

Partner: Cisco
Model: C-Series
Device Type: Video Conference



GENERAL INFORMATION

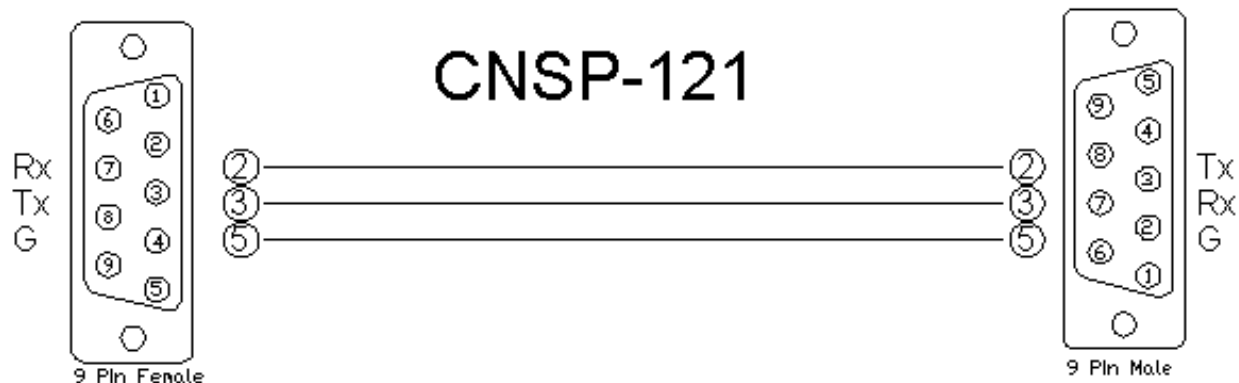
SIMPLWINDOWS NAME:	Cisco C-Series v2.5
CATEGORY:	Conferencing
VERSION:	2.5
SUMMARY:	<p>This module will control the Cisco (Tandberg) C-Series video codecs via RS232 or TCP/IP.</p>
GENERAL NOTES:	<p>This module will control the Cisco (Tandberg) C-Series video codecs. It was tested with the C90 and C40. It will also control the C60. It also provides true feedback. Not all functions are available on all models. Also, some functions may require the installation of options. For more information on the options please contact Cisco.</p> <p>Note that you do not have the ability to store presets on the far end system. To store a preset on the near end system, press and hold the desired preset button for 2 seconds. The Camera_Near_End_Preset_Stored output will pulse, and the preset will be saved.</p> <p>For video/audio switching, you have the ability to select any near end video source for transmission. For far end control, you can select any of the far end presentation video sources.</p> <p>For manual dialing control, you have the ability to select from any of the available call qualities. The actual numbers to be dialed should be entered using the Keyboard_* inputs toward the bottom of this module. Since you can dial both numeric and alphanumeric addresses, a full keyboard has been implemented. You also have the ability to designate what type of call to place (H323/SIP/VoIP).</p> <p>For Phonebook dialing, you have the ability to dial any of the entries that have been entered into the Cisco local and corporate directories.</p> <p>The phonebook will be downloaded into the Crestron processor all at once and stored. This will be done upon system initialization. It is recommended that the phonebook is downloaded each night to make sure all updates have been read into the Crestron processor. After reading the phonebook, you can now display the phonebook on screens containing up to twenty entries per page. You can use the phonebook_First/Prev/Next inputs to scroll between pages. Use the phonebook Entries Per Screen to enter the number of entries to be displayed per screen. To display twenty entries per screen, enter 20D. It is possible that some of the phonebook entries may be folders. There are outputs on the module that indicate if the entry is a folder. Once you are inside a folder, you can use the phonebook Up_One_Level input to move back to the previous phonebook level. You can now get the total matches found for a phonebook search. This allows paging logic in the phonebook. There is an output called Phonebook_Entry_XSIG. This serial output is intended to be routed to an Intersystem Communications symbol (Speed Key: XSIG). There should be 255 serial outputs on the XSIG symbol in your program. This allows the phonebook to be displayed using a Vertical Button List Smart Graphic object. The other two signals needed are Phonebook_Entry_Number to be routed from the Item Clicked output on the Vertical Button List object symbol and Phonebook_TotalRowsForSearch to be routed to the Set Num of Items input on the Vertical Button List symbol. A folder will be indicated by the addition of "[+]" in front of the name of the entry.</p> <p>The 40 most recent calls can be downloaded into the Crestron processor with the local or corporate phonebook. Once the local or corporate phonebook and recent calls have been downloaded the recent calls can be updated without having to download the entire phonebook again by using the Update_Recent_Calls input. It is recommended that you update the recent calls</p>

