IP Link® Device Interface Communication Sheet

This document provides additional assistance with wiring your Extron IP Link enabled product to your device. Different components may require a different wiring scheme than those listed below.

For complete operating instructions, refer to the user's manual for the specific Extron IP Link enabled product or the controlled device manufacturer supplied documentation.

Device Specifications:

Device Type:	Video Conference
Manufacturer:	Polycom
Firmware Version:	1.5.0
SoundStructure Studio Version:	1.8.0.13
Model(s):	SoundStructure C16

Version History:

Driver Version	Date	IP Link Compiler	GC Version	Notes
14	11/19/2012	1.5.1	3.3.2	Removed Mixers and Levels. Added Dynamic Text.
8	12/16/2011	1.5.1	3.3.1	Extron Certified. Driver has been brought up to standards. Auto Answer has been added; Flash and Redial have been removed and placed within the Hook command. All “Phone Input” commands have been replaced with the “Receive” naming convention. All “Phone Output” commands have been replaced with the “Transmit” naming convention. Hook now includes Flash and Redial commands. All Mutes have toggle states. Improved polling speed for faster status.
6	2/28/2011	1.4.0	3.0.4	Extron Certified. Added Mixer Fader Step and Mixer Mute commands. Removed Input Select, AGC, AEC, High Pass, Auto Mixer, Equalizer, Temp Sensors 1-3.
4	11/23/2010	1.4.0	3.0.4	Extron Certified. Improved driver feedback.
3	7/27/2010	1.4.0	3.0.3	Added Phone Hook.
2	7/15/2010	1.4.0	3.0.3	Added Phone functions.
1	1/14/2010	1.4.0	3.0.2	Initial version.

Driver Notes:

The Polycom Firmware must be 1.5.0 for this driver to function as expected.

This driver must be loaded on an Extron product that has more than 1mb of usable memory.

In order for this driver to work with the SoundStructure, it is necessary to configure the virtual names to match the driver within the SoundStructure Studio available for free from Polycom.

Virtual Names should be labeled as below.

The driver includes optimization to the features listed below:

Dynamic Text
b. Dialing Feedback
c. Volume

Virtual Names:

Input/Output	Type	Driver Name	Virtual Name	Group Name*
Mics	Mute/Fader/Step	Input 1 – 16	Input 1 - 16	Mics
Amplifiers	Mute/Fader/Step	Output 1 – 16	Output 1 - 16	Outputs
Hook	Phone_connect	Hook	Phone Out	
Flash	Phone_flash	Hook – Flash	Phone Out	
Redial	Phone_redial	Hook – Redial	Phone Out	
Dialing Keypad	Phone_dial	Dial Keypad	Phone Out	
Phone Output	Mute/Fader/Step	Phone Transmit	Phone Out	
Phone Input	Mute/Fader/Step	Phone Receive	Phone In	
Auto Answer	phone_auto_answer_en	Auto Answer	Phone In	

*Group Names are necessary for group control.

Each physical input and output must be configured with a virtual name.

- All Inputs should be labeled **as above**.
  - It is recommended to make a group named **Mics** and add all the Inputs into this group (created by default in Studio).
- All Amplifiers should be labeled **as above**.
  - It is recommended to make a group named **Outputs** and add all the Outputs into this group.

