

Blustream AV Matrix Installation and Usage Guide



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Authors: Kevin Lam

Overview

Blustream offers a wide range of HDBaseT matrix switches. Route HDMI or other video sources to multiple displays in various configurations. Offering various input and output options to suit different installation needs. Select models can also handle audio distribution independent to video, allowing you to route audio signals to different zones or speakers.

This plugin developed by Chowmain allows for TCP/IP or Serial control of supported models below in Q-SYS.

- PLA88CS
- HMXL42ARC
- HMXL44ARC
- HMXL66ARC
- HMXL88ARC
- C44CS
- C66CS
- C88CS

Features

- Full two way TCP/IP or Serial control
- Setup Page
 - IP Address
 - Model connected
 - Firmware Version
 - System Power control
 - System Power feedback Led
 - Device Status
- Inputs Page (supported models only)
 - Input connector selection
 - IR/RS232 Guest Mode. RS232 can be bi-directional
 - PoC status and control
- Outputs Page
 - Video Source selection
 - Audio source Embedding on HDBT output (supported models only)
 - IR/RS232 Guest Mode. RS232 can be bi-directional (supported models only)
 - PoC status and control
 - Output control (video muting)
- Audio Page (supported models only)
 - Audio source selection (supported models only)
 - Decrease output audio volume
 - Increase output audio volume
 - Volume fader status and control
 - Analog Mute
 - Optical Mute (supported models only)
 - Audio delay (supported models only)
- Presets Page (supported models only)
 - Preset selection
 - Load Preset
- CEC Page (supported models only)
 - Input
 - CEC Ok
 - CEC Up
 - CEC Down
 - CEC Left
 - CEC Right
 - CEC Return
 - CEC Exit
 - CEC Volume Up
 - CEC Volume Down
 - CEC Play

- CEC Stop
- CEC Pause
- CEC Record
- CEC Rewind
- CEC Fast Forward
- CEC Forward
- CEC Backward
- CEC Power Off
- CEC Power On
- Output
 - CEC Ok
 - CEC Up
 - CEC Down
 - CEC Left
 - CEC Right
 - CEC Return
 - CEC Exit
 - CEC Volume Up
 - CEC Volume Down
 - CEC Mute
 - CEC Play
 - CEC Stop
 - CEC Pause
 - CEC Record
 - CEC Power Off
 - CEC Power On
- Control Page (supported models only)
 - RS232 routing (supported models only)
 - IR routing
 - IR Follows Video Switching status and control (supported models only)
- Matrix Routing Page
 - Crosspoint buttons for input selection
 - Output control (video muting)
 - ComboBox input selection
- Routing Page
 - Integer Knobs for input selection
 - Output control (video muting)

Setup

Prerequisites

Before configuring the plugin:

- In a web browser, navigate to the Blustream AV matrix's IP Address to initially configure the unit. (Ethernet control)
- Ensure the IP Address will not change. Static or MAC reserve your device on the network. (Ethernet control)
- Ensure Telnet Access is turned on (Port 23) (Ethernet control)
- If controlling over Serial/Rs232, ensure the physical connection is wired correctly.
- If you intend on using the IR/RS232 command passthrough in GuestMode, ensure the GuestMode port is turned on, baud rate, direction, delay, and command type is set.

Configuration Overview

1. Drag the plugin into your schematic.
2. Select the plugin and fill in the properties. See Properties.
3. Press F5 to save your design to the Core and run it. (Or, press F6 to emulate your design.)
4. In your schematic, double-click the plugin to open the component's control panel.
5. Click on the Setup page and configure the IP Address of your Blustream matrix. (ensure the Control Mode and Model Property is configured correctly from Step 2)
6. Upon successful connection, the Status should show "OK" and device information populated.
7. Test operation.

