Push Controls

Module: Pioneer Receiver

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Version 1.1

www.pushcontrols.com

Contents

Version History

Version No.	Date	Description
1.0		Initial release
1.1	12/10/2016	Add Gen IV theme guidelines

Step 1: Getting Started – Setting Up Your Hardware

For a successful PUSH integration into a Pioneer Receiver, the following hardware is required:

- Push Controller (PC4/PC2/PC1)
- Serial Cable with a Male DB9 connector (if connected via RS232)

Wiring Specifics

Serial RS232 connection

Cut or create a cable and use a multimeter to work out which colour wires correspond to pins 2, 3 & 5 on the male plug (with the five pins at the top the pins are 1 through 5 from left to right; if you look closely at most 9-pin D-Sub plugs the pins are numbered) *Refer to Figure 1*. The wiring of the serial cable to the Phoenix connector can be seen in **Figure 2**.

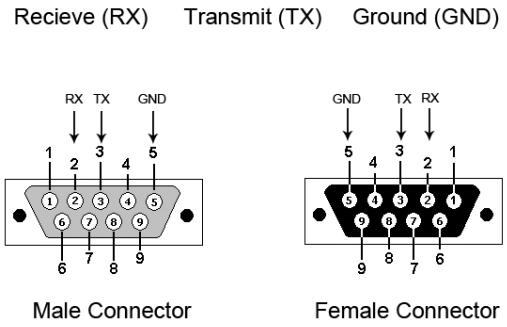
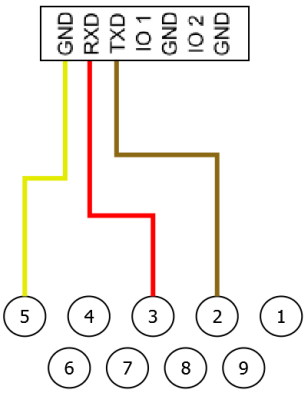


Figure 1 - Pin numbering for Male and Female DB9 connectors



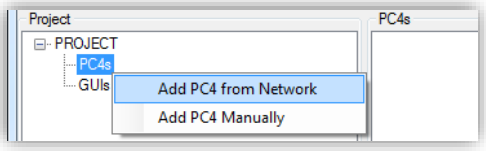
NOTE: The colours depicted in this diagram do not refer to
any specific type of Serial cable and have purely been used for clarity.

Figure 2 – Diagram showing the connection of a Serial cable to the Phoenix connector. The wiring is as follows, GROUND (GND) is always pin 5, RECEIVE (RXD) is pin 3 and TRANSMIT (TXD) is pin 2.

Step 2: Importing the Pioneer Module

Import the Pioneer module by completing the following actions:

- Right click on 'PROJECT' at the top of the tree and select 'Import Module'. *Refer to Figure 3*



  - Locate and select '`Pioneer_X.pemod`' (where X is the current version number)
- Select **Open**

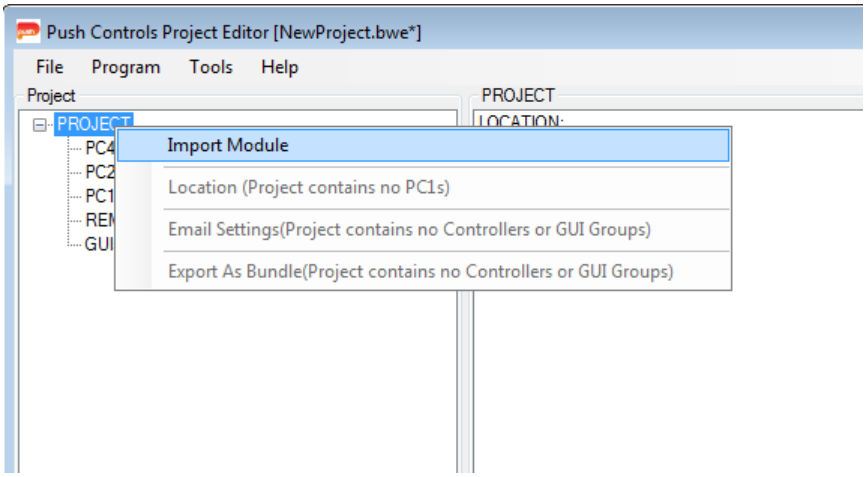


Figure 3 – Right click on PROJECT, inside the project tree, to import a module.

The selected module will now appear in the module browser window (*Refer to Figure 4*), where you can see everything that is included in the module.