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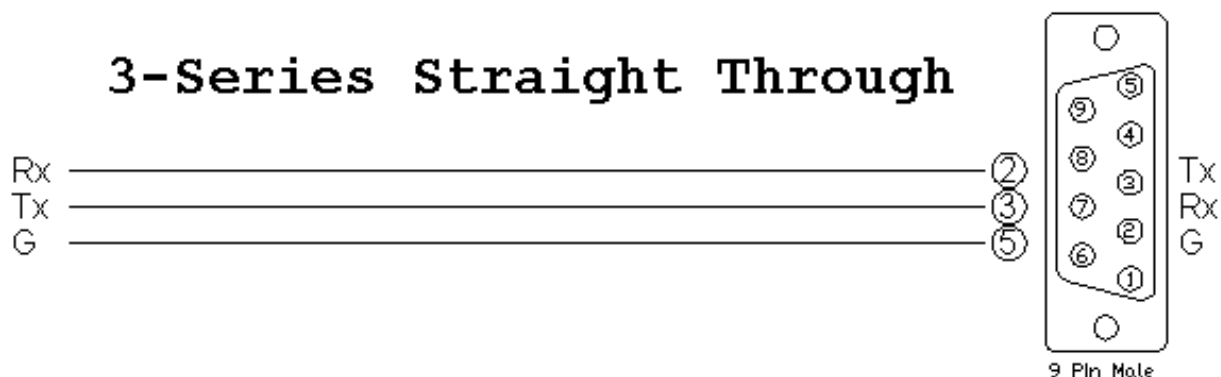


	<p>list each time all calls have disconnected. This will keep the recent calls list up to date. The recent calls will be displayed as a folder on the top level.</p> <p>The IR_* functions will directly emulate the functions available on the Tandberg IR remote. All available IR commands have been implemented. IR functions should only be used for interacting with the codecs menu system when a user will be observing the OSD. Any other use will most likely cause the module to fail when the firmware is upgraded and the OSD menu changes. Therefore the usage of the IR_* commands is discouraged.</p> <p>This module is NOT System Builder compatible. It is for use in 2-series and higher Crestron processors.</p>								
CRESTRON HARDWARE REQUIRED:	C2I-*COM*, ST-COM, C2-COM-*, C2I-*ENET*								
SETUP OF CRESTRON HARDWARE:	<p>RS232</p> <p>Baud: 38400</p> <p>Parity: None</p> <p>Data Bits: 8</p> <p>Stop Bits: 1</p> <p>TCP/IP</p> <p>Port: 23d</p>								
VENDOR FIRMWARE:	TC7.0.2.aecf2d9								
VENDOR SETUP:	For TCP/IP: You must go to System Configuration->Network Services and set Telnet Mode to On. Changing this setting does not require a reboot of the device, but it may take some time to take effect.								
CABLE DIAGRAM:	<p>For RS232:</p> <p>2-Series: CNSP-121</p> <p>3-Series:</p> <table> <tr> <td>Crestron</td><td>Cisco</td></tr> <tr> <td>Pin: TX</td><td>Pin: 3</td></tr> <tr> <td>Pin: RX</td><td>Pin: 2</td></tr> <tr> <td>Pin: GND</td><td>Pin: 5</td></tr> </table>	Crestron	Cisco	Pin: TX	Pin: 3	Pin: RX	Pin: 2	Pin: GND	Pin: 5
Crestron	Cisco								
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3-Series Straight Through



CONTROL:

Control_Camera_Near_End_<1...7>	D	Pulse to select the near end camera to control.
Camera_<Near/Far>_End_Tilt_<Up/Down>	D	Press and hold to tilt the near or far end camera up or down.
Camera_<Near/Far>_End_Pan_<Left/Right>	D	Press and hold to pan the near or far end camera left or right.
Camera_<Near/Far>_End_Zoom_<In/Out>	D	Press and hold to zoom the near or far end camera in and out.
Camera_Near_End_Focus_<In/Out>	D	Press and hold to adjust the focus of the near end camera.
Camera_Near_EndStart_Auto_Focus	D	Pulse to trigger auto focus on the selected near end camera.
Camera_Near_End_Preset_<1..15>	D	Pulse to move the near end camera to the desired preset. Press and hold to store the current near end camera position in the desired preset.
Camera_Far_End_Preset_<1..9>	D	Pulse to move the far end camera to the desired preset.
Video_Near_EndmdInput_<1...5>	D	Pulse to select the desired near end video input.

