Software Programming Guide

A 6500A Programmable Touchscreen Wallplate Control System

NEW MODEL PACKED WITH THE FOLLOWING FEATURES

Sub Pages (Max of 12)
Splash Screens
Screen Saver (Static image)
Screen Saver Actions
Backlight Adjustment
Background Colour Adjustment
Text Colour Adjustment
PIR/Closing contact Actions
PIR Timeout and Actions

CONTENTS

1.0 A 6500A WALL PLATE SOFTWARE

1.1 ACCESSING THE SOFTWARE

The software is provided on the supplied Micro SD Card and is called "A6500_keypad_Programmer_XXXX".

In order to access the program, the Micro SD card will need to be connected to a Windows based device such as a PC or laptop with Windows 7 or above installed. It will need to be equipped with an Micro SD card reader to do this. If an Micro SD slot is not available then the Altronics D 0371A USB Memory Card Reader or similar would be suitable (not supplied).

You will first need to remove the Micro SD card from the side of the A 6500A wall plate (see section 1.4 in the Operating Manual for the location). To remove the Micro SD card push the card in and it will eject itself.

Make sure the Windows based device is on and card reader connected and correctly installed. Then insert the Micro SD card into the reader.

Go to "My Computer" or "This PC" and open the Micro SD card which is usually marked "Removable disk".
In this case it is named "Removable disk (J:)". Select the removable disk and then you should get a window that looks like the picture in figure 1.1.
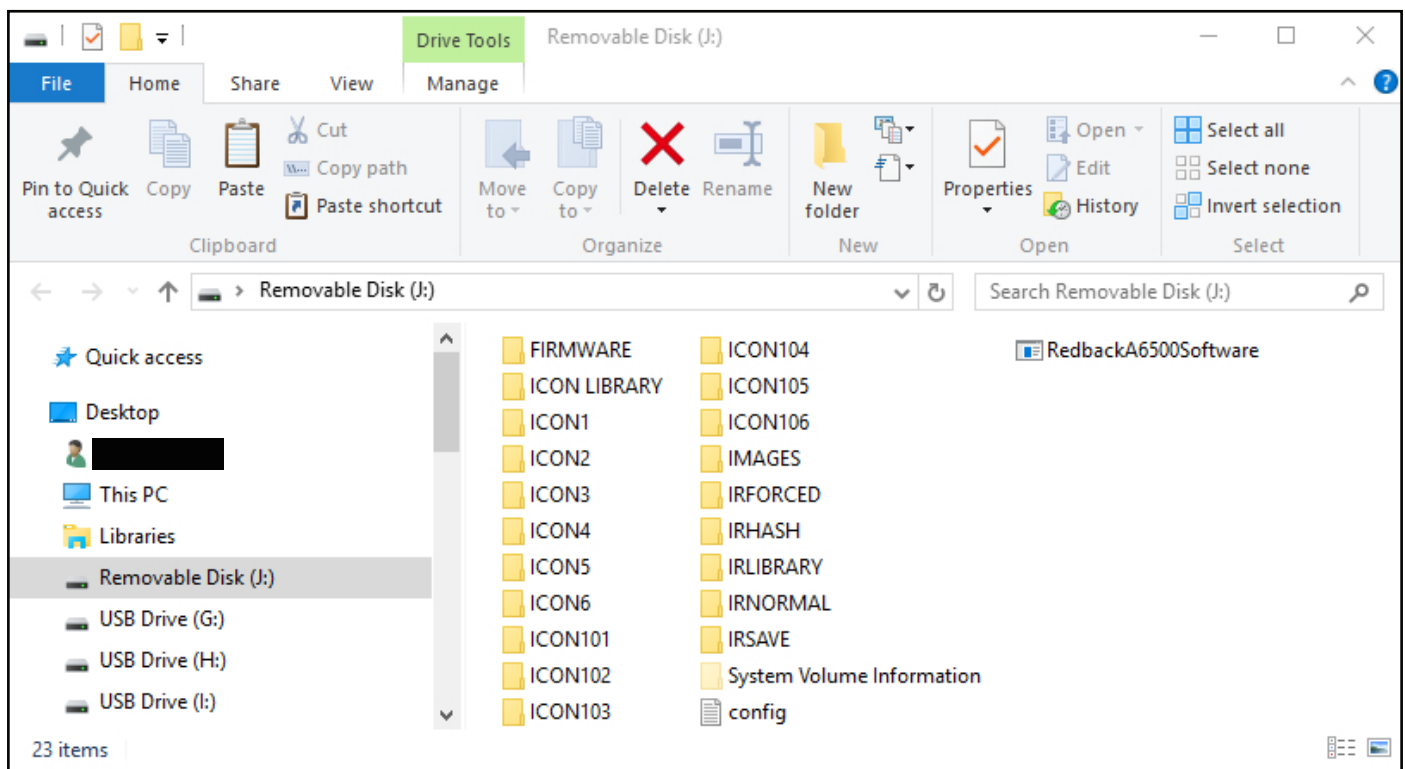

Fig 1.1

The A 6500A wall plate is supplied with a default configuration which is useful for initial testing. This is covered in section 3.8 of the Operating Manual.
It is recommended that a copy is made of the contents of the Micro SD Card before any programming is done. This may come in handy if the SD card becomes corrupted and it also provides a default setup to fall back on.

The contents of the Micro SD card should include the programming software (labelled A6500_keypad_Programmer_XXXX), a library of button Icons, and a library of IR receiver codes.
The Icon folders shown hold the image for the buttons on the default startup screen, and the IR folders store the IR codes.
The Images folder is where any imported images are saved in bitmap format to be used as icons.
The config file is where all the button information is saved, including links to icons, output command types (serial, IR or relay output), baud rates and delays.

The Firmware folder holds the current firmware version supplied with the plate. Firmware updates are available for download from www.redbackaudio.com.au or www.altronics.com.au. If an update is performed (see section 5.0) and fails to update, or the update is found to have errors then the A 6500A can be restored back to its default firmware version with the file in this folder.
(NOTE: The System Volume Information folder is part of the SD Card format. Do not modify this folder).

1.2 FIRST TIME USE RECOMMENDATION

It is recommended that for first time use, the system is setup on a desk for easy access to all connections. Trying to remove the Micro SD card while the Redback® A 6500A Wall Plate is installed is quite cumbersome. Also learning IR codes through the wall plate IR sensor (see section 15.1) is easier on the desk.

1.3 FIRMWARE UPDATE

It is possible to update the firmware for this unit by downloading updated versions from www.altronics.com.au or redbackaudio.com.au.
To perform an update, follow these steps.

1) Download the Zip file from the website.
2) Remove the Micro SD card from the A 6500A and insert it into your PC. (Follow the steps on page 3 to open the micro SD card).
3) Extract the contents of the Zip file to the root folder of the Micro SD Card.
4) Rename the extracted .BIN file to update.BIN.
5) Remove the Micro SD card from the PC following windows safe card removal procedures.
6) With the power turned OFF, insert the Micro SD card back into the A 6500A.
7) Turn the A 6500A ON. The unit will check the Micro SD card and if an update is required the A 6500A will perform the update automatically.

1.4 RUNNING THE SOFTWARE

It is recommended to run the programming software from the SD card.

Double click on the file - A6500_keypad_Programmer_XXXX.

The programming screen should appear as shown in Fig 1.3.
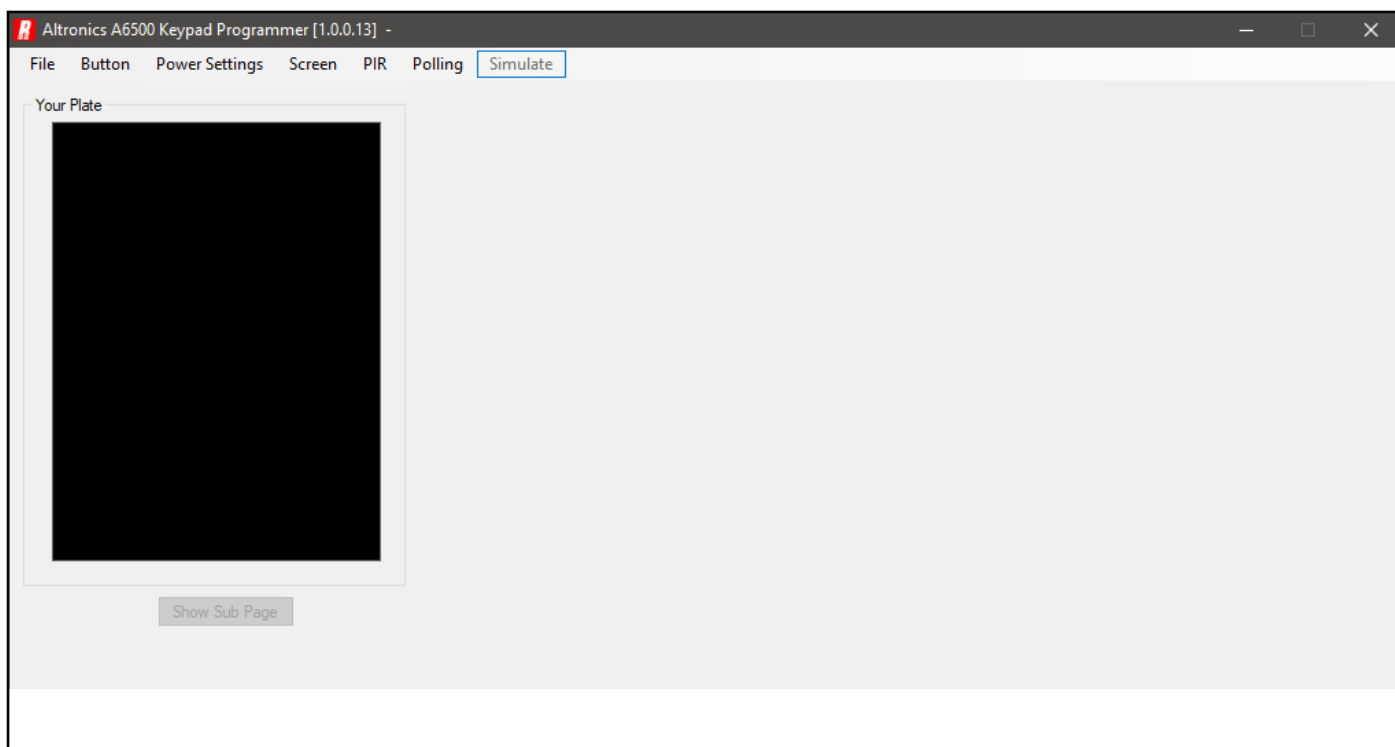 *(Note: This could change as software updates are made).*

Fig 1.3

If the program doesn't run then the .NET Framework might need to be updated on your PC. This must be updated to the .NET Framework 4 or above, available on the microsoft website.

From this startup screen the available options are to either access the File, Button, Power Settings, Screen, PIR or Polling Tabs as shown in figure 1.4.
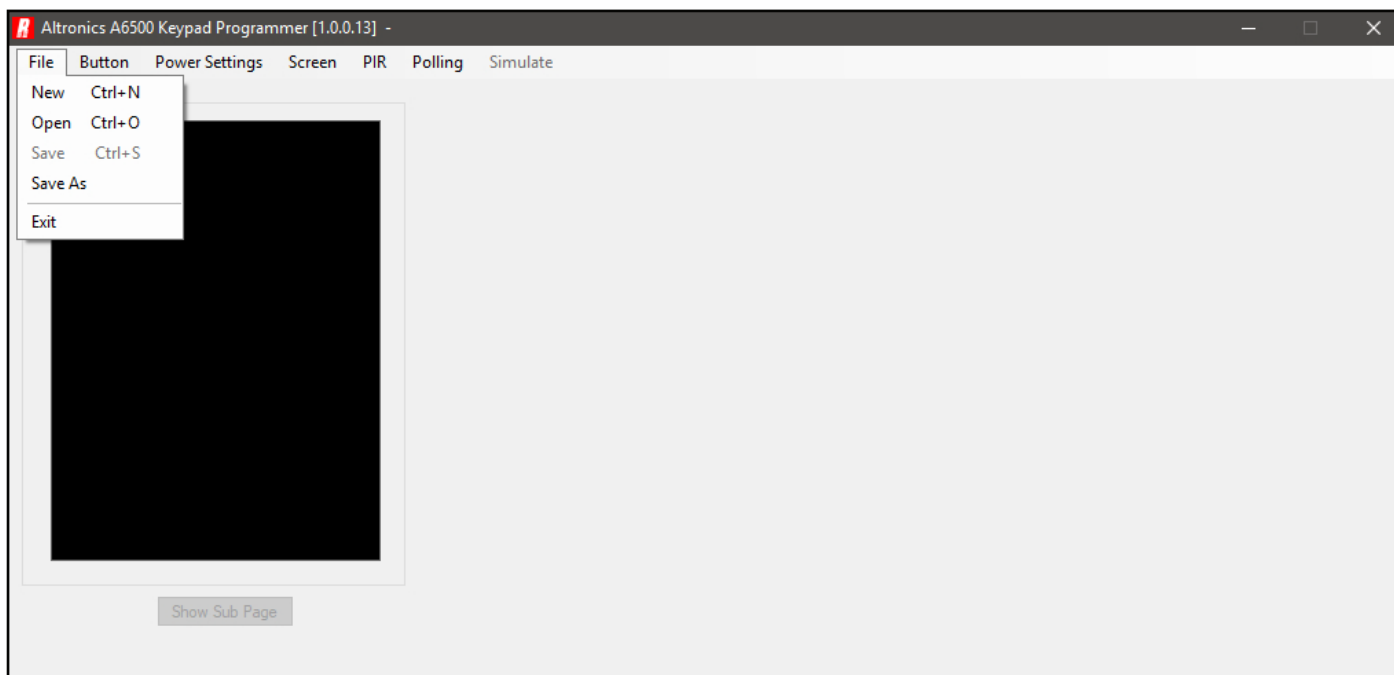
Fig 1.4

The "File" tab provides the standard Windows operating system functions of New, Open, Save and Save As.
It is recommended that the configuration is saved to the Micro SD card by using the "Save" option. But the "Save As"
option is available so the setup can be saved elsewhere.

2.0 DEFAULT CONFIGURATION

Lets take a brief look at the default configuration.
Navigate to the "File" tab and then select "Open". The window shown below in figure 2.1 should appear.
We need to navigate to the location of the config file which for our example is on the root folder of the SD card which is
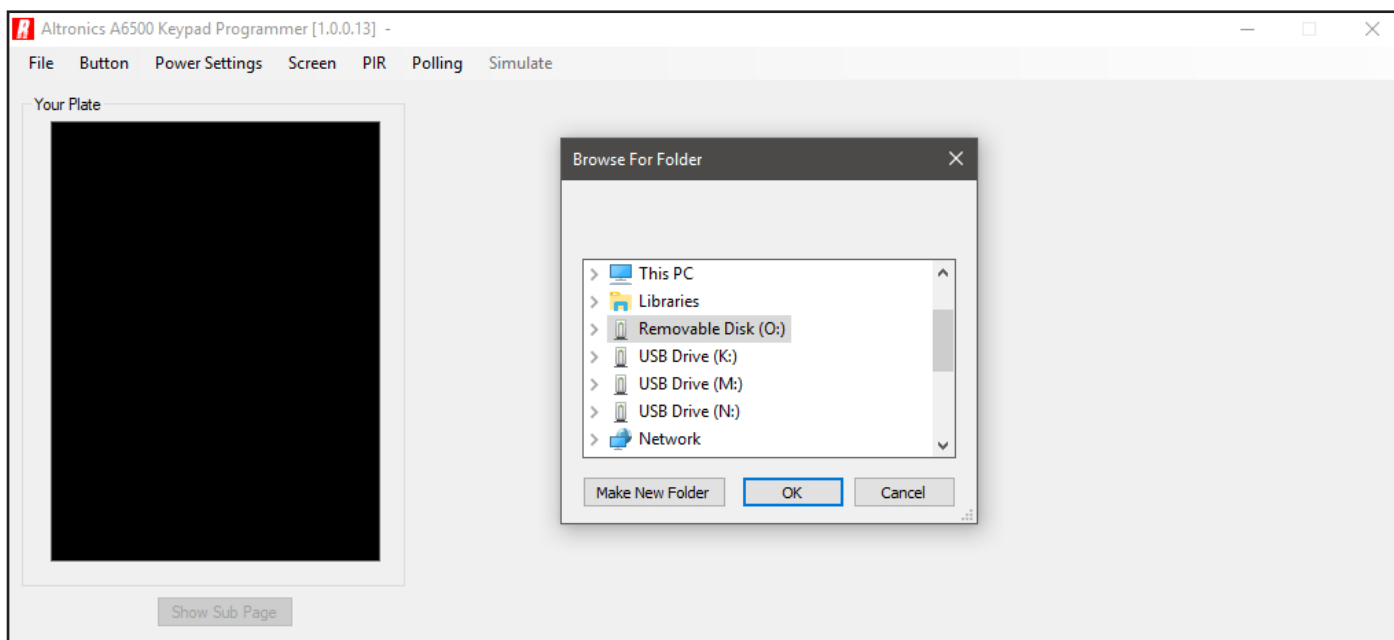Removable disk (O).

Fig 2.1

We select Removable Disk (O) and then OK.
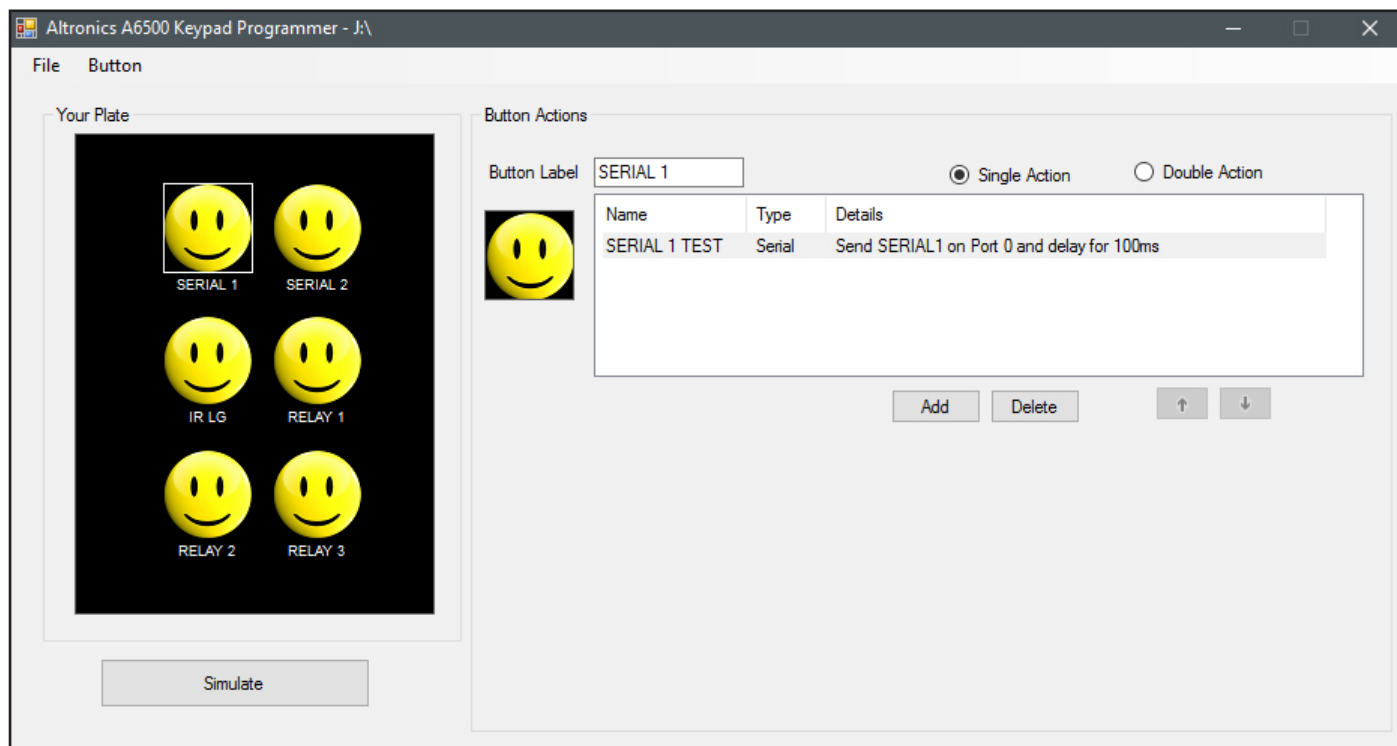The default configuration should load and display as shown in figure 2.2.

Fig 2.2

Notice that the simulation of the screen (under the text "Your Plate") displays exactly what is displayed when the A 6500A is powered up.

As this configuration is only used for testing we won't go into more detail.

3.0 CREATE A NEW CONFIGURATION

Navigate to the "File" tab and then select "New". The window shown below in figure 3.1 should appear.

