LifeSize® Automation Command Line Interface

For LifeSize Video Communications Systems
Software Release v3.5

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Revisions in this Release

Software release v3.5 for LifeSize video communications systems includes new, revised, and deprecated commands, objects, targets, and arguments in the LifeSize Automation Command Line Interface (CLI).

New Objects and Targets

The following table identifies new objects and targets available in software release v3.5 for LifeSize video communications systems. For more information, including a list of arguments and examples, refer to the object and target descriptions in the applicable verb chapter.

New Objects and Targets

Applicable Verbs	Object	Target	Description
get set	audio	active-mic	New target that gets or specifies the active microphone selection.
get set	audio	audio-output	New target that shows or sets the destination for audio output when placing a call.
get	audio	current-mic	New target that shows the input currently used as the active microphone for audio input during calls. This information appears in the System Information page in the user interface as the value of the **Active Microphone** field.
get set	audio	gain	New target that shows the current setting or sets the gain for the active microphone.
get set	audio	mapping	New target that shows or sets the mapping of video sources to auxiliary audio input.

New Objects and Targets (Continued)

Applicable Verbs	Object	Target	Description
set	audio	test-tone	New target that sends a test tone to the various audio output ports on the codec.
get set	call	auto-bandwidth	New target that retrieves setting or sets (enables/disables) automatic bandwidth negotiation when placing or receiving calls.
get set	call	dial-mode	New target that retrieves current settings or sets the voice (if applicable) and video dialing preferences.
get set	camera	far-set-preset	New target that shows or controls whether or not the far end of a call can set local presets.
get set	camera	far-use-presets	New target that shows or controls whether or not the far end of a call can move the near camera to local presets.
get set	camera	lock-preset	New target that shows or controls whether or not the presets are locked.
get set	camera	serial-control	New target that shows or controls the current setting for the serial control mechanism for all camera ports. Only used when a LifeSize SDI Adapter is connected to a camera port.

New Objects and Targets (Continued)

Applicable Verbs	Object	Target	Description
get	camera	type	New target that retrieves the type of cameras connected to a system.
get set	camera	white-balance	New target that retrieves the current setting or sets the white balance for the cameras.
get set	(no object)	config	New target that retrieves or restores the current configuration for the system.
get set	directory	auto	New target that retrieves or controls configuration of the auto discovery daemon.
get set	directory	meeting	New target that retrieves directory entries or creates or edits entries for the meetings directory.
set	network	commit	New target that commits the network settings and reboots the system.
get set	network	dns	New target that retrieves or configures the Directory Name Service settings.
get set	network	ipv4 ipv4 dhcp ipv4 static	New targets that retrieve or configure the Internet Protocol Version 4 network configuration settings. When used with the **`set`** verb, the **`dhcp`** or **`static`** targets are required.

New Objects and Targets (Continued)

Applicable Verbs	Object	Target	Description
get set	network	ipv6 ipv6 auto ipv6 manual ipv6 off	New targets that retrieve or configure the Internet Protocol Version 6 network configuration settings. When used with the **`set`** verb, the **`auto`**, **`manual`**, or **`off`** targets are required.
get set	network	nat nat enabled nat disabled	New targets that retrieve or configure the Network Address Translation settings for the system. When used with the **`set`** verb, the **`disabled`** or **`enabled`** targets are required.
get set	network	ntp-server	New target that retrieves or specifies the address of the current Network Time Protocol server.
get set	network	qos qos diffserv qos intserv qos none	New targets that retrieve or configure the Quality of Service options. When used with the **`set`** verb, the **`diffserv`**, **`intserv`**, or **`none`** targets are required.
get set	network	reserved-ports	New target that retrieves or specifies the upper and lower bounds for the ports reserved for use by the device.
get set	network	speed	New target that retrieves or sets the network port default speed.
get	network	status	New target that retrieves the status of the network connection.

New Objects and Targets (Continued)

Applicable Verbs	Object	Target	Description
get set	network transit	ice server service signaling web	New **`transit`** object used with the **`network`** object. New targets that retrieve and set LifeSize Transit parameters.
get	snmp	community-name	New target that retrieves the SNMP community name for the SNMP server running on the device.
get	snmp	description	New target that retrieves the SNMP description of the system.
get set	snmp	system-name	New target that retrieves and sets the SNMP system name.
get set	snmp	user	New target that retrieves list or adds/deletes snmp users.
get	snmp	version	New target that retrieves the version number for the SNMP server running on the device.
get set	system	branding	New target that retrieves or controls the state of the logo branding feature.
set	system	clean	New target that removes personally identifiable information from the system.

New Objects and Targets (Continued)

Applicable Verbs	Object	Target	Description
get set	system	date	New target that retrieves or sets the system date and time.
get set	system	lcd-contrast	New target that retrieves the current setting or sets the LifeSize Phone's LCD contrast.
set	system	message	New target that specifies a pop-up dialog box with a message and button layout to appear in the user interface.
get	system	message-status	New target that retrieves the user response from the most recent popup message displayed.
get set	system	presentation	New target that shows whether or not the sending and receiving H.239 secondary media is enabled or enables/disables sending and receiving H.239 secondary media.
get set	system	screen-saver	New target that retrieves or sets the screen saver type.
get set	system	telepresence	New target that shows whether or not the system is in telepresence mode or enables/disables the telepresence feature.

New Objects and Targets (Continued)

Applicable Verbs	Object	Target	Description
get set	video	aux-output	New target that retrieves or controls the controls configuration of the auxiliary video output on LifeSize Room.
get set	video	background	New target that lists the available background image names for use with the **`set video primary-background`** or **`set secondary-background`** commands or uploads a background image.
get set	video	bandwidth-balance	New target that shows or controls the percentage of total available bit rate for video that is allocated to the primary video stream during a dual stream call.
get set	video	encode-quality	New target that retrieves or sets the video encoder quality setting.
get set	video	h241-mbps	New target that retrieves or controls the state of the H.241 MaxStaticMBPS (maximum static macroblocks per second) option
get set	video	hdmi1-mode	New target that shows or controls whether the HD Input 1 operates in automatic mode or DVI compatibility mode.

New Objects and Targets (Continued)

Applicable Verbs	Object	Target	Description
get	video	input-snapshot	New target that retrieves a base64 encoded copy of one of the video snapshot images.
get set	video	input-snapshots	New target that shows status or enables/disables the video snapshot feature.
get set	video	mtu	New target that retrieves the current setting or sets the video maximum transfer unit.
get set	video	primary-background	New target that shows the current background image name or changes the current background image for the primary display (display port 1).
get set	video	primary-display	New target that shows or controls the configuration for the primary display.
get set	video	primary-motion	New target retrieves or controls the current setting for the preference of motion over sharpness when encoding the primary video stream.
get set	video	secondary-background	New target that retrieves the current background image name or changes the background image for the secondary display (display port 2).

New Objects and Targets (Continued)

Applicable Verbs	Object	Target	Description
get set	video	secondary-display	New target that shows or controls the configuration of the secondary video display.
get set	video	secondary-layout	New target that retrieves or specifies the layout option for video in the secondary display connected to a LifeSize Room system.
get set	video	secondary-sharpness	New target that retrieves or controls the setting for the preference for sharpness over motion when encoding the secondary video stream.
get set	volume	status-tone	New target that retrieves or sets the volume level for the system status tones.

Enhancements to Existing Objects or Targets

The following table identifies enhancements to existing objects or targets in this release. For more information, refer to the object and target descriptions in the applicable verb chapter.

Enhancements to Existing Objects or Targets

Command	Description
get audio codecs	g.728 added to available codec list
set audio codecs	g.728 added to the arguments
set call max-redial-entries	Updated arguments to specify full range of allowed values.
set call max-speed	Updated arguments to reflect additional bandwidths available in this release.

Enhancements to Existing Objects or Targets (Continued)

Command	Description
set camera pan-dir	Added to list of targets applicable to the set verb.
get camera position	Added new `-e` argument to retrieve the position in exact coordinates using floating point representation.
set camera position	Can use floating point notation to increase the precision of movement when specifying the absolute pan angle (`-p`), absolute tilt angle (`-t`), and absolute zoom position (`-z`).
get camera preset	Added new `-e` argument to retrieve the position using exact coordinates through floating point representation.
set camera preset	Can use floating point notation to increase the precision of the movement when specifying the pan (`-p`), tilt (`-t`), and zoom (`-z`) positions.
get directory corporate get directory local	Added new `-C`, `-n`, and `-s` arguments to: show only the number of entries matching the selection criteria; limit the output to count entries; and skip the first count entries.
set directory local	Updated the `-k` and `-K` arguments to reflect additional bandwidths available in this release.
set password	Added description and examples for non-interactive mode.
set system isdn	Added isdn to list of targets applicable to the set verb with the system object.
set video primary-input	Added `hdmi0` to the arguments list.
set video secondary-input	Added `hdmi0` to the arguments list.
set volume line-in	Added line-in to list of targets applicable to the set verb with the volume object.

Enhancements to Existing Objects or Targets (Continued)

Command	Description
status call history	Added several new fields that are reported in the output. Refer to the description for the **`status call history`** command.
control call add-part	Updated the -b argument to reflect additional bandwidths available in this release.
control call dial	Updated the -b argument to reflect additional bandwidths available in this release.
control remote	Added new arguments [-d msec], [-p], and [-r] from hotfix v3.0.5. Refer to the description for the **`control remote`** command.

Deprecated Commands

The following commands are deprecated in this release.

Deprecated Commands

Command	Description
get audio in-to-out	Retrieved the state of the line input to the line output.
get audio line-in set audio line-in	Retrieved the current setting for line input and controlled whether the line input was enabled or disabled.
get audio mics set audio mics	Retrieved the current setting and set (enabled or disabled) the microphones.
get network	Retrieved the current network configuration. Replaced by **`get network ipv4`** and **`get network ipv6`**.

Support for Here Document Scripting Feature

The CLI supports a scripting feature known as a here document for inputting several lines of data with a command. For more information refer to “Here Documents” on page 21.

Documentation Enhancements

Information about the exit and help verbs that appeared in the control verb section and information about status codes that appeared at the end of this document in previous versions now appears with related information in the chapter titled “Fundamentals of the Command Line Interface.”

Objects and targets for the get and set verbs are combined into a single chapter for ease of use. Most of the objects and targets that apply to the get verb also apply to the set verb.

Corrections to Documentation

Command	Description
set camera active	The argument to select the inactive camera was incorrectly listed as 0. The correct value is o.
get camera position	The argument to specify the inactive camera with -N was incorrectly identified as 0. The correct value is o.
set snmp v3trapdestination	The minimum length for the password was not specified. The minimum length is 8 characters.

Introduction

LifeSize Automation Command Line Interface (CLI) provides a command line-based entry point for automating access and control of LifeSize video communications systems. The CLI allows you to:

- Retrieve configuration information about your LifeSize system. For example, you can get the system version number or the camera's brightness setting.
- Apply new preferences to the system configuration. For example, you can set the speaker volume or the fadeout timer.
- Show the status of calls in the system. For example, you can show active calls or statistics for previous calls.
- Control aspects of the system. For example, you can add participants to an active call or emulate remote control functionality.

This document contains information about using the CLI commands, their output, and generated return codes.

Notational Conventions

The following conventions are used in this document.

Convention	Description
`monotype` font	Monotype font reflects commands and the resulting output. Constant input appears in **`Bold`**, for example: **`get system uptime`** Variable input appears in ***`Bold Italic`***, for example: **`set audio mics`** ***`off`*** Constant output appears in plain `monotype`, for example: `ok,00` Variable output appears in `monotype` *`Italic`*, for example: **`get audio video-output`** *`phone`*
angle brackets `<>`	Required parameters are enclosed in angle brackets, for example: `<parameter>`

square brackets `[]`	Optional parameters are enclosed in square brackets, for example:
	`[parameter]`
	Similarly, optional options are enclosed in square brackets, for example:
	`[-p]`

Convention	Description

curly brackets `{}`	Parameters whose values are restricted are enclosed in curly brackets with discrete values separated by a pipe (`|`) symbol. The following example restricts the values to val1, val2, or val3:
	`<{val1|val2|val3}>`
	Parameters whose values are restricted to a range of values are enclosed in curly brackets and separated by a pair of periods (`..`). The following example restricts values to integers between 0 and 100, inclusive:
	`[{0..100}]`
	The following example restricts values to integers between -30 and 30, inclusive:
	`[-p {-30..30}]`
	The following example restricts values to floating point numbers between -30.0 and 30.0 inclusive:
	`[-p {-30.0..30.0}]`

Fundamentals of the Command Line Interface

This chapter describes the fundamental concepts of the CLI, such as accessing the CLI, help and default output modes, command line syntax, and standard output format.

Accessing the Command Line Interface

The CLI is available through an ssh or telnet connection to your LifeSize video communications system as the ***auto*** user (default password ***lifesize***). For LifeSize Room, you can also access the command line interface through one of the two rear panel serial ports if they are configured for this shell. The LifeSize Room system requires use of a standard null modem cable for interaction through the serial connection. Refer to “Serial Cable Pin Assignment” on page 18.

Connecting through Serial Ports

To connect through the rear panel serial ports on LifeSize Room, follow these steps:

1. Plug one end of the null modem cable into either of the LifeSize Room serial ports, taking note of which port you choose.

   Note: If you are connecting through the serial port for the first time, LifeSize recommends that you use port 2 on the LifeSize Room codec. By default, port 2 is configured to connect at 9600 b/s and start the command line interface; port 1 is not configured. If you connect through port 1, you must perform additional steps to configure the port.

2. Plug the other end of the cable into your PC serial port, taking note of which port you choose.

3. If you are connecting through port 1 on the LifeSize Room codec for the first time, do the following. Otherwise, skip to step 4.

   a. ssh into the system as user ***auto***, default password ***lifesize***.

      Note: On Windows, you may need to download an ssh application, such as putty.

   b. Once connected, enter the following command to configure port 1 on LifeSize Room:

      ```
      set serial port1 -s auto
      ```

   c. To terminate an ssh session, enter the **exit** verb or press **Control-D**.

4. Depending on your operating system, do one of the following:

   - On Windows, start HyperTerminal (**Start>All Programs>Accessories>Communications>HyperTerminal**) and configure it for the serial port you selected on the PC. If you are connecting to port 2 on the LifeSize Room codec, set the speed to 9600 b/s, no parity, 8 data bits, 1 stop bit, no flow control. If you are connecting to port 1, set the speed to 38400 b/s. Press **Return** in HyperTerminal until you receive the `ok,00` message.
   - On Linux, start Minicom and configure it for the serial port you selected on the PC. Set the speed to 9600, no parity, 8 data bits, 1 stop bit, no flow control. If you are connecting to port 1, set the speed to 38400 b/s. Press **Return** in Minicom until you receive the `ok,00` message.

For more information about configuring the serial ports in LifeSize Room, see “serial” on page 110.

Serial Cable Pin Assignment

Following is the cable pinout for connecting the LifeSize Room serial port to another DTE device using a null modem serial cable. Refer to “Connecting through Serial Ports” on page 17 for more information.

LifeSize Codec		Other DTE Device	
Signal	**D-sub 9 pin**	**D-sub 9 pin**	**Signal**
Receive Data	2	3	Transmit Data
Transmit Data	3	2	Receive Data
System Ground	5	5	System Ground

Help Mode

The CLI has two modes of operation: normal mode and help mode. By default, the CLI starts in help mode.

In help mode, full command help is available, as is abbreviation support. The help mode setting exists only for the duration of the current instance. It is not shared between multiple instances. Help mode is enabled by default, but can be controlled through the **`set help-mode`** command. Because help mode also enables command abbreviations, LifeSize recommends that you run automated scripts or programs with the help mode set to **`off`** to prevent using abbreviations in these types of situations. Refer to “help-mode” on page 87 for details about using this command.

All commands provide basic usage information when you specify the **`-h`** option to the command at any point in the argument list. **`Help`** followed by a verb produces the list of targets for that verb. Additionally, the argument **`errors`** returns a list of error message codes and their meanings. In normal mode, entering help produces an unsupported verb error.

Examples:

```
help

error,04

set help-mode on

ok,00

help
Possible verbs:
control
get
history
set
status

ok,00

help set
Possible completions:
set admin password
set audio line-in
set audio mics
set audio video-output
set call auto-answer
set volume dtmf
set volume ring-tone

ok,00
```

Note: Note: The previous examples show only a subset of all possible completions.

```
help errors -V
Code    Description
00      Success
01      No Memory
02      File Error
03      Invalid Instance
04      Invalid Parameter
05      Argument is not repeatable
06      Invalid Selection Parameter Value
07      Missing Argument
08      Extra Arguments on Command Line
09      Invalid Command
0a      Ambiguous Command
0b      Conflicting Parameter
0c      Operational Error
0d      No Data Available
0e      Not In Call
0f      Interrupted
10      Ambiguous Selection
11      No Matching Entries
12      Not Supported


ok,00
```

Default Output Mode

The CLI supports a default output mode option. Like help mode, it exists only for the duration of the CLI instance and is not shared between instances. By default, terse output mode is enabled. You can change this mode using the **`set verbose-mode on`** command. This is equivalent to specifying the **`-V`** option to each command entered.

Note: Asynchronous status messages are always printed in terse mode using the default delimiter, regardless of the current state of verbose mode or any delimiter option used on the command that caused the asynchronous message to occur.

Command Line Arguments

You can invoke a single command by specifying that command on the command line, for example:

```
ssh auto@lifesize get camera position
```

In this example, the return code of the ssh command is the result code from the single command executed.

Command Line History and Recall

The CLI also supports command line history, editing, and recall through the editline library. These features operate in a similar manner to the GNU bash shell, including support for **`!n`**, **`!!`** and Emacs editing modes. History is limited to the last 100 commands.

Here Documents

The CLI supports a scripting feature known as a here document. When used in the CLI, a here document is a block of data that can be fed to certain commands that accept several lines of input (for example, uploading images or files to the system). Descriptions and examples in this manual indicate support for here documents when available for a command. Following is the syntax for specifying a here document in a CLI command:

command << ***TOKEN***

input_associated_with_command

TOKEN

where the here document consists of all text between the ***TOKEN*** document start symbol and the ***TOKEN*** document end symbol. The start symbol and end symbol must be identical. The input does not include the new line after the start symbol, but does include the new line immediately before the end symbol. The end symbol must start in the first column of a new line to be recognized. Here documents are generally used for sending scripts to the CLI through an SSH session. For example:

Manually enter an ssh key using a here document:

```
set ssh keys -i << EOF
ssh-rsa key_string user@lifesize.com
ssh-rsa key2_string user2@lifesize.com
EOF
```

Upload a background image using a here document:

```
set video background image << EOF
<base 64 encoded data stream>
EOF
```

Command Syntax

In general, the syntax is relatively rigid to ensure consistency across all commands that the CLI supports.

The general syntax of a command is <*verb*> <*object*> <*target*> [*options*] where:

<*verb*> defines the operation to perform.

<*object*> defines the subsystem on which the operation should be performed.

<*target*> identifies the specific parameter within the object.

[options] specifies arguments that may be passed in the command.

Note: Unless otherwise indicated, when specifying an argument that includes a text string with a space in the string, enclose the text in double quotes (for example, “QRB Meeting”).

Command Verbs

The CLI verbs are **`get`**, **`set`**, **`control, history, status`**, **`exit`** and **`help`**.

If help mode is enabled, help is available for the verbs, objects, and targets. In this context, a complete command is defined as a verb followed by an object and complete target specification. (For two word targets, you must specify both to complete the command). If you specify an incomplete command, all possible completions for that command root are displayed in alphabetical order. Additionally, the command processor allows abbreviations of command targets and verbs to simplify usage and to allow for more descriptive targets.

LifeSize recommends you do not use abbreviations in shell scripts, because future releases may make the abbreviation ambiguous. To prevent such use, abbreviations are disabled when help mode is off.

Command Verb	Description
`get`	The **`get`** verb retrieves preference configuration information from the system (for example, displaying the current IP configuration).
`set`	The **`set`** verb applies new preferences to the system configuration (for example, changing the camera position).
`control`	The **`control`** verb initiates an action on the system (for example, placing a call).
`status`	The **`status`** verb retrieves system status information (for example, call information).
`exit`	The **`exit`** verb exits the shell prior to the end of input. The exit verb has no arguments. *Example*: **`exit`** `ok,00` You can also exit the shell by entering the end-of-file character (generally **^D**).
`help`	The **`help`** verb is available only in help mode. It lists the verbs available in the shell (but does not list the individual targets for those verbs). **`Help`** followed by a verb produces the list of targets for that verb (as if just the verb had been entered on the command line).

`history`	The **`history`** verb lists the saved history of commands up to 100 lines. Blank and commented lines are not included. To limit the number of lines displayed to fewer than 100, type the verb followed by the number of lines to display. To execute a command from the history list, type ***`!x`***, where ***`x`*** is the number of the command. For example, if the **`history`** verb displayed the following history of commands: **`history`** *`1,control remote back back`* *`2,get camera position`* *`3,control call dial redial:1`* `ok,00` then, **`!2`** would execute command 2 (**`get camera position`**). The history is persistent across shell invocations.

Standard Options

All of the command verbs support a small set of standard command line options to provide a basic level of consistency.

Provide Help: -h

All commands provide basic usage information for interactive users. Specify the **`-h`** option in the command at any point in the argument list. When you specify **`-h`** at any level other than that of a completed command, a list of all possible completions appears (**`-h`** is ignored in this case). Command help is available only when help mode is enabled. For example:

```
get system model -h
Usage: get system model [-?] [-D c] [-V] [-h]
-?          Display the column headers, even in terse mode
-D c        Specify an alternate delimiter character in
            terse mode (default is ',')
-V          Enable verbose output mode
-h          Produce this message

ok,00
```

Enable Verbose Output: -V

By default, command output appears in terse format suitable for processing by scripts. If you specify **`-V`** , output appears in a tabular format with headers describing each column. A minimum of two spaces separate each column value. This format is suitable for human parsing and for use during prototyping. The order of the columns presented in verbose and terse modes is the same, so you can rely on the output in verbose mode to guide column selection in terse mode. To enable verbose permanently, set verbose-mode to **`on`**.

Set the Terse Mode Column Delimiter: -D <c>

The default column delimiter in terse mode is the comma (',') character. Use the **-D** option to change the delimiter to any single character other than space (ASCII 0x20) or newline (ASCII 0x0a) . The first character of the argument to **-D** is the new delimiter character. When outputting data in terse mode, any occurrence of the delimiter character in the output is replaced with the space character. The **-D** option and the **-V** option (or enabling verbose mode as a default) are mutually exclusive. In the event both are specified, **-D** is ignored. For example:

```
get system model -D |
LifeSize|Room

ok|00
```

Standard Output Format

All of the internal commands produce output in a specific format, based on the default output mode or the presence of the **-V** option.

Terse Mode Output

Terse mode is the default output mode. It is designed to be easily parsed by shell scripts and automated programs. The general format of the output is rows of comma-separated text. To change the separation character, specify the **-D** option. The completion code for the command is also sent to the output stream. For example:

```
get network ipv4
static,10.10.100.5,255.255.255.0,10.10.100.1,00:13:fa:00:24:a1,
   jsmith-ls

ok,00

get unknown-target

error,09
```

To allow differentiation between command output and the completion code output, a single newline is always inserted between the last line of command output and the completion code. Command output is not allowed to contain any blank lines. The completion code is printed as <*status*>,<*code*> where status is either *ok* or *error* and code is a two digit hexadecimal number. A code value of 00 indicates success of the command. Any other value indicates an error condition.