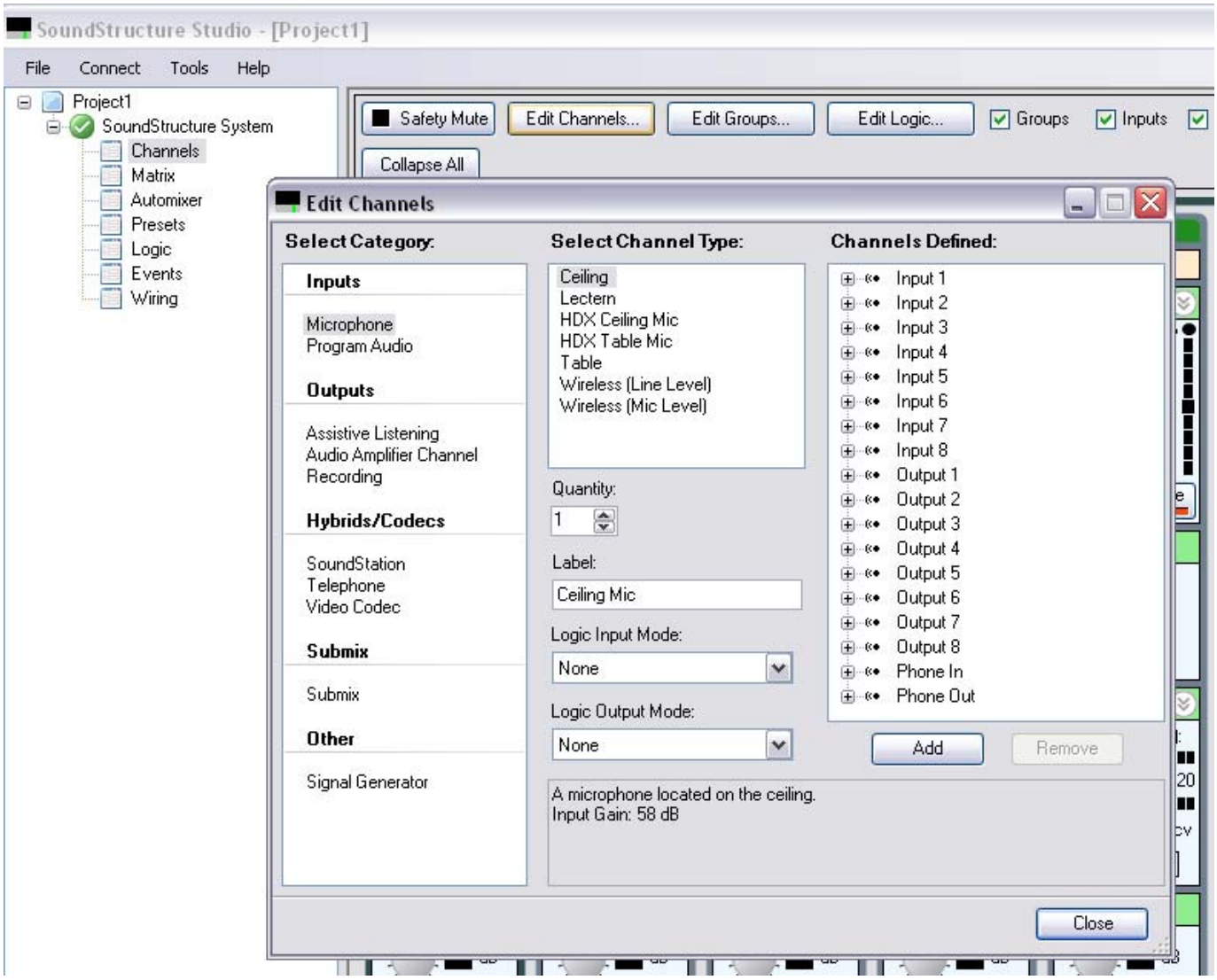
Example:

Presets 1 – 16 must be labeled as “Preset x” (where ‘x’ is 1 – 16).
Mics 1 – 16 must be labeled as “Input x”(where ‘x’ is 1 – 16) and could be placed in a group called “Mics”.

Refer to SoundStructure Design manual for more information.

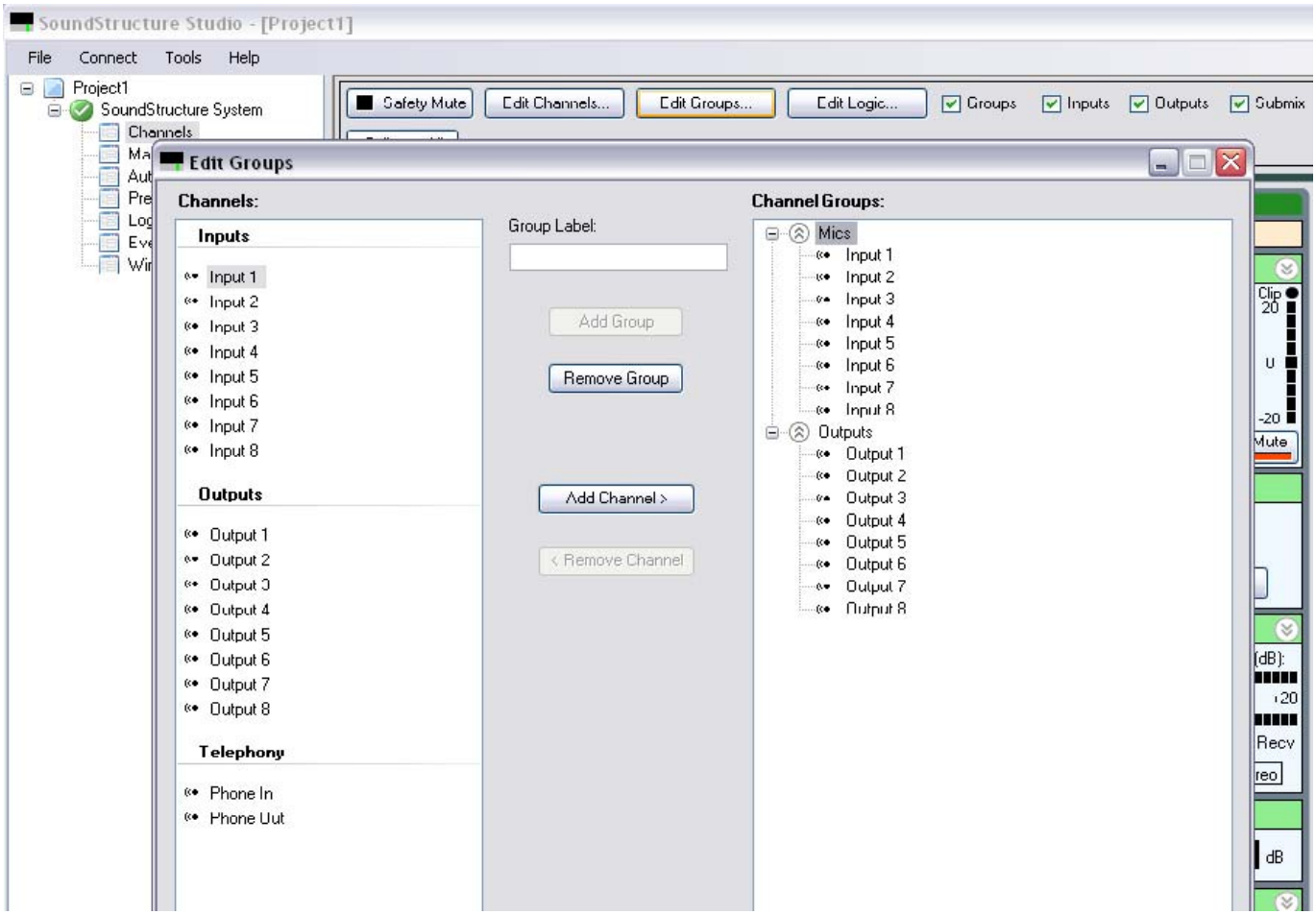
Virtual Channel Names:

- Select the Channels branch under the SoundStructure System
- Select the Edit Channels button on the top of the page
- Channels in the system are in the Channels Defined box.



Group Names:

- Select the Channels branch under the SoundStructure System
- Select the Edit Groups button on the top of the page
- Groups in the system are defined in the Channel Groups box.



The Keypad is configured to display the digits on the field located at the top of the page. When the desired number is entered, press the Call button and that will connect you with the number you entered.

When in a call, the keypad will be used the same as the DTMF tone where each number press will get sent out immediately.

The Delete button will delete the last number displayed on the touch panel and is configured with the press/repeat functionality. The Clear button will clear all numbers entered.

The Label on the top of the page, “Please enter a number and press Call”, is configured in GUI Configurator with an ID of 50000-50020 and with the Dynamic text parameter enabled. **Changes to this field will cause the system to stop functioning. Only one dynamic text driver can be used on an IP-Link controller.**

Control Commands & States:

Auto Answer	On	Off	Toggle
Dial Keypad	0-9 ,	#	*
Hook	On Redial	Off	Flash
Input 1 - 16 Fade (Discrete)	-100 to 20 in steps of 2		
Input 1 - 16 Fade (Step)	Up	Down	
Input Group Fade	-100 to 20 in steps of 2		
Mute All Inputs	On	Off	Toggle
Mute All Outputs	On	Off	Toggle
Mute Input 1 – 16	On	Off	Toggle
Mute Output 1 – 16	On	Off	Toggle
Output 1 - 16 Fade Level (Discrete)	-100 to 20 in steps of 2		
Output 1 - 16 Fade Level (Step)	Up	Down	
Output Group Fade Level	-100 to 20 in steps of 2		
Phone Receive Fader	-100 to 20 in steps of 2		
Phone Receive Fader (Step)	Up	Down	
Phone Transmit Fader	-100 to 20 in steps of 2		
Phone Transmit Fader (Step)	Up	Down	
Preset Recall	1-16		
Receive Mute	On	Off	Toggle
Transmit Mute	On	Off	Toggle

Status Available:

Auto Answer	On	Off
Connection Status	Connected	Disconnected
Hook	On	Off
Input 1 - 16 Fade (Discrete)	-100 to 20 in steps of 2	
Mute Input 1 – 16	On	Off
Mute Output 1 – 16	On	Off
Output 1 - 16 Fade Level (Discrete)	-100 to 20 in steps of 2	
Phone Receive Fader	-100 to 20 in steps of 2	
Phone Transmit Fader	-100 to 20 in steps of 2	
Receive Mute	On	Off
Transmit Mute	On	Off
Phone Receive Fader	-100 to 20 in steps of 2	

MLC60 Supported Commands:

Auto Answer	On	Off	Toggle
Hook	On Redial	Off	Flash
Mute All Inputs	On	Off	Toggle
Mute All Outputs	On	Off	Toggle
Mute Input 1 – 16	On	Off	Toggle
Mute Output 1 – 16	On	Off	Toggle
Preset Recall	1-16		
Receive Mute	On	Off	Toggle
Transmit Mute	On	Off	Toggle

Cable and Adapter Requirements:

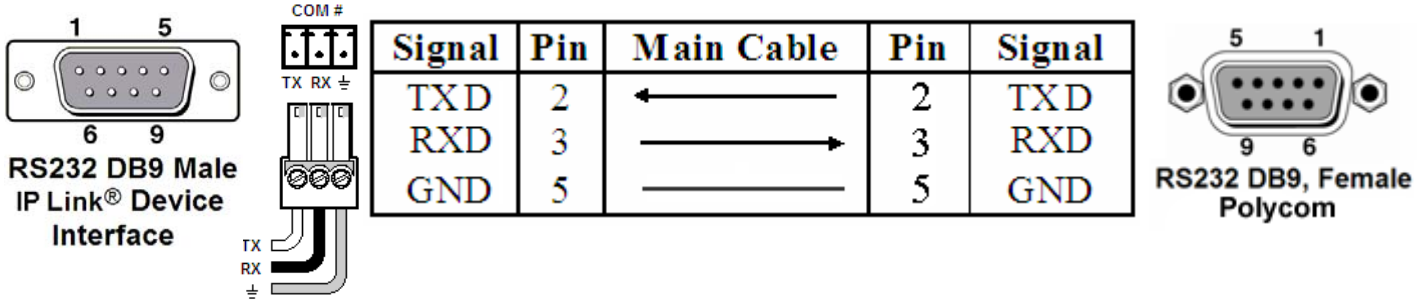
M/F RS-232 straight serial cable (Extron Electronics P/N 26-433-XX)

Notes for the Device:

Serial communication:

Port Type:	RS-232	**Parity:**	None
Baud Rate:	9600	**Stop Bits:**	1
Data Bits:	8	**Flow Control:**	None

Pin Assignments Diagram:



Signal	Pin	Main Cable	Pin	Signal
TXD	2	←	2	TXD
RXD	3	→	3	RXD
GND	5	—	5	GND

Note: Captive screw connector may also be used as a serial connection.

General Notes: