

SIMPLWINDOWS NAME: Arrakis DC6-1000 v301 Multi-Zone Single-Port Zone Control

CATEGORY: Transport Decks

VERSION: 1.0

SUMMARY: Controls transport, search, status, etc.

GENERAL NOTES:

This module provides all the standard controls for an Arrakis DC6-1000 system. You must have "v3.01 3/21-2" or later firmware installed on the Arrakis system for this module to work correctly.

This module works in conjunction with the Arrakis DC6-1000 v301 Processor module. The processor module will process all information sent to and received from the Arrakis system. You must connect the To_Processor\$ output of this module to the appropriate "From_Zone_1-6\$" input of the processor module. Similarly, you must connect the "To_Zone_1-6\$" output of the processor module to the "From_Processor\$" input of this module. You cannot connect this module directly to a com port.

This module provides control of a single zone of the Arrakis system. The zone to be controlled is specified using the "Zone (1 - 6)" parameter field. For zone 1, enter 1, for zone 4, enter 4.

You can put six copies of this module (one for each zone) into a program. This will allow all six zones to be controlled through a single com port. If you have touch panels that allow you to select which zone you want to control, you should either use Digital/Analog/Serial buffers to route the controls and feedback to the proper zone module, or, on the 2-Series processors, you should use the routing symbols to connect a point of control (touch panel) to a piece of equipment (Arrakis zone). These symbols are Control Crosspoint Routing, Equipment Crosspoint Routing, and Equipment/Control Crosspoint Connect. See the demo program for an example of how this is implemented.

This module provides all of the standard transport controls (play/stop/pause/track-/track+/disc-/disc+) as well as control of single-play/all-play mode, and Random on/off mode. In addition, you can also browse for a disc by either disc title, or by artist order. You can also browse through any playlists (groups) that have been stored on the Arrakis system.

Browsing is accomplished using pages of entries. You can define the number of entries you want to display per page using the Entries Per Page parameter field. It must be set to a value between 1d and 6d. You can then use the first/previous/next inputs to scroll between pages.

You must first select the browsing function. You can choose to:

1. Browse by Disc Title
2. Browse by Artist
3. Browse playlists (groups)

You can automatically have the list of entries go to a letter or search string that you specify. You can enter the search string two different ways:

1. Use the Search_Letter_Up/Down inputs to scroll

through the letters of the alphabet. When you get to the letter you want, press the Search_Letter_Enter input. The list will automatically scroll to that letter in the list.
2. Use the Text\$ input to enter a string of text to search for. This input can be driven with the "Full IBM Keyboard" module which implements a full computer keyboard. After entering the search string at the Text\$ input, pulse the Search_Text_Go input.

From the list of entries displayed, you can select any of the six selections using the CD/Group_Select_* input. The disc will then be played.

For whatever cd is currently playing, a list of up to six tracks on that CD can be displayed. You can scroll through the list of tracks just as you scrolled through the list of CD's. However, no searching can be performed. You can also select any of the six tracks displayed to be played.

This module also allows you to select which Genres you want to hear in a zone. You scroll through the list of Genres in the same way as scrolling through discs or tracks. Pressing one of the Genre_Select_1-6 inputs will mark that genre for playback. You can select as many genres as you like. Then pulse the Genre_Play_Selected input to send the command to the Arrakis system. If you would like to play all genres in the zone, pulse to Genre_Play_All input. To clear the selected genres from the list being displayed, pulse the Genre_Clear_All input. The Genre names will be read by the processor module when the system is initialized. The information will be sent out the Genres\$ output of the processor module, which should be connected to the Genres\$ input of this module.

This module also has a Refresh_Text input. When pulsed, this will resend all of the indirect text information for this zone. This is useful for when a touch panel has just been plugged into the network. It is also useful for when a touch panel has been connected to a zone through either Serial buffers, or using the routing symbols.

The "Entries Per Screen (1d - 6d)" parameter is used to specify how many Genres you would like to display for each genre screen. This will not affect the number of discs, tracks, or groups displayed per screen, since this parameter is set up on the processor module.

CRESTRON HARDWARE REQUIRED:	ST-COM CNXCOM
SETUP OF CRESTRON HARDWARE:	Baud Rate - 9600 Parity - None Bits - 8 Stop Bits - 1
VENDOR FIRMWARE:	v3.01 3/21-2
VENDOR SETUP:	None
CABLE NUMBER:	CNSP-121

CONTROL:

PLAY	D	Activate PLAY for current track
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STOP	D	Activate STOP
PAUSE	D	Activate PAUSE, if pressed again, will resume playing
TRACK_PREVIOUS	D	Step back 1 track. If at the first track, there will be no change
TRACK_NEXT	D	Advance 1 track. If at the last track, there will be no change
DISC_PREVIOUS	D	Step back 1 CD. If at the first CD there will be no change
DISC_NEXT	D	Advance forward 1 CD. If at the last CD there will be no change
RANDOM-OFF	D	Turn off the random mode
RANDOM-ON	D	Turn on the random mode
ALL-OFF	D	Turn off the all play mode
ALL-ON	D	Turn on the all play mode
SORT_ORDER_TITLE	D	Activate search by title. CD+ and CD- will now go alphabetically by CD title
SORT_ORDER_ARTIST	D	Activate search by artist. CD+ and CD- will now go alphabetically by artist name
SORT_ORDER_DISC	D	Activate sort by disc. CD+ and CD- will now go numerically by disc number
CD_PAGE_FIRST/PREV/NEXT	D	Pulse to scroll through pages of discs
GROUP_PAGE_FIRST/PREV/NEXT	D	Pulse to scroll through pages of groups (playlists)
CD/GROUP_SELECT_1-6	D	Pulse to select a CD or group to play
TRACK_PAGE_FIRST/PREV/NEXT	D	Pulse to scroll through pages of tracks
TRACK_SELECT_1-6	D	Pulse to select a track to display
BROWSE_BY_TITLE	D	Pulse to list discs sorted by title
BROWSE_BY_ARTIST	D	Pulse to list discs sorted by artist
BROWSE_BY_GROUP	D	Pulse to list playlists (groups)
SEARCH_LETTER_UP/DN	D	Pulse to scroll through the alphabet to specify a letter to search for
SEARCH_LETTER_GO	D	Pulse to perform a search for the previously selected letter
TEXT\$	S	Used to specify a text string to search for
SEARCH_TEXT_GO	D	Pulse to perform a search for the previously selected text
GENRE_FIRST/PREV/NEXT	D	Pulse to scroll through pages of genres
GENRE_SELECT_1-6	D	Pulse to mark/unmark genres to play
GENRE_CLEAR_ALL	S	Pulse to clear all genre selections being displayed
GENRE_PLAY_SELECTED	D	Pulse to play the previously marked genres
GENRE_PLAY_ALL	D	Pulse to play all genres
REFRESH-TEXT	D	Pulse to resend the serial information for the currently playing title/artist/disc/genre

Used to load the module with the titles of all genres in the system.

GENRES\$	S	Should be connected to the "Genres\$" output of the processor module
FROM_PROCESSOR\$	S	Should be routed from the appropriate "To_Zone_1-6\$" output of the processor module. Contains all the feedback information for the zone

FEEDBACK:

PLAY-FB	D	Real feedback indicating that the currently selected zone is playing
STOP-FB	D	Real feedback indicating that the currently selected zone is stopped
PAUSE-FB	D	Real feedback indicating that the currently selected zone is in pause
RANDOM-OFF-FB	D	Real feedback indicating that random mode is off
RANDOM-ON-FB	D	Real feedback indicating that random mode is on
ALL-OFF-FB	D	Real feedback indicating that random mode is off
ALL-ON-FB	D	Real feedback indicating that all play mode is on
SORT_ORDER_TITLE_FB	D	Real feedback indicating that sort by title is active
SORT_ORDER_ARTIST_FB	D	Real feedback indicating that sort by artist is active
SORT_ORDER_DISC_FB	D	Real feedback indicating that sort by disc number is active
CD/GROUP_SELECT_*_FB	D	True feedback indicating which disc is currently playing
CD/GROUP_TITLE_*\$	S	Indicates Disc/Group titles for display on browsing screen
CD/GROUP_ARTIST_*\$	S	Indicates Disc/Group artist for display on browsing screen
TRACK_SELECT_*_FB	D	True feedback indicating which track is currently playing
TRACK_TITLE_*\$	S	Indicates track title for display on browsing screen
TRACK_ARTIST_*\$	S	Indicates track artist for display on browsing screen
TRACK_TIME_*\$	S	Indicates track time for display on browsing screen
BROWSE_BY_*_FB	D	Indicates which browse mode is currently active
SEARCH_LETTER\$	S	Indicates which letter will be used for searching
GENRE_SELECT_*_FB	D	Indicates which genres on the current page have been marked
GENRE_1-6\$	S	Contains the names of the genres for the current genre page.
CURRENT_*\$	S	Indicates the currently playing disc number/ title/ artist/track/genre
TIME_REMAINING	A	Analog indicating the playback time remaining for the currently playing track. Should be routed to a time object on a touch panel

Should be routed to the appropriate

TO_PROCESSOR\$

S "From_Zone_1-6\$ input of the processor module.

OPS USED FOR TESTING:

5.12.63x / Pro2 - v1.012

COMPILER USED FOR TESTING:

SimplWindows Version 2.01.03

SAMPLE PROGRAM:

Arrakis Multi-Zone Single-Port Demo

REVISION HISTORY:

None