



Control4® – Axium AX-800-DAV/AX-400-DA Drivers

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Introduction

These drivers are for Axium's AX-800-DAV & AX-400-DA multiroom products. These are an 8 source, 8 zone (6 powered) and 6 source 4 zone multiroom amplifiers respectively. The AX-800-DAV also include an in-built media player that can connect to a variety of media sources.

The driver controls the unit over IP.

Limitations

- This driver does not allow you to choose music from Control4 on the Axium interfaces.
- It does not provide metadata from Axium to the Control4 devices.
- You cannot select music from the Axium media player on the Control4 interfaces. Transport control for music that is currently playing is provided.
- You can continue to use the Axium keypads for source selection but you must add programming in Control4 in order for Control4 to follow the source selection.
- If you combine AX-800 and AX-400 products then you will need to add separate drivers for each into the project due to their differing input and output specification.

Test before you install

Please test deploy this driver with Control4 and the Axium setup in your office or shop before you attempt to install on site. We strongly recommend that you follow the examples presented here in a demo environment to gain confidence with the system. We will have little or no sympathy for anyone attempting to install this on a client's site without having tested it offsite first.

We will provide support during US East Coast and UK office hours: 9am to 5pm Monday to Friday on the numbers shown at the head of this document. We will attempt to answer any queries via email within 24 working hours. Please create a support ticket via our website.

The Experience

Retrofitting in an existing Axium installation

If your client already has a Axium system it is important that their original experience is maintained and enhanced with the introduction of the Control4 system. This will effectively sit on top of the Axium system and provide them with the additional functionality of the remote controls and user interface.

With the Axium system the client will be used to pressing a button on a keypad to select a source and this can be maintained in most instances. However you need to consider how to handle the digital music from the Control4 system if you are going to provide more than one music stream to the Axium system. In an 'old fashioned' music server system you would connect one output of the music server to one input on the Axium system and another to another. The keypad would then directly select the output. When

using the two outputs from a Control4 controller, the Control4 system decides which output to use for the audio and then switches the multi-channel to the appropriate output. This works seamlessly if you only use Control4 interfaces.

However there is no way to specify which physical output you want Control4 to use. So if you have two music outputs connected to the Axium system on inputs 1 and 2 you cannot guarantee that Control4 will use output 1 (input 1 on the Axium system) to start playing the music. So if you have started playing music in one room and then wish to listen to it in another you might have to try both inputs on the Keypad to find the one it is playing on.

Another alternative is to use these source keys on the keypad to select a favourite audio selection channel rather than selecting an input.

Deploying a Axium Controller in a new installation

Using a Axium controller/amplifier in a new installation is very similar to the retrofit situation above. There is no necessity to install any Axium keypads around the property; so in essence the system will operate just like using a Control4 or other multichannel amp/switcher. However using the Axium gives you the option of installing keypads in minor rooms such as Bathrooms where there simplicity and lower cost make them an attractive control proposition.

Add the driver

This driver is IP based. You will need to have set up your main Axium amplifier with a fixed IP address on the same network subnet as your Control4 system.

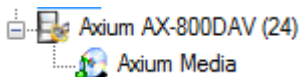
The driver zip file contains a number of drivers for the Axium system for installations of AX-800-DAV for 8, 16 or 24 Zones and for the AX-400-DA for 4, 8 and 12 zones. Copy all of the .c4i driver files to your My Documents – Control4 – Drivers folder.

First you need to add the correct Axium driver to your project.

