CRESTRON

Certified Module

Partner: LifeSize
Model: Video Conference
Device Type: Video Conference

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GENERAL INFORMATION

SIMPLWINDOWS NAME:	LifeSize Video Conference IP v3.5
CATEGORY:	Video Conferencing
VERSION:	3.5
SUMMARY:	This module provides control and true feedback via IP for the LifeSize Room, Room 200, Room 220, Team MP, Team 200 and Express.
GENERAL NOTES:	This module provides control for LifeSize Room, Room 200, Room 220, Team MP, Team 200 and Express video conferencing systems. It also provides true feedback. This module was tested with the Room and Room 220 video conference systems, but the protocol documentation indicates it should work for the Room 200, Team MP, Team 200 and Express video conference systems as well. This module is System Builder compatible.
CRESTRON HARDWARE REQUIRED:	C2I-COM6, C2-COM2/3, ST-COM
SETUP OF CRESTRON HARDWARE:	TCP/IP Port Number: 23d
VENDOR FIRMWARE:	LS_RM2_4.8.0 (59)
VENDOR SETUP:	Telnet must be enabled. To do that, navigate to **Administrator Preferences : Security : Remote Administration** on each system. Select **Telnet** and choose *Enabled*.
CABLE DIAGRAM:	Ethernet

CONTROL:

Initialize	D	Pulse to start communications.
Control_*	D	Pulse to control the desired input. This does not select the input; it just allows control of the input.
Camera_Up/Down/Left/Right	D	Press and hold to move camera. Only applies to Current Local and Remote.
Camera_Zoom_In/Out	D	Press and hold to zoom the camera in and out. Only applies to Current Local and Remote.
Camera_Preset_*	D	Pulse to select the desired preset. If the Camera_Save_Preset_Is_Active output is high, this will store the current camera position in the desired preset number. If the Camera_Save_Preset_Is_Active is low, this will recall the desired preset.
Camera_Save_Preset	D	Pulse to enable storing a camera preset. Pulse a second time to disable storing a camera preset. This will reset after 5 seconds.

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Room_Primary_Input_*	D	Pulse to select the desired primary input for the Room.
Room_200_Primary_Input_*	D	Pulse to select the desired primary input for the Room 200.
Team_MP_Primary_Input_*	D	Pulse to select the desired primary input for the Team MP.
Team_200_Primary_Input_*	D	Pulse to select the desired primary input for the Team 200.
Express_Primary_Input_*	D	Pulse to select the desired primary input for the Express.
Room_Secondary_Input_*	D	Pulse to select the desired secondary input for the Room.
Room_200_Secondary_Input_*	D	Pulse to select the desired secondary input for the Room 200.
Team_MP_Secondary_Input_*	D	Pulse to select the desired secondary input for the Team MP.
Team_200_Secondary_Input_*	D	Pulse to select the desired secondary input for the Team 200.
Express_Secondary_Input_*	D	Pulse to select the desired secondary input for the Express.
PIP_Mode_On/Off/Auto	D	Pulse to set the PIP mode to on, off or auto. This is for use while NOT In a call.
PIP_Window_On/Off	D	Pulse to turn the PIP window on and off while in a call. The PIP window will turn off when the Interface Fadeout Time expires. The PIP window will not turn off if the Interface Fadeout Time is set to Never.
Auto_Answer_On/Off/Toggle	D	Pulse to turn the auto answer on and off.
Volume_Up/Down	D	Press and hold to adjust the volume.
Volume_Mute_On/Off/Toggle	D	Pulse to turn the volume mute on and off. NOTE: Volume mute sets the volume level to 0.
Audio_Privacy(Mic Mute)_On/Off/Toggle	D	Pulse to turn the mic mute on and off.
Dial_Call_Quality_*	D	Pulse to select the desired call quality.
Dial_Call_Type_*	D	Pulse to select the desired call type.
Dial_Call_Interface_*	D	Pulse to select the desired call interface.
Dial_Call_Dial	D	Pulse to dial to call.
Dial_Call_Hang_Up_All	D	Pulse to hang up all connected calls.
Hang_Up_Call_*	D	Pulse to hang up the desired call.

