

**SIMPLWINDOWS  
NAME:**

xiva Single Zone Control Version 4

**CATEGORY:**

TRANSPORT DECKS

**VERSION:**

1.0

**SUMMARY:**

Controls all zone specific functions/feedback for a single zone

**GENERAL NOTES:**

xiva is a communications protocol which is utilized by multiple manufacturers. Since these different manufacturers use the same communications protocol, this single set of Crestron control modules can be used to control multiple devices made by multiple manufacturers. If the device indicates it is "powered by xiva", then you can probably use this set of modules to control it.

This module provides all of the zone specific control/feedback functions for a single xiva zone. You can use a separate copy of this module for each zone being controlled. You must use the ZONE-(01-16) parameter field to designate which zone each module is to control. This number must be entered as a 2-digit number with no suffix. So for zone 1, use 01. For zone 11, use 11.

This module must be used in conjunction with the xiva Global Processor Version 4 module. The Global processor will process all the information received from the xiva system, and will decode the information per zone. The ZONE-STATUS and ZONE-INFORMATION\$ inputs of this module should be connected to the appropriate ZONE-\* -STATUS and ZONE-\* -INFORMATION\$ outputs of the global processor module. The remaining \*-MARKER\$ and \*-COUNT\$ inputs should be connected to the corresponding outputs of the global processor module.

To enable feedback reporting for this zone, you must pulse the ENABLE-UPDATES input. This will cause the xiva system to send real-time status updates to the Crestron system. Typically, this only needs to be turned on when a zone is actually in use. At other times, the real-time status updates can be turned off by pulsing the DISABLE-UPDATES input.

This module provides all standard transport control, and true feedback. The CD- and CD+ functions may be of limited use since they do not select discs in any special order (like alphabetically). A better method of selecting discs is using the Browse and search functions.

You can browse by either title, artist, category, or playlist. Start by selecting the browse method with the BROWSE-BY-\* inputs. As soon as one of these is selected, the first entry found will be displayed at the BROWSE-\*\$ outputs. You can then scroll through the selections using the BROWSE-FWD and BROWSE-REV inputs. When you find the entry you want, pulse the BROWSE-SELECT input. If you were browsing by Disc or playlist, pulsing the BROWSE-SELECT input will immediately select the disc. If you were browsing by artist or category, pulsing BROWSE-SELECT will select the currently displayed artist or category, and you will now be browsing through the discs associated with that artist or category. Pressing BROWSE-SELECT a second time will actually select the disc.

When browsing by artist or genre, after selecting an artist or genre, you can choose to play all selections by

that artist or genre by pulsing the BROWSE-PLAY-ALL input.

Note that only certain text fields will be updated depending which type of browsing is being performed. For Browse by disc or category, the disc, artist, and genre fields will be updated. For browse by artist, the disc and artist fields will be updated. For browse by playlist, only the playlist field will be updated. Typically, a separate subpage would be used for each type of browsing to display only the relevant text fields.

Also note that since all functions for all zones are passed through a single com port or TCP/IP Client, if multiple zones are accessing the system simultaneously, a slowdown in response time may be observed. These modules were tested on a 2-zone xiva system at Crestron.

In addition to browsing through the available discs, you can also search for the first letter, or up to 20 letters of a disc, artist, genre, or playlist. Choose the type of search to perform using the BROWSE-BY-\* inputs. The letter(s) can be entered two different ways. Using the SEARCH-LETTER-UP, SEARCH-LETTER-DOWN and SEARCH-LETTER/TEXT-ENTER inputs, you can scroll through the letters of the alphabet and select the first letter for which to search. This is useful on small touch panels where space is limited. Using the SEARCH-TEXT-\* and SEARCH-LETTER/TEXT-ENTER inputs, you can implement an alpha-numeric keyboard, allowing up to 20 characters to be entered and searched for. This is applicable to larger touch panels. Once a search has been performed, you can use the BROWSE-FWD/REV/SELECT inputs to scroll through the entries and select the desired disc.