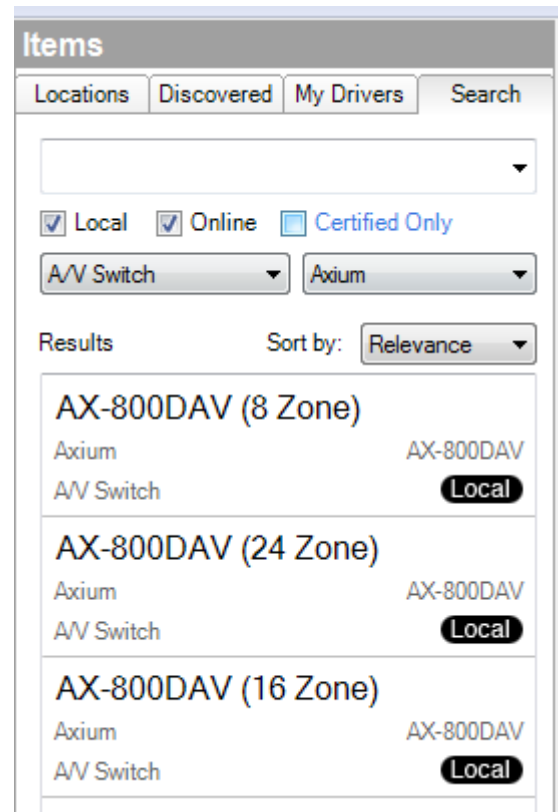
Open Composer

You can then find the driver under **A/V Switch** manufacturer **Axium**.

Add the appropriate driver to your project. There are drivers for the standard 8 zone unit and for installations where you have used multiple units for a 16 or 24 zone system



The driver will add both the AV switch and if it is an AX-800-DAV it will also add the Media Player element to your project.

A screenshot of the Control4 'Items' search interface. The interface has tabs for 'Locations', 'Discovered', 'My Drivers', and 'Search'. Below the tabs is a search bar and filter options: 'Local' (checked), 'Online' (checked), and 'Certified Only' (unchecked). There are two dropdown menus: 'A/V Switch' and 'Axium'. The 'Results' section shows three items, each with a 'Sort by: Relevance' dropdown. The items are: 1. 'AX-800DAV (8 Zone)' with 'Axium' and 'AV Switch' components, and a 'Local' tag. 2. 'AX-800DAV (24 Zone)' with 'Axium' and 'AV Switch' components, and a 'Local' tag. 3. 'AX-800DAV (16 Zone)' with 'Axium' and 'AV Switch' components, and a 'Local' tag.

Make Connections

You now need to make the various connections between the elements you have added to the project and your source equipment.

For the inputs you will see inputs that correspond to those on the unit itself. Not all inputs have video and some are digital audio only.

You will also see an input for the Media Player which is described overleaf.

On the output side you will see outputs that correspond to those physically available. So on this 24 output AX-800-DAV driver video outputs are available on the first four outputs of each unit which correspond to outputs 1-4, 9-12 and 17-20.

You will also see that only the first 6 outputs of each unit have speaker connections as only the first 6 outputs of the unit are amplified.

The AX-400-DA has six inputs and four fully amplified outputs.