Once again it is recommended (if not done previously) that a copy is made of the default contents of the Micro SD Card before a new configuration is saved.
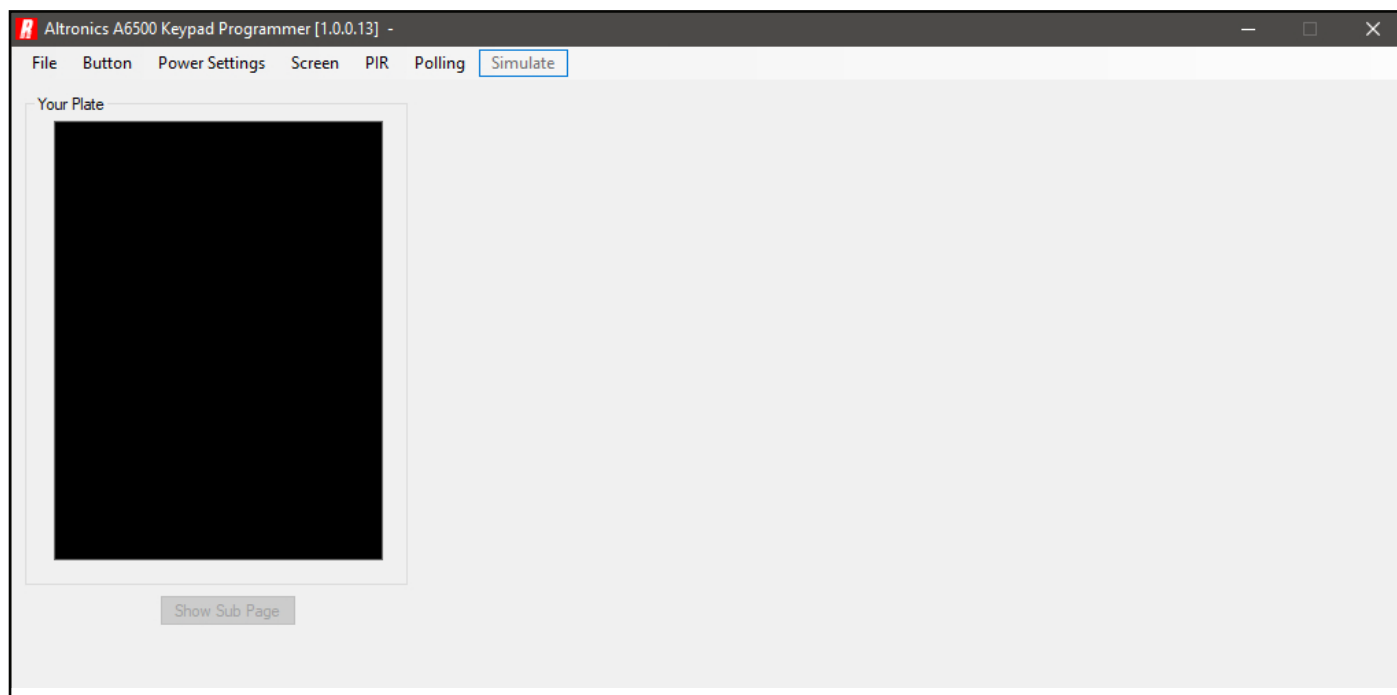

Fig 3.1

4.0 ADDING BUTTON ICONS

Programming the button icons is quite simple. Navigate to the Button tab and select "Add New" or press the "Insert" button on your computer's keyboard. The default "Smiley face" button Icon will appear in the centre of the wall plate simulator as shown in figure 4.1. The simulator section displays exactly what will appear on the A 6500A wall plate once operational.
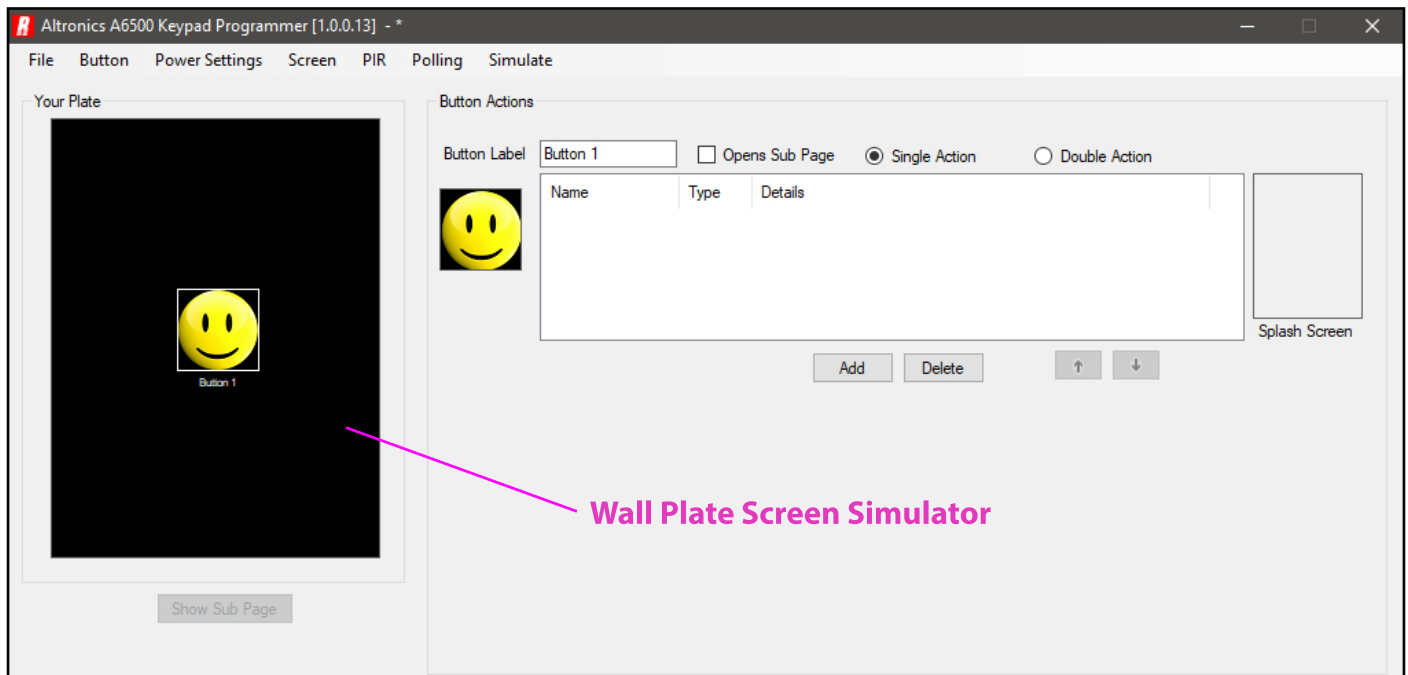

Fig 4.1

Any number of buttons can be added at this stage up to a maximum of 12 buttons as shown in figure 4.2.
This screen is called the Home Page. Each of the 12 buttons on this screen have the option to go to a sub page once pressed ,and each sub page can have up to 11 buttons (Sub pages are explained in section 17).

(NOTE: There is no option to change the size of the icons on the screen i.e. The buttons are a fixed size regardless of the number of buttons selected).
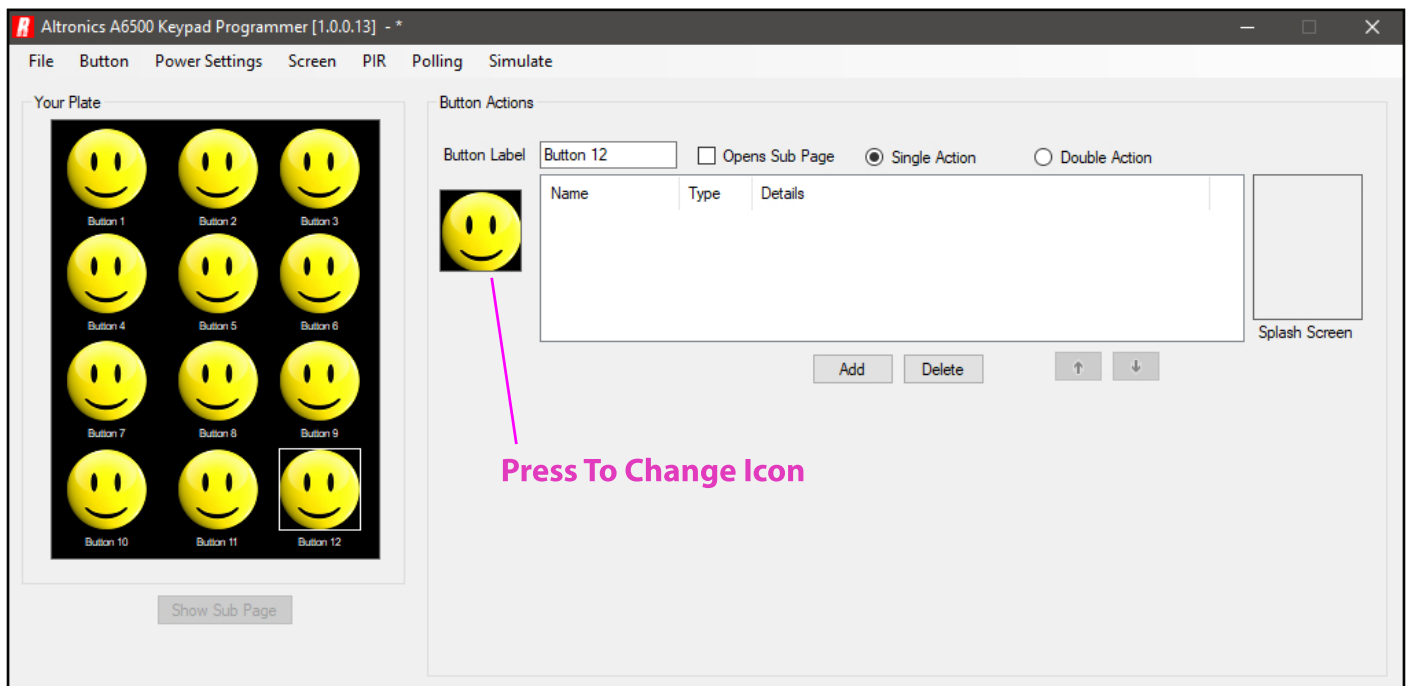

Fig 4.2

Obviously a screen full of smiley faces doesn't provide a very good visual indicator of the functions of the buttons. The button icons can be changed to the those supplied in the Icon Library, or you can create your own. The Icon image is 60 pixels x 60 pixels and can be created and saved as a bitmap image using other readily available image creation software.
It is also possible to import most image files of any size which will be converted by the software to a bitmap image making it available as an icon.

5.0 CHANGING BUTTON ICONS

Changing the button Icons is simply a matter of selecting the Icon from the screen simulator and then clicking on the Icon under the button label as highlighted in figure 5.2.

The Select Icon window should appear as shown below. From here it is possible to scroll through the icons in the icon library, or by pressing the browse button (highlighted in figure 5.1) navigate to an icon or image stored elsewhere. Select the icon or image and then press OK.
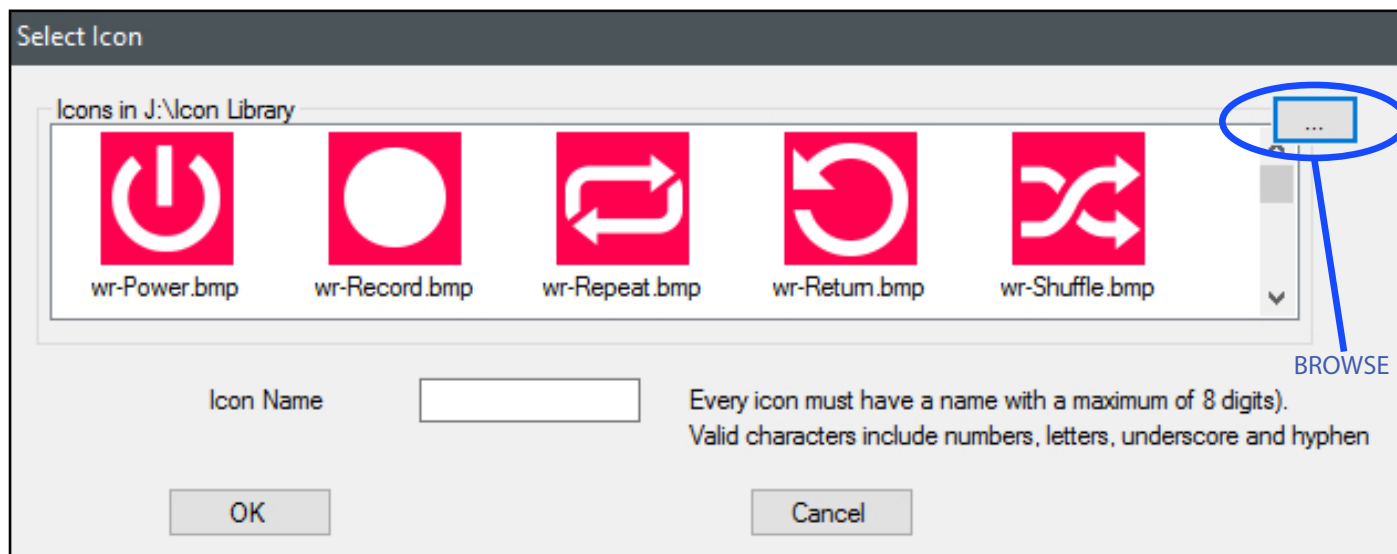

Fig 5.1

The updated icon should now replace the selected icon. In our case we have selected wr-Power.bmp.

We then changed the button label to "Power" by typing in the new name in the Button Label section. The new label now appears below the icon on the wall plate simulation.

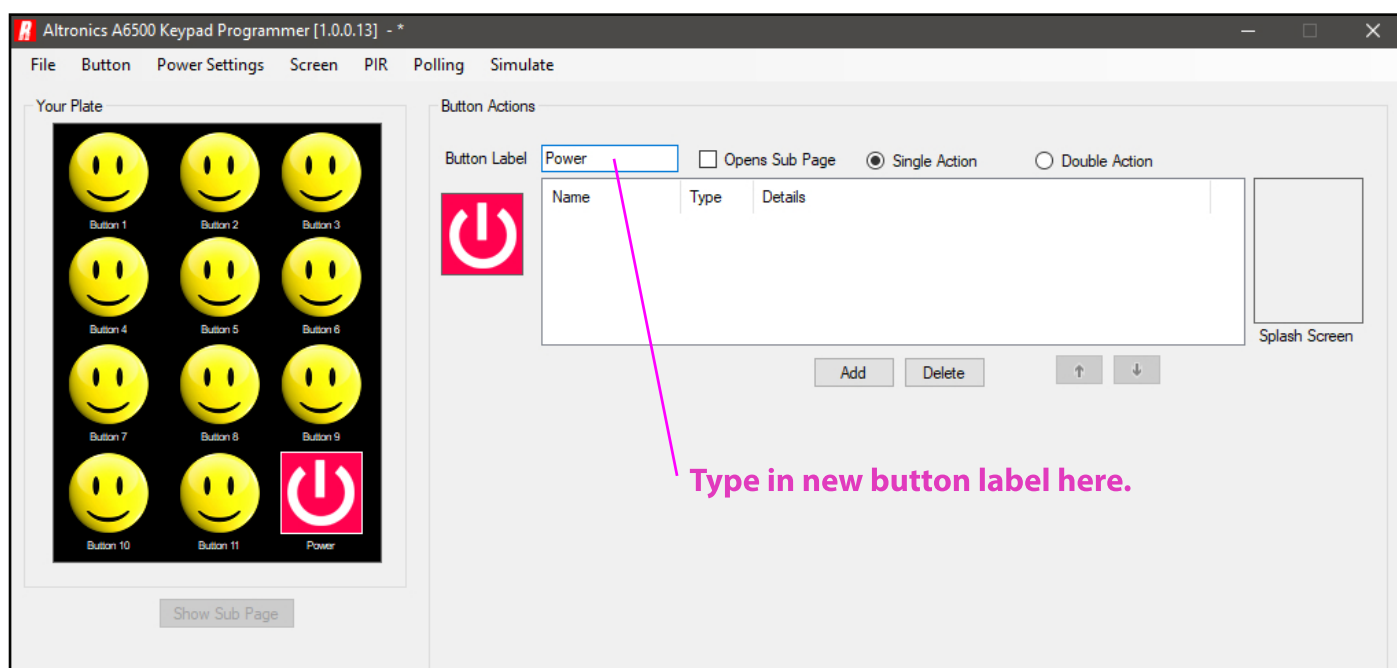*(NOTE: Button labels can be a maximum of 12 characters long).*

Fig 5.2

6.0 SAVING THE BUTTON CONFIGURATION

At the top of the programming window the location of the save file is shown (In our case the program is saved to the SD card which is the path to the Removable disk (J:). The asterisk at the end of the path signifies that the program has changed since it was last saved, or in our case it hasn't been saved yet.

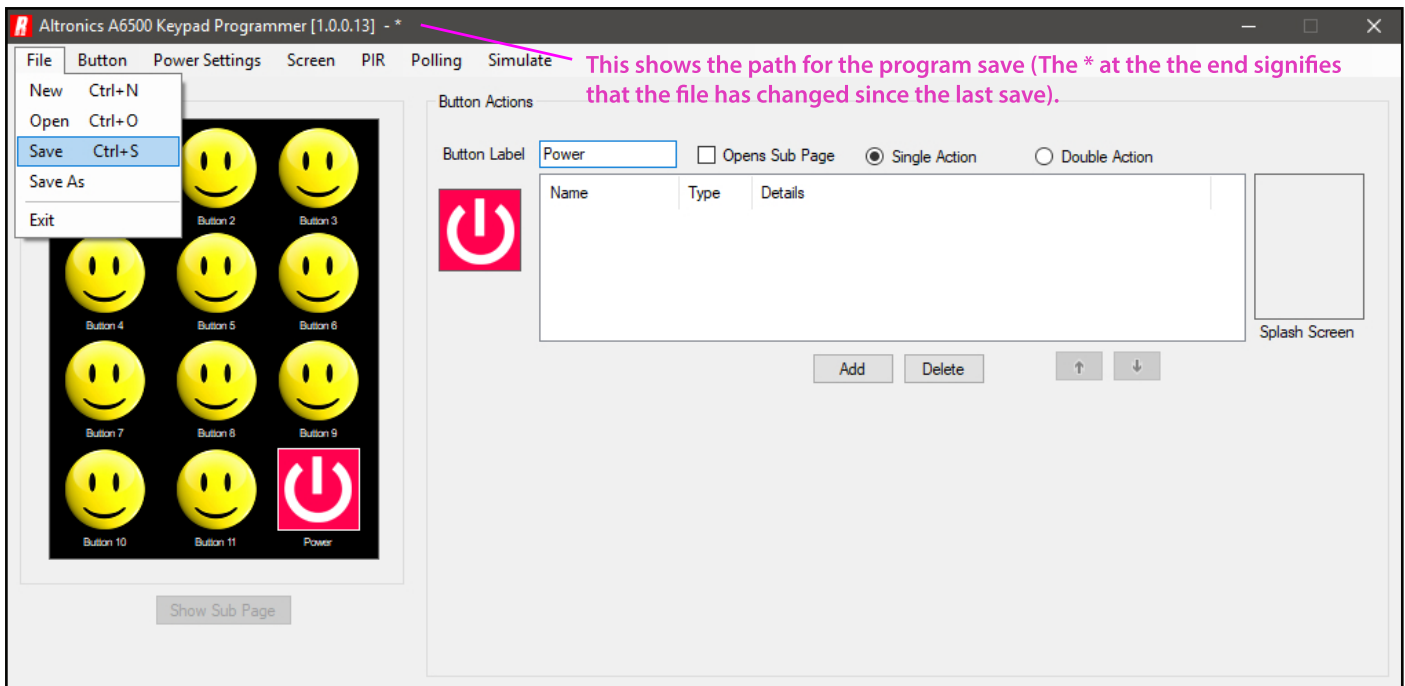Lets now save this by selecting File/Save (see Fig 6.1) or by pressing Ctrl+S.

Fig 6.1

Lets take a quick look at the micro SD card now that this configuration has been saved.

The contents are now quite different to that shown in figure 1.1.

There are now 24 Icon folders as all the buttons have two Icon folders associated to them. The reason they each have two folders is because each button can have two possible action states if required (An example might be: the Icon to turn a device ON may be different to the icon to turn a device OFF.) This is covered in section 16.
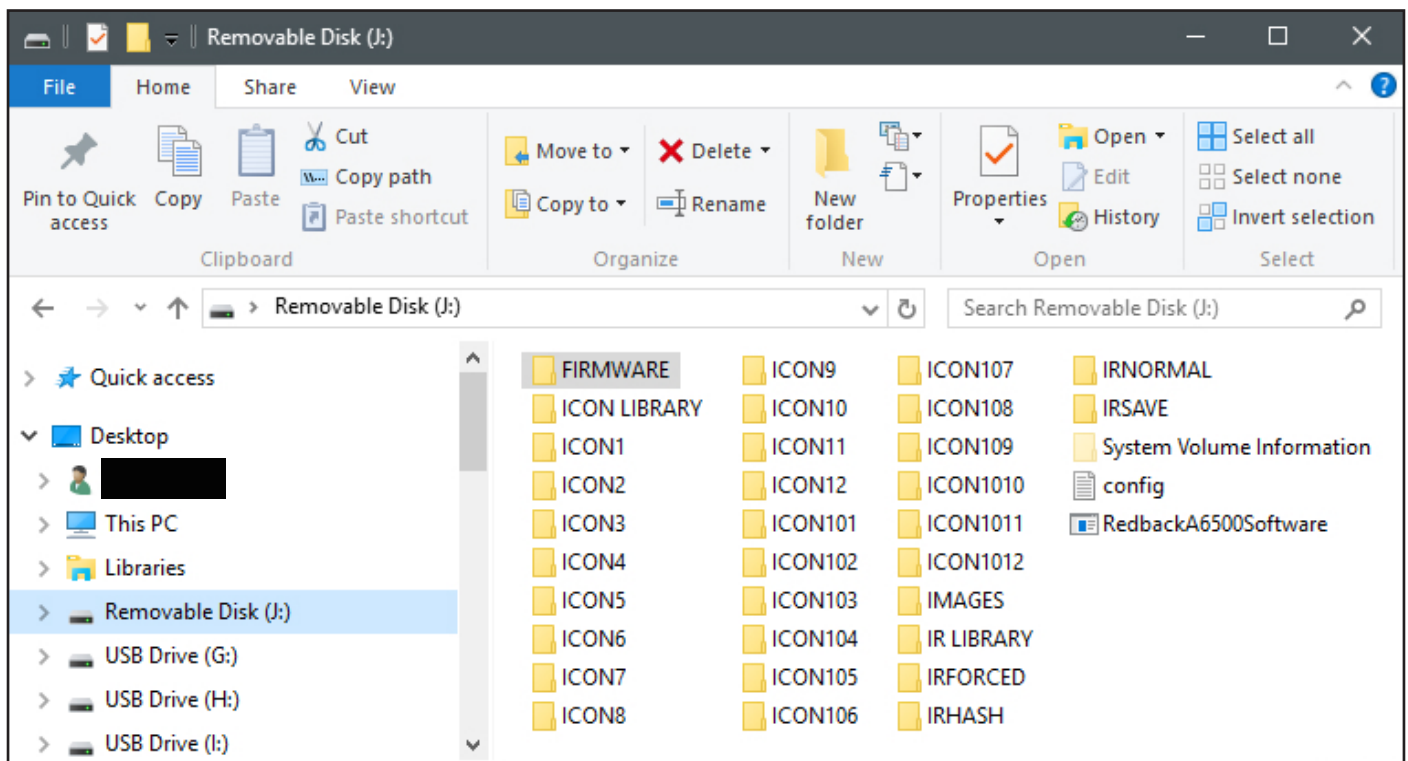

Fig 6.2

6.1 COPYING THE CONFIGURATION FOR USE ACROSS MULTIPLE JOBS

Sometimes the same setup is required for different jobs, an example might be setting up a school where multiple classrooms have the same equipment setup. Since the A 6500A configuration is saved to the Micro SD card, simply by copying the contents of the SD card to another SD card removes the need to program more wall plates with the same configuration.

If the configuration is slightly different, then the changes can be made to the saved configuration.

