Solaria API Guide

Application Guide

020-100966-01

CHRISTIE®

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NOTICES

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This Class A digital apparatus complies with Canadian ICES-003.

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Canadian manufacturing facility is ISO 9001 and 14001 certified.

GENERAL WARRANTY STATEMENTS

For complete information about Christie's limited warranty, please contact your Christie dealer. In addition to the other limitations that may be specified in Christie's limited warranty, the warranty does not cover:

a. **Problems or damage occurring during shipment, in either direction.**
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c. **Problems or damage caused by use of a projector lamp beyond the recommended lamp life, or use of a lamp supplied by a supplier other than Christie.**
d. **Problems or damage caused by combination of a Product with non-Christie equipment, such as distribution systems, cameras, video tape recorders, etc., or use of a Product with any non-Christie interface device.**
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g. **Problems or damage caused by improper installation/alignment, or by equipment modification, if by other than Christie service personnel or a Christie authorized repair service provider.**
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i. **Problems or damage caused by use of a projector in the presence of an oil-based fog machine.**
j. **For LCD projectors, the warranty period specified applies only where the LCD projector is in "normal use." "Normal use" means the LCD projector is not used more than 8 hours a day, 5 days a week. For any LCD projector where "normal use" is exceeded, warranty coverage under this warranty terminates after 6000 hours of operation.**
k. **Image retention on LCD flat panels.**
l. **Failure due to normal wear and tear.**

PREVENTATIVE MAINTENANCE

Preventative maintenance is an important part of the continued and proper operation of your product. Please see the Maintenance section for specific maintenance items as they relate to your product. Failure to perform maintenance as required, and in accordance with the maintenance schedule specified by Christie, will void the warranty.

Table of Contents

Introduction

This guide is intended for professionally trained operators of Christie high-brightness projection systems who want to use serial commands to communicate with Christie projectors.

Technical Support

If you are unable to resolve an issue, contact Christie support:

- North and South America: +1-800-221-8025 or *tech-support@christiedigital.com*
- Europe, Middle East, and Africa: +44 (0) 1189 778111 or *techsupport-emea@christiedigital.com*
- Asia Pacific: *tech-asia@christiedigital.com*

In order that a support representative can better assist you, have the model and serial number of your projector ready.

Serial API Function Codes

This sections list the API function codes and subcodes that you can use with Christie Solaria series projectors.

Auxiliary Motorized Lens (AML)

Use this code to control the motorized anamorphic or converter lens.

This code cannot be used with Christie Solaria One and Christie Solaria One^{+} projectors.

Subcode Descriptions

Subcode	Description
CALI*	Identifies the center position of the Motorized Auxiliary Lens Mount (MALM) sensor.
Cxxx	Specifies the channel number. The valid range is 101–164.
INST	Indicates if a MALM is installed. Returns 0 or 1.
LENI*	Moves the MALM to the AML1 position.
LENO*	Moves the MALM to the AML0 position.
NONE	Sets the position of the auxiliary lens: 0: lens removed from optical path. 1: lens inserted in optical path.
POSI*	Returns where MALM is located. Read-only command.

* This command is not available on all Christie projectors

Examples

`(AML?)` Returns the current status of the auxiliary lens.

`(AML+C108 1)` Activates the auxiliary lens on channel 108.

`(AML+C108?)` Returns the auxiliary lens settings for channel 108.

`(AML+C108!001)` Returns the response from previous query.

`(AML+INST 1)` Indicates the motorized auxiliary lens mount (MALM) is installed.

`(AML+LENI -300)` Moves the lens to -300 for lens in position.

`(AML+LENO 6000)` Move the lens to 6000 for lens out position.

`(AML+POSI?)` Returns the current lens position.

Automatic Scan Type Detection (ASD)

Use this code to turn automatic scan type detection on a specific channel on or off.

Subcode Description

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Applies Automatic Scan Type Detection to the current channel.

Examples

`(ASD?)` Returns the status of automatic scan type detection on the current active channel.

`(ASD+C108?)` Returns the status of automatic scan type detection on channel 108.

`(ASD+C108 1)` Activates automatic scan type detection on channel 108.

`(ASD+C108 0)` Turns off automatic scan type detection on channel 108.

Backup (BCK)

Use this code to back up configuration files, preferences, channel data, user data, and ICP data.

Subcode Descriptions

Subcode	Description
NONE	Runs a back up. Enter 1 to start a back up
STAT	Returns the back up status.

Examples

`(BCK1)` Starts a back up and adds the back up file to the FTP root.

`(BCK+STAT?)` Returns the status of the last back up and the location of the back up file.

Baud Rate (BDR)

Use this code to set the baud rate for a serial communications port.

Subcode Descriptions

Subcode	Description
PRTA	Sets the baud rate for port A. These are the valid baud rates: 2400, 9600, 19200, 38400, 57600, or 115200.

Examples

`(BDR+PRTA6)` Sets the baud rate on port A to 115200 bits per second.

`(BDR+PRTA?)` Returns the baud rate.

Channel (CHA)

Use this code to select a channel configuration that defines the input routing and image processing options for input signals. The channel range is 101 to 164.

Subcode Descriptions

Subcode	Description
NONE	Selects the channel. Valid range 101–164

Examples

`(CHA?)` Returns the current active channel.

`(CHA 108)` Sets channel 108 as the active channel.

Channel Icon (CHI)

Use this code to define the file name and path for the channel icon.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects an icon for the current channel.

Examples

`(CHI+C108 "/etc/data/icons/ch108.ico")` Specifies the icon "ch 108.ico" for channel 108.

`(CHI+C108?)` Returns the icon file name and path for channel 108.

`(CHI?L)` Lists all available channel icon entries.

CSC/P7 Bypass (CSC)

Use this code to enable or disable the Integrated Cinema Processor (ICP) CSC/P7 bypass.

Subcode Descriptions

Subcode	Description
NONE	Enables or disables the ICP CSC/P7 bypass. Valid values are 1 (enabled) or 0 (disabled).

Examples

`(CSC1)` Enables the ICP CSC/P7 bypass.

`(CSC?)` Returns the current ICP CSC/P7 bypass setting.

Color Space (CSP)

Use this code to define the source for colorimetry information. The color space control and color space file is set when PCF in Use (PIU) is off. You can use an index or text string to define the settings.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Applies a color space file to the current channel.

Examples

`(CSP+C108 "RGB Unity")` Applies the "RGB Unity" file to channel 108.

`(CSP+C108?)` Returns the color space file name for channel 108.

`(CSP?L)` Returns all color space control entries.

Defaults (DEF)

Use this code to reset all preference and configuration settings to their default values. To prevent accidental use of this control, the value 111 must be sent with each of the subcodes and the default.

Subcode Descriptions

subcode	Description
CHAN	Restores the default channel settings for a specific channel. Use the value 0 to apply default values to all channels.
CONF	Restores the default configuration settings.
PREF	Restores default preferences.
UNSV	Restores unsaved controls.
USER	Clears all users and restores the factory default user.
NONE	Restores channel settings, configuration settings, preferences, and users.

Examples

`(DEF 111)` Restores all preference, configuration, and user controls to their default values.

`(DEF+USER 111)` Clears all user accounts and restores the factory default user account.

`(DEF+CONF 111)` Resets all configuration controls.

`(DEF+PREF 111)` Resets all preference controls.

`(DEF+CHAN 101)` Restores channel 101.

`(DEF+CHAN 0)` Restores all channels.