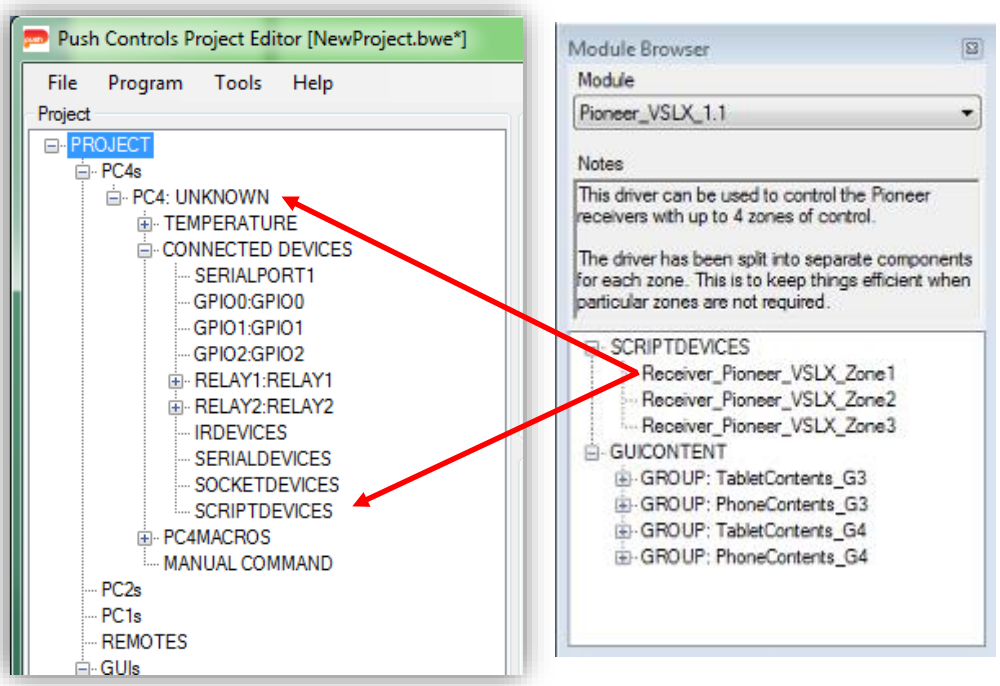


Figure 4 – Drag and drop the script device to a controller.

There are 3 (three) script devices available:

- Receiver Pioneer_VSLX_Zone1: provide two-way control to the receiver's Zone1
- Receiver Pioneer_VSLX_Zone2: provide two-way control to the receiver's Zone2
- Receiver Pioneer_VSLX_Zone3: provide two-way control to the receiver's Zone3

Depending on the zone that you want to control, you will need to drag and drop the relevant script device to your controller.

Step 3: Configure Pioneer Script Device

The Pioneer receiver support communication via RS232 or TCP (only on selected model). Depending on the communication method that you chose, please configure the module according to the steps below.

Configuring the RS232 Port (for PC4)

If the Pioneer receiver is controlled via RS232, please follow the steps below:

- Select the PC4 controller. *Refer to Figure 5*
- Expand the 'Connected Devices'
- Select a Serial Port (for example 'SERIALPORT1'), right click, and select 'Properties'
- Select the GUI Two-Way (RS232) option
- Ensure the Baud rate is set to '9600'
- Select 'Apply' then Select 'OK'