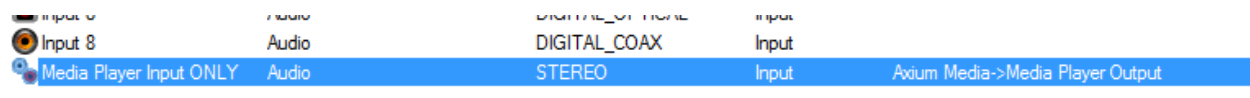
Axium AX-800DAV (24)			
Name	Type	Connection	Input/Output
Audio/Video Inputs			
Input 1	Video	COMPOSITE	Input
Input 2	Video	COMPOSITE	Input
Input 3	Video	COMPOSITE	Input
Input 4	Video	COMPOSITE	Input
Input 1	Audio	STEREO	Input
Input 1	Audio	DIGITAL_COAX	Input
Input 2	Audio	STEREO	Input
Input 2	Audio	DIGITAL_COAX	Input
Input 3	Audio	STEREO	Input
Input 3	Audio	DIGITAL_COAX	Input
Input 4	Audio	STEREO	Input
Input 4	Audio	DIGITAL_COAX	Input
Input 5	Audio	STEREO	Input
Input 5	Audio	DIGITAL_COAX	Input
Input 6	Audio	STEREO	Input
Input 6	Audio	DIGITAL_COAX	Input
Input 7	Audio	DIGITAL_OPTICAL	Input
Input 7	Audio	DIGITAL_COAX	Input
Input 8	Audio	DIGITAL_OPTICAL	Input
Input 8	Audio	DIGITAL_COAX	Input
Media Player Input ONLY	Audio	STEREO	Input
Audio/Video Outputs			
Axium AX-800DAV (24)			
Name	Type	Connection	Input/Output
Audio/Video Outputs			
Output 1	Video	COMPOSITE	Output
Output 2	Video	COMPOSITE	Output
Output 3	Video	COMPOSITE	Output
Output 4	Video	COMPOSITE	Output
Output 9	Video	COMPOSITE	Output
Output 10	Video	COMPOSITE	Output
Output 11	Video	COMPOSITE	Output
Output 12	Video	COMPOSITE	Output
Output 17	Video	COMPOSITE	Output
Output 18	Video	COMPOSITE	Output
Output 19	Video	COMPOSITE	Output
Output 20	Video	COMPOSITE	Output
Output 1	Audio	STEREO	Output
Output 1	Audio	SPEAKER	Output
Output 2	Audio	STEREO	Output
Output 2	Audio	SPEAKER	Output
Output 3	Audio	STEREO	Output
Output 3	Audio	SPEAKER	Output
Output 4	Audio	STEREO	Output
Output 4	Audio	SPEAKER	Output
Output 5	Audio	STEREO	Output
Output 5	Audio	SPEAKER	Output
Output 6	Audio	STEREO	Output
Output 6	Audio	SPEAKER	Output
Output 7	Audio	STEREO	Output
Output 8	Audio	STEREO	Output
Output 9	Audio	STEREO	Output
Output 9	Audio	SPEAKER	Output
Output 10	Audio	STEREO	Output
Output 10	Audio	SPEAKER	Output
Output 11	Audio	STEREO	Output
Output 11	Audio	SPEAKER	Output
Output 12	Audio	STEREO	Output

Media Player Connections

The Axium AX-800-DAV has a built in digital media player. This enables music to be selected from a variety of sources on your network. These need to be set up on the Axium using their installation software.

The driver provides transport control over the media player but it does not support music selection.

If you want to include the media player in the Control4 project then you need to make a connection from the Media Player Input on the driver to the Media Player part of the Axium.



Device	Name	Location	Connections
Axium Media	Media Player Output	Axium	Axium AX-800DAV (24)->Media Player Input ONLY

DO NOT connect the Media Player Input to any other device – this is not a physical connection on the unit and can only be used to connect to the Axium Media Player output.

If you do not intend to use the Axium Media Player then you should not make this connection (this is the default). The Axium Media Player will then not appear on any Control4 UI. Note that as the driver combines both elements you cannot delete the Media Player part from Composer.

