

Partner: Polycom
 Model: RealPresence Group
 Device Type: Video Codec



GENERAL INFORMATION

SIMPLWINDOWS NAME:	Polycom RealPresence Group Series v2.5												
CATEGORY:	Conferencing												
VERSION:	2.5												
SUMMARY:	This module will control the Polycom RealPresence Group 300, Group 500 or Group 700 codecs either via TCP/IP or RS232.												
GENERAL NOTES:	<p>This module provides control of the Polycom RealPresence Group series codecs. It also provides true feedback. Connection to the Polycom RealPresence Group series may be via either TCP/IP or RS232.</p> <p>Note that it may take up to 15 seconds for the feedback for a connected call to show that the call has disconnected.</p> <p>This module will download the entire local and/or global address book into the Crestron processor. To ensure the address book is up to date it is recommended that the address books are downloaded once per day at an off hour (for example at 2:00 AM). The When symbol in Simpl Windows may be used to do this. For an example of how to do that see the demo program.</p>												
CRESTRON HARDWARE REQUIRED:	C2I-COM, ST-COM, C2-COM-*												
SETUP OF CRESTRON HARDWARE:	<p>TCP/IP Port: 24</p> <p>RS232: Baud: 38400 Parity: N Data Bits: 8 Stop Bits: 1</p>												
VENDOR FIRMWARE:	4.1.3												
VENDOR SETUP:	None												
CABLE DIAGRAM:	<p>TCP/IP: CAT5E</p> <p>RS232: Group 300 & Group 500 connection is 8-pin mini-DIN</p> <table border="1"> <thead> <tr> <th>Polycom</th> <th>Crestron 2-Series</th> <th>Crestron 3-Series</th> </tr> </thead> <tbody> <tr> <td>Pin 2</td> <td>Pin 3</td> <td>TX</td> </tr> <tr> <td>Pin 3</td> <td>Pin 2</td> <td>RX</td> </tr> <tr> <td>Pin 5</td> <td>Pin 5</td> <td>G</td> </tr> </tbody> </table>	Polycom	Crestron 2-Series	Crestron 3-Series	Pin 2	Pin 3	TX	Pin 3	Pin 2	RX	Pin 5	Pin 5	G
Polycom	Crestron 2-Series	Crestron 3-Series											
Pin 2	Pin 3	TX											
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Group 700 connection is DB9		
Polycom	Crestron 2-Series	Crestron 3-Series
Pin 2	Pin 3	TX
Pin 3	Pin 2	RX
Pin 5	Pin 5	G

CONTROL:

Initialize	D	Pulse to start the initialization procedure. This will happen automatically when the Crestron processor logs into the Polycom Group series codec.
RS232_Control	D	Pulse or hold high to enable RS232.
Wake/Sleep	D	Pulse to wake the codec or put the codec to sleep.
Auto_Answer_<On/Off/Do_Not_Disturb>	D	Pulse to set the auto answer to the desired mode.
<Allow/Do_Not_Allow>_Far_End_Control_Of_Near_End_Camera	D	Pulse to enable and disable far end control of the near end camera.
Mute_Mics_When_Call_Is_Auto_Answered_<On/Off>	D	Pulse to turn auto microphone mute when call is auto answered on and off
Toggle_Mute_Mics_When_Call_Is_Auto_Answered	D	Pulse to turn auto microphone mute when call is auto answered on and off
Select_Near_End_Camera_<1/2/3/4>	D	Pulse to select the desired camera. Note: Cameras 3 and 4 are only available on the Group 700.
Select_<Near/Far>_End_Camera_For_Control	D	Pulse to select either the near end or far end camera for control.
Toggle_<Near/Far>_End_Camera_For_Control	D	Pulse to select either the near end or far end camera for control.
Camera_<Up/Down/Left/Right>	D	Press and hold to move the camera.
Camera_Zoom_<In/Out>	D	Press and hold to move the camera zoom in and out.
<Near/Far>_End_Camera_Preset_Value_In	A	Analog input for the desired camera preset. Valid preset ranges are: Near End: 0 to 99; Far End: 0 to 15
<Near/Far>_End_Camera_Preset_Recall/Store	D	Pulse to recall the preset value entered using the associated <Near/Far>_End_Camera_Preset_Value_In input. Press and hold for five seconds to store the current camera position in the preset value entered using the associated <Near/Far>_End_Camera_Preset_Value_In input. The <Near/Far>_End_Camera_Preset_Recall/Store_Feedback output will pulse when the five seconds have expired.
Send_Content_Source_<1/2/3/4>	D	Pulse to start sending the desired source as content.
Stop_Sending_Content	D	Pulse to stop sending content.

