This document provides additional assistance with wiring your Extron IP Link Pro Control Processor 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 IP Link Pro Control Processor or the documentation supplied by the manufacturer of the controlled device.

For more information on using Global Scripter Modules, refer to the "Guide to Using Scripter Modules" document.

Device Specifications

Device Type: Display
Manufacturer: Planar
Firmware Version: N/A
Model(s): UR9850, UR8450

Tested on the Following Software and Firmware Versions

IP Link Pro Control Processor Firmware	Global Scripter Version
3.04.0002-b003	2.3.1

Version History

Module Version	Date	Notes
1_0_3_0	12/6/2019	Updated to Rev. B1.
1_0_2_0	4/17/2017	Initial Version

Module Notes

- Unidirectional variable must be set to 'True' if status is not required. Default value is 'False'.
  `Example: InterfaceName.Unidirectional = 'True'`

- connectionCounter variable must be set to the number of queries that will be sent to the device before displaying 'Disconnected' if no response is received. Default value is 15.
  `Example: InterfaceName.connectionCounter = 5`

Supported Classes and Examples

SerialClass
`InterfaceName = ModuleName.SerialClass(ProcessorName, 'COM1', Model='UR9850')`
SerialOverEthernetClass
`InterfaceName = ModuleName.SerialOverEthernetClass('192.168.254.254', 2001, Model='UR9850')`
EthernetClass
`InterfaceName = ModuleName.EthernetClass('192.168.254.254', 57, Model='UR9850')`

Control Commands

Format with Qualifier:

```
InterfaceName.Set(Command, Value, {'Qualifier Key': 'Qualifier Value'})
```

Format with Qualifier:

```
InterfaceName.Set(Command, Value)
```

Command **Input**	Value 'DisplayPort 1' 'DisplayPort 4' 'HDMI 3'	Value 'DisplayPort 2' 'HDMI 1' 'HDMI 4'	Value 'DisplayPort 3' 'HDMI 2'
`# Input example` `InterfaceName.Set('Input', 'DisplayPort 1')`			
Command **InputMode**	Value 'Single'	Value 'Multiple'	
`# InputMode example` `InterfaceName.Set('InputMode', 'Single')`			
Command **MenuNavigation**	Value 'Menu' 'Down'	Value 'Enter' 'Left'	Value 'Up' 'Right'
`# MenuNavigation example` `InterfaceName.Set('MenuNavigation', 'Menu')`			
Command **MultipleInput**	Value 'Based on Input Source'	Value 'DisplayPort'	Value 'HDMI'
Qualifier Key **'Input'**	Qualifier Value '1' – '4'		
`# MultipleInput example` `InterfaceName.Set('MultipleInput', 'Based on Input Source', {'Input': '1'})`			
Command **Power**	Value 'On'	Value 'Off'	
`# Power example` `InterfaceName.Set('Power', 'On')`			

Status Available

For all commands, call Update to receive the latest status. ConnectionStatus does not support the Update function and is triggered by the device providing a successful response to other Update function calls.

Format with Qualifier:

```
InterfaceName.Update(Command, {'Qualifier Key': 'Qualifier Value'})
Value = InterfaceName.ReadStatus(Command, {'Qualifier Key': 'Qualifier Value'})
InterfaceName.SubscribeStatus(Command, {'Qualifier Key': 'Qualifier Value'},
FeedbackHandler)
FeedbackHandler will be called only when the specified qualifier gets a new status.
```

Format without Qualifier:

```
InterfaceName.Update(Command)
Value = InterfaceName.ReadStatus(Command)
InterfaceName.SubscribeStatus(Command, None, FeedbackHandler)
FeedbackHandler will be called when any qualifier gets a new status.
```

Command	Value	Value	
ConnectionStatus	'Connected'	'Disconnected'	

`# ConnectionStatus example`
`Value = InterfaceName.ReadStatus('ConnectionStatus')`
`InterfaceName.SubscribeStatus('ConnectionStatus', None, FeedbackHandler)`			

Command	Value	Value	Value
DeviceStatus	'Normal' 'AC Power Supplies 1 and 2 Failure' 'FPGA Initialization Failure'	'AC Power Supply 1 Failure' 'AC Power Status Cable Disconnected' 'Calibration EEPROM Failure'	'AC Power Supply 2 Failure' 'DC Power Supply Failure' 'Overtemp'

`# DeviceStatus example`
`InterfaceName.Update('DeviceStatus')`
`Value = InterfaceName.ReadStatus('DeviceStatus')`
`InterfaceName.SubscribeStatus('DeviceStatus', None, FeedbackHandler)`			