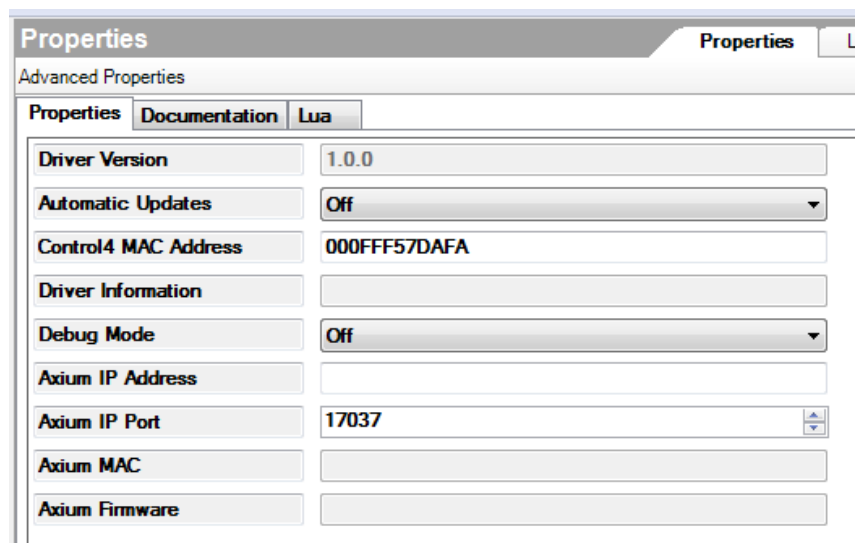
Set up the Properties

On the Properties page of the driver you will need to enter a few pieces of information before testing the driver.

First ensure that the Axium unit is powered on and connected to your Network.

You should not need to alter the IP Port unless you have changed this on the Axium unit.

Type the IP address of the Axium into the box provided and press set. If all is correct then the MAC and Firmware fields will populate.



Properties	Documentation	Lua
Driver Version	1.0.0	
Automatic Updates	Off	
Control4 MAC Address	000FFF57DAFA	
Driver Information		
Debug Mode	Off	
Axium IP Address		
Axium IP Port	17037	
Axium MAC		
Axium Firmware		

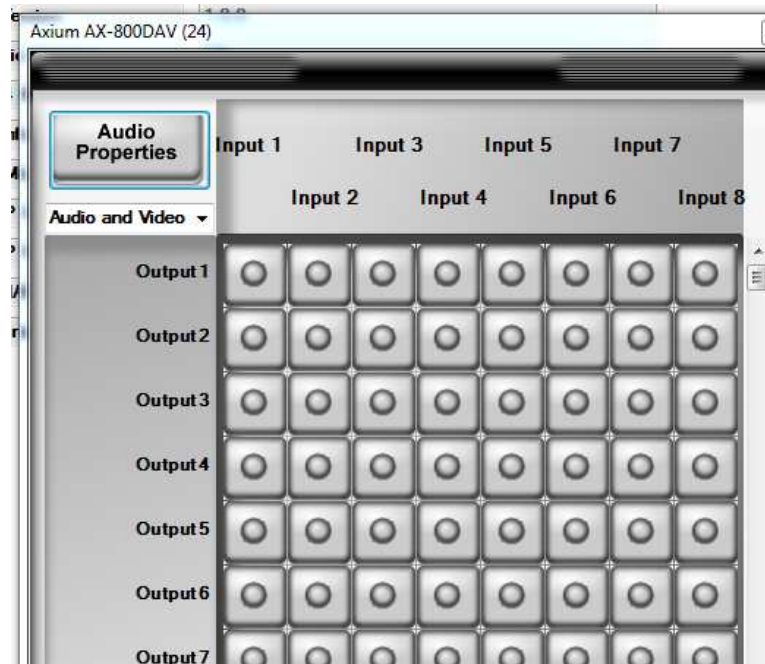
If they do not then check the IP address as the driver will not work if these fields do not populate

Test the Operation

Double click on the Axium multiroom controller in Composer and the matrix control window will appear as shown. You can now select the inputs to the outputs on the multiroom controller. You should see the indicator panel on the controller as you switch a zone on. If you have sources and speakers connected to the multiroom controller you should be able to hear any playing audio. Note from this screen it is not possible to turn a zone off, nor can you select the media player input

You can also test the volume control for each of the outputs by clicking on the Audio Properties button.

A new window appears as shown. This allows you to select the Output to control and then adjust the volume either by using the + and - buttons or setting a value in the Volume field. There are also controls for Treble, Bass, Balance and Loudness.



When you are happy that the driver is working correctly you can move onto the other connections within Composer.

Audio End Point Connections

Control4 has a concept of Audio End Points and Volume Control devices for each room. It is important that you set these up before moving onto the next stage of the installation.