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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.
Microphones_Mute_<On/Off/Toggle>	D	Pulse to turn the near end microphone mute on and off.
Presentation_Near_End_Source_<1...5>	D	Pulse to start sending the desired near end presentation source to the far end.
Presentation_Near_End_Stop	D	Pulse to stop sending the near end presentation source to the far end.
Presentation_Far_End_Source_<1...15>	D	Pulse to select the far end presentation source to be sent to the near end.
Presentation_Far_End_Stop	D	Pulse to stop the far end from sending the presentation source to the near end.
Dial_Call_Type_<H323/SIP/VoIP/Default>	D	Pulse to select the desired call type to dial for manual calls.
Dial_Call_Quality_*	D	Pulse to select the desired call quality to dial for manual calls.
Dial_Call	D	Pulse to dial the number entered using the Dial_Keyboard_* inputs. This number will be displayed on the Dial_Call_Number_Text
Hang_Up_All_Calls	D	Pulse to hang up all connected calls.
Hang_Up_Call_<1/2/3>	D	Pulse to hang up individual connected calls.
<Reject/Answer>_Incoming_Call	D	Pulse to reject or answer the incoming call.
Phonebook_Request_<Local/Corporate>	D	Pulse to download the desired phonebook to the Crestron processor. This will be done at system initialization. Crestron recommends using the When symbol in SIMPL to do this every night. See the demo program for an example of how to do this.
Enable_Recent_Calls	D	Hold high to enable downloading the 40 most recent calls from the Cisco. While this input is high the 40 most recent calls will be downloaded with the local or corporate phonebook. After it has been downloaded with the local or corporate phonebook it may be updated using the Get_Recent_Calls input.
Update_Recent_Calls	D	Pulse to update the recent calls list. This input will only function when Enable_Recent_Calls is high and after the local or corporate phonebook have been downloaded while the Enable_Recent_Calls input is high. If the local or corporate phonebook is downloaded when the Enable_Recent_Calls input is low, the local or corporate phonebook will have to be redownloaded after setting the Enable_Recent_Calls high.
Phonebook_<Up_One/Top>_Level	D	Pulse to go up one level from a folder or the go to the top level of the phonebook.

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Phonebook_Entry_Number	A	Analog input to be routed from the Item Clicked output of a Vertical Button List Smart Graphic symbol. This is NOT for use with the phonebook display pages.
Phonebook_Clear_Slected_Entry	D	Pulse to clear the selected phonebook entry.
Phonebook_Dial_Selected_Entry_Number	D	Pulse to dial the selected phonebook entry.
Phonebook_<First/Previous/Next>_Page	D	Pulse to navigate through the phonebook by pages.
Phonebook_Pages_Entry_<1...20>	D	Pulse to select the desired phonebook entry from the displayed page.
Phonebook_Dial_Selected_Entry_Pages	D	Pulse to dial the selected phonebook entry.
Phonebook_Clear_Selected_Entry_Pages	D	Pulse to clear the selected phonebook entry.
IR_Emulation_*	D	Inputs to allow emulation of the IR remote on a touch panel.
Phonebook_Search_Keyboard_*	D	Pulse to enter characters for the phonebook search. The search will happen automatically after each character entry.
Dial_Keyboard_*	D	Pulse to enter the dial string for manual dialing.
DTMF_Selected_Call_Slot_<Auto/1/2/3>	D	Pulse to select the call for the DTMF tones to be sent to.
DTMF_Keypad_<01/2/3/4/5/6/7/8/9*/#>	D	Pulse to enter the DTMF tones.
Screen_Saver_<On/Off/Toggle>	D	Pulse to enable and disable the screen saver.
Auto_Answer_<On/Off/Toggle>	D	Pulse to turn auto answer on and off.
Encryption_<Best_Effort/Off/Toggle>	D	Pulse to set the encryption mode.
Defuault_Call_Rate_*	D	Pulse to set the desired default call rate.
Default_Call_Type_<H323/SIP>	D	Pulse to set the desired default call type.
Far_End_Camera_Control_<Enable/Disable/Toggle>	D	Pulse to enable or disable far end control of the near end camera.
On_Screen_Display_<On/Off/Toggle>	D	Pulse to enable or disable the on screen display.
On_Screen_Display_Output_<1/2/3/4>	D	Pulse to select the video output for the on screen display to appear on.
Picture_Layout_*	D	Pulse to select the desired picture layout. The currently selected layout cannot be read from the system.
Selfview_<On/Off/Toggle>	D	Pulse to turn the self-view on and off.

