

Draft/Experimental status!

Envy module for Crestron

Revision: 0.53

Date: 02.05.2021

Change History

0.53 20210503

- added "Debug_enable" signal to switch on debug out in SIMPL debugger. Debug output is now disabled by default.

0.52 20210415

- fixed bug in Display commands

0.51 20210414

- fixed bug in parsing routine
- fixed bug: clear signal data when NoSignal

V0.5 20210331

- added Hotplug, Force1080p60Output, ResetTemporary Command
- Feedback for Hotplug, NoSignal changed to *_FB
- added Feedback for Force1080p60Output, ResetTemporary
- added profiles (source, display, custom) - Activate and Deactivate
- added direct aspect ratio selection
- added SendSpecialCommand\$ to send control commands directly via string
- added unparsed output string signal
- some minor bug fixes and cleanup

V0.4 20210107

- Added Power On (no external WOL necessary any more) => ! a UDP-Socket is still required for 4-Series processors, due to a bug in the handling of UDP sockets in 4-Series processors!
- Integrated TCP-Communication (no external TCP/Client symbol required anymore)
- Update Signal-Info upon connect

Summary

This help-file provides information to integrate the Envy for Crestron module into an existing Crestron control program.

More functionality will be added in upcoming revisions.

Prerequisites

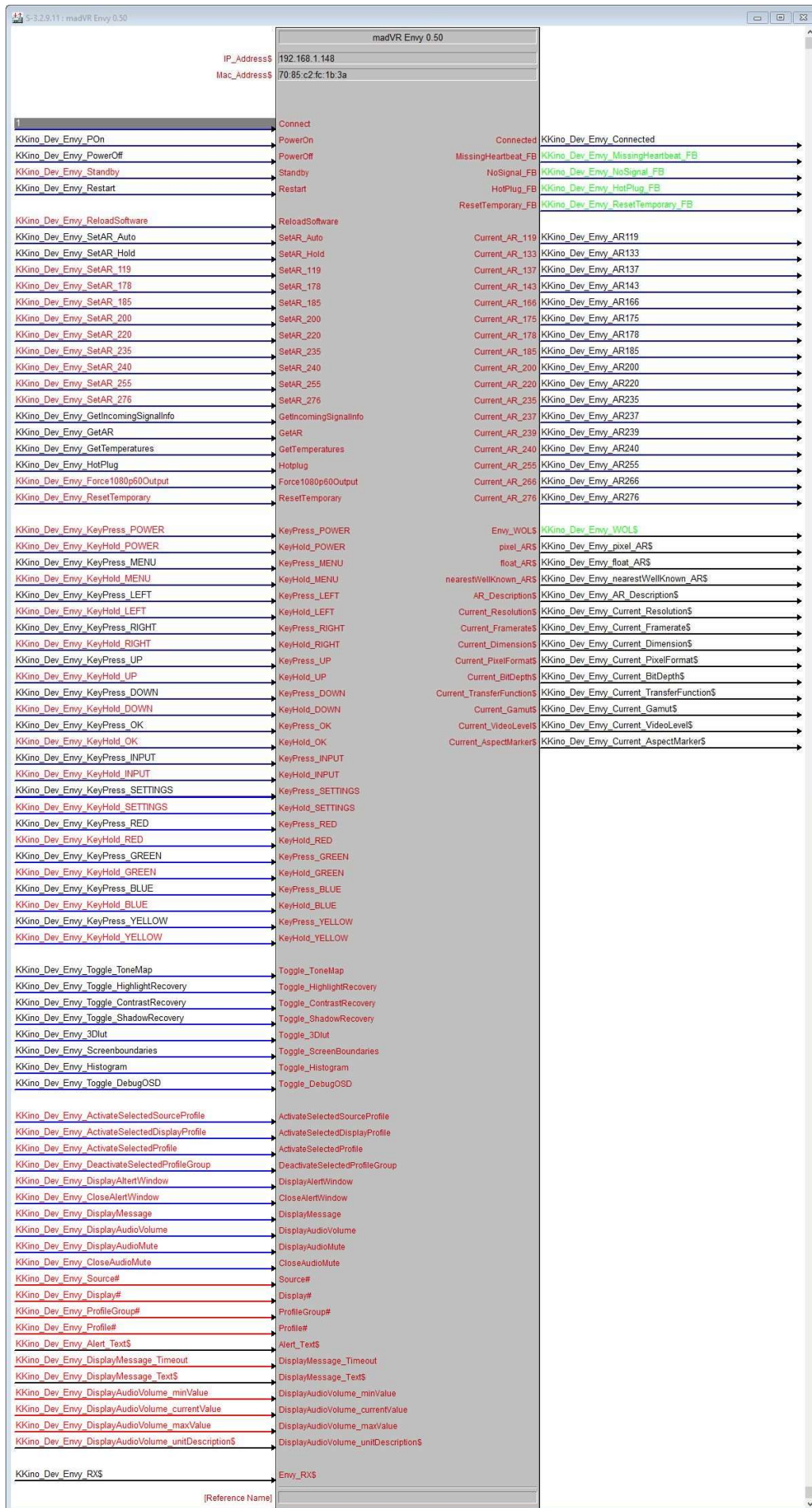
This module is compiled for use with Series 2/3/4 Crestron control processors. Up to now, it has only been tested with a Series 3 processor.