7.0 SWAPPING BUTTONS

The position of the buttons can be moved around the screen by using the "Swap with" command located in the Button/Swap with tab as shown in figure 7.1. Simply select the button to swap and the buttons will swap accordingly.
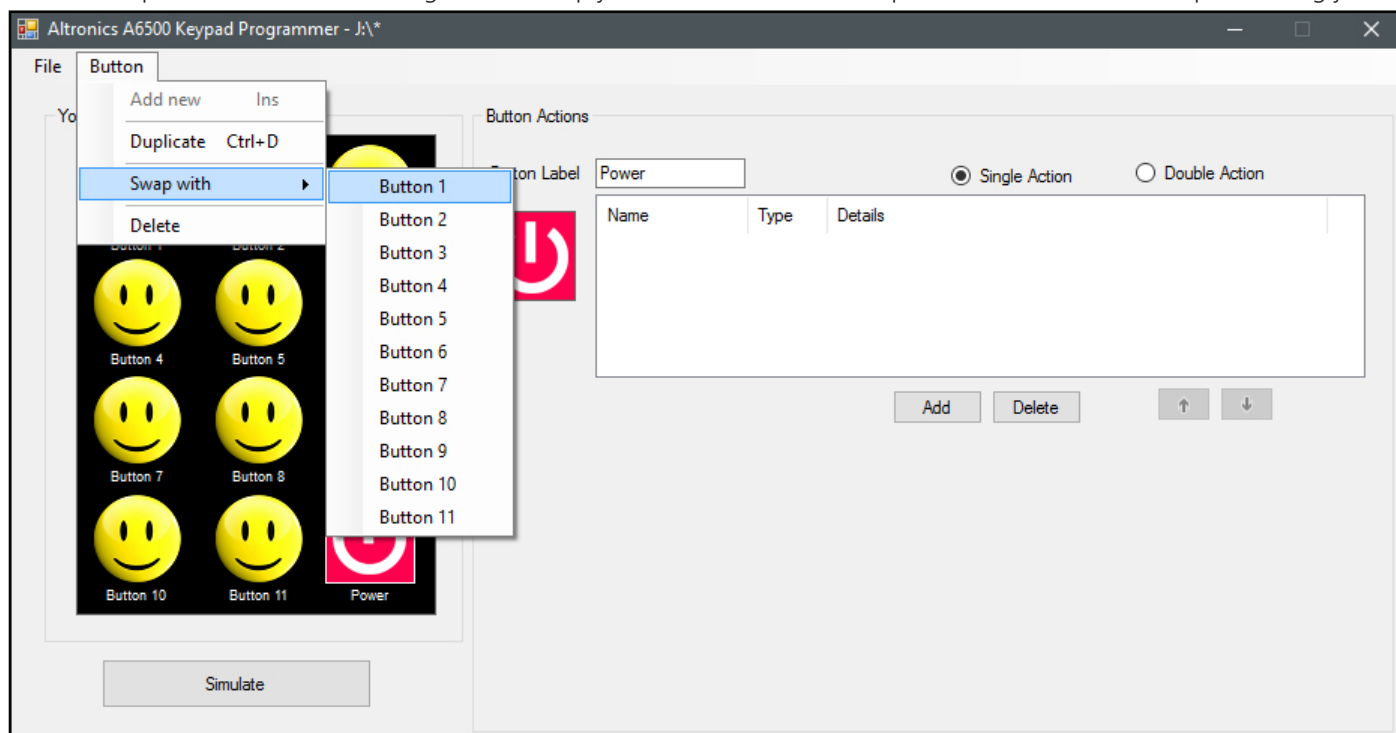

Fig 7.1

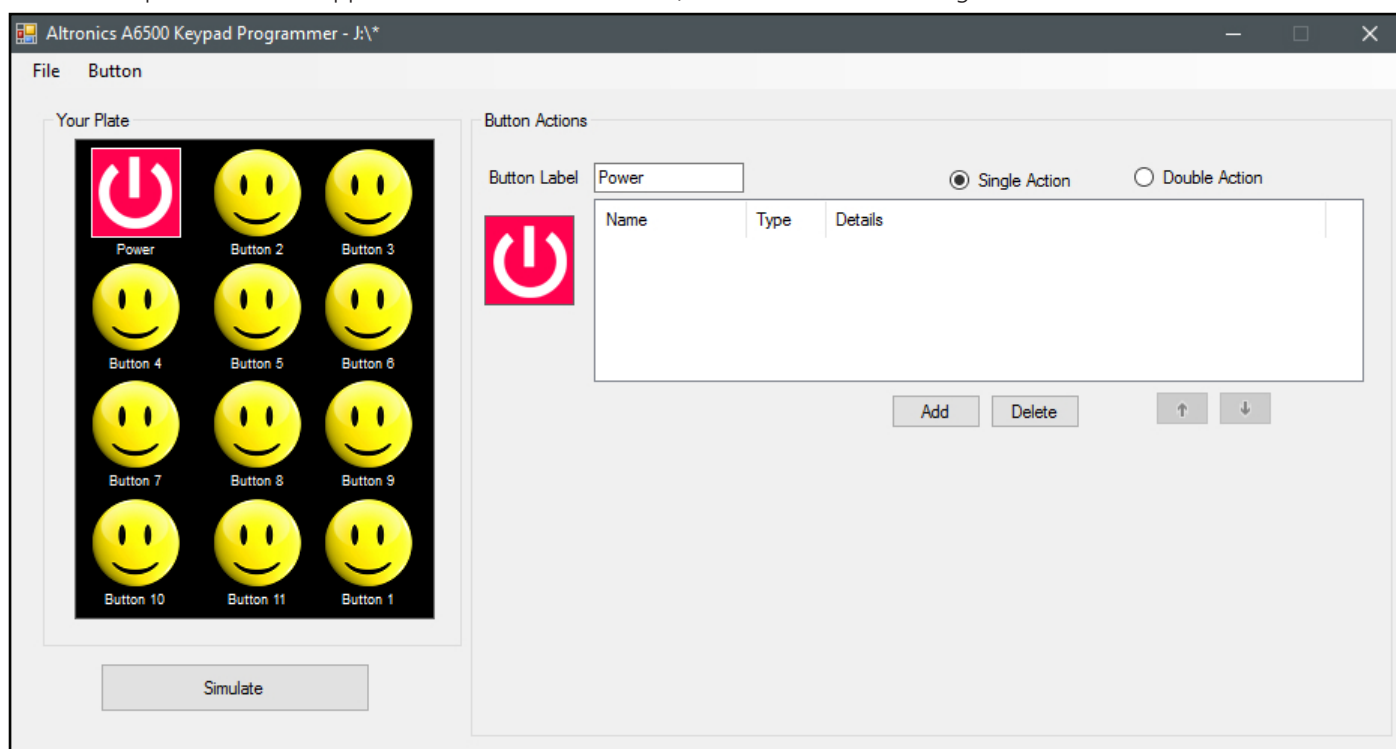In our example we have swapped button 1 with button 12, the result is shown in figure 7.2

Fig 7.2

8.0 DELETING BUTTONS

Buttons can be removed from the screen by navigating to the Button/Delete tab and pressing delete.
(NOTE: Make sure you have selected the button to be removed beforehand).

9.0 ADDING SERIAL COMMANDS TO BUTTONS

To configure a serial command to a button, select the button from the Wall Plate Screen Simulator and then press the "Add" button as shown in figure 9.1.
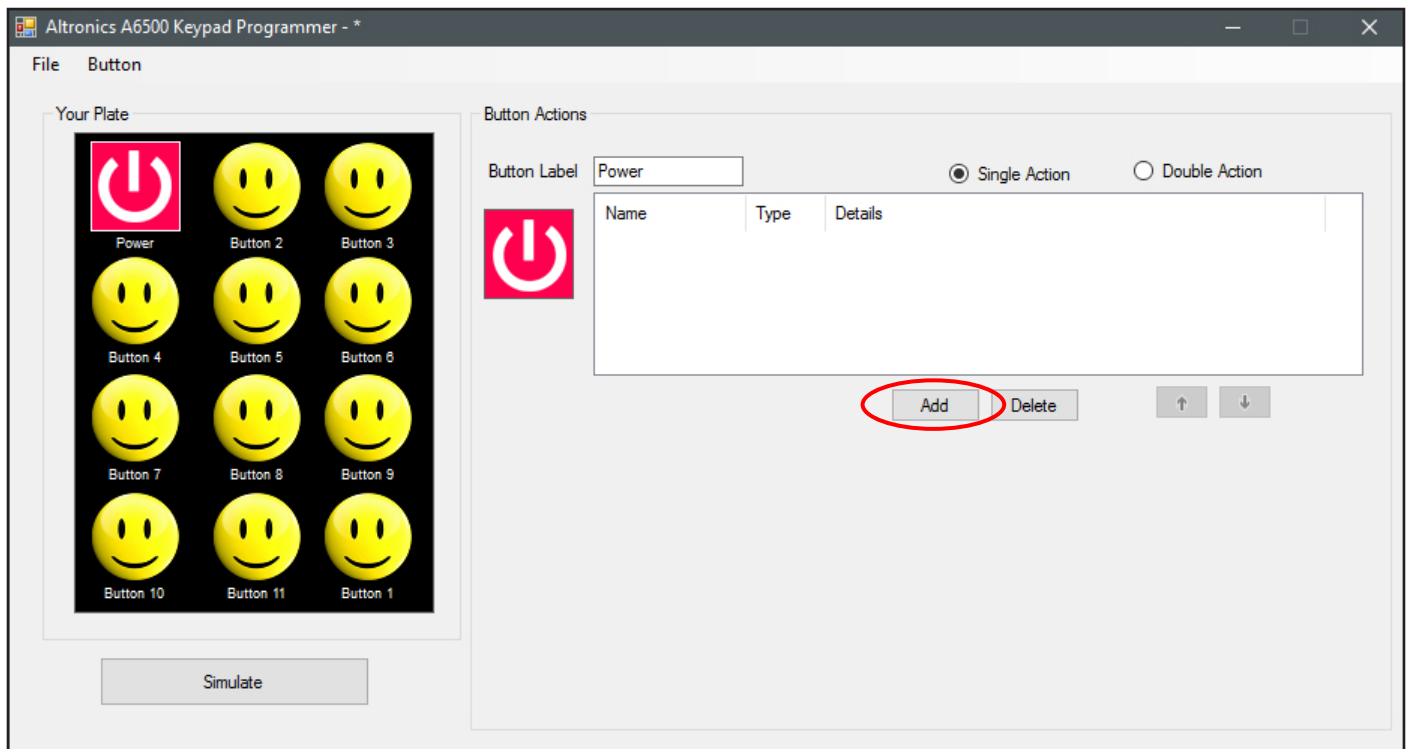

Fig 9.1

The "Add New Command" window should appear as shown in figure 9.2 and will default to the Serial command type.
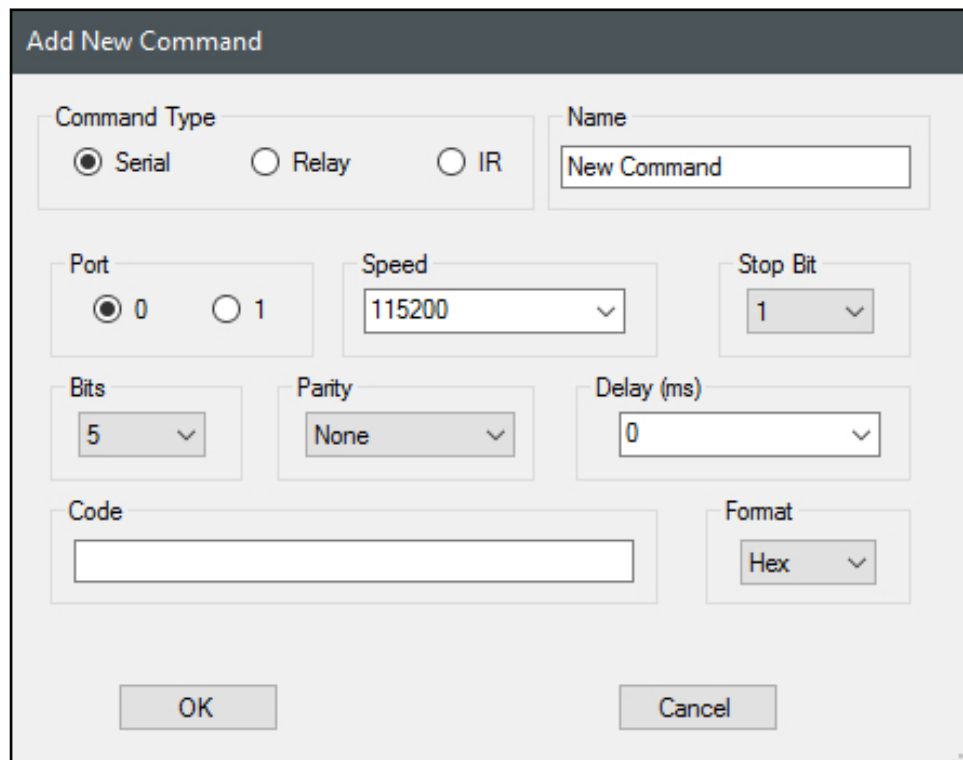

Fig 9.2

This is where all the serial command parameters are set. The Port refers to output port of the A 6505 serial hub and is either Port 1 or 2. *(NOTE: Older versions of the software may have the option of Port 0 or 1.)*
The serial transmission parameters are set by simple drop down boxes, for the baud rate (Speed), Stop bits, transmission Bits and Parity.
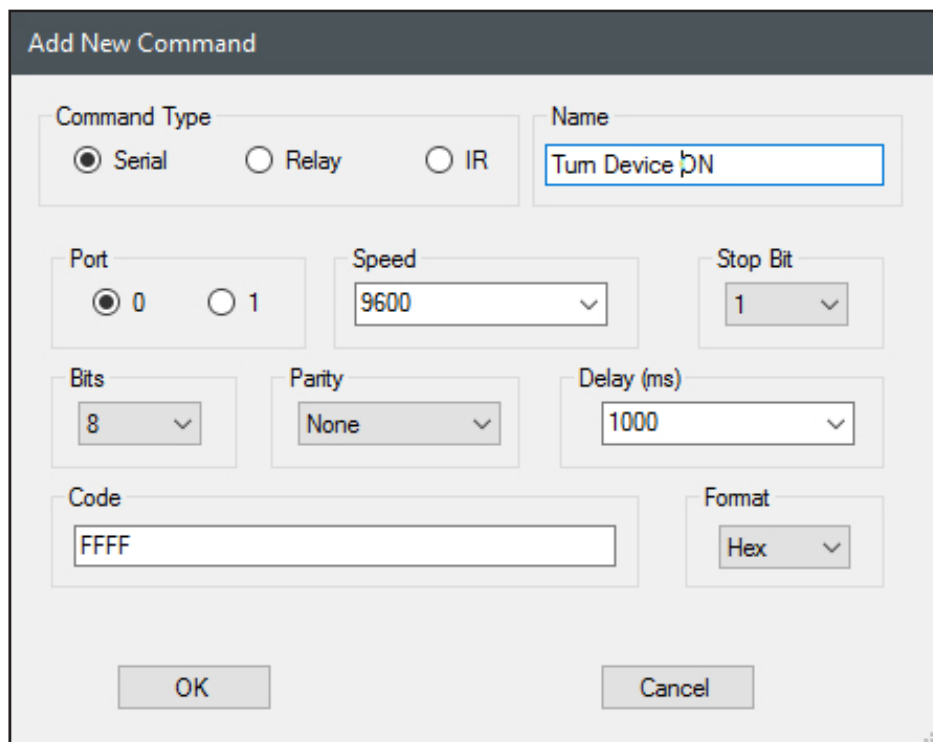
The Delay refers to the amount of time the system will wait after the command is exectued. This has the option of 10,100 or 1000 milliseconds via the drop down box or any time period can be entered manually.
The Code is the serial code to be output, which can be in either HEX or ASCII format as selcted by the drop down box.
The Name provides the user with a way of creating a meaningful description of the command.

In the example below, we have set the output port to 0 (which will output from Port 1 of the A 6505), set the transmission speed to 9600 baud, with 1 stop bit, 8 bits of data and parity None. The transmission code is FFFF in HEX format, we have set a delay of 1 sec (1000ms) and labelled the command Turn Device ON.
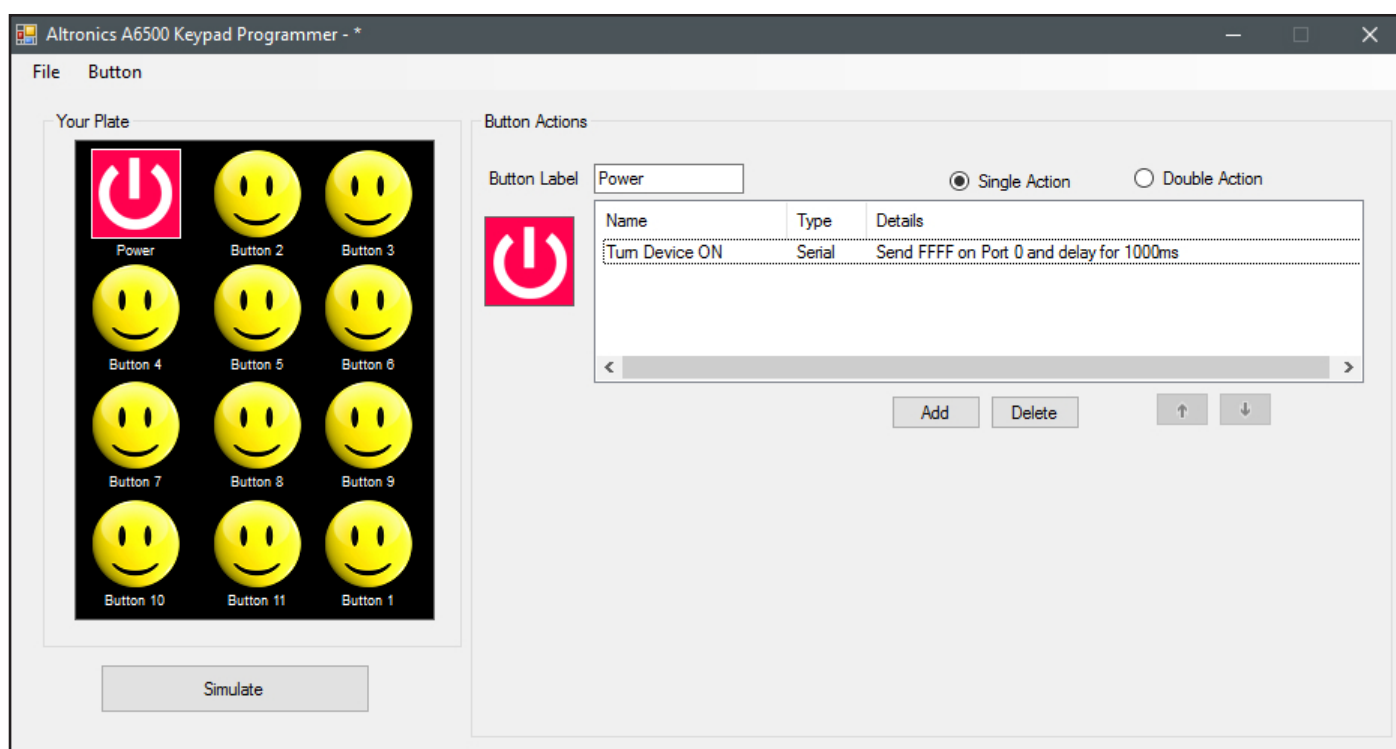*(Note: Spaces cannot be used in the HEX code. They are invalid).*

Fig 9.3

After pressing "OK", the resultant command line is shown below in figure 9.4. All the settings are now visible and can be deleted or edited from this screen (double click the line to edit).
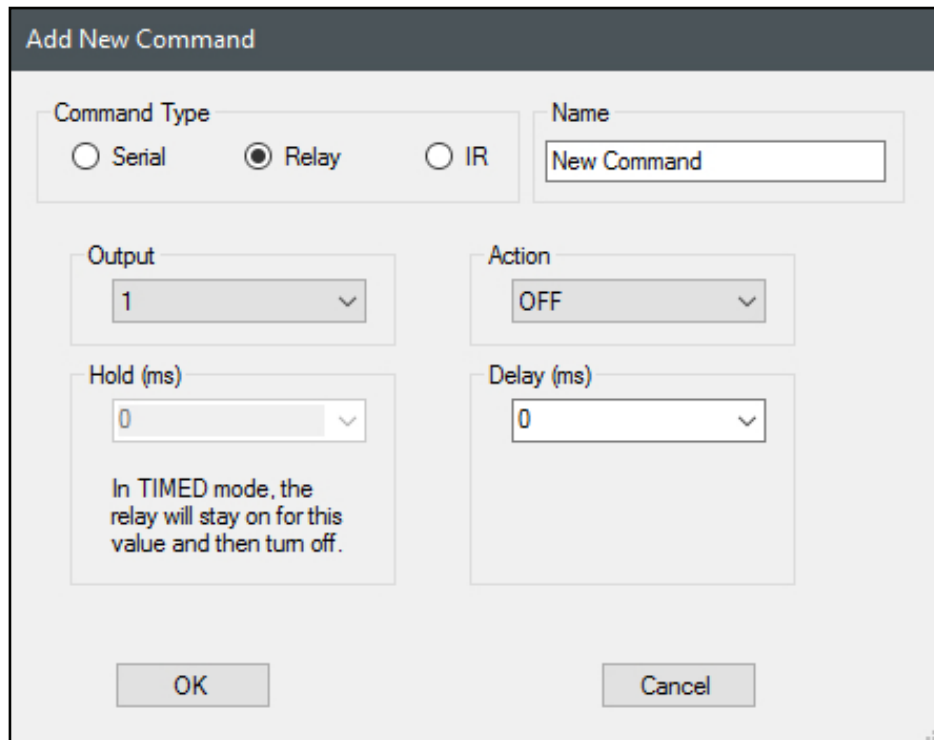

Fig 9.4

10.0 ADDING RELAY COMMANDS TO BUTTONS

To configure a relay command to a button, select the button from the Wall Plate Screen Simulator and then press the "Add" button as shown in figure 9.1.

The "Add New Command" window should appear as shown in figure 9.2 and will default to the Serial command type. Select the "Relay" tick box and the window should change to that shown below in figure 10.1.
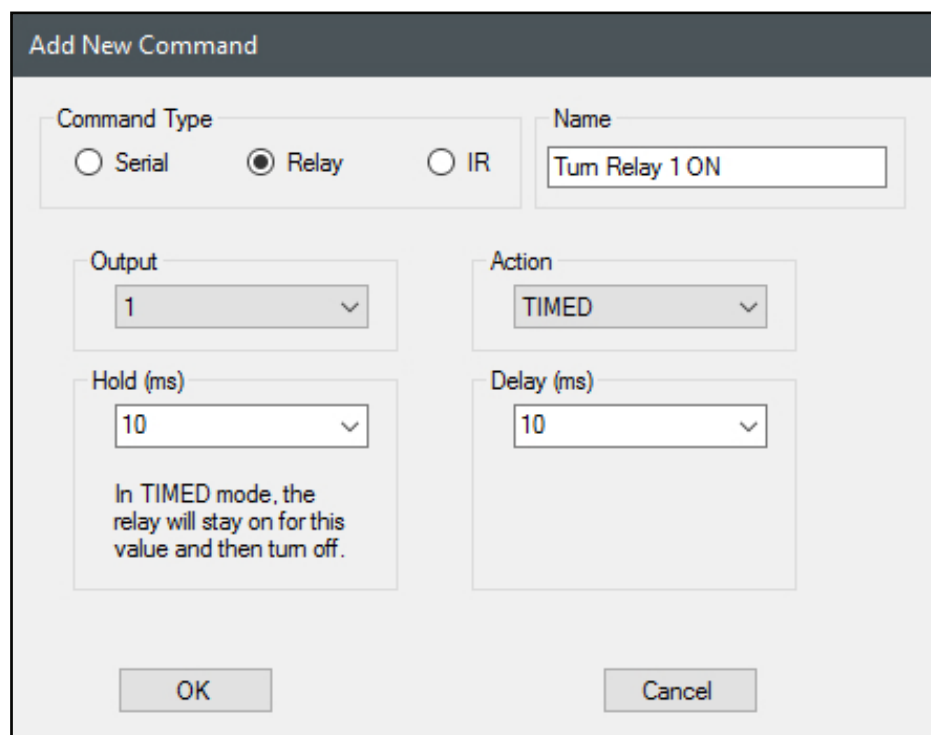

Fig 10.1

From here we can select the relay output 1-3 (of the A 6505 Serial Hub) and determine the action for that relay. The relay can be set to OFF or ON, the output can be set to toggle it's state each time the button is pressed or the relay can be set to a timed output which will remain on for 10, 100, 1000 or 10,000 milliseconds (set by the "Hold" drop down box) or any time period can be entered manually.

The Delay refers to the amount of time the system will wait after the command is exectued before performing any more tasks. This has the option of 10,100, 1000 or 10000 milliseconds via the drop down box or any time period can be entered manually.

