

**SIMPLWINDOWS
NAME:**

Arrakis DC6-1000 v401 Setup Controls

CATEGORY:

Transport Decks

VERSION:

1.0

SUMMARY:

Controls recording, playlist setup, database management, and genre management.

GENERAL NOTES:

This module provides all the setup controls for an Arrakis DC6-1000 system. You must have "v3.01 8/13-1" or later firmware installed on the Arrakis system for this module to work correctly.

This module must be used with a dedicated com port on the Arrakis system. It cannot be used on the same com port as any other Arrakis modules. This is because for this module to work properly, the auto-update feature of the Arrakis system must be turned off. For all other Arrakis modules, this feature must be turned on. Therefore, this module must use a dedicated com port to communicate with the Arrakis system. There are eight com ports available on the Arrakis system. Com port 4 is used for flash upgrades, and should not be used for Crestron control.

There are numerous settings on this module which require text to be entered. Any inputs that start with Select_ will cause the currently stored text for that parameter to be sent to the Text_Out\$ output, and the corresponding _Fb output to go high. You can then modify the text using an external keyboard module, and send the new text to the Text_In\$ input. When you pulse the Text_Enter input, the text currently at Text_In\$ will be stored to the previously selected parameter.

This module provides the following types of control:

1. Playlist (Group) setup
2. Recording using the Analog, Digital, Serial inputs
3. Naming/renaming genres
4. Database management

For playlist setup, you first select if you want to create a new group, or modify an existing group, using the Create_New_Group, or Browse_By_Groups input. If you choose to create a new group, you must first enter a new group name and artist. The text for these fields should be placed at the Text_In\$ input, and then the Text_Enter input should be pulsed. If you are modifying an existing group, you will be able to browse for the group you want using the normal CD/Group_Page_First/Previous/Next buttons. When you find the desired group, pulse the CD/Group_Select_1-6 input. This will cause the group to be loaded into the Group_Track_Title\$/Artist\$ fields.

Two lists of tracks are provided. One for the list of tracks in the currently active group. The other is for the list of tracks in the currently selected album. This allows you to select tracks from the currently displayed album, and either add a single track or add all displayed tracks to the currently active group. For the currently active group, you can select to delete an individual track, or to delete the entire group.

The recording controls on this module are for use when using the Analog, Digital, or serial inputs on the Arrakis system. They are not for use when ripping a CD from the tray. Use the Global Processor module to receive status when ripping a CD from the tray.

When recording, you must first enter record mode by pulsing the Enter_Record_Mode input. This will start a polling sequence, in which the Crestron system will poll for the current record status, and the current time remaining, every second. When you are finished recording, you must pulse the Exit_Record_Mode to stop the polling.

There are several parameters that you must set before starting to record.

- You must select to Record_From_Analog/Digital/Serial_Input.
- You must set the record threshold using the Record_Threshold_Up/Down input.
- You must turn Auto-Trim on or off.
- You must choose if you are going to record a new disc, or onto an existing disc.
- You must specify a disc number, track number, time to record, disc name/artist, and track name/artist.

This module will automatically fill in the relevant information for you, including the next disc number available, and the next track number available. It will also use the last disc information selected in the Setup Zone to fill in the disc name and artist.

Any of these fields can be modified by pulsing the appropriate Select_* input. This will cause the current information for that parameter to be sent to the Text_Out\$ output. You can then modify the text, and place it at the Text_In\$ input, and pulse the Text_Enter input to save it.

Note that the time to record must be entered as four digits in mmss format. So to record 2 minutes and 30 seconds, you would enter 0230.

After setting up all the recording parameters, you can pulse the Record input. When you are done, pulse the Stop input. If you were recording a new disc you must then pulse the Save_New_Disc input to add the disc to the Arrakis database.

This module also allows you to modify the name of any of the 32 available genres. Start by selecting a Genre using the Select_Genre_1-32 input. The name of the currently selected genre will be sent to the Text_Out\$ output. You can then modify the name, place the new name at the Text_In\$ input, and pulse the Text_Enter input to save the new name.

This module also allows you to modify the contents of the Arrakis database. You can change the album or track name or artist, as well as delete the current album or track. In addition, you can also assign which genres you would like the album to be a part of. The current album/track is determined by the Setup Zone (1 - 6) parameter field. Whichever album and track is playing in the zone specified by Setup Zone is the one which you will be modifying. So you will use the normal Arrakis playback modules to select and play an album, and then use this module to make changes to the currently selected album.