Since release V0.40, TCP- and UDP-connections are handled from within the module, no additional TCP-/UDP-socket is required in the program.

Please note: There's currently a bug in the UDP stack of the 4-Series Crestron processors, preventing the WoL feature to work from within the module. An external UDP-socket needs to be added to the program. For your convenience, the WoL "magic package" is generated by the Envy module and can be used to be fed into your UDP-socket symbol to trigger power-up of the Envy.

Module Description

This module sends out commands triggered by the master program to the Envy and receives and processes feedback received from the Envy.



Module Parameters

Please provide the IP-address and the MAC-address of the Envy to be controlled. (MAC-address is required for PowerOn to work)

Module Inputs

(Inputs will be categorized in sections in upcoming revisions)

Connect – When set to high, the connection to the Envy will be established

PowerOn/PowerOff/Standby/Restart/ReloadSoftware – Triggers the corresponding action (self-explanatory)

SetAR_Auto/SetAR_Hold/SetAR_xxx – Set Envy aspect ratio detection to “Auto” or “Hold” and set specific temporary aspect ratio.

GetIncomingSignalInfo/GetAR/GetTemperatures – Request IncomingSignalInfo, Aspect Ratio and GPU/HDMI-input card temperature. (no feedback from module for temperatures yet – will be implemented in upcoming revisions)

Hotplug/Force1080p60Output/ResetTemporary – Force Hotplug. Force 1080p60 output. Reset temporary adjustments.

KeyPress_XXX/KeyHold_YYY – Emulate the corresponding key press or key hold as being triggered by the Envy remote control.

Toggle_YYY – Toggles the corresponding function.

For detailed information on the usage of profiles, please consult the Envy profile documentation. Profiles need to be created and managed directly with the Envy.

ActivateSelectedSourceProfile/Source# – Activates the source profile selected by the analog signal “Source#”.

ActivateSelectedDisplayProfile/Display# – Activates the display profile selected by the analog signal “Display#”.

ActivateSelectedProfile/ProfileGroup#/Profile# – Activates the custom profile selected by the analog signals “ProfileGroup#” and “Profile#”.

DisplayAlertWindow/CloseAlertWindow/DisplayAlertText\$ – Displays the Text “DisplayAlertText\$” on the display in an alert window that needs to be closed by triggering the “CloseAlertWindow”-signal.

DisplayMessage/ DisplayMessage_ Timeout/ DisplayMessage_ Text\$ – Displays the Text “DisplayMessage_ Text\$” on the display in a message window that closes after a number of seconds specified via the signal “DisplayMessage_ Timeout”.

DisplayAudioVolume/ DisplayAudioVolume_ minValue / DisplayAudioVolume_ currentValue / DisplayAudioVolume_ minValue / DisplayAudioVolume_ unitDescription\$ – Displays volume information on the display specified by the signals “DisplayAudioVolume_ minValue”,

“DisplayAudioVolume_currentValue”, “DisplayAudioVolume_minValue”, “DisplayAudioVolume_unitDescription\$”. These values need to come from the control system programming.

Envy_RX\$ – Connect to RX of Envy TCP/Client symbol. (for testing purpose, not needed for normal use)

Module Outputs

Connected – Signal is high if the Envy is connected and responding

MissingHeartbeat_FB – Signal is high if the Envy hasn’t received a “Heartbeat” message for 60 seconds.

NoSignal_FB – Signal is high if the Envy is not receiving an input signal.

HotPlug_FB – Signal is high if the Envy if HDMI-input has been hotplugged

ResetTemporary_FB – Signal is high if the Envy if the temporary settings of the Envy have been reset (by triggering the “ResetTemporary” signal or triggered internally by the Envy though a change in the input signal.

Current_AR_XYZ – Signal is high if the corresponding aspect ratio is detected

Envy_WOL\$ – Magic Package that can be sent to a UDP-socket signal to power-up the Envy.

pixel_AR\$/float_AR\$/nearestWellKnown_AR\$ – Detected aspect ratio as strings.

AR_Description\$ – Descriptive name of detected AR as a string.

Current_AR_Mode/Resolution/Framerate/Dimension/PixelFormat/BitDepth/TransferFunction/Gamut/VideoLevel/AspectMarker\$ – Information about the current incoming video signal as strings.

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