Data Logging (DLG)

Use this code to set or return the log that was last written to the engineering log and extract log data in text format. These codes determine the information that is returned:

- 0 = Trace: Level test output, threading info, protocol.
- 1 = Debug: Debug messages.
- 2 = Info: Informational messages.
- 3 = Notices: Event of importance
- 4 = Warning: Warnings
- 5 = Error: An error has occurred
- 6 = Clear: An error has been cleared

Subcode Descriptions

Subcode	Description
NONE	Specifies the channel number. The valid range is 101–164.
EXLG	Extracts entries from the log files. Requires three parameters: ”startdate”, “enddate”, “logtype”. The data parameters require the date in the format “yyyymmdd”. The logtype parameter can have these values: • “ENG” (engineering) • “SEC” (security) • “OPR” (operational) • “MAI” (maintenance) • “EVE” (event) • “SYS” (system) • “ALL”

Examples

`(DLG "20091108" "20091110" "ALL")` Extracts all log data from November 08, 2009 to November 10, 2009.

`(DLG+EXLG!"Log data extracted to filename 'logextract.txt' on FTP root")` Extracts log data to a file named logextract.txt.

`(DLG 2)` Sets the logging level to 2 (informational messages).

`(DLG?)` Returns the current logging level. If the logging level is set to 2, the response is (LDG!00002 "Info").

Data Format (DTF)

Use this code to select the data packing format for the named input. The available data formats are determined by the current input port (as selected by SIN).

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects the data packing format for the current channel.

Examples

`(DTF?)` Returns the current data format.

`(DTF?L)` Displays list entries.

`(DTF 1)` Sets the data format to 1.

`(DTF+C108?)` Returns the data format for channel 108.

`(DTF+C108 20)` Applies data format 20 (DVI: Unpacked 8Bit) to channel 108.

Electronic Digital Convergence (EDC)

Use this code to set or return Integrated Cinema Processor (ICP) digital convergence values. You can use this code to shift red, green, or blue pixel data by 3 pixels.

Subcode Descriptions

Subcode	Description
NONE	Sets or returns the 6 EDC values.
REDH	Sets or returns the red horizontal EDC value.
GRNH	Sets or returns the green horizontal EDC value.
BLUH	Sets or returns the blue horizontal EDC value.
REDV	Sets or returns the red vertical EDC value.
GRNV	Sets or returns the green vertical EDC value.
BLUV	Sets or returns the blue vertical EDC value.
RSET	Sets the 6 EDC values to their default values.

Examples

`(EDC?)` Returns the 6 EDC values.

`(EDC031223)` Sets the red horizontal EDC value to 0, the green horizontal EDC value to 3, the blue horizontal EDC value to 1, the red vertical EDC value to 2, the green vertical EDC value to 2, and the blue vertical EDC value to 3.

`(EDC+REDH?)` Returns the red horizontal EDC value.

`(EDC+REDH2)` Sets the red horizontal EDC value to 2.

`(EDC+BLUV?)` Returns the blue vertical EDC value.

`(EDC+BLUV1)` Sets the blue vertical EDC value to 1.

`(EDC+RSET)` Resets the 6 EDC values to their default values.

HDMI EDID Selection (EDI)

Use this code to set or return HDMI EDID channel settings. Four EDID values are available:

- Cinema1
- Cinema2
- Ext Device1
- Ext Device2

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects the EDID for the current channel.

Examples

`(EDI1)` Sets the current EDID to Cinema index 1.

`(EDI+C1032)` Sets the EDID on channel 3 to index 2 Ext Device1.

`(EDI+C103?)` Returns the EDID for channel 3.

`(EDI?L)` Returns a list of available EDIDs.

Enable Error Messages (EME)

Use this code to enable error message broadcasting.

Subcode Descriptions

Subcode	Description
FANF	Enables or disables fan failure warning alarms: • 0: No Fan Fail warning is generated. • 1: Fan Fail warning is generated.
NONE	Enables or disables error message broadcasting: • 0: Disable broadcast. • 1: Enable broadcast of error messages to all connected serial ports and telenet sessions.
TEMP	Enables or disables fan over temperature warning alarms: • 0: No Over Temperature warning is generated. • 1: Over Temperature warning is generated.

Examples

`(EME 1)` Enables error message broadcasting.

`(EME+FANF 0)` Disables fan failure alarm warnings.

`(EME?)` Returns the current broadcast state.

Focus Lens Position Adjustment (FCS)

Use this code to adjust the lens to a specific focus position and direction.

This command can only be used to update the current Intelligent Lens System (ILS) file. Changing the focus for the current channel changes the focus for any channel using the same ILS file.

When the command does not include a subcode:

- If ILS is on, the motor moves to the specified location and the data is saved to the active channel.
- If ILS is off, the motor moves to the specified location. The data is not saved to the active channel.

Subcode Descriptions

Subcode	Description
BACN	Applies motor backlash in a negative direction. Read-only.
BACP	Applies motor backlash in a positive direction. Read-only.
CALB	Calibrates the travel range and backlash on a specific channel. The only parameter allowed is 1. Set only command.
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Moves the lens mount to a specific vertical position with a specific direction.
RNGN	Returns the negative ILS motor range value. Read-only.
RNGP	Returns the positive ILS motor range value. Read-only.
RSET	Moves the motor to the center flag and then back to its starting position. The only parameter allowed is 1. Set only command.
STRT	Moves the motor in a positive (1) or negative (-1) direction. Write-only for v1.3 or newer.
STOP	Stops the motor. Write-only for v1.3 or newer.
MOVR	Moves the motor a specific number from its starting position. Write-only for v1.3 or newer.

Examples

`(FCS 500 1)` Moves the lens to position 500 at focus motor with positive approach.

`(FCS 500 -1)` Moves the lens to position 500 at focus motor with negative approach.

`(FCS+C101 -500 1)` Sets the lens focus position for channel 1 to -500 with positive approach.

`(FCS?)` Returns the current motor position.

`(FCS+CALB 1)` Calibrates the focus axis.

`(FCS+RSET 1)` Resets the focus axis.

`(FCS+STRT 1)` Starts the motor moving in positive direction.

`(FCS+STOP)` Stops the motor.

`(FCS+MOVR -100)` Moves the motor 100 steps in a negative direction.

`(FCS+MOVR 200)` Moves the motor 200 steps in a positive direction.

Gamma Control (GAM)

Use this code to define the gamma response curve for the source signal. The gamma control and gamma files are set when PCF in Use (PIU) is off.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects the gamma response curve for the current channel.

Examples

`(GAM+C108 "gamma 2.6")` Applies the "gamma 2.6" file to channel 108.

`(GAM+C108?)` Returns the name of the gamma file for channel 108.

`(GAM?L)` Lists all gamma control entries.

Lamp History (HIS)

Use this code to retrieve the lamp installation history (including the current lamp). This entry appears for each lamp: (HIS!AAA "BBBB/BB/BB" "C" "D" EEE FFF GGG HHH III JJJ KKK).

- A = Lamp Number
- B = Date Installed
- C = Serial Number
- D = Type
- E = Strikes
- F = Failed Strikes
- G = Failed Restrikes
- H = Unexpected Lamp Off
- I = Pre-installed Hours (always returns "00000")
- J = Lamp Hours
- K = Lamp Rotation

Subcode Descriptions

Subcode	Description
NONE	None.

Examples

(HIS?) Returns the lamp installation history. For example:

(HIS!000 “N/A” “N/A” “N/A” 000 000 000 000 000 000 000 000)

(HIS!001 “2007/05/21” “qa-1” “CDXL-30” 000 000 000 000 020 020 001)

(HIS!002 “2007/05/21” “qa-2” “Other-30” 000 000 000 000 015 015 000)

(HIS!003 “2007/05/21” “qa-3” “Other-20” 000 000 000 000 000 000 001)

Serial Help (HLP)

Use this code to view the serial command help.