Verbose Mode Output

Verbose mode is enabled by specifying the **-V** option to a command. It may also be enabled globally by setting verbose mode to **on**. Verbose mode is designed for human parsing and is formatted in a tabular style. Verbose mode is not intended to be parsed by automated scripts. For example:

```
get network ipv4 -V
Type    IP Address   Network Mask   Gateway       MAC Address
static  10.10.100.5  255.255.255.0  10.10.100.1   00:13:fa:00:24:a1

ok

get unknown-target

error 09 Target not recognized
```

Show Column Headings in Terse Mode: -?

To show column headings from verbose mode while in terse mode, specify the **-?** option to a command. In this mode, the column headings from verbose mode appear on the first line of output separated by commas, followed by terse mode output on the next line. For example:

```
get system model -?
OEM,Model
LifeSize,Room

ok,00
```

Standard Return Codes

All CLI commands return a standard error code on completion. You can access the following table of return codes using the **`help errors`** command.

Return Code		Mnemonic	Description
Dec	**Hex**		
0	00	Ok	The command completed successfully.
1	01	NoMemory	The command failed due to a loss of memory.
2	02	IOError	The command failed due to a file read/write/open error.
3	03	InvalidInstance	The command failed due to data corruption.
4	04	InvalidParameter	An incorrect option or argument was specified on the command line.
5	05	Repeated	A non-repeatable option or argument was repeated.
6	06	NotInList	The specified option or argument value was not in the selection list.
7	07	Missing	A required option or argument was not specified.
8	08	TooMany	Too many arguments were specified.
9	09	InvalidCommand	The command entered was not found.
10	0a	AmbiguousCommand	The command entered is ambiguous.
11	0b	ParameterConflict	Two or more mutually exclusive options were specified.
12	0c	OperationalError	The command failed for unspecified reasons.
13	0d	NoData	No data is available for this operation (no active calls) or the command timed out.
14	0e	NotInCall	The command requires an active call for operation.
15	0f	Interrupted	The command was interrupted.
16	10	Ambiguous	The directory selection is ambiguous (matches multiple entries).
17	11	NoMatch	The directory selection does not match any entries.
18	12	NotSupported	The far end of the call does not support presentations.

Generating the Command Listing

To generate a complete list of the commands available in the CLI shell, execute the following:

```
% set help-mode on

ok,00
% help
control
get
exit
help
history
set
status

ok,00
% control
<control command list>

ok,00
% get
<get command list>
...
```

The result is a list of the supported commands available in the CLI with the exception of the help, history, and exit top level commands.

get and set Verbs: Objects and Targets

This chapter identifies objects and targets that are applicable to the **`get`** and **`set`** verbs. Most of the objects and targets apply to both verbs. Where only one of the verbs applies, the description and examples specify the verb.

admin

The **`admin`** object controls configuration of administrator functions in the interface. This object applies to the **`set`** verb. The following targets apply to the **`admin`** object.

password

The **`password`** target sets the password for access to the administrator preferences. This target applies to the **`set`** verb.

Arguments:

`<value>`	The new administrator password. The password can be an empty string, the numbers 0-9 and/or the symbols * and #. The password is silently truncated to 16 characters.

Examples:

```
set admin password 12345*#

ok,00

set admin password -V abcdef

error  04  Invalid Parameter
```

audio

The following targets are applicable to the **`audio`** object.

active-mic

When used with the **`get`** verb, the **`active-mic`** target shows the input option chosen as the active microphone for audio input during calls. This shows the option selected rather than the status of the input. To view the status of the input, use the **`get audio current-mic`** command.

When used with the **`set`** verb, this target specifies the input option to use as the active microphone for audio input during calls.

get Arguments:

None

get Examples:

```
get audio active-mic
phone

ok,00

get audio active-mic -V
Active
phone

ok
```

set Arguments:

`<{auto|phone|micin|micin_noaec|linein|linein_noaec|cam|hd0|hd1}>`	Specify the active microphone. The `phone` argument specifies the LifeSize Phone connected to the system. The `micin` and `micin_noaec` arguments specify a microphone connected to the microphone input on the codec. Use `micin_noaec` when the microphone has its own acoustic echo canceller. The `micin` and `micin_noaec` arguments are available only on codecs that have a microphone input on the codec (newer LifeSize Room systems, LifeSize Team MP, and LifeSize Express). The `linein` and `linein_noaec` arguments specify a microphone connected to the line input on a LifeSize Team codec or an older LifeSize Room codec that does not have a microphone input. Use `linein_noaec` when the microphone has its own acoustic echo canceller. The `cam` argument specifies the active camera connected to a LifeSize Room codec. The `hd0` and `hd1` arguments specify the camera 1 or camera 2 respectively. The hd1 argument is available on LifeSize Room only. The `auto` argument specifies a default order of selection based on the inputs available on the system: Phone, Microphone In, Active Camera, Inactive Camera, Camera 1. The system does not automatically choose line in.

set Examples:

```
set audio active-mic auto

ok,00
```

audio-output

When used with the **`get`** verb, the audio-output target shows the output destination that is set for audio output when placing a voice call. When used with the **`set`** verb, this target specifies the output destination for audio from a voice call: either to an attached LifeSize Phone, or to the line out or HD out on the codec. If a LifeSize Phone is not attached, this setting is ignored and audio is always directed to the line out or HD output port.

get Arguments:

None

get Examples:

```
get audio audio-output
phone

ok,00

get audio audio-output -V
Destination
room

ok
```

set Arguments:

`<{phone|room}>`	Specify the output port for voice call audio. Choose ***`room`*** to send the audio to the line out port. Choose ***`phone`*** to send the audio to an attached LifeSize Phone.

set Examples:

```
set audio audio-output room

ok,00
```

codecs

When used with the **`get`** verb, the **`codecs`** target retrieves the codec priority list. This list determines the order in which the audio codecs are used when connecting to other systems. When used with the **`set`** verb, this target changes the order in which the audio codecs are used when negotiating with a remote system. The list you specify is in highest priority to lowest priority order. For greatest compatibility, list all available codecs. Each codec may be listed only once.

get Arguments:

None

get Examples:

```
get audio codecs
aac-lc g.722.1c.48 g.722.1c.32 g.722.1c.24 g.722 g.729 g.728
   g.711.u g.711.a

ok,00

get audio codecs -V
Codec Order
aac-lc g.722.1c.48 g.722.1c.32 g.722.1c.24 g.722 g.729 g.728
   g.711.u g.711.a

ok
```

Following are the available codecs:

Codec	CLI Name
AAC Low Complexity	aac-lc
Polycom® Siren™ 14 (48 kb/s)	g.722.1c.48
Polycom® Siren™ 14 (32 kb/s)	g.722.1c.32
Polycom® Siren™ 14 (24 kb/s)	g.722.1c.24
G.722	g.722
G.729	g.729
G.728	g.728
G.711 μ-Law	g.711.u
G.711 A-Law	g.711.a

set Arguments:

`<{aac-lc|g.722.1c.24|g.722.1c.32|g.722.1c.48|g.722|g.728|g.729|g.711.u|g.711.a}>`	Specify the order of the audio codecs to use. List each codec only once. LifeSize recommends that you list each codec on the command line for greatest compatibility.

set Examples:

```
set audio codecs aac-lc g.722 g.722.1c.48 g.722.1c.32 g.722.1c.24
   g.711.a g.711.u g.728 g.729

ok,00
```

current-mic

The **`current-mic`** target shows the input currently used as the active microphone for audio input during calls. This information appears in the System Information page in the user interface as the value of the **Active Microphone** field. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get audio current-mic
phone

ok,00
get audio current-mic -V
Value
phone

ok
```

eq

When used with the get verb, the **`eq`** target retrieves the bass and treble equalization settings. When used with the set verb, this target sets the bass and treble equalization parameters.

get Arguments:

None

get Examples:

```
get audio eq
0,-3

ok,00

get audio eq -V
Bass     Treble
4        -5

ok
```

set Arguments:

`[-b {-10..10}]`	Specify the bass equalization value.
`[-t {-10..10}]`	Specify the treble equalization value.

set Examples:

```
set audio eq -b -5 -t 6

ok,00
```

gain

When used with the **`get`** verb, the gain target, retrieves the current setting for the active microphone volume. When used with the **`set`** verb, this target specifies the setting for the active microphone volume on a scale of 0 to 20.

get Arguments:

None

get Examples:

```
get audio gain
5

ok,00

get audio gain -V
Gain
5

ok
```

set Arguments:

`<{0..20}>`	Specify the gain factor for the microphone input. Use larger numbers for more gain.

set Examples:

```
set audio gain 8

ok,00
```

mapping

When used with the **`get`** verb, the **`mapping`** target shows the video sources that are used with the auxiliary audio input. When used with the **`set`** verb, this target changes the mapping of video sources to auxiliary audio input. This target is only valid on LifeSize Room.

get Arguments:

None

get Examples:

```
get audio mapping
vga0

ok,00

get audio mapping -V
Association
any

ok
```

set Arguments:

`<{any|sd0|sd1|vga0}>`	Associate the auxiliary audio input with the specified video input. Choose ***any*** to have the auxiliary audio input delivered when any of sd0 (document camera), sd1 (VCR or DVD) or vga0 (VGA input) is displayed.

set Examples:

```
set audio mapping sd0

ok,00
```

mute

When used with the **`get`** verb, the **`mute`** target retrieves the current setting of the local audio mute function. When used with **`set`** verb, this target controls whether or not the local audio inputs are muted.

get Arguments:

None

get Examples:

```
get audio mute
off

ok,00

get audio mute -V
State
on

ok
```

set Arguments:

`<{on|off}>`	Mute or unmute the local audio inputs.

set Examples:

```
set audio mute on

ok,00
```

test-tone

The **`test-tone`** target sends a test tone to the various audio output ports on the codec. Use this target to verify that the speakers and other audio output devices are connected correctly when installing the system. The **`test-tone`** target applies to the **`set`** verb.

Arguments:

`[-c]`	Send the test tone to the center channel speaker output (if equipped)
`[-l]`	Send the test tone to the left channel speaker output
`[-r]`	Send the test tone to the right channel speaker output
`[-L]`	Send the test tone to the left auxiliary output (if equipped)
`[-R]`	Send the test tone to the right auxiliary output (if equipped)
`[-o]`	Turn off the test tone
`[-s n]`	Send the test tone to the left, center, right, left aux and right aux outputs in that order for 5 seconds per output making n complete circuits. On systems without center or auxiliary outputs, those outputs will be skipped. Note that the command does not return output until the cycle completes.

Note: Only one option can be specified at a time.

Examples:

```
set audio test-tone -r

ok,00

set audio test-tone -o

ok,00
```

When everything is configured, verify with:

```
set audio test-tone -s 1

ok,00
```

video-output

When used with the **`get`** verb, the **`video-output`** target retrieves the current output destination for audio received during a video call. When used with the **`set`** verb, this target controls whether the video call audio output is line out for the phone or the room.

get Arguments:

None

get Examples:

```
get audio video-output
phone

ok,00

get audio video-output -V
Destination
room

ok
```

set Arguments:

`<{room|phone}>`	Choose line out (`room`) or LifeSize Phone (`phone`) as the audio output device for video calls.

set Examples:

```
set audio video-output phone

ok,00
```

call

The following targets are applicable to the **`call`** properties object.

auto-answer

When used with the **`get`** verb, the **`auto-answer`** target retrieves the current value of the auto answer setting for the first call. When used with the **`set`** verb, this target controls whether or not the system automatically answers the first incoming call.

get Arguments:

None

get Examples:

```
get call auto-answer
on

ok,00

get call auto-answer -V
State
off

ok
```

set Arguments:

<{on|off}>	Enable or disable auto answer for the first incoming call.

set Examples:

```
set call auto-answer on

ok,00
```

auto-bandwidth

When used with the **`get`** verb, the **`auto-bandwidth`** target retrieves the current setting for automatic bandwidth negotiation when placing or receiving calls. When used with the **`set`** verb, this target enables or disables automatic bandwidth negotiation when placing and answering calls.

get Arguments:

None

get Examples:

```
get call auto-bandwidth
on

ok,00

get call auto-bandwidth -V
Bandwidth Negotiation
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable automatic bandwidth negotiation.

set Examples:

```
set call auto-bandwidth on

ok,00
```

auto-multiway

When used with the **`get`** verb, the **`auto-multiway`** target retrieves the current value of the auto answer multiway call preference. When used with the **`set`** verb, the **`auto-multiway`** target controls whether or not the system automatically answers incoming multi-way calls after the first call has connected.

get Arguments:

None

get Examples:

```
get call auto-multiway
on

ok,00

get call auto-multiway -V
State
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable auto answer of multiway calls.

set Examples:

```
set call auto-multiway off

ok,00
```

auto-mute

When used with the **`get`** verb, the **`auto-mute`** target retrieves the current value of the auto answer mute preference which indicates whether or not the audio input devices are muted when the system automatically answers the first call. When used with the **`set`** verb, this target controls whether or not the system automatically mutes the microphone inputs when it automatically answers the first incoming call.

get Arguments:

None

get Examples:

```
get call auto-mute
on

ok,00

get call auto-mute -V
State
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable muting of the microphones audio inputs when answering a call.

set Examples:

```
set call auto-mute off

ok,00
```

dial-mode

When used with the **`get`** verb, the **`dial-mode`** target retrieves the current settings for the voice (if applicable) and video dialing preferences. When used with the **`set`** verb, this target configures the default audio (if applicable) and video dialing modes. Because LifeSize Express does not support PSTN, the audio dialing preference for LifeSize Express is always set to VOIP and is neither reported nor configurable.

get Arguments:

None

get Examples:

LifeSize Room, LifeSize Team, and LifeSize Team MP:

```
get call dial-mode
isdn,ip

ok,00

get call dial-mode -V
Video Dial Mode      Audio Dial Mode
ip                   tone

ok
```

LifeSize Express:

```
get call dial-mode -V
Video Dial Mode
auto

ok
```

set Arguments:

`[-a {voip|tone|pulse}]`	Set the default voice call dialing mode to VOIP, touch tone or pulse dialing. Not valid with LifeSize Express.
`[-v {auto|ip|isdn}]`	Set the default video call dialing mode to automatic, IP based or ISDN based. Automatic attempts to determine the correct dialing mode from the dialed digits.

set Examples:

```
set call dial-mode -a voip -v ip

ok,00
```

LifeSize Express:

```
set call dial-mode -v auto

ok
```

max-redial-entries

When used with the **`get`** verb, the **`max-redial-entries`** target retrieves the value of the setting for the maximum number of redial entries that may be stored in the directory. When used with the **`set`** verb, this target controls the number of redial entries that may be stored in the redial list.

get Arguments:

None

get Examples:

```
get call max-redial-entries
11

ok,00

get call max-redial-entries -V
Quantity
9

ok
```

set Arguments:

`<{0..15}>`	Specify the maximum number of entries in the redial list.

set Examples:

```
set call max-redial-entries 11

ok,00
```

max-speed

When used with the **`get`** verb, the **`max-speed`** target retrieves the current setting for the maximum incoming and outgoing bandwidth usable by a call. Speed is reported in kilobits per second. When used with the **`set`** verb, this target controls the current settings for the maximum incoming and outgoing bandwidth usable by a call.

get Arguments:

None

get Examples:

```
get call max-speed
1024,768

ok,00

get call max-speed -V
Incoming            Outgoing
512                 1024

ok
```

set Arguments:

[-i {auto|128|192|256|320|384|512|640|768|896|1024|1152|1472|1728|1920|2000|2500|3000|4000|5000|6000}]	Specify the maximum incoming bandwidth in kb/s to be used by a call. Bandwidths greater than 4000 kilobits per second (kb/s) are not supported on LifeSize Team and LifeSize Team MP. Bandwidths greater than 2000 kb/s are not supported on LifeSize Express.
[-o {auto|128|192|256|320|384|512|640|768|896|1024|1152|1472|1728|1920|2000|2500|3000|4000|5000|6000}]	Specify the maximum outgoing bandwidth in kb/s to be used by a call. Bandwidths greater than 4000 kilobits per second (kb/s) are not supported on LifeSize Team and LifeSize Team MP. Bandwidths greater than 2000 kb/s are not supported on LifeSize Express.

set Examples:

```
set call max-speed -i 512 -o auto

ok,00
```

max-time

When used with the **`get`** verb, the **`max-time`** target retrieves the maximum time that a call can be active. When used with the **`set`** verb, this target controls the maximum time that a call can be active.

get Arguments:

None

get Examples:

```
get call max-time
unlimited

ok,00

get call max-time -V
Time In Hours
4

ok
```

set Arguments:

`<{1|2|4|6|8|24| unlimited}>`	Specify the maximum time in hours that a call can be active.

set Examples:

```
set call max-time unlimited

ok, 00

set call max-time 4

ok,00
```

camera

The following targets are applicable to the **`camera`** object.

active

When used with the **`get`** verb, the **`active`** target retrieves the current active high definition camera. Only one HD camera can be active at a time. This command always returns camera 1 on systems that support only one camera. When used with the **`set`** verb, this target applies to LifeSize Room only and controls which of the high definition cameras is active. Only one HD camera may be active at a time. The active HD camera may also be affected by the **`set video primary-input`** and **`set video secondary-input`** commands.

get Arguments:

None

get Examples:

```
get camera active
1

ok,00

get camera active -V
Camera
2

ok
```

set Arguments:

`<{1|2|o}>`	Specify the new active camera; either 1, 2, or the inactive camera.

set Examples:

```
set camera active 1

ok,00

set camera active o

ok,00
```

anti-flicker

When used with the **`get`** verb, the **`anti-flicker`** target retrieves the current anti-flicker setting for the cameras. When used with the **`set`** verb, this target controls the flicker avoidance setting of the cameras. If the local video image flickers, try the various arguments to see if the flicker goes away. Flicker is usually caused by florescent lighting.

get Arguments:

None

get Examples:

```
get camera anti-flicker
auto

ok,00

get camera anti-flicker -V
Mode
60Hz

ok
```

set Arguments:

`<{auto|50hz|60hz}>`	Specify the anti-flicker setting for the cameras.

set Examples:

```
set camera anti-flicker 50hz

ok,00
```

brightness

When used with the **`get`** verb, the **`brightness`** target retrieves the current brightness adjustment value for the camera. When used with the **`set`** verb, this target controls the brightness value for the camera's automatic iris function. Negative numbers decrease the overall brightness; positive numbers increase brightness.

get Arguments:

None

get Examples:

```
get camera brightness
-20

ok,00

get camera brightness -V
Adjustment
25

ok
```

set Arguments:

`<{-30..30}>`	Specify the brightness adjustment value. Negative numbers darken the image; positive numbers lighten it. If you specify a negative number, include the double dash option (`--`) before the negative number to prevent the CLI from interpreting the negative number as an option rather than an argument. Refer to the following examples.

set Examples:

```
set camera brightness 3

ok,00

set camera brightness -- -5

ok,00
```

far-control

When used with the **`get`** verb, the **`far-control`** target retrieves the current state of the far control of the near camera setting. When used with the **`set`** verb, this target enables or disables far control of the near camera function.

get Arguments:

None

get Examples:

```
get camera far-control
enabled

ok,00

get camera far-control -V
State
disabled

ok
```

set Arguments:

<{enabled|disabled}>	Specify whether far control of the near camera is enabled or disabled.

set Examples:

```
set camera far-control disabled

ok,00
```

far-set-preset

When used with the **`get`** verb, the **`far-set-preset`** target shows whether or not the far end of a call can set local presets. When used with the **`set`** verb, this target controls whether or not the far end of a call can set presets on the near camera.

get Arguments:

None

get Examples:

```
get camera far-set-preset
disabled

ok,00

get camera far-set-preset -V
State
enabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Specify whether or not the far end can set presets on the near camera.

set Examples:

```
set camera far-set-preset enabled

ok,00
```

far-use-preset

When used with the **`get`** verb, the **`far-use-preset`** target shows whether or not the far end of a call can move the near camera to local presets. When used with the **`set`** verb, this target controls whether or not the far end of a call can move the near camera to local presets.

get Arguments:

None

get Examples:

```
get camera far-use-preset
disabled

ok,00

get camera far-use-preset -V
State
enabled

ok
```

set Arguments:

`<{enabled|disabled}>`	Specify whether far end can move to presets.

set Examples:

```
set camera far-use-preset disabled

ok,00
```

lock

When used with the **`get`** verb, the **`lock`** target retrieves the current state of the camera lock mechanism which reveals whether the camera motors are locked in place (*`on`*) or not (*`off`*). When used with the **`set`** verb, this target enables or disables camera motor movement. You cannot move or zoom a camera that is locked.

get Arguments:

None

get Examples:

```
get camera lock
1,off
2,on

ok,00

get camera lock -V
Camera     Lock Mode
1          off
2          on

ok
```

set Arguments:

`[-N <{1|2}>]`	Specify the camera to lock (LifeSize Room only). If not specified, all cameras are locked.
`<{on|off}>`	Enable or disable the lock.

set Examples:

```
set camera lock on

ok,00

set camera lock -N 2 off

ok,00
```

lock-preset

When used with the **`get`** verb, the **`lock-preset`** target shows whether or not the camera presets are locked in memory. When used with the **`set`** verb, this target controls whether or not the presets are locked. When the presets are locked, they cannot be modified with the remote control or by the far end in a call. This does not affect setting presets with the **`set camera preset`** command.

get Arguments:

None

get Examples:

```
get camera lock-preset
on

ok,00

get camera lock-preset -V
Preset Lock
off

ok
```

set Arguments:

`<{on|off}>`	Specify whether the preset lock is on or off.

set Examples:

```
set camera lock-preset on

ok,00
```

pan-dir

When used with the **`get`** verb, the **`pan-dir`** target retrieves the current setting for the camera pan direction. This setting affects the direction the camera moves when using the left and right buttons on the remote control, but does not affect the **`-l`** and **`-r`** arguments of the **`set camera position`** command. When used with the **`set`** verb, this target determines whether the camera pans in the direction it is perceived by the user when the user is facing the camera, or in the reverse from the camera's point of view.

get Arguments:

None

get Examples:

```
get camera pan-dir
perceived

ok,00

get camera pan-dir -V
Mode
reversed

ok
```

set Arguments:

`<{perceived|reversed}>`	Specify the direction of pan.

set Examples:

```
set camera pan-dir perceived

ok,00
```

position

When used with the **`get`** verb, the **`position`** target retrieves the position of the specified camera, 1, 2, or other (inactive). The default retrieves the position of the active camera. When used with the **`set`** verb, this target controls the current position of the near camera. Using the absolute position commands, you can recall a preset position. Using the motion commands, remote control of the camera is possible through press and release button mappings.

get Arguments:

`-N {1 | 2 | o}`	Retrieves the position of the specified camera, 1, 2, or other (inactive). The `-N` argument is supported only with LifeSize Room.
`-e`	Retrieve the position in exact coordinates using floating point representation.

get Examples:

```
get camera position
-30,5,15

ok,00

get camera position -D | -N 2
45|5|35

ok,00

get camera position -V
Pan     Tilt     Zoom
45      -5       30

ok

get camera position -e
44.39,-5.02,29.87

ok,00
```

The ranges of the pan, tilt, and zoom values are shown in the following table. The camera may not be able to reach the maximum and minimum values for each parameter (for example, sending a command to the camera to pan to -45 may return a value other than -45). This is normal. Due to sensor resolution limits, one of the camera position parameters may change slightly when another position is modified (for example, adjusting the tilt angle may slightly affect the pan position). The ranges allowed are designed for future compatibility; therefore, your camera may not reach the limits.

Camera	**Pan**	**Tilt**	**Zoom**
LifeSize PTZ	-45 to 45 degrees	-30 to 30 degrees	0 to 100
Sony PTZ (with the LifeSize SDI Adapter)	-100 to 100 degrees	-25 to 25 degrees	0 to 100

set Arguments:

`[-p <{-180.0..180.0}>]`	Specify the absolute pan angle. The range is -180 to +180 and represents the degrees left (negative) or right (positive) of the center position from which the camera pans. Use floating point notation to increase the precision of movement. Cannot be used with -r, -l, -u, -d, -n, -f, -s, or -c.
`[-t <{-90.0..90.0}>]`	Specify the absolute tilt angle. The range is -90 to +90 and represents the degrees below (negative) or above (positive) horizontal from which the camera tilts. Use floating point notation to increase the precision of movement. Cannot be used with -r, -l, -u, -d, -n, -f, -s, or -c.
`[-z <{0.0.100.0}>]`	Specify the absolute zoom position. The range is 0 to 100 and represents the range of the zoom lens from widest angle (0) to narrowest angle (100). Use floating point notation to increase the precision of movement. Cannot be used with -r, -l, -u, -d, -n, -f, -s, or -c.
`[-l]`	Specify that the camera pans to the left. Cannot be used with any other argument except -c.
`[-r]`	Specify that the camera pans to the right. Cannot be used with any other argument except -c.
`[-d]`	Specify that the camera tilts down. Cannot be used with any other argument except -c.
`[-u]`	Specify that the camera tilts up. Cannot be used with any other argument except -c.
`[-n]`	Specify that the camera zooms in (telephoto). Cannot be used with any other argument except -c.
`[-f]`	Specify that the camera zooms out (widens). Cannot be used with any other argument except -c.

`[-s]`	Specify that the camera stop all movements. Cannot be used with any other argument except -c.
`[-c n]`	Specify that the camera control operation is applied to the far camera for the specified call. Cannot be used with -p, -t, or -z.
`[-N <{1|2|o}>]`	Specify a camera to apply the change. Cannot be used with -r, -l, -u, -d, -n, -f, -s, or -c. By default, the active camera is controlled. The continuous motion commands cannot be used because the inactive camera's video stream is not available. This is applicable to LifeSize Room only.
`[-P <{0..19}>]`	Specify the preset to use. Can only be used with the -N option when the preset 0 is selected. This command moves the camera indicated by the preset to the position specified by the preset.

set Examples:

Note: The double dash (--) in the following input is not required, because `-15` is an argument to the option `-t`.