Properties

Property	Function	Default / Range
Control Mode	Method of controlling the Blustream Matrix	Ethernet/ Serial
Model	Blustream Matrix model plugin is controlling	PLA88CS/ HMXL42ARC, HMXL44ARC, HMXL66ARC, HMXL88ARC, C44CS, C66CS, C88CS
Routing Control	Output video switching method	Combo Boxes/ Crosspoint Buttons, Knobs

Controls

Setup Page

Control	Function	Type
IP Address	Used to input the IP address of the Blustream Matrix	Text
Model	Read-only model of connected matrix	Text
Firmware Version	Read-only model of connected matrix	Text
System Power	Power the matrix on/off	Toggle Button
System Power Feedback	Power the matrix on/off	Indicator
Connection Status	Connection Status to the Matrix	Indicator

Inputs Page

Control	Function	Type
Input Connector	Input connector type. (HDMI, HDBT, Auto-switch etc)	ComboBox
Input Control Type	Guest Mode - to select command type. IR/RS232	ComboBox
Input Control Baud Rate	Serial Control ONLY. Guest Mode - to select the baud rate setting for sending RS232 commands	ComboBox
Input Control Tx	Guest Mode - Command string to send	Text
Input Control Rx	Guest Mode - received data from command sent	Text
Input PoC	Input port PoC control	Toggle Button

Outputs Page

Control	Function	Type
Output Source	Select video input number on output	ComboBox
Output Audio Routing to HDBT	Embed Audio source to HDB	ComboBox
Output Control Type	Guest Mode - to select command type. IR/RS232	ComboBox
Output Control Baud Rate	Serial Control ONLY. Guest Mode - to select the baud rate setting for sending RS232 commands	ComboBox
Output Control Tx	Guest Mode - Command string to send	Text

Control	Function	Type
Output Control Rx	Guest Mode - received data from command sent	Text
Output PoC	Output port PoC control	Toggle Button
Output Enable	Video Muting On/Off	Toggle Button

Audio Page

Control	Function	Type
Output Audio Source	Select the audio source for the audio output	ComboBox
Output Decrease Analog Volume	Decrease Audio volume step by step	Trigger Button
Output Increase Analog Volume	Increase Audio volume step by step	Trigger Button
Output Audio Volume	Shows current volume and sets volume	Knob Fader
Output Analog Mute	Shows current mute state and toggles it	Toggle Button
Output Optical Mute	Shows current mute state and toggles it	Toggle Button
Output Audio Delay	Shows current audio delay and sets delay	Integer Knob

Presets Page

Control	Function	Type
Preset Selection	Select an available preset to load	ComboBox
Preset Load	Loads the selected preset number	Trigger Button

CEC Page

Control	Function	Type
CEC Selection	Select a CEC enabled input/output port to send the CEC commands	ComboBox
CEC Power On	Sends the CEC Power On command to selected input/output if capable	Trigger Button
CEC Power Off	Sends the CEC Power Off command to selected input/output if capable	Trigger Button
CEC Volume Up	Sends the CEC volume up command to selected input/output	Trigger Button

Control	Function	Type
	if capable	
CEC Volume Down	Sends the CEC volume up command to selected input/output if capable	Trigger Button
CEC Volume Mute	Sends the CEC volume mute command to selected input/output if capable	Trigger Button
CEC Return	Sends the CEC return command to selected input/output if capable	Trigger Button
CEC Exit	Sends the CEC exit command to selected input/output if capable	Trigger Button
CEC DPad Up	Sends the CEC up command to selected input/output if capable	Trigger Button
CEC CEC DPad Down	Sends the CEC down command to selected input/output if capable	Trigger Button
CEC DPad Left	Sends the CEC left command to selected input/output if capable	Trigger Button
CEC DPad Right	Sends the CEC right command to selected input/output if capable	Trigger Button
CEC DPad Ok	Sends the CEC ok command to selected input/output if capable	Trigger Button
CEC Transport Back	Sends the CEC back command to selected input/output if capable	Trigger Button
CEC Transport Rewind	Sends the CEC rewind command to selected input/output if capable	Trigger Button
CEC Transport Stop	Sends the CEC stop command to selected input/output if capable	Trigger Button
CEC Transport Pause	Sends the CEC pause command to selected input/output if capable	Trigger Button
CEC Transport Play	Sends the CEC play command to selected input/output if capable	Trigger Button
CEC Transport Fast Forward	Sends the CEC fast forward command to selected input/output if capable	Trigger Button
CEC Transport Next	Sends the CEC forward command to selected input/output if	Trigger Button