Answer_Incoming_Call	D	Pulse to answer the incoming call.
Reject_Incoming_Call	D	Pulse to reject the incoming call.
Request_*_Directory	D	Pulse to request either the local or corporate directory.
Search_Directory	D	Pulse to search the directory using the keyboard to enter a search string.
Directory_First/Previous/Next/Last	D	Pulse to move through the address book pages.
Directory_*	D	Pulse to select the desired directory entry.
Directory_Dial	D	Pulse to dial the selected directory entry.
Control_Call_*	D	Pulse to send controls commands to the desired call. This applies to the camera controls, DTMF and presentation.
DTMF_Key_*	D	Pulse to dial DTMF commands. These will only be sent when in a call.
Presentation_Mode_On/Off/Toggle	D	Pulse to turn the presentation on and off.
Silver/Black_IR_Remote_Key_*	D	Pulse to send the IR commands to emulate either the silver or black IR remote.
Keyboard_*	D	Pulse to use the keyboard to enter phone numbers and IP addresses.
Numeric_Keypad_*	D	Pulse to use the numeric keypad to enter phone numbers and IP addresses.
Poll_Enable	D	Hold high to enable polling.
{{TCP/IP_Client_>>_Connect-F}}	D	Digital signal to be routed from a TCP/IP Client.
{{TCP/IP_Client_>>_status}}	A	Analog signal to be routed from a TCP/IP Client.
{{TCP/IP_Client_>>_RX$}}	S	Serial signal to be routed from a TCP/IP Client.

PARAMETER:

Directory Entries Per Screen	P	Number of directory entries to display per page.
Max Characters	P	Number of characters for the keyboard text.
User Name	P	Enter the user name to be used when logging in via Telnet.
Password	P	Enter the password to be used when logging in via Telnet.
Port Number	P	The port number for the TCP/IP Client. This is used by System Builder only.

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FEEDBACK:

Controlling_*	D	High to indicate which input will be controlled.
Camera_Save_Preset_Is_Active	D	When this is high, pulsing a camera preset input will save the current camera position in the selected preset.
Room_Primary_Input_Is_*	D	High to indicate the currently selected primary input for the Room.
Room_200_Primary_Input_Is_*	D	High to indicate the currently selected primary input for the Room 200.
Team_MP_Primary_Input_Is_*	D	High to indicate the currently selected primary input for the Team MP.
Team_200_Primary_Input_Is_*	D	High to indicate the currently selected primary input for the Team 200.
Express_Primary_Input_Is_*	D	High to indicate the currently selected primary input for the Express.
Room_Secondary_Input_Is_*	D	High to indicate the currently selected secondary input for the Room.
Room_200_Secondary_Input_Is_*	D	High to indicate the currently selected secondary input for the Room 200.
Team MP_Secondary_Input_Is_*	D	High to indicate the currently selected secondary input for the Team MP.
Team_200_Secondary_Input_Is_*	D	High to indicate the currently selected secondary input for the Team 200.
Express_Secondary_Input_Is_*	D	High to indicate the currently selected secondary input for the Express.
PIP_Mode_Is_On/Off	D	High to indicate the current state of the PIP mode.
Auto_Answer_Is_On/Off	D	High to indicate the current state of the auto answer function.
Volume_Gauge	A	Analog value indicating the current volume level. To be displayed using a gauge on a touch panel.
Volume_Mute_Is_On/Off	D	High to indicate that the volume level is at zero.
Audio_Privacy(Mic Mute)_Is_On/Off	D	High to indicate the current state of the audio privacy. (Mic Mute)
Dial_Call_Quality_Is_*	D	High to indicate the currently selected call quality value that will be sent when the Dial_Call_Dial is pulsed.
Dial_Call_Type_Is_*	D	High to indicate the currently selected call type value that will be sent when the Dial_Call_Dial input is pulsed.
Dial_Call_Interface_Is_*	D	High to indicate the currently selected call interface value that will be sent when the Dial_Call_Dial input is pulsed.

