move. |
| -task <i>Task</i>             | Task you want to move.                             |
| -totask <i>ToTasklistName</i> | Task list to which you want to move the task.      |

---

If a task list or task name contains spaces, you must enclose the name within quotation marks.

---

**Example**

```
TASK move -tasklist Allocate_to_Symm -task losbe053
          -totasklist Allocate_to_Clariion
```

**Sample Output**

```
Task losbe053 has been moved to task list
Allocate_to_Clariion.
```

**delete**

Use this command to delete a task from a task list.

**Syntax**            `TASK delete -tasklist TaskListName -task Task`

Table 3-11    **delete Command Arguments**

| Argument                            | Description                                          |
|-------------------------------------|------------------------------------------------------|
| <code>-tasklist TaskListName</code> | Task list that contains the task you want to delete. |
| <code>-task Task</code>             | Task you want to delete.                             |

If a task list or task name contains spaces, you must enclose the name within quotation marks.

**Example**            `TASK delete -tasklist tasklist1 -task task1`

**Sample Output**    `Task task1 has been deleted from task list tasklist1.`

**list**

Use this command to list all task lists and tasks. You can list either task lists or tasks, but not both with a single command. Use the verbose argument to retrieve detailed information.

**Syntax**

```
TASK list {-tasklists | -tasks -tasklist TaskListName}
[-v[erbose]]
```

**Table 3-12 list Command Arguments**

| Argument                      | Description                                                                                                                                                 |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -tasklists                    | Lists all task lists.                                                                                                                                       |
| -tasks                        | Lists the allocation tasks associated with a task list. You must also specify the task list name.                                                           |
| -tasklist <i>TaskListName</i> | Task list for which you want to list the tasks.                                                                                                             |
| [-v[erbose]]                  | Displays detailed information about task lists and tasks. The output from the verbose argument is the same as the output from the show command (page 3-24). |

If a task list or task name contains spaces, you must enclose the name within quotation marks.

**Example (Task Lists)**

```
TASK list -tasklists
```

**Sample Output  
(Task Lists)**

```
Task Listing
Task List, Task, Operation, Creation Date, Start Date,
End Date
Extend_LV, 1_losbe051_powervol01, Extend Logical Vol-
ume, Thu Mar 25 16:05:10 EST 2004, ,
Allocate_to_RDF, losbe051, Allocate Storage, Thu Mar 25
16:04:17 EST 2004, ,
Allocate_to_Symm, losbe051, Allocate Storage, Thu Mar
25 16:02:07 EST 2004, ,
Allocate_to_Clariion, losbe141, Allocate Storage, Thu
Mar 25 16:02:31 EST 2004, ,
```

**Example  
(Verbose Task Lists)**

```
TASK list -tasklists -v
```

**Sample Output  
(Verbose Task Lists)**

```
Task List: Extend_LV
=====

Task Name: 1_losbe051_powervol01
=====
Operation: Extend Logical Volume
Creation Date: Thu Mar 25 16:05:10 EST 2004

1. Map Device (Pending)
=====
Storage Array: 000185400217
Director: FA-16A
Port: 1
Device: 069
VBus ID: N/A
Target ID: N/A
Lun ID: 1e

2. Port Mapping Session (Pending)
=====

3. Granting Masking Privileges (Pending)
=====
Host: losbe051
Host Adapter: emulex-lp8000-1
Host Port: 2
Storage Array: 000185400217
Director: FA-16A
Storage Port: 1
Storage Device: 069

4. Refresh Device Masking (Pending)
=====
Storage Array: 000185400217

5. Rescan I/O Paths (Pending)
=====
Host: losbe051
```

```

6. Configure PowerPath (Pending)
=====

7. Rescan for Volume Manager Disks (Pending)
=====
Host: losbe051

8. Extend Volume Group (Pending)
=====
Host: losbe051
Volume Group: pvg01

9. Extend Logical Volume (Pending)
=====
Host:
Logical Volume: powervol01
Old Size:
Requested Size: 2.091GB
New Size:

```

**Example (Tasks)**

```
TASK list -tasks -tasklist Allocate_to_Symm
```

**Sample Output (Tasks)**

```

Task Listing
Task List, Task, Operation, Creation Date, Start Date,
End Date
Allocate_to_Symm, losbe053, Allocate Storage, Thu Mar
25 16:01:50 EST 2004, ,

```

**Example  
(Verbose Tasks)**

```
TASK list -tasks -tasklist Allocate_to_Symm -v
```

**Sample Output  
(Verbose Tasks)**

```
Task Name: losbe053
=====
Operation: Allocate Storage
Creation Date: Thu Mar 25 16:01:50 EST 2004

1. Map Device (Pending)
=====
Storage Array: 000185400217
Director: FA-16A
Port: 0
Device: 05D
VBus ID: N/A
Target ID: N/A
Lun ID: 29

2. Port Mapping Session (Pending)
=====

3. Granting Masking Privileges (Pending)
=====
Host: losbe053
Host Adapter: qllogic-ql2300-2
Host Port: 5
Storage Array: 000185400217
Director: FA-16A
Storage Port: 0
Storage Device: 05D

4. Refresh Device Masking (Pending)
=====
Storage Array: 000185400217

5. Refresh Device Masking (Pending)
=====
Storage Array: 000000006192

6. Rescan I/O Paths (Pending)
=====
Host: losbe053
```

**show**

Use this command to view detailed information about a task list or task, including action information.

**Syntax**

```
TASK show -tasklist TaskListName [-task Task]
```

**Table 3-13 show Command Arguments**

| Argument                                   | Description                                                                                                       |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <code>-tasklist <i>TaskListName</i></code> | Task list for which you want to show details or task list containing the task for which you want to show details. |
| <code>-task <i>Task</i></code>             | Task for which you want to show details. You must also specify a task list.                                       |

If a task list or task name contains spaces, you must enclose the name within quotation marks.

**Example (Task List)**

```
TASK show - tasklist tasklist1
```

**Sample Output  
(Task List)**

```
Task List: tasklist1
=====
Task Name: task1
=====
Operation: Extend Volume Group
Creation Date: Tue Feb 03 10:34:16 EST 2004
1. Granting Masking Privileges (Pending)
=====
Host: losav106.os
Host Adapter: qllogic-qla2200-0
Host Port: 2
Storage Array: 000184600084
Director: FA-14B
Storage Port: 1
Storage Device: 126
2. Refresh Device Masking (Pending)
=====
Storage Array: 000184600084
3. Rescan I/O Paths (Pending)
=====
Host: losav106.os
4. Rescan for Volume Manager Disks (Pending)
```

```

=====
Host: losav106.os
5. Extend Volume Group (Pending)
=====
Host: losav106.os
Volume Group: test5dg

```

**Example (Task)**

```
TASK show -tasklist tasklist1 -task task1
```

**Sample Output (Task)**

```

Task List: tasklist1
=====
Task Name: task1
=====
Operation: Extend Volume Group
Creation Date: Tue Feb 03 10:34:16 EST 2004
1. Granting Masking Privileges (Pending)
=====
Host: losav106.os
Host Adapter: qllogic-qla2200-0
Host Port: 2
Storage Array: 000184600084
Director: FA-14B
Storage Port: 1
Storage Device: 126
2. Refresh Device Masking (Pending)
=====
Storage Array: 000184600084
3. Rescan I/O Paths (Pending)
=====
Host: losav106.os
4. Rescan for Volume Manager Disks (Pending)
=====
Host: losav106.os
5. Extend Volume Group (Pending)
=====
Host: losav106.os
Volume Group: test5dg

```

## Host Information Subsystem Commands

The Host Information subsystem allows you to view host information that is helpful in creating provisioning tasks. Much of this information (hostnames, file systems, volume groups, logical volumes, and so on) is used as parameters in the Storage Provisioning Services and Task subsystems.

### list

Use this command to list all the hosts visible to the ECC Server or the file systems, volume groups, or logical volumes on a specific host.

#### Syntax

```
HOST list {-hosts | -host Hostname
          {-fileSystems | -vgs | -vg VolumeGroup -lvs}}
```

**Table 3-14 list Command Arguments**

| Argument                    | Description                                                                                                                                                                                                                                 |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -hosts                      | Lists all hosts that have been discovered by EMC ControlCenter and whether allocation is supported on a host. Storage Provisioning Services does not support hosts without HBAs and certain operating systems or operating system versions. |
| -host <i>Hostname</i>       | Host for which you want to view detailed file system, volume group, or logical volume information. If you use this argument, you must also specify the -fileSystems, -vgs, or -vg argument.                                                 |
| -fileSystems                | Lists all the file systems on the host specified in the -host argument.                                                                                                                                                                     |
| -vgs                        | Lists all the volume groups on the host specified in the -host argument. This command is not valid on Windows hosts.                                                                                                                        |
| -vg <i>VolumeGroup</i> -lvs | Lists all the logical volumes in the volume group specified in the -vg argument on the host specified in the -host argument. This command is not valid on Windows hosts.                                                                    |

**Example (Hosts)**

```
HOST list -hosts
```

**Sample Output (Hosts)**

Lists all hosts known to ControlCenter. Storage Provisioning Services does not support hosts without HBAs. In addition, SPS does not support some operating systems. Can Allocate indicates whether Storage Provisioning Service can allocate storage to a host.

```
Host ListingName,Operating System,Can Allocate
LOSAV104,Windows 2000,YES
LOSAT156,Windows 2000,NO
losav107,Windows Server 2003,YES
AP250PCLAB,Windows 2000,YES
losav106,Solaris 2.7,NO
losav108,Solaris 2.8,YES
losbe209,HP-UX B.11.11,YES
```

**Example  
(File Systems)**

```
HOST list -filesystems -host losbe051
```

**Sample Output  
(File Systems)**

Can Expand indicates whether a file system can be expanded using the Storage Provisioning Services.

```
File System Listing for host losbe051
Name,Size,Utilization,Device,Can Expand
/swap,1.9 GB,3%,/dev/dsk/c0t0d0s1,NO
/mnt/veritas_01,2.43 GB,10%,/dev/vx/dsk/vdg01/vol01,YES
/mnt/powerx_01,5.62 GB,10%,
/dev/emc/dsk/pvg01/powervol01,NO
,6.15 GB,1%,/dev/dsk/c2t3d24s2,NO
/,14.68 GB,79%,/dev/dsk/c0t0d0s0,NO
```

**Example (Volume  
Groups)**

```
HOST list -vgs -host losbe051
```

**Sample Output  
(Volume Groups)**

Can Expand indicates whether a volume group can be expanded with the Storage Provisioning Services.

```
Volume Group Listing for host losbe051
Name,Size,Utilization,Can Expand
urapowervolumegroup,5.53 GB,10%,YES
verildg,12.64 GB,4%,YES
itestvg,8.42 GB,9%,YES
pvg01,6.32 GB,95%,YES
rootdg,16.86 GB,0%,YES
vdg01,10.53 GB,49%,YES
```

**Example  
(Logical Volumes)**

```
HOST list -lvs -host losbe051 -vg RaidGroup1
```

**Sample Output  
(Logical Volumes)**

```
Logical Volume Listing
Host: losbe051
Volume group: RaidGroup1
Name,Size,Utilization,Device,Can Extend
raidvol01,8 GB,0%,NO
raid5vol01,1 GB,0%,NO
```