B-HDMATRIX Crestron Drivers

Overview

The following information outlines the use of the Crestron modules for communication via RS232 and TCP-IP with Binary HDMATRIX Switcher. Read through all information before using these modules.

Module Details

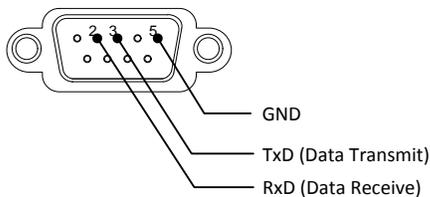|	
Release Date:	9/26/12
Release Version:	v1
Supported Binary Products:	B-100-HDMATRIX-4x4 B-100-HDMATRIX-8x8 B-300-HDMATRIX-4x4 B-300-HDMATRIX-8x8
Supported Binary Software Version:	B-100-HDMATRIX-4x4 1.06.05 B-100-HDMATRIX-8x8 1.01.05 B-300-HDMATRIX-4x4 1.03.08 B-300-HDMATRIX-8x8 1.01.05
Supported Crestron Processors:	Crestron Series 2 Crestron Series 3
Supported Crestron Applications:	SIMPL Windows System Builder

Port Configuration and Settings

The Binary™ HDMatrix receives control data on pin 2 (RxD – Data Receive) and transmits control data on pin 3 (TxD - Data Transmit). The connection cable between the HD MATRIX and the Automation System will need to be configured so that pin2 (RxD) on the HD MATRIX is connected to the Automation Systems Txd pin, and pin3 (TxD) on the HD MATRIX is connected to the Automation Systems RxD (Receive Data) pin.

Note: Configuration for the Crestron Processor control ports can vary. Refer to the documentation for the Crestron Processor being used to ensure proper connection and configuration.

- Do not connect any other pins.

- Do not use a factory made cable unless you know that only pins 2-3-5 are populated.

B-HDMATRIX RS232 DSUB9
Male Connection

GND
TxD (Data Transmit)
RxD (Data Receive)

Pin	Function
2	RxD (Data Receive)
3	TxD (Data Transmit)
5	GND

Comport Settings

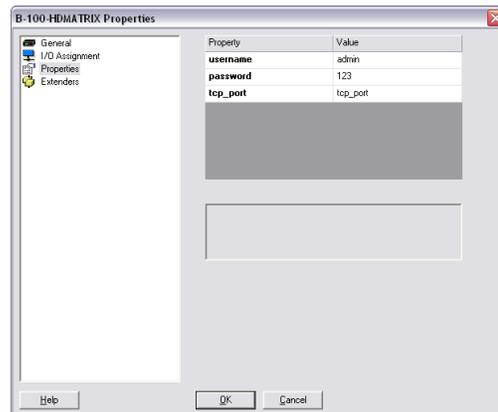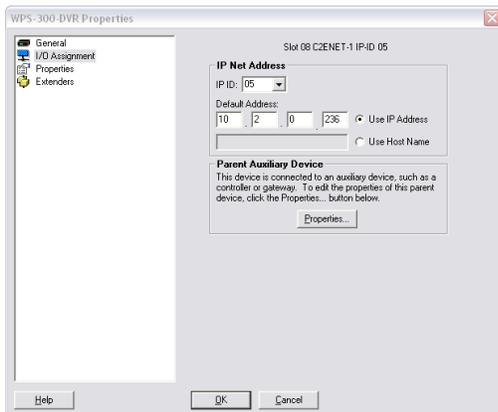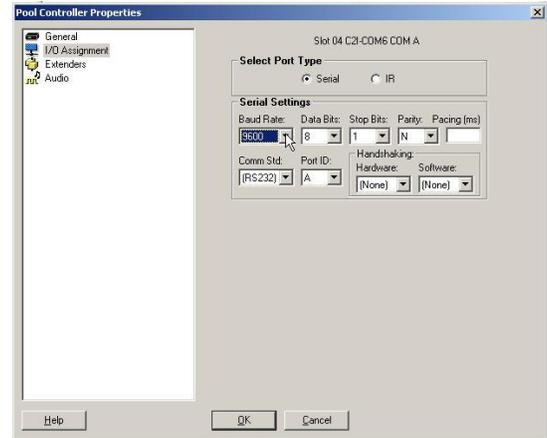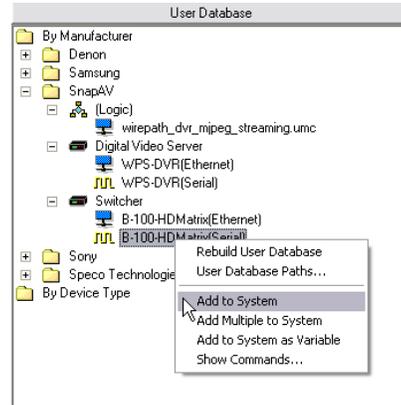|	
Baud Rate:	9600
Data Bits:	8
Stop Bits:	1
Parity:	None
Hardware Handshaking:	None
Software Handshaking:	None

System Builder Support

Once the module is added to SystemBuilder, you will need to make all the appropriate connections to the system logic and touch panel template that you are using.