```
set camera position -p 34 -t -15

ok,00
```

Start the camera panning left, then zoom in and stop all operations:

```
set camera position -l

ok,00

set camera position -n

ok,00

set camera position -s

ok,00
```

Start the far camera panning left in call 1:

set camera position –r –c *1*

```
ok,00
```

Note: The command completes immediately and does not wait for the camera to complete the operation.

Move the inactive camera to a specific position:

set camera position –N *o* -p *17* -t *19* -z *30*

```
ok,00
```

Move to a specific preset position:

set camera position –P *12*

```
ok,00
```

Move to a specific position using floating point notation:

set camera position -p *15.32* -t *-14.3* -z *32.24*

```
ok,00
```

preset

When used with the **`get`** verb, the **`preset`** target retrieves the preset position information for the cameras. The output may be restricted to a specific camera or a specific preset or set of presets. The preset position stores the associated camera and its pan, tilt, and zoom location. When used with the **`set`** verb, this target stores the preset positions for the camera in the codec's memory. Up to 19 different positions can be stored. Positions 1-9 are recallable through the remote control (in addition to the special position 0) and positions 10-19 are only recallable using the CLI.

get Arguments:

`-N {1 | 2 | a | o}`	Retrieves the position of the specified camera, 1, 2, active, or other (inactive). The default is to retrieve all presets. This argument is only supported with LifeSize Room.
`-P {0..19}`	Retrieves a specific preset, which may be specified multiple times to retrieve several preset positions. Presets are listed in the same order as given on the command line.
`-e`	Retrieve the position using exact coordinates through floating point representation.

get Examples:

```
get camera preset
0,any,0,0,13
1,1,0,0,50
2,2,-20,10,35
3,1,10,-5,0

ok,00
```

```
get camera preset -V -P 3 -P 2 -P 0
Preset    Camera    Pan      Tilt     Zoom
3         1         10       -5       0
2         2         -20      10       35
0         any       0        0        13

ok
```

```
get camera preset -N a
0,any,0,0,13
1,1,0,0,50
3,1,10,-5,0

ok,00

get camera preset -e
0,any,0.00,0.00,13.75
1,1,0.00,0.00,50.01
2,2,-19.57,10.23,0.45
3,1,9.87,-4.93,0.45

ok,00
```

set Arguments:

`[-N <{1|2|a|o}>]`	Specify the camera to which the preset applies (1, 2, active, or inactive).This argument is valid on LifeSize Room only.
`-P <{1..19}>`	Specify the preset position to store.
`[-p <-180.0..180.0}>]`	Specify the pan position of the preset. The default is the current position of the selected camera. Use floating point notation to increase the precision of the movement.
`[-t <{-90.0..90.0}>]`	Specify the tilt position of the preset. The default is the current position of the selected camera. Use floating point notation to increase the precision of the movement.
`[-z <{0.0..100.0}>]`	Specify the zoom position of the preset. The default is the current position of the selected camera. Use floating point notation to increase the precision of the movement.

set Examples:

Set preset 2 to the active camera's current position:

```
set camera preset -P 2
```

```
ok,00
```

Set preset 3 to the inactive camera's current position:

```
set camera preset -P 3 -N o
```

```
ok,00
```

Set preset 4 to a specific position for camera 1:

```
set camera preset -P 4 -N 1 -p 28 -t 4 -z 20
```

```
ok,00
```

Use floating point notation for more precision:

```
set camera preset -P 5 -N 1 -p 25.3 -t 14.9 -z 12.2
```

```
ok,00
```

serial-control

When used with the **`get`** verb, the **`serial-control`** target shows the current setting for the serial control mechanism for all camera ports. This setting is only used when a LifeSize SDI Adapter is connected to a camera port. When used with the **`set`** verb, this target controls whether a camera connected to a LifeSize SDI Adapter is controlled through the codec's serial port or the camera's remote control. If controlled by the serial port, the camera's pan/tilt/zoom function and various camera settings can be controlled directly from the LifeSize remote and user interface, instead of the camera's remote control.

get Arguments:

None

get Examples:

LifeSize Room:

```
get camera serial-control -V
Camera 1     Camera 2
none         on-board

ok
```

LifeSize Team, LifeSize Team MP, and LifeSize Express:

```
get camera serial-control
none

ok,00
```

set Arguments:

`-N <{1|2}>`	Specify the camera to which the setting applies. This argument applies to LifeSize Room only.
`{on-board|none}`	Specify the serial control option. The `on-board` option uses the corresponding serial port on the system (for example, serial port 1 for camera port 1) to control the camera. The `none` option disables the codec's control of the camera and prevents it from automatically changing the configuration of the associated serial port. If `none` is selected, you must use either the camera's remote control or a third-party controller (for example, a Crestron or AMX panel). On LifeSize Team, LifeSize Team MP, and LifeSize Express, the only valid value is `none` because these products do not have external serial ports. This command is provided on those platforms for future expansion.

Note: Disabling serial control mode is normally used when there are more serial devices to connect to the codec than there are serial ports (for example, using two LifeSize SDI Adapters and a Crestron/AMX panel connected through the serial port). In this case, the camera corresponding to the serial port connected to the panel would be set to disabled through this command and then configured as desired for the panel.

set Examples:

```
set camera serial-control -N 2 none

ok,00
```

type

The **`type`** target shows the type of cameras connected to the system. This information appears on the System Information page in the user interface following status information about connected cameras as the value for the **Type** field. Possible values include:

- `none`
- `ptz`

  Pan, tilt, and zoom camera
- `fixed_focus`

  Fixed-focus camera with microphones
- `adapter`

  Camera connected through a LifeSize SDI Adapter

This target applies to the **`get`** verb.

Arguments:

None

Examples:

LifeSize Room:

```
get camera type
ptz,none

ok,00

get camera type -V
Camera 1  Camera 2
ptz       none

ok
```

LifeSize Team, LifeSize Team MP, and LifeSize Express:

```
get camera type
ptz

ok,00

get camera type -V
Camera 1
ptz

ok
```

white-balance

When used with the **`get`** verb, the **`white-balance`** target retrieves the current white balance setting for the cameras. When used with the **`set`** verb, this target sets the current white balance setting for the specified camera.

get Arguments:

None

get Examples:

LifeSize Room with two cameras:

```
get camera white-balance
auto,incan

ok,00

get camera white-balance -V
Camera 1     Camera 2
halogen      incan-3200k

ok
```

Lifesize Team, LifeSize Team MP or LifeSize Express (1 camera only):

```
get camera white-balance
auto

ok,00
```

set Arguments:

`[-N <{1|2|a|o}>]`	Specify the camera to which the preset applies (1, 2, active or inactive). This argument applies to LifeSize Room only.
`<{auto|indoor1|indoor2|outdoor|incan|incan-3200k|halogen}>`	Set the white balance to the specified setting.

set Examples:

LifeSize Room:

```
set camera white-balance -N 1 halogen

ok,00
```

Lifesize Team, LifeSize Team MP, or LifeSize Express (1 camera only):

```
set camera white-balance indoor1

ok,00
```

conference

The following targets are applicable to the **`conference`** object.

presence-mode

When used with the **`get`** verb, the **`presence-mode`** target reports whether the display shows all conference participants or only the most recent speaker. When used with the **`set`** verb, this target changes how video from connected parties appears in the display during a conference call. The presence-mode target applies to LifeSize Room systems only.

get Arguments:

None

get Examples:

```
get conference presence-mode
continuous

ok,00

get conference presence-mode -V
Presence Mode
last-talker

ok
```

set Arguments:

<{continuous|last-talker}>	Specify ***continuous*** to show all parties in the conference. Specify ***last-talker*** to show the most recent speaker.

set Examples:

```
set conference presence-mode last-talker

ok,00
```

presentation

The **presentation** target reports whether or not the conference supports H.239 and is presentation capable.

Arguments:

<conference>	The number of the conference to check.

Examples:

```
get conference presentation 1
off

ok,00
```

```
get conference presentation -V 1
Presentation Capable
on

ok
```

security

When used with the **`get`** verb, the **`security`** target reports whether or not encryption is required for conference calls. When used with the **`set`** verb, this target enables or disables the use of encryption for conference calls.

get Arguments:

None

get Examples:

```
get conference security
off

ok,00

get conference security -V
H.235 Encryption
strict

ok
```

set Arguments:

`<{off|on|strict}>`	Specify ***`off`*** to disable encryption. Specify ***`on`*** to allow encryption. Specify ***`strict`*** to require encryption.

set Examples:

```
set conference security strict

ok,00
```

config

When used with the **`get`** verb, the **`config`** target retrieves the current configuration for the system. This includes all saved parameters currently configurable by the CLI. The output is in the form of a script suitable for execution by the CLI. Before using the script with the **`set config`** command to restore the configuration of a system, you must edit the script as follows:

- Stored passwords are replaced by tokens surrounded by '###' characters (e.g., ###password###). Replace the these characters and tokens with the password.
- The system must be rebooted after the configuration is applied. Delete the trailing `ok,00` from the end of the script if it was captured. Append **`control reboot`** to the end of the script to effect a reboot.

When used with the **`set`** verb, this target allows reloading the system configuration from a script produced by **`get config`**. This is an alternate method to reading that script: it can also be fed directly to the CLI. The advantages are that the output of this command indicates the line numbers of failing commands in the script and the error codes of those commands and will exit with a return code indicating whether the entire script failed or succeeded. With the direct input method, the error messages for failing commands are mixed in with the output, and the exit code is that of the last command executed.

get Arguments:

`[-P]`	Export the file with all passwords except the shell password and snmp passwords. If you use this argument, all other passwords are visible without the pound (#) symbols.

get Examples:

```
sh% ssh auto@ip get config > codec_confg.as
sh%
```

To restore the configuration to a system using the direct input method:

```
sh% ssh auto@otherip < codec_config.as
command 1

ok,00
....
```

The output of the restore using the direct input method lists the executed commands followed by the return status of the command. Any command failures are indicated in the normal way. The script execution does not stop due to intermediate failures and the exit status of the script is the status of the final command that is executed.

set Arguments:

`[-i]`	Ignore errors in the script and execute to the end. The default executes up to the first error and then stops.

set Examples:

```
unix% ssh auto@ip get config > script
unix% vi script  # fix up passwords
unix% ssh auto@otherip set config -i -V < script
Line    Error    Note    Command
23      09       FIX     set admin password ###password###
325     09               set video secondary-background "Image"

error,09
```

directory

The following targets are applicable to the **`directory`** object.

auto

When used with the **`get`** verb, the **`auto`** target retrieves the configuration for the auto discovery daemon. When used with the **`set`** verb, this target controls configuration of the auto discovery daemon.

get Arguments:

None

get Examples:

```
get directory auto
On,10.10.11.* 10.10.10.*,192.168.*

ok,00

get directory auto -V
State          Searched Subnets          Ignored Subnets
On             10.10.11.* 10.10.10.*     192.168.*

ok
```

set Arguments:

`[-a]`	Append `-i` and `-s` options to the appropriate lists instead of replacing the lists.
`[-i ipaddr]`	Specify a subnet to ignore during discovery. For example, 10.10.11.* ignores all devices with an IP address of 10.10.11.0 through 10.10.11.255.
`[-s ipaddr]`	Specify a subnet to search during discovery. For example, 10.10.* searches all devices with an IP address of 10.10.0.0 through 10.10.255.255.
`<{on|off}>`	Enable or disable the auto discovery daemon.

Note: By default, the auto discovery daemon searches only the subnet defined by its IP address and network mask.

set Examples:

Discover on 10.10.11 and 10.10.12, ignore 10.10.10:

`set directory auto -s` ***`10.10.11.*`*** **`-s`** ***`10.10.12.*`*** **`-i`** ***`10.10.10.*`*** ***`on`***

```
ok,00
```

Add discovery on 10.10.13:

`set directory auto -s` ***`10.10.13.*`*** **`-a`** ***`on`***

```
ok,00
```

Reset discovery to 10.10.13 only, clearing ignored subnets too:

`set directory auto -s` ***`10.10.13.*`*** ***`on`***

```
ok,00
```

Turn off discovery entirely:

`set directory auto` ***`off`***

```
ok,00
```

corporate

The **`corporate`** target retrieves the corporate directory entries. These entries come from either the ldap server's directory if ldap is enabled, or through auto discovery if auto discovery is enabled. This target applies to the **`get`** verb.

Arguments:

`[-1 number]`	Restrict the listing to those entries whose Number column starts with the specified ISDN number.
`[-2 x]`	This argument is deprecated in software release v3.0. The column labeled `B2 Number` in the output in previous releases appears with the column label `X` and is unused.
`[-B]`	Send the data in a format suitable for processing by the **`set directory local -B`** command.
`[-C]`	Show only the number of entries matching the selection criteria.
`[-H hier]`	Restrict the listing to those entries whose Hierarchy column starts with the specified hierarchy grouping.
`[-a isdn-ac]`	Restrict the listing to those entries whose AC column starts with the specified ISDN area code.
`[-c isdn-cc]`	Restrict the listing to those entries whose CC column starts with the specified ISDN country code.
`[-i ip-addr]`	Restrict the listing to those entries whose IP Address column starts with the specified IP address.
`[-n count]`	Limit the output to count entries.
`[-s count]`	Skip the first count entries.
`[-t phone]`	Restrict the listing to those entries whose Voice column starts with the specified voice telephone number.
`[-v video]`	Restrict the listing to those entries whose Video column starts with the specified video number.
`[prefix]`	Restrict the listing to those entries starting with the specified prefix (case insensitive).

Examples:

get directory corporate

John Doe,,10.10.11.254,,,,,,,auto,auto
Mary Jane,,10.10.11.213,,,,,,,auto,auto
Noah James,,10.10.11.116,,,,,,,auto,auto
Steve Jones,,10.10.11.155,,,,,,,auto,auto
Test,,10.10.11.8,,,,,,,auto,auto

ok,00

get directory corporate –V

Name	Voice	Video	IP Address	CC	AC	Number	X	Hierarchy	IP BW	ISDN BW
John Doe		*10.10.11.254*							auto	auto
Mary Jane		*10.10.11.213*							auto	auto
Noah James		*10.10.11.116*							auto	auto
Steve Jones		*10.10.11.155*							auto	auto
Test		*10.10.11.8*							auto	auto

ok

get directory corporate *n*

Noah James,,10.10.11.116,,,,,,,auto,auto

ok,00

get directory corporate -B

John Doe||10.10.11.254|||||||auto|auto
Mary Jane||10.10.11.213|||||||auto|auto
Noah James||10.10.11.116|||||||auto|auto
Steve Jones||10.10.11.155|||||||auto|auto
Test||10.10.11.8|||||||auto|auto

ok,00

get dir corporate -C -V

Count
5

ok

Specification of multiple selection options results in output that is the logical and for all the conditions (each line must match all conditions specified). Regular expressions in and logical ordering of the selection criteria are not supported. The **`-n`** and **`-s`** arguments allow remote programs to page through the directory entries by limiting the range of entries shown.

local

When used with the **`get`** verb, the **`local`** target retrieves the local directory entries. When used with the **`set`** verb, this target edits the local directory and supports the use of here documents to load the directory. For more information about here documents, refer to “Here Documents” on page 21.

get Arguments:

`[-1 number]`	Restrict the listing to those entries whose Number column starts with the specified ISDN number.
`[-2 x]`	This argument is deprecated in software release v3.0. The column labeled `B2 Number` in the output in previous releases appears with the column label `X` and is unused.
`[-B]`	Send the data in a format suitable for processing by the **`set directory local -B`** command.
`[-C]`	Show only the number of entries matching the selection criteria.
`[-H hier]`	Restrict the listing to those entries whose Hierarchy column starts with the specified hierarchy grouping.
`[-a isdn-ac]`	Restrict the listing to those entries whose AC column starts with the specified ISDN area code.
`[-c isdn-cc]`	Restrict the listing to those entries whose CC column starts with the specified ISDN country code.
`[-i ip-addr]`	Restrict the listing to those entries whose IP Address column starts with the specified IP address.
`[-n count]`	Limit the output to count entries.
`[-s count]`	Skip the first count entries.
`[-t phone]`	Restrict the listing to those entries whose Voice column starts with the specified voice telephone number.

`[-v video]`	Restrict the listing to those entries whose Video column starts with the specified video number.
`[prefix]`	Restrict the listing to those entries starting with the specified prefix (case insensitive).

get Examples:

`get directory local`

```
John Doe,,,10.10.11.254,,,,Video,auto,auto
Mary Jane,,,10.10.11.213,,,,Video,auto,auto
Noah James,,,10.10.11.116,,,,Video,1024,auto
Steve Jones,,,10.10.11.155,,,,Video,auto,auto
Test,555.1212,10.10.11.8,1.2.3.4,52,215,5550199,,Audio,auto,128

ok,00
```

`get directory local –V`

Name	Voice	Video	IP Address	CC	AC	Number	X	Hierarchy	IP BW	ISDN BW
John Doe			*10.10.11.254*					Video	auto	auto
Mary Jane			*10.10.11.213*					Video	auto	auto
Noah James			*10.10.11.116*					Video	1024	auto
Steve Jones			*10.10.11.155*					Video	auto	auto
Test	*555.1212*	*10.10.11.8*	*1.2.3.4*	*52*	*215*	*5550199*		Audio	auto	128

```
ok
```

`get directory local n`

```
Noah James,,,10.10.11.116,,,,Video,1024,auto

ok,00
```

`get directory local -B`

```
John Doe|||10.10.11.254|||Video|auto|auto
Mary Jane|||10.10.11.213|||Video|auto|auto
Noah James|||10.10.11.116|||Video|1024|auto
Steve Jones|||10.10.11.155|||Video|auto|auto
Test|555.1212|10.10.11.8|1.2.3.4|52|215|5550199||Audio|auto|128

ok,00
```

```
get dir local -C -V
Count
5

ok
```

Specification of multiple selection options results in output that is the logical and for all the conditions (each line must match all conditions specified). Regular expressions in and logical ordering of the selection criteria are not supported. The **-n** and **-s** arguments allow remote programs to page through the directory entries by limiting the range of entries shown.

set Arguments:

`[-1 number]`	Set the ISDN number.
`[-2 x]`	This argument is deprecated in software release v3.0. In previous releases, this argument specified the ISDN B2 Number. The column labeled `B2 Number` in the output in previous releases appears with the column label `X` and is unused.
`[-B]`	Read data from standard input in batch mode. Accepts either the output of get local directory -B or the result of exporting the directory through the web administration interface. This argument cannot be used with any of the field set options.
`[-H hier]`	Specify the hierarchy for the entry. Use commas to delimit the hierarchy levels.
`[-K {auto|128|192|256|320|384|512|640|768|896|1024|1152|1472|1728|1920}]`	Set the bandwidth limit in kilobits per second (kb/s) for ISDN calls. The default is `auto`.
`[-a isdn-ac]`	Set the ISDN area code.
`[-c isdn-cc]`	Set the ISDN country code.
`[-d]`	Delete the specified entries. Only the name argument is used in single or batch mode. Matching entries are removed from the directory. Entries must match exactly (except for case).

`[-i ip-addr]`	Set the IP address for calls (used as backup if the video or telephone numbers are not specified.)
`[-k {auto|128|192|256|320|384|512|640|768|896|1024|1152|1472|1728|1920|2000|2500|3000|4000|5000|6000}]`	Set the bandwidth limit in kilobits per second for video calls. The default is `auto`. Speeds above `4000` kb/s are not available with LifeSize Team and LifeSize Team MP. Speeds above `2000` kb/s are not available with LifeSize Express.
`[-o]`	Overwrite existing entries. The default leaves existing entries unchanged.
`[-t phone]`	Set the voice telephone number.
`[-u]`	Update existing entries by merging new data with old data. The default leaves existing entries unchanged.
`[-v video]`	Set the video telephone number.
`name`	Set the name of the entry. Case is preserved, but is not significant in locating a matching entry. Cannot be used in batch mode.

set Examples:

Copy the local directory from one system to another:

```
sh$ ssh auto@room1 get directory local -B > localdir.txt
sh$ ssh auto@room2 set directory local -o -B < localdir.txt
```

Add an entry for “Sunbob” to the local directory stored hierarchically under Sun and then bob:

```
set directory local -i 10.10.10.11 -H Sun,bob Sunbob

ok,00
```

Update the sunbob entry to include a voice number:

```
set directory local -t 5551212 -u sunbob

ok,00
```

Overwrite the sunbob entry removing the voice number:

set directory local -i *10.10.10.11* -H *Sun,bob* -o *Sunbob*

```
ok,00
```

Alternative:

set directory local -t "" -u *Sunbob*

```
ok,00
```

Delete the sunbob entry:

set directory local -d *Sunbob*

```
ok,00
```

ldap

When used with the **get** verb, the **ldap** target shows the configuration of the LDAP directory settings for the corporate directory. When used with the **set** verb, this target configures the LDAP directory server preferences.

get Arguments:

None

get Examples:

get directory ldap
ldap-server,user,OU=EndPoints DC=LifeSize DC=VideoCodecs,1-hour