Fig 10.2

In the example shown in figure 10.2, we have set the output to relay 1, and set the action to a timed output which will activate the relay for 10 milliseconds. We have also set a delay of 10 milliseconds and labelled the command "Turn Relay 1 ON". After pressing "OK", the resultant command line is shown below in figure 10.3. Two command lines are visible in the button actions window. The first line is the command from the example in section 9.0 and the second line is the example in this section.
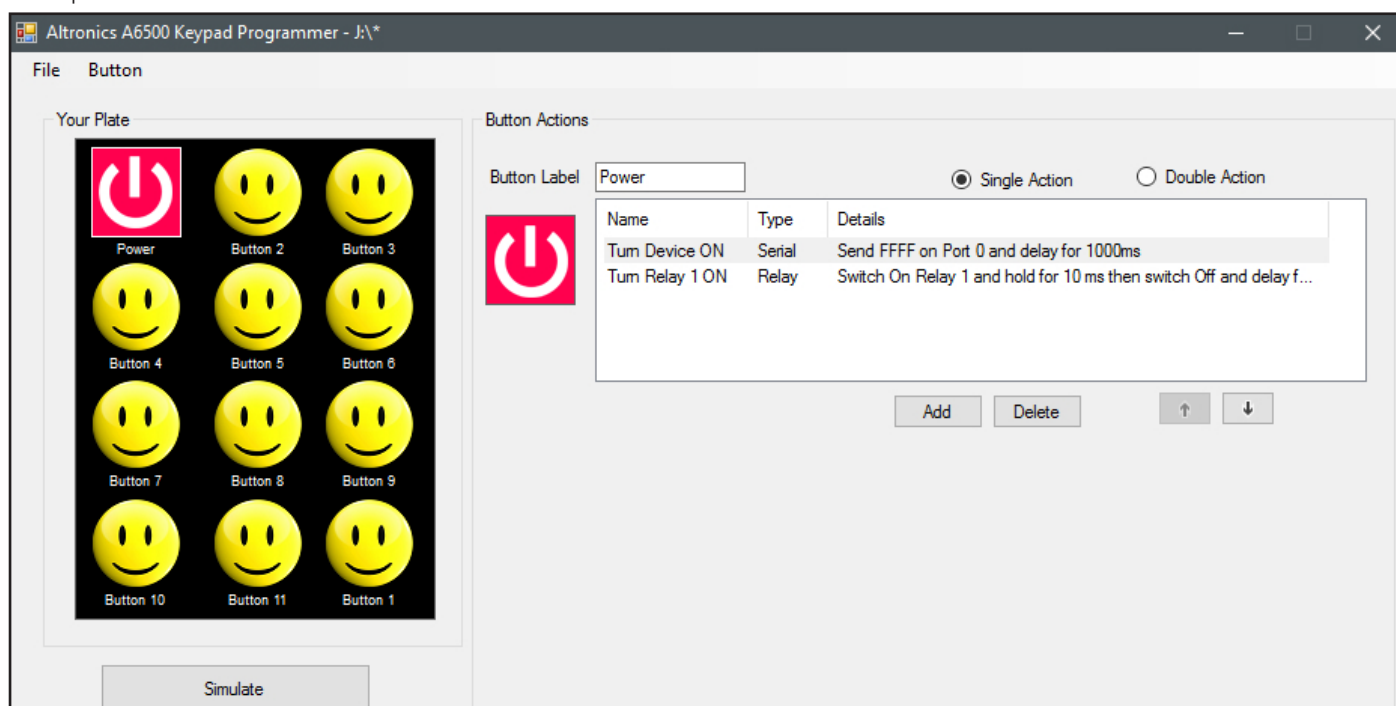
Fig 10.3

Either line can be deleted or edited from this screen (double click the line to edit) and the order of events can also be modified by selecting the line and then using the up and down arrows to change its position in the list.
Each button can have an unlimited number of commands.
(NOTE: while the commands for a button are being executed the wall plate will not respond to other button presses).

11.0 SIMULATING BUTTON PRESSES

The actions of the buttons can be simulated in real time without the need to insert the SD card into the wall plate. Simply press the simulate button under the screen simulator (or on the top tab bar) and then view the command results when the buttons are pressed.

Fig 11.1

12.0 SETTING RELAY COMMANDS WHEN USING THE A 6500A AND THE A 6510/ A 6515

In order to use the relay outputs of the Redback® A6510 or A 6515 when using the CAT5 direct connection from the A 6500A wall plate (see fig 12.2 and 12.3), specific serial commands have to be sent. These external relays cannot be activated using the standard relay commands.
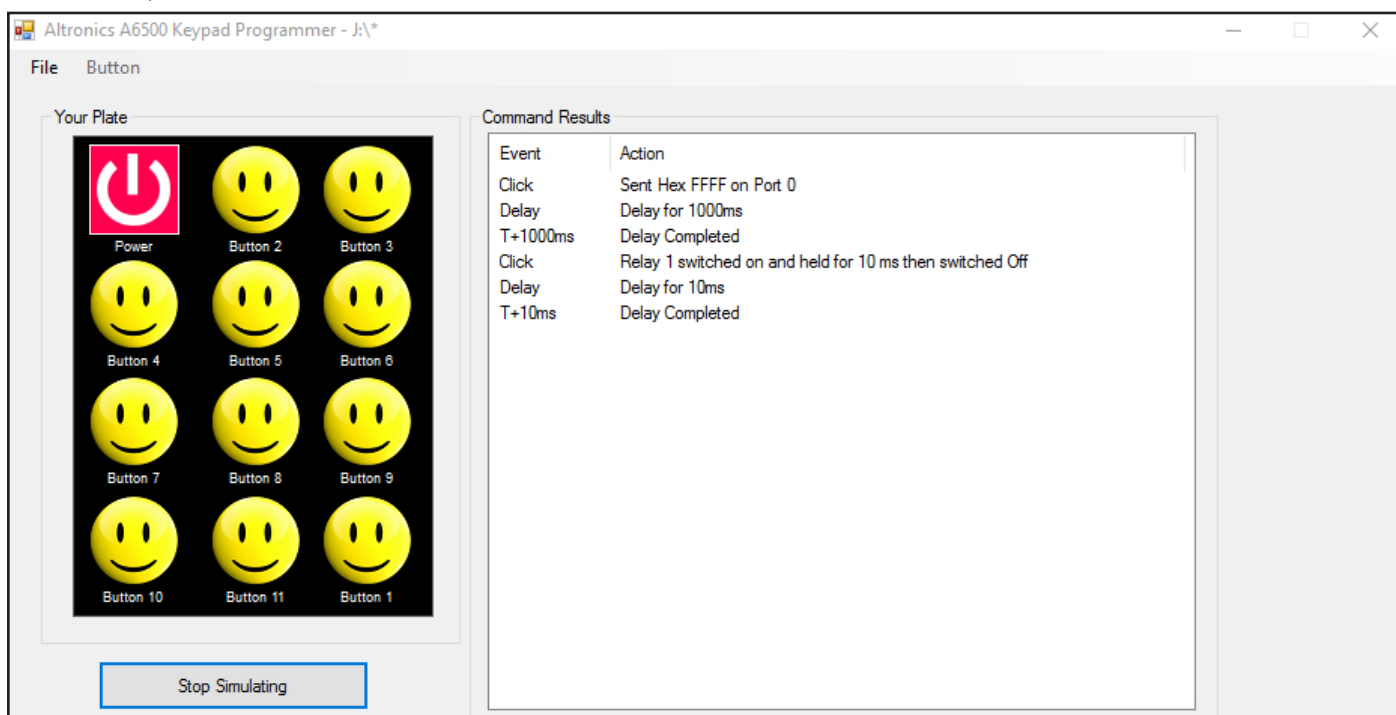
Follow the same steps as outlined in section 9.0 to create a new serial command for a button through the Add New Command window.
There are three options for the state of the external relays, ON, OFF or Toggle.
Specific ASCII codes have to be sent to switch the desired relays.
Figure 12.1 illustrates the settings required to toggle relay 1.
The port must be set to 1, the speed to 9600 baud, the stop bit to 1, data bits to 8 , parity to none and the format must be ASCII.



The code to be sent is quite simple.
The code starts with the word RELAY followed by T for toggle, O (capital o) for OFF and I (capital i) for ON, followed by the relay number.
So for instance to turn on relay 5, the code would be RELAYI5, to toggle relay 12, the code would be RELAYT12 and so on.

It is also possible to turn all relays ON or OFF by using the standard format of O (capital o) for OFF, I (capital i) for ON and then by using the number 99 as the relay number.
so the command RELAYI99 will turn all relays ON and the command RELAYO99 will turn all relays OFF

Fig 12.1
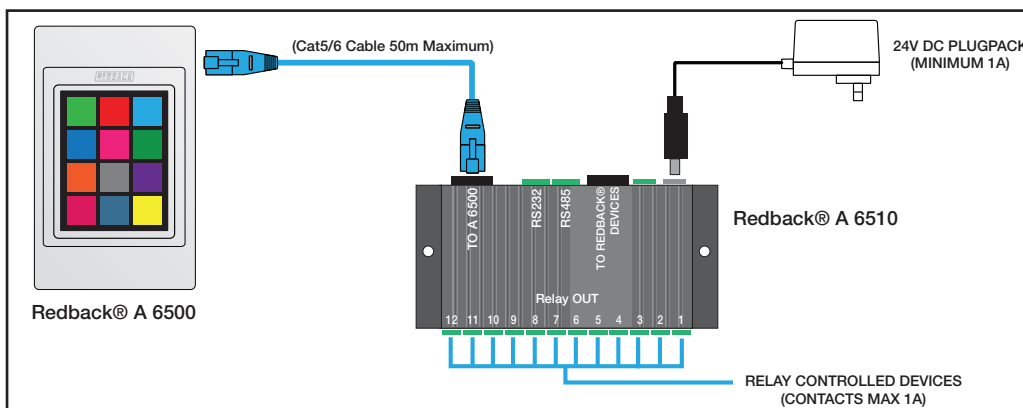
NOTE: The A 6510 relays are numbered 1-12.

NOTE : DIP Switch 3 must be set to ON in this wiring configuration. All other DIP switches must be OFF.

Fig 12.2
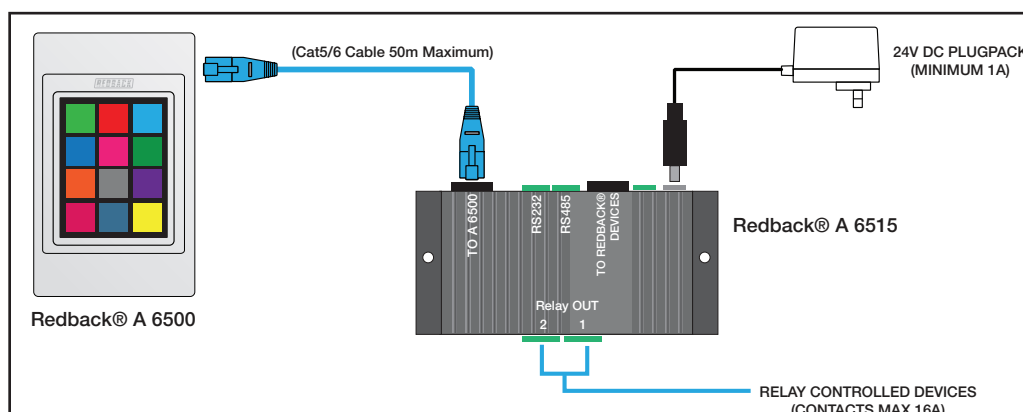
NOTE: The A 6515 relays are numbered 13 &14.

NOTE : DIP Switch 3 must be set to ON in this wiring configuration. All other DIP switches must be OFF.

Fig 12.3

13.0 SETTING COMMANDS FOR EXPANDED RELAY SYSTEMS USING THE A 6505A and A6510 or A 6515

In order to make use of the expanded relay outputs of the Redback® A6510 or A 6515 when using the A 6505 serial hub (see fig 13.2 and 13.3), specific wiring is required and certain serial commands have to be sent. This is to avoid clashes with the relay outputs of the A 6505 serial hub which makes use of the standard relay commands.

13.1 SERIAL COMMANDS TO CONTROL A 6510 RELAYS

Follow the same steps as outlined in section 9.0 to create a new serial command for a button through the Add New Command window.
There are three options for the state of the external relays, ON, OFF or Toggle.
Specific ASCII codes have to be sent to switch the desired relays.

Figure 13.1 illustrates the settings required to toggle relay 1 on the A 6510.
The speed is set to 9600 baud, the stop bit to 1, data bits to 8 , parity to none and the format must be ASCII.
The port is set to match the output port used on the A 6505 serial hub.

The code to be sent is quite simple.
The code starts with the word RELAY followed by

T for toggle (this alternates the state of the relay with each press).
O (capital o) for OFF (this turns the relay Off).
I (capital i) for ON (this turns the relay On).

followed by the relay number.

So for instance to turn on relay 5, the code would be RELAYI5. To toggle relay 12, the code would be RELAYT12 and so on.

It is also possible to turn all relays ON or OFF by using the standard format of O (capital o) for OFF, I (capital i) for ON and then by using the number 99 as the relay number.
so the command RELAYI99 will turn all relays ON and the command RELAYO99 will turn all relays OFF
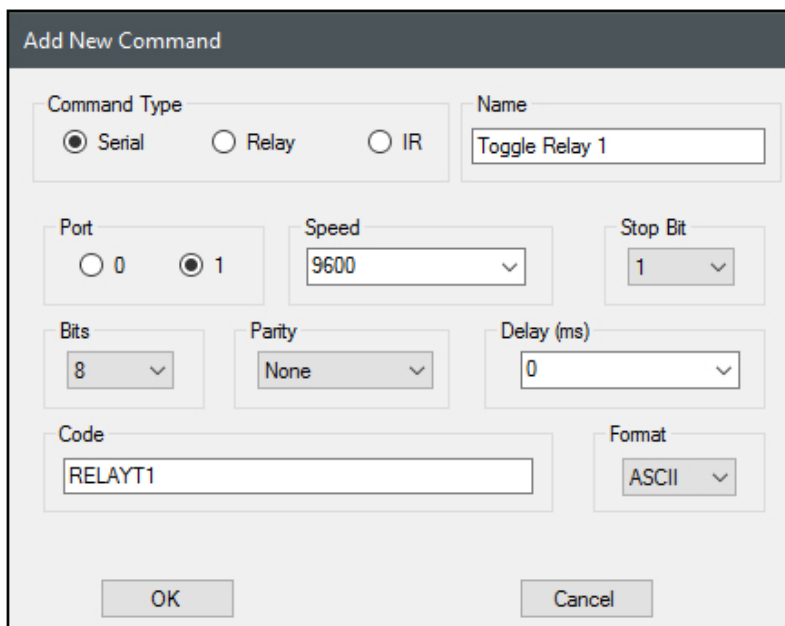
Fig 13.1

Fig 13.2

NOTE: The A 6510 relays are numbered 1-12.

A 6510 DIP Switch Settings
NOTE : Only one DIP swiitch can be set to ON.
DIP Switch 1 must be set to ON when using the RS485 input of the A 6510.
DIP Switch 2 must be set to ON when using the RS232 input of the A 6510.
All other DIP switches must be OFF.

13.2 SERIAL COMMANDS TO CONTROL A 6515 RELAYS

Follow the same steps as outlined in section 9.0 to create a new serial command for a button through the Add New Command window.
There are three options for the state of the external relays, ON, OFF or Toggle.
Specific ASCII codes have to be sent to switch the desired relays.

Figure 13.3 illustrates the settings required to toggle relay 13 on the A 6515.

The speed is set to 9600 baud, the stop bit to 1, data bits to 8 , parity to none and the format must be ASCII.
The port is set to match the output port used on the A 6505 serial hub.

The code to be sent is quite simple.
The code starts with the word RELAY followed by

T for toggle (this alternates the state of the relay with each press).
O (capital o) for OFF (this turns the relay Off).
I (capital i) for ON (this turns the relay On).

followed by the relay number.

So for instance to turn on relay 13, the code would be RELAYI13. To toggle relay 14, the code would be RELAYT14 and so on.
It is also possible to turn all relays ON or OFF by using the standard format of O (capital o) for OFF, I (capital i) for ON and then by using the number 99 as the relay number.
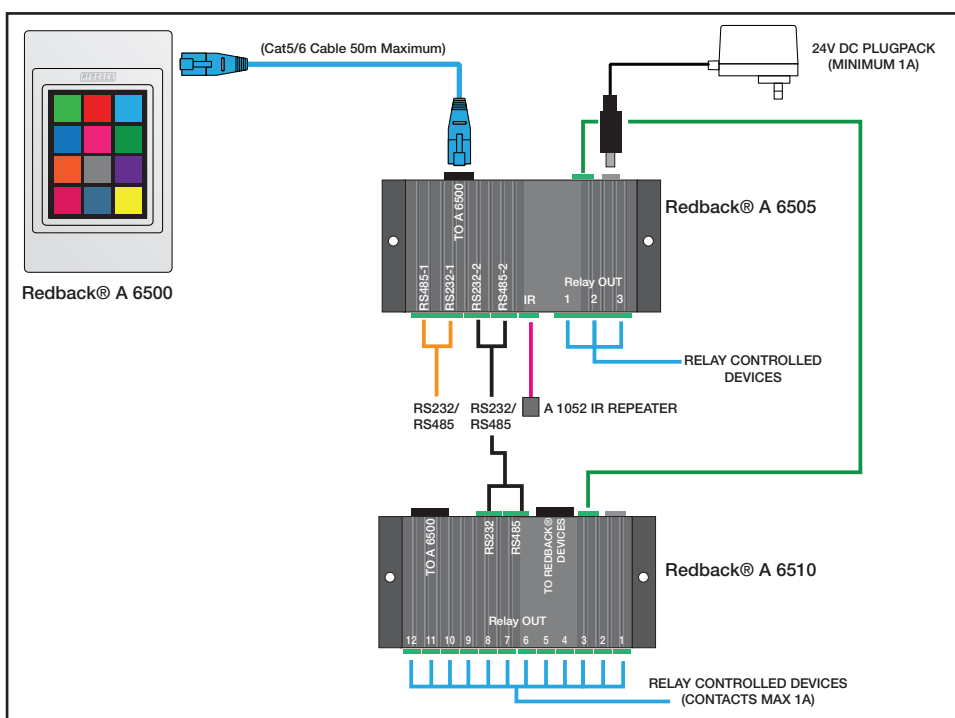so the command RELAYI99 will turn all relays ON and the command RELAYO99 will turn all relays OFF
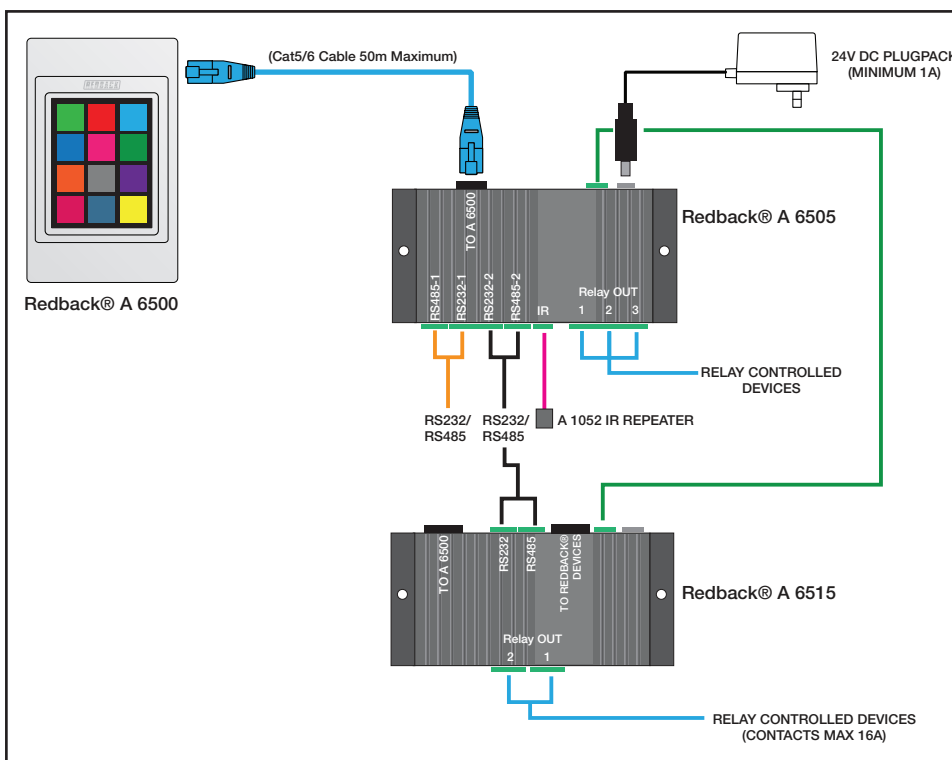
Fig 13.3

NOTE: The A 6515 relays are numbered 13 & 14.

A 6515 DIP Switch Settings
NOTE : Only one DIP swiitch can be set to ON.
DIP Switch 1 must be set to ON when using the RS485 input of the A 6515.
DIP Switch 2 must be set to ON when using the RS232 input of the A 6515.
All other DIP switches must be OFF.

Fig 13.4

14.0 SERIAL COMMANDS FOR THIRD PARTY CONTROL OF THE A6510 AND A 6515

The Redback**®** A 6510 and 6515 relay boxes can both operate without the need for the Redback**®** A 6500A wall plate or the Redback**®** A 6505 serial hub.

Third party control is achieved by sending serial commands to the RS232 or RS485 inputs of the A6510 or A 6515 as shown in figure 14.1.

The serial data sent has to transmitted at 9600 baud, with the stop bit set to 1, data bits to 8 , parity to none and the format must be ASCII.

The code to be sent is quite simple.
The code starts with the word RELAY followed by

T for toggle (this alternates the state of the relay with each press).
O (capital o) for OFF (this turns the relay Off).
I (capital i) for ON (this turns the relay On).

followed by the relay number.

So for instance to turn on relay 13, the code would be RELAYI13. To toggle relay 14, the code would be RELAYT14 and so on.
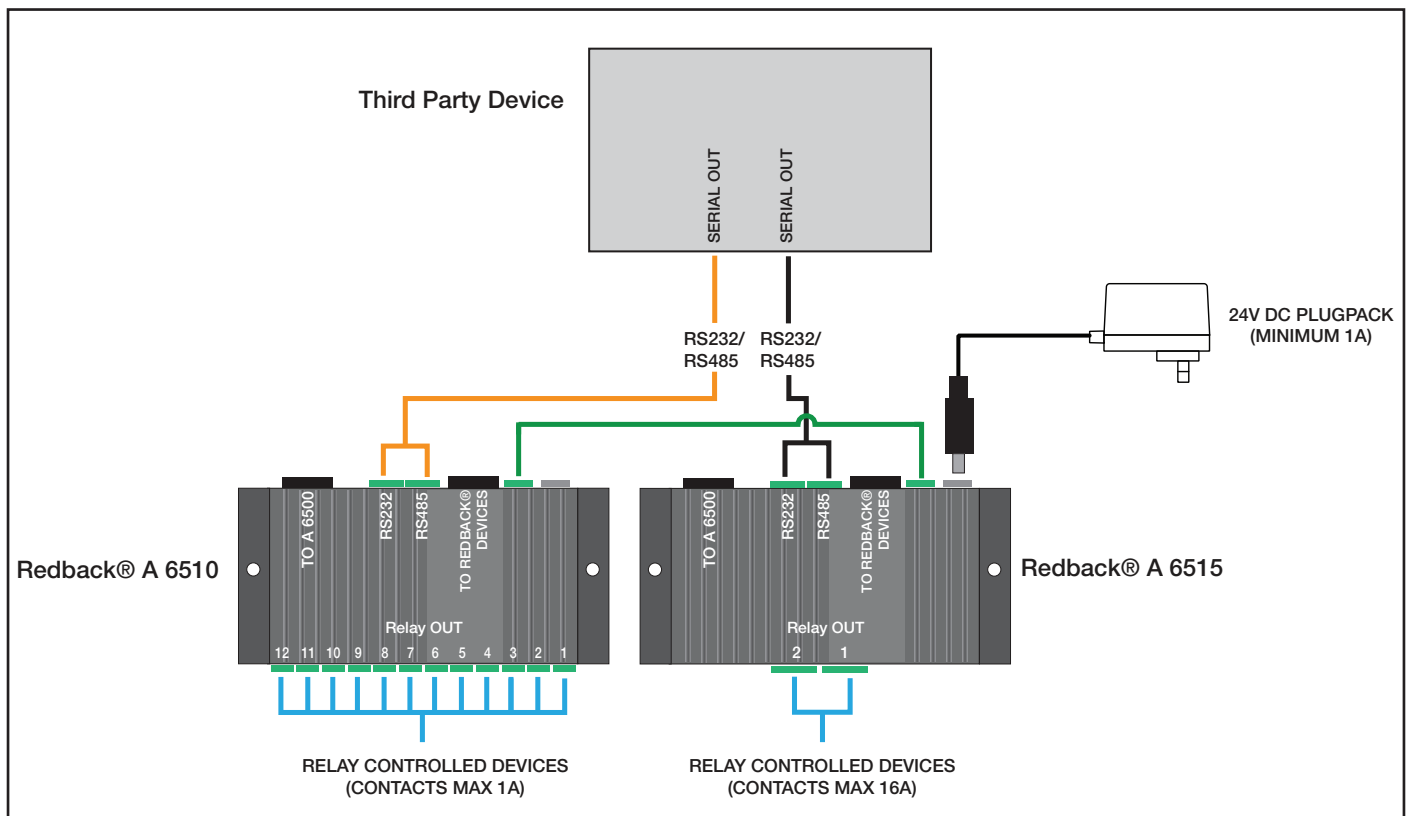

Fig 14.1

It is also possible to turn all relays ON or OFF by using the standard format of O (capital o) for OFF, I (capital i) for ON and then by using the number 99 as the relay number.
So the command RELAYI99 will turn all relays ON and the command RELAYO99 will turn all relays OFF

15.0 ADDING IR COMMANDS TO BUTTONS

To configure an IR command to a button, select the button from the Wall Plate Screen Simulator and then press the "Add" button as shown in figure 9.1.

