SIMPLWINDOWS NAME: Aspi Vortex Single Channel Mic Input Control with Setup

CATEGORY: Conferencing

VERSION: 1.0

SUMMARY: Allows control of a single channel of mic input gain and setup parameters.

GENERAL NOTES:

The commands used for the Aspi Vortex may be similar to commands used for other Aspi products. Therefore, the same modules developed for the Vortex may work on other Aspi products. To allow for this flexibility of use, you must specify which Aspi model is being controlled using the TYPE-ID-HEX parameter field. This must be a 2 digit hex representation of the model type as defined by Aspi. For the Vortex, the model type is F, therefore the parameter value to use is 46 which is the hex representation of the letter F. This can be seen by checking any standard ASCII chart. There should be no suffix used after the 46.

Multiple devices can be connected to the Aspi bus and controlled from a single RS232 port. Therefore, it is also necessary to enter the Unit ID of the device being controlled. This should be entered in the UNIT-ID-ASCII parameter field as a two digit number from 00-07 with no suffix.

You must specify which channel you want the module to control using the CHANNEL-ID-HEX parameter. Valid channel ranges are 1-8 and A-D. These must be entered as 2 digit hex representations of the channel with no suffix. So for channel 1, enter 31, for channel 4, enter 34, for channel B, enter 42. This can be seen by checking any standard ASCII chart.

This module was designed to operate on a single input channel. The channel can be ramped up/down with buttons, or with a slider object. Mute and Automatic Gain Control (AGC) can also be controlled. In addition, the following mic settings can also be adjusted for Mic type inputs:
Phantom Power (PHANTOM)
Acoustic Echo Cancellation (AEC)
Noise Cancellation (NC)
Noise Cancellation Attenuation Level (NCL)

This module can also be used in conjunction with the Aspi Vortex Feedback Processor Module to monitor the state of all parameters. A properly constructed program would consist of a single Aspi Vortex Feedback Processor Module receiving information from the com port. The output of this module would be connected to the FROM-ASPI-PROCESSOR$ inputs of as many other Vortex modules are in the program. The Processor module will reformat the data into the format that the remaining Vortex modules are programmed for.

Upon startup of the Crestron system, it may be desired to pulse the POLL-* inputs. This will request the current settings for the selected channel, so the feedback can be properly displayed. After this point, the POLL-* inputs should not need to be used, except after recalling a preset.

Note that if it is desired to control multiple channels of volume simultaneously, it is recommended to set up Macros on the Aspi system. A macro can be set up to adjust multiple channels simultaneously. By repeatedly triggering the Macro from the Crestron system, we can

	control multiple channels. See the demo program for an example of how this is programmed.
CRESTRON HARDWARE REQUIRED:	ST-COM, CNXCOM
SETUP OF CRESTRON HARDWARE:	Tested and verified at the following settings: Baud Rate - 9600 Parity - None Data Bits - 8 Stop Bits - 1 RTS/CTS Handshaking should be enabled to insure no data is lost.
VENDOR FIRMWARE:	1.15
VENDOR SETUP:	Ack mode must be set to "on"
CABLE NUMBER:	CNSP-141

CONTROL:

VOLUME-UP/DOWN	D	Press and hold to ramp the level up/down
VOLUME-MUTE-ON/OFF/TOG	D	Pulse to discretely mute or unmute, or to toggle the state of mute
VOLUME-SLIDER	A	Can be routed from the analog portion of a touchpanel definition, to allow a slider to control the level
POLL-VOLUME	D	Pulse on startup of the Crestron system to request the current settings
AGC-ON/OFF/TOG	D	Pulse to turn Automatic Gain Control on or off
POLL-AGC	D	Pulse to poll the state of AGC
AEC-ON/OFF/TOG	D	Pulse to turn Acoustic Echo Cancellation on or off
POLL-AEC	D	Pulse to poll the state of AEC
NC-ON/OFF/TOG	D	Pulse to turn Noise Cancellation on or off
POLL-NC	D	Pulse to poll the state of NC
NCL-UP/DOWN	D	Press and hold to adjust the Noise Cancellation Attenuation level up/down
NCL-SLIDER	A	Can be routed from the analog portion of a touchpanel definition, to allow a slider to control the level of NCL
POLL-NCL	D	Pulse to poll the current level of NCL
FROM-ASPI-PROCESSOR$	S	Must be routed from the output of the Aspi Vortex Feedback Processor module
TYPE-ID-HEX	P	Enter 46 for Vortex
UNIT-ID-ASCII	P	Enter the unit number of the Vortex. Should be a number from 00-07
CHANNEL-ID-HEX	P	Enter the 2-digit hex version of the channel to be controlled. For channel 1, enter 31. For channel 4, enter 34. For channel B, enter 42.

FEEDBACK:

VOLUME-BAR	A	Indicates the relative volume level. Should be routed to a bargraph on a

		touchpanel
VOLUME-TEXT$	S	Text indicating the level in dB format. Should be routed to an indirect text field on a touchpanel
VOLUME-MUTE-ON/OFF-FB	D	True feedback indicating the state of mute
AGC-ON/OFF-FB	D	True feedback indicating the state of AGC
AEC-ON/OFF-FB	D	True feedback indicating the state of AEC
NC-ON/OFF-FB	D	True feedback indicating the state of NC
NCL-BAR	A	Indicates the current level of NCL. Should be routed to a bargraph on a touchpanel.
NCL-TEXT$	S	Text indicating the current NCL level. Should be routed to an indirect text field on a touchpanel.
ASPI-TX$	S	Serial signal to be routed to a 2-way RS232 port

OPS USED FOR TESTING:	5.12.26x
COMPILER USED FOR TESTING:	SimplWindows Version 1.61.12
SAMPLE PROGRAM:	Aspi Vortex Demo Program
REVISION HISTORY:	None