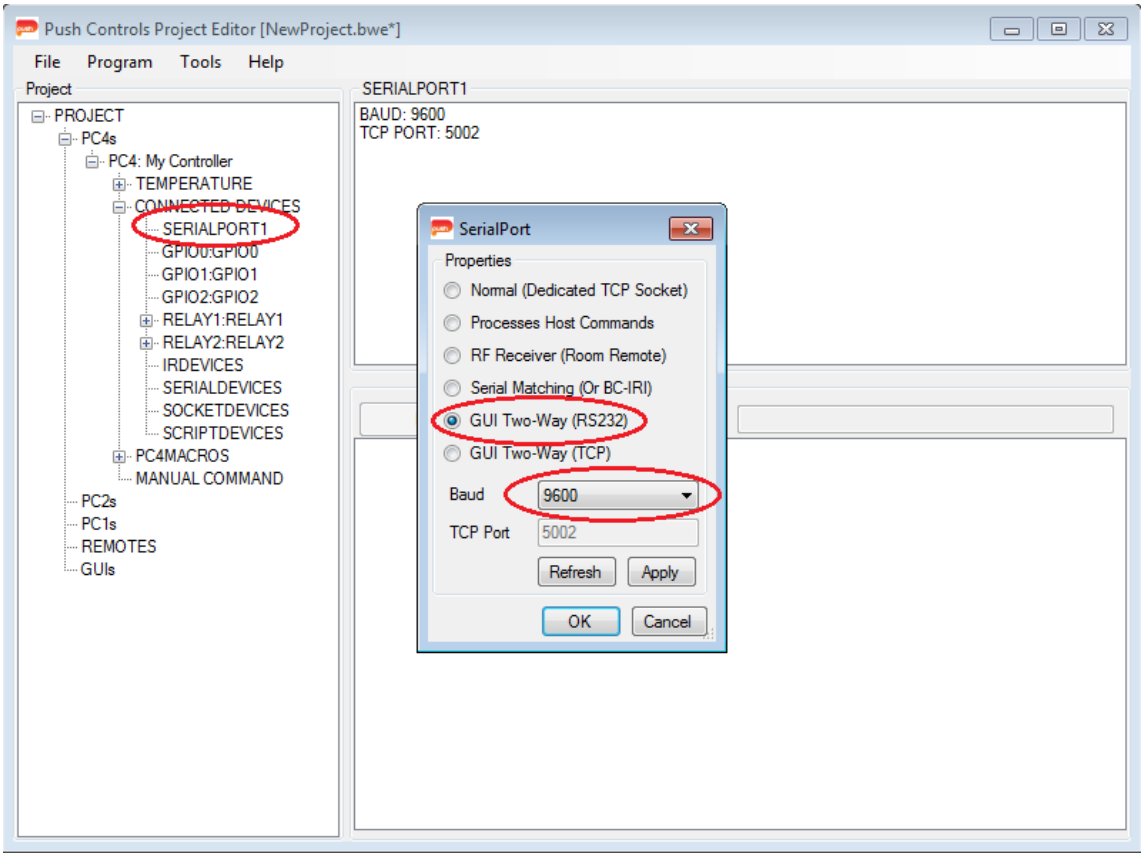


Figure 5 – Configuring the RS232 port on a PC4

Configuring the RS232 Port (for PC1 or PC2)

If the Pioneer receiver is controlled via RS232, please follow the steps below:

- Select the PC1 or PC2 controller. *Refer to Figure 6*
- Expand the 'Connected Devices'
- Select a Serial Port (for example 'SERIALPORT1'), right click, and select 'Properties'
- Select the Normal (Supports Two-Way) option
- Enter the following settings:
    - Baud: 9600

- Data Bits: 8
- Parity: None
- Stop Bits: 1

- Select ‘Apply’ then Select ‘OK’