HARDWARE REQUIRED: CNXCOM
 C2-COM
SETUP OF CRESTRON HARDWARE: Baud Rate - 9600
 Parity - None
 Bits - 8
 Stop Bits - 1
VENDOR FIRMWARE: V3.01 8/13-1
VENDOR SETUP: None
CABLE NUMBER: CNSP-121

CONTROL:

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| Initialize | D | Pulse to turn off the auto-update feature of the Arrakis system This must be done prior to using any other functions |
| 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 |
| CD_Group_Select_* | D | Pulse to select a cd or group to play |
| Track_Page_First/Prev/Next | D | Pulse to scroll through pages of tracks within the current disc |
| Track_Select_* | D | Pulse to select a track within the current disc |
| Group_Track_Page_First/Prev/Next | D | Pulse to scroll through pages of tracks within the current group |
| Group_Track_Select_* | D | Pulse to select a track within the current group |
| Add_Track_To_Group | D | Pulse to add the currently selected track to the current group |
| Add_All_Tracks_To_Group | D | Pulse to add all the displayed tracks to the current group |
| Delete_Selected_Track | D | Pulse to delete the selected track from the current group |
| Delete_Current_Group | D | Pulse to delete the entire current group |
| Crete_New_Group | D | Pulse to start the creation of a new group |
| Select_New_Group_Name | D | Pulse to select the new group name for text entry |
| Select_New_Group_Artist | D | Pulse to select the new group artist for text entry |
| Browse_By_Title/Artist/Group | D | Pulse to list discs/groups sorted by title or artist |
| 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 |
| Enter_Record_Mode | D | Pulse to start record mode. This will cause polling to begin |

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| Exit_Record_Mode | D | Pulse to end record mode. This will cause polling to end. |
| Record_From*_Input | D | Pulse to select which input to record from |
| Record_Threshold_Up/Down | D | Pulse to adjust the recording threshold |
| Auto_Trim_On/Off | D | Pulse to turn auto-trim on or off |
| Get_Disc_Space | D | Pulse to request the total and free disc space |
| Select_Disc_Number | D | Pulse to select the disc number for text entry |
| Select_Track_Number | D | Pulse to select the track number for text entry |
| Select_Time_To_Record | D | Pulse to select the time to record for text entry |
| Select_Disc_Name | D | Pulse to select the disc name for text entry |
| Select_Disc_Artist | D | Pulse to select the disc artist for text entry |
| Select_Track_Name | D | Pulse to select the track name for text entry |
| Select_Track_Artist | D | Pulse to select the track artist for text entry |
| Select_Genre_1-32 | D | Pulse to select any of the genres for text entry |
| Select_None | D | Pulse to clear any previously selected text entry selections |
| Record | D | Pulse to start recording |
| Stop | D | Pulse to stop recording |
| Finished_Recording_New_Disc | D | Pulse when finished recording a new disc |
| Enter_Editing_Mode | D | Pulse to enter editing mode |
| Exit_Editing_Mode | D | Pulse to exit editing mode |
| Current_Disc_Number\$ | S | Current disc number which must be routed from the corresponding output of the zone control module, for which the setup controls are to be associated. |
| Current_Disc_Name\$ | S | Current disc name which must be routed from the corresponding output of the zone control module, for which the setup controls are to be associated. |
| Current_Disc_Artist\$ | S | Current disc artist which must be routed from the corresponding output of the zone control module, for which the setup controls are to be associated. |
| Current_Track_Number\$ | S | Current track number which must be routed from the corresponding output of the zone control module, for which the setup controls are to be associated. |
| Current_Track_Name\$ | S | Current track name which must be routed from the corresponding output of the |

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| | | zone control module, for which the setup controls are to be associated. |
| Delete_Disc/Group | D | Pulse to delete the currently active album or group |
| Delete_Track | D | Pulse to delete the currently active track |
| Select_Edit_Disc/Group_Name | D | Pulse to select the current disc/group name for text entry |
| Select_Edit_Disc/Group_Artist | D | Pulse to select the current disc/group artist for text entry |
| Select_Edit_Track_Name | D | Pulse to select the current track name for text entry |
| Select_Edit_Track_Artist | D | Pulse to select the current track artist for text entry |
| Genre_*_Toggle | D | Pulse to toggle each genre on/off for the currently selected disc |
| Text_In\$ | S | Used to receive all new text information |
| Text_Enter | D | Pulse to write the data at Text_In\$ to the previously selected parameter |
| Genres\$ | S | Used to load the module with the titles of all genres in the system. Should be connected to the "Genres\$" output of the processor module |
| From_Device\$ | S | Serial signal to be connected from a dedicated RS232 port |

