SIMPLWINDOWS NAME:	McIntosh MX132 A/V Control Center
CATEGORY:	Receiver
VERSION:	1.0
SUMMARY:	Control all standard functions and provide real-time feedback
GENERAL NOTES:	This module will provide control and feedback for a McIntosh MX132 A/V Control Center. All standard functions can be controlled, and real-time feedback is provided for most functions.
	This module has an RS232-ON input. This input should be pulsed on startup of the system to enable proper 2- way RS232 communications with the McIntosh unit.
	All controls available for 2 separate zones are included. Note that in order to control tuner functions, the tuner must be selected as the active source in that zone. Also note that before any commands will be accepted for a zone, the zone must be powered on.
CRESTRON HARDWARE REQUIRED:	CNXCOM, ST-COM
SETUP OF CRESTRON HARDWARE:	RS232 Baud Rate - 9600 Parity - None Data Bits - 8 Stop Bits - 1
VENDOR FIRMWARE:	1.07q
VENDOR SETUP:	None
CABLE NUMBER:	CNSP-121

CONTROL:

RS232-ON/OFF	D	Pulse to activate RS232 mode on/off. Should be set to on before sending any other commands
SYSTEM-OFF	D	Pulse to turn off both zones 1 and 2
POWER-ON/OFF- ZONE-1	D	Pulse to turn zone 1 on or off. This will not necessarily put the entire unit into standby since zone 2 may still be on
VOLUME-UP/DOWN- ZONE-1	D	Ramp the volume level for zone 1 up or down
VOLUME-MUTE-ZONE- 1	D	Activate/Deactivate the volume mute function for zone 1
VOLUME-BAR-ZONE- 1-IN	А	Allows a slider on a touch panel to be used to control the volume level for zone 1.
SOURCES-ZONE-1	D	Pulse to select the current source to be heard in zone 1. The actual source reported by the MX132 will be indicated at the corresponding -FB output
MODE-*-ZONE-1	A	Pulse to select the current surround mode to be used in zone 1. The actual mode reported by the MX132 will be indicated at the corresponding -FB output
TRIM-*-ZONE-1	D	Allows the assorted trim adjustments to be changed. The actual trim levels will be reported at their corresponding -LEVEL\$ outputs

SEEK-UP/DOWN- ZONE-1	D	Cause the tuner to begin seeking up or down. Only valid if the tuner is selected as the source
AM/FM/ZONE-1	D	Cause the tuner to switch to AM or FM. Only valid if the tuner is selected as the source
PRESET-*-ZONE-1	D	Cause the tuner to go to one of it's 9 preprogrammed station presets. Only valid if the tuner is selected as the source
POWER-ON/OFF- ZONE-2	D	Pulse to turn zone 2 on or off. This will not necessarily put the entire unit into standby since zone 1 may still be on
VOLUME-UP/DOWN- ZONE-2	D	Ramp the volume level for zone 2 up or down MUTE-*-ZONE-2 D Activate/Deactivate the volume mute function for zone 2
MUTE-*-ZONE-2	D	Activate/Deactivate the volume mute function for zone 2
VOLUME-BAR-ZONE- 2-IN	А	Allows a slider on a touch panel to be used to control the volume level for zone 2
SOURCES-ZONE-2	D	Pulse to select the current source to be heard in zone 2. The actual source reported by the MX132 will be indicated at the corresponding -FB output
SEEK-UP/DOWN- ZONE-2	D	Cause the tuner to begin seeking up or down. Only valid if the tuner is selected as the source
AM/FM-ZONE-2	D	Cause the tuner to switch to AM or FM. Only valid if the tuner is selected as the source
PRESET-*-ZONE-2	D	Cause the tuner to go to one of it's 9 preprogrammed station presets. Only valid if the tuner is selected as the source
· POLL-SYSTEM	D	Pulse to request the status of the entire McIntosh system. Should only need to be done upon startup of the system
MCINTOSH-RX\$	S	Serial signal to be routed from a 2-way RS232 port
VOLUME-REPEAT- TIME	Ρ	Indicates how often volume commands will be sent to the McIntosh while the volume is being adjusted. A time of .1s works well

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FEEDBACK:

POWER-ON/OFF- ZONE-1-FB	D	Real-time feedback indicating if power is on/off in zone 1
ZONE-1-MUTE- ON/OFF-FB	D	Real-time feedback indicating if mute is active in zone 1
VOLUME-BAR-ZONE-1	A	Analog signal indicating the relative volume level in zone 1. Should be routed to a bargraph on a touch panel
SOURCE-ZONE-1-FB	D	Real-time feedback indicating which source is currently active in zone 1
MODE-ZONE-1-FB	D	Real-time feedback indicating which mode is currently active in zone 1
POWER-ON/OFF- ZONE-2-FB	D	Real-time feedback indicating if power is on/off in zone 2
ZONE-2-MUTE- ON/OFF-FB	D	Real-time feedback indicating if mute is active in zone 2
VOLUME-BAR-ZONE-2	A	Analog signal indicating the relative volume level in zone 2. Should be routed to a bargraph on a touch panel
SOURCE-ZONE-2-FB	D	Real-time feedback indicating which source is currently active in zone 2

TUNER-STEREO-ON	D	Indicates if a stereo station is being received on the tuner. Could be routed to a legend button indicating "stereo" on a touch panel
TUNER-STRENGTH- BAR	A	Analog signal indicating the relative strength of the signal being received on the tuner. Should be routed to a bargraph on a touch panel
TUNER\$	S	Serial signal indicating the current station active on the tuner. Should be routed to an indirect text field on a touch panel
ZONE-1-*-LEVEL\$	S	Serial signals indicating the current trim levels. Should be routed to the serial portion of a touch panel definition for display in indirect text fields
ZONE-1-DI SP- VOLUME\$	S	Serial signal indicating the current zone 1 volume level. Should be routed to the serial portion of a touch panel definition for display in an indirect text field
ZONE-2-DI SP- VOLUME\$	S	Serial signal indicating the current zone 2 volume level. Should be routed to the serial portion of a touch panel definition for display in an indirect text field
MCINTOSH-TX\$	S	Serial signal to be routed to a 2-way RS232 port

.UPZ FILE USED FOR TESTING:	5.10.11x
COMPILER USED FOR TESTING:	SimplWindows Version 1.30.01
SAMPLE PROGRAM:	MCINTSTA
REVISION HISTORY :	None