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Do_Not_Disturb_Mode_<On/Off/Toggle>	D	Pulse to turn do not disturb on and off.
<Activate/Deactivate>_Standby	D	Pulse to send the codec into standby or wake the codec up from standby.
Request_Reboot_Codec	D	Pulse to set the Reboot_Is_Requested output high.
Cancel_Request_Reboot_Codec	D	Pulse to set the Reboot_Is_Requested output low.
Reboot_Codec	D	Pulse to reboot the codec.
Video_Input_Source_<1/2/3/4/5>_Connector_To_<HDMI/HDSLI/YPbPr/DVI/Composite>	D	Pulse to set the active video source connector for the desired video input. NOTE: Not all connector types are available for all codecs. Also not all inputs area available for all codecs.
Show/Hide_Dialer_Keyboard	D	Pulse to show and hide the dialer keyboard subpage.
Phonebook_Search_<Show/Hide>_Keyboard	D	Pulse to show and hide the phonebook search keyboard subpage.
From_Device	S	Serial signal to be routed from the RX\$ output of a TCP/IP Client symbol or from the [rx\$] output of a 2-way serial com port symbol.
IP_CONNECT_STATUS	A	Analog signal to be routed from the status output of a TCP/IP Client. If using RS232 the "/" signal can be used to comment out this input.
Auto_Answer_Mute_On	D	Pulse to turn the on and off. microphone mute when a call is auto answered
Camera_Far_End_Focus_<In/Out>	D	Press and hold to adjust the focus of the far end camera.
Message_Prompt_Respond_With_Option<1/2/3/4/5>	D	Pulse to respond to the OSD message prompt.
TString_Send_Text	S	TString Send Text
SString_Send_Text	S	SString Send Text

PARAMETERS:

User Name	S	Enter the user name for logging into the codec. If login is not required you can use "".
Password	S	Enter the password for the user name being used to log into the codec. If login is not required you can use "".
Phonebook Entries Per Page	A	Enter the number of phonebook entries to display per page when using pages to display the phonebook. Valid range is 1d to 20d
Max Characters	A	Enter the number of characters to use for the phonebook entry names. Valid range is 1d to 50d.

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FEEDBACK:

Controlling_Camera_Near_End_<1...7>	D	High to indicate the near end camera currently being controlled.
Camera_Near_End_Preset_Stored	D	Pulses high for 3.0 seconds when a near camera preset has been stored.
Video_Near_End_Input_Is_<1/2/3/4/5>	D	High to indicate the currently selected near end video input.
Volume_Level_Gauge	A	Analog output indicating the current volume level.
Volume_Mute_Is_<On/Off>	D	High to indicate the current volume mute state.
Microphones_Mute_Is_<On/Off>	D	High to indicate the current microphone mute state.
Presentation_Near_End_Source_Is_<1/2/3/4/5>	D	High to indicate the currently selected near end presentation source.
Dial_Call_Type_Is_<H323/SIP/VoIP/Default>	D	High to indicate the currently selected call type.
Dial_Call_Quality_Is_*	D	High to indicate the currently selected call quality.
Dial_Call_Number_Text	S	Serial output indicating the dial number entered using the Dial_Keyboard_* inputs.
Incoming_Call	D	High to indicate that there is an incoming call.
Incoming_Call_Number_Text	S	Serial output indicating the number of the incoming call.
Phonebook_In_Use_Is_<Local/Corporate>	D	High to indicate the phonebook currently in use.
Phonebook_Download_Busy	D	High to indicate that the phonebook is currently being downloaded.
Recent_Calls_Update_Is_Busy	D	High to indicate that the recent calls list is being updated. This will not be high when the local or corporate phonebook is being downloaded. It will only be high when the recent calls list is being updated using the Update_Recent_Calls input.
Phonebook_Selected_Folder_Name_Text	S	Serial output indicating the name of the selected phonebook folder.
Phonebook_Search_Text	S	Serial output indicating the phonebook search string being entered using the Phonebook_Search_Keyboard_* inputs.
Phonebook_Search_Result_If_From_Subfolder	D	High to indicate that the search results are from a subfolder.
Phonebook_On_Top_Level	D	High to indicate that the phonebook is at the top level.
Phonebook_Selected_Is_Folder	D	High to indicate that the selected phonebook entry is a folder.

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Phonebook_Selected_Is_Contact	D	High to indicate that the selected phonebook entry is a contact.
Phonebook_Entry_XSIG	S	Serial output to be routed to the rx\$ input on an Intersystem Communication (Speed Name: XSIG) symbol. The XSIC symbol should have 255 serial outputs. See the demo program for an example of to do this.
Phonebook_TotalRowsForSearch	A	Analog output indicating the number items in the phonebook search results. This is for use with the Vertical Button List Smart Graphic object. It should be routed to the Set Num of Items input on the Vertical Button List symbol. See the demo program for an example of to do this.
Phonebook_Pages_Current_Page	A	Analog value indicating the current phonebook page being displayed. This is to allow the phonebook to be displayed in the same manner as the older codec modules.
Phonebook_Pages_Total_Pages	A	Analog value indicating the total phonebook pages for the entire phonebook, if at the top level, or for the folder, if the selected entry was a folder. This is to allow the phonebook to be displayed in the same manner as the older codec modules.
Phonebook_Pages_Entry_<1...20>_Name_Text	S	Serial outputs indicating the names of the displayed phonebook entries.
Phonebook_Selected_Entry_<Name/Number/ Call_Rate>_Text	S	Serial outputs indicating the name, number and call rate for the selected phonebook entry.
Phonebook_Search_Keyboard_Shift_Is_On	D	High to indicate that the phonebook search keyboard shift is high.
Phonebook_Search_Keyboard_Caps_Lock_Is_On	D	High to indicate that the phonebook search keyboard caps lock is on.
Dialkeyboard_Shift_Is_On	D	High to indicate that the dial keyboard shift is on.
Dialkeyboard_Caps_Lock_Is_On	D	High to indicate that the dial keyboard caps lock is on.
DTMF_Selected_Call_Slot_Is_<1/2/3>	D	High to indicate the selected call slot for the DTMF tones.
Screen_Saver_Is_<On/Off>	D	High to indicate that the screen saver is enabled or disabled.
Auto_Answer_Is_<On/Off>	D	High to indicate that the auto answer is on or off.
Encryption_Is_<Best_Effort/Off>	D	High to indicate the current encryption setting.
Default_Call_Rate_Is_*	D	High to indicate the currently selected default call rate.
Default_Call_Type_Is_<H323/SIP>	D	High to indicate the currently selected default call type.
Far_End_Camera_Control_Is_<Enabled/Disabled>	D	High to indicate whether far end control of the near end camera is enabled or disabled.

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On_Screen_Display_Is_<On/Off>	D	High to indicate whether the on screen display is enabled or disabled.
On_Screen_Display_Output_Is_<1/2/3/4>	D	High to indicate which display output the on screen display will appear on.
Picture_Layout_Is_*	D	High to indicate which picture layout is currently selected.
Selfview_Is_<On/Off>	D	High to indicate the current self-view status.
Do_Not_Disturb_Mode_Is_<On/Off>	D	High to indicate the current do not disturb setting.
Standby_Is_<Inactive/Active>	D	High to indicate the current standby status.
Reboot_Is_Requested	D	High to indicate that a reboot has been requested by pulsing Request_Reboot_Codec. Can be cancelled by pulsing Clear_Request_Reboot
Number_Of_Active_Calls	A	Analog output indicating the number of active calls that are connected.
Call_Status_Call_<1/2/3>_Is_Active	D	High to indicate which call(s) are active.
Call_Status_Call_<1/2/3>_Status_Text	S	Serial output indicating the call status text for the connected call(s).
Call_Status_Call_<1/2/3>_Type_Text	S	Serial output indicating the call type for the call(s). Possible call types are Video, Audio, AudioCanEscalate, ForwardAllCall and Unknown.
Call_Status_Call_<1/2/3>_Remote_Number_Text	S	Serial output indicating the far end number of the connected call(s).
Call_Status_Call_<1/2/3>_Duration_Text	S	Serial output indicating the call duration for the connected call(s).
Call_Status_Call_<1/2/3>_TransmitCallRate_Text	S	Serial output indicating the call transmit rate for the connected call(s).
Call_Status_Call_<1/2/3>_Direction_Text	S	Serial output indicating the direction of the connected call(s).
Video_Input_Source_*_Name_*_Text	S	Serial outputs indicating the name for each video input.
VideoInput_*_Connected_State_Analog	A	Analog outputs indicating whether there is video sync on each input. 0 = not connected; 1 = connected; 2 = unknown.
Video_Input_Source_*_Connector_Is_*	D	High to indicate the currently selected connector for each input.
System_Name_Text	S	Serial output indicating the system name.
System_Network_Address_Text	S	Serial output indicating the codec's IP address or DNS).
Gatekeeper_Status_Text	S	Serial output indicating the gatekeeper registration status.
Gatekeeper_Registration_Mode_Text	S	Serial output indicating the gatekeeper registration mode.