1. Drop the modules into your default User Module path.

   o Binary_HDMatrix(Ethernet)_v1.umc

   o Binary_HDMatrix(Serial)_v1.umc

2. This path can be found under EDIT>PREFERENCES>USER DATABASE PATHS. Once you have placed the modules in the appropriate folder, be sure to click rebuild.

3. Next open up your project and select the Equipment view.

4. In the lower right hand corner, open the User Database and drill down the By Device Type until you see SnapAV.

5. Expand the category until you see the B-100HDMATRIX.

6. Right click B-100HDMATRIX (Ethernet) or B-100HDMATRIX (Serial) and select add to system.

   Once you have added the object to your program, you have to setup the parameters for the module.

7. Right click on the object and select *Properties*. Then select I/O Assignment from the left hand pane. Here you should verify that the Serial or IP settings are correctly set on the I/O tab. Also, for the Ethernet version, make sure to fill out the parameter values on the properties tab.

8. Next select Audio from the left hand pane and verify that this is NOT defined as a distributed audio source.

Signal and Parameter Descriptions

DIGITAL INPUTS

[connect_fb>>tcp-ip_client]	Connect to the output of the TCP-IP client
[tcp-ip_connect]	Pulse to make a TCP-IP connection to the switcher
[tcp-ip_disconnect]	Pulse to disconnect the TCP-IP connection from the switcher
[power_on]	Pulse to power on the switcher
[power_off]	Pulse to power off the switcher
[output1-x_selection_+]	Pulse to increment the input feeding output #1
[output1-x_selection_-]	Pulse to decrement the input feeding output #1
[output1-x_on]	Pulse to turn the #1 HDMI output on
[output1-x_off]	Pulse to turn the #1 HDMI output off
[input_n1-8]	Pulse to select this input as the "x" of your "xy" selection
[output_n1-8]	Pulse to select this input as the "y" of your "xy" selection
[xy_take]	Pulse to update the switcher with the "x" and "y" values from the above two digitals
[status_poll]	Pulse to have the switcher update the module with the current settings for each output
[firmware_poll]	Pulse to have the switcher update its firmware version as well as series and model values

Analog Inputs

Matrix_tcpip_status	(Ethernet version only) Route from the TCP-IP client symbol for the matrix. Tracks connection status between the Crestron processor and the matrix
[output1-8]	Feed an analog value from a symbol such as an INIT to force the switcher output to a new input

Serial Inputs

switcher_rx$	Connect to the rx$ line of the com port or tcp-ip client

Digital Outputs

[client_connect>>tcp-ip_client_connect]	(Ethernet version only)Tie to the connect line of the TCP-IP client
[matrix_tcp-ip_logged_in]	(Ethernet version only) Held high when tcp-ip client is connected and the module has successfully logged in to the switcher
[matrix_tcp-ip_not_logged_in]	(Ethernet version only) Held high when the module did not successfully log in to the switcher
[power_on_fb]	High if the switcher is powered on
[power_off_fb]	High if the switcher is powered off
[output1-8_on_fb]	High if the output is enabled
[output1-8_off_fb]	High if the output is disabled
[input_n1-8_fb]	High when this input is selected as the "x" of your "xy" selection
[output_n1-8_fb]	High when this input is selected as the "y" of your "xy" selection
[product_series_b100]	High to indicate this product series
[product_series_b300]	High to indicate this product series
[product_model_4x4]	High to indicate a 4x4 model switcher
[product_model_8x8]	High to indicate a 8x8 model switcher
[command_error]	Pulses high for 1s when the switcher does not acknowledge the transmitted string
ANALOG OUTPUTS	
[output1-8_feedback]	Current analog value of the input assigned to this output

Serial Outputs

switcher_tx$	Connect to the tx$ line of the com port

Parameters (Ethernet Version Only)

username	Enter the TCP-IP login credentials in ASCII for the switcher
password	Enter the password in ASCII characters that for the above TPC_IP login
Tcp_port	This parameter has only one valid value and is used for SystemBuilder support

Contacting Technical Support

Binary HDMATRIX Support

Phone: (866) 838-5052

Email: Techsupport@snapav.com

Crestron Module and Programming Support
Contact Crestron for all support relating the use of these modules within Crestron programming software.