The "Add New Command" window should appear as shown in figure 9.2 and will default to the Serial command type. Select the "IR" tick box and the window should change to that shown below in figure 15.1.

Fig 15.1

From here we have two methods of adding IR commands, which include adding an already saved IR code or by adding a Pronto HEX code. We also have the delay option which refers to the amount of time the system will wait after the command is exectued before performing any more tasks. This can be set to 10,100 or 1000 milliseconds.

15.1 Learning IR Codes

Insert a USB keyboard into the side of the A 6500A wall plate (you will have to remove the cover) refer to figure 2.1b in the operating manual.

NOTE: An OTG (On The Go) cable (such as the Altronics P 1921) will be required between the USB Keyboard and the Micro USB socket on the wall plate.

The wall plate will automatically recognise the connection of the keyboard (Note: the Micro SD card has to be fitted) and will request the user to enter the name of the button to be learned.

Enter the name of the button e.g. DVDPLAY and then press enter. (Note: Spaces are not available). Now press the remote control button to be recorded. The wall plate will record the IR code to the SD card for the duration of the button press and will recognise when the button is released.

Once the IR code has been stored, there is the option to test the code if required in FORCED or NORMAL mode. In order to test the IR output, the Redback® A 6505 Serial Hub will need to be connected to the A 6500A wall plate. Connect an IR repeater to the IR output (Refer to figure 2.2b and 3.1 in the Operating Manual) and point the IR repeater at the piece of equipment to be controlled.

Follow the on screen prompts to first test the IR code in FORCED mode and then in NORMAL mode. Testing the codes at this stage provides instant feedback of the codes working as required. Both codes are stored on the SD card for use, in the IRFORCED and IRNORMAL folders under the name entered by the user. e.g. DVDPLAY.

Remove the keyboard when finished recording IR codes and the wall plate will automatically restart.
Remove the SD card from the A 6500A Wall Plate and Insert into the PC.
These codes can now be retrieved by using the Add IR File button in the "Add New Command" window.

15.2 Add IR File

IR codes can be added to a button by pressing the "Add IR File" button on the Add New Command window as shown in figure 15.2. Once pressed the file navigator will open, then simply navigate to the location of IR files. They may be in the supplied IR LIBRARY folder on the SD card, or any saved IR codes created by using the IR learning facility on the wall plate (see section 15.1 for details) which will be saved to the SD card in the IRFORCED or IRNORMAL folders.
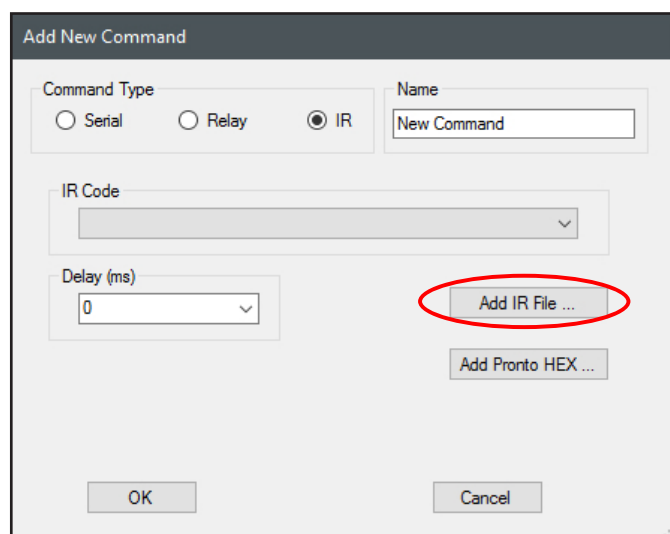

Fig 15.2

For our example we want to make button 2 play a DVD. We change the Icon of button 2 to a Play Icon available from the icon library. We then create a new IR command using the method in section 15.0. We navigate to the IRNORMAL folder on the SD card (see figure 15.3) and select the DVDPLAY file which we created in section 15.1 and press Open.
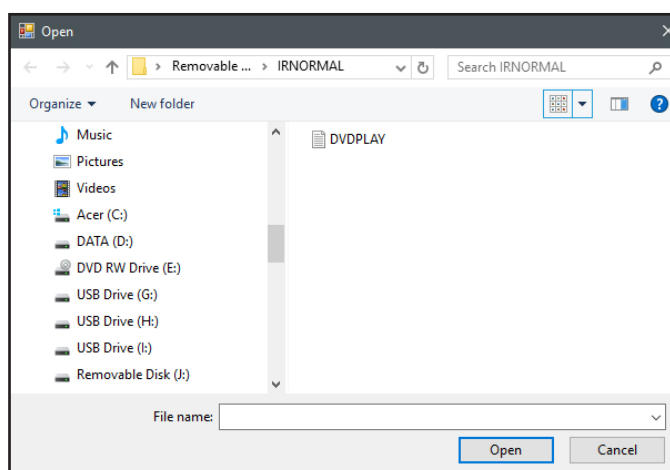

Fig 15.3

The IR file is now listed in the IR Code drop down box as shown in figure 15.4. Select DVDPLAY and then press OK.
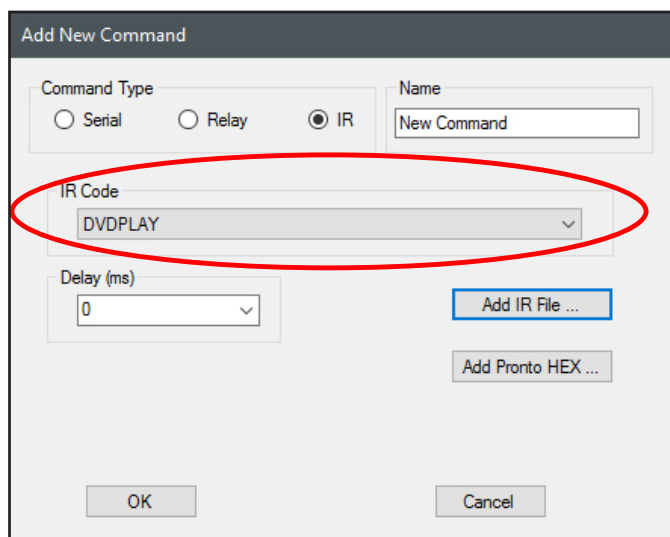

Fig 15.4

The resultant command line now appears in the button actions window as shown in figure 15.5.
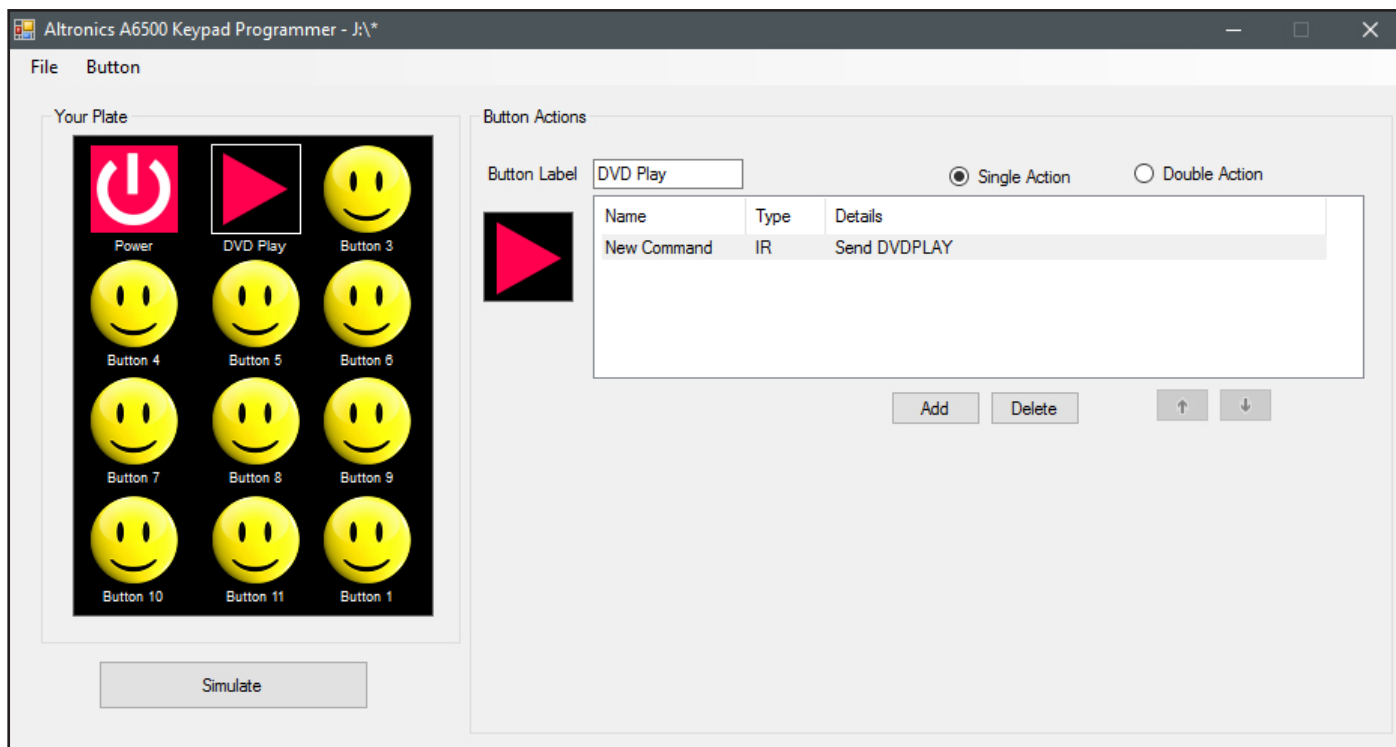
Fig 15.5

15.3 Add Pronto HEX File

Pronto HEX format IR codes are readily available and remove the need to learn IR codes.
These codes are easily accessible on the internet, but be warned that not everything available will work.

IR codes can be added to a button by pressing the "Add Pronto HEX" button on the Add New Command window as shown in figure 15.6.
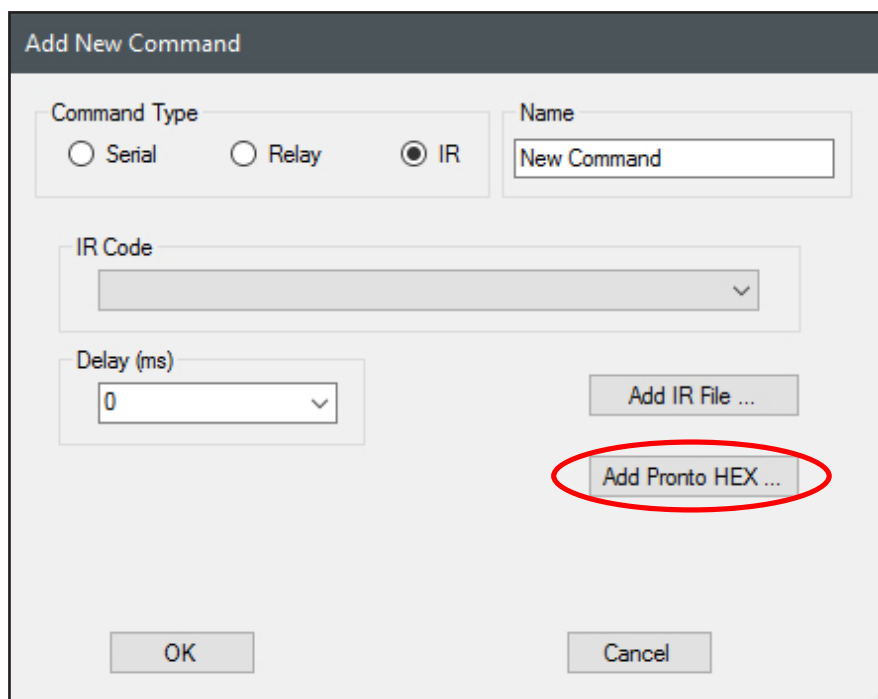

Fig 15.6

Once pressed the "Create Pronto HEX Command" window will appear (refer to figure 15.7).

Fig 15.7

From here it is simply a matter of copying the HEX codes from a webpage or other document and pasting them into the window. For our example we changed the Icon of button 3 to a Stop Icon available from the icon library. We have then copied the Pronto HEX codes from a webpage. We name the command Sony DVD Stop. The result is shown in figure 15.8.
(Note: When entering IR PRONTO HEX codes, spaces are valid between each HEX code but invalid at the start and end of the group. Make sure there isn't a space at the end of the group of codes).

Fig 15.8

The Pronto HEX code is now listed in the IR Code drop down box as shown in figure 15.9. Select Sony DVD Stop and then press OK.

Fig 15.9

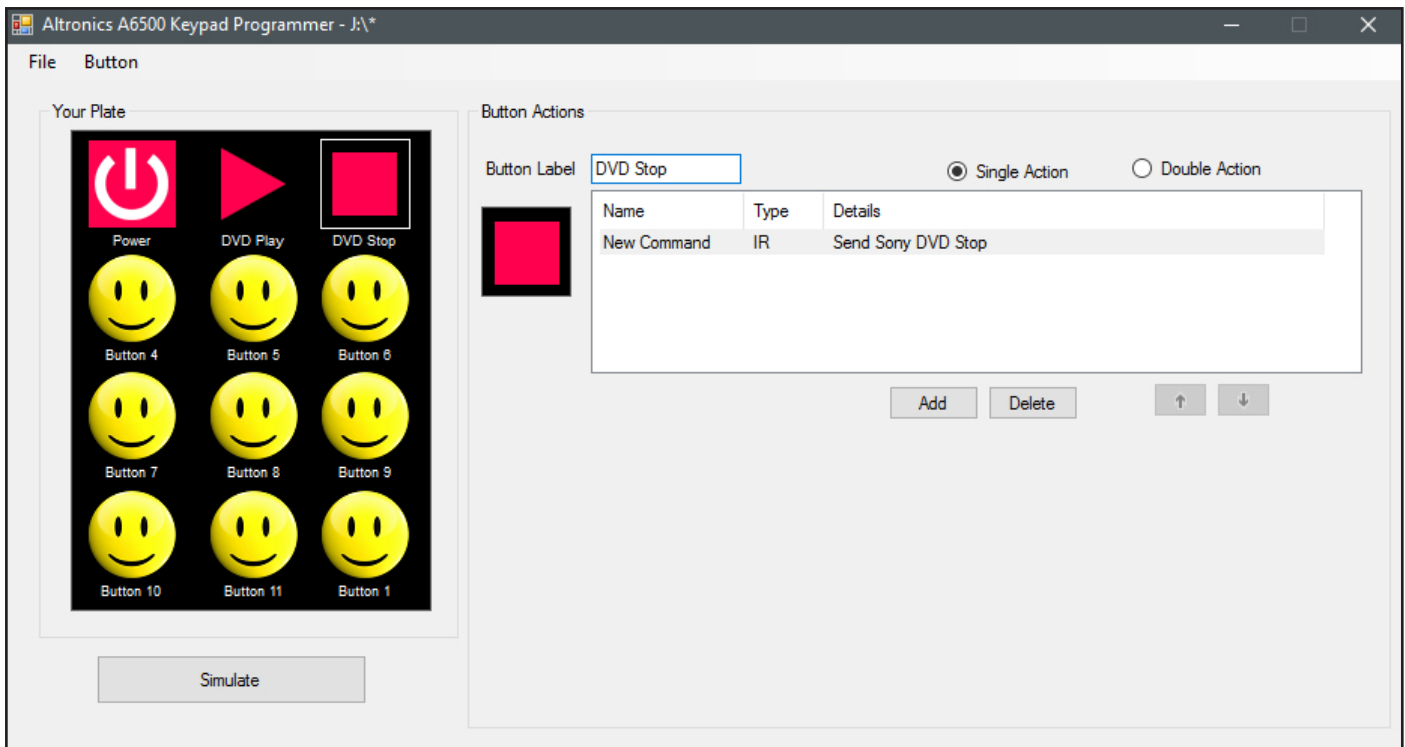The resultant command line now appears in the button actions window as shown in figure 15.10

Fig 15.10

16.0 DOUBLE ACTION BUTTONS

Previous sections have covered buttons with a single action but it is also possible to give a button two actions for situations like turning a device on/off, pressing play/pause etc.

In this section we will cover a dual action button, to play and stop a DVD player with IR codes, using the codes covered in section 15.0.

Begin by selecting the button to become a dual action button, which in our case is the Play button and then press the "Double Action" option as shown in figure 16.1.
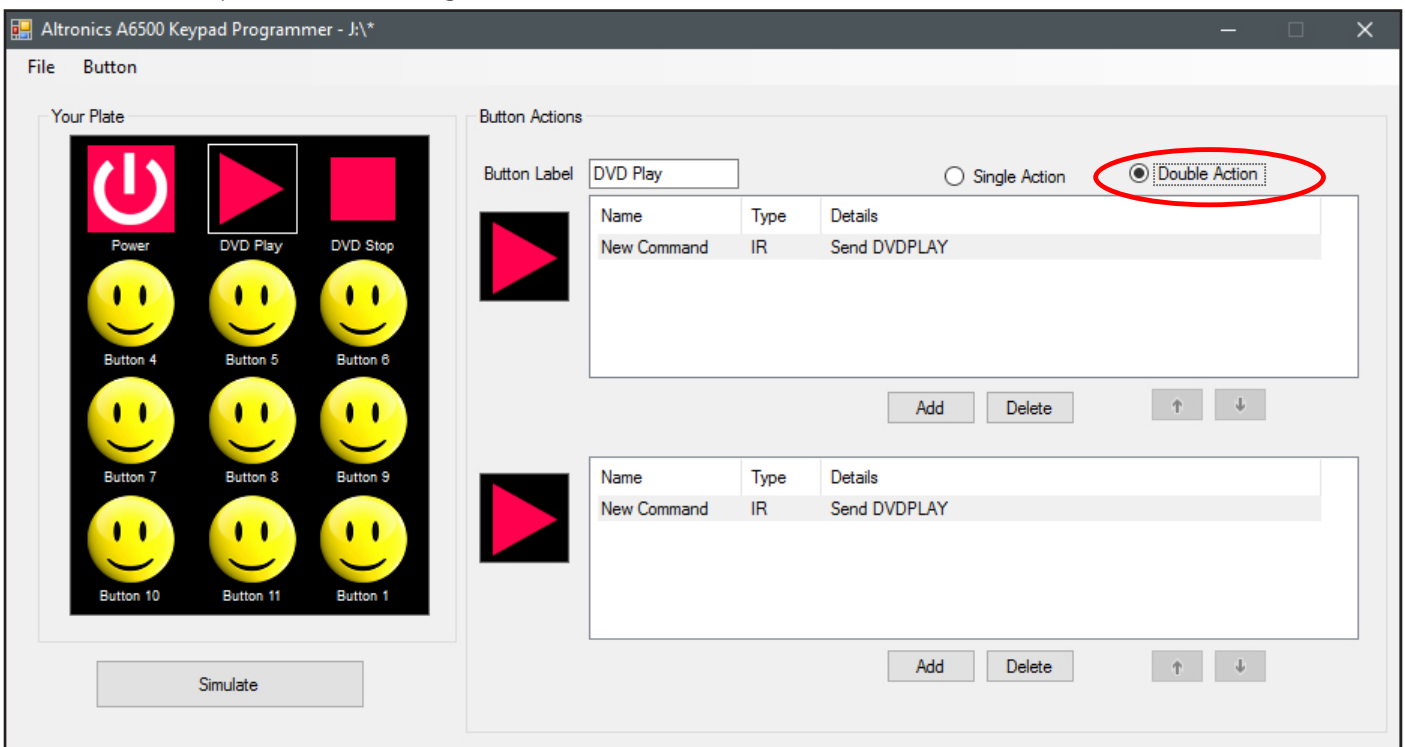

Fig 16.1

When the "Double Action" option is selected, a copy of the single action button is created with the same Icon and commands.

The second action for our example is to stop the DVD playing. We click on the lower Play icon and change this to the Stop icon. We then double click on the command line and change the command to the IR Pronto HEX command used in section 15.3 to stop playing the DVD. The button label is renamed to DVD and the result is shown in figure 16.2.
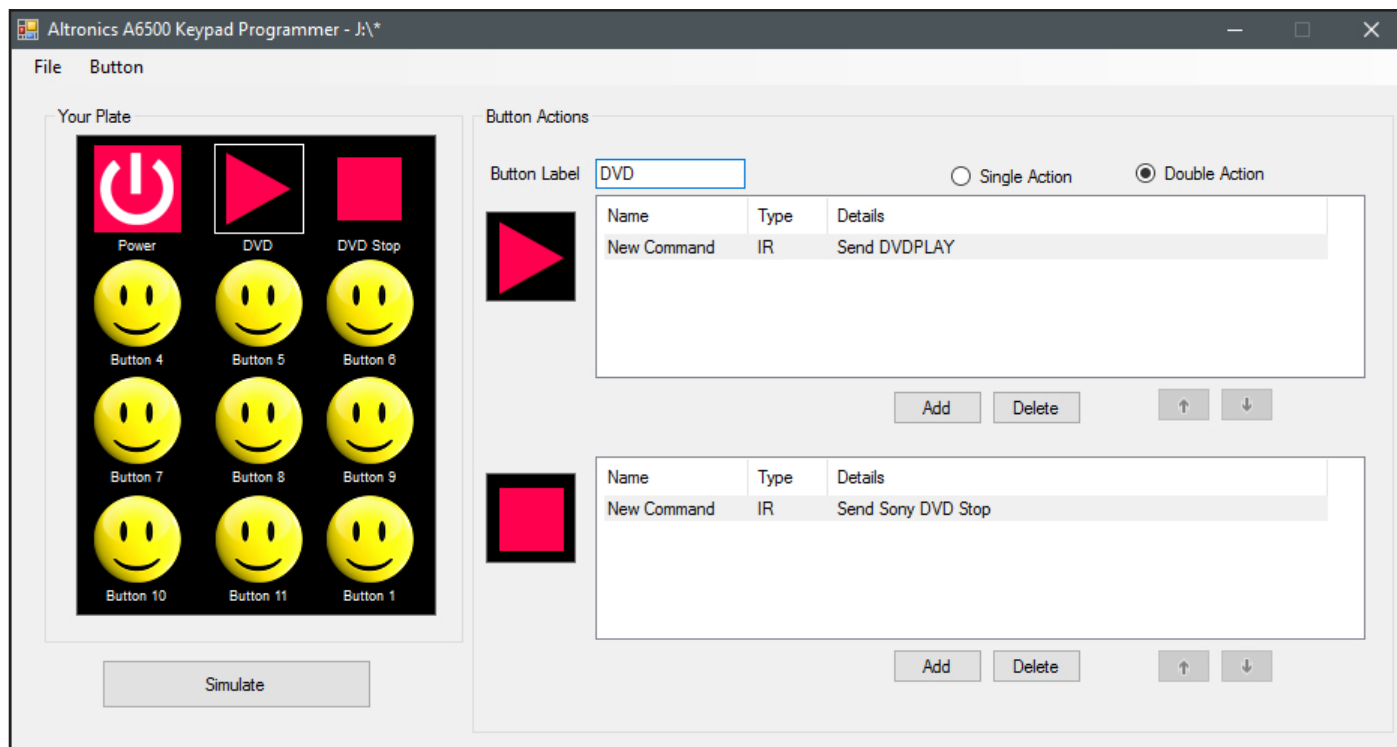

Fig 16.2

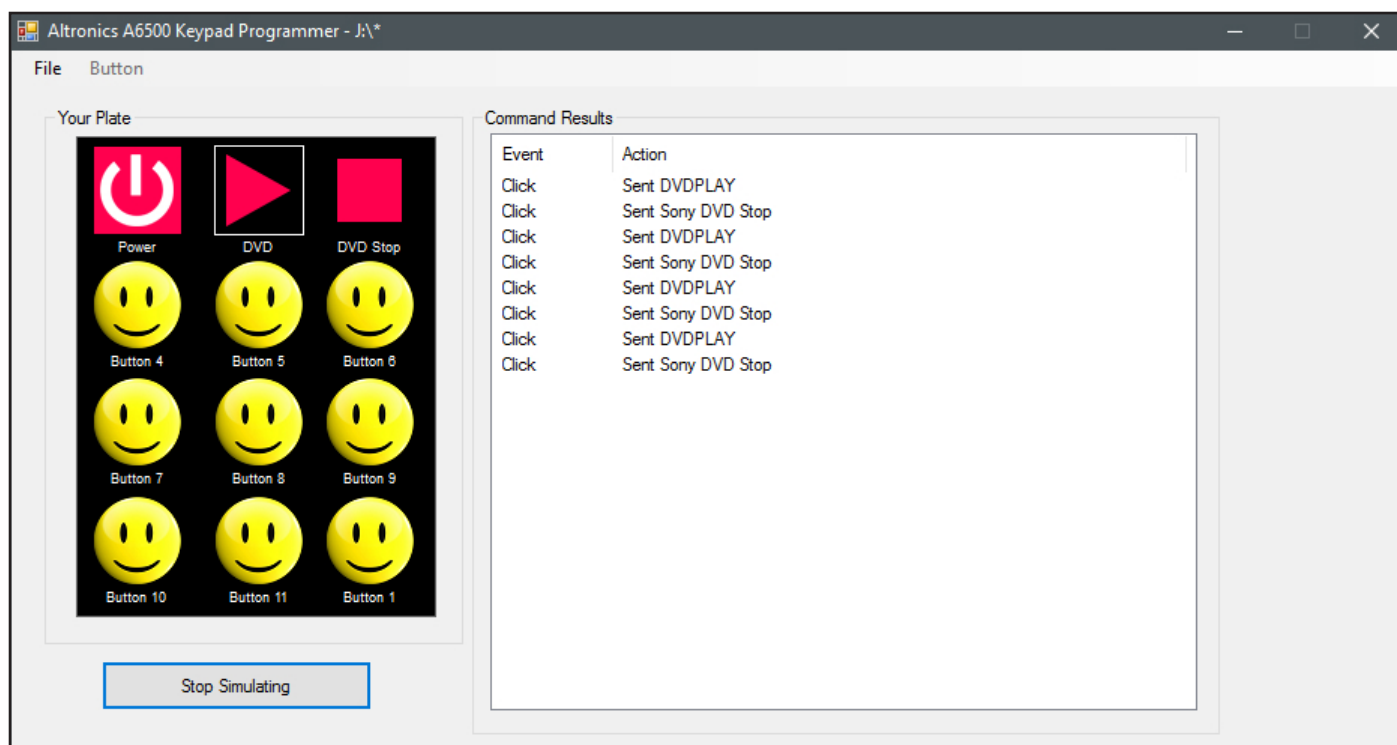Use the simulate button to check the results when the Play/Stop button is pressed, which are shown in figure 16.3.