This module also implements a scroller for tracks. Using the TRACKS-PER-SCREEN (1d-8d) parameter, you can define how many entries the scroller should have. It can contain from 1 to 8 entries. It will display the available tracks on the disc using the TRACK-\* -TITLE\$ outputs. It will allow the direct selection of any of the displayed tracks using the TRACK-\* inputs, and it will indicate which of the tracks is currently selected using the TRACK-\* -FB output. You can scroll through multiple screens using the TRACKS-FIRST/PREVIOUS/NEXT/LAST inputs.

Note that when tested at Crestron, certain transport controls had a small time-lag before the requested function would be executed. It was noted that the pause and stop functions may take up to 1-2 seconds to execute. The same behavior was observed when using the controls on the front of the xiva unit.

Also, keep in mind that while playing the CD in the tray, other functions on the xiva system may react more slowly, and data could be missed. Therefore it is advisable to limit the use of other xiva functions while playing a CD directly from the CD tray.

Several xiva systems can be controlled either using RS232 control, or using TCP/IP control. Up to sixteen zones can be controlled through a single RS232 port, or a single TCP/IP Client. Due to the large amount of data being transferred, you must enable RTS/CTS handshaking when using RS232 control. If using TCP/IP control, use port number 6789d. You will need to establish the TCP/IP connection before any control will

be possible. See the demo program for an example of the TCP/IP application.

Since this module uses Simpl+, it can only be used on a Generation CNX type control system.

**CRESTRON  
HARDWARE  
REQUIRED:** CNXCOM  
ST-COM  
CNXENET+

**SETUP OF CRESTRON  
HARDWARE:** **For RS232:**  
Baud Rate - 38400  
Parity - Even  
Data Bits - 7  
Stop Bits - 1  
RTS/CTS handshaking must be enabled

**For ethernet communications:**

Must have a CNXENET+ card  
Use the TCP/IP Client  
Use port # 6789d

**VENDOR FIRMWARE:** xiva-Link Version 1.03

**VENDOR SETUP:** None

**CABLE NUMBER:** CNSP-532

## CONTROL:

<b>PLAY</b>	D	Start playing the previously selected disc/track
<b>STOP</b>	D	Stop the current playback
<b>PAUSE</b>	D	Pause the current playback. You must press play to restart playing
<b>TRACK-/+</b>	D	Select the next or previous track on a disc
<b>CD-/+</b>	D	Select the next or previous CD. It is better to select CD's by browsing
<b>RANDOM-OFF/ON</b>	D	Activate/deactivate random mode
<b>REPEAT-OFF/ON</b>	D	Activate/deactivate repeat mode
<b>TRACKS-FIRST</b>	D	Go to the first screen of tracks
<b>TRACKS-PREVIOUS</b>	D	Go to the previous screen of tracks
<b>TRACKS-NEXT</b>	D	Go to the next screen of tracks
<b>TRACKS-LAST</b>	D	Go to the last screen of tracks
<b>TRACK-*</b>	D	Select a specific track from the list currently displayed
<b>SELECT-CD-IN-TRAY</b>	D	Pulse to select the cd in the tray for playback
<b>PLAY-ENTIRE-LIBRARY</b>	D	Pulse to play the entire music library
<b>BROWSE-BY-DISC</b>	D	Activate browse-by-disc mode
<b>BROWSE-BY-ARTIST</b>	D	Activate browse-by-artist mode
<b>BROWSE-BY-CATEGORY</b>	D	Activate browse-by category-mode
<b>BROWSE-BY-PLAYLIST</b>	D	Activate browse-by-playlist mode
<b>BROWSE-FWD/REV</b>	D	Browse to the next or previous entries in the previously selected browsing mode
<b>BROWSE-SELECT</b>	D	Select the currently displayed selection
<b>BROWSE-PLAY-ALL</b>	D	Pulse to play all selections for the currently selected genre or artist. Playing all genre will access the hidden genre playlists that were previously generated by the AUTO-GENERATE-GENRE-PLAYLISTS function on

the global processor module. Playing all artist will generate and play a hidden playlist for the currently selected artist