Subcode Descriptions

Subcode	Description
NONE	Returns the entire serial command help or the list for a single command.

Examples

(HLP?) Returns the entire serial command help.

(HLP? “DLG”) Returns all subcodes and descriptions for DLG control.

ICP File Management (ICP)

Use this code to return or copy Integrated Cinema Processor (ICP) files.

When you specify a sub-command, the file extension specified in the filename parameters of the command determines which ICP directory is accessed. The allowable file extensions are:

- LUT-SCC (PCT)
- LUT-CLUT
- MCGD
- TCGD
- SOURCE
- SCREEN
- 3D
- PNG (test patterns)

The ICP command preserves last-modified timestamps and converts them to Coordinated Universal Time (UTC). You must include a subcode with the ICP command.

When naming PCT files the prefix DC4K or DC2K must appear in the file name and the file name must include the extension .LUT-SCC. For example, DC4K_MyFile.LUT-SCC or DC2K_MyFile.LUT-SCC.

If the file names do not include the DC4K or DC2K prefix they are not visible on the touch panel controller (TPC). DC4K files only appear on 4K projectors and DC2K files only appear on 2K projectors.

Subcode Descriptions

Subcode	Description
FSET	Copies an ICP file from the touch panel controller (TPC) ftproot directory to a directory on the ICP. Files with identical file names are not overwritten. File names are not case sensitive. Typically, the ftproot directory C:\inetpub\ftproot\. You cannot specify file names that differ only by case.
FGET	Not available.
FDEL	You must have administrator privileges to use this subcode. Deletes a file on the ICP. The file name parameter is case sensitive.
FCOP	Not available.
FREN	Not available.

Examples

`(ICP+FSET "ones4K_LE.LUT-SCC")` Copies the ones4K_LE.LUT-SCC PCT file from the TPC ftproot to the LUT-SCC directory on the ICP.

`(ICP+FSET "Nominal.mcgd")` Copies the "Nominal.mcgd" MCGD file from the ftproot to the MCGD directory on the ICP.

`(ICP+FDEL "Nominal.mcgd")` Deletes the "Nominal.mcgd" MCGD file on the ICP.

ILS File (ILF)

Use this code to set or return the current Intelligent Lens System (ILS) file for the current or a specific channel.

Subcode Descriptions

Subcode	Description
C1xx	Sets or returns the current ILS file for a specific channel.

Subcode	Description
NONE	Selects the ILS file for the current channel.
SAVE	Saves the currently active ILS data to a file. If a file already exists, it is overwritten and the same file name is used. Requires advanced access level.
FDEL	Deletes an ILS File.

Examples

`(ILF+C101 "ILS Flat")` Applies the "ILS Flat" ILS file to channel 1.

`(ILF?L)` Returns all available ILS files.

`(ILF 1)` Sets the ILS file for the current channel to index 1.

`(ILF+Save "filename")` Saves the active ILS values to a file named "filename". If the file does not exist, it is created. If the file already exits, it is overwritten.

`(ILF+FDEL "LensSetup1")` Deletes the "LensSetup1" ILS file.

`(ILF+FDEL 3)` Deletes the ILS file at index 3 in the list.

Intelligent Light System Config (ILS)

Use this code to enable or disable the Intelligent Lens System (ILS) on a channel.

Subcode Descriptions

Subcode	Description
ACLB	Enables or disables the auto lens mount and lens reset features. If ACLB is turned on, the lens mount and lens system are reset automatically when the you turn the projector on.
CALB	Calibrates travel range and backlash on the specified channel. The only parameter allowed is 5.
CSTS	Returns the motor calibration status (0–100%).
INST	Sets ILS to installed.
NONE	Enables or disables ILS on each channel.
RSET	Moves the motor to the center flag, and then moves it back to the current position. The only parameter allowed is 5.
RSTS	Returns the motor reset status (0–100%).

Examples

`(ILS 1)` Enables ILS and moves the lens to the position specified by the channel settings.

`(ILS 0)` Disables ILS. The channel position data is not used and channel settings are unaffected when the lens moves.

`(ILS+CALB 5)` Calibrates all lens axes.

`(ILS+RSET 5)` Resets all lens axes.

`(ILS+ACLB 1)` Resets the lens automatically when the power is turned on.

Internal Media Block Installed/Device Type (IMI)

Use this code to specify or identify if an Integrated Media Block (IMB) is installed. Use the DEVT subcode to set the device type.

This code cannot be used with Christie Solaria One and Christie Solaria One^{+} projectors.

Subcode Descriptions

Subcode	Description
DEVT	Sets the device type from a list of devices.
NONE	Sets or returns the installed state of the IMB.

Examples

`(IMI+DEVT?L)` Returns a list of valid device types.

`(IMI+DEVT?)` Identifies if an IMB is installed.

Start Interrogator, check interrogator status (INT)

Use this code to start an interrogation or check the status of an interrogation in progress.

Subcode Descriptions

Subcode	Description
BASC	Starts a basic interrogation (Set only).
ENHA	Starts an enhanced interrogation (Set only).
STAT	Returns the interrogation status (currently running = 1) and a result file.

Examples

`(INST+BASC 1)` Runs a basic interrogation (Set only).

`(INT+STAT?)` Identifies the status of interrogation. For example, if `(INT+STAT!00100 00000 "Interrogator_Enhanced_20101103194849.7z")` is returned, this indicates the interrogation is complete, an interrogation is not currently running, and the interrogator file named "Interrogator_Enhanced_201001103194849.7z" is located on the projector's FTP server.

Internal Test Pattern (ITP)

Use this code to list and select internal test patterns. This command can also be used to create a customized test pattern list from the internal test patterns. The list of available test patterns is determined by what files are loaded on the TI cinema electronics.

Subcode Descriptions

Subcode	Description
FULL	Sets the test pattern to appear full screen.
KEEP	Indicates if the test pattern is disabled when changing channels.
NOCR	Defines the non-correction test patterns for measured color. Valid range is 0–6.
NONE	Displays a test pattern from a list of defined test patterns.
STUP	Adds a test pattern from the list of defined test patterns to the user list.
USER	Displays a test pattern from the user defined test pattern list.

Examples

`(ITP ?)` Returns the current test pattern. If zero is returned, a test pattern is not in use.

`(ITP 4)` or `(ITP " ")` Specifies a number or string to set the test pattern.

`(ITP+USER 4)` or `(ITP+USER " ")` Specifies a number or string to set the test pattern from the user's test pattern list.

`(ITP+FULL 1)` Sets the test pattern to appear as a full screen.

`(ITP+FULL 0)` Defines the active channel screen file.

`(ITP+NOCR 1)` Defines the non-correction test patterns for measured color.

`(ITP+STUP "DC2K Framing Green, DC2K Framing Red")` Adds the DC2K Framing Green and DC2K Framing Red test patterns to the user list.

`(ITP+STUP 1 3)` Adds two test patterns indexed in the ITP list to the user list.

Lamp Intensity Calibration (LCA)

Use this code to calibrate (correlate) lamp intensity to footlamberts. The minimum and maximum power values are plotted as points on a curve. These points do not remain consistent over the life of the lamp. So, the conversion algorithm extrapolates the conversion beyond the range of the two end points. The serial command protocol does not support a floating point number. So, the minimum and maximum power footlambert values are converted to an integer by multiplying by 100.

If you change the lamp or lamp alignment, you must recalibrate the lamp intensity

Subcode Descriptions

Subcode	Description
MAXF	Sets footlamberts at maximum lamp power. The value should be (footlamberts * 100).
MAXS	Sets the sensor value at maximum lamp power.
MINF	Sets footlamberts at minimum lamp power. The value should be (footlamberts * 100).
MINS	Sets sensor value at minimum lamp power.
NONE	Not available.

Examples

`(LCA+MINF 10)` Sets the minimum lamp brightness to 10 footlamberts.

`(LCA+MINF?)` Returns the minimum footlamberts value for the lamp.

`(LCA+MINS 5000)` Sets the light sensor at minimum lamp power to 5000.

`(LCA+MAXF 17)` Sets the maximum lamp brightness at full power to 17 footlamberts.

`(LCA+MAXF?)` Returns the footlamberts value for the lamp at full power.

`(LCA+MAXS 15000)` Sets the light sensor at maximum lamp power to 15000.

LUT CLUT Control (LCT)

Use this code to define the Look up Table (LUT) and Color Look Up Table (CLUT) file for a specific channel. The CLUT is used during color processing in the cinema electronics.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Applies a CLUT to the current channel.

Examples

`(LCT+C108 "9x9x9")` Applies PCF file "9x9x9" to channel 108.

`(LCT+C108?)` Returns the name of the LUT-CLUT for channel 108.

`(LCT?L)` Lists all entries of LUT-CLUT control.

Link Decrypter Bypass (LDB)

Use this code to set LD bypass to TRUE (1) to bypass the link decrypter (LD). This code should only be used if marriage is broken and the content being played is not CineLink 2 encrypted (non D-Cinema content).

This code cannot be used with Christie Solaria One and Christie Solaria One^{+} projectors.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Indicates if the link decrypter is bypassed. 1 = bypassed and 0 = not bypassed.

Examples

`(LDB+C108 1)` Bypasses the link decrypter on channel 108.

`(LCT 0)` Applies the link decrypter to the current channel.

`(LCT+C108?)` Identifies if link decrypter bypass is enabled on channel 108.

Link Decrypter Installed (LDI)

Use this code to identify whether a link decrypter (LD) is installed or not installed.

Subcode Descriptions

Subcode	Description
NONE	Indicates the link decrypter status. 1 = installed and 0 = not installed.

Examples

`(LDI 1)` Indicates an LD is installed.

Lens Model and Serial Number (LEN)

Use this code to define the model and serial number for the primary and auxiliary lenses.

Subcode Descriptions

Subcode	Description
AMOD	Returns or sets the auxiliary lens model.
ASER	Returns or sets the auxiliary lens serial number.
MMOD	Returns or sets the lens model.
MSER	Returns or sets the main lens serial number.
NONE	Not available.

Examples

`(LEN+MMOD?L)` Lists the supported lenses.

`(LEN+AMOD?L)` Lists the supported auxiliary lenses.

`(LEN+MMOD 1)` Sets the lens model.

`(LEN+MSER "xxxx")` Sets the lens serial number.

Lens Horizontal Position Adjustment (LHO)

Use this code to adjust lens offset to a specific horizontal position with a specified direction. This command can only be used to update the current Intelligent Lens System (ILS) file. Changing the horizontal offset for the current channel changes the horizontal offset for any channel using the same ILS file.

When the command runs without a subcode:

- If ILS is on, the motor moves to the specified location. The data is saved to the active channel.
- If ILS is off, the motor moves to the specified location. The data is not saved to the active channel.

Subcode Descriptions

Subcode	Description
BACN	Applies motor backlash in negative direction. Read-only.
BACP	Applies motor backlash in positive direction. Read-only.
CALB	Calibrates the travel range and backlash on a specific channel. The only parameter allowed is 1. Set only command.
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Moves the lens mount to a specific horizontal position with a specified direction.
RNGN	Returns the negative ILS motor range value. Read-only.
RNGP	Returns the positive ILS motor range value. Read-only.
RSET	Moves the motor to the center flag and then back to its starting position. The only parameter allowed is 1. Set only command.
STRT	Starts the motor moving in a specified direction. The direction value can be (-1, 1). Write-only for v1.3 or newer.
STOP	Stops the motor. Write-only for v1.3 or newer.
MOVR	Moves the motor a specific number of steps from its starting position. Write-only for v1.3 or newer.

Examples

`(LHO 500 1)` Moves the lens to position 500 along horizontal axis with positive approach.

`(LHO 500 -1)` Moves the lens to position 500 along horizontal axis with negative approach.

`(LHO+C101 -500 1)` Sets the lens horizontal position for channel 1 to -500 with positive approach.

`(LHO ?)` Returns the current motor position along horizontal axis and direction (-1 or 1).

`(LHO+CALB 1)` Calibrates the horizontal axis.

`(LHO+RSET 1)` Resets the horizontal axis.

`(LHO+STRT 1)` Starts the motor moving in a positive direction.

`(LHO+STOP)` Stops the motor.

`(LHO+MOVR -100)` Moves the motor 100 steps in a negative direction.

`(LHO+MOVR 200)` Moves the motor 200 steps in a positive direction.

Lamp ID (Type) (LID)

Use this code to identify the lamp type (ID) for the lamp currently installed.

Subcode Descriptions

Subcode	Description
NONE	Returns the lamp ID for the current lamp. This is a read-only control. To change the Lamp ID, use the LPC (lamp change) command.

Examples

`(LID?L)` Lists the supported lamp IDs.

`(LID?)` Returns the lamp ID for the installed lamp.

LampLOC™ Module (LLM)

Use this code to adjust the lamp position and optimize intensity and uniformity of the optical system. A LampLOC™ adjustment can be completed automatically or manually.

This code cannot be used with Christie Solaria One and Christie Solaria One^{+} projectors.

Subcode Descriptions

Subcode	Description
AUTO	Sets the value to 1 and enables automatic LampLOC™. Calibration is completed first, and then the X, Y, Z-motors are adjusted to identify the maximum brightness. Use the value 0 to cancel auto adjustment and restore the previous position. The value resets to 0 when the adjustment is complete.
CALI	Calibrates the LampLOC™ motors.
MTRX	Moves the X-axis motor manually. Data range from 250 to -250.
MTRY	Moves the Y-axis motor manually. Data range from 250 to -250.
MTRZ	Moves the Z-axis motor manually. Data range from 175 to -175.
NONE	Not Available.
STAT	Returns the LampLOC™ status when auto mode is active. This is a read-only command. Data range from 0–100; 100 indicates LampLOC™ is complete.

Examples

`(LLM+MTRX 100)` Moves motor X to position 100.

`(LLM+AUTO 1)` Enables automatic LampLOC™.

`(LLM+AUTO 0)` Stops LampLOC™ and automatically restores the motors to their previous position.

`(LLM+AUTO?)` Returns the LampLOC™ status. (LLM+AUTO!000) indicates finished, (LLM+AUTO!001) indicates running.

`(LLM+STAT ?)` Returns the LampLOC™ completion percentage (0–100%) when auto mode is active.

Adjust All Lens Position Parameters Simultaneously (LMV)

Use this code to simultaneously adjust all lens position parameters.

This code cannot be used with Christie Solaria One and Christie Solaria One^{+} projectors.

Subcode Descriptions

Subcode	Description
NONE	(LMV <lho><lvo><zom><fcs><lhodir><lvodir><zomdir><fcsdir>), where <lhodir>, <lvodir>, <zomdir>, and <fcsdir> represent the horizontal, vertical, zoom, and focus position information. Valid values for direction are 1 and -1.

Examples

```
(LMV 1000 1500 500 -500 -1 -1 1 1)
```

Local Settings (LOC)

Use this code to set the time format and unit of measurement for temperature readings.

Subcode Descriptions

Subcode	Description
LANG	Sets the language for the user interface.

Subcode	Description
TEMP	Sets the unit of measurement for temperature readings: • 0 = Celsius • 1 = Fahrenheit
TIME	Sets the time format. 0–24 hour, 1–12 hour.

Examples

`(LOC+TIME 1)` Sets time zone to standard 12 hour.

`(LOC+TIME?1)` Returns a list of available time formats.

`(LOC+TIME?)(LOC+TIME!001)` Returns the current time format.

Lamp Change (LPC)

Use this code to add new lamp information to the lamp history and then create a new entry.

Subcode Descriptions

Subcode	Description
LPID	Sets the lamp type ID for the new lamp.
NONE	Saves the lamp information to the lamp history.
PREV	Applies the previous lamp hours to the new lamp.
SERL	Sets the lamp serial number.

Examples

`(LPC+LPID 2)` Sets the lamp type ID.

`(LPC+SERL "CDX30-001")` Sets the lamp serial number.

`(LPC 1)` Saves lamp information to the lamp history. If you enter consecutive lamp changes, wait 5–10 seconds between commands to allow the information to be written to the EEPROM.

Lamp File (LPF)

Use this code to set or return the current lamp file for the current or a specific channel. This code can also be used to save the active lamp data to a new or existing lamp file, or to delete a lamp file.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Sets the lamp file for the current channel.
SAVE	Saves the currently active lamp data to a file. If a file already exists, it is overwritten with the same file name.
FDEL	Deletes a lamp file.

Examples

`(LPF+C101 "Default")` Sets the lamp file for channel 1 to Default.

`(LPF?L)` Returns a list of all available lamp files.

`(LPF 1)` Sets the lamp file for the current channel to index 1 in the file list.

`(LPF+SAVE "filename")` Creates a lamp file if it does not currently exist, or overwrites an exiting lamp file.

`(ILF+FDEL "LampSetup1")` Deletes a lamp file named LampSetup1.

`(ILF+FDEL 3)` Deletes the lamp file located at index 3 in the file list.

Lamp Hours (LPH)

Use this code to get information on the lamp currently installed in the projector. This is a read-only code.

Subcode Descriptions

Subcode	Description
FLSK	Returns the total failed lamp strikes on the installed lamp.
FRSK	Returns the total failed lamp restrikes on the installed lamp.
LPOF	Returns the total lamp unexpected off times on the installed lamp.
NONE	Returns the lamp usage for current lamp in hours.
TLSK	Returns the total lamp strikes on the installed lamp.

Examples

`(LPH?)` Returns the number of operational hours for the lamp.

`(LPH+FLSK?)` Returns the number of lamp strikes for the lamp.

Lamp Intensity (LPI)

Use this code to set the lamp intensity value when LiteLOC™ is active. The projector adjusts the lamp power to maintain this intensity. You can only use this code to update the current lamp file. Changing the lamp intensity of the current channel changes the lamp intensity for all channels that use the same lamp file.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Sets the lamp intensity for the current channel.

Examples

`(LPI 4500)` Sets the lamp intensity for the current channel to 4500.

`(LPI+C103 4000)` Sets the lamp intensity for channel 3 to 4000.

`(LPI?)` Returns the lamp intensity setting for the active channel.

Lamp Life (LPL)

Use this code to set or retrieve the lamp life in hours. If you do not set the lamp hours, the default hours are used. A lamp expiry message appears when lamp usage exceeds the lamp life.

Subcode Descriptions

Subcode	Description
LIFE	Enables or disables the lamp expired message: • 0: No warning is generated. • 1: Lamp Life Expiry Warning is generated when lamp hours extends past lamp life. The warning is reported in SST. The warning is cleared by extending lamp life or changing the lamp.
NONE	Sets or returns the expected lamp life.
ROTA	Acknowledges the Lamp Rotation Warning. Auto clears at lamp life or on lamp change.
ROTW	Enables or disables the lamp warning message: • 0: No warning is generated. • 1: Lamp Rotation Warning is generated when the lamp hours extends past 1/2 lamp life. The warning is reported in SST. The warning is cleared by `LPL+ROTA` or by changing the lamp.

Examples

`(LPL 1500)` Sets the lamp life limit to 500 hours.

`(LPL 0)` Sets the lamp life limit to default hours based on the lamp type.

`(LPL ?)` Returns the lamp life limit.

`(LPL+LIFE 1)` Enables the lamp expired message.

`(LPL+LIFE 0)` Disables the lamp expired message.

`(LPL+ROTW 1)` Enables the lamp rotation message.

`(LPL+ROTA 1)` Acknowledges lamp rotation.

Lamp Mode (LPM)

Use this code to set the lamp mode to constant power or LiteLOC™. This setting can be applied globally or on a specific channel. You can only use this code to update the current lamp file. Changing the lamp power setting of the current channel changes the lamp power setting on all channels that use the same lamp file.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Sets the lamp mode for the current channel.

Examples

`(LPM 0)` Sets the power mode for the current channel to Constant Power.

`(LPM "Constant Power")` Sets the power mode for the active channel to Constant Power.

`(LPB+C101 1)` Sets the intensity mode for channel 1.

`(LPM?)` Returns the lamp mode for the active channel.

Lamp Power (LPP)

Use this code to set the lamp power value when Constant Power mode is active. You can only use this code to update the current lamp file. Changing the lamp power setting of the current channel changes the lamp power setting on all channels that use the same lamp file.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
MINI	Returns the nominal minimum lamp power value for the current lamp. Read-only value.
NONE	Sets the lamp power value for the current channel.

Examples

`(LPP 2500)` Sets the lamp power for the current channel to 2500.

`(LPP+C102 2000)` Sets the lamp power for channel 2 to 2000.

`(LPP+C102?)` Returns the lamp power setting for channel 2.

Lens Vertical Offset Adjustment (LVO)

Use this code to adjust the lens offset to a specific vertical position with a specific direction. Use this code to update the current Intelligent Lens System (ILS) file. If you change the vertical offset of the current channel, the changes are applied to all channels that use the same ILS file.

When this code is used without subcodes:

- If ILS is on, the motor moves to the specified location and saves data to the active channel.
- If ILS is off, the motor moves to the specified steps, but the data is not saved to the active channel.

Subcode Descriptions

Subcode	Description
BACN	Applies motor backlash in a negative direction. Read-only.
BACP	Applies motor backlash in a positive direction. Read-only.
CALB	Calibrates the travel range and backlash on a specific channel. Only valid parameter for this command is 1. Set only command.
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Moves the lens mount to a specific vertical position in a specific direction.
RNGN	Returns the negative ILS motor range value. Read-only.
RNGP	Returns the positive ILS motor range value. Read-only.
RSET	Moves the motor to the center flag then back to its current position. The only parameter allowed is 1. Set only command.
STRT	Moves the motor in the specified direction. Available values are -1 and 1. Write-only for v1.3 or newer.
STOP	Stops the motor. Write-only for v1.3 or newer.
MOVR	Moves the motor a specified distance from its current location. Write-only for v1.3 or newer.

Examples

`(LVO 500 1)` Moves the lens to position 500 on the vertical axis with positive approach.

`(LVO 500 -1)` Moves the lens to position 500 on the vertical axis with negative approach.

`(LVO+C101 -500 1)` Sets the vertical position of the lens on channel 1 to -500 with positive approach.

`(LVO ?)` Returns the current motor position vertical axis and direction.

`(LVO+CALB 1)` Calibrate the vertical axis.

`(LVO+RSET 1)` Reset the vertical axis.

`(LVO+STRT 1)` Starts motor moving in positive direction.

`(LVO+STOP)` Stops motor.

`(LVO+MOVR -100)` Move motor 100 steps in negative direction.

`(LVO+MOVR 200)` Move motor 200 steps in positive direction.