Fig 16.3

As in single button configurations, both actions can have multiple command lines.

17.0 SUB PAGES

The A 6500A Wall plate has provision for sub pages which are associated with the buttons on the home page. The home page can have a maximum of twelve buttons, and each of those twelve buttons can have a sub page with another 11 buttons.

In the example of figure 17.1 a new program has been created with 12 buttons on the home page. The install requires a DVD player to be controlled from the A 6500A, but to completely control the DVD player all of the home page buttons would be required. This isn't practical, so instead a sub page will be used which will house all of the DVD player controls. In our example one of the buttons is labelled DVD and the Icon updated. To associate a sub page to the button, simply tick the "Opens Sub Page" tick box.

The "Show Sub Page" button underneath the simulator screen is now active and can be used to display the sub page.
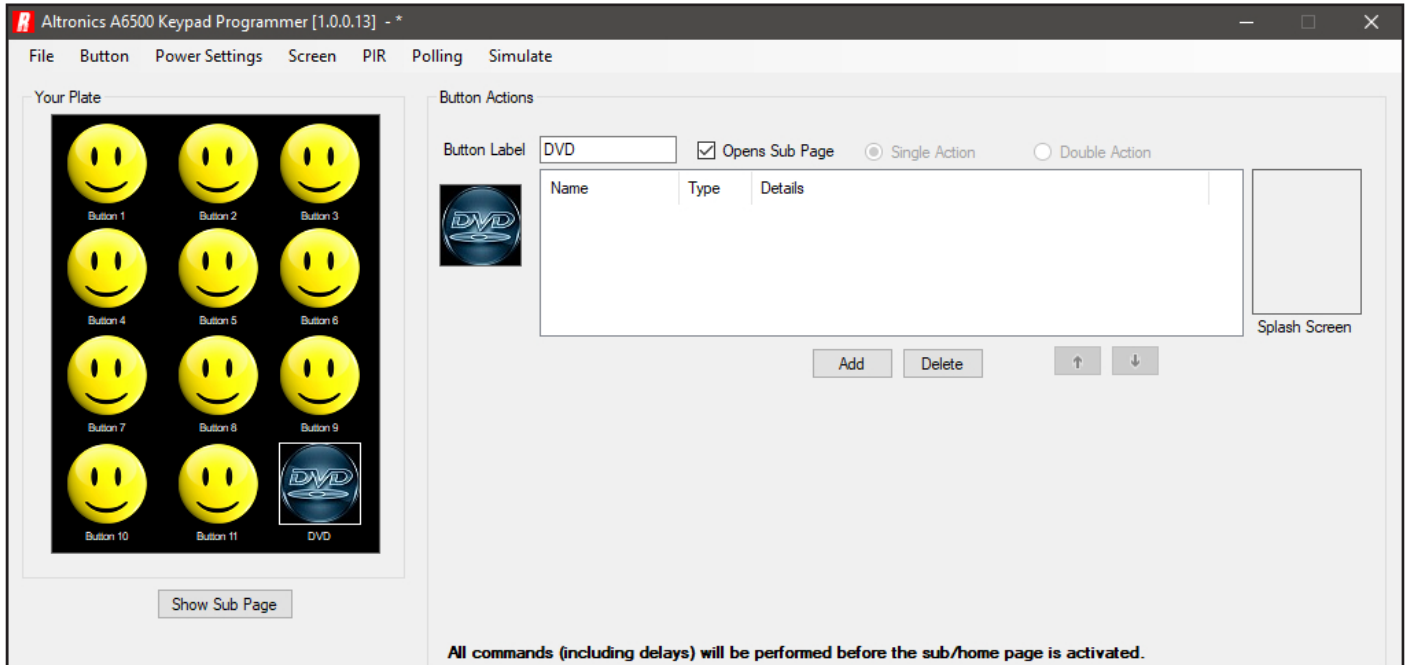

Fig 17.1

The sub page as shown in figure 17.2 has a "Home Page" Button which can be re-labelled and the button Icon updated just like any other button.

It is worth noting that any button can be used to execute commands, including the Home Page button and any Sub Page button. So for instance a command could be sent to the DVD player (by adding a command in figure 17.1) to "Power On" the DVD Player when the DVD sub page is activated. Similarly a command could be added to the Home Page button in figure 17.2 which is executed before returning to the home page.
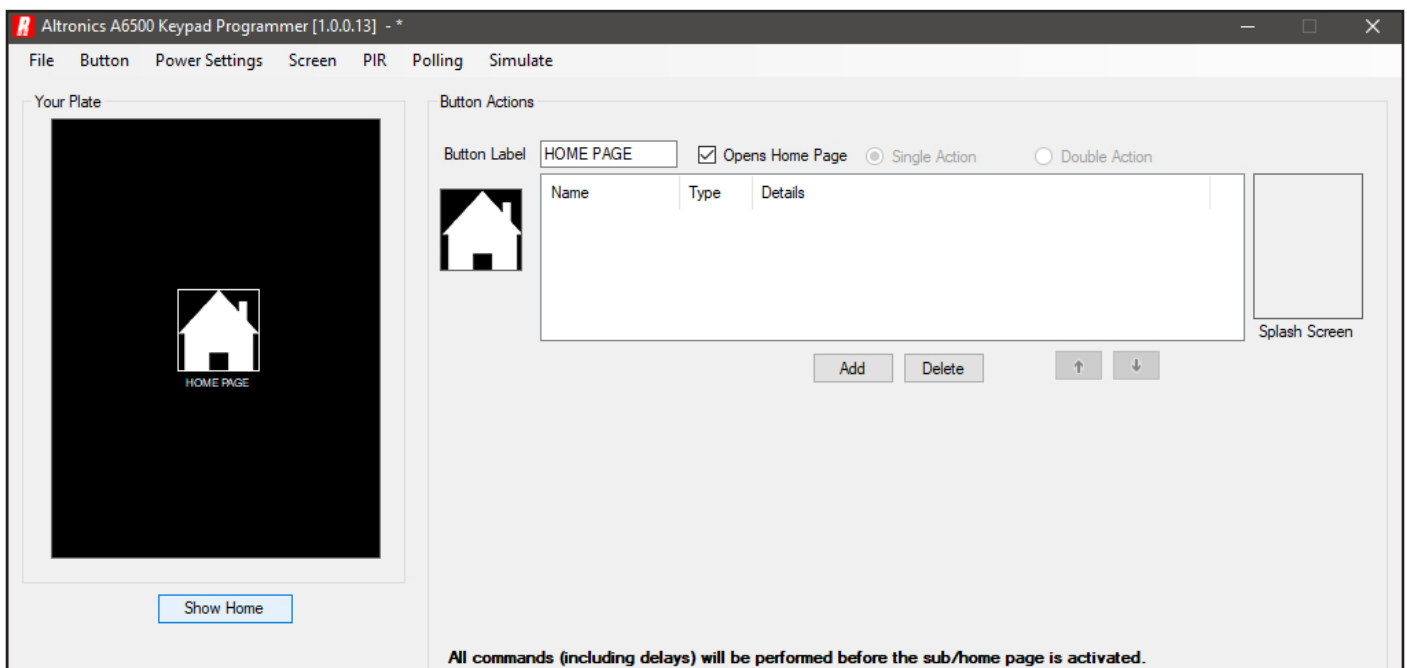

Fig 17.2

To control the DVD player all of the required buttons can now be added to the sub page as illustrated in figure 17.3. All of the buttons could then be given IR commands for instance, to control the DVD player (refer to section 15 to add IR commands to buttons).
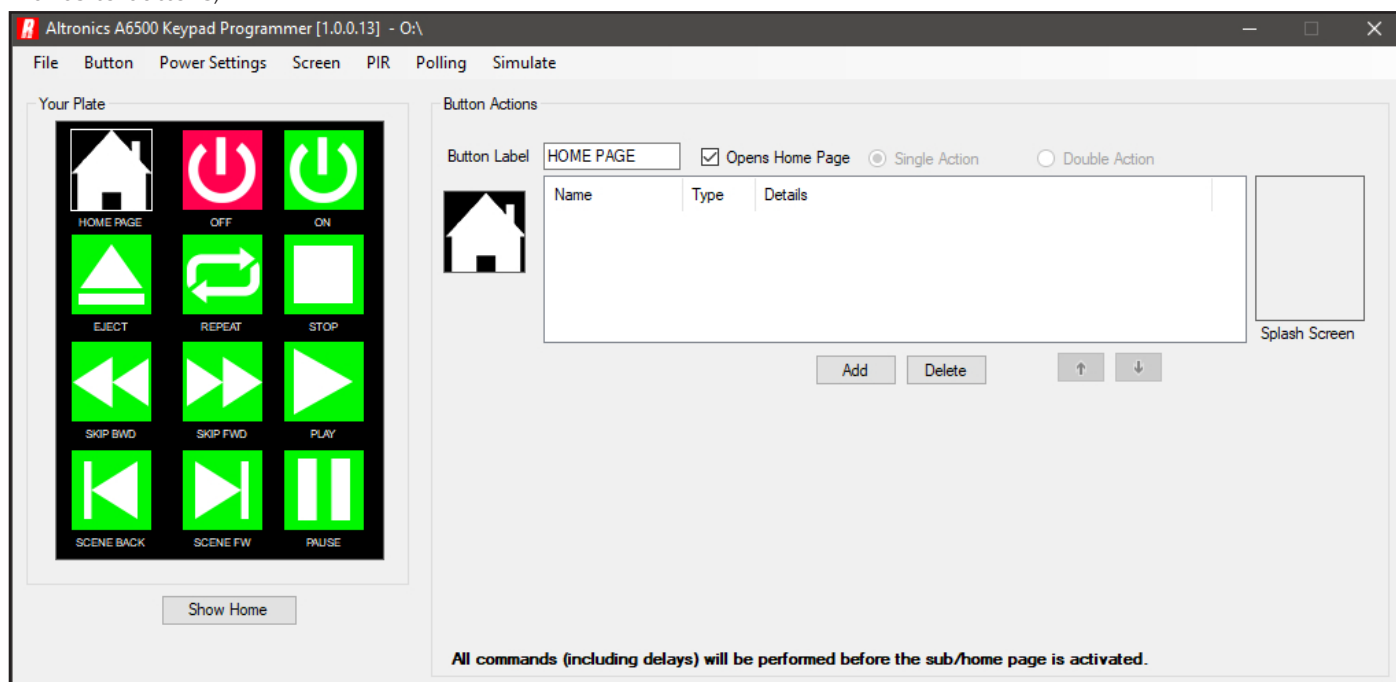

Fig 17.3

To return to the home page screen, press the "Show Home" button.
This process can then be repeated to add sub pages to other home page buttons .

18.0 SPLASH SCREENS

Splash screens provide the ability to display a full screen message or image when a button is pressed. They can be included at any point in the command lines for the button. *Note: Only one splash screen can be used per button.*
The screensaver image is 240 pixels x 320 pixels and must be one of the following valid image formats jpeg, png, gif and bmp. The images can be created and saved using readily available image creation software.
It is also possible to import image files of any size which will be converted by the A 6500A PC software to a bitmap image.

Figure 18.1 illustrates an example on the use of splash screens. In this example a button is added and labelled "DEMO" and will be used to configure a Demo room. When the button is pressed a projector screen will drop from the wall, and the projector will start up. Because the projector takes a while to warm up, a splash screen will be displayed to notify the user that the demo has been activated and to please wait.
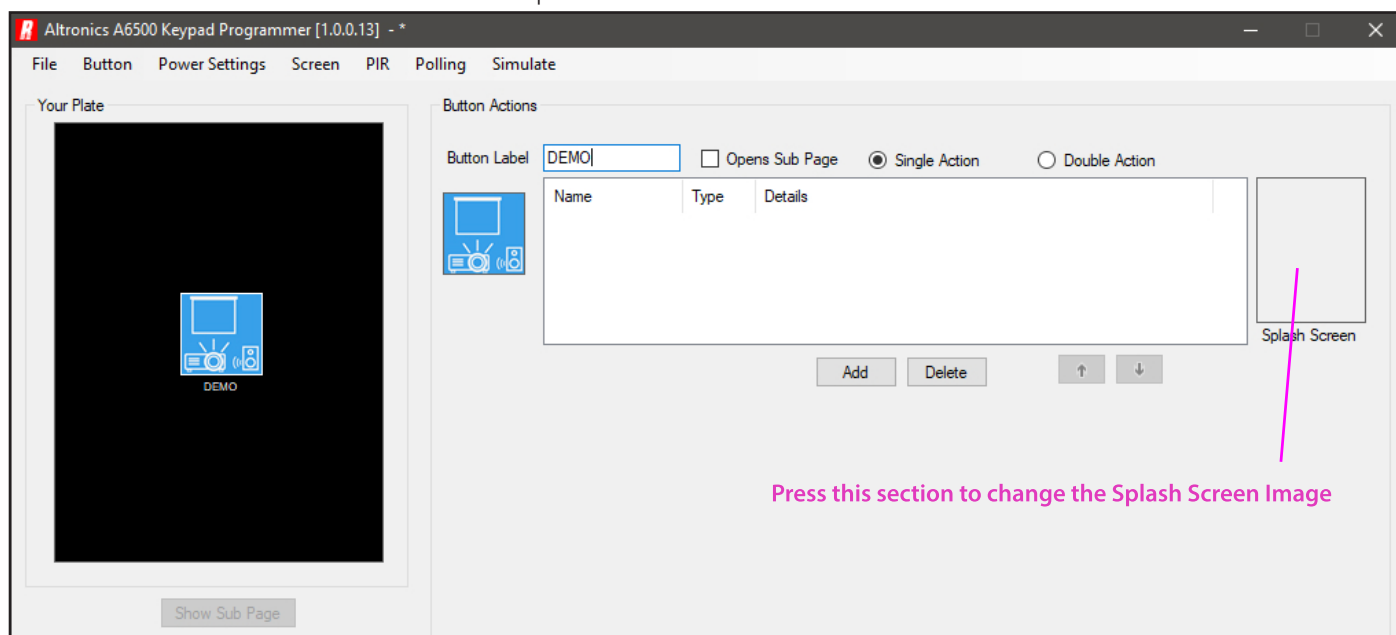

Fig 18.1

Press the section of the screen in the Splash Screen Image box shown in figure 18.1 and the Splash Screen loading window will appear as shown in figure 18.2. Click in the image box and then navigate to the image to be used as the splash screen.
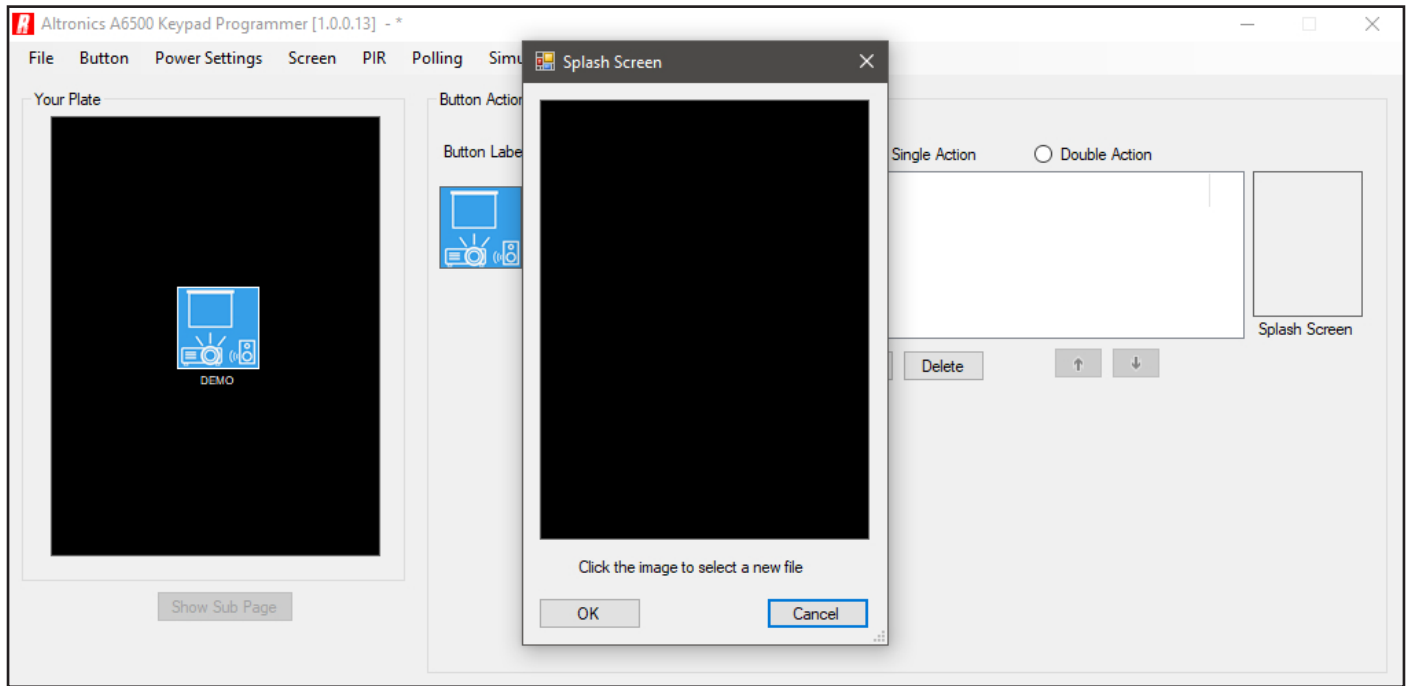

Fig 18.2

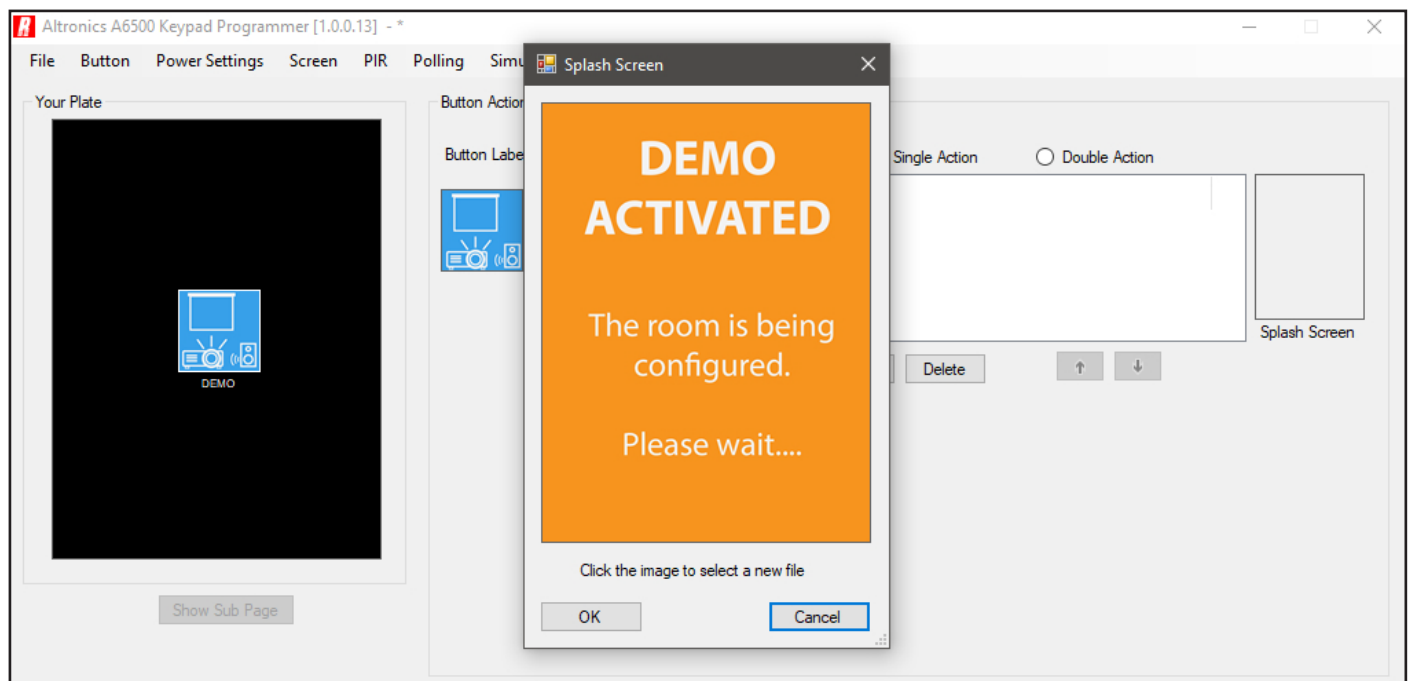The loaded image will now appear in the Splash Screen window as shown in figure 18.3.