<b>SEARCH-LETTER-UP/DOWN</b>	D	Increment/decrement the letter for which to search
<b>SEARCH-TEXT-*</b>	D	Used to implement a full alpha-numeric keypad for searching
<b>SEARCH-LETTER/TEXT-ENTER</b>	D	Pulse to search for the previously entered letter or text string
<b>ENABLE-UPDATES</b>	D	Pulse to enable real-time updates for this zone. Must be done for feedback to be displayed properly
<b>DISABLE-UPDATES</b>	D	Pulse to disable real-time status updates for this zone
<b>ZONE-STATUS</b>	A	Zone status information to be routed from the xiva Global Processor module
<b>ZONE-INFORMATION\$</b>	S	Zone status information to be routed from the xiva Global Processor module
<b>GENRE-MARKER/COUNT\$</b>	S	Global status information to be routed from the corresponding output of the xiva Global Processor module
<b>ARTIST-MARKER/COUNT\$</b>	S	Global status information to be routed from the corresponding output of the Imerge SoundServer Global Processor module
<b>MEDIA-MARKER/COUNT\$</b>	S	Global status information to be routed from the corresponding output of the xiva Global Processor module
<b>PLAYLIST-MARKER/COUNT\$</b>	S	Global status information to be routed from the corresponding output of the xiva Global Processor module
<b>ZONE-(01-16)</b>	P	Indicates which zone is to be controlled
<b>TRACKS-PER-SCREEN (1D-8D)</b>	P	Indicates how many tracks are to be diaplyed per screen

## FEEDBACK:

<b>PLAY-FB</b>	D	True feedback indicating Play is active
<b>STOP-FB</b>	D	True feedback indicating Stop is active
<b>PAUSE-FB</b>	D	True feedback indicating Pause is active
<b>RANDOM-OFF/ON-FB</b>	D	True feedback indicating the state of random mode
<b>REPEAT-OFF/ON-FB</b>	D	True feedback indicating the state of repeat mode
<b>TRACK-*-FB</b>	D	Indicates which of the displayed tracks is currently selected
<b>BROWSE-BY-*-FB</b>	D	Indicates which browse mode was last selected
<b>CURRENT-CD-TITLE\$</b>	S	Indicates the title of the currently playing cd
<b>CURRENT-CD-ARTIST\$</b>	S	Indicates the artist of the currently playing cd
<b>CURRENT-TRACK-TITLE\$</b>	S	Indicates the title of the currently playing track
<b>CURRENT-TRACK-ARTIST\$</b>	S	Indicates the artist of the currently playing track
<b>TRACK-*-TITLE\$</b>	S	Indicates the titles of the tracks on the current cd
<b>BROWSE-TITLE\$</b>	S	Indicates the disc title which has been browsed to

<b>BROWSE-ARTIST\$</b>	S	Indicates the disc artist which has been browsed to
<b>BROWSE-GENRE\$</b>	S	Indicates the category which has been browsed to
<b>BROWSE-PLAYLIST\$</b>	S	Indicates the playlist which has been browsed to
<b>SEARCH-LETTER\$</b>	S	Indicates which single letter has been entered for searching
<b>SEARCH-TEXT\$</b>	S	Indicates the string of letters which has been entered for searching
<b>xiva-TX\$</b>	S	Serial signal to be routed to a 2-way RS232 port

**OPS USED FOR TESTING:** v3.029.cuz

**COMPILER USED FOR TESTING:** SimplWindows Ver 2.03.18

**SAMPLE PROGRAM:** xiva Demo Program Version 4

**REVISION HISTORY:** Version 4 - Added Play-All Genre/artist functions  
Added Play CD in tray function