Measured Color (MCG)

Use this code to select the Measured Color Gamut (MCG) file. The MCG file defines the native colorimetry for the projector and is required for accurate color processing. The settings are applied to an individual channel to allow for different colorimetry for applications such as 3D.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects the measured color gamut for the current channel.
DATA	Sets or returns the active MCGD measurement values. The order is RedX, RedY, GreenX, GreenY, BlueX, BlueY, WhiteX, WhiteY, BlackX, BlackY. The range for each value is 0–100000. The values represent MCGD measurement values multiplied by 100000.
SAVE	Saves the active MCGD measurement values to a new or existing MCGD file. Set only command.

Examples

`(MCG+C108 "Nominal")` Applies the "Nominal" file to channel 108.

`(MCG+C108?)` Returns the name of the MCG file for channel 108.

`(MCG?L)` Lists all entries of measured color control.

`(MCG+DATA 123 31786 00333 0 100000 66000 1 88899 2154 5441)` Applies these values to the active MCG file:

- RedX = 0.00123
- RedY = 0.31786
- GreenX = 0.00333
- GreenY = 0.00000
- BlueX = 1.00000
- BlueY = 0.66000
- WhiteX = 0.00001
- WhiteY = 0.88899
- BlackX = 0.02154
- BlackY = 0.05441

`(MCG+DATA?)` Returns the 10 values for the active MCGD file.

`(MCG+SAVE "filename")` Saves the 10 values for the active MCGD to a file named "filename". If the file does not exist, it is created. If the file already exists, it is overwritten.

Channel Name (NAM)

Use this code to apply a channel name to a channel.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects the channel name for the current channel.

Examples

`(NAM+C108 "Scope 2.39")` Applies the name "Scope 2.39" to channel 108.

`(NAM+C108?)` Returns the channel name for channel 108.

Network Setup (NET)

Use this code to define the network parameters for Eth0, Gateway, and Subnet 0.

Subcode Descriptions

Subcode	Description
DLP0	Sets the IP address for the MGMT Ethernet controller (deprecated).
ETH0	Sets the WAN IP address for the projector.
GATE	Sets the WAN Gateway for the projector.
HOST	Returns the host name.
MAC0	Returns the projector MAC address.
SUB0	Sets the projector WAN subnet mask.

Examples

`(NET+ETH0 "192.168.1.35")` Assigns the IP address 192.168.1.35 to the MGMT Ethernet controller.

`(NET+GATE "192.168.0.1")` Assigns the IP address 192.168.0.1 to the gateway.

`(NET+SUB0 "255.255.255.0")` Sets the IP address for the subnet mask on the MGMT Ethernet controller to 255.255.255.0.

`(NET+HOST "MyHostName")` Sets the host name to MyHostName.

`(NET+ETH0 ?)` Returns the MGMT Ethernet controller IP address.

`(NET+MAC0 ?)` Returns the MGMT controller MAC address.

(NET+GATE ?) Returns the gateway IP address.

(NET+DLP0 "192.168.206.10") Sets the IP address for the MGMT Ethernet controller (deprecated).

(NET+DLP0?) (NET+DLP0! "192.168.206.10") Returns the MGMT Ethernet controller IP address (deprecated).

Projector Configuration File (PCF)

Use this code to apply a Projector Configuration File (PCF) to a specific channel. The PCF is only active when the PCF in Use (PIU) code is on. See *PCF In Use (PIU)* on page 34.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects a PCF file for the current channel.

Examples

(PCF+C108 "SCOPE 2.39") Applies the PCF file "Scope 2.39" to channel 108.

(PCF?L) Lists all PCF entries.

PCT In Use (PCU)

Use this code to apply a Pureformity Color Technology (PCT) file to a specific channel.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Enables (1) or disables (2) a PCT file on the specified channel.

Examples

(PCU?) Returns the PCU status on the active channel.

(PCU1) Enables PCU on the active channel.

(PCU +C101?) Returns the PCU status for channel 101.

(PCU +C1011) Enables PCU on channel 101.

PCF In Use (PIU)

Use this code to enable or disable a Projector Configuration File (PCF) file on a channel.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects "Use PCF" for the current channel.

Examples

`(PIU?)` Returns the status of the PCF file.

`(PIU+C108 1)` Enables the use of a PCF file on channel 108.

`(PIU+C108 0)` Disables the use of a PCF file on channel 108.

Ping (PNG)

Use this code to return projector information such as the device type and main software version. This code only returns the software version of the master CPU. This information can be returned:

- Device type
- Major software version
- Minor software version
- Beta version (optional value; an engineering build without validation)

List of devices:

- 40 = ACT
- 41 = CP2000-ZX
- 42 = CP2000-M
- 46 = CP2210/CP2220/CP2230/CP4220/CP4230/Solaria One/Solaria One^{+}
- 48 = MCB/IMCB
- 49 = EVB

Subcode Descriptions

Subcode	Description
NONE	None.

Examples

`(PNG?)` Returns projector information.

Preferences (PRF)

Use this code to change the light intensity warning and standby IMB status on the projector touch panel controller (TPC). The option to change the IMB standby status is only available on Christie Solaria One and Christie Solaria One^{+} projectors.

Subcode Descriptions

Subcode	Description
INSY	Enables (1) or disables (0) the light intensity warning when the projector cannot display an image at the requested intensity.
SIMB	Enables (1) or disables (0) IMB standby mode.

Examples

`(PNG+SIMB 1)` Enables IMB standby mode.

`(PNG+INSY 1)` Enables the light intensity warning.

Power on Signature Test (PST)

Use this code to enable the Integrated Cinema Processor (ICP) signature test. To enable the signature test, you must also restart the projector.

Subcode Descriptions

Subcode	Description
NONE	Enables (1) or disables (0) the ICP signature test.

Examples

`(PST 1)` Enables the ICP signature test.

Power (PWR)

Use this code to change the projector power state. You can select one of these options:

- 0 = Full power mode. The projector is ready for lamp on.

- 1 = Power on. The projector is turned on and the lamp is on.
- 2 = Christie IMB standby mode.
- 3 = Power off or standby mode. All electronics except the Projector Control Module (PCM) turn off.
- 10 = Cool down. Read-only. The projector stays in cooling mode for 15 minutes after the lamp is turned off.
- 11 = Warm up. Read-only. This is the intermediate stage between standby and full power mode.

Subcode Descriptions

Subcode	Description
COOL	Returns the status of the cooling down timer. Read-only command.
NONE	Selects the power state.
STAT	Returns the status of the current power state. Read-only command.

Examples

`(PWR+STAT?)` Returns the current projector power status.

`(PWR+COOL?)` Returns the amount of time remaining in seconds for cooling mode.

`(PWR3)` Moves the projector to standby mode.

`(PWR2)` Moves the projector to IMB standby mode. This code can only be used with Christie Solaria One and Christie Solaria One^{+} projectors.

`(PWR0)` Turns the projector on and the lamp off.

`(PWR1)` Turns the projector and the lamp on.

`(PWR?)` Returns the current projector power state.

Remote Access Level (RAL)

Use this code to set the remote access level for a serial communications port. These are the available values:

- 0 = No Access
- 1 = Login Required
- 2 = Free Access

The default is 1.

Subcode Descriptions

Subcode	Description
NONE	Sets the access level on Ethernet all ports.
PRTA	Sets the access level on RS232 port A.

Examples

`(RAL 0)` Disables remote serial protocol access on all Ethernet ports.

`(RAL?)` Returns the access level for all Ethernet ports.

`(RAL+PRTA 2)` Sets the remote access level on port A to 2 (Free Access).

`(RAL+PRTA?)` Returns the remote access level on all serial ports.

Reboot TPC (RBT)

Use this code to restart the touch panel controller (TPC).