Fig 18.3

Press OK and the image will now appear in the Splash Screen image box as shown in image 18.4.
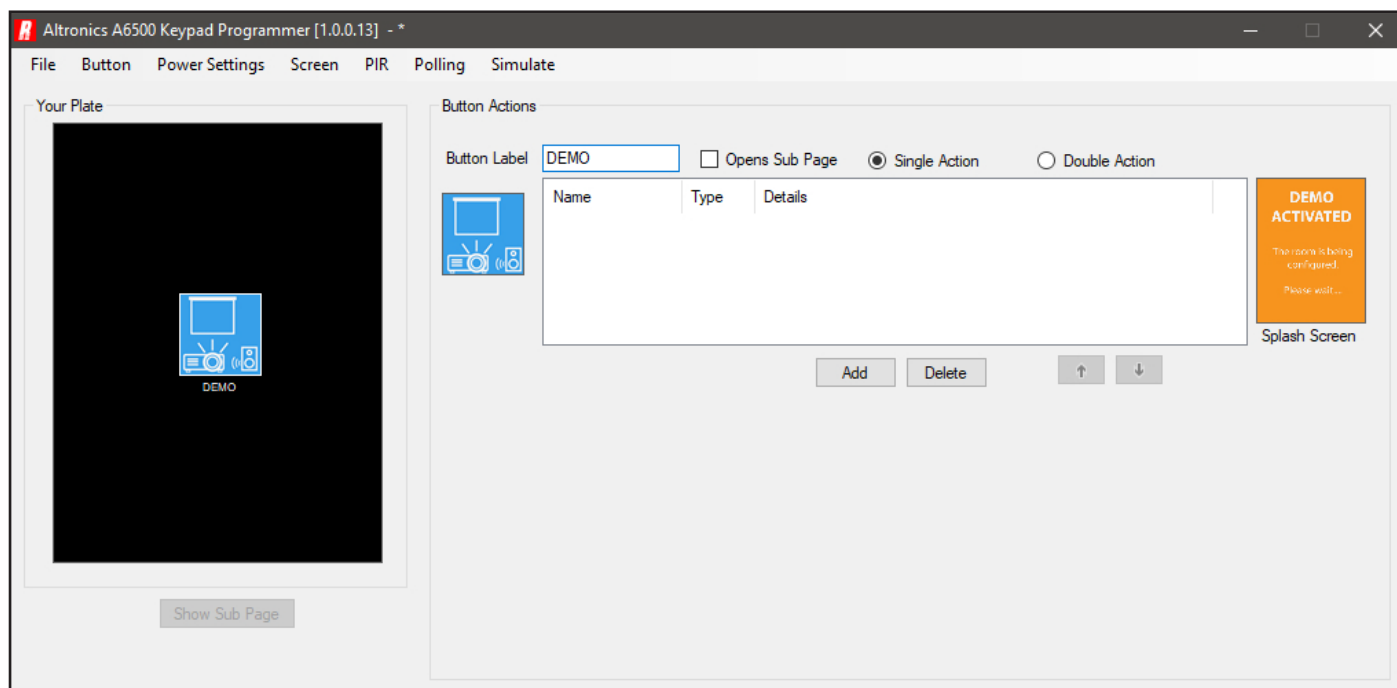
Fig 18.4

Now that the Splash Screen has been installed we need to add a command to the Demo button to activate it.
Press the "Add" button and then select "Splash Screen" from the command type drop down box as shown in figure 18.5.
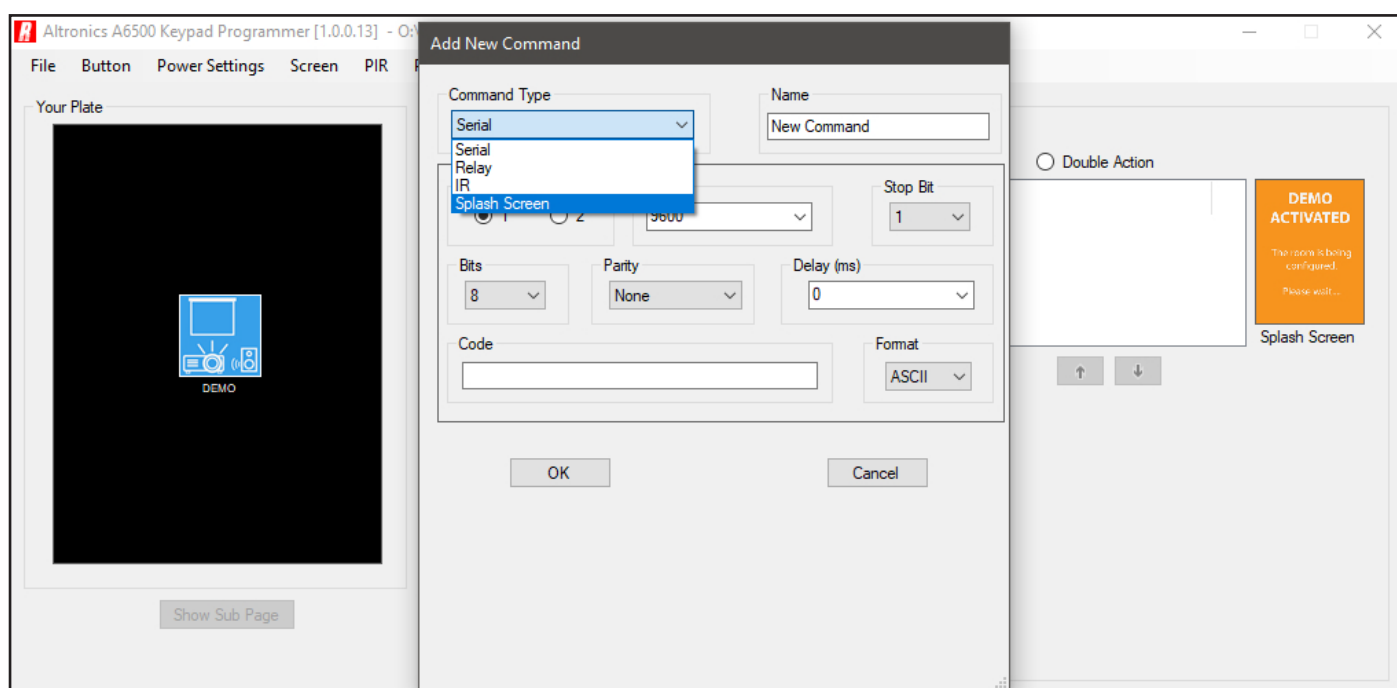

Fig 18.5

After selecting "Splash Screen from the drop down box, the splash screen image will be loaded and the delay can now be set as shown in figgure 18.6.
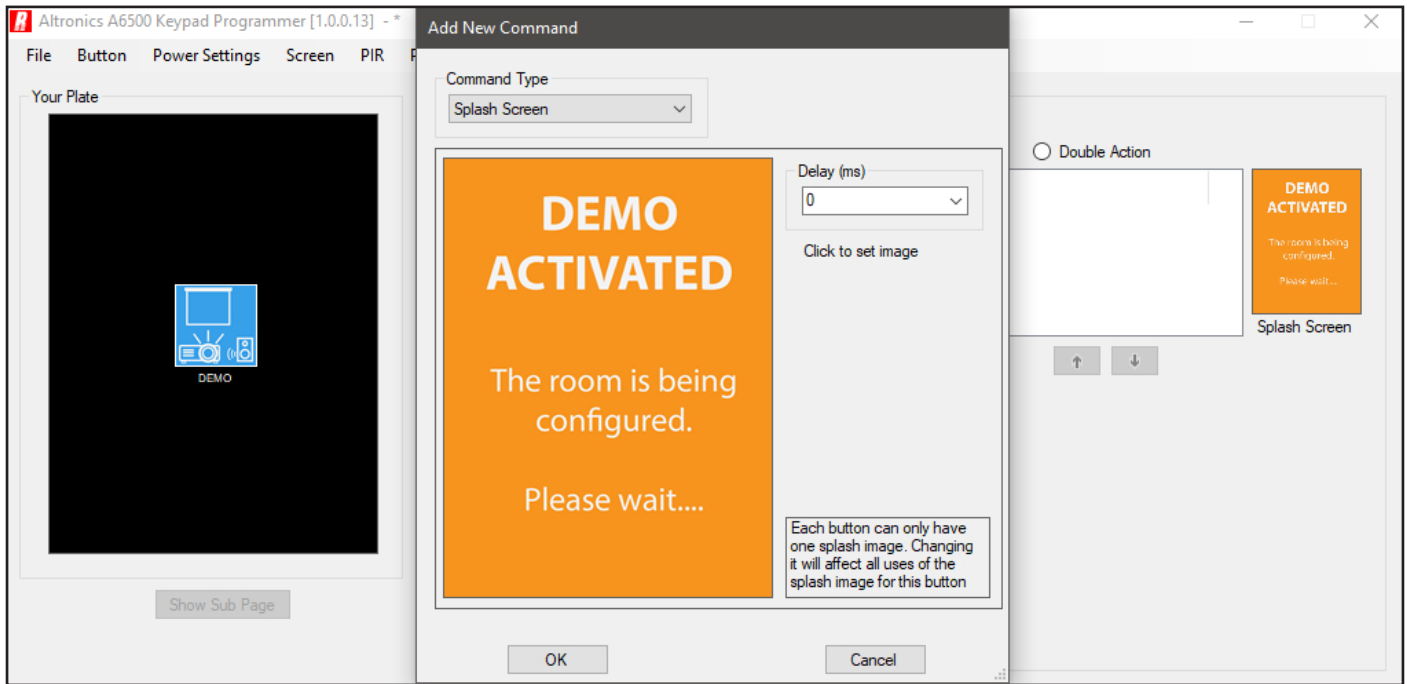
Fig 18.5

The only option available for the Splash screen is the delay. This delay corresponds to the amount of time the Splash screen will be displayed after being initiated.

Note: Setting the delay to 0 ms will put the splash screen into "Auto mode", which means the splash screen will be displayed until all following commands for the button have been executed. Setting the delay to any other value will display the Splash Screen for that amount of time, and no other commands can be initiated until the time elapses.

In our example shown below in figure 18.6 the splash screen delay has been set to 0ms, and it is the first command in the button actions. The next two commands turn the projector ON and put the projector screen down. The delay after putting the projector screen down has been deliberately set at 10,000 ms (10 sec) so that the splash screen is displayed until the projector has time to turn ON.
If the delay for the splash screen had been set to 10 sec instead of putting the delay after the projector screen, then the splash screen would have been displayed for 10 seconds and then the projector would have been turned on. The message telling the user to wait would have disappeared and the user would still be waiting for the projector to turn ON.
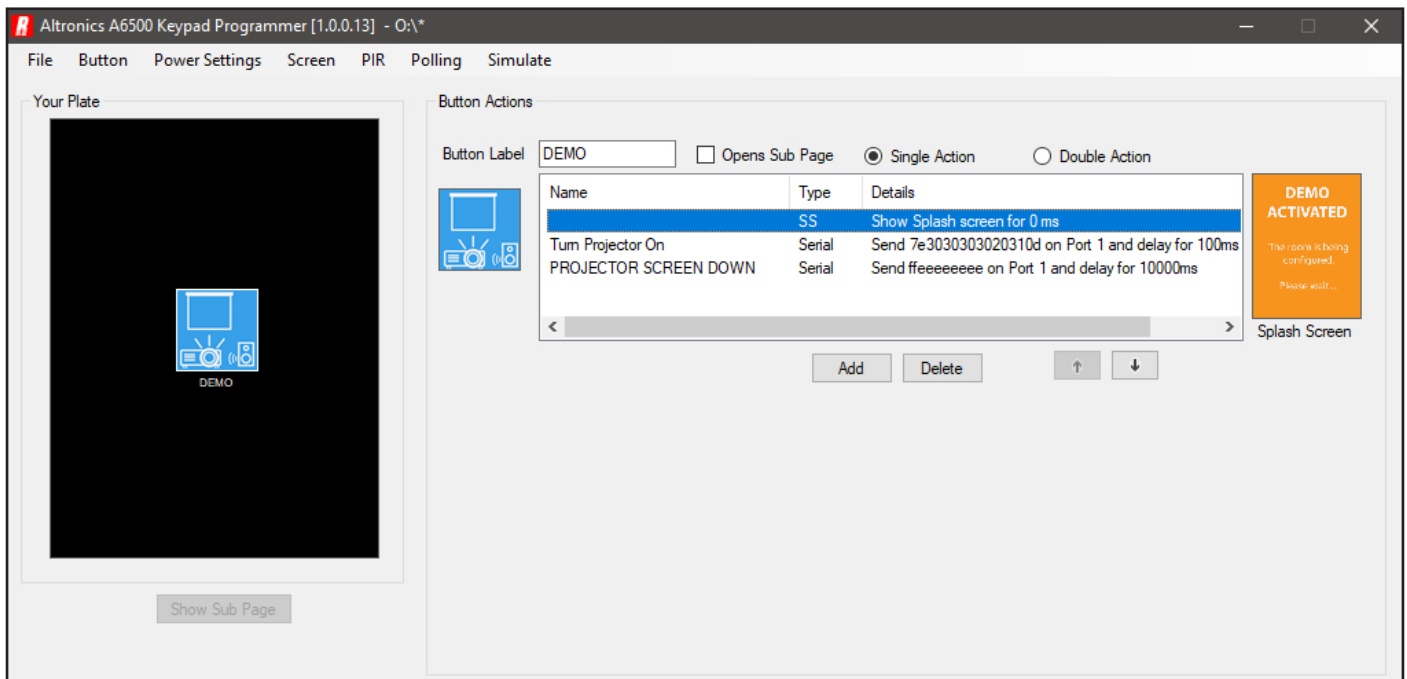

Fig 18.6

19.0 WALLPLATE COLOURS, BACKLIGHT, DIMMING and SCREENSAVER OPTIONS

19.1 Wallplate LCD Background and Text Colours

The Redback® A 6500A wallplate comes standard out of the box with white text on a black background. Both of these can be adjusted by navigating to the "Screen" tab and selecting Background or Text colour.
To change the background colour, select the "Screen" tab and then select "Background Colour" as shown in figure 19.1.
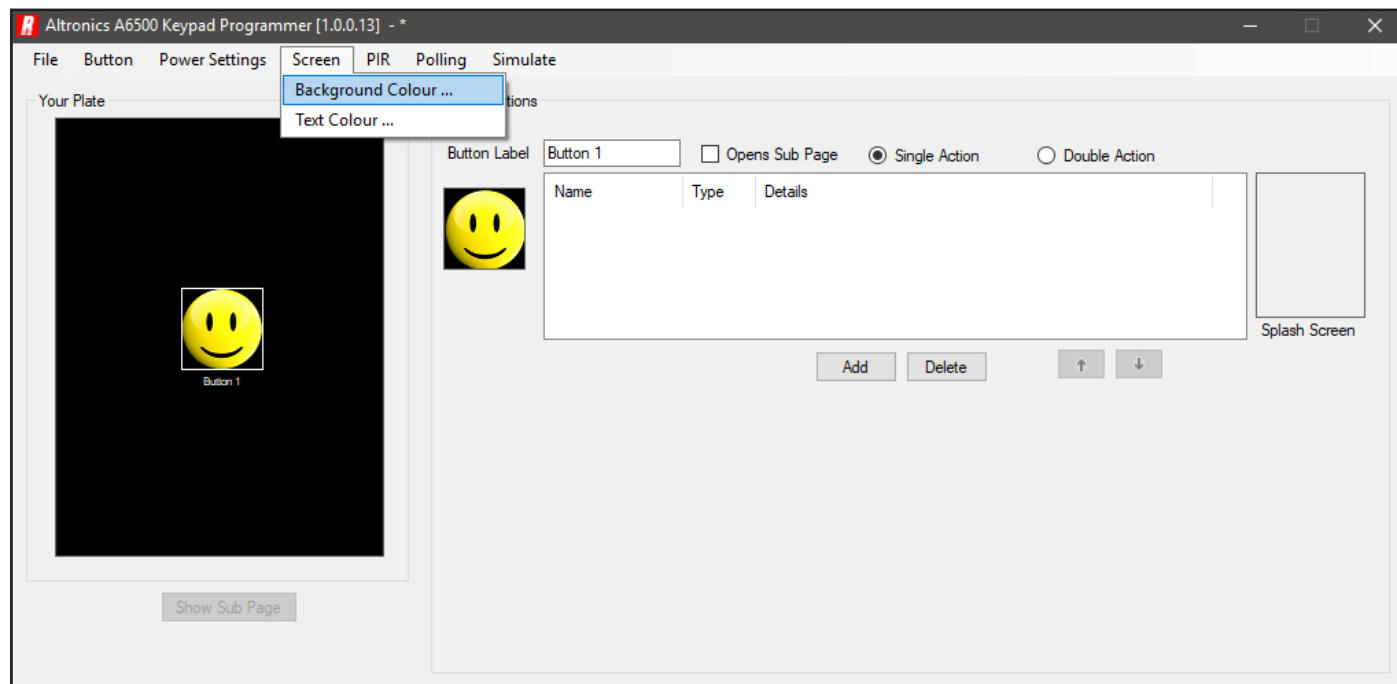

Fig 19.1

The colour selection box will appear which has a set of basic colours. If a custom colour is required press the "Define Custom Colours" box and the full spectrum of colours will appear as shown in figure 19.2.
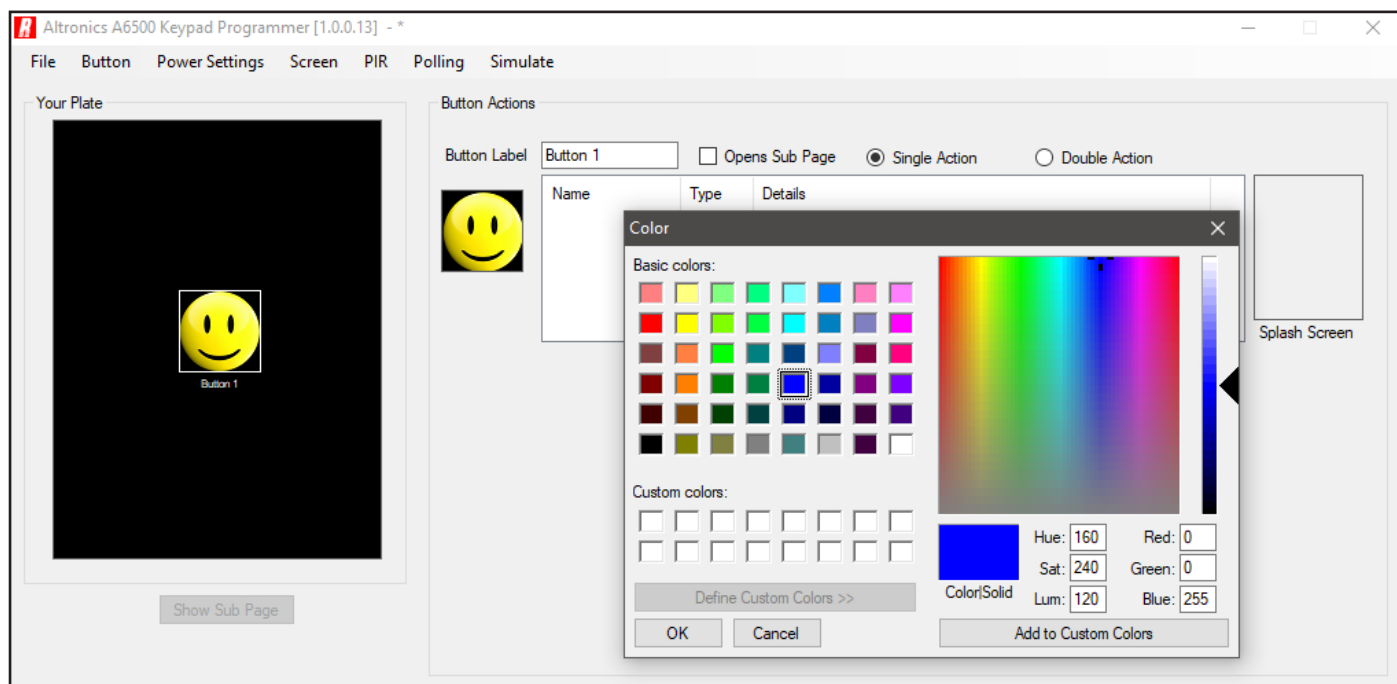Select a background colour and press OK.

Fig 19.2

The selected background colour should now be visible on the simulation screen. In our case we have selected a blue screen as shown in figure 19.3.
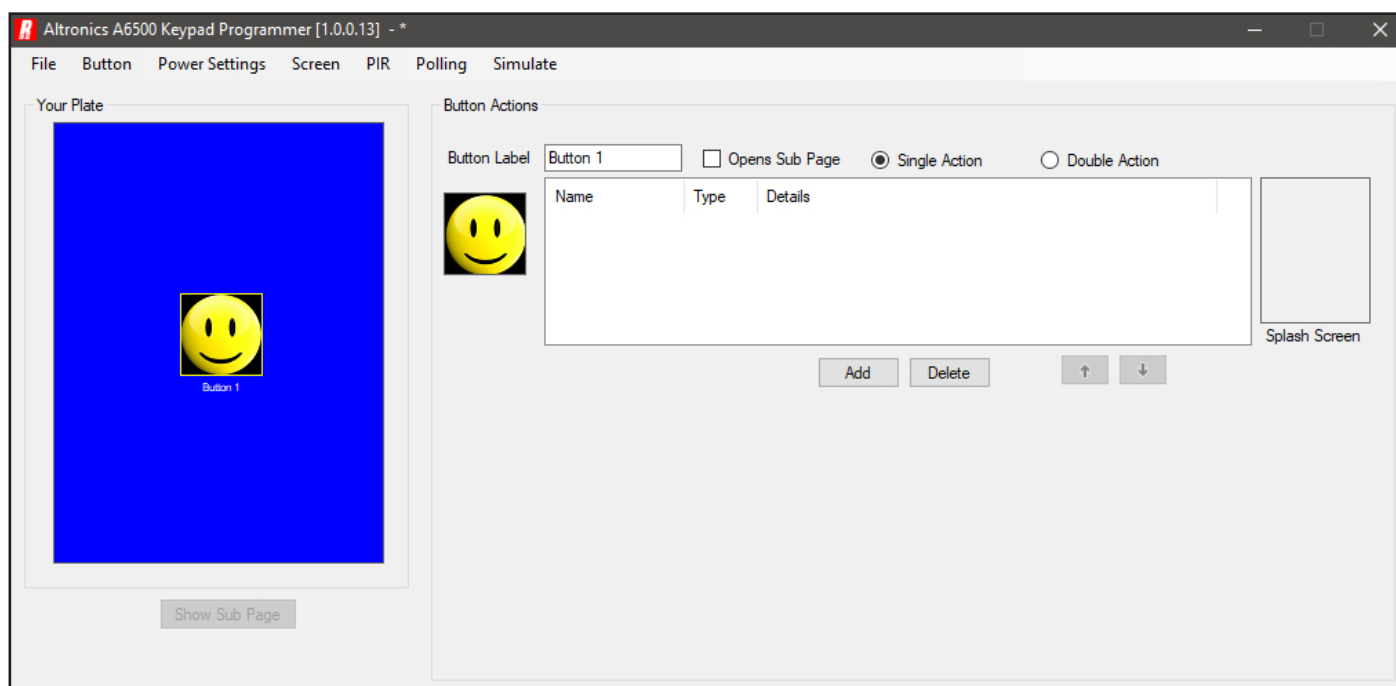