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Dial_Call_Number_Text	S	Serial signals indicating the current phone number to be dialed.
Call_Is_Coming_In	D	High to indicate that there is an incoming call.
Incoming_Call_Name/Number/Type_Text	S	Serial signal indicating the incoming call information.
Request_Directory_In_Progress	D	High to indicate that the module is busy requesting the directory.
Request_Directory_Failed	D	Will pulse high to indicate that the request directory failed.
Directory_Selected_Name_Text	S	Serial signal indicating the name of the selected directory entry.
Current_Page_Value	A	Analog value indicating the current page.
Number_of_Pages_Value	A	Analog value indicating the number of pages.
Directory_*_Text	S	Serial signals indicating the directory entries.
Controlling_Call_*	D	High to indicate the call that will be controlled.
Presentation_Mode_Is_On/Off	D	High to indicate the current state of the presentation.
Far_End_Presentation_Is_On/Off	D	High to indicate that the far end is sending a content source.
Keyboard_Text	S	Serial signal indicating the entered text.
Keyboard_*_Is_Active	D	High to indicate that the shift or the cap lock is active.
Connected_Call_*_Type_Text	S	Serial signal indicating the type of the connected call.
Connected_Call_*_Number_Text	S	Serial signal indicating the number for the connected call.
Connected_Call_*_Name_Text	S	Serial signal indicating the name for the connected call.
Connected_Call_*_State_Text	S	Serial signal indicating the state of the connected call.
Connected_Call_*_Disconnect_Reason_Text	S	Serial signal indicating the reason the connected call disconnected.
{{Connect_>>_TCP/IP_Client}}	D	Digital signal to be routed to a TCP/IP Client symbol.
{{TX$_>>_TCP/IP_Client}}	S	Serial signal to be routed to a TCP/IP Client symbol.

TESTING:

OPS USED FOR TESTING:	PRO2: 4.007.0004 MC3: 1.003.0008
SIMPL WINDOWS USED FOR TESTING:	3.11.15
DEVICE DB USED FOR TESTING:	43.05.006.00
CRESTRON DB USED FOR TESTING:	32.00.001.00
SAMPLE PROGRAM:	LifeSize Room + Room 200 + Room 220 Serial v3.5 Demo
REVISION HISTORY:	V. 1.0 – Not released. V. 2.0 – Original release. V. 2.1 – Changed the Virtual Serial driver inside the module to work at the default baud rate for port 2 on the LifeSize when used in System Builder. Changed the help file to recommend using the default baud rate and port 2. V. 3.0 – Added inputs to allow the module to work with the Room 200, Team MP, Team 200 and Express. V. 3.2 – Added a time out so that if the LifeSize does not respond we will continue to send commands. V 3.3 – Made several changes: 1) Changed the privacy command to the newer command. 2) Added call control and feedback for calls 4-6. 3) Added feedback to indicate that the far end is sending a presentation. 4) Fixed an issue with the room name text outputs on the module. 5) Fixed an issue where the module wouldn't log in if the LifeSize rebooted while we are logged in. V 3.4 – Modified the IP version of the module to better reconnect with the LifeSize unit after the LifeSize reboots. V3.5 – Made several changes: 1) Fixed an issue with the presentation start and stop commands. 2) Added call control and feedback for call 7. 3) Changed the names of the IR signals to Silver_IR_Remote. 4) Added commands to emulate the black IR remote. 5) Changed the way call status information is displayed after hanging up a single call while in a multipoint call. In the previous version, when you hung up call number 1, call 2's status continued to be displayed as call 2. In this module, when you hang up call 1, call 2's status will be moved to call 1. This is similar to the method used by the LifeSize on screen interface.