Control & Audio Video Connections					
Axium AX-800DAV (24)					
Name	Type	Connection	Input/Output	Connected To	
Output 21	Audio	SPEAKER	Output		
Output 22	Audio	STEREO	Output		
Output 22	Audio	SPEAKER	Output		
Output 23	Audio	STEREO	Output		
Output 24	Audio	STEREO	Output		
Room Control					
Output 1 Audio/Video End-Point	RoomControl	AUDIO_SELECTION	Output	Den->Audio End-Point 1	
Output 1 Audio/Video End-Point	RoomControl	AUDIO_VOLUME	Output	Den->Audio Volume 1	
Output 1 Audio/Video End-Point	RoomControl	VIDEO_SELECTION	Output		
Output 2 Audio/Video End-Point	RoomControl	AUDIO_SELECTION	Output		
Output 2 Audio/Video End-Point	RoomControl	AUDIO_VOLUME	Output		
Output 2 Audio/Video End-Point	RoomControl	VIDEO_SELECTION	Output		
Output 3 Audio/Video End-Point	RoomControl	AUDIO_SELECTION	Output		
Output 3 Audio/Video End-Point	RoomControl	AUDIO_VOLUME	Output		
Output 3 Audio/Video End-Point	RoomControl	VIDEO_SELECTION	Output		
Output 4 Audio/Video End-Point	RoomControl	AUDIO_SELECTION	Output		
AUDIO_VOLUME Input Devices					
Device	Name	Location	Connections		
Den	Video Volume 1	Main			
Den	Audio Volume 1	Main	Axium AX-800DAV (24)->Output 1 Audio/Video End-Point		
Den	Video Volume 2	Main			
Den	Audio Volume 2	Main			

Further down the list you will find the connections for Room Control. Here you define which Zone is to be used for the Audio End Point and Volume Control for each room.

Completing a system without Keypads

If you are not using Axium keypads then the configuration for the Axium matrix is now complete. You should complete the project by making all the other control connections for the source devices and TVs as usual.

Using Axiom Keypads

If you are using the Axiom keypads you need to add a little programming to Control4 to ensure that it remains in sync with the source selected in the room.

If you have a CD connected to Source 4 on the Axiom, when someone selects Source 4 from the keypad in the bathroom (Zone 3) we need to update Control4 to let it know the CD is now selected in that room. Otherwise other Control4 interfaces such as the remote control will not control the room or the selected device, and the buttons on the keypad will not send their relevant commands to the correct device.

Switch to programming mode and select the Axiom in the left hand pane.