Fig 19.3

To change the text colour, repeat the process and select "Text Colour" from the "Screen" tab. Then change the colour using the same procedure used to select the background colour and then press OK.
In our example we have selected yellow as the colour of our text which is shown in figure 19.4.
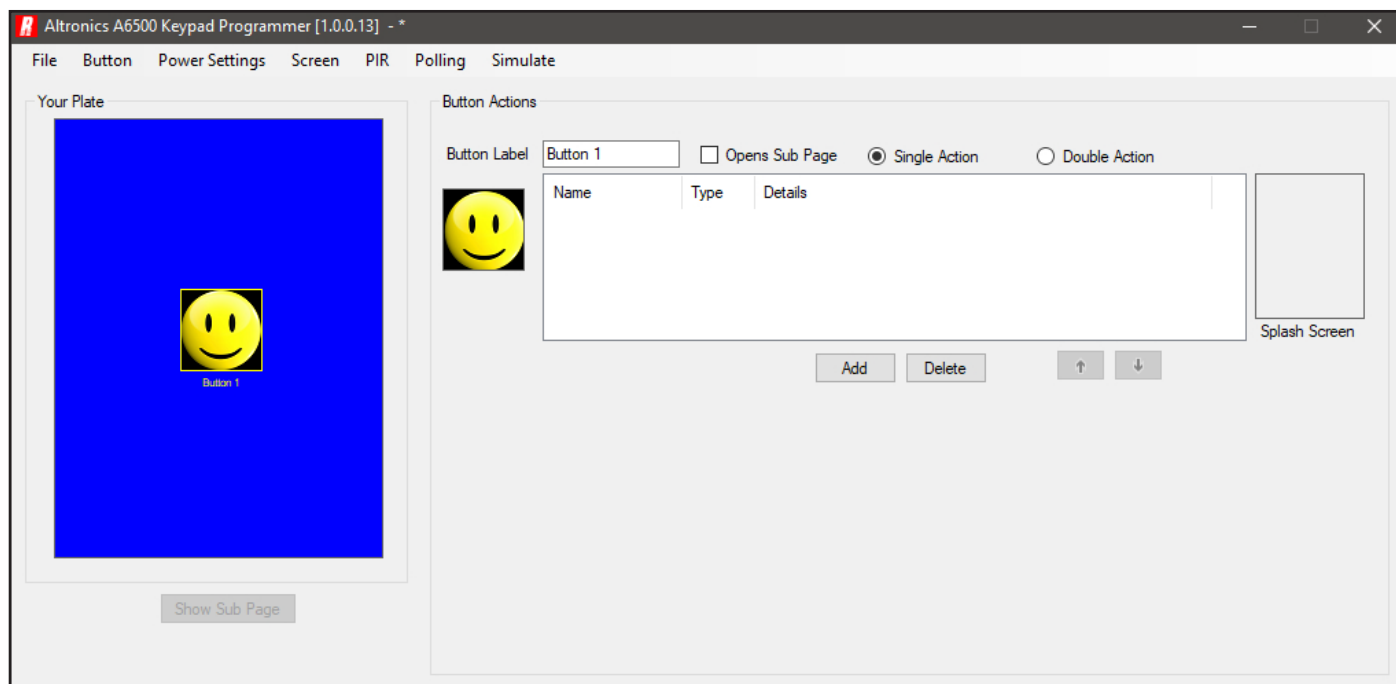

Fig 19.4

19.2 Wallplate Dimming Time

The Redback® A 6500 wall plate has the option to dim the screen to a set backlight level, and also activate a static screen-saver, after a user set amount of time with no screen contact. This time is set by navigating to the "Power Settings" tab and selecting the Dim Screen option as shown in figure 19.5. The time can be set anywhere between 0 and 180 minutes.
Note: If the Dim Screen time is set to 0 minutes the wallplate LCD will never dim and the screensaver will not activate.
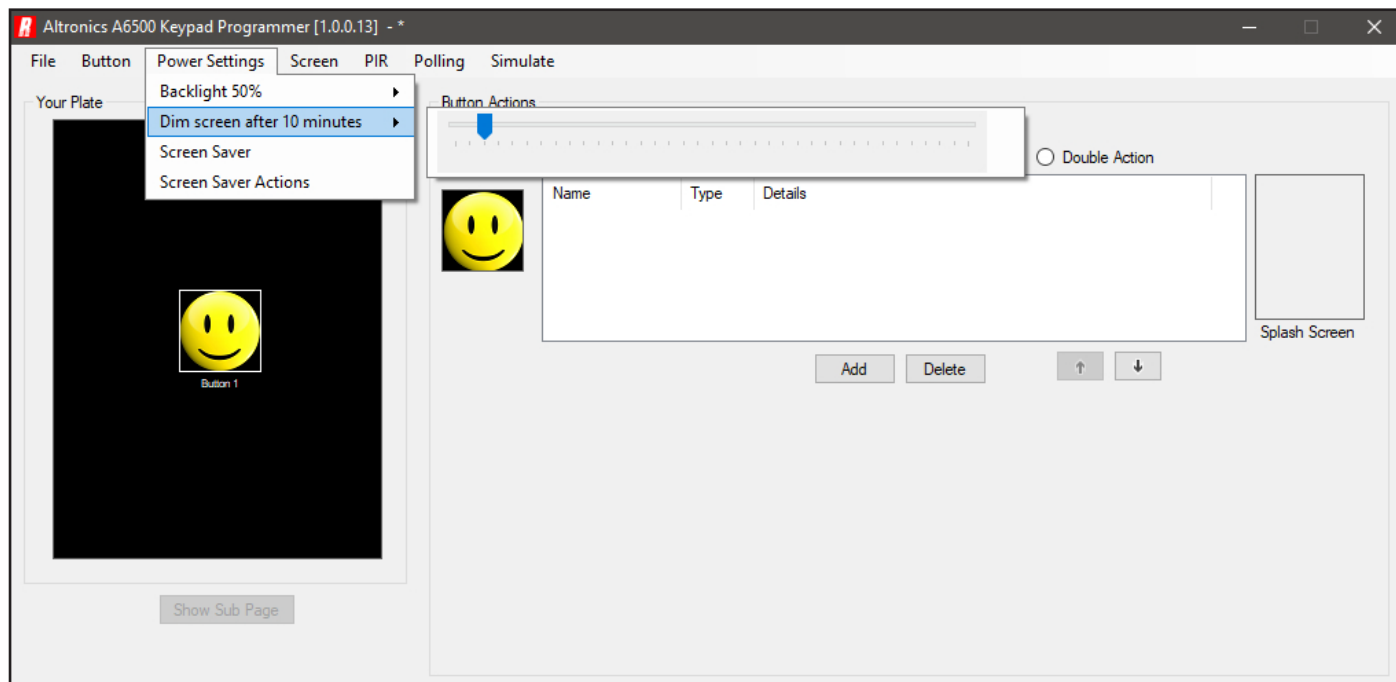

Fig 19.5

19.3 Wallplate Backlight

The LCD backlight (or brightness) can be set from 0% which means the screen is not visible at all, up to 100% which is full brightness. This backlight setting is used in conjunction with the Dim Screen setting. An example of this is a follows - If the Dim Screen is set to 2 minutes and the Backlight is set to 30%, then after two minutes of no screen contact the screen backlight will drop to a brightness of 30% and stay that way until the screen is touched.
The Backlight percentage is set by navigating to the "Power Settings" tab and selecting the Backlight option as shown in figure 19.6. The percentage can be set anywhere between 0 and 100%.
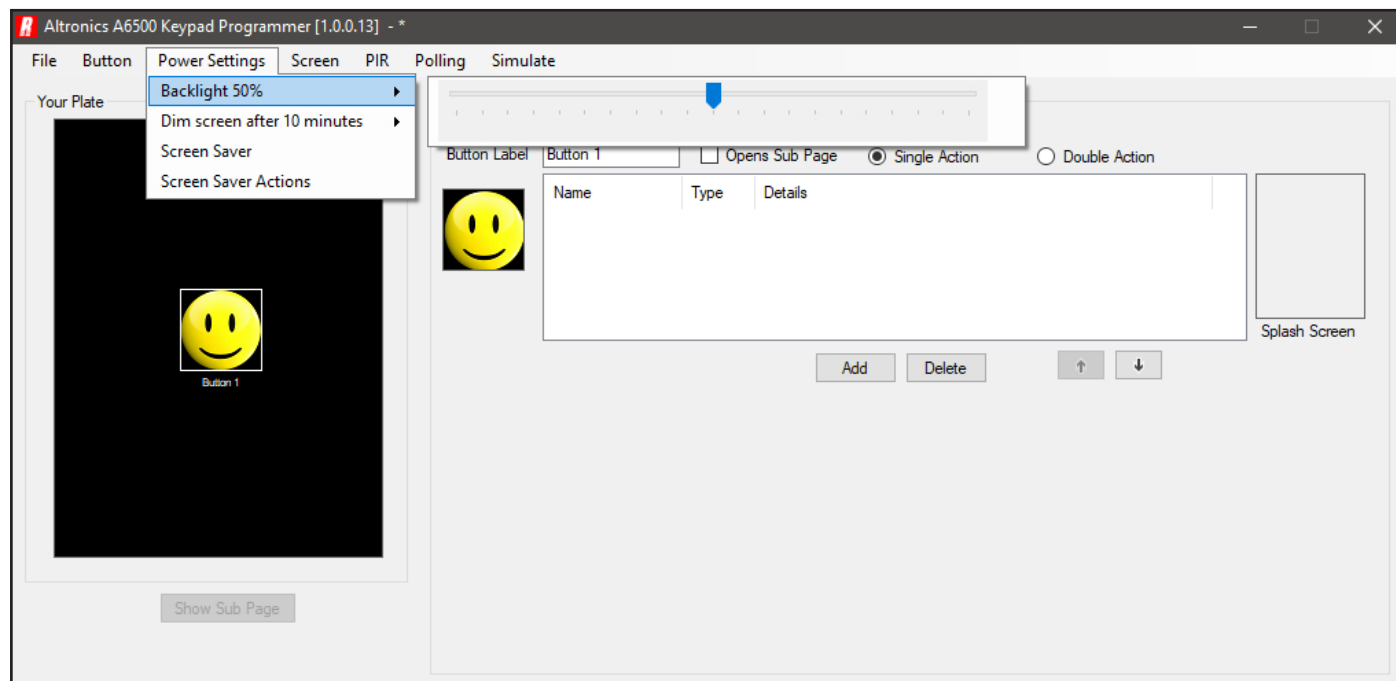

Fig 19.6

19.4 Wallplate Screensaver

Like the backlight option in section 19.3, the Screensaver is used in conjunction with the Dim Screen time setting. If the screensaver option is used it will activate at a period of time twice the setting of the dim screen time. An example of this is as follows - The Dim Screen is set to 2 minutes and the Backlight is set to 30%. After two minutes of no screen contact the screen backlight will drop to a brightness of 30%, then after another two minutes the screensaver image will be displayed still at 30% brighness and stay that way until the screen is touched.

The Screensaver image is set by navigating to the "Power Settings" tab and selecting the Screen Saver option as shown in figure 19.7.

Note: If the Dim Screen time is set to 0 minutes the wallplate LCD will never dim and the screensaver will not activate.
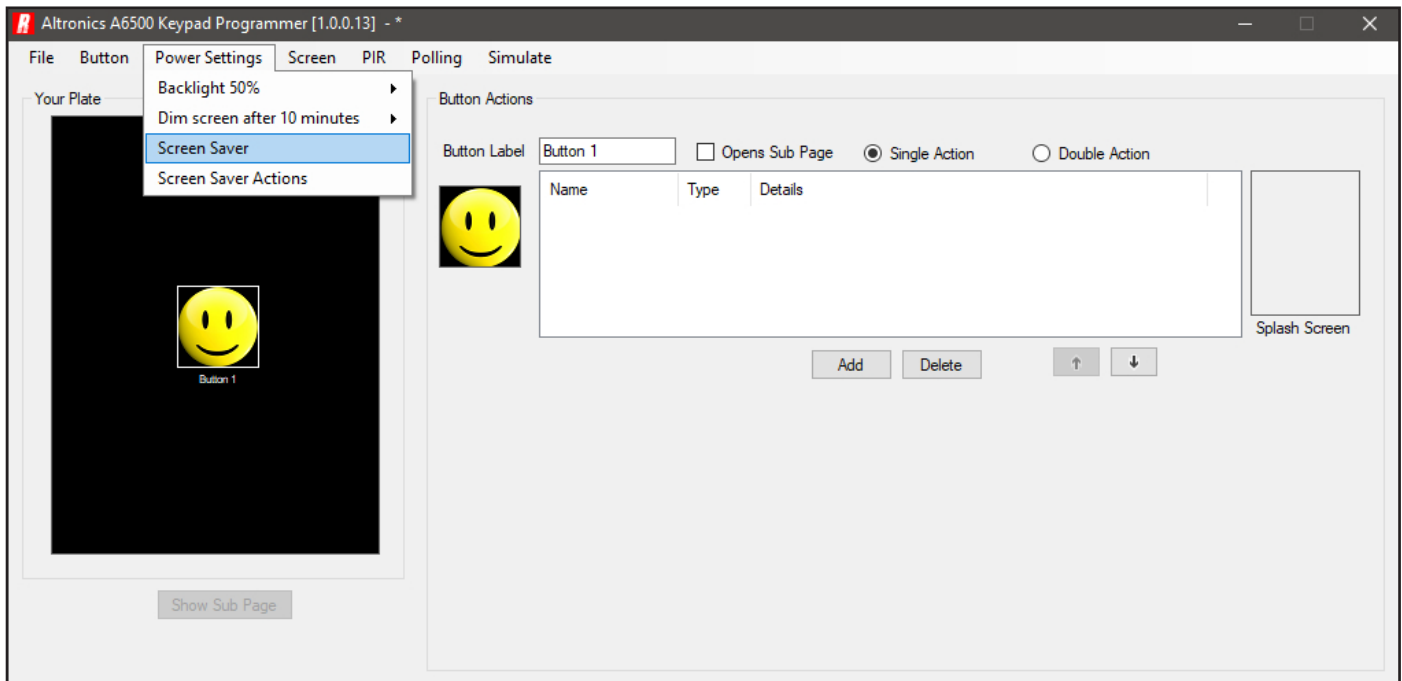

Fig 19.7

An image box will appear as shown in figure 19.8. To set the image press the section of the screen as shown and then navigate to the image to be used. Valid image formats are jpeg, png, gif and bmp. The screensaver image is 240 pixels x 320 pixels and can be created and saved using readily available image creation software.

It is also possible to import image files of any size which will be converted by the A 6500A PC software to a bitmap image.
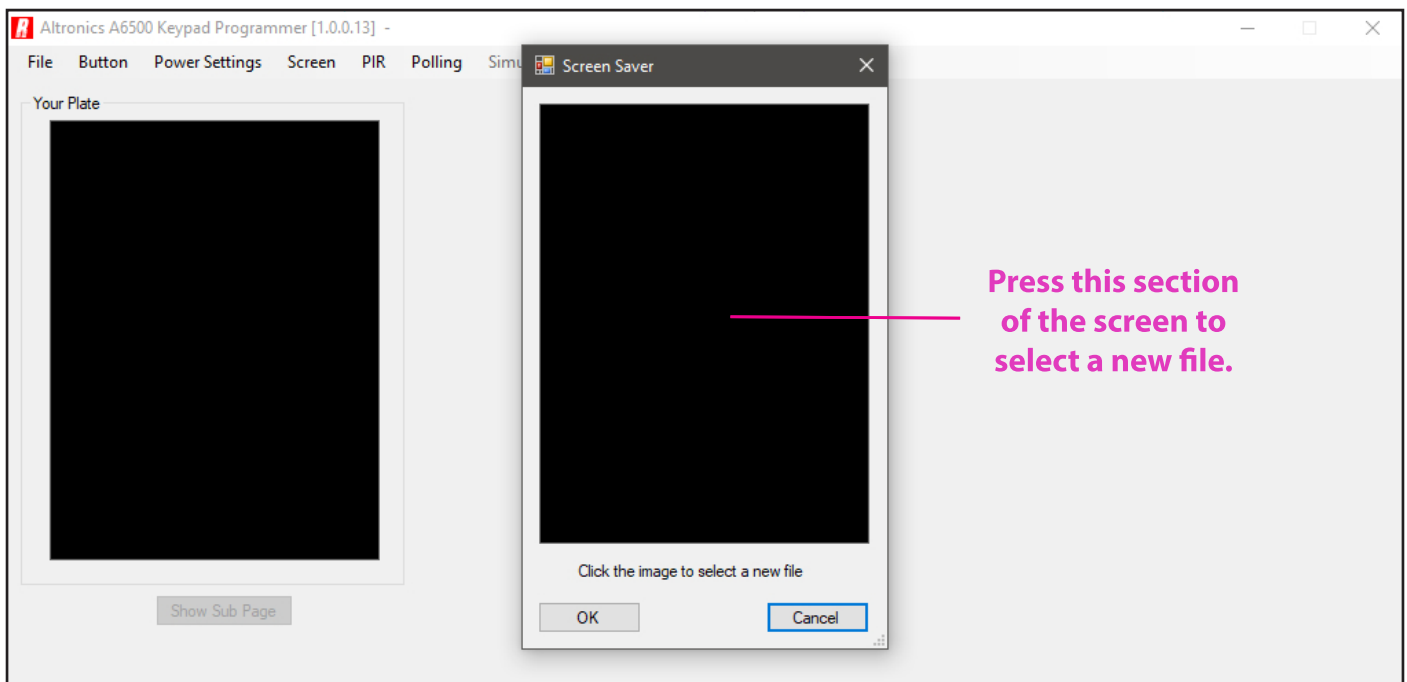

Fig 19.8

The loaded image will now appear in the Screen Saver window as shown in figure 19.9.
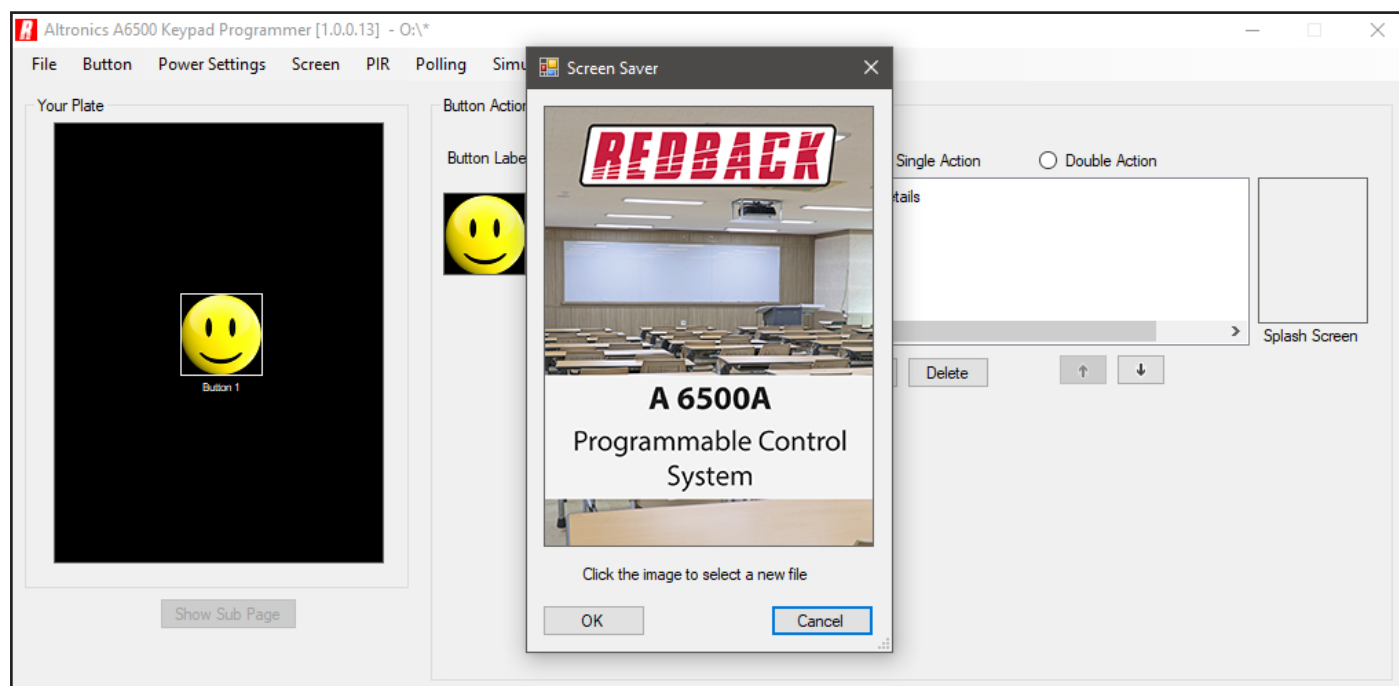Press OK to confirm the Screen Saver Image.

Fig 19.9

19.5 Screen Saver Actions

A series of commands can be programmed to execute when the Screen Saver becomes active. This is set by navigating to the "Power Settings" tab and selecting the "Screen Saver Actions" as shown in figure 19.10.
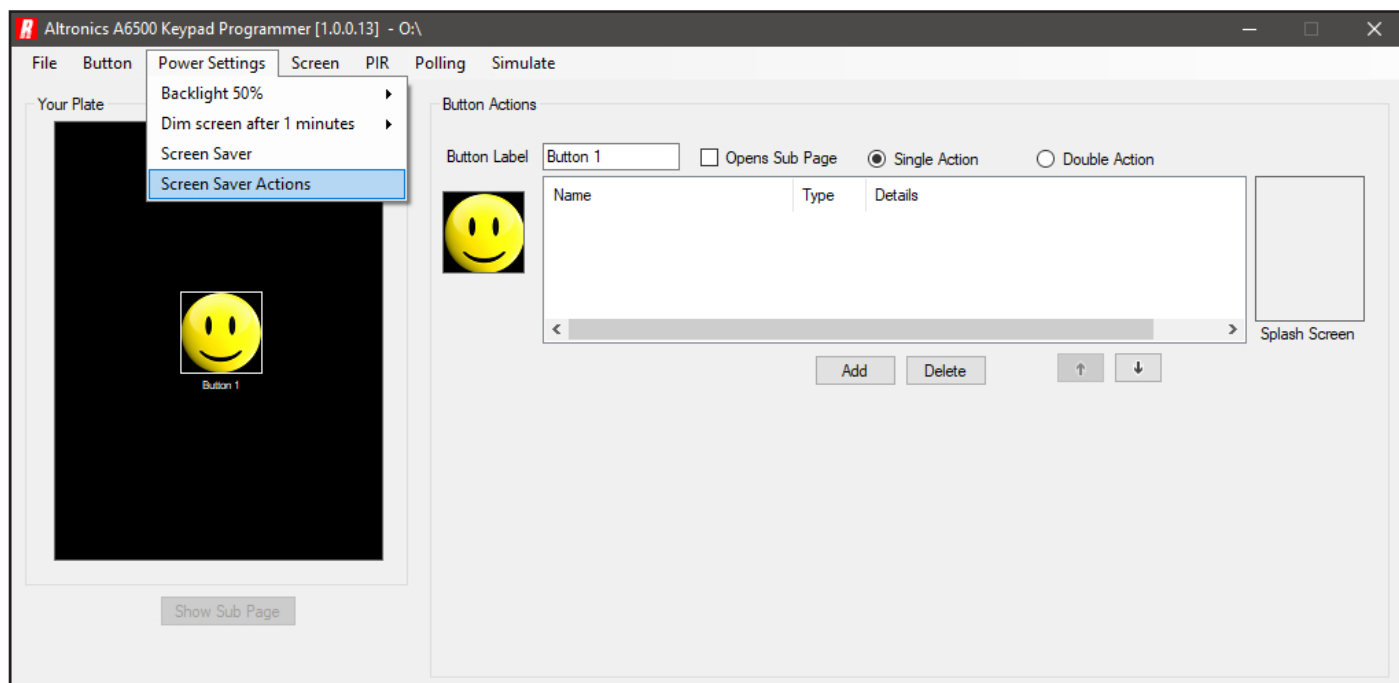

Fig 19.10

Simply add the commands in the same manner as adding commands to buttons.

20.0 PIR ACTIONS and TIMEOUT

The Redback® A 6500A now has the option of a PIR (or closing conctact) trigger when combined with the A 6505A. (Refer to the A 6500A instruction manual for more details about the wiring connections).
This useful trigger could be used to activate a series of commands, for instance when someone enters a room. The PIR action is set by navigating to the "PIR" tab and selecting the "Actions" option as shown in figure 20.1.