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Gatekeeper_Network_Address_Text	S	Serial output indicating the gatekeeper network address.
System_H323_ID_Text	S	Serial output indicating the system's H323 ID.
System_E164_Alias_Text	S	Serial output indicating the system's E164 alias.
System_SIP_URL_Text	S	Serial output indicating the system's SIP URL.
Show_Dialer_Keyboard_Is_Active	D	High to show the dial keyboard.
Phonebook_Search_Show_Keyboard_Is_Active	D	High to show the phonebook search keyboard.
Connection_Not_OK	D	High to indicate the codec is not connected.
System_Finished_Initializing	D	High to indicate that the module has finished initializing.
To_Device	S	Serial output to be routed to the TX\$ input of a TCP/IP Client or to the [tx\$] input of a 2-way serial com port symbol.
Call_Status_Call_<1/2/3>_CallId_Analog	A	Analog output indicating the call ID number of the connected calls.
Call_Status_Call_<1/2/3>_ReceiveCallRate_Text	S	Serial output indicating the call receive rate for the connected call(s).
System_Software_Version_Text	S	Serial output indicating the software version.
Auto_AnswerMute_Is_<On/Off>	D	High to indicate the microphone mute when a call is auto answered status.
Preset<1...15>_Is_Defined	D	High to indicate which near end camera presets are defined.
Message_Alert_IsActive	D	High to indicate a Message Alert is active on the OSD.
Message_Alert_Text	S	Serial output indicating the message displayed in the OSD message alert.
Message_Prompt_IsActive	D	High to indicate a Message Prompt is active on the OSD.
Message_Prompt_Title	S	Serial output indicating the title of the OSD message prompt.
Message_Prompt_Text	S	Serial output indicating the text in the OSD message prompt.
Message_Prompt_Option<1/2/3/4/5>_Text	S	Serial output indicating the text for each option in the OSD message prompt.
Message_Prompt_Option_<1/2/3/4/5>_IsActive	D	High to indicate that which options are active in the OSD message prompt.
Call_Status_Call_<1/2/3>_SupportsPresentation	D	High to indicate that the connected call(s) support presentations.

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TString_Receive_Text	S	TString Receive Text
SString_Receive_Text	S	SString Receive Text
Message_Prompt_Option<1/2/3/4/5>_WasSelected	D	High to indicate which option was selected on the OSD message prompt.
Call_History_Name\$	S	Serial output indicating the name of the last call.
Call_History_Number\$	S	Serial output indicating the number of the last call.

TESTING:

OPS USED FOR TESTING:	CP3: 1.009.0027 DMPS-300-C: 4.007.0032
SIMPL WINDOWS USED FOR TESTING:	4.02.38
DEVICE DB USED FOR TESTING:	55.00.002.00
CRES DB USED FOR TESTING:	44.05.005.00
SYMBOL LIBRARY USED FOR TESTING:	889
SAMPLE PROGRAM:	Cisco C-Series v2.5 Demo
REVISION HISTORY:	<p>v1.0 – Initial Release</p> <p>v2.0 – Corrected issue with multiple contact methods.</p> <p>Added search functionality to work similarly to Cisco panels.</p> <p>Refined Simpl+ to improve functionality.</p> <p>v2.1 – Fixed an issue with the legacy phonebook page controls.</p> <p>v2.2 – Fixed several issues with the display of search results on the legacy phonebook page controls</p> <p>v2.4.1 – Added Recent Calls to the phonebook download.</p> <p>v2.4.2 – Fixed an issue with displaying the search results using the legacy phonebook pages controls. Fixed an issue with clicking on a blank button dialing a random number. Fixed an issue with the search results dialing incorrect numbers.</p> <p>v2.5 – Change the processing of the From_Device signal to align with Crestron's recommended practices for 3-series processors.</p>