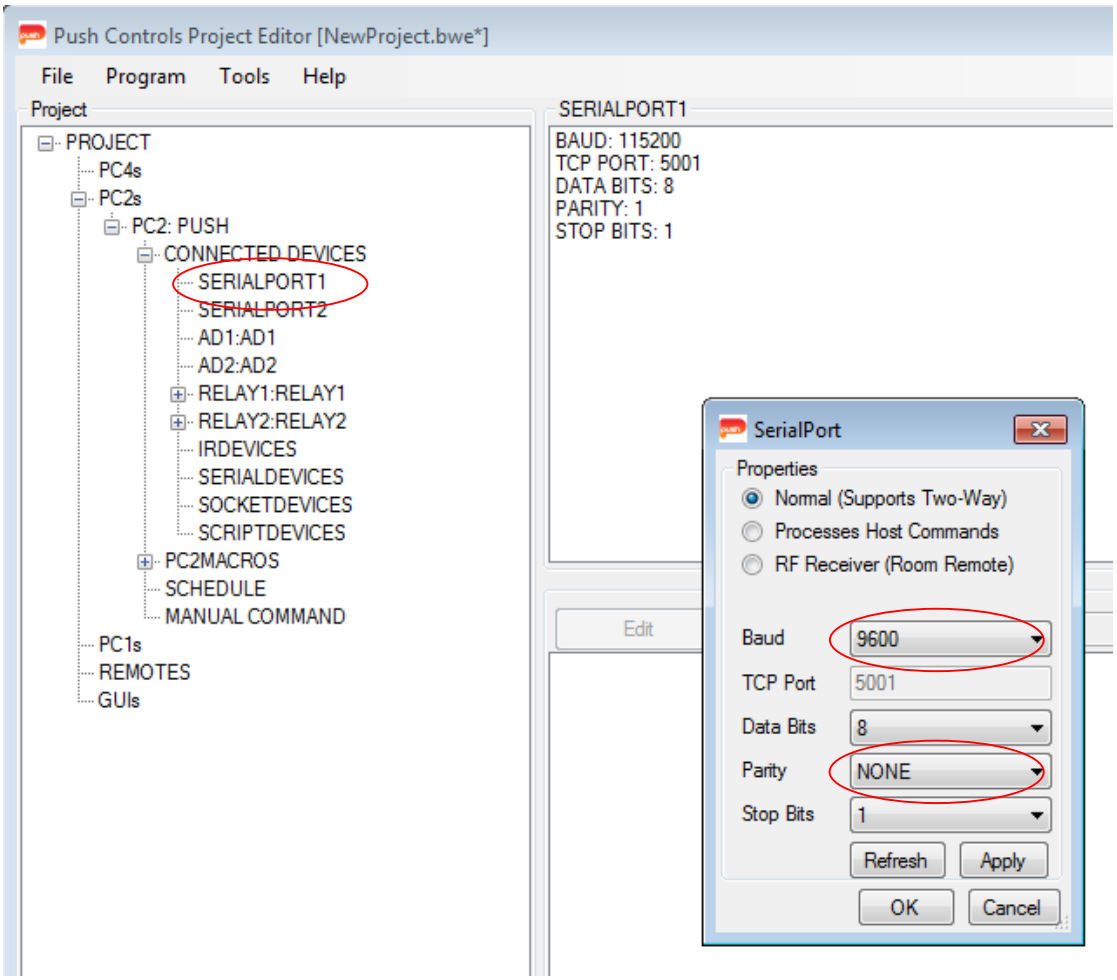


Figure 6 – Configuring the RS232 port on a PC2 or a PC1

Configuring the TCP Port

If the Pioneer receiver is controlled via TCP, please follow the steps below:

- Select the controller *Refer to Figure 7*
- Expand the ‘Connected Devices’
- Expand the ‘Script Devices’
- Right click on the ‘Receiver_Pioneer_VSLX_ZoneX’ script device
- Select:
  - For PC2/PC1: ‘TCP’ as the Protocol *Refer to Figure 8*
  - For PC4: ‘GUI TCP’ as the Protocol
- Specify ’23’ as the Port
- Specify the IP Address of the Pioneer receiver as the IP