Partner: Polycom
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Preset_Volume_Level_In	A	Analog value input for the volume level. This not intended to be used with an Analog Ramp symbol. It is intended for use with a symbol like an Analog Initialize. Valid range is 0 to 50.
Volume_<Up/Down>	D	Press and hold to adjust the volume level.
Volume_Mute_<On/Off/Toggle>	D	Pulse to turn the volume mute on and off.
Microphone_Mute_<On/Off/Toggle>	D	Pulse to turn the microphone mute on and off.
DTMF_Key_<0...9/#/*>	D	Pulse to send the DTMF tone commands.
<Show/Do_Not_Show/Toggle_Show>_DTMF_In_Dial_String	D	Pulse to enable and disable showing the DTMF key presses in the dial string.
Multi_Point_Auto_Answer_<On/Off/Do_Not_Disturb>	D	Pulse to set the multi-point auto answer to the desired mode.
Multi_Point_Mode_<Auto/Discussion/Presentation/Full_Screen>	D	Pulse to set the multi-point mode to the desired setting.
Dial_Text_In	S	Serial signal for the dial string.
Dial_Call	D	Pulse to dial the string entered in the Dial_Text_In input.
Call_Type_<H323/IP/SIP/SIP_Speaker_Phone>	D	Pulse to set the desired call type. Default is IP.
Call_Speed_<1/2/3/4/5>	D	Pulse to select the desired call speed. Call speeds are set using the "Call Speed" parameter fields.
Hang_Up_All_Calls	D	Pulse to hang up all connected calls.
Hang_Up_Call_<1/2/3>	D	Pulse to hang individual calls.
<Answer/Ignore>_Incoming_Call	D	Pulse to answer or ignore the incoming call.
Get_Address_Books	D	Pulse to download the address book(s) selected using the Enable_<Local/Global>_Address_Book. Crestron recommends doing this once per day at some off hour using the When symbol in Simpl Windows.
Enable_<Local/Global>_Address_Book	D	Hold high to enable the desired address book(s). Pulsing the Get_Address_Books input will download the address book(s) selected using these inputs. Crestron recommends doing this once per day at some off hour using the When symbol in Simpl Windows.
Address_Book_Entries_Per_Page_Value_In	A	Analog input for the number of entries per page. The valid range is 1 to 20.
<Local/Global>_Address_Book_Top	D	Pulse to go to page one of the top level of the local or global address book.
<Local/Global>_Address_Book_Return	D	Pulse to go up one level in the local or global address book.
<Local/Global>_Address_Book_*_Page	D	Pulse to navigate through the local or global address book.

Partner: Polycom
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<Local/Global>_Address_Book_Clear_Selected	D	Pulse to clear the selected local or global address book entry.
<Local/Global>_Address_Book_Dial	D	Pulse to dial the selected local or global address book entry.
<Local/Global>_Address_Book_List_Select_Entry_<1...20>	D	Pulse to select the desired address book entry.
IR_Emulation_*	D	Pulse to send the IR remote emulation commands. Note: The IR_Emulation_<Up/Down/Left/Right> commands are really for navigation and not camera control. To control the camera use the camera control commands found in the Camera_Controls section of the module
Monitor_1_Presentation_Setting_<Auto/All/Far_Or_Near>	D	Pulse to set the presentation setting for the monitor 1 output. Note: All other monitor output settings will be disabled if monitor 1 is set to auto.
Monitor_2_Presentation_Setting_<All/Near_Only/Far_Only/Content_Only>	D	Pulse to set the presentation setting for the monitor 2 output. Note: All other monitor output settings will be disabled if monitor 1 is set to auto.
Monitor_3_Presentation_Setting_<Record_All/Record_Far_Or_Near/Near_Only/Far_Only/Content_Only>	D	Pulse to set the presentation setting for the monitor 3 output. Note: All other monitor output settings will be disabled if monitor 1 is set to auto.
Selfview_<On/Off/Auto>	D	Pulse to set Selfview to the desired setting.
From_Device	S	Serial signal to be connected from the RX\$ output of a TCP/IP Client symbol.

