
ISP and I.ISP CRESTRON MODULE

Minimal recommended versions:

SIMPL Windows	4.07.03
SIMPL+	4.04.01
INCLUDE4.DAT	2.05.022
Device Database	83.05.001.00
Crestron Database	62.00.002.00
SIMPL+ Cross Compiler	1.3

Version	1.0.4
Author	Yann SANOU
Company	Technidream
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1 DESCRIPTION

The StormAudio Crestron module defines an interface for any 3 series Crestron program intending to control a StormAudio sound processor. The module comes with two panel interfaces:

- An advanced user GUI providing most controls of the module (so called Advanced)
- A user interface targeting most common usage (so called Basic).

This module uses an internal TCP/IP client which needs to have its properties configured:

- Please refer to **ISP_TCP-IP API_Protocol_FW3.1r0-rc18_v8.pdf** document.
- The IP address should be the sound processor one,
- The TCP port is telnet standard port 23.

2 MODULE PARAMETERS

IPAddress	The sound processor IP address
Reconnect	If set to « true » Crestron processor will try reconnecting when the connection is lost.

3 COMMAND DESCRIPTION

Signal legend

The Signal tables described below will use the following legend:

- **Blue signals:** will be used for input, and output **digital signals**.
- **Red Signals:** will be used for input, and output **analog signals**.
- **Black text:** will be used for input, and output **serial signals**.

Each table will represent a category of signals grouped by functionalities.

Each group of signal contains a set of command and their relative's feedbacks.

General

Commands:

EnableModule	When set to “HIGH”, the module will connect to the sound processor. When set to “LOW”, the module disconnects from the device. To enable the module connection, the signal must be maintained in “HIGH” state
CmdPowerOn	Switch on audio processor press button
CmdPowerOff	Switch off audio processor press button
CmdPowerToggle	Pulse toggling the audio processor power state
CmdReset	Pulse resetting the audio processor

Status :

Connected	Equals “HIGH” when the module is connected to the audio processor. Equals “LOW” otherwise.
Not_Connected	“Connected” signal inversion
PowerIsOn	Equals to “HIGH” when the module power state is “on”.
PowerIsOff	“PowerIsOn” signal inversion

Audio Level settings

Commands:

CmdMute	Volume mute
CmdUnmute	Volume unmute
CmdMuteToggle	Volume toggle
CmdVolumeUp	Volume up press button
CmdVolumeDown	Volume down press button
CmdVolume	Volume value
CmdBassUp	Increase bass press button
CmdBassDown	Decrease bass press button
CmdTrebleUp	Increase treble press button
CmdTrebleDown	Decrease treble press button
CmdCenterUp	Increase center press button
CmdCenterDown	Decrease center press button

CmdSurroundUp	Increase surround press button
CmdSurroundDown	Decrease surround press button
CmdSubUp	Increase subwoofer press button
CmdSubDown	Decrease subwoofer press button
CmdLipsyncUp	Increase lip synchronization delay press button
CmdLipsyncDown	decrease lip synchronization delay press button
CmdDimOn	Switch Dim On
CmdDimOff	Switch Dim Off
CmdDimToggle	Toggle Dim State
CmdCinemaEqOn	Switch Equalizer On
CmdCinemaEqOff	Switch Equalizer Off
CmdCinemaEqToggle	Toggle Equalizer State
CmdLoudnessOn	Switch Loudness On
CmdLoudnessOff	Switch Loudness Off
CmdLoudnessToggle	Toggle Loudness state

Status :

MuteIsOn	Mute is enabled
MuteIsOff	Mute is disabled
VolumeValue	Volume value
BassValue	Bass value
TrebleValue	Treble value
CenterEnhanceValue	Center value
SurroundEnhanceValue	Surround value
SubEnhanceValue	Subwoofer value
LipSyncValue	Lip synchronization delay
DimIsOn	Dim is enabled
DimIsOff	Dim is disabled
CinemaEqIsOn	Cinema equalizers is enabled
CinemaEqIsOff	Cinema equalizers is disabled

LoudnessIsOn	Loudness is On
LoudnessIsOff	Loudness is Off

Inputs

Commands:

CmdInputSelect	Index of the input requested
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Status:

ActiveInputIndex	Index of the selected input
CurrentInputVideo	Active input video
CurrentInputAudio	Active input audio
InputChannelConf	Active input channel configuration
StreamType	Stream type. When there is no stream, this signal equals "N/A"
StreamSampleRate	Stream sample rate. When there is no stream, this signal equals "N/A"
InputCount	Number of inputs on the audio processor
InputName[]	List of inputs' names.
VideoInputList[]	List of inputs' associated video
AudioInputList	List of inputs' associated audio

Surround/Preferred Upmix

Commands:

CmdSurroundMode	Set the surround mode
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Status:

SurroundMode	User asked surround mode
AllowedSurrMode	Current surround mode
SurroundModeCount	Number of surround mode
SurroundNameList[]	Surround mode name list

Listening Preset

Commands:

CmdPresetSelect	Index of the preset to select
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Status:

ActivePreset	Current active preset index
PresetName	Current active preset name
PresetIsModified	Equals "HIGH" when the preset has been modified
PresetCount	Number of preset registered in the audio processor
PresetNameList[]	List of preset name
PresetZoneCount	Number of zone grouped in the current preset
PresetAssociatedZoneName[]	Names of the zones grouped in the current preset

Audio Zones

Commands:

CmdZoneMute	Switch on selected zone mute
CmdZoneUnmute	Switch off selected zone mute
CmdZoneMuteToggle	Toggle selected zone mute state
CmdZoneEqOn	Switch on zone equalizers
CmdZoneEqOff	Switch off zone equalizers
CmdZoneEqToggle	Toggle selected zone equalizers state
PresetZoneSelected	Selection of current zone index in current preset
CmdZoneVolume	Set current zone volume value
CmdZoneBass	Set current zone bass value
CmdZoneTreble	Set current zone treble value
CmdZoneLipSync	Set current zone lip synchronization delay
CmdZoneListMute[]	List of signals used to mute any declared zone in the audio processor
CmdZoneListUnmute[]	List of signals used to unmute any declared zone in the audio processor
CmdZoneListEqOn[]	List of signals used switch on any declared zone's equalizers in the audio processor

CmdZoneListEqOff[]	List of signals used switch off any declared zone's equalizers in the audio processor
CmdZoneListVol[]	List of signals used set on any declared zone's volume in the audio processor
CmdZoneListBass[]	List of signals used set on any declared zone's bass in the audio processor
CmdZoneListTreble[]	List of signals used set on any declared zone's treble in the audio processor
CmdZoneListLipsync[]	List of signals used set on any declared lip synchronization delay in the audio processor

Status:

ZoneEqAvailable	If equals "HIGH", current zone equalizers controls are available
ZoneLipsyncAvailable	If equals "HIGH", current zone lip synchronization controls are available
ZoneAudioModeAvailable	If equals "HIGH", current zone audio mode controls are available
ZonIsMuted	Current zone is muted
ZoneMutelsOff	Current zone id not muted
ZoneCinemaEqIsOn	Current zone cinema equalizers are on
ZoneCinemaEqIsOff	Current zone cinema equalizers are off
ForceZoneIndex	Signal used to force panels lists to display current zone index
CurrentZoneVolume	Current zone volume value
CurrentZoneBass	Current zone bass value
CurrentZoneTreble	Current zone treble value
CurrentZoneLipsync	Current zone lip synchronization delay value
ZoneListMutelsOn[]	Mute state of all zones declared in the audio processor
ZoneListMutelsOff[]	Unmute state of all zones declared in the audio processor
ZoneListEqIsOn[]	Equalizer state of all zones declared in the audio processor
ZoneListEqIsOff[]	"ZoneListEqIsOn[]" inversion
ZoneListVolume[]	Volume values of all zones declared in the audio processor
ZoneListBass[]	Basse values of all zones declared in the audio processor
ZoneListTreble[]	Treble values of all zones declared in the audio processor
ZoneListLipsync[]	Lip synchronization delays of all zones declared in the audio processor
ZoneListEqAvailable[]	Equalizers controls availability for each zone declared in the audio

	processor
ZoneListLipsyncAvailable[]	Lip synchronization controls availability for each zone declared in the audio processor
ZoneListName[]	All declared zones' names

SpherAudio mode (headphones zones)

Commands:

CmdSpheraudioOn	Sets Spheraudio mode to "On"
CmdSpheraudioOff	Sets Spheraudio mode to "Off"
CmdSpheraudio	The spheraudio command value

Status:

SpheraudioIsOn	Equals "HIGH" when Spheraudio mode is "On"
SpheraudioIsOff	Equals "HIGH" when Spheraudio mode is "Off"
Spheraudio	The Spheraudio value

Triggers

Commands:

CmdToggleTriggers[]	Command to toggle the triggers's state
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Status:

TriggerState[]	All the audio processor's trigger state. A signal equals "HIGH" when the trigger is on, "LOW" otherwise
TriggersManual[]	All the audio processor's trigger "manual" feature. A signal equals "HIGH" when the trigger is is "manual", "LOW" otherwise

Advanced control

Commands:

CmdCspreadOn	Sets cspread to "On"
CmdCspreadOff	Sets Cspread to "Off"

CmdDialogNormOn	Sets Dialg control normalization to “On”
CmdDialogNormOff	Sets Dialg control normalization to “Off”
CmdLfeDimOn	Sets LfeDim to “On”
CmdLfeDimOff	Sets LfeDim to “Off”
CmdAuroStrength	Set Auro strength value
CmdAuroPreset	Set Auro preset value
CmdDrc	The Drc command value
CmdDialogCtrl	The Dialog control command value

Status:

CSpreadIsAvailable	Equals “HIGH” if cspread controls are available, “LOW” otherwise
DrcIsAvailable	Equals “HIGH” if drc controls are available, “LOW” otherwise
DialogCtrlIsAvailable	Equals “HIGH” if Dialog control controls are available, “LOW” otherwise
DialogCtrlNormIsAvailable	Equals “HIGH” if Dialog control normalization controls are available, “LOW” otherwise
CspreadIsOn	Equals “HIGH” if cspread is “on”, set to “LOW” otherwise
CspreadIsOff	Equals “HIGH” if cspread is “off”, set to “LOW” otherwise
DialgNormIsOn	Equals to “HIGH” if Dialog normalization is “on”, set to “LOW” otherwise
DialgNormIsOff	Equals “HIGH” if Dialog normalization is “off”, set to “LOW” otherwise
LfeDimIsOn	Equals “HIGH” if Dialog LfeDim is “on”, set to “LOW” otherwise
LfeDimIsOff	Equals “HIGH” if Dialog LfeDim is “off”, set to “LOW” otherwise
AuroSettingsAvailable	Equals “HIGH” when Auro parameters are available
AuroStrengthValue	The current Auro Strength value
AuroPresetValue	Current Auro preset value
AuroPresetCount	Number of Auro presets
AuroPresetNames[]	List of Auro preset names
DrcStatus	The Drc value
DialogCtrl	The Dialog control value