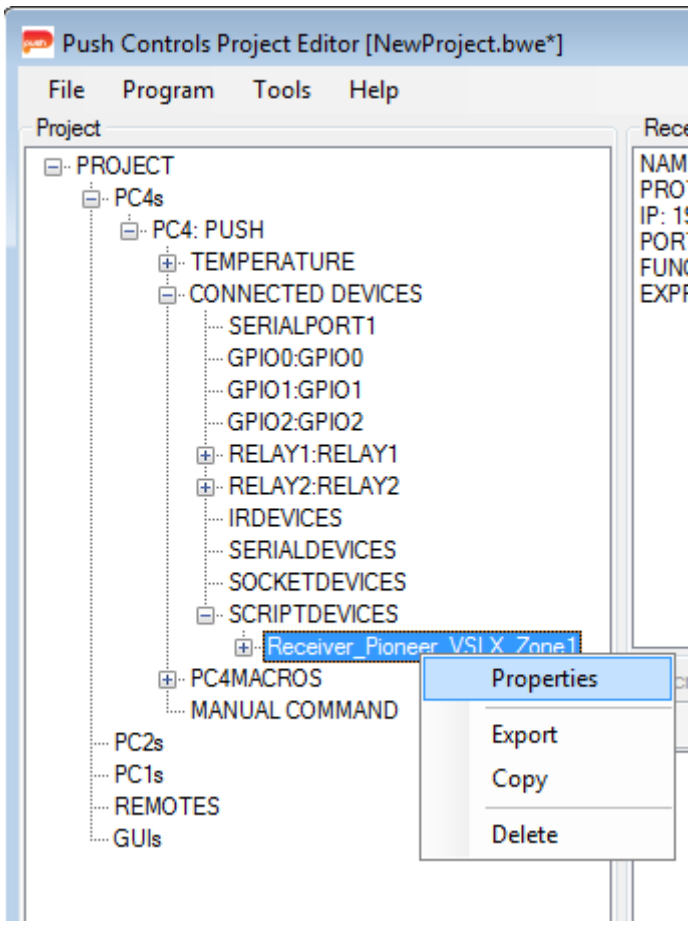


Figure 7 – Finding the Controller's Properties

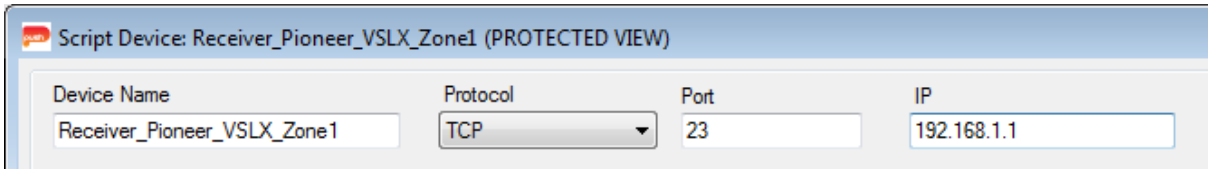


Figure 8 – Configuring the Controller's TCP Port

Step 4: Adding Device Actions

This section describes the process of adding device actions to Macros and Buttons

Adding Actions to Macros

- Expand the SCRIPT DEVICES tree, and the Pioneer Script Device.
- Expand the FUNCTIONS node.
- Drag-and-drop the desired action into a macro.
- Some actions require a parameter. E.g. VolumeSet requires a volume level.
    - Drag the required action (requiring a parameter) into a macro.
    - A Popup window will appear requesting the Function's Parameter. Fill in the required information and select "OK".

PC4 Limitation

If the Pioneer receiver is controlled via TCP (GUI TCP), then the macro functionality cannot be used.

Delay Between Commands

If you are executing multiple commands consecutively, please have at least 100 milliseconds (0.1 second) delay between the 1st command and the second command.

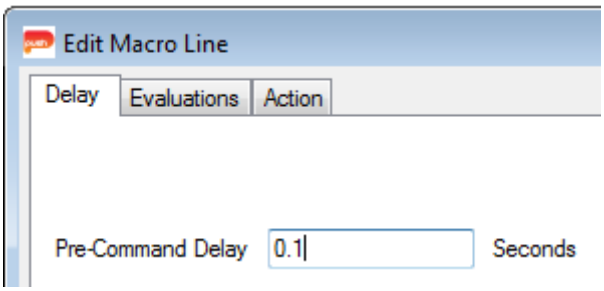


Figure 9 – Adding a delay in between macro commands

Adding Actions to Buttons

- Drag-and-drop the desired FUNCTION directly onto the button. *Refer to Figure 10*
    - For actions that have ramping capabilities, ensure that the "repeat action while held" option is selected within the button properties. When selected, the left status square will be highlighted in green.
- For Actions that require parameters; fill in the text box when the popup window appears.

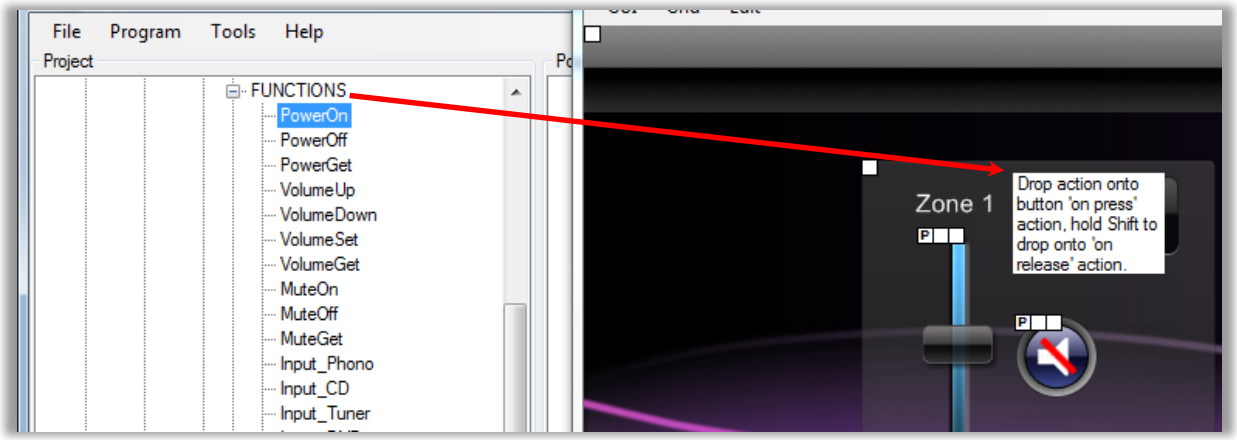


Figure 10 - GUI Page Editor: drag and drop functions onto buttons

Step 5: Using GUI Components for Volume Control

GUI Themes

Themes Available

The Pioneer module contains Gen IV and Gen III themes, each theme is grouped into a GUI Group as follows:

1. TabletContent_G4: components with Gen IV theme for iPad/tablets
2. PhoneContent_G4: components with Gen IV theme for iPhone 5/6/6+ and phones with an aspect ratio close to 16:9
3. TabletContent_G3: components with Gen III theme for iPad/tablets
4. PhoneContent_G3: components with Gen III theme for iPhone 5/6/6+ and phones with an aspect ratio close to 16:9

GUI Components Available for iPad/Tablet

Each GUI Group for iPad/tablet above contains the following GUI components:

- ZoneX_VolumeUpDown_L: volume control for a specific zone; positioned for landscape GUI
- ZoneX_VolumeUpDown_P: volume control for a specific zone; positioned for portrait GUI
- ZoneX_VolumeSlider_L: slider volume control for a specific zone; positioned for landscape GUI
- ZoneX_VolumeSlider_P: slider volume control for a specific zone; positioned for portrait GUI

Each GUI component includes feedback state whenever applicable. For example, the mute button will show the current state (muted or not).

GUI Components Available for iPhone/Phone

- Phone_ZoneX_VolumeUpDown: volume control for a specific zone
- Phone_ZoneX_VolumeSlider: slider volume control for a specific zone

Each GUI component includes feedback state whenever applicable. For example, the mute button will show the current state (muted or not).

Adding GUI Components

To add a GUI component to a GUI page, you will need to drag and drop the component to the GUI page. For example, to add a volume slider with Gen IV theme to control Zone 1, please follow the following steps:

1. Open the module browser (Tools->Module Browser) and select the Pioneer module
2. Expand GUICONTENT->GROUP: Tablet_Content_G4
3. Open the page you wish to import the volume slider into by right clicking and selecting ‘Edit’ or double clicking on the page name
4. With both the open GUI page and Module Browser in view drag and drop one of the ‘Zone1_VolumeSlider_L’ or ‘Zone1_VolumeSlider_P’ into the open GUI page and you will see a grey box with a black cross through the middle, hold down shift to reposition this placeholder to the location you wish to add the thermostat and release your mouse button.
    a. NOTE: the volume slider will be automatically positioned according to the target device (eg. iPad / iPhone), to place the component on a custom position you can hold the SHIFT key while dragging the volume control component to the GUI page.