PARAMETERS:

Password	S	Enter the administrator's password.
Call Speed <1/2/3/4/5>	S	Select the desired call speed from the dropdown list.

FEEDBACK:

Initialize_Is_Busy	D	High to indicate that the Initialize function is busy.
Connected_Codec_Is_Group_<300/500/700>	D	High to indicate the connected codec model.
Connected_Codec_Name_Text	S	Serial signal indicating the name of the connected codec.
Connected_Codec_IP_Address_Text	S	Serial signal indicating the IP address of the connected codec.
Multi_Point_Enabled	D	High to indicate that the multi-point option is installed in the codec.
H323_Enabled	D	High to indicate that H323 calls are enabled.

Partner: Polycom
Model: RealPresence Group
Device Type: Video Codec



Codec_Is<Asleep/Awake>	D	High to indicate whether the codec is asleep or awake.
Auto_Answer_Is<On/Off/Do_Not_Disturb>	D	High to indicate the current auto answer setting.
Far_End_<Is/Is_Not> Allowed_To_Control_Near_End_Camera	D	High to indicate the current far end control of the near camera setting.
Mute_Mics_When_Call_Is_Auto_Answered_Is_<On/Off>	D	High to indicate the current mute microphones when call is auto answered setting.
Near_End_Camera_<1/2/3/4>_Is_Selected	D	High to indicate the currently selected near end camera.
Near_End_Camera_<3/4>_Is_Enabled	D	High to indicate the connected codec has camera 3 and 4 inputs.
Far_End_Camera_<1/2/3/4>_Is_Selected	D	High to indicate the currently selected far end camera.
<Near/Far>_End_Camera_Selected_For_Control	D	High to indicate which camera is selected for control.
Currently_Selected_<Near/Far>_End_Camera_Preset_Value	A	Analog output to indicate the currently selected camera preset.
<Near/Far>_End_Camera_Preset_Recall/Store_Feedback	D	High while the <Near/Far>_End_Camera_Preset_Recall/Store input is high. If this output is high when the store time of five seconds is reached it will pulse low for 0.2 seconds.
Sending_Content_Source_<1/2/3/4>	D	High to indicate that the codec is sending content.
Not_Sending_Content	D	High to indicate that the codec is not sending content.
FarEnd_Sending_Content	D	High to indicate that the far end is sending content.
Volume_Level_Bar	A	Analog value indicating the current volume level. Range is 0 to 65535.
Volume_Mute_Is_<On/Off>	D	High to indicate the current volume mute state.
Microphone_Mute_Is_<On/Off>	D	High to indicate the current microphone mute state.
Far_End_Microphone_Mute_Is_<On/Off>	D	High to indicate the current far end microphone mute state.
<Showing/Not_Showing>_DTMF_In_Dial_String	D	High to indicate whether the DTM key presses will be shown in the dial string.
Multi_Point_Auto_Answer_Is_<On/Off/Do_Not_Disturb>	D	High to indicate the current multi-point auto answer mode.
Multi_Point_Mode_Is_<Auto/Discussion/Presentation/Full_Screen>	D	High to indicate the current multi-point mode setting.
Dial_String_Text	S	Serial signal indicating the dial string.