Subcode Descriptions

Subcode	Description
NONE	Restarts the TPC. Use 3 as the argument.

Examples

`(RBT 3)` Restarts the TPC.

Restore Whole or Partial Backup (RST)

Use this code to restore backup files.

Subcode Descriptions

Subcode	Description
CHAN	Restores channel settings.
CONF	Restores configuration settings.
FULL	Restores all settings including channels, configurations, preferences, and users.

Subcode	Description
ICPF	Restores Integrated Cinema Processor (ICP) files. To enable the restoration, the projector must be in full power mode.
LIST	Lists the backup files in the FTP root folder. Deprecated. Use RST?L.
PREF	Restores preferences.
STAT	Returns the status of the last restore command.
USER	Restores users.

Examples

`(RST?L)` Lists the backup files in the FTP root folder.

`(RST+CHAN 7)` Restores the channel settings for channel 7.

`(RST+FULL "Solaria.20110201153514.Backup")` Restores all settings from the named backup file.

`(RST+USER "E:/ Solaria.20110309211519.Backup")` Restores user information from a USB flash drive.

`(RST+STAT?)` Returns the status of the last restore command.

Screen Format (SCF)

Use this code to select the screen format file that defines the geometry for the output image.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects the screen file for the current channel.

Examples

`(SCF+C108 "FLAT")` Applies the "FLAT" file to channel 108.

`(SCF+C108?)` Returns the screen file name for channel 108.

`(SCF?L)` Lists all available of screen format files.

Schedule Power State Change (SCH)

Use this code to schedule the projector to turn on or off at a specific date and time. You can only schedule one power on and one power off event at a time. A power off command is ignored if the lamp is on. A power on or off command is also ignored if the projector is already on or off.

Subcode Descriptions

Subcode	Description
NONE	Enables (1) or disables (0) the scheduler.
POND	Turns the projector on at a specific date and time. The format is yyyy/mm/dd hh:mm. Send an empty string to turn scheduling off until a new date and time is selected.
POFD	Turns the projector off at a specific date and time. The format is yyyy/mm/dd hh:mm. Send an empty string to turn scheduling off until a new date and time is selected.

Examples

`(SCH1)` Enables the scheduler.

`(SCH+POFD"2014/07/11 23:00")` Schedules the projector to turn off at 11:00 PM on July 11, 2014.

`(SCH+POND"")` Deletes all scheduled events to turn the projector on.

Scan Type (SCN)

Use this code to select a specific scan type for a specific channel.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Identifies the scan type.

Examples

`(SCN+C108"Progressive")` Applies the progressive scan type to channel 108.

`(SCN+C108?)` Returns the scan type for channel 108.

`(SCN?L)` Returns a list of all available scan types.

Shutter or Douser (SHU)

Use this code to open or close the shutter or douser.

Subcode Descriptions

Subcode	Description
NONE	Selects the douser position. • 0: douser removed from optical path • 1: douser blocking optical path
STEP	Identifies the number of steps the douser moves when opening or closing (default 60, minimum 30, maximum 200).

Examples

`(SHU 1)` Closes the shutter.

`(SHU 0)` Opens the shutter.

`(SHU?)` Returns the current shutter status.

`(SHU+STEP?)` Returns the number of steps the douser needs to move to open or close.

Select Input (SIN)

Use this code to select the input port and reset the DTF control list and default data. Use an index number or a text description to select input port. These are the available options:

• Auto-select	• HDMI-3DLR
• 292-A	• 3GSDI-A LA (only available when a PIB3G with Quad SDI card is installed)
• 292-B	• 3GSDI-B LA (only available when a PIB3G with Quad SDI card is installed)
• 292-Dual	• 3GSDI-Quad (only available when a PIB3G with Quad SDI card is installed)
• DVI-A	• 3GSDI-3DLR (only available when a PIB3G with Quad SDI card is installed)
• DVI-B	• IMB-Internal (available when a Doremi IMB, GDC IMB, Dolby IMB, or Christie IMB is selected as a content device)
• DVI-Twin	• IMB-HDMI
• IMB-Generic	• IMB-SDI

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects the input port for the current channel.

Examples

`(SIN?)` Returns the current input port.

`(SIN?L)` Returns a list of input ports.

`(SIN 1)` Sets the current input port to entry with index 1.

`(SIN+C101 ?)` Returns the input port for channel 101.

`(SIN+C101 1)` Sets the input on channel 101 to "1".

SNMP Agent Configuration (SNM)

Use this code to set and modify Simple Network Management Protocol (SNMP) Agent settings.

Subcode Descriptions

Subcode	Description
ENVT	Enables or disables SNMP version 2 and enables version 3.
LEXT	Returns or sets the Lamp Expire Trap Flag for the SNMP Agent.
LHLT	Returns or sets the Lamp Half Life Trap Flag for the SNMP Agent.
TSIP	Sets the Trap IP address for the SNMP agent.

Examples

`(SNM+TSIP "xxx.xxx.xxx.xxx")` Sets the trap IP address to xxx.xxx.xxx.xxx.

`(SNM+TSIP "0.0.0.0")` Sets the IP address to 0.0.0.0 and stops the SNMP Agent from sending the traps.

`(SNM+LHLT 1)` Sets the flag to 1 and disables all future lamp half life traps.

`(SNM+LEXT 1)` Sets the flag to 1 disables all future lamp expire traps.

`(SNM+ENVT ?)` Returns the SNMP flag status.

`(SNM+ENVT 1)` Enables SNMP V2.

`(SNM+ENVT 0)` Disables SNMP V2.

Screen Orientation (SOR)

Use this code to set the screen orientation.

Subcode Descriptions

Subcode	Description
NONE	Select orientation: 0 = Normal Front 1 = Inverted Rear 2 = Normal Rear 3 = Inverted Front

Examples

`(SOR?L)` Lists the available orientation options.

`(SOR?)` Returns the current orientation status.

`(SOR0)` Sets the orientation to front.

Select Source Format (SRF)

Use this code to select the source format file.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Select source format for the current channel.

Examples

`(SRF+C108 "XXX")` Applies the source format file "XXX" to channel 108.

`(SRF+C108?)` Returns the source file name for channel 108.

`(SRF?L)` Lists all source control files.

`(SRF+RFSH 1)` Refreshes the TI file list.

System Status (SST)

Use this code to retrieve projector information.

Subcode Descriptions

Subcode	Description
ALRM	Returns a summary of any active alarms.
CONF	Returns configuration data - model, sn, build date, etc.
COOL	Returns cooling data - cooling fans, air flow, etc.
HLTH	Returns system health.
INTE	Returns interlock data.
LAMP	Returns lamp operational data.
NONE	Returns information on all status groups, with one message per item.
PERI	Returns peripherals data - Cine-IPM, etc.
SECU	Returns security data.
SERI	Return serial numbers.
SIGN	Returns signal data - freq, etc.
SYST	Returns system data - power, hours of use, shutter open, etc.
TEMP	Returns temperature data.
VERS	Returns version numbers.

Examples

`(SST+ALRM?)` Returns projector alarm information. These values can be returned:

- P1 = index number
- P2 = error level
- P3 = value
- P4 = description

These error values can be returned:

- 0 = no errors or warnings
- 1 = warning
- 2 = error
- 3 = error and warning

Service Control and Status for VNC and STP Services (SVC)

Use this code to start, stop, and identify the status of Virtual Network Computing (VNC) and File Transfer Protocol (FTP) services.

Subcode Descriptions

Subcode	Description
VNCS	Enables (1) or disables (0) the VNC service.
FTPS	Enables (1) or disables (0) the FTP service.

Examples

`(SVC+FTPS?)` Returns the status of the FTP service.

`(SVC+VNCS1)` Starts the VNC service.

`(SVC+FTPS0)` Stops the FTP service.

Projector Platform and Motherboard Related Information (SYS)

Use this code to return backplane, faceplate, and Projector Intelligence Board (PIB) version information.

Subcode Descriptions

Subcode	Description
BACB	Returns backplane version information.
FACB	Returns faceplate version information.
PIBB	Returns PIB version information.

Examples

`(SYS+BACB?)` Returns backplane version information.

Target Color Gamut (TCG)

Use this code to assign a Target Color Gamut (TCG) file to a channel. The TCG file defines the projector output colorimetry. To function correctly, the Measured Color Gamut Data must be accurate.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Select target color gamut for the current channel.

Examples

`(TCG+C108 "Atlantis")` Applies the TCG file "Atlantis" to channel 108.

`(TCG+C108?)` Returns the name of the TCG file assigned to channel 108.

`(TCG?L)` Returns a list of all available TCG files.

Enable 3D (TDC)

Use this code to enable or disable 3D on a specific or active channel.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Enables 3D on the current channel.

Examples

`(TDC+C108 1)` Enables 3D on channel 108.

`(TDC+C108?)` Returns the 3D setting on channel 108.

`(TDC?)` Returns the current 3D status.

3D Dark Time (TDK)

Use this code to set the dark time value for 3D presentations.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Applies dark time to the current channel.

Examples

`(TDK+C101 1)` Sets the dark time value on channel 101 to 1.

Output Reference Delay (phase) (TDP)

Use this code to set the output reference delay phase for 3D presentations. The data range is -180 to 180.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Select output reference delay phase for the current channel.

Examples

`(TDP+C101 1)` Sets the output reference delay phase on channel 101 to 1.

`(TDP+C101?)` Returns the output reference delay phase for channel 101.

3D L/R Display Reference (TDR)

Use this code to set the left and right display reference for 3D control.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects a left or right display reference for the current channel.

Examples

`(TDR+C101 1)` Sets the left and right display reference on channel 101 to 1.

`(TDR+C101?)` Returns the left and right display reference value for channel 101.

Output Reference Delay (time) (TDT)

Use this code to set the output reference delay time for 3D presentations.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects the output reference delay for the current channel.

Examples

`(TDT+C101 1)` Sets the output reference delay time on channel 101 to 1.

`(TDT+C101?)` Returns the output reference delay time for channel 101.

L/R Display Sequence (TFD)

Use this code to identify if the left or right source signal is selected first for a 3D presentation.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects the left or right display sequence for the current channel.

Examples

`(TFD?L)` Lists all channels assigned Input Frame Dominance control.

`(TFD+C101 1)` Sets Input Frame Dominance on channel 101 to 1.

`(TFD+C101?)` Returns the Input Frame Dominance value for channel 101.

3D Frame Rate Multiple (TFR)

Use this code to apply a multiple frame rate value on a channel used for 3D presentations.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects the 3D frame rate for the current channel.

Examples

`(TFR?L)` Lists all multiple frame rate values.

`(TFR+C101 3)` Sets the frame rate on channel 101 to "4:2".

`(TFR+C101?)` Returns the multiple frame rate value for channel 101.

Get Certificates (TIG)

Use this code to retrieve a LD or Integrated Cinema Processor (ICP) certificate.

The ENGC code cannot be used with Christie Solaria One and Christie Solaria One+ projectors.

Subcode Descriptions

Subcode	Description
ENGC	Returns the LD Certificate.
ICPC	Returns the ICP Certificate.

Examples

`(TIG+ENGC?)` Returns the LD certificate.

`(TIG+ICPC?)` Returns the ICP certificate.

3D Input Reference (TIR)

Use this code to set the Input Reference for 3D presentations.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects the input reference for the current channel.

Examples

`(TDK+C101 "Use GPI (polarity=true)")` Sets the Input Reference on channel 101 to 'Use GPI (polarity=true)'.

`(TDK+C101?)` Returns the Input Reference value for channel 101.

Time/Date (TMD)

Use this code to retrieve or set the time, date, and time zone.

Subcode Descriptions

Subcode	Description
DATE	Returns the date in the format yyyy/mm/dd. Read-only.
DSTA	Returns or sets the daylight saving time adjustment value.
TIME	Returns or sets the local time in the format hh:mm:ss. Ready-only.
TOFF	Sets the time offset in seconds (± 900 seconds). Must be powered ON. (Write-only).
ZONE	Returns or sets the time zone.

Examples

`(TMD+DSTA?)` Identifies if Daylight Saving Time (DST) is on (0) or off (1).

`(TMD+DSTA 0)` Turns DST off (0) or on (1).

`(TMD+ZONE 20)` Sets the time zone to Eastern Standard Time (EST).

`(TMD+TIME?)` Returns the local time.

`(TMD+TOFF 120)` Increases the time by two minutes.

`(“TMD+TOFF: Disabled Control”)` Returns an error message when power is off.

3D Output Reference Polarity (TOP)

Use this code to set the output timing signal reference polarity for 3D presentations.

Subcode Descriptions

Subcode	Description
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Selects the output timing signal reference polarity for the current channel.

Examples

`(TOP+C101 1)` Sets the output reference polarity on channel 101 to 1.

`(TOP+C101?)` Returns the output reference polarity for channel 101.

User ID (UID)

Use this code to allow users to use the serial interface to log on to the projector.

Subcode Descriptions

Subcode	Description
NONE	None.

Examples

`(UID)` Log on or log off a user.

`(UID?)(UID! "username" 01)` Returns the user name and access level of the user currently logged on.

Zoom Lens Position Adjustment (ZOM)

Use this code to move the lens to a specific zoom position in a specific direction. This command can only be used to update the current Intelligent Lens System (ILS) file. Changing the zoom for the current channel changes the zoom for any channel using the same ILS file.

When a subcode is included:

- If ILS is on, the motor moves to the specified location, and saves data to the active channel.
- If ILS is off, the motor moves to the specified location. The data is not saved to the active channel.

Subcode Descriptions

Subcode	Description
BACN	Applies motor backlash in a negative direction. Read-only.
BACP	Applies motor backlash in a positive direction. Read-only.
CALB	Calibrates the travel range and backlash on the specified channel. Only valid parameter for this command is 1. Set only command.
Cxxx	Specifies the channel number. The valid range is 101–164.
NONE	Moves the lens mount to a specific vertical position.
RNGN	Returns the negative ILS motor range value. Read-only.
RNGP	Returns the positive ILS motor range value. Read-only.
RSET	Resets the zoom. The only parameter allowed is 1. Set only command.

Subcode	Description
STRT	Moves the motor in a positive (1) or negative (-1) direction. Write-only for v1.3 or newer.
STOP	Stops the motor. Write-only for v1.3 or newer.
MOVR	Moves the motor the specified number of steps from its the current location. Write-only for v1.3 or newer.

Examples

`(ZOM 500 1)` Moves the lens to position 500 with positive approach.

`(ZOM 500 -1)` Moves the lens to position -500 with negative approach.

`(ZOM+C101 -500 1)` Sets the lens zoom position for channel 1 to -500 with positive approach.

`(ZOM ?)` Returns the current motor position.

`(ZOM + CALB 1)` Calibrates the zoom.

`(ZOM + RSET 1)` Resets the zoom.

`(ZOM+STRT 1)` Starts the motor moving in positive direction.

`(ZOM+STOP)` Stops the motor.

`(ZOM+MOVR -100)` Moves the motor 100 steps in a negative direction.

`(ZOM+MOVR 200)` Moves the motor 200 steps in a positive direction.

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