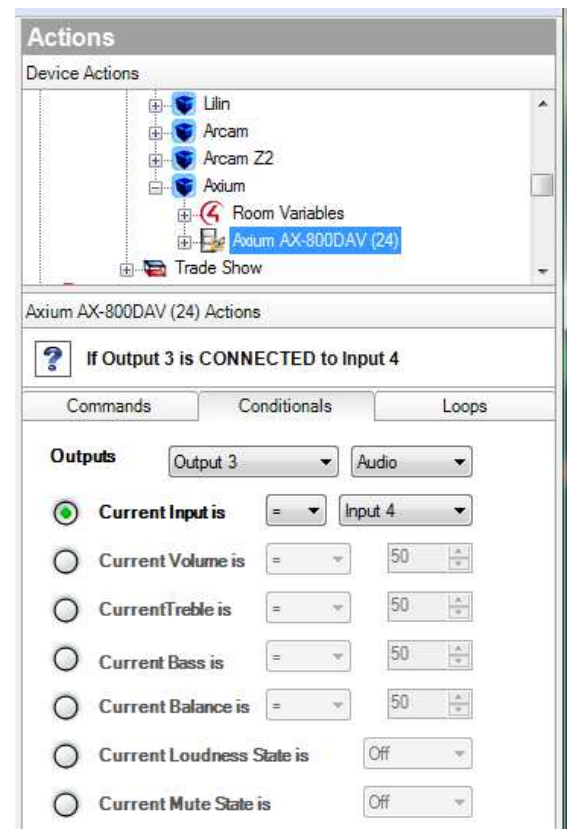
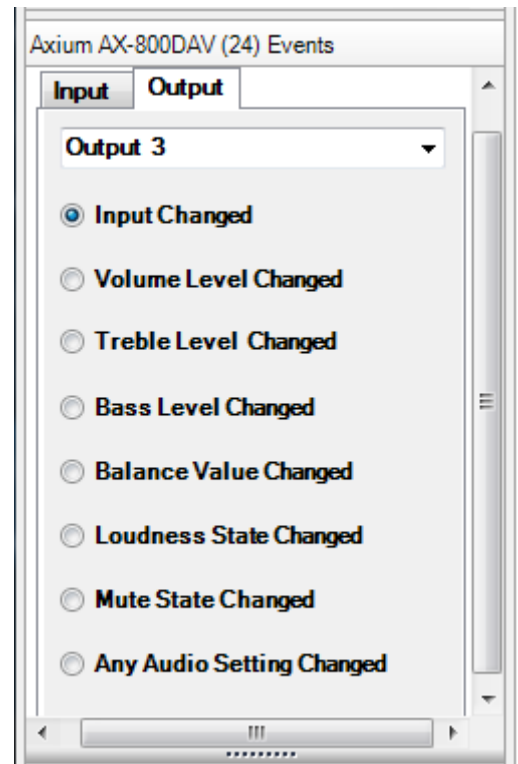
You will then see the Events for the device. Click on the Output tab and in the drop down box select the output for the room. In this case this is Output 3. Then click on the Input Changed radio button. This will enable us to create the programming to be executed whenever the source is selected

Now select the Axiom on the right hand side of the screen. Then click on the Conditionals tab. To check when the Source 4 has been selected in Zone 3 make the selections as shown on the right.

Double click on the blue question mark and this will be added to the central script pane.

We now want to add an action based on this condition. This action is to select the CD in the Bathroom.