```
ok,00
```

get directory ldap -V

```
Server       Username  Base                                      Filter  Refresh
ldap-server  user      OU=Endpoints,DC=LifeSize,DC=VideoCodecs          1-hour

ok
```

set Arguments:

`[-f filter]`	Specify the LDAP server search filter.
`[-p password]`	Specify the password used to access the LDAP server.
`[-r {1-minute|5-minutes| 10-minutes|20-minutes| 30-minutes|1-hour| 2-hours|3-hours| 6-hours|12-hours| 1-day|1-week|never}]`	Specify the time interval between LDAP server refreshes.
`[-s host-or-ip]`	Specify the hostname or IP address of the LDAP server.
`[-u username]`	Specify the user name used to access the LDAP server.
`[dc-value]`	Specify the values of the DC fields in the order of use. The OU field is hard coded as `EndPoints`.

set Examples:

`set directory ldap -u` ***`user`*** **`-p`** ***`password`*** **`-s`** ***`ldap-server LifeSize VideoCodec`***

```
ok,00
```

`set directory ldap -r` ***`1-hour`***

```
ok,00
```

meeting

When used with the **`get`** verb, the **`meeting`** target retrieves directory entries for the meetings directory. Because meetings contain multiple participants per entry, the output of the command is modal. By default, the output consists of the selected meetings with participant counts and meeting type. The -l argument lists the individual participants of a single specified meeting. When used with the **`set`** verb, this target enables you to create or edit meeting directory entries and supports the use of here documents to load the directory. For more information about here documents, refer to “Here Documents” on page 21.

get Arguments:

`[-B]`	Output directory in batch mode suitable for importing with the **`set directory meeting -B`** command.
`[-H hierarchy]`	Select meetings from within the specified hierarchy only. Use a comma to separate levels of the hierarchy.
`[-l]`	List meeting participants. Cannot be used with **`-n`** or **`-s`**. You must specify only one meeting with this argument.
`[-n count]`	Limit meeting display to at most count entries. Cannot be used with **`-l`**.
`[-s count]`	Skip the first count entries. Useful for paging when used with **`-n`**. Cannot be used with **`-l`**.
`[meeting]`	Select meetings based on the meeting string (case indifferent, string must match start of meeting name). When used with **`-l`**, specify only one meeting.

get Examples:

```
get directory meeting
BoD Meeting,2,John Smith  Big Room,B,Video
Sales Meeting,4,Jim  Bob  Jan  Joe,S,Audio

ok,00

get directory meeting -V
Meeting Name    Number   Participants         Hierarchy    Type
BoD Meeting     2        John Smith, Big Room B            Video
Sales Meeting   4        Jim, Bob, Jan, Joe   S            Audio

ok
```

```
get directory meeting -l BOD
John Smith,10.10.10.11,,,auto,Video
Big Room,10.10.10.12,,,auto,Video

ok,00

get directory meeting -V -l BO
Name          Video         Audio  IP Address  Bandwidth   Type
John Smith    10.10.10.11                      auto        Video
Big Room      10.10.10.12                      auto        Video

ok

get directory meeting -l

error,10,Ambiguous Selection

get directory meeting -H b
BoD Meeting,2,John Smith  Big Room,B,Video

ok,00

get directory meeting -B
BoD Meeting|2|John Smith, Big Room|B|Video|Meeting
John Smith|10.10.10.11|||auto|Video
Big Room|10.10.10.12|||auto|Video
Sales Meeting|4|Jim, Bob, Jan, Joe|S|Audio|Meeting
Big Room|10.10.10.12|||auto|Audio
Tokyo|209.154.11.13|||auto|Audio
London|145.223.231.33|||auto|Audio
Boston|111.222.33.44|||auto|Audio

ok,00
```

set Arguments:

`[-B]`	Read standard input and create meetings based on batch mode data from **`get directory meeting -B`**.
`[-o]`	Overwrite existing entries. The default leaves existing entries unchanged. This argument cannot be used with any option other than `-B`.
`[-H hierarchy]`	Specify the hierarchy for the meeting. Use a comma to separate levels.
`[-r party]`	Specify a party to remove from a meeting. This argument is only valid when editing an existing meeting or creating a meeting copy.
`[-d]`	Delete the named meeting. In batch mode, deletes the meetings listed in the input file.
`[-m name]`	Specify the name of the meeting to create or modify. If the meeting already exists, parties are added to it. If not, it is created. If used with the -d argument, the meeting must already exist or the command fails. This option is required unless using batch mode.
`[-c name]`	Copy the specified meeting into this new meeting entry. The copy meeting will replace any existing meeting by that name
`[-a party]`	Add the named party as a voice call. The party name can be any valid dial string. For examples, refer to **`control call dial`** in “dial” on page 203.
`[-i party]`	Add the named party as a video call using the ISDN number specified in the directory entry
`[-v party]`	Add the named party as a video call. The party name can be any valid dial string
`[party]`	Add the named party as a video or voice call based on the type specified in the directory or redial entry. If you do not specify the call type, the system automatically attempts to determine the type using the following order: video, voice, and isdn.

set Examples:

Create a new meeting ("QBR Meeting" does not exist):

```
set directory meeting -H Q,M -m "QBR Meeting" -v "local:Big Room"
   -v local:Bangalore
```

```
ok,00
```

Add a PSTN conference bridge to the meeting:

```
set directory meeting -m "QBR Meeting" -a 555-1212
```

```
ok,00
```

Make a copy of the "QBR Meeting" adding one more party:

```
set directory meeting -c "QBR Meeting" -H Y,M -m "YBR Meeting"
   corp:Investors
```

```
ok,00
```

Make a copy of the "YBR Meeting" removing "Big Room" and adding Cube:

```
set directory meeting -c "YBR Meeting" -m "India" -H I -r "Big
   Room" -i Cube
```

```
ok,00
```

Remove the Bangalore conference room from the meeting:

```
set directory meeting -m "QBR Meeting" -r Bangalore
```

```
ok,00
```

Delete the "QBR Meeting":

```
set directory meeting -d -m "QBR Meeting"
```

```
ok,00
```

h323

The following targets are applicable to the **`h323`** object.

alternate

When used with the **`get`** verb, the **`alternate`** target retrieves the current settings for the alternate H.323 gatekeeper. When used with the **`set`** verb, this target configures the settings for the alternate H.323 gatekeeper when in manual mode.

get Arguments:

None

get Examples:

```
get h323 alternate
10.10.11.12.1719

ok,00

get h323 alternate -V
IP Address      Port
10.10.11.110    12345

ok
```

set Arguments:

`ipaddr`	Specify the IP address for the gatekeeper in manual mode.
`[port]`	Optional: Specify the port for the gatekeeper. The default is 1719 or the current setting.

set Examples:

```
set h323 alternate 10.10.11.12

ok,00

set h323 alternate 10.10.11.12 1832

ok,00
```

extension

When used with the **`get`** verb, the **`extension`** target retrieves the H.323 extension associated with the endpoint. When used with the **`set`** verb, this target sets the extension to use when registering the device with the H.323 gatekeeper.

get Arguments:

None

get Examples:

```
get h323 extension
1188

ok,00

get h323 extension -V
Extension
1188

ok
```

set Arguments:

`extension`	Specify the extension to use when registering with the H.323 gatekeeper.

set Examples:

```
set h323 extension 1188

ok,00
```

id

When used with the **`get`** verb, the **`id`** target retrieves the H.323 gatekeeper ID. When used with the **`set`** verb, this target sets the H.323 gatekeeper ID.

get Arguments:

None

get Examples:

```
get h323 id
RADGK

ok,00

get h323 id -V
Gatekeeper ID
RADGK

ok
```

set Arguments:

`id`	Specify the gatekeeper ID.

set Examples:

```
set h323 id RADGK

ok,00
```

mode

When used with the **`get`** verb, the **`mode`** target retrieves the H.323 gatekeeper mode which indicates whether the gatekeeper is used at all or manually or automatically configured. When used with the **`set`** verb, this target configures the H.323 gatekeeper mode.

get Arguments:

None

get Examples:

```
get h323 mode
off

ok,00

get h323 mode -V
Mode
manual

ok
```

set Arguments:

{`off`|`manual`|`auto`}	Specify the gatekeeper mode. The `off` argument disables use of the H.323 gatekeeper; `manual` uses the primary and alternate settings; and `auto` determines the gatekeeper information automatically.

set Examples:

```
set h323 mode auto

ok,00

set h323 mode off

ok,00
```

name

When used with the **`get`** verb, the **`name`** target retrieves the currently configured H.323 name for the device. When used with the **`set`** verb, this target sets the H.323 name for the device.

get Arguments:

None

get Examples:

```
get h323 name
LifeSize

ok,00

get h323 name -V
Name
LifeSize

ok
```

set Arguments:

`name`	Specify the name to use for the device when registering with the H.323 gatekeeper.

set Examples:

```
set h323 name LifeSize

ok,00
```

primary

When used with the **`get`** verb, the **`primary`** target retrieves the configuration for the H.323 primary gatekeeper. When used with the **`set`** verb, this target configures the H.323 primary gatekeeper when the primary gatekeeper is in manual mode.

get Arguments:

None

get Examples:

```
get h323 primary
10.10.11.12,1719

ok,00

get h323 primary -V
IP Address      Port
10.10.11.110    12345

ok
```

set Arguments:

`ipaddr`	Specify the IP address for the gatekeeper in manual mode.
`[port]`	Optional: Specify the port for the gatekeeper. The default is 1719 or the current setting.

set Examples:

```
set h323 primary 10.10.11.12 1719

ok,00

set h323 primary 10.10.11.15

ok,00
```

register

When used with the **`get`** verb, the **`register`** target retrieves the current registration status of the H.323 gatekeeper. When used with the **`set`** verb, this target starts the registration process with the configured H.323 gatekeeper. Because registration may take an arbitrarily long time, the command returns immediately. Use the **`get h323 register`** command to check the status.

get Arguments:

None

get Examples:

```
get h323 register
registered

ok,00

get h323 register -V
Status
failed

ok
```

set Arguments:

None

set Examples:

```
set h323 register

ok,00
```

help-mode

When used with the **`get`** verb, the **`help-mode`** target retrieves the current setting for help mode. When used with the **`set`** verb, this target controls whether or not help is available. It also enables and disables the use of abbreviations for commands (abbreviating **`help-mode`** as just **`help`**). To avoid ambiguity in future software releases, LifeSize recommends that you do not use abbreviations in scripts.

get Arguments:

None

get Examples:

```
get help-mode
on

ok,00

get help-mode -V
Mode
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable help and abbreviation mode.

set Examples:

```
set help-mode on

ok,00
```

http

When used with the **`get`** verb, the **`http`** target shows whether the web (http) service is enabled or disabled. When used with the **`set`** verb, this target controls whether the web (http) service is enabled or disabled.

get Arguments:

None

get Examples:

```
get http
on

ok,00

get http -V
Web (http) Service
off

ok
```

set Arguments:

`<{off|on}>`	Disable or enable the http service.

set Examples:

```
set http on

ok,00
```

locale

The **`locale`** object controls location-specific information for a device. The following targets apply to the **`locale`** object.

country

When used with the **`get`** verb, the **`country`** target shows the current country setting for the system. When used with the **`set`** verb, this target configures the country code used by the PSTN interface to define how the PSTN connection should work.

get Arguments:

None

get Examples:

```
get locale country
algeria

ok,00

get locale country -V
Country
uruguay

ok
```

set Arguments:

`<{algeria|argentina|australia|austria|bahrain|belarus|belgium|brazil|brunei|bulgaria|canada|chile|china|columbia|croatia|cyprus|czech-republic|denmark|ecuador|egypt|estonia|finland|france|germany|ghana|greece|hong-kong|hungary|india|indonesia|ireland|israel|italy|cote-d-ivoire|japan|jordan|kazakhstan|latvia|lebanon|lesotho|lithuania|luxembourg|malaysia|malta|mexico|morocco|netherlands|new-zealand|norway|oman|pakistan|paraguay|peru|philippines|poland|portugal|puerto-rico|qatar|romania|russia|singapore|slovakia|slovenia|south-africa|south-korea|spain|sri-lanka|sweden|switzerland|taiwan|thailand|tunisia|turkey|ukraine|united-arab-emirates|united-kingdom|united-states|uruguay|venezuela|vietnam|zambia}>`	Specify the country code to use.

set Examples:

```
set locale country algeria

ok,00
```

language

When used with the **`get`** verb, the **`language`** target shows the current language used for user interface prompts and messages. When used with the **`set`** verb, this target sets the language used for user interface prompts and messages. This setting does not affect the input or output of the CLI.

get Arguments:

None

get Examples:

```
get locale language
german

ok,00

get local language -V
GUI Language
traditional-chinese

ok
```

set Arguments:

`<{german|us-english|spanish|french|italian|japanese|korean|norwegian|brazilian-portuguese|russian|swedish|simplified-chinese|traditional-chinese}>`	Select the user interface language.

set Examples:

```
set locale language brazilian-portuguese

ok,00
```

timezone

When used with the **`get`** verb, the **`timezone`** target shows the current system time zone. When used with the **`set`** verb, this target changes the current system time zone.

get Arguments:

None

get Examples:

```
get locale timezone
majuro

ok,00

get locale timezone -V
Time Zone
kirimati

ok
```

set Arguments:

<{majuro|midway|honolulu|anchorage| los-angeles|vancouver|denver| edmonton|phoenix|austin| guatemala-city|manuaga|mexico-city| san-salvador|tegucigalapa|winnipeg| bogota|havana|indianapolis|kingston| lima|montreal|nassau|new-york|asuncion| caracas|halifax|la-paz|santiago| santo-domingo|san-juan|st-johns| sao-paulo|buenos-aires|montevideo| mid-atlantic|ponta-delgada| greenwich-mean-time|dublin|lisbon| london|reykjavik|amsterdam|berlin| brussels|budapest|copenhagen|madrid| oslo|paris|prague|rome|stockholm| vienna|warsaw|zagreb|zurich|athens| beirut|cairo|helsinki|istanbul| jerusalem|johannesburg|kyiv|baghdad| kuwait-city|moscow|riyadh|tehran| abu-dhabi|kabul|almaty|karachi| new-delhi|kathmandu|dhaka|yangon| bangkok|jakarta|beijing| kuala-lumpur|manila|perth| singapore-city|taipei|seoul|tokyo| darwin|adelaide|brisbane|sydney| vladivostok|suva|kamchatka|wellington| chatham-island|kiritimati}>	Select the local timezone.

set Examples:

```
set locale timezone greenwich-mean-time

ok,00
```

network

The **network** object controls the current network configuration. The following targets apply to the **network** object.

commit

The **commit** target commits the network settings and reboots the system. Network settings that are changed but not committed do not take effect until the next system reboot. This target applies to the **set** verb.

Arguments:

None

Examples:

```
set network commit

ok,00
```

dns

When used with the **get** verb, the **dns** target retrieves the current Directory Name Service settings. When used with the **set** verb, this target configures the Directory Name Service settings to allow the use of named hosts instead of IP addresses.

get Arguments:

None

get Examples:

```
get network dns
10.10.10.1,10.10.10.2,10.10.10.3,example.com

ok,00
```

```
get network dns -V
Primary DNS    Secondary DNS   Tertiary DNS   Search Domain List
10.10.10.1     10.10.10.2                     example.com

ok
```

set Arguments:

`[-i ipaddress]`	Specify an IP address for a DNS server. Up to 3 servers may be specified.
`[-r]`	Reset the DNS servers and search domains instead of appending additional servers/domains.
`[-s domain]`	Specify a search domain (used for unqualified hostname resolution).

set Examples:

```
set network dns -i 10.10.11.1 -i 10.10.11.2 -s ls.com -s cc.com

ok,00
```

hostname

The **`hostname`** target sets the network hostname for the system. Use a name that is similar or the same as the system name to avoid confusion. If DHCP is used for the network configuration, the hostname will be published to the DHCP server allowing name based lookups for the system. This target applies to the **`set`** verb.

Arguments:

`<hostname>`	Specify the hostname for the system

Examples:

```
set network hostname lifesize-room

ok,00
```

ipv4

When used with the **`get`** verb, the **`ipv4`** target retrieves the current Internet Protocol Version 4 network configuration.

When used with the **`set`** verb, this target uses the **`dhcp`** and **`static`** targets to configure Internet Protocol Version 4 network parameters. The **`dhcp`** target configures the network to use Dynamic Host Control Protocol for the network settings. The **`static`** target controls the configuration of the network interface when you specify a static IP address for the device.

get Arguments:

None

get Examples:

```
get network ipv4
static,10.10.100.1,255.255.255.0,10.10.100.254,00:13:fa:00:24:
   a1,jsmith-ls

ok,00

get network ipv4 -V
Type    IP Address    Network Mask   Gateway      MAC Address        Hostname
dhcp    10.10.100.5   255.255.255.0  10.10.100.1  00:13:fa:00:24:a1  jsmith-ls

ok
```

set Arguments (dhcp target):

None

set Examples (dhcp target):

```
set network ipv4 dhcp

ok,00
```

set Arguments (static target):

`[-i ipaddr]`	Specify the IP address of the device.
`[-n netmask]`	Specify the network mask that defines the extent of the local network.
`[-g gateway]`	Specify the gateway address for routing traffic outside of the network defined by the IP address and network mask. The gateway device must be within the network.

set Examples (static target):

```
set network ipv4 static -i 10.10.11.12 -n 255.255.0.0 -g
   10.10.1.1

ok,00
```

ipv6

When used with the **`get`** verb, the **`ipv6`** target retrieves the current Internet Protocol Version 6 network configuration.

When used with the **`set`** verb, this target uses the following targets to configure Internet Protocol Version 6 (IPv6) networking parameters:

- **`auto`**

  The **`auto`** target enables the system to determine the networking parameters from the network without further user intervention.

- **`manual`**

  The **`manual`** target enables you to enter the IPv6 addresses of the system and the router manually.

- **`off`**

  The **`off`** target disables IPv6 networking.

get Arguments:

None

get Examples:

```
get network ipv6
yes,auto,yes,ipv6Address,

ok,00
```

```
get network ipv6 -V
Enabled   Mode   Active   IP Address                              Router
yes       auto   yes      ipv6Address

ok
```

set Arguments (auto target):

None

set Examples (auto target):

```
set network ipv6 auto

ok,00
```

set Arguments (manual target):

`[-i ipaddress]`	Specify the IPV6 address for the system.
`[-r routerip]`	Specify the IPV6 address of the router.

set Examples (manual target):

```
set network ipv6 manual -i address

ok,00
```

set Arguments (off target):

None

set Examples (off target):

```
set network ipv6 off

ok,00
```

nat

When used with the **`get`** verb, the **`nat`** target retrieves the Network Address Translation settings for the system.

When used with the **`set`** verb, this target uses the **`disabled`** and **`enabled`** targets to configure Network Address Translation. The **`disabled`** target disables the use of NAT traversal on the device. The **`enabled`** target enables the use of NAT traversal on the device.

get Arguments:

None

get Examples:

```
get network nat

none,

ok,00

get network nat -V
Static NAT      Public IP
manual          10.10.11.111

ok
```

set Arguments (disabled target):

None

set Examples (disabled target):

```
set network nat disabled

ok,00
```

set Arguments (enabled target):

`<ipaddress>`	Specify the public IP address of the LifeSize device.

set Examples (enabled target):

```
set network nat enabled address

ok,00
```

ntp-server

When used with the **`get`** verb, the **`ntp-server`** target retrieves the address of the current Network Time Protocol server. When used with the **`set`** verb, this target specifies the Network Time Protocol server to use to keep the system clock synchronized with a common time source.

get Arguments:

None

get Examples:

```
get network ntp-server
10.10.11.10

ok,00

get network ntp-server -V
NTP Server
10.10.11.10

ok
```

set Arguments:

`<ntpserver>`	Specify the IP address of the NTP server

set Examples:

```
set network ntp-server 10.10.11.10

ok,00
```

qos

When used with the **`get`** verb, the **`qos`** target retrieves the configuration of the network Quality of Service options for the system.

When used with the **`set`** verb, this target uses the following targets to configure the Quality of Service (QoS) options for the system:

- **`diffserv`**

  The **`diffserv`** target configures the network QoS for DiffServ.

- **`intserv`**

  The **`intserv`** target configures the network QoS for IntServ (IP Precedence).

- **`none`**

  The **`none`** target disables network QoS.

Arguments:

None

Examples:

```
get network qos
DiffServ,46,34,46,

ok,00

get network qos -V
QoS Mode  Audio Priority  Video Priority  Data Priority  Type Of Service
IntServ   5               4               5              Minimize Cost

ok
```

set Arguments (diffserv target):

`[-a {0..63}]`	Specify the audio packet priority.
`[-d {0..63}]`	Specify the data packet priority.
`[-v {0..63}]`	Specify the video packet priority.

set Examples (diffserv target):

```
set network qos diffserv -a 46 -d 46 -v 34

ok,00
```

set Arguments (intserv target):

`[-a {0..7}]`	Specify the audio packet priority.
`[-d {0..7}]`	Specify the data packet priority.
`[-v {0..7}]`	Specify the video packet priority.
`[-t {none|min-delay|min-cost|max-rely|max-thru}]`	Specify the type of service used by your network: None, Minimize Delays, Minimize Cost, Maximize Reliability, or Maximize Throughput

set Examples (intserv target):

```
set network qos intserv -a 6 -d 4 -v 3 -t min-delay

ok,00
```

set Arguments (none target):

None

set Examples (none target):

```
set network qos none

ok,00
```

reserved-ports

When used with the **`get`** verb, the **`reserved-ports`** target retrieves the configuration of ports reserved for use by the device. When used with the **`set`** verb, this target specifies the upper and lower bounds for the ports reserved for use by the device.

get Arguments:

None

get Examples:

```
get network reserved-ports
64000,64999,64000,64999

ok,00
```

```
get network reserved-ports -V
UDP Low Port     UDP High Port    TCP Low Port    TCP High Port
64000            64999            64000           64999

ok
```

set Arguments:

`[-T {1025..65535}]`	Specify the upper bound for TCP reserved ports
`[-U {1025..65535}]`	Specify the upper bound for UDP reserved ports
`[-t {1025..65535}]`	Specify the lower bound for TCP reserved ports
`[-u {1025..65535}]`	Specify the lower bound for UDP reserved ports

set Examples:

```
set network reserved-ports -t 30000 -T 40000

ok,00
```

speed

When used with the **`get`** verb, the **`speed`** target shows the actual speed of the network port. Possible values are `100-fd` (100Mbps, full duplex), `100-hd` (100Mbps, half duplex), `10-fd` (10Mbps, full duplex) and `10-hd` (10Mbps, half duplex). When used with the **`set`** verb, this target configures the network port default speed.

get Arguments:

None

get Examples:

```
get network speed
100-fd

ok,00

get network speed -V
Network Speed
10-hd

ok,00
```

set Arguments:

`<{auto|100-auto|100-fd|10-auto|10-fd}>`	Specify the network speed and duplex. `Auto` negotiates 10 or 100Mbps and full or half duplex. `100-auto` and `10-auto` negotiate only duplex. `100-fd` and `10-fd` do not negotiate at all. Set the speed to auto unless the remote networking equipment is incapable of auto negotiation.

set Examples:

```
set network speed auto

ok,00
```

status

The **`status`** target shows the current status of the network connection. This target applies to the **`get`** verb. Possible values include:

- `connected`
- `binding` (attempting to retrieve IP configuration)
- `no dhcp response` (dhcp server timed out)
- `unconnected`

Arguments:

None

Examples:

```
get network status
connected

ok,00

get network status -V
Network State
binding

ok
```

transit

The **`transit`** object controls the LifeSize Transit parameters.

ice

When used with the **`get`** verb, the **`ice`** target retrieves the state of the Interactive Connectivity Establishment feature when placing calls with LifeSize Transit. When used with the **`set`** verb, this target enables or disables the Interactive Connectivity Establishment feature when placing calls with LifeSize Transit.

get Arguments:

None

get Examples:

```
get network transit ice
on

ok,00

get network transit ice -V
State
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable the feature.

set Examples:

```
set network transit ice on

ok,00
```

server

When used with the **`get`** verb, the **`server`** target configures the LifeSize Transit or STUN/TURN server parameters. When used with the **`set`** verb, this target configures the LifeSize Transit or STUN/TURN server parameters.

get Arguments:

None

get Examples:

```
get network transit server
server1 server2,transitUser

ok,00

get network transit server -V
Hostname          Username
server1 server2   transitUser

ok
```

set Arguments:

`[-a]`	Append the -i parameters to the end of the existing list (default is to replace the list).
`[-i server]`	Specify the server hostname or IP to use (may be repeated).
`[-p password]`	Specify the password to use to log into the server.
`[-u username]`	Specify the user name to use to log into the server.

set Examples:

```
set network transit server -i server1 -i server2 -u user -p pass

ok,00
```

service

When used with the **`get`** verb, the **`service`** target displays the state of the LifeSize Transit feature. When used with the **`set`** verb, this target enables or disables the LifeSize Transit feature.

get Arguments:

None

get Examples:

```
get network transit service
on

ok,00

get network transit service -V
State
off

ok
```

set Arguments:

<{on|off}>	Enable or disable the feature

set Examples:

```
set network transit service on

ok,00
```

signaling

When used with the **`get`** verb, the **`signaling`** target retrieves the signaling mode for the LifeSize Transit feature. When used with the **`set`** verb, this target configures the signaling mode for the LifeSize Transit feature.

get Arguments:

None

get Examples:

```
get network transit signaling
udp-tcp

ok,00

get network transit signaling -V
Mode
tcp

ok
```

set Arguments:

`<{udp-tcp|tcp}>`	Automatically choose between UDP and TCP protocols, or force to use TCP only.

set Examples:

```
set network transit signaling udp-tcp

ok,00
```

web

When used with the **`get`** verb, the **`web`** target retrieves the LifeSize Transit web proxy parameters. When used with the **`set`** verb, this target configures the LifeSize Transit web proxy parameters.

get Arguments:

None

get Examples:

```
get network transit web
http://webproxy.com/lifesize,transitUser

ok,00

get network transit web -V
Proxy URL                      Username
http://webproxy.com/lifesize   transitUser

ok
```

set Arguments:

[-U url]	Specify the URL of the web proxy service.
[-p password]	Specify the password to use to log into the server.
[-u username]	Specify the user name to use to log into the server.

set Examples:

```
set network transit web -U http://webproxy.com -u user -p pass

ok,00
```

password

The **`password`** target changes the user's password while running the CLI. This target applies to the **`set`** verb. When used with the optional arguments, **`password`** behaves like other CLI targets. However, using the arguments is insecure: the **`set password`** command may show up in the saved history for the CLI across login sessions, allowing disclosure of the new password. Also, checks for minimum length and complexity are not performed on the password in this mode. For security reasons, LifeSize recommends that you use the interactive version.

Note: The interactive mode of this command does not conform to the standard output specification, because it uses the standard passwd utility to perform the change.

Arguments:

`[old-password]`	Specify the current password for the CLI.
`[new-password]`	Specify the new password for the CLI.

Examples:

Interactive:

```
set password
Changing password for auto
Old password:
Enter the new password (minimum of 5, maximum of 127 characters)
Please use a combination of upper and lower case letters and num-
   bers.
New password:
Re-enter password:
Password changed.

ok,00
```

Non-interactive:

```
set password lifesize 123ABC!@#abc

ok,00
```

prompt

The **`prompt`** target changes the default prompt ($) to any user specified string. This target applies to the **`set`** verb.

Arguments:

`<string>`	Specify the new prompt string, use “” for an empty prompt.

Examples:

```
set prompt "% "

ok,00
% set prompt "-> "

ok,00
->
```

redial-list

The **`redial-list`** target retrieves the redial call list. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get redial-list
1,Sunbob2,10.10.11.116,10.10.11.116,Video,Outgoing,Yes,auto,auto
2,10.10.11.186,10.10.11.186,10.10.11.186,Video,Manual,No,
   auto,512
3,Sunbob2,10.10.11.116,10.10.11.116,Audio,Incoming,Yes,h323,auto
4,10.10.11.186,10.10.11.186,10.10.11.186,Audio,
   Multiway,No,auto,auto
5,10.10.11.155,10.10.11.155,10.10.11.155,Audio,
   Outgoing,No,auto,auto

ok,00
```

```
get redial-list -V

Index  Name          Number        IP Address    Type    Origin    Locked  Protocol  Bandwidth
1      Sunbob2       10.10.11.116  10.10.11.116  Video   Outgoing  Yes     auto      auto
2      10.10.11.186  10.10.11.186  10.10.11.186  Video   Manual    No      auto      512
3      Sunbob2       10.10.11.116  10.10.11.116  Audio   Incoming  Yes     h323      auto
4      10.10.11.186  10.10.11.186  10.10.11.186  Audio   Multiway  No      auto      auto
5      10.10.11.155  10.10.11.155  10.10.11.155  Audio   Outgoing  No      auto      auto

ok
```

The valid values for the `Type` column are *Audio*, *Video*, *Multiway*, and *Unknown* and the values for the `Origin` column are *Manual*, *Outgoing*, *Incoming*, *Multiway*, and *Unknown* where `Origin` refers to how the entry was placed into the redial list. Entries that are locked cannot be removed from the redial list with new entries. The protocol values are the same as for the ***control call dial*** command's **-p** argument, and the bandwidths are the same as for the **-b** argument.

serial

The **`serial`** object allows configuration of the serial ports on LifeSize Room.

port1 | port2

The **`port1`** and **`port2`** targets are identical in function except which port they affect. The port1 target affects the serial port marked RS-232 1 on the LifeSize Room codec and the port2 target affects the port marked RS-232 2. By default, serial port 1 is set to 38400 b/s with no shell enabled. Serial port 2 is set to 9600 b/s with the CLI enabled.

When used with the **`get`** verb, the **`port1`** and **`port2`** targets retrieve the configuration settings for the specified serial port. When used with the **`set`** verb, these targets configure available settings for the specified serial port.

> ***Note:*** Serial port 1 is internal and unsupported on LifeSize Team, LifeSize Team MP, and LifeSize Express. Serial port 2 is not present on LifeSize Team, LifeSize Team MP, and LifeSize Express.

get Arguments:

None

get Examples:

```
get serial port1
38400,hardware,auto,delete

ok,00

get serial port2 -V
 Speed       Flow Control     Shell      Erase Key     VISCA Input
 115200      software         visca      backspace     hd0

ok
```

set Arguments:

`[-b {1200|2400|4800|9600|19200|38400|57600|115200}]`	Specify the speed of the serial port.
`[-e {backspace|delete}]`	Specify the erase character to use.
`[-f {hardware|software|none}]`	Specify the flow control method to use. Hardware uses the RTS/CTS signal pins and software uses XON/XOFF (Ctrl-S/Ctrl-Q). Hardware flow control does not function on LifeSize video communications systems. Set flow control to `software` or `none`. Choosing `hardware` is the same as choosing `none`.
`[-s {auto|visca|none}]`	Specify the shell to run on the serial port. Auto uses the shell you are currently running. Visca allows VISCA camera control. None disables the serial port.
`[-i {hd0|hd1|sd0|sd1|vga0}]`	Specify the input associated with the VISCA controlled camera attached to this serial port. This argument applies only if `-s` is set to `visca`.

set Examples:

```
set serial port1 -b 115200 -e backspace -f software -s auto

ok,00

set serial port2 -b 38400

ok,00
```

sip

The following targets are applicable to the **`sip`** object.

authorization

When used with the **`get`** verb, the **`authorization`** target retrieves the user name for authorization with the SIP registrar. For security reasons, the associated password is not displayed. When used with the **`set`** verb, this target configures the user name used for authorization with the SIP registrar.

get Arguments:

None

get Examples:

```
get sip authorization
sipuser

ok,00

get sip authorization -V
Username
sipuser

ok
```

set Arguments:

`username`	Specify the user name used for authorization.
`password`	Specify the password used for authorization.

set Examples:

```
set sip authorization sipuser sippassword

ok,00
```

proxy

When used with the **`get`** verb, the **`proxy`** target retrieves the SIP proxy settings. When used with the **`set`** verb, this target sets the SIP proxy configuration.

get Arguments:

None

get Examples:

```
get sip proxy
disabled,proxy.example.com,5060

ok,00

get sip proxy -V
State           IP Address          Port
enabled         proxy.example.com   5060

ok
```

set Arguments:

{enabled|disabled}	Enables or disables the use of the SIP proxy.
[ip]	Set the IP address or hostname of the SIP proxy. Only valid when enabled is chosen.
[port]	Optional: Specify the port to use on the proxy. The default is 5060 or the previously set value. Only valid when enabled is chosen.

set Examples:

```
set sip proxy enabled proxy.example.com

ok,00

set sip proxy disabled

ok,00

set sip proxy enabled proxy.sip.com 6060

ok,00
```

register

When used with the **`get`** verb, the **`register`** target shows the current registration status for SIP. When used with the **`set`** verb, this target registers the device with the configured SIP server or proxy. Use this command only after completing all other SIP configuration tasks. Since registration may take an arbitrarily long time, this command returns immediately. Use the **`get sip register`** command to retrieve the registration status.

get Arguments:

None

get Examples:

```
get sip register
unregistered

ok,00

get sip register -V
Status
registered

ok
```

set Arguments:

None

set Examples:

```
set sip register

ok,00
```

registrar

When used with the **`get`** verb, the **`registrar`** target retrieves the current SIP registrar settings. When used with the **`set`** verb, this target configures the SIP registrar settings.

get Arguments:

None

get Examples:

```
get sip registrar
disabled,sip.example.com,5060

ok,00

get sip registrar -V
State    IP Address        Port
enabled  sip.example.com   5060

ok
```

set Arguments:

`{enabled|disabled}`	Enables or disables the use of the SIP registrar.
`[ip]`	Set the IP address or hostname of the SIP registrar. Only valid when `enabled` is chosen.
`[port]`	Optional: Specify the port to use on the registrar. The default is 5060 or the previously set value. Only valid when `enabled` is chosen.

set Examples:

```
set sip registrar enabled sip.example.com

ok,00

set sip registrar disabled

ok,00

set sip registrar enabled registrar.sip.com 6060

ok,00
```

tcp

When used with the **`get`** verb, the **`tcp`** target shows the configuration of the TCP options for SIP calls. When used with the **`set`** verb, this target configures the TCP options for SIP calls. If configuring the device for SIP calls, either the **`tcp`** or **`udp`** target must be enabled.

get Arguments:

None

get Examples:

```
get sip tcp
enabled,5060

ok,00

get sip tcp -V
State           Port
disabled        5060

ok
```

set Arguments:

{enabled|disabled}	Enables or disables the use of TCP for SIP calls.
[port]	Optional: Specify the port to use for SIP calls. The default is 5060 or the previously set value. Only valid when enabled is chosen.

set Examples:

```
set sip tcp enabled

ok,00

set sip tcp disabled

ok,00

set sip tcp enabled 5060

ok,00
```

udp

When used with the **`get`** verb, the **`udp`** target retrieves the configuration of the UDP options for SIP calls. When used with the **`set`** verb, this target configures the UDP options for SIP calls. If configuring the device for SIP calls, either the **`tcp`** or **`udp`** target must be enabled.

get Arguments:

None

get Examples:

```
get sip udp
disabled,5060

ok,00

get sip udp -V
State           Port
enabled         5060

ok
```

set Arguments:

`{enabled|disabled}`	Enables or disables the use of UDP for SIP calls.
`[port]`	Optional: Specify the port to use for SIP calls. The default is 5060 or the previously set value. Only valid when enabled is chosen.

set Examples:

```
set sip udp enabled

ok,00

set sip udp disabled

ok,00

set sip udp enabled 7000

ok,00
```

username

When used with the **`get`** verb, the **`username`** target retrieves the current SIP username. When used with the **`set`** verb, this target sets the SIP user name for the system.

get Arguments:

None

get Examples:

```
get sip username
lifesize

ok,00

get sip username -V
Name
lifesize

ok
```

set Arguments:

`name`	Set the user name for the system.

set Examples:

```
set sip username lifesize

ok,00
```

via-proxy

When used with the **`get`** verb, the **`via-proxy`** target shows whether SIP registration uses a proxy to connect to the registrar, or connects directly. When used with the **`set`** verb, target target controls whether SIP registration uses a proxy to connect to the registrar or connects directly.

get Arguments:

None

get Examples:

```
get sip via-proxy
proxy

ok,00

get sip via-proxy -V
Registration Method
direct

ok
```

set Arguments:

`{direct|proxy}`	Choose direct connection to the registrar or the proxy connection.

set Examples:

```
set sip via-proxy direct

ok,00

set sip via-proxy proxy

ok,00
```

snmp

The following targets are applicable to the **`snmp`** server configuration object.

community-name

When used with the **`get`** verb, the **`community-name`** target retrieves the SNMP community name.

Note: The SNMP server running on the device implements SNMP version 3. The **`set snmp community-name`** ***`<communityName>`*** command applies to SNMP v1 and v2 and is not supported in this release.

get Arguments:

None

get Examples:

```
get snmp community-name
foo

ok,00

get snmp community-name -V
SNMP Community Name
foo

ok
```

contact

When used with the **`get`** verb, the **`contact`** target retrieves the SNMP contact name. When used with the **`set`** verb, this target sets the SNMP contact name on the SNMP server running on the device.

get Arguments:

None

get Examples:

```
get snmp contact
Administrator

ok,00
```

```
get snmp contact -V
SNMP Contact
Administrator

ok
```

set Arguments:

<contactname>	Specify the contact name for the SNMP server. If the contact name contains more than one word separated by a space, enclose the name in quotes (“ “).

set Examples:

```
set snmp contact Administrator

ok,00
```

description

The **`description`** target retrieves the SNMP description of the system. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get snmp description
LifeSize Room

ok,00

get snmp description -V
SNMP System Description
LifeSize Team

ok
```

enable

When used with the **`get`** verb, the **`enable`** target shows whether or not the SNMP service is enabled. When used with the **`set`** verb, this target enables or disables the SNMP service.

get Arguments:

None

get Examples:

```
get snmp enable
on

ok,00

get snmp enable -V
Value
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable the SNMP service.

set Examples:

```
set snmp enable on

ok,00
```

location

When used with the **`get`** verb, the **`location`** target shows the configured location for the SNMP service. When used with the **`set`** verb, this target sets the configured location for the SNMP service.

get Arguments:

None

get Examples:

```
get snmp location
Austin

ok,00
```

```
get snmp location -V
SNMP Location
Austin

ok
```

set Arguments:

`<location>`	Specify the location for the SNMP service. If the location contains more than one word separated by a space, enclose the location in quotes (“ “).

set Examples:

```
set snmp location Austin

ok,00
```

system-name

The **`system-name`** target retrieves the SNMP system name. This target applies to the **`get`** verb.

get Arguments:

None

get Examples:

```
get snmp system-name
foo

ok,00

get snmp system-name -V
SNMP System Name
foo

ok
```

user

When used with the **`get`** verb, the ***`user`*** target retrieves the SNMP user names. When used with the **`set`** verb, this target adds or deletes SNMP users.

get Arguments:

None

get Examples:

```
get snmp user
user1
Control
user2

ok,00

get snmp user -V
Username
user1
Control
user2

ok
```

Note: The Control user is a default user for use with LifeSize Control. You can delete this user if you are not using LifeSize Control or delete this user and create a different user for use with LifeSize Control. Use the **`set snmp user`** command to delete and create SNMP users.

set Arguments:

`-a`	Add the specified user (cannot be used with -d).
`-d`	Delete the specified user (cannot be used with -a).
`<username>`	Specify the user name. User names must not contain spaces.
`<password>`	Specify the password for the user. Required with -a. The password must be at least 8 characters in length and must not contain spaces.

set Examples:

Add a user:

`set snmp user -a` ***`username password`***

Delete a user:

`set snmp user -d` ***`username`***

v3trapdestination

When used with the **`get`** verb, the **`v3trapdestination`** shows the current version 3 SNMP trap destinations (where SNMP traps are sent). When used with the **`set`** verb, this target adds or removes entries from the list of version 3 SNMP trap destinations.

Note: The user's password is not displayed.

get Arguments:

None

get Examples:

```
get snmp v3trapdestination
Control,10.10.11.12
joeuser,169.254.101.2

ok,00

get snmp v3trapdestination -V
Username        Host/IP Address
Control         10.10.11.12
joeuser         169.254.101.2

ok
```

set Arguments:

`-a`	Add the specified destination (cannot be used with -d).
`-d`	Delete the specified destination (cannot be used with -a).
`<username>`	Specify the user name associated with the trap destination. User names must not contain spaces.
`<password>`	Specify the password for the user. Passwords must not contain spaces. Password must be at least 8 characters in length.
`<ipaddress>`	Specify the IP address of the trap destination. IP addresses must not contain spaces.

Note: The <username>, <password>, and <ipaddress> arguments are required with the -a and -d arguments. Either -a or -d must be specified. Users specified with this command appear in the output of the **`get snmp user`** command.

set Examples:

```
set snmp v3trapdestination -a user1 password 10.10.11.10

ok,00

set snmp v3trapdestination -d user1 password 10.10.11.10

ok,00
```

version

The **`version`** target retrieves the SNMP version number for the SNMP server running on the device. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get snmp version
3

ok,00

get snmp version -V
SNMP Version
3

ok
```

ssh

The following targets are applicable to the **`ssh`** object.

keys

When used with the **`get`** verb, the **`keys`** target retrieves information about the currently installed ssh authorized keys. When used with the **`set`** verb, this target sets the ssh authorized keys for the **`auto`** user. Authorized keys allow the remote user to log into the system without using a password. Only one authorized ssh key is supported.

get Arguments:

None

get Examples:

```
get ssh keys
ssh-rsa,user@lifesize.com

ok,00

get ssh keys -V
Type            Owner
ssh-rsa         user@lifesize.com

ok
```

set Arguments:

`[-c]`	Clear the keys file, removing all installed keys.
`[-i]`	Install a new ssh key. The key is read from standard input and must be less than 4096 characters in length. You may specify multiple keys on separate lines. A maximum of 64 keys are supported.
`[-r owner]`	Remove an existing ssh key. The owner field must match the prefix of the comment field in the key file, ignoring case (for example, an owner of "li" would match all comment fields beginning with "li" in any case).

Note: Either **`-i`** or **`-r`** must be specified.

set Examples:

Manually enter an ssh key using a here document or paste the key file into the command line:

```
set ssh keys -i << EOF
ssh-rsa key_string user@lifesize.com
ssh-rsa key2_string user2@lifesize.com
EOF

ok,00
```

Copy your own public key file to the auto user's authorized key file:

```
sh% cat ~/.ssh/id_rsa.pub | ssh auto@10.10.1.1 set ssh keys -i

ok,00
```

```
sh%
```

Remove the specified key:

```
set ssh keys -r user@lifesize.com

ok,00
```

Note: The key file must not have any text prior to the key data and the key type, value, and comment (owner) must be on a single line.

service

When used with the **`get`** verb, the **`service`** target shows whether the ssh service is enabled or disabled. When used with the **`set`** verb, this target enables or disables the ssh service. An ssh session in progress is not affected if the service is disabled.

Note: Be aware that if the device does not have a serial port and you disable the ssh service and then quit the session, you may need to use the user interface or web administration interface to re-enable the ssh service.

get Arguments:

None

get Examples:

```
get ssh service
on

ok,00

get ssh service -V
Secure Shell Service
off

ok
```

set Arguments:

`<{off|on}>`	Disable or enable the ssh service.

set Examples:

```
set ssh service on

ok,00
```

system

The **`system`** object allows setting of certain system-specific parameters, for example, the system name and may be useful for tracking and monitoring inventory. The following targets are applicable to the **`system`** object.

autoreboot

When used with the **`get`** verb, the **`autoreboot`** target shows the current setting of the nightly automatic reboot feature. If enabled, the device reboots nightly if the system is idle. When used with the **`set`** verb, this target controls whether or not the device automatically reboots each evening.

get Arguments:

None

get Examples:

```
get system autoreboot
off

ok,00

get system autoreboot -V
Nightly Reboot
on

ok
```

set Arguments:

`<{on|off}>`	Specify ***`on`*** to enable the reboot feature.

set Examples:

```
set system autoreboot on

ok,00
```

branding

When used with the **`get`** verb, the **`branding`** target retrieves the state of the logo branding feature. If set to **`none`**, no logo appears in the main screen of the user interface or in the logo screen saver. When used with the **`set`** verb, this target controls whether or not the company logo appears on the main screen of the user interface and in the logo screen saver.

get Arguments:

None

get Examples:

```
get system branding
none

ok,00

get system branding -V
Company Logo
default

ok
```

set Arguments:

`<{none|default}>`	Specify `none` to disable the logo branding. Specify `default` to use the default logo.

set Examples:

```
set system branding none

ok,00
```

clean

The **`clean`** target removes personally identifiable information from the system, including call history logs, directory entries, system identity data, IP addresses, and Redial list entries. Use the **`clean`** target, for example, when you wish to use a system for customer demonstrations or for other uses that require the removal of personally identifiable information. This target applies to the **`set`** verb.

Arguments:

`[-C]`	Clean the call history logs (status call history).
`[-a]`	Clean all data.
`[-c]`	Clean the corporate directory, disable LDAP and Auto Discovery (get directory corporate, get directory ldap, get directory auto).
`[-d]`	Clean all directories (equivalent to -c -l -m).
`[-i]`	Clean system identity data (get system name, get system number, get system video-number, get network hostname).
`[-l]`	Clean the local directory (get directory local).
`[-m]`	Clean the meetings directory (get directory meeting).
`[-n]`	Clean the network config (get network ipv4, get network ipv6). Network is set to IPv4 static with no address and IPv6 is disabled. This occurs on reboot.
`[-r]`	Clean the redial list (get redial-list).

Examples:

Clean everything:

```
set system clean -a
```

```
ok,00
```

Clean only the directories and redial list:

```
set system clean -d -r
```

```
ok,00
```

date

When used with the **`get`** verb, the **`date`** target shows the current system date and time in either the local time zone or as UTC time.

When used with the **`set`** verb, this target changes the system time and date. The value is always specified in terms of the local time zone.

get Arguments:

`[-u]`	Show the time in UTC instead of the local time zone.

get Examples:

```
get system date
2007,10,8,16,58,25

ok,00

get system date -u -V
Year     Month    Day     Hour     Minute     Second
2007     10       8       21       58         25

ok
```

set Arguments:

`[-H {0..23}]`	Specify the hour.
`[-M {0..59}]`	Specify the minute.
`[-S {0..59}]`	Specify the second.
`[-d {1..31}]`	Specify the day of month. February 31st is interpreted as March 2nd or 3rd depending on whether the year is a leap year or not.
`[-m {1..12}]`	Specify the month.
`[-y {2005..2025}]`	Specify the year.

set Examples:

```
# change only the time, not the day
set system date -H 4 -M 3 -S 0

ok,00

# change only the day of month
set system date -d 12

ok,00
```

fans

The **`fans`** target shows the current speed of all system fans. The speed shown is not recorded in a standard unit (such as revolutions per minute). The faster the fan spins, the higher the value reported. Systems with multiple fans report multiple values. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get system fans
125

ok,00

get system fans -V
Fan 1
128

ok
```

isdn

When used with the **`get`** verb, the **`isdn`** target shows the status of a connected LifeSize Networker device. If the device connection type is `Tethered` (connected to the codec), the PRI and BRI information is valid. The PRI and BRI fields indicate the number of connected ports of that type. The associated `Map` field indicates which ports are connected.