FEEDBACK:

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| CD/Group_Select_*_Fb | D | Indicates which CD or group has been selected |
| CD_Group_Title\$_* | S | Indicates the titles of discs or groups for the current page |
| CD/Group_Artist\$_* | S | Indicates the artists of discs or groups for the current page |
| Track_Select_*_Fb | D | Indicates which track has been selected from the current disc |
| Track_Title\$_* | S | Indicates the titles of tracks for the current disc track page |
| Track_Artist\$_* | S | Indicates the artists of tracks for the current disc track page |
| Group_Track_Select_*_Fb | D | Indicates which track has been selected from the current group |
| Group_Track_Title\$_* | S | Indicates the titles of tracks for the current group track page |
| Group_Track_Artist\$_* | S | Indicates the artists of tracks for the current group track page |

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| Group_Busy | D | High while an entry (or entries) are being added to or deleted from a group |
| Select_New_Group_Name_Fb | D | High when the new group name field is selected for text entry |
| Select_New_Group_Artist_Fb | D | High when the new group artist field is selected for text entry |
| Browse_By_*_Fb | D | Indicates which type of browsing has been selected |
| Search_Letter\$ | S | Indicates the current letter that will be used for searching |
| Current_Group_Title\$ | S | Indicates the title of the currently active group |
| Current_Group_Artist\$ | S | Indicates the artist of the currently active group |
| Record_Mode_On | D | Indicates that record mode is active and polling is in progress |
| Record_From_*_Input_Fb | D | Indicates which input has been selected for recording |
| Record_To_New_Disc_Fb | D | Indicates that recording is being performed to a new disc |
| Record_To_Existing_Disc_Fb | D | Indicates that recording is being performed to an existing disc |
| Record_Threshold\$ | S | Indicates the current record threshold in text (db) format |
| Auto_Trim_On/Off_Fb | D | Indicates if auto-trim is on or off |
| Get_Disc_Space_Busy | D | Indicates the module is retrieving the current total and free disc space |
| Total_Disc_Space\$ | S | Indicates the total disc space available on the Arrakis system |
| Free_Disc_Space\$ | S | Indicates the free disc space on the Arrakis system |
| Select_*_Fb | D | Indicates which recording parameter has been selected for text entry |
| Disc_Number\$ | S | Indicates The disc number which will be used for recording |
| Track_Number\$ | S | Indicates the track number which will be used for recording |
| Time_To_Record\$ | S | Indicates the length of time for the recording |
| Disc_Name\$ | S | Indicates the name of the disc to be used for recording |
| Disc_Artist\$ | S | Indicates the name of the disc artist to be used for recording |
| Track_Name\$ | S | Indicates the name of the track to be used for recording |
| Track_Artist\$ | S | Indicates the name of the track artist to be used for |

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| | | recording |
| Genre_*\$ | S | Indicates the names of all 32 genres |
| Record_Fb | D | Indicates that recording is in progress |
| Stop_Fb | D | Indicates that recording is not in progress |
| Record_Status\$ | S | Text indicating the state of the recording |
| Record_Time_Remaining | A | Indicates how much time is remaining in the current recording |
| Editing_Mode_On | D | Indicates that editing mode is on |
| Select_Edit_*_Fb | D | Indicates which field has been selected for editing |
| Genre_*_Fb | D | Indicates which genres are currently associated with the current disc |
| Text_Out\$ | S | Contains the current text stored for each parameter as it is selected |
| To_Zone_Control_Module\$ | S | Should be connected to the From_Setup_Module\$ input of any zone control modules. This will enable changes made in the setup module to be reflected in the individual zone control modules. |
| To_Device\$ | S | Serial signal to be routed to a dedicated RS232 port |

OPS USED FOR TESTING: 5.12.63x / Pro2 - v3.029
COMPILER USED FOR TESTING: SimplWindows Ver 2.03.18
SAMPLE PROGRAM: Arrakis Multi-Zone Single-Port Demo
REVISION HISTORY: None