Command	Value	Value	Value
Input	'DisplayPort 1' 'DisplayPort 4' 'HDMI 3'	'DisplayPort 2' 'HDMI 1' 'HDMI 4'	'DisplayPort 3' 'HDMI 2'

`# Input example`
`InterfaceName.Update('Input')`
`Value = InterfaceName.ReadStatus('Input')`
`InterfaceName.SubscribeStatus('Input', None, FeedbackHandler)`			

Command	Value	Value	
InputMode	'Single'	'Multiple'	

`# InputMode example`
`InterfaceName.Update('InputMode')`
`Value = InterfaceName.ReadStatus('InputMode')`
`InterfaceName.SubscribeStatus('InputMode', None, FeedbackHandler)`			

Command	Value	Value	Value
MultipleInput	'Based on Input Source'	'DisplayPort'	'HDMI'
Qualifier Key	Qualifier Value		
'Input'	'1' – '4'		

`# MultipleInput example`
`InterfaceName.Update('MultipleInput', {'Input': '1'})`
`Value = InterfaceName.ReadStatus('MultipleInput', {'Input': '1'})`
`InterfaceName.SubscribeStatus('MultipleInput', None, FeedbackHandler)`			

Command	Value	Value	Value
Power	'On' 'Cooling Down'	'Off' 'Error'	'Warming Up'

```
# Power example
InterfaceName.Update('Power')
Value = InterfaceName.ReadStatus('Power')
InterfaceName.SubscribeStatus('Power', None, FeedbackHandler)
```

Cable and Adapter Requirements

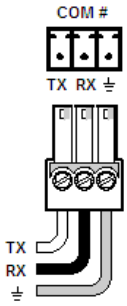
Captive Screw to Male DB9 RS 232 Serial Cable

Notes for the Device

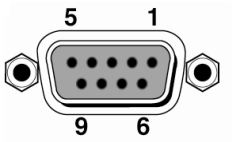
Serial communication

Port Type:	RS-232	**Parity:**	None
Baud Rate:	19200	**Stop Bits:**	One
Data Bits:	8	**Flow Control:**	None

Pin Assignments Diagram



Signal	Main Cable	Pin	Signal
TxD	→	2	RxD
RxD	←	3	TxD
GND	—	5	GND



RS232 DB9, Female
Display

Network communication

When configuring the Ethernet module, be sure device settings match those of the Global Scripter ethernet interface.

Port Type:	Ethernet
Device Listen Port:	57
Device Reply Port:	57
Logon Credentials Supported:	No
Multi-Connection Capabilities:	No
Listen Port Changeability:	No
Listen Port Changeability:	No

Ethernet Module Configuration Description

Please refer to user manual for settings and changes to the network communication

Notes for the Device

Appendix A. Set Commands

Input DisplayPort 1	(INS=0)\x0D
Input DisplayPort 2	(INS=1)\x0D
Input DisplayPort 3	(INS=2)\x0D
Input DisplayPort 4	(INS=3)\x0D
Input HDMI 1	(INS=4)\x0D
Input HDMI 2	(INS=5)\x0D
Input HDMI 3	(INS=6)\x0D
Input HDMI 4	(INS=7)\x0D
Input Mode Multiple	(INM=2)\x0D
Input Mode Single	(INM=0)\x0D
Menu Navigation Down	(KEY=6)\x0D
Menu Navigation Enter	(KEY=4)\x0D
Menu Navigation Left	(KEY=7)\x0D
Menu Navigation Menu	(KEY=3)\x0D
Menu Navigation Right	(KEY=8)\x0D
Menu Navigation Up	(KEY=5)\x0D
Multiple Input Based on Input Source Input 1	(MI1=0)\x0D
Multiple Input Based on Input Source Input 4	(MI4=0)\x0D
Multiple Input DisplayPort Input 1	(MI1=1)\x0D
Multiple Input DisplayPort Input 4	(MI4=1)\x0D
Multiple Input HDMI Input 1	(MI1=2)\x0D
Multiple Input HDMI Input 4	(MI4=2)\x0D
Power Off	(PWR=0)\x0D
Power On	(PWR=1)\x0D

Appendix B. Update Commands

Device Status	(ERR?)\x0D
Input	(INS?)\x0D
Input Mode	(INM?)\x0D
Multiple Input Input 1	(MI1?)\x0D
Multiple Input Input 4	(MI4?)\x0D
Power	(STA?)\x0D