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| **SIMPLWINDOWS NAME:** | Polycom VS4000+FX v415 Audio Dialing |
| **CATEGORY:** | Codec |
| **VERSION:** | 1.0 |
| **SUMMARY:** | Allows telephone calls to be placed/answered |
| **GENERAL NOTES:** | This module is for control of the Polycom VS4000 and ViewStation FX models only.It will work with Polycom Software version 4.15 FX only. Other releases of Polycom software may cause some functions to stop working. |

You can communicate with these systems over RS232 or over TCP/IP. If using TCP/IP, follow the instructions below:

You must open up a Telnet session with the Polycom system. Therefore, you must have a CNXENET+ card installed in your control system to enable communications.

When programming the system in SimplWindows, you should insert a TCP/IP Client object into the ethernet portion of the control system, in the configuration manager. In the program view, use 24D for the PORT parameter field. When it is desired to establish the Telnet session with the Polycom system, assert the CONNECT input on the TCP/IP Client. When the session has been sucessfully established, the CONNECT-F output will go high. It will then be possible to send commands to the Polycom system. When it is desired to end the Telnet session, de-assert the CONNECT input, and the connection will be dropped.

Commands should only be sent to the TCP/IP Client TX$ input when the connection is active. Therefore, you should connect the output of this module to the input of a Serial Buffer symbol, which is enabled by the CONNECT-F output of the TCP/IP Client. The output of the Serial Buffer should be connected to the TX$ input of the TCP/IP Client. See the demo program for an example of this implementation.

Note that before resetting the Crestron system (as happens when you load a new program, power cycle the system , etc), you should end the Telnet session with the Polycom system. If the session is active when the Crestron system resets, the session will not be closed properly, and the Polycom system may need to be rebooted to recover properly.

This module allows a telephone call to be placed. Using the keypad (0-9, *, #) when the phone is on hook (hung up) will cause the digits to be displayed at the PHONE-NUMBER$ output. When DIAL is pressed, the phone will be taken off hook, and the number displayed will sent to the Polycom. After the phone is off hook, any additional digits entered will be sent directly to the Polycom. This is primarily for navigating thru voicemail systems, however, this feature was not functioning in Polycom firmware version 4.15.

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| **CRESTRON HARDWARE:** | CNXENET+ CNMSX, CNXCOM, ST-COM |
| **SETUP OF CRESTRON HARDWARE:** | **For TCP/IP:** Install a TCP/IP Client Use port 23D |

Be sure to set up the IP table to specify the IP address of the Polycom system for the IP ID of the TCP/IP Client. You must do a cold reboot of the control system after changing these parameters.

**For RS232:**
Baud Rate - 9600
Parity - None
Data Bits - 8
Stop Bits - 1

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| **VENDOR FIRMWARE:** | Release 4.15 FX |
| **VENDOR SETUP:** | None |
| **CABLE DIAGRAM:** | For VS4000 - CNSP-123<br>For ViewStation FX - T.B.D. |

## CONTROL:

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| **OFF-HOOK** | D | Pulse to take the telephone off hook, or answer phone |
| **ON-HOOK** | D | Pulse to put the telephone on hook, or hang up phone |
| **KEYPAD-0-9,*,#** | D | Pulse to enter a phone number to be dialed |
| **KEYPAD-CLEAR** | D | Pulse to clear the number entered |
| **KEYPAD-BACKSPACE** | D | Pulse to erase the last digit entered |
| **DIAL** | D | Pulse to take the telephone off hook, and dial the number currently entered |
| **ANSWER** | D | Answers an incoming telephone call |
| **From_Device$** | S | Serial signal to be routed from the Polycom system. |

## FEEDBACK:

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| **PHONE-NUMBER$** | S | Serial signal containing the phone number being entered. Should be routed to the serial portion of a touch panel definition |
| **OFF-HOOK-FB** | D | Indicates that the telephone is currently off hook |
| **ON-HOOK-FB** | D | Indicates that the telephone is currently on hook |
| **To_Device$** | S | Serial signal to be routed to the Polycom system |

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| **.UPZ FILE USED FOR TESTING:** | 5.12.57x.upz, v2.004.cuz |
| **COMPILER USED FOR TESTING:** | SimplWindows Ver 2.02.11 |
| **SAMPLE PROGRAM:** | Polycom VS4000+FX v415 Demo Program |
| **REVISION HISTORY:** | v40 - Re-written using Simpl+<br>Added Audio_Key_Pause input<br><br>v415 - Added "Audio_Answer" function |