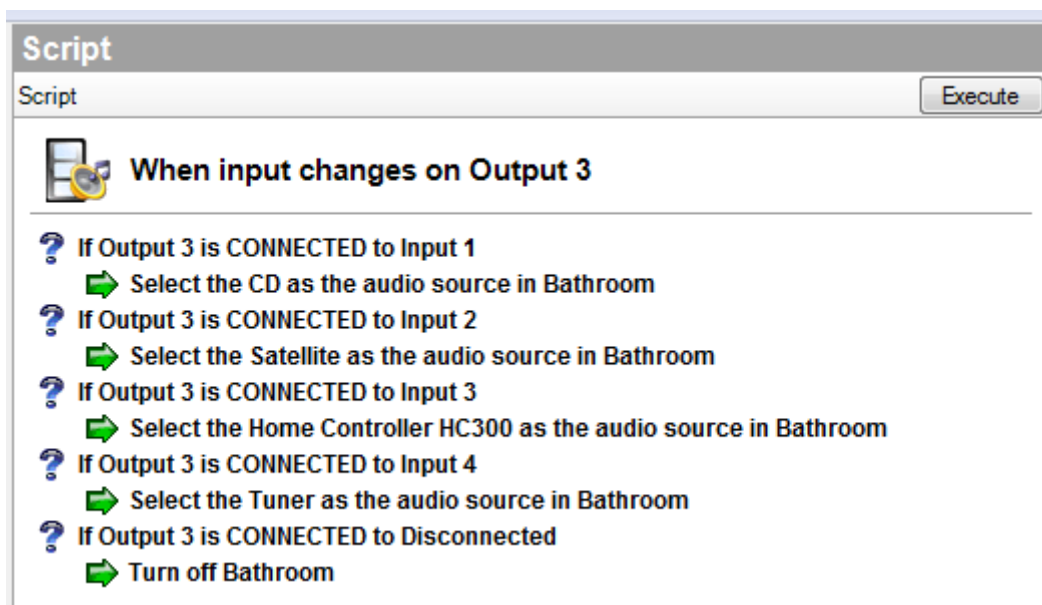
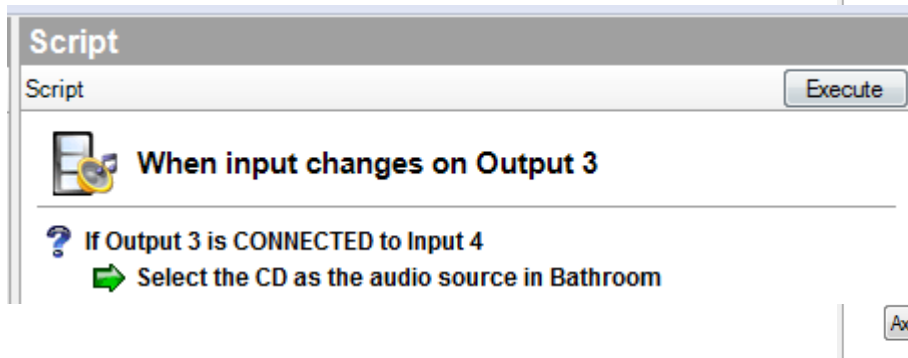
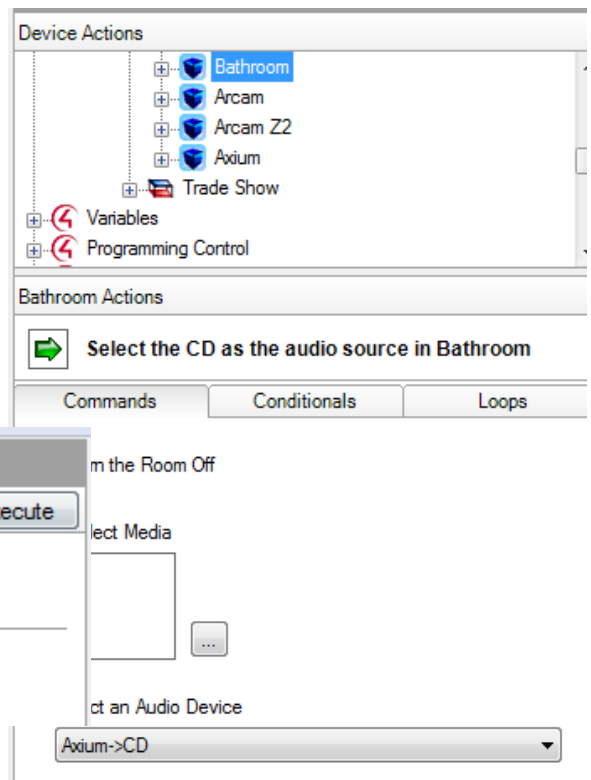
Highlight the Bathroom room on the right hand side.



From here select the CD from the 'Select an Audio Device' drop down box.

Now drag this command so that it is indented under the conditional we previously added.

Your script should now look like the below. You now need to repeat this for the other sources.



When complete the programming would look like the above. Note the programming for Disconnected which is used to inform Control4 that the room has been switched off via the keypad.

Additional functions on the keypads

No other Applets from the keypads are supported.

Troubleshooting

Nothing Works!

If the driver does not seem to work at all then try the following:

- Check all the connections.
- Check that the IP address of the Axium unit is correct and correctly entered into the driver properties. Check if you can connect to the Axium unit using their configuration software. If not then there is either a problem with your data network or the unit itself.
- Check if it works using the Matrix control interface shown in the Test the Operation section. If it works here then the driver is working correctly.

If this does not resolve the problem then please create a support ticket on the helpdesk section of our website. These tickets are monitored both in the US and Europe and ensure you get the quickest possible response.



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