When used with the **`set`** verb, this target configures the IP address of a standalone ISDN gateway. If a gateway device is connected to the codec, the command fails and returns an invalid parameter message.

get Arguments:

None

get Examples:

```
get system isdn
No,None,,0,,0,

ok,00

get system isdn -V
ISDN    Type        IP Addr         PRI    Map    BRI    Map
Yes     Tethered    10.254.128.2    2      1,2    2      1,X,X,4

ok

get system isdn
Yes,Standalone,10.10.11.12,-1,,-1,

ok,00
```

set Arguments:

`ipaddr`	Specify the ip address of the gateway device.

set Examples:

```
set system isdn 10.10.11.10

ok,00

# if a gateway is already connected
set system isdn 10.10.11.10

error,04

# to clear the gateway address and disable ISDN functionality
set system isdn ""

ok,00
```

lcd-contrast

When used with the **`get`** verb, the **`lcd-contrast`** target retrieves the current setting of the LifeSize Phone's LCD contrast. When used with the **`set`** verb, this target controls the current setting of the LifeSize Phone's LCD contrast.

get Arguments:

None

get Examples:

```
get system lcd-contrast
6

ok,00
get system lcd-contrast -V
Setting
12

ok
```

set Arguments:

`<{1..12}>`	Specify the contrast setting

set Examples:

```
set system lcd-contrast 7

ok,00
```

message

The **`message`** target specifies a pop-up dialog box with a message and button layout to appear in the user interface. The dialog box can be used to inform the users of impending system maintenance or other important news. This target applies to the **`set`** verb.

Arguments:

`[-b {yes|no|cancel|ok}]`	Specify the buttons to be present in the popup. A maximum of 3 buttons may be displayed, but each button can only appear once.
`[-e]`	Specify that the dialog use the error icon (red triangle with exclamation point). The default button layout for this dialog is the OK button.
`[-i]`	Specify that the dialog use the information icon (message page). This is the default dialog type and includes an OK button.
`[-q]`	Specify that the dialog use the question icon (a question mark). The default button layout includes the Yes and No buttons.
`[-t seconds]`	Specify the timeout interval (in number of seconds) for the dialog. The default timeout is 30 seconds.
`[-w]`	Specify that the dialog use the warning icon (yellow triangle with exclamation point). The default button layout for this dialog is the OK button.
`message`	Specify the message to place in the dialog. If including spaces, enclose the entire message in double quotes. To wrap the message at a specific point, insert `'\n'` at the desired location in the message.

Examples:

Shows an information dialog with the desired text:

```
set system message "Hello World"

ok,00
```

Shows an error dialog with a 45-second timeout period, ok, and cancel buttons:

```
set system message -b ok -b cancel -t 45 -e "Too Hot"
```

```
ok,00
```

The user response is available through the **`get system message-status`** command.

message-status

The **`message-status`** target retrieves the user response from the most recent popup message displayed. Results may include the following:

- `yes` (user pressed the dialog's yes or ok button)
- `no` (user pressed the dialog's no button)
- `cancel` (user pressed the dialog's cancel or the remote's back button)
- `timeout` (dialog timed out before the user responded)
- empty string (user has not yet responded and the dialog has not yet timed out)

This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get system message-status
```

```
ok,00
```

```
get system message-status -V
cancel
```

```
ok
```

model

The **`model`** target shows the OEM and model name for the platform. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get system model
LifeSize,Room

ok,00

get system model -V
OEM         Model
LifeSize    Team

ok
```

name

When used with the **`get`** verb, the **`name`** target shows the current name for the device. This is the same value that appears in the user interface and on a connected phone. When used with the **`set`** verb, this target sets the device name.

get Arguments:

None

get Examples:

```
get system name
LifeSize

ok,00

get system name -V
System Name
LifeSize

ok
```

set Arguments:

`<value>`	Specify the name for the system

set Examples:

```
set system name "LifeSize Room"

ok,00
```

number

When used with the **`get`** verb, the **`number`** target retrieves the voice telephone number associated with the device. This appears in the user interface and on a connected phone. When used with the **`set`** verb, this target sets the voice telephone number associated with the device.

get Arguments:

None

get Examples:

```
get system number
555-1212

ok,00

get system number -V
System Phone Number
555-1212

ok
```

set Arguments:

`<value>`	Specify the voice telephone number for the system.

set Examples:

```
set system number 555-1212

ok,00
```

out-of-box

When used with the **`get`** verb, the **`out-of-box`** target shows the current state of the initial configuration process that starts when a system is installed or reset to its default configuration settings. When used with the **`set`** verb, this target runs the initial configuration process or cancels an already running initial configuration process.

get Arguments:

None

get Examples:

```
get system out-of-box
enabled

ok,00

get system out-of-box -V
Out Of Box Setup
complete

ok
```

set Arguments:

<{enabled|complete}>	Specify enabled to rerun the initial configuration process or complete to disable an already running initial configuration process.

set Examples:

```
set system out-of-box enabled

ok,00
```

presentation

When used with the **get** verb, the **presentation** target shows whether or not the sending and receiving H.239 secondary media is enabled. This is different from **get conference presentation** in that it reports whether or not the local device advertises presentation capability rather than the remote devices.

When used with the **set** verb, this target enables and disables sending and receiving H.239 secondary media.

get Arguments:

None

get Examples:

```
get system presentation
on

ok,00
```

```
get system presentation
Send/Receive Presentations
off

ok
```

set Arguments:

`<{on|off}>`	Enable or disable sending and receiving presentations.

set Examples:

```
set system presentation off

ok,00
```

pstn

The **`pstn`** target returns whether or not the system has the hardware necessary to make a Public Switched Telephone Network (PSTN) call. This target applies to the **`get`** verb.

Note: It does not indicate whether there is an active phone line connected to the telephone jack.

Arguments:

None

Examples:

```
get system pstn
yes

ok,00

get system pstn -V
Public Switched Telephone Network Support
no

ok
```

screen-saver

When used with the **`get`** verb, the **`screen-saver`** target retrieves the current configuration of the screen saver feature. When used with the **`set`** verb, this target changes the screen saver.

get Arguments:

None

get Examples:

```
get system screen-saver
vga

ok,00

get system screen-saver -V
Screen Saver
window

ok
```

set Arguments:

`<{logo|vga|window|none}>`	Set the screen saver type. The `logo` argument shows a roving logo; `vga` shows the vga input; and `window` shows a roving window.

set Examples:

```
set system screen-saver logo

ok,00
```

serial-number

The **`serial-number`** target retrieves the serial numbers of the CPU board and System board within the codec. This target applies to the **`get`** verb.

Arguments

None

Examples:

```
get system serial-number
BKxxxxxxxxxx,BKxxxxxxxxxx

ok,00

get system serial-number -V
CPU Board       System Board
BKxxxxxxxxxx    BKxxxxxxxxxx

ok
```

telepresence

When used with the **`get`** verb, the **`telepresence`** target shows whether or not the system is in telepresence mode. In this mode, the camera PTZ motions are disabled and the user interface does not appear in the display. When used with the **`set`** verb, this target enables or disables the system telepresence feature. Changing this value changes the camera lock settings.

get Arguments:

None

get Examples:

```
get system telepresence
on

ok,00

get system telepresence -V
Telepresence
off

ok
```

set Arguments:

`<{on|off}>`	Turn the telepresence feature on or off

set Examples:

```
set system telepresence on

ok,00
```

temperatures

The **`temperatures`** target returns the current temperature readings within the system in degrees Celsius. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get system temperatures
55,80,75,43

ok,00

get system temperatures -V
Board       Video In    Video Out      Ambient
55          80          75             43

ok
```

uptime

The **`uptime`** target returns the amount of time that the system has been up in days, hours, minutes, and seconds. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get system uptime
5,21,13,20

ok,00
```

```
get system uptime -V
Days            Hours       Minutes     Seconds
5               21          13          40

ok
```

version

The **version** target returns the software version for all of the software loaded on the system. This target applies to the **get** verb.

Arguments:

None

Examples:

```
get system version
Software Version,LS_RM_2.1.0 (0)
Sysmon Version,SM_P_3 2.4 Jun 21 2006 14:37:22
U-Boot Version,U-Boot 1.1.2 LifeSize Room/Team 1.9a
Camera 0 Base,0x60525
Camera 0 Head,0x60605
Pixelworks Version,LS_QMBRom v1.6 May 23 2006 10:18:00
Video In FPGA,06061600
Video Out FPGA,05120400
Tethered Phone,LS_PH1_2.1.0 (0)
Phone Keyboard,003_000
Phone U-Boot,U-Boot 1.1.2 LifeSize Phone 1.1

ok,00
```

```
get system version -V
Software Version      Value
Software Version      LS_RM1_2.1.0 (0)
Sysmon Version        SM_P_3 2.4 Jun 21 2006 14:37:22
U-Boot Version        U-Boot 1.1.2.LifeSize Room/Team, 1.9a
Camera 0 Base         0x60525
Camera 0 Head         0x60605
Pixelworks Version    LS_QMBRom v1.6 May 23 2006 10:18:00
Video In FPGA         06061600
Video Out FPGA        051120400
Tethered Phone        LS_PH1_2.1.0 (0)
Phone Keyboard        003_000
Phone U-Boot          U-Boot 1.1.2 LifeSize Phone, 1.1

ok
```

video-number

When used with the **`get`** verb, the **`video-number`** target retrieves the video telephone number associated with the system. This number appears in the user interface. When used with the **`set`** verb, this target sets the video telephone number associated with the system.

get Arguments:

None

get Examples:

```
get system video-number
555-1213

ok,00

get system video-number -V
System Video Number
555-1213

ok
```

set Arguments:

`<value>`	Specify the new video telephone number for the system.

set Examples:

```
set system video-number 555-1213

ok,00
```

voltages

The **`voltages`** target reports the current system voltages in Volts. The order of the voltages and the voltages reported may change with each software release. The **`voltages`** target is not supported with LifeSize Express. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get system voltages
1.22,1.45,1.80,12.00,19.20,2.63,3.28,4.97

ok,00

get system voltages -V
1.2     1.5     1.8     12.0    19.0    2.5     3.3     5.0
1.22    1.45    1.80    12.00   19.20   2.63    3.28    4.97

ok
```

telnet

When used with the **`get`** verb, the **`telnet`** target retrieves the current state of telnet protocol support. LifeSize recommends that you disable **`telnet`**, because it is an insecure protocol. If you must use telnet, place the system behind a firewall or other external security device. By default, the telnet protocol service is disabled.

When used with the **`set`** verb, this object enables or disables the telnet service in real time. Active telnet sessions are disconnected if the service is stopped without closing the sessions first.

get Arguments:

None

get Examples:

```
get telnet
on

ok,00

get telnet -V
Telnet Service
off

ok
```

set Arguments:

`<{off|on}>`	Disable or enable the telnet service.

set Examples:

```
set telnet on

ok,00
```

timer

The following targets are applicable to the **`timer`** object.

caller-id

When used with the **`get`** verb, the **`caller-id`** target retrieves the current setting of the caller ID display timeout (the time in seconds before the caller ID display fades out). When used with the **`set`** verb, this target controls the time in seconds before the caller ID display fades out.

get Arguments:

None

get Examples:

```
get timer caller-id
30

ok,00
```

```
get timer caller-id -V
Timeout in Seconds
on

ok
```

set Arguments:

<{off|30|60|120|300|600|on}>	Specify the time in seconds before the caller ID display fades out. Specifying off disables the caller ID display. Specifying on leaves the display on continuously.

set Examples:

```
set timer caller-id 30

ok,00
```

fadeout

When used with the **`get`** verb, the **`fadeout`** target retrieves the current setting for the user interface fadeout timer (the time in seconds before the user interface fades out during an active call). When used with the **`set`** verb, this target controls the time in seconds before the user interface fades out during an active call.

get Arguments:

None

get Examples:

```
get timer fadeout
6

ok,00

get timer fadeout -V
Timeout in Seconds
5

ok
```

set Arguments:

`<{5|10|20|30|60|120|300|600|never}>`	Specify the time in seconds before the user interface fades out during an active call. Specifying never disables the fadeout function.

set Examples:

```
set timer fadeout 20

ok,00

set timer fadeout never

ok,00
```

screen-saver

When used with the **`get`** verb, the **`screen-saver`** target retrieves the current setting for the screen saver timer (the amount of idle time before the screen saver activates). When used with the **`set`** verb, this target controls the amount of idle time before the screen saver activates.

get Arguments:

None

get Examples:

```
get timer screen-saver
20

ok,00

get timer screen-saver -V
Timeout in Minutes
none

ok
```

set Arguments:

`<{10|20|30|off}>`	Specify the time in minutes before the screen saver feature activates. Specifying off disables the screen saver function.

set Examples:

```
set timer screen-saver 20

ok,00

set timer screen-saver off

ok,00
```

sleep

When used with the **`get`** verb, the **`sleep`** target retrieves the current setting for the sleep timer (the amount of idle time after the screen saver activates and before the system enters sleep state). When used with the **`set`** verb, this target sets the sleep timer.

get Arguments:

None

get Examples:

```
get timer sleep
30

ok,00

get timer sleep -V
Timeout in Minutes
10

ok
```

set Arguments:

`<{10|20|30}>`	Specify the time in minutes before the system enters sleep state.

set Examples:

```
set timer sleep 20

ok,00
```

user

The **`user`** object enables configuration of user functions in the user interface.

password

The **`password`** target enables you to set the password for access to the user preferences in the user interface. This target applies to the **`set`** verb.

Arguments:

`<value>`	The new user password. The password must contain only the numbers 0-9 and/or the symbols * and #. The length can be 0 to 16 characters. If more than 16 characters are specified, the password is silently truncated.

Examples:

```
set user password 12345*#

ok,00

set user password -V abcdef

error  04  Invalid Parameter
```

verbose-mode

When used with the **`get`** verb, the **`verbose-mode`** target retrieves the current setting for verbose mode. When used with the **`set`** verb, this target enables or disables verbose mode output. Verbose mode provides human readable output. Enabling verbose mode is equivalent to specifying -V with each command entered.

get Arguments:

None

get Examples:

```
get verbose-mode
on

ok,00

get verbose-mode -V
Mode
off

ok
```

set Arguments:

<{on|off}>	Enable or disable verbose mode output.

set Examples:

```
set verbose-mode on

ok

set verbose-mode off

ok,00
```

video

The following targets are applicable to the **`video`** object.

aux-output

When used with the **`get`** verb, the **`aux-output`** target retrieves the configuration information for the auxiliary output on LifeSize Room. When used with the **`set`** verb, this target controls configuration of the auxiliary video output on systems that have auxiliary video output connectors. This target applies to LifeSize Room only.

get Arguments:

None

get Examples:

```
get video aux-output
on,hd0+aux,received

ok,00

get video aux-output -V
State       Idle Layout      In Call Layout
on          all              hd0

ok
```

set Arguments:

[-d]	Disable the auxiliary video output.
[-e]	Enable the auxiliary video output.
[-c {hd0|received| transmitted}]	Set the in-call output to the HD camera, received video or transmitted video.
[-i {none|hd0|all| hd0+aux| hd0+aux+doc}]	Set the idle output to nothing, the HD camera, all inputs, the HD camera and auxiliary input or the HD camera, aux input and doc camera input.

set Examples:

```
set video aux-output -e -i none -c received

ok,00

set video aux-output -d

ok,00
```

background

When used with the **`get`** verb, the **`background`** target lists the available background image names for use with the **`set video {primary|secondary}-background`** commands. The list that appears is not sorted.

When used with the **`set`** verb, this target uploads a background image to the system. Before uploading a background image, ensure that the image has the following properties:

- 1280x720 pixels
- JPEG format
- base64 encoded

This command is intended for use only in conjunction with the system restore feature when the system state was exported through the **`get config`** command or through the web administration interface. As such, no validation is performed on the input data stream and no limitation is made as to the size of the image file. You many need to reset your system to defaults if you upload an invalid image file.

get Arguments:

None

get Examples:

```
get video background
1,European Subway
2,European Town
3,Lighthouse
4,Road

ok,00

get video background -V
Number       Background Image
1            European Subway
2            European Town
3            Lighthouse
4            Road

ok
```

set Arguments:

`<image>`	The name of the image file to save. You cannot replace the standard image files or the default image file.

set Examples:

```
unix% base64 --wrap=0 image | ssh auto@ip set video background
   image

ok,00
```

This command supports here document input or simple redirection:

```
set video background image << EOF
<base 64 encoded data stream>
EOF

ok,00
```

bandwidth-balance

When used with the **`get`** verb, the **`bandwidth-balance`** target shows the percentage of total available bit rate for video that is allocated to the primary video stream during a dual stream call. The secondary stream gets whatever bandwidth is not used by the primary stream. When used with the **`set`** verb, this target controls the balance in bandwidth between the primary and secondary streams in a dual stream call.

get Arguments:

None

get Examples:

```
get video bandwidth-balance
90

ok,00

get video bandwidth-balance -V
Primary Video Bandwidth %
50

ok
```

set Arguments:

`<{10|20|30|40|50|60|70|80|90}>`	Specify the percentage of bandwidth allocated to the primary stream in a dual stream call. The default is 90.

set Examples:

```
set video bandwidth-balance 50

ok,00
```

encode-quality

When used with the **`get`** verb, the **`encode-quality`** target retrieves the video encoder quality setting. When used with the **`set`** verb, this target controls the encoder quality setting. At higher settings, the encoder decreases transmitted resolution in order to increase video quality.

get Arguments:

None

get Examples:

```
get video encode-quality
-2

ok,00

get video encode-quality -V
Encoder Quality
0

ok
```

set Arguments:

`<{-4..4}>`	Specify the encoder quality setting. The default is `-2`. To specify a negative number, **`--`** must precede the value.

set Examples:

```
set video encode-quality -- -4

ok,00

set video encode-quality 4

ok,00
```

h241-mbps

When used with the **`get`** verb, the **`h241-mbps`** target retrieves the state of the H.241 MaxStaticMBPS (maximum static macroblocks per second) option. When the state is *`on`*, the codec processes H.241 MaxStaticMBPS parameters. When used with the **`set`** verb, this target controls the state of the H.241 MaxStaticMBPS option.

get Arguments:

None

get Examples:

```
get video h241-mbps
off

ok,00

get video h241-mbps -V
H.241 MaxStaticMBPS
on

ok
```

set Arguments:

`<{on|off}>`	Specify whether H.241 MaxStaticMBPS parameters are processed.

set Examples:

```
set video h241-mbps off

ok,00
```

hdmi1-mode

When used with the **`get`** verb, the **`hdmi1-mode`** target shows whether the HD Input 1 operates in automatic mode or DVI compatibility mode.

When used with the **`set`** verb, this target controls whether the HD input operates in automatic mode or is forced into DVI compatibility mode. Try DVI mode if auto mode causes problems with your device (for example, no video, solid color video, or static).

This target applies to LifeSize Express only.

get Arguments:

None

get Examples:

```
get video hdmi1-mode
auto

ok,00

get video hdmi1-mode -V
Mode
dvi

ok
```

Arguments:

`<{auto|dvi}>`	Set the compatibility mode for the HD input port.

Examples:

```
set video hdmi1-mode dvi

ok,00
```

input-names

When used with the **`get`** verb, the **`input-names`** target retrieves the display names associated with the various video inputs. For LifeSize Room, names are returned for each of the 5 input sources (two HD cameras, document camera, VCR input, and VGA input). For LifeSize Team and LifeSize Team MP, names are returned for each of the three input sources (the HD camera, document camera, and VGA input). For LifeSize Express, names are returned for each of the 3 input sources (the HD camera, the HD input and the VGA input).

When used with the **`set`** verb, this target specifies the user friendly names of the various video inputs.

get Arguments:

None

get Examples:

```
get video input-names
HD Camera,Unused,Document Camera,VCR,PC

ok,00
```

LifeSize Room:

```
get video input-names -V
HD 0            HD 1        SD 0                SD 1      VGA 0
Hi-Def Camera   Unused      Document Camera     VCR       PC

ok
```

LifeSize Team and LifeSize Team MP:

```
get video input-names -V
HD 0            SD 0                VGA 0
Hi-Def Camera   Document Camera     PC

ok
```

LifeSize Express:

```
get video input-names -V
HD 0            HDMI 0      VGA 0
Hi-Def Camera   HD 1        PC
```

set Arguments:

`<{hd0|hd1|sd0|sd1|hdmi0|vga0}>`	Specify the input to name. The `hd1` argument is for naming HD camera 2 and applies to LifeSize Room only. The `sd1` argument is for naming the auxiliary video input and applies to LifeSize Room only. The `hdmi0` argument is for the HD input and applies to LifeSize Express only. LifeSize Express does not support naming the `sd0` input (document camera) because the input does not exist on that system.
`<value>`	The new name of the input. Enclose strings with spaces inside single or double quote characters.

set Examples:

```
set video input-names hd0 "HD Camera"

ok,00

set video input-names vga0 PC

ok,00
```

input-snapshot

The **`input-snapshot`** target retrieves a base64 encoded copy of one of the video snapshot images. Refer to **`input-snapshots`** for a list of available images. Refer to RFC-3548 for information about base64 encoded data. The output is a single line containing the base64 encoded data followed by the CLI response sequence (for example, column headers if **`-V`** is used, column output, blank line, and command status). If the file does not exist, a blank line precedes the CLI response data. This target applies to the **`get`** verb.

Arguments:

None

Examples:

```
get video input-snapshot hd0
/9j/wAARCAFgAh...AAAAAAD/2Q= (base64 encoded version of hd0.jpg)
hd0,19232

ok,00

get video input-snapshot sd0 -V
/9j/wAARCAFgAh...AAAAAP8A/9k (base 64 encoded version of sd0.jpg)
Image           Size(bytes)
sd0             5439

ok

get video input-snapshot foo
(blank line equivalent to a base64 encoded empty file)
foo,0

error,04
```

input-snapshots

When used with the **`get`** verb, the **`input-snapshots`** target shows whether the video snapshot feature is enabled or disabled. Snapshots appear in the web administration interface. The video snapshot feature enables administrators to save video snapshots in .jpg format of the video from the near and far cameras using the Call Manager in the web administration interface. When used with the **`set`** verb, this target enables or disables the video snapshot feature.

get Arguments:

None

get Examples:

```
get video input-snapshots
on,hd0 sd0 sd1 vga0

ok,00
```

```
get video input-snapshots -V
State    Inputs Available
off

ok

get video input-snapshots -V
State    Inputs Available
on        hd0 hdmi0 vga0

ok
```

set Arguments:

<{on|off}>	Specify whether snapshots are enabled or disabled.

set Examples:

```
set video input-snapshots on

ok,00
```

mtu

When used with the **get** verb, the **mtu** target retrieves the current setting of the video maximum transfer unit. When used with the **set** verb, this target sets the maximum transfer unit size in bytes for the video encoder.

get Arguments:

None

get Examples:

```
get video mtu
1200

ok,00

get video mtu -V
Video MTU Size (bytes)
1440

ok
```

set Arguments:

`<{900..1500}>`	Specify the MTU for the video encoder.

set Examples:

```
set video mtu 1500

ok,00
```

pip-mode

When used with the **`get`** verb, the **`pip-mode`** target retrieves the current state of the picture-in-picture (PIP) feature. When used with the **`set`** verb, this target controls the default operation of the PIP feature during an active call. In `auto` mode, the window is visible only when the interface is visible and follows the fadeout timer settings. When `on`, the window is always visible; when `off`, it is never visible. This command cannot be used to change the PIP window state for an active call. To change the PIP window state for an active call, use the **`pip-window`** target.

get Arguments:

None

get Examples:

```
get video pip-mode
auto

ok,00

get video pip-mode -V
State
on

ok
```

set Arguments:

`<{on|off|auto}>`	Specify how the PIP window operates.

set Examples:

```
set video pip-mode auto

ok,00

set video pip-mode off

ok,00
```

pip-window

The **`pip-window`** target controls the PIP display during a call. Turning the window on or off also changes the **`pip-mode`** setting to match the **`pip-window`** setting. This command shows the interface on the screen. If you set the PIP window to off, the window disappears when the interface fades out. If the interface fadeout timer is set to never, you cannot turn off the PIP window (since the interface never fades out). Turning the window on takes effect immediately. This target applies to the **`set`** verb.

Arguments:

`<{on|off}>`	Turn the PIP window on or off.

Examples:

```
set video pip-window on

ok,00

set video pip-window off

ok,00
```

primary-background

When used with the **`get`** verb, the **`primary-background`** target shows the current background image name for the primary display (display port 1). When used with the **`set`** verb, this target changes the background image on the primary display.

get Arguments:

None

get Examples:

```
get video primary-background
European Subway

ok,00

get video primary-background -V
Background Image
Road

ok
```

set Arguments:

`<image>`	Specify the image to display. The image may be the index number from **`get video background`**, any unique part of the image name from the same command (case insensitive), or default to show the default image.

set Examples:

```
set video primary-background town

ok,00

set video primary-background 3

ok,00
```

primary-display

When used with the **`get`** verb, the **`primary-display`** target shows the configuration for the primary display. This command produces different output on LifeSize Express. When used with the **`set`** verb, this target controls the configuration of the primary video display.

get Arguments:

None

get Examples:

LifeSize Room, LifeSize Team, and LifeSize Team MP:

```
get video primary-display
auto,auto,720p

ok,00

get video primary-display -V
Mode    Resolution    Output
vga     1280 768      vga 1280 768

ok
```

LifeSize Express:

```
get video primary-display
auto,hdmi 1280 720

ok,00

get video primary-display -V
Resolution    Output
auto          hdmi 1280 768

ok
```

set Arguments:

[-m {auto|720p|vga}]	Specify the format for the primary display. Choose 720p to force component output and vga to force VGA output. This option is not available on LifeSize Express.
[-r {auto|720|768}]	Specify the resolution of the primary display. Choose 720 for 1280x720 and 768 for 1280x768. Only used if the mode is set to vga or on LifeSize Express.

set Examples:

```
set video primary-display -m vga -r 768

ok,00
```

primary-input

When used with the **`get`** verb, the **`primary-input`** target retrieves the current setting for the primary input. When used with the **`set`** verb, this target controls what video source is associated with the primary input.

get Arguments:

None

get Examples:

```
get video primary-input
hd0
ok,00

get video primary-input -V
Input
hd0

ok
```

set Arguments:

`<{hd0|hd1|hdmi0|sd0|sd1|vga0}>`	Specify the new source for the primary video input. For LifeSize Room, the valid values are hd0, hd1, sd0, sd1, and vga0. For LifeSize Team and LifeSize Team MP, the valid values are hd0, sd0, and vga0. For LifeSize Express, the valid values are hd0, hdmi0, and vga0.

set Examples:

```
set video primary-input hd0

ok,00

set video primary-input vga0

ok,00
```

primary-motion

When used with the **`get`** verb, the **`primary motion`** target retrieves the current setting for the preference of motion over sharpness when encoding the primary video stream. When used with the **`set`** verb, this target controls the preference for motion over sharpness when encoding the primary video stream.

get Arguments:

None

get Examples:

```
get video primary-motion
10

ok,00

get video primary-motion -V
Primary Video Motion
9

ok
```

set Arguments:

`<{1..10}>`	Specify the motion preference. Larger numbers prefer motion over sharpness.

set Examples:

```
set video primary-motion 9

ok,00
```

secondary-background

When used with the **`get`** verb, the **`secondary-background`** target retrieves the current background image name for the secondary display (display port 2). When used with the **`set`** verb, this target changes the background image on the secondary display (display port 2). This target applies only to LifeSize Room.

get Arguments:

None

get Examples:

```
get video secondary-background
European Town

ok,00

get video secondary-background -V
Background Image
default

ok
```

set Arguments:

`<image>`	Specify the image to display. The image may be the index number from **`get video background`**, any unique part of the image name from the same command (case insensitive), or default to show the default image.

set Examples:

```
set video secondary-background default

ok,00

set video secondary-background "European Town"

ok,00
```

secondary-display

When used with the **`get`** verb, the **`secondary-display`** target shows the configuration for the secondary display. When used with the **`set`** verb, this target controls the configuration of the secondary video display. This target applies to LifeSize Room only.

get Arguments:

None

get Examples:

```
get video secondary-display
auto,auto,720p

ok,00

get video secondary-display -V
Mode    Resolution    Output
vga     1280 768      vga 1280 768

ok
```

set Arguments:

`[-m {auto|720p|vga}]`	Specify the format for the secondary display. Choose `720p` to force component output. Choose `vga` to force VGA output
`[-r {auto|720|768}]`	Specify the resolution of the secondary display. Choose `720` for 1280x720. Choose `768` for 1280x768. Only used if -m is set to vga.

set Examples:

```
set video secondary-display -m vga -r 768

ok,00
```

secondary-input

When used with the **`get`** verb, the **`secondary-input`** target retrieves the current setting for the secondary input. For LifeSize Room, the valid values are hd0, hd1, sd0, sd1, and vga0. For LifeSize Team and LifeSize Team MP, the valid values are hd0, sd0, and vga0. For LifeSize Express, the valid values are hd0, hdmi0, and vga0.

When used with the **`set`** verb, this target controls what video source is associated with the secondary input.

get Arguments:

None

get Examples:

```
get video secondary-input
vga0

ok,00

get video secondary-input -V
Input
sd0

ok
```

set Arguments:

<{hd0|hd1|hdmi0|sd0|sd1|vga0}>	Specify the new source for the secondary video input. For LifeSize Room, the valid values are hd0, hd1, sd0, sd1, and vga0. For LifeSize Team and LifeSize Team MP, the valid values are hd0, sd0, and vga0. For LifeSize Express, the valid values are hd0, hdmi0, and vga0.

set Examples:

```
set video secondary-input hd1

ok,00
```

secondary-layout

When used with the **get** verb, the **secondary-layout** target retrieves the layout option specified for video in the secondary display connected to a LifeSize Room system. When used with the **set** verb, this target specifies the layout option for video that appears in the secondary video display. This target applies to LifeSize Room only.

get Arguments:

None

get Examples:

```
get video secondary-layout
simulcast

ok,00

get video secondary-layout -V
Secondary Display
side-by-side

ok
```

set Arguments:

<{projector|side-by-side|simulcast|vga}>	Specify the content displayed on the secondary display. Projector displays the VGA input when not in a call and the presentation when in a call. Side-by-side adds the near camera view when in a call and not in a presentation, Simulcast displays the same information as on the primary display when in a call and not in a presentation. VGA displays only the VGA input.

set Examples:

```
set video secondary-layout projector

ok,00
```

secondary-sharpness

When used with the **get** verb, the **secondary-sharpness** target retrieves the setting for the preference for sharpness over motion when encoding the secondary video stream. When used with the **set** verb, this target controls the preference for sharpness over motion when encoding the secondary video stream.

get Arguments:

<{1..10}>	Specify the sharpness preference. Higher numbers prefer sharpness over motion.

get Examples:

```
get video secondary-sharpness
10

ok,00

get video secondary-sharpness -V
Secondary Video Sharpness
9

ok,00
```

set Arguments:

`<{1..10}>`	Specify the sharpness preference. Larger numbers prefer sharpness over motion.

set Examples:

```
set video secondary-sharpness 9

ok,00
```

volume

The following targets are applicable to the **`volume`** object.

aux-in

When used with the **`get`** verb, the **`aux-in`** target retrieves the volume setting for the auxiliary input on LifeSize Room. The scale is 0 to 10. When used with the **`set`** verb, this target controls the volume setting for the auxiliary input on systems that have auxiliary inputs. This target applies to LifeSize Room only.

get Arguments:

None

get Examples:

```
get volume aux-in
5

ok,00

get volume aux-in -V
Volume
6

ok
```

set Arguments:

`<{0..10}>`	Specify the volume level (0 = off, 10 = max) for the auxiliary input.

set Examples:

```
set volume aux-input 5

ok,00
```

dtmf

When used with the **`get`** verb, the **`dtmf`** target retrieves the current volume setting (using a scale of 0 to 10) for Dual Tone Multi Frequency (DTMF) tones when placing a call. When used with the **`set`** verb, this target controls the volume setting for Dual Tone Multi Frequency (DTMF) tones.

get Arguments:

None

get Examples:

```
get volume dtmf
5

ok,00

get volume dtmf -V
Volume
6

ok
```

set Arguments:

`<{0..10}>`	Specify the volume level (0 = off, 10 = max) for DTMF tone generation.

set Examples:

```
set volume dtmf 5

ok,00
```

line-in

When used with the **`get`** verb, the **`line-in`** target retrieves the relative volume setting for the line input. The scale is 0 to 10. When used with the **`set`** verb, this target controls the volume setting for the line input.

get Arguments:

None

get Examples:

```
get volume line-in
5

ok,00

get volume line-in -V
Volume
6

ok
```

set Arguments:

`<{0..10}>`	Specify the volume level (0 = off, 10 = max) for the line input.

set Examples:

```
set volume line-in 5

ok,00
```

ring-tone

When used with the **`get`** verb, the **`ring-tone`** target retrieves the current volume setting for the ring tone. When used with the **`set`** verb, this target controls the volume setting for the ring tone.

get Arguments:

None

get Examples:

```
get volume ring-tone
5

ok,00

get volume ring-tone -V
Volume
6

ok
```

set Arguments:

`<{0..10}>`	Specify the volume level (0 = off, 10 = max) for ring tone generation.

set Examples:

```
set volume ring-tone 5

ok,00
```

speaker

When used with the **`get`** verb, the **`speaker`** target retrieves the current volume setting for the system speaker (audio loudness). When used with the **`set`** verb, this target controls the volume of the system speaker.

get Arguments:

None

get Examples:

```
get volume speaker
50

ok,00

get volume speaker -V
Volume
70

ok
```

set Arguments:

`<{0..100}>`	Specify the volume level (0 = off, 100 = max) for system audio.

set Examples:

```
set volume speaker 60
ok,00
```

status-tone

When used with the **`get`** verb, the **`status-tone`** target retrieves the current volume setting for the system status tones. When used with the **`set`** verb, this target controls the volume of the system status tones.

get Arguments:

None

get Examples:

```
get volume status-tone
3

ok,00

get volume status-tone -V
Volume
5

ok
```

set Arguments:

`<{0..10}>`	Specify the volume level (0 = off, 10 = max) for the status tones.

set Examples:

`set volume status-tone` ***`5`***

```
ok,00
```

status Verb: Object and Targets

The following objects and targets are applicable to the **`status`** verb.

call

The following targets are applicable to the **`status call`** object.

active

The **`active`** target shows the status of all active calls in the system.

Arguments:

`[-c conference]`	Restrict output to the specified conference ID.
`[-C call]`	Restrict output to the specified call ID.
`[-d incoming|outgoing]`	Restrict output to the specified call direction.
`[-t audio|video]`	Restrict output to the specified call type.

Examples:

```
status call active
18,5,Ringback,Yes,Video,10.10.11.155,Jones
3,1,Connected,No,Audio,5551212,
4,2,Ringing,No,Video,10.10.11.110,LifeSize

ok,00
```

```
status call active -V -c 1
Call   Conf   State      Incoming   Type    Number        Name
11     1      Ringing    No         Video
12     1      Ringback   Yes        Video   10.10.11.155  Jones

ok
```

```
status call active -d incoming -t video
11,1,Connected,Yes,Video,10.10.11.155,Jones
12,1,Connected,Yes,Video,10.10.11.116,LifeSize

ok,00
```

Note: Valid values for the `State` field are *`Dialing`*, *`Ringing`*, *`Connected`*, *`Terminating`*, and *`Ringback`*. Valid values for the `Type` field are *`Video`*, *`Audio`*, and *`Unknown`*.

In software release v3.0, a LifeSize system that is a far end participant in a multiway call with a LifeSize system that is the MCU lists the virtual parties (the non-directly connected parties) of the call with *V* as the call ID. It is not possible to restrict output to only virtual parties.

history

The **`history`** target shows historical information on completed calls. Active calls are not shown. The information consists of the following fields:

Field Name	Description	Display Mode[a]
`ID`	The call identifier—a monotonically incrementing index for the call **Note**: This is not the call handle used during an active call.	Default
`Conf`	The conference identifier— a monotonically incrementing index used to distinguish conference participants **Note**: This is not the conference handle used during an active conference.	Default
`Local Name`	The name of the local system (the system providing the call history)	Default
`Local Number`	The number of the local system	Default
`Remote Name`	The name of the remote system (the other participant in the call)	Default
`Remote Number`	The number of the remote system	Default
`Dialed Digits`	The digits used to place the call	Default
`Start Time`	The time in ISO date format at which the call started	Default

Field Name	Description	Display Mode[a]
`End Time`	The time in ISO date format at which the call ended	Full
`Duration`	The length of the call in hours:minutes:seconds	Default
`Direction`	Indication of incoming or outgoing call	Default
`Protocol`	The communications protocol used for the call	Full
`Security`	The security protocol used for the call	Full
`Req Kibps`	Requested bit rate for the call	Full
`Act Kibps`	Actual bit rate for the call	Full
`TX Vid`	Transmit video codec used	Full
`TX Aud`	Transmit audio codec used	Full
`TX Res`	Transmit resolution used	Full
`RX Vid`	Received video codec used	Full
`RX Aud`	Received audio codec used	Full
`RX Res`	Received resolution	Full
`TX Pres`	Transmit presentation status—whether or not a presentation was transmitted	Full
`RX Pres`	Receive presentation status—whether or not a presentation was received	Full
`Pres Fmt`	Presentation format—the protocol used for the secondary video stream	Full
`Term Code`	Call termination code	Full
`TxV1 Pct Loss`	Percent packet loss of primary video transmitted	Full
`RxV1 Pct Loss`	Percent packet loss for primary video received	Full

Field Name	Description	Display Mode[a]
TxV1 Pkts Lost	Number of packets lost for primary video transmitted	Full
RxV1 Pkts Lost	Number of packets lost for primary video transmitted.	Full
TxV1 Avg Jitter	Average jitter for primary video transmitted	Full
RxV1 Avg Jitter	Average jitter for primary video received	Full
TxV1 Max Jitter	Maximum jitter for primary video transmitted	Full
RxV1 Max Jitter	Maximum jitter for primary video received	Full
TxA1 Pct Loss	Percent packet loss for audio transmitted	Full
RxA1 Pct Loss	Percent packet loss for audio received	Full
TxA1 Pkts Lost	Number of packets lost for audio transmitted	Full
RxA1 Pkts Lost	Number of packets lost for audio received	Full
TxA1 Avg Jitter	Average jitter for audio transmitted	Full
RxA1 Avg Jitter	Average jitter for audio received	Full
TxA1 Max Jitter	Maximum jitter for audio transmitted	Full
RxA1 Max Jitter	Maximum jitter for audio received	Full
TxV2 Pct Loss	Percent packet loss for secondary video transmitted	Full
TxV2 Pct Loss	Percent packet loss for secondary video received	Full
TxV2 Pkts Lost	Number of packets lost for secondary video transmitted	Full
RxV2 Pkts Lost	Number of packets lost for secondary video transmitted	Full
TxV2 Avg Jitter	Average jitter for secondary video transmitted	Full

Field Name	Description	Display Mode[a]
`RxV2 Avg Jitter`	Average jitter for secondary video received	Full
`TxV2 Max Jitter`	Maximum jitter for secondary video transmitted	Full
`RxV2 Max Jitter`	Maximum jitter for secondary video received	Full

a. The `Default` display mode indicates that the field always appears in the output. The `Full` display mode indicates that the field appears in the output only when you specify the `-f` option with the command. By default, only a limited set of statistics appear.

Arguments:

-U	Show times as UTC instead of local time.
-f	Enable full display mode showing all available statistics.

Examples:

`status call history`

```
39,10,lifesize,10.10.11.209,unknown,9710,1234567,2007-07-09 17:13:32,01:02:56,In
38,10,lifesize,10.10.11.209,unknown,1310,8901234,2007-07-09 16:14:03,00:00:00,In
37,9,lifesize,10.10.11.209,unknown,9710,5678901,2007-07-09 15:13:13,00:16:45,In

ok,00
```

Note: The output in the following example is split by column into tables for visual clarity. The actual output is a single line for each call.

`status call history -V`

```
ID   Conf  Local Name  Local Number   Remote Name  Remote Number  Dialed Digits
39   10    lifesize    10.10.11.209   unknown      9710           1234567
38   10    lifesize    10.10.11.209   unknown      1310           8901234
37   9     lifesize    10.10.11.209   unknown      9710           5678901


Start Time          Duration   Direction
2007-07-09 17:13:32 01:02:56   In
2007-07-09 16:14:03 00:00:00   In
2007-07-09 15:13:13 00:16:45   In

ok
```

status call history -f

```
39,10,lifesize,10.10.11.209,unknown,9710,1234567,
   2007-07-09 17:13:32,2007-07-09,18:16:28,01:02:56,In,H.323,
   None,512,448,H.264,G.711Ulaw,HD,H.264,G.711Ulaw,HD,No,No,
   None,Normal,0.000,0.000,0,0,5.000,5.000,16,9,0.000,0.000,0,0,
   31.000,31.000,31,31,0.000,0.000,0,0,0.000,0.000,0,0

38,10,lifesize,10.10.11.209,unknown,1310,8901234,
   2007-07-09 16:14:03,2007-07-09 16:14:03,00:00:00,In,H.323,
   None,1152,0,,,,,,,No,No,None,Normal,0.000,0.000,0,0,5.000,
   5.000,16,9,0.000,0.000,0,0,31.000,31.000,31,31,0.000,0.000,0,
   0,0.000,0.000,0,0

37,9,lifesize,10.10.11.209,unknown,9710,5678901,
   2007-07-09 15:13:13,2007-07-09 15:29:58,00:16:45,In,H.323,
   None,512,448,H.264,G.711Ulaw,HD,H.264,G.711Ulaw,HD,No,No,
   None,Normal,0.000,0.000,0,0,5.000,5.000,16,9,0.000,0.000,0,0,
   31.000,31.000,31,31,0.000,0.000,0,0,0.000,0.000,0,0

ok,00
```

The output in the following example is split by column into multiple tables for visual clarity. The actual output is a single line for each call.

status call history -V -f

ID	Conf	Local Name	Local Number	Remote Name	Remote Number	Dialed Digits
39	10	lifesize	10.10.11.209	unknown	9710	1234567
38	10	lifesize	10.10.11.209	unknown	1310	8901234
37	9	lifesize	10.10.11.209	unknown	9710	5678901

Start Time	End Time	Duration	Direction	Protocol	Security
2007-07-09 17:13:32	2007-07-09 18:16:28	01:02:56	In	H.323	None
2007-07-09 16:14:03	2007-07-09 16:14:03	00:00:00	In	H.323	None
2007-07-09 15:13:13	2007-07-09 15:29:58	00:16:45	In	H.323	None

Req Kibps	Act Kibps	TX Vid	TX Aud	TX Res	RX Vid	RX Aud	RX Res
512	448	H.264	G.711Ulaw	HD	H.264	G.711Ulaw	HD
1152	0						
512	448	H.264	G.711Ulaw	HD	H.264	G.711Ulaw	HD

```
TX Pres   RX Pres  Pres Fmt  Term Code  TxV1 Pct Loss RxV1 Pct Loss  TxV1 Pkts Lost
No        No       None      Normal     0.000         0.000          0
No        No       None      Normal     0.000         0.000          0
No        No       None      Normal     0.000         0.000          0

RxV1 Pkts Lost  TxV1 Avg Jitter  RxV1 Avg Jitter  TxV1 Max Jitter  RxV1 Max Jitter
0               5.000            5.000            16               9
0               5.000            5.000            16               9
0               5.000            5.000            16               9

TxA1 Pct Loss   RxA1 Pct Loss    TxA1 Pkts Lost   RxA1 Pkts Lost   TxA1 Avg Jitter
0.000           0.000            0                0                31.000
0.000           0.000            0                0                31.000
0.000           0.000            0                0                31.000

RxA1 Avg Jitter TxA1 Max Jitter  RxA1 Max Jitter  TxV2 Pct Loss    RxV2 Pct Loss
31.000          31               31               0.000            0.000
31.000          31               31               0.000            0.000
31.000          31               31               0.000            0.000

TxV2 Pkts Lost  RxV2 Pkts Lost   TxV2 Avg Jitter  RxV2 Avg Jitter  TxV2 Max Jitter
0               0                0.000            0.000            0
0               0                0.000            0.000            0
0               0                0.000            0.000            0

RxV2 Max Jitter
0
0
0

ok
```

statistics

The **`statistics`** target shows bandwidth and codec statistics for active calls or a specific active call.

Note: The user interface shows statistics for the virtual parties in a virtual multiway call; autosh shows only statistics for the actual link.

Following are the complete set of fields that appear.

Field Name	Description
ID	The call handle
ARX Codec	Audio Receive Codec - shows the audio codec used by the remote transmitter.
Kibps	Kilo Bits per second - shows the bit rate divided by 1024 for the preceding column's codec.
ATX Codec	Audio Transmit Codec - shows the audio codec used by the local transmitter.
VRX Codec	Video Receive Codec - shows the video codec used by the remote transmitter.
VTX Codec	Video Transmit Codec - shows the video codec used by the local transmitter.
ARX Jitter	Audio Receive Jitter - shows the packet jitter from the remote audio transmission.
ARX Pktps	Audio Receive Packets per second - shows the received audio packet rate which is dependent on the bit rate and codec used.
ARX Pkt Loss	Audio Receive Packet loss - shows the instantaneous number of audio packets transmitted by the remote side that were never received (or received too late) at the local side.
ARX Cumu Loss	Audio Receive cumulative packet loss - shows the total number of remote transmitted audio packets that were lost.
ARX % Loss	Audio Receive percentage packet loss - shows the percent of the total remote transmitted audio packets that were lost.
ATX Jitter	Audio Transmit Jitter - shows the packet jitter from the local audio transmission.
ATX Pktps	Audio Transmit Packets per second - shows the transmitted audio packet rate which is dependent on the bit rate and codec used.
ATX Pkt Loss	Audio Transmit Packet loss - shows the instantaneous number of audio packets transmitted by the local side that were never received (or received too late) at the remote side.
ATX Cumu Loss	Audio Transmit cumulative packet loss - shows the total number of locally transmitted audio packets that were lost.
ATX % Loss	Audio Transmit percentage packet loss - shows the percent of the total locally transmitted audio packets that were lost.

Field Name	Description
VRX Jitter	Video Receive Jitter - shows the packet jitter from the remote video transmission.
VRX Pkt Loss	Video Receive Packet loss - shows the instantaneous number of video packets transmitted by the remote side that were never received (or received too late) at the local side.
VRX Cumu Loss	Video Receive cumulative packet loss - shows the total number of remote transmitted video packets that were lost.
VRX % Loss	Video Receive percentage packet loss - shows the percent of the total remote transmitted video packets that were lost.
VRX Fps	Video Receive Frames per second - shows the frame rate of the received video.
VRX Res	Video Receive Resolution - shows the resolution (width by height) of the received video.
VTX Jitter	Video Transmit Jitter - shows the packet jitter from the local video transmission.
VTX Pkt Loss	Video Transmit Packet loss - shows the instantaneous number of video packets transmitted by the local side that were never received (or received too late) at the remote side.
VTX Cumu Loss	Video Transmit cumulative packet loss - shows the total number of local transmitted video packets that were lost.
VTX % Loss	Video Transmit percentage packet loss - shows the percent of the total number of local transmitted video packets that were lost.
VTX Fps	Video Transmit Frames per second - shows the frame rate of the transmitted video.
VTX Res	Video Transmit Resolution - shows the resolution (width by height) of the transmitted video.

Arguments:

[-C callHandle]	Specify that statistics for a specific call handle are desired. This argument cannot be used with **-a**.
[-a]	The output produced by specifying the **-a** argument with this target for recent calls statistics is deprecated. The target accepts the **-a** argument, but ignores it. Specifying this argument produces statistics only for active calls.

Examples:

```
status call statistics
1,G722,78.1,AAC_LC,94.0,H264,924.6,H264,893.9,19,50,0,0,
   0.000000,19,50,0,0,0.000000,7,0,0,0.000000,30,
   1280 720,7,0,0,0.000000,30,1280 720
4,G711ULAW,62.4,G711ULAW,62.4,H264,1050.2,H264,1050.2,17,50,0,0,
   0.000000,17,50,0,4,0.000000,9,0,0,0.000000,30,
   1280 720,9,0,0,0.000000,30,1280 720

ok,00
```

The output in the following example is split by column into tables for visual clarity. The actual output is a single line for each call.