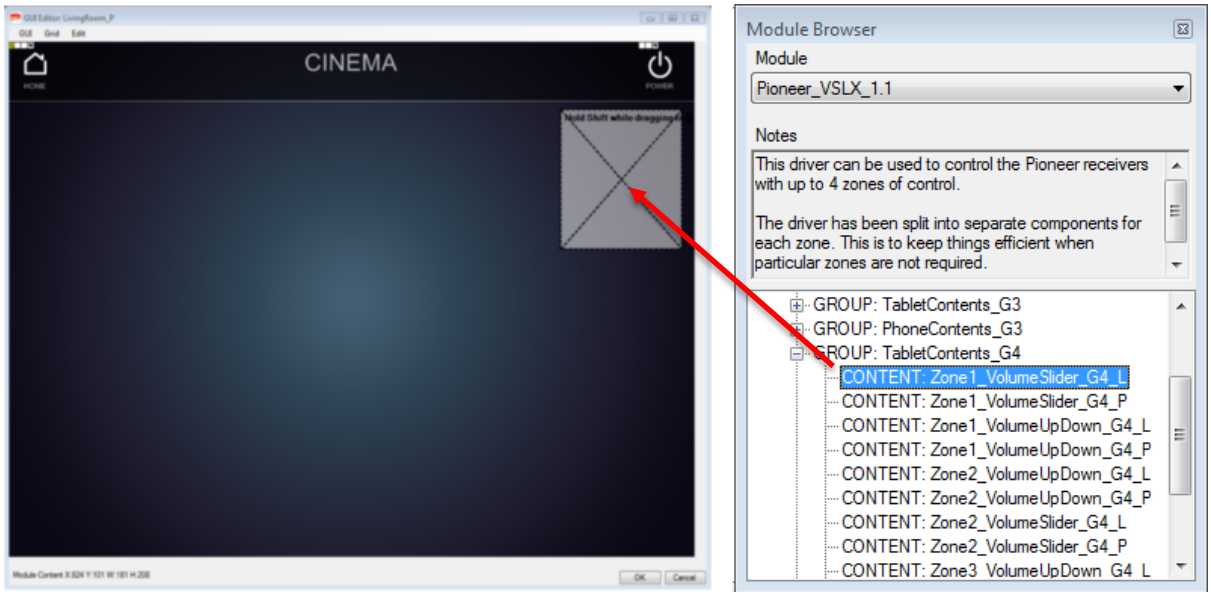


Figure 11 – Adding a GUI component

5. The added volume slider will now be included in the page.

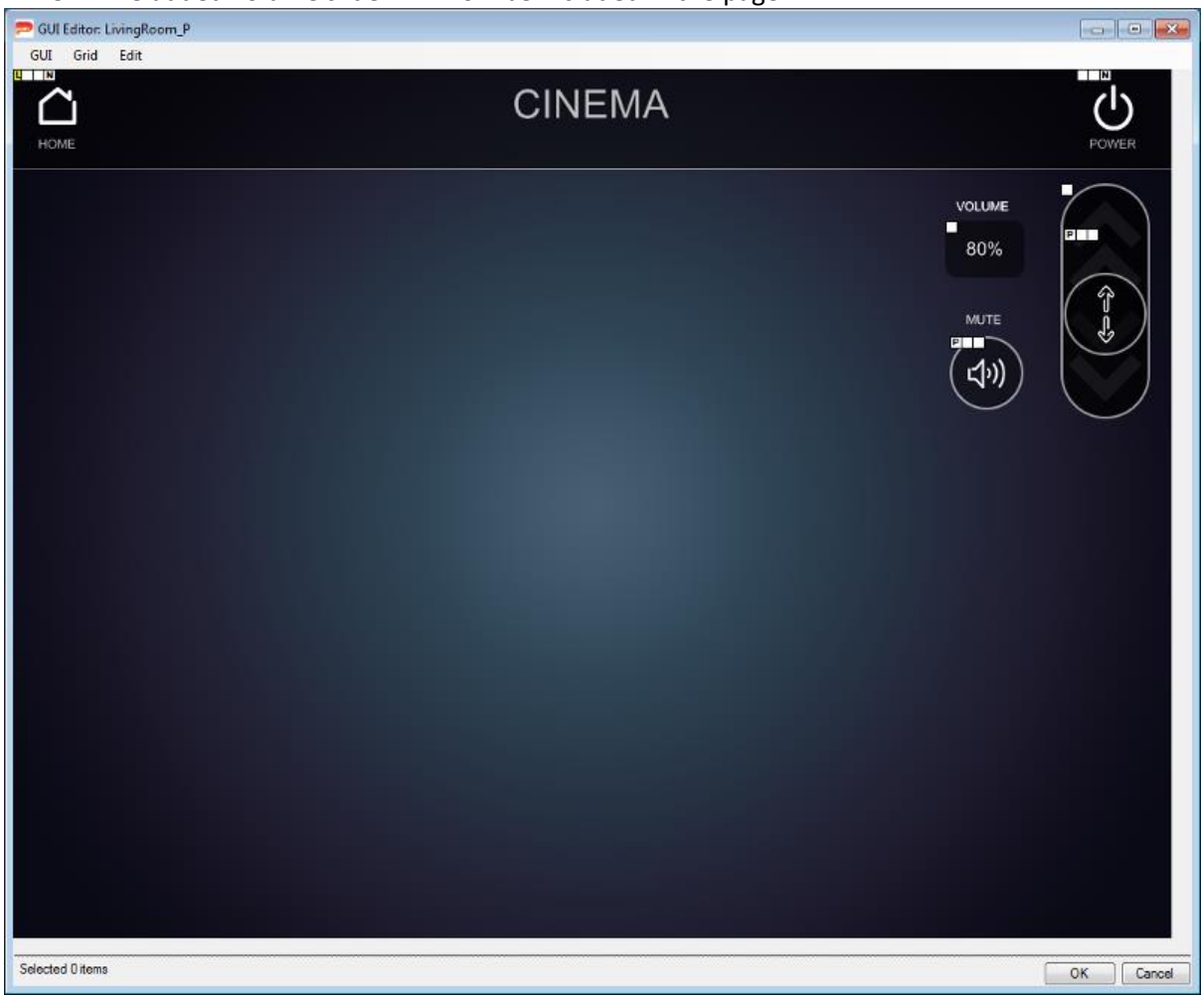


Figure 12 – The volume control has been added to the GUI page

Step 8: Upload Settings to PC4

The PC4 will need to have changes uploaded when any changes are made to the PC4 settings, i.e., when new Variables/Macros/Script Devices/IR Devices/Serial Devices etc. are added. The following describes the process of uploading a PC4 with new changes:

- Right Click the PC4 in the Project Tree and select 'Upload this PC4'
- The upload PC4 window will open, the upload process is finished if the window text indicates 'Project Uploaded Successfully' *Refer to Figure 13*

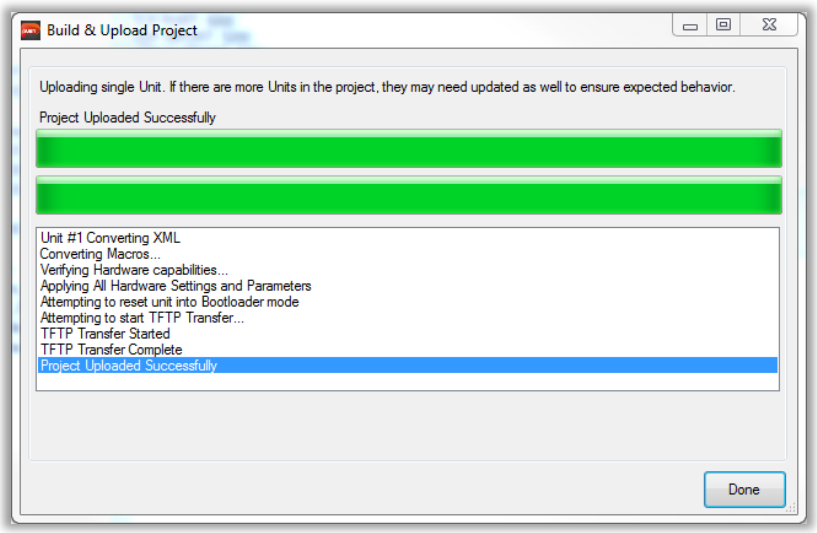


Figure 13 - Successful upload of a project to a PC4

Step 10: Dynamic Input Label

A Dynamic Input Label will display the name of whatever input the Receiver is currently on.

- Right click on the background and “Add > New Label” *Refer to Figure 14*
- The text you add now will only be a placeholder until it receives an input from the Receiver
- Set the “Feedback Text ID” to Receiver_Pioneer_*Zone* Input. *Refer to Figure 15*

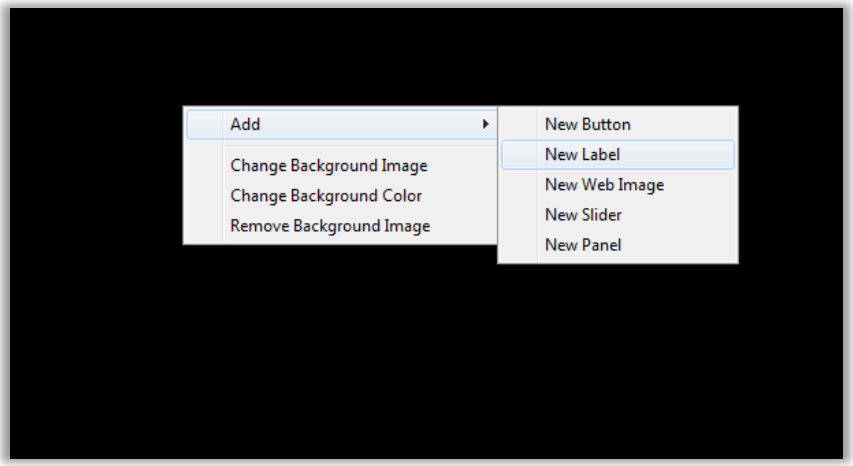


Figure 14 - GUI Page Editor: Adding a new label

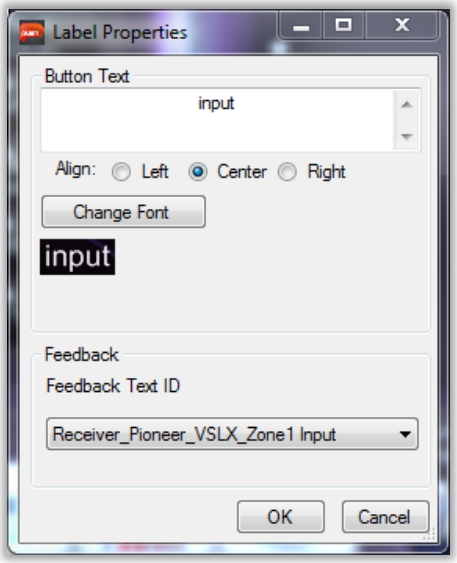


Figure 15 - Label Properties: configuring a dynamic label for the Pioneer Receiver