Partner: Polycom
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Call_Type_Is_<H323/IP/SIP/SIP_Speaker_Phone>	D	High to indicate the currently selected call type for the dialed calls.
Selected_Call_Speed_Text	S	Serial signal to indicate the selected call speed.
Call_Speed_<1/2/3/4/5>_Is_Selected	D	High to indicate which call speed is selected.
Call_<1/2/3>_Connected	D	High to indicate connected calls.
Call_<1/2/3>_Name_Text	S	Serial signal indicating the name of the connected call.
Call_<1/2/3>_Number_Text	S	Serial signal indicating the number of the connected call.
Call_<1/2/3>_Direction_Text	S	Serial signal indicating the direction (incoming/outgoing) of the connected call.
Call_<1/2/3>_Type_Text	S	Serial signal indicating the call type of the connected call.
Call_<1/2/3>_Status_Text	S	Serial signal indicating the status of the connected call.
Incoming_Call	D	High to indicate that there is an incoming call.
Incoming_Call_<Name/Number/Type>_Text	S	Serial signals indicating the name, number and type of the incoming call.
Get_Address_Book_Is_Busy	D	High to indicate that the module is busy downloading the address book(s) from the codec.
<Local/Global>_Address_Book_List_Name_Text	S	Serial signal indicating the name of the currently display local or global address book list.
<Local/Global>_Address_Book_List_Current_Page	D	Analog signal indicating the currently displayed page number for the currently displayed list in the local or global address book.
<Local/Global>_Address_Book_List_Total_Pages	D	Analog signal indicating the total number of pages for the currently displayed list in the local or global address book.
<Local/Global>_Address_Book_Entry_Name_<1..20>	S	Serial signal indicating the address entry names for the local or global address book.
<Local/Global>_Address_Book_Name_Selected_Text	S	Serial signal indicating the name of the selected entry in the local or global address book.
<Local/Global>_Address_Book_List_Entry_<1...20>_Is_Selected	D	High to indicate the currently selected entry number in the local of global address book.
Monitor_1_Presentation_Setting_Is_<Auto/All/Far_Or_Near>	D	High to indicate current monitor 1 output setting. Note: All other monitor output settings will be disabled if monitor 1 is set to auto.
Monitor_2_Presentation_Setting_Is_<All/Near_Only/Far_Only/Content_Only>	D	High to indicate current monitor 2 output setting. Note: All other monitor output settings will be disabled if monitor 1 is set to auto.

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Monitor_1_Presentation_Setting_Is_<Record_All/Record_Far_Or_Near/Near_Only/Far_Only/Content_Only>	D	High to indicate current monitor 3 output setting. Note: All other monitor output settings will be disabled if monitor 1 is set to auto.
Selfview_Is_<On/Off/Auto>	D	High to indicate the current self-view setting.
To_Device	S	Serial signal to be connected to the TX\$ input on the TCP/IP Client symbol.

TESTING:

OPS USED FOR TESTING:	CP3: 1.010.0060 DMPS-300-C: 4.007.0032
SIMPL WINDOWS USED FOR TESTING:	4.02.56
DEVICE DB USED FOR TESTING:	62.01.001.00
CRES DB USED FOR TESTING:	49.06.005.00
SYMBOL LIBRARY USED FOR TESTING:	922
SAMPLE PROGRAM:	Polycom RealPresence Group Series v2.5 Demo
REVISION HISTORY:	<p>v1.0 – Initial Release</p> <p>v2.0 – Added address book functions and RS232 connectivity.</p> <p>v2.1 – Fixed several issues.</p> <ol style="list-style-type: none"> 1) Send_Content inputs on the module were not sending the commands. 2) RS232 not determining that the Crestron is logged into the Polycom. 3) Address books were not displaying correctly. <p>v2.2 – Added new functions for Polycom Software 4.1.3.</p> <ol style="list-style-type: none"> 1) IR Remote Emulation Commands 2) Monitor Output set up. 3) Selfview. 4) Sleep. <p>v2.4 – Removed the “auto” call speed as it is no longer valid. Fixed an issue with only being able to download the global address book once in some situations.</p> <p>v2.5 – Fixed several issues with downloading the address book.</p> <ol style="list-style-type: none"> 1) Fixed an issue where in some situations the global address book wouldn't download after the local address book completed. 2) Fixed an issue with the address book download causing an array index out of bounds error sometimes. 3) Fixed an issue with downloading address books with less than 20 entries