```
status call statistics -V
ID  ARX Codec   Kibps   ATX Codec  Kibps   VRX Codec  Kibps   VTX Codec
1   G722        78.1    AAC_LC     94.0    H264       924.6   H264
4   G711ULAW    62.4    G711ULAW   62.4    H264       1050.2  H264

Kibps   ARX Jitter   ARX Pktps  ARX Pkt Loss  ARX Cumu Loss  ARX % Loss
893.9   19           50         0             0              0.000000
1050.4  17           50         0             0              0.000000

ATX Jitter  ATX Pktps ATX Pkt Loss  ATX Cumu Loss ATX % Loss  VRX Jitter
19          50        0             4             0.000000   7
17          50        0             4             0.000000   9

VRX Pkt Loss  VRX Cumu Loss VRX % Loss   VRX Fps   VRX Res   VTX Jitter
0             0             0.000000     30        1280 720  7
0             0             0.000000     30        1280 720  9
```

```
VTX Pkt LossVTX Cumu Loss VTX % Loss   VTX Fps   VTX Res
0           0             0.000000     30        1280 720
0           0             0.000000     30        1280 720


ok
```

```
status call statistics -C 1
1,G722,62.4,AAC_LC,93.7,H264,924.6,H264,894.8,19,50,0,0,
   0.000000,19,50,0,0,0.000000,7,0,0,0.000000,30,
   1280 720,7,0,0,0.000000,30,1280 720

ok,00
```

Presentation targets

The **`presentation`** object shows information about presentations.

statistics

The **`statistics`** target shows information about active presentations, either received or transmitted.

Arguments:

`[-c conference]`	Restrict output to the specified conference ID.

Examples:

```
status presentation statistics
1,true,rx,dec2,H264,145.6,1280 720

ok,00
```

```
status presentation statistics -c 1 -V
Conf       Enabled    Type       Device     Codec      Kibps      Resolution
1          true       tx         sd0        H264       144.7      704 480


ok
```

control Verb: Objects and Targets

The following objects and targets are applicable to the **`control`** verb.

Asynchronous Messages

During normal operation, the system may receive asynchronous messages relating to call status changes, presentation status changes, or incoming call notifications. These messages are printed after a command completes between the ok or error message and the shell prompt, for example:

```
...
ok,00
CS,3,1,Connected,Video,Normal,10.10.11.10,LifeSize
<prompt>
```

In addition, if the shell detects that no input has been received since the prompt was printed, it may spontaneously print an asynchronous message by emulating the user having pressed return. In this way, asynchronous messages are delivered in a timely fashion while still guaranteeing that the messages do not interfere with processing the current command being executed.

Because asynchronous messages may be received at any time and to preserve the order in which messages arrive, some commands do not produce any synchronous output and instead produce only asynchronous output. Execution of these commands generally causes asynchronous messages (for example, placing a call, starting a presentation). Commands that operate in this fashion are indicated as doing so in the description of the command.

Call Status Messages

While a call is active, or as a response to the **`control call`**, **`add-part`**, **`answer`**, **`del-part, dial`** and **`hangup`** commands, the CLI produces status messages about the call. These messages use the Call Status (CS) format. For example:

```
...
ok,00
CS,3,1,Connected,Video,Normal,10.10.11.10,LifeSize
<prompt>
```

The meaning of the columns is as follows:

Col #	Meaning	Values	Description
1	Prefix	CS	CS indicates that this asynchronous event is a call status update.
2	Call ID	<number>	Indicates the number of the call.
3	Conference ID	<number>	Indicates the number of the conference managing this call.
4	State	On Hook Terminating Terminated Off Hook Valid Number Dialing Proceeding Ringing Answered Number Answered Consult Connected Call Encrypted Call Not Encrypted Notify Info Ring Incoming Caller ID Local Ring Back Off Remote Pres Begin Remote Pres End Remote Pres Failed Far End Mute Far End Unmute Far End Hold Far End Resume	Phone is on hook. Call is terminating. Call is terminated (but may still be off hook). Phone is off hook. Dialed number is valid. Dialing is proceeding. Call is proceeding. Call is ringing. Answered number information. When a call is answered in consult mode (private from main call). Call is connected. Call is encrypted. Call is not encrypted. Notification of miscellaneous events. Incoming call received. Caller ID information. Local ringback is off. A remote presentation is beginning. A remote presentation is ending. The remote presentation has failed. The far end has muted the microphone. The far end has unmuted the microphone. The far end has placed the call on hold. The far end has resumed the call.
5	Type	Audio Video Unknown	The message pertains to an audio call. The message pertains to a video call. The message pertains to either type of call.

Col #	Meaning	Values	Description
6	Disconnect Reason	Normal Unknown Busy No Answer Bad Number Comm Failure Unreachable Rejected Max Calls Parse Error Enc Not Sup No Bandwidth Unreachable GK GK Resources GW Resources Invalid Addr Not Registered SIP 400 SIP 403 SIP 404 SIP 415 SIP 416 SIP 480 SIP 500 SIP 502 SIP 513 SIP 603 SIP 606	Normal disconnection. Unknown reason for disconnection. Remote end is busy. Remote end did not answer. Invalid number dialed. Communications failure. Remote end is unreachable. Remote end rejected the call. Simultaneous call limit reached. Parse error in called address. Encoder not supported. No bandwidth available for call. Gatekeeper is unreachable. Gatekeeper out of resources for call. Gateway out of resources for call. Invalid called address. Called address not registered. SIP Bad request. SIP Disallowed. SIP Remote party not in a domain. SIP Mismatched codec. SIP Unsupported address. SIP User temporarily unavailable. SIP Server error. SIP Bad gateway. SIP Server failed - request too large. SIP User declined call. SIP Service not acceptable.
7	Number	<IP or PSTN #>	The phone number of the remote side of the call.
8	Name	<string>	The assigned name of the remote system.

Incoming Call Messages

When an incoming call is received, a status message about the call is printed. These messages use mostly the same format as the call status messages previously described, but are prefixed with “IC” (incoming call) instead of “CS” and do not contain the disconnect reason field (row 6 in the previous example), for example:

```
...
ok,00
IC,16,1,Ringback,Video,10.10.11.155,Sunshine
<prompt>
```

Once an incoming call notice has been generated, further notices about that specific call are relayed through call status (“CS”) messages.

Presentation Status Messages

While a presentation is active, or as a response to the **`control call presentation`** command, the CLI produces status messages about the presentation. These messages use the PS (presentation status) format, for example:

```
...
ok,00
PS,15,1,Terminated,No,Rejected
<prompt>
```

The output columns for this command are as follows:

Col #	Meaning	Values	Description
1	Prefix	PS	PS indicates that this asynchronous event is a presentation status event.
2	Presentation ID	<number>	Indicates the number of the presentation.
3	Conference ID	<number>	Indicates the number of the conference running the presentation.
4	State	Initiated Terminated Relinquished	The presentation has started. The presentation has ended. The local presentation has been superseded by a remote one.
5	Remote	Yes No	The presentation message concerns a remote presentation. The presentation message concerns a local presentation.

Col #	Meaning	Values	Description
6	Disconnect Reason	None	No disconnect has occurred.
		Normal	Normal disconnect occurred (phone on hook).
		Rejected	The presentation was rejected.
		Unknown	Unknown disconnect occurred.

Far Camera Control Messages

During an active call you may receive control messages for the local camera. The system normally handles these messages internally, but in the event that an external pan-tilt-zoom camera is being used, external control software can use these messages to determine what actions to take with that camera. These messages use the FC (far camera) format. For example:

```
...
ok,00
FC,1,Near,0,Move,Pan Left     # Begin moving camera left.
...
ok,00
FC,1,Near,0,Move,Continue     # Continue current camera motion.
...
ok,00
FC,1,Near,0,Stop,None         # Stop camera movement.
...
ok,00
FC,1,Near,sd0,None,None       # Change camera source to sd0.
```

Following are the output columns for this format:

Col #	Meaning	Values	Description
1	Prefix	FC	FC indicates this asynchronous event is a far camera control message.
2	Call ID	<number>	The call ID associated with this message.
3	Where	Near Far None	The local camera is the target of the operation. The far camera is the target of the operation. The message does not pertain to a camera.
4	Target	0 hd0 hd1 sd0 sd1 vga0	The currently selected camera is the target. The primary high definition camera is the target. The secondary high definition camera is the target. The document camera is the target. The DVD/VCR input is the target. The VGA input is the target.
5	Operation	Move Stop None	The camera should begin or continue motion. The camera should stop all motion immediately. The message is not a motion control message.
6	Movement	Pan Left Pan Right Tilt Up Tilt Down Zoom In Zoom Out Focus In Focus Out None	Pan the camera to the left. Pan the camera to the right. Tilt the camera up. Tilt the camera down. Zoom the camera in (telephoto). Zoom the camera out (widen). Focus the camera in. Focus the camera out. Not a camera motion operation.

The movement messages generally do not indicate the camera being operated, so any control software must use **`get video primary-input`** to determine the camera to control if more than one PTZ camera is connected to the system. Monitoring for source change messages is insufficient, because the local user can change the camera source without causing a message to be generated.

Mute Status Messages

During normal call operation, the state of the remote side mute function is available through the call status messages. The local mute status is available through the Mute Status message. These messages use the `MS` prefix and are in direct response to the user pressing the local mute button on either the phone or the remote. The mute status messages use the following format:

```
...
ok,00
MS,true
...
ok,00
MS,false
```

When the second column is *`true`*, the local side is muted. When the second column is *`false`*, the local side is not muted. When an outgoing call is placed, the local mute status is false. When an incoming call is placed, the state of the auto-mute (see **`get call auto-mute`**) controls the initial state. The current status is available through the **`get audio mute`** command.

Video Capabilities Messages

The remote side of a call may support sending more than one video source. The video capabilities message provides a means to determine which sources are supported and what capabilities they provide. This message generally appears after a call is connected, but may also appear mid call if the remote codec supports hot-plugging of video sources. Video capabilities messages use the following format:

```
...
ok,00
VC,12,2,hd0,PTZF,sd0,---
...
ok,00
VC,12,1,hd0,PTZF
```

The output columns are as follows:

Col #	Meaning	Values	Description
1	Prefix	`VC`	VC indicates that this asynchronous event is a video capabilities message.
2	Call ID	`<number>`	The call ID associated with this message.
3	Count	`<number>`	The number of video sources available for this call. Each video source indicated in this count has two additional columns.

4, 6, ...	Source	`hd0`
		`hd1`
		`sd0`
		`sd1`
		`vga0`
			Indicates that the primary Hi Def camera is available
			Indicates that the secondary Hi Def camera is available
			Indicates that the document camera is available
			Indicates that the DVD/VCR input is available
			Indicates that the VGA input is available

5, 7, ...	Capabilities	`PTZF` or `----` or a combination	Each character is a flag indicating a capability supported. `P` indicates support for panning, `T` indicates support for tilting, `Z` indicates support for zooming and `F` indicates support for focusing. A dash (-) indicates that the corresponding capability is not present.

Only the supported sources are reported. If a source is not listed, video is not available from that source.

call

The following targets are applicable to the **`call`** object.

For those targets that take a called address, the address may be specified as an IP address, a PSTN phone number, a URI, or a directory specification string. Following are the directory specification strings:

Form	Description
redial:<n>	Dial the indicated entry from the redial list. Entry 1 is at the top of the list, entry 2 is the entry immediately following it. The ordering of the redial list changes as calls are placed and received. For automation use, do not use this form unless the intent is to redial the last call.
redial:<string>	Dial the indicated entry from the redial list. The string is used as a case insensitive prefix to match the name stored in the redial list (the name that shows in the user interface). For example, the prefix “sun” matches the names “sunrise” and “SUNSET”, but not “summer” or “fun-in-the-sun”. For automation use, the prefix should completely specify the intended entry and that entry should be locked in the redial list.
local:<string>	Dial the indicated entry from the local directory. The string is used as a case insensitive prefix to match against the name stored in the local directory. For automation use, the string should completely specify the desired entry.
corp:<string>	Dial using the indicated entry from the corporate (network) directory.
meeting:<string>	Dial using the indicated entry from the meetings directory. Can only be used with **`dial`** to initiate a new meeting, not add a participant with **`add-part`**.

add-part

The **`add-part`** target adds a new participant to an existing conference call. This command produces only asynchronous messages as a response to ensure proper ordering of displayed call status.

Arguments:

`[-b {auto|128|192|256|320|384|512|640|768|896|1024|1152|1472|1728|1920|2000|2500|3000|4000|5000|6000}]`	Specify the maximum bandwidth in kilobits per second (kb/s) to use for the call. Use `auto` to use the configured maximum bandwidth. The default is `auto`. Bandwidths greater than `4000` kilobits per second (kb/s) are not supported on LifeSize Team and LifeSize Team MP. Bandwidths greater than `2000` kb/s are not supported on LifeSize Express.
`[-p {auto|h323|h323gw|isdn|pstn|sip}]`	Specify the protocol to use to connect the new party to the call. The default is auto.
`[-t {audio|video}]`	Specify to add the participant as an audio or video call. The default is video. Specifying video fails on LifeSize Team and LifeSize Express if a video call is in progress.
`<confHandle>`	Specify the handle to the conference to which to add the participant.
`<number>`	Specify the phone number, IP address, or URI of the party to add.

Examples:

```
set prompt "% "

ok,00
% control call add-part 1 -p pstn -t audio 555-1212

ok,00
CS,3,1,Ringing,Video,Normal,10.10.11.10,LifeSize
% control call add-part -V 2 -p h323 10.10.11.11 -b 1024

ok
CS,5,2,Ringing,Video,Normal,10.10.11.10,LifeSize
```

Add 3rd redial entry as call:

```
% control call add-part 1 redial:3

ok,00
CS,3,1,Ringing,Audio,Normal,1-512-555-1212,
%
```

Refer to “Asynchronous Messages” on page 191 for a description of the response.

answer

The **answer** target answers or rejects an incoming call. This command produces only asynchronous messages as a response to ensure proper ordering of displayed call status.

Arguments:

[-r]	Specify whether to reject the call. The default is to answer. Cannot be used with **-t**.
[-t {audio|video}]	Specify whether to answer the call as an audio or video call. Cannot be used with **-r**.
<callHandle>	Specify the handle of the incoming call to answer.

Examples:

```
set prompt "% "

ok,00
% control call answer 1 -t audio

ok,00
CS,1,2,Connected,Audio,Normal,10.10.11.10,LifeSize
% control call answer 2 -r -V

ok
CS,1,2,Terminated,Video,Rejected,10.10.11.10,LifeSize
%
```

Refer to “Asynchronous Messages” on page 191 for a description of the response.

del-part

The **`del-part`** target drops a participant from an existing conference call. This command produces only asynchronous messages as a response to ensure proper ordering of displayed call status.

Arguments:

`<callHandle>`	Specify the handle to the call on which to drop the participant.

Examples:

```
set prompt "% "

ok,00
% control call del-part 3

ok,00
CS,3,2,Terminated,Video,Normal,10.10.11.10,LifeSize
% control call del-part -V 2

ok
CS,2,2,Terminated,Video,Normal,10.10.11.10,LifeSize
%
```

Refer to “Asynchronous Messages” on page 191 for a description of the response.

dial

The **`dial`** target initiates a new call. This command produces only asynchronous messages as a response to ensure proper ordering of displayed call status.

Arguments:

`[-b {auto|128|192|256|320|384|512|640|768|896|1024|1152|1472|1728|1920|2000|2500|3000|4000|5000|6000}]`	Specify the maximum bandwidth to use for the call. Use `auto` to use the configured maximum bandwidth. The default is auto. Bandwidths greater than `4000` kilobits per second (kb/s) are not supported on LifeSize Team and LifeSize Team MP. Bandwidths greater than `2000` kb/s are not supported on LifeSize Express.
`[-p {auto|h323|h323gw|isdn|pstn|sip}]`	Specify the protocol to use to connect the new party to the call. The default is auto.
`[-t {audio|video}]`	Specify to add the participant as an audio or video call. The default is video.
`<number>`	Specify the phone number, IP address, or URI of the party to dial.

Examples:

```
set prompt "% "

ok,00
% control call dial 10.10.11.155

ok,00
CS,1,2,Ringing,Video,Normal,10.10.11.10,LifeSize
% control call dial -V -p h323 -t video 10.10.11.11 -b 1024

ok
CS,1,2,Ringing,Video,Normal,10.10.11.10,LifeSize
```

Dial using local directory entry:

```
% control call dial "local:john doe"

ok,00
CS,3,1,Ringing,Video,Normal,192.168.168.203,John Doe
%
```

Refer to “Asynchronous Messages” on page 191 for a description of the response.

display

The **`display`** target controls what remote source is shown on the local display.

Arguments:

`[-s {main|aux|doc|auxdoc|playback}]`	Specify the far camera source, default is main.
`<callhandle>`	Specify the call whose camera source is to be changed.

Examples:

```
control call display 4      # Switch to the main video source

ok,00

control call display -s doc 4      # Switch to the document camera source

ok,00
```

dtmf

The **`dtmf`** target allows sending DTMF tones inband in an active call (for example, to access remote menu systems).

Arguments

`<callHandle>`	Specify the handle of the call to which to send digits.
`<{0-9|A-D|a-d|*|#}>`	Specify the digits to dial. the digits may be strung together (for example, 5551212*#).

Examples:

```
control call dtmf 1 123456789abcd*#ABCD

ok,00
```

hangup

The **hangup** target disconnects from either a conference (multi-way call) or a single-way call. This command produces only asynchronous messages as a response to ensure proper ordering of displayed call status.

Arguments:

[-a]	Specify that all active calls be terminated (cannot be used with **-c** and <handle>)
[-c]	Terminate a conference. The default is a single call.
<handle>	Specify the call or conference handle to disconnect.

Examples:

```
set prompt "% "

ok,00
% control call hangup 1

ok,00
CS,1,2,Terminated,Video,Normal,10.10.11.10,LifeSize
% control call hangup -c 2 -V

ok
CS,1,2,Terminated,Audio,Normal,10.10.11.10,LifeSize
%
%control call hangup -a

ok,00
CS,1,2,Terminated,Video,Normal,10.10.11.10,LifeSize
```

Refer to “Asynchronous Messages” on page 191 for a description of the response.

Note: The **hangup** command may occasionally report an error even though the call was actually hung up. To ensure the correct response for this command, refer to the asynchronous output that follows the command to determine the actual state of the command.

hook

The **hook** target enables control of the hook status of a PSTN call. The following operations are supported:

- **off**—takes the phone off hook in preparation to place a call
- **flash**—places the phone on hook for a short period and then takes it back off hook to allow access to features such as call waiting
- **on**—places the phone back on hook to hang up a call

Arguments:

`[-t {h323|h323gw|isdn|pstn|sip}]`	Specify the type of call on which to perform the hook operation. The default is pstn. The **-t** argument is valid only with **off** and **flash** operations.
`<flash|off|on>`	Specify the operation to perform.
`[<callHandle>]`	Specify the call on which to operate. The `[<callHandle>]` argument is valid only for the **on** operation.

Examples:

```
set prompt "%"

ok,00
% control call hook off

ok,00
CS,6,1,Dialing,Unknown,Normal,,
CS,6,1,Answered Number,Unknown,Normal,,
CS,6,1,Connected,Audio,Normal,,
% control call dial dtmf 6 5551212

ok,00
% control call hook flash

ok,00
% control call hook on 6

ok,00
CS,6,1,Terminated,Audio,Normal,,
%
```

presentation

The **`presentation`** target allows starting and stopping a presentation. All responses to this command are produced as asynchronous responses due to the interaction of local and remote presentations causing potential ordering issues with the output.

Arguments:

`[-t {slides}]`	Specify the source of the presentation. Slides indicates a PC based presentation connected through the vga0 input. The default is ***`slides`***. Specifying this argument is optional.
`<confHandle>`	Specify the conference to which to provide the presentation. In all cases the value is ***`1`***.
`<{start|stop}>`	Specify whether to start or stop the presentation.

Examples:

```
control call presentation 1 start

ok,00
PS,15,1,Initiated,No,None

ok,00
control call presentation 1 stop -V

ok
PS,15,1,Terminated,No,Rejected

ok,00
```

Refer to “Asynchronous Messages” on page 191 for a description of the response.

reboot

The **`reboot`** target causes the system to reboot.

Arguments:

`[seconds]`	Delay the reboot for the indicated number of seconds.

Examples:

```
control reboot 60

ok,00
```

Note: Session terminated after 60 seconds.

remote

The **`remote`** target emulates the remote control by sending sequences of commands that replicate the functionality of the remote control.

Arguments:

`[-d msec]`	Specifies the delay between press and release events in milliseconds. The default is 250 ms for a single button and 0 ms for a sequence. This allows setting the hold down delay for all buttons in a given sequence. Minimum 0 ms, maximum 2000 ms. Cannot be used with `-p` or `-r`.
`[-p]`	Only send a key press event. Cannot be used with `-d` or `-r`.or multiple buttons.
`[-r]`	Only send a key release event. Cannot be used with `-d` or `-p` or multiple buttons.
`<call|tri|squ|cir|back|ok|left|right|up|down|vup|vdn|mute|zin|zout|near|far|1|2|3|4|5|6|7|8|9|0|*|#|home|dir|yellow|red|blue|green>`	Specify the specific button to press. You can specify as many buttons on the command line as desired. Buttons are processed in the sequence given on the command line.

Note: The **`home`** and **`dir`** arguments do not correspond to any keys that are physically present on the remote, but serve as an aid to creating deterministic automated remote control sequences. The **`home`** argument goes to the main screen of the user interface. The **`dir`** argument goes to the directory screen from any other screen within the user interface.

Examples:

```
control remote left left ok zin 1 2 3 4 5 #
```

```
ok,00
```

Remote emulation software usage - user presses and holds a button:

```
control remote -p left
```

```
ok,00
```

User releases button:

```
control remote -r left
```

```
ok,00
```

reset

The **`reset`** target configures the system to return to default configuration settings after the next system reboot.

Note: The reset target does not reboot the system. To return the system to default configuration settings after entering **`control reset`**, enter **`control reboot`**.

Arguments:

None

Examples:

```
control reset
```

```
ok,00
```

sleep

The **`sleep`** target puts the system into sleep mode.

Arguments:

None

Examples:

```
control sleep
```

```
ok,00
```

wakeup

The **`wakeup`** target wakes the system up from the sleep state if it was previously sleeping. It has no effect if the system is already awake.

Arguments:

None

Examples:

```
control wakeup
```

```
ok,00
```