Control	Function	Type
	capable	

Control Page

Control	Function	Type
Local Matrix RS232 In x Routing	Selects the RS232 output route	ComboBox
Remote Tx RS232 In x Routing	Selects the RS232 output route	ComboBox
Local Matrix IR In x Routing	Selects the IR output route	ComboBox
Remote Rx IR In x Routing	Selects the IR output route	ComboBox
Remote Tx IR In x Routing	Selects the IR output route	ComboBox
Local IR Out Follows Video Switching	IR Follows Video Switching on/off	Toggle Button

Matrix Routing Page

Control	Function	Type
Output Enable	Video Muting On/Off	Toggle Button
Output Source	Select video input number on output	ComboBox
Input x - Output x	Maps the input number to the output	Toggle Button

Routing Page

Control	Function	Type
Output Enable	Video Muting On/Off	Toggle Button
Output Source Selection	Select video input number on output	Integer Knob

Control Pins

Control	Direction
Status	Output
System~IP Address	Input/Output
System~Power	Input/Output

Control	Direction
System~Power Feedback	Output
Inputs~Input x~Connector	Input/Output
Inputs~Input x~Control Rx	Output
Inputs~Input x~Control Tx	Input
Inputs~Input x~Control Type	Input/Output
Inputs~Input x~PoC	Input/Output
Outputs~Output x~Audio Routing To HDBT	Input/Output
Outputs~Output x~Control Rx	Output
Outputs~Output x~Control Tx	Input
Outputs~Output x~Control Type	Input/Output
Outputs~Output x~Enable	Input/Output
Outputs~Output x~PoC	Input/Output
Outputs~Output x~Source Select	Input/Output
Audio~Output x~Analog Mute	Input/Output
Audio~Output x~Audio Delay	Input/Output
Audio~Output x~Audio Source	Input/Output
Audio~Output x~Audio Volume	Input/Output
Audio~Output x~Decrease Analog Volume	Input
Audio~Output x~Increase Analog Volume	Input
Audio~Output x~Optical Mute	Input/Output
Presets~Load	Input
Presets~Selection	Input/Output
CEC~Selection	Input/Output
CEC~DPAid Down	Input
CEC~DPAid Left	Input
CEC~DPAid Ok	Input

Control	Direction
CEC~DPad Right	Input
CEC~DPad Up	Input
CEC~Exit	Input
CEC~Power Off	Input
CEC~Power On	Input
CEC~Record	Input
CEC~Return	Input
CEC~Transport Back	Input
CEC~Transport Fast Forward	Input
CEC~Transport Next	Input
CEC~Transport Pause	Input
CEC~Transport Play	Input
CEC~Transport Rewind	Input
CEC~Transport Stop	Input
CEC~Volume Down	Input
CEC~Volume Up	Input
CEC~Volume Mute	Input
RS232 Routing~Local Matrix RS232 In x	Input/Output
RS232 Routing~Remote Tx RS232 In x	Input/Output
IR Routing~Local IR Out Follows Video Switching	Input/Output
IR Routing~Local Matrix IR In x	Input/Output
IR Routing~Remote Rx IR In x	Input/Output
IR Routing~Remote Tx IR In x	Input/Output

FAQ

What hardware will this work on?

- PLA88CS
- HMXL42ARC
- HMXL44ARC
- HMXL66ARC
- HMXL88ARC
- C44CS
- C66CS
- C88CS

Who do I contact for plugin support?

Please visit the [technical support](#) page on the Chowmain website

How much does this plugin cost?

This plugin is sponsored by Blustream and is FREE of charge.

Change Log

Version #1.0.0.0 - 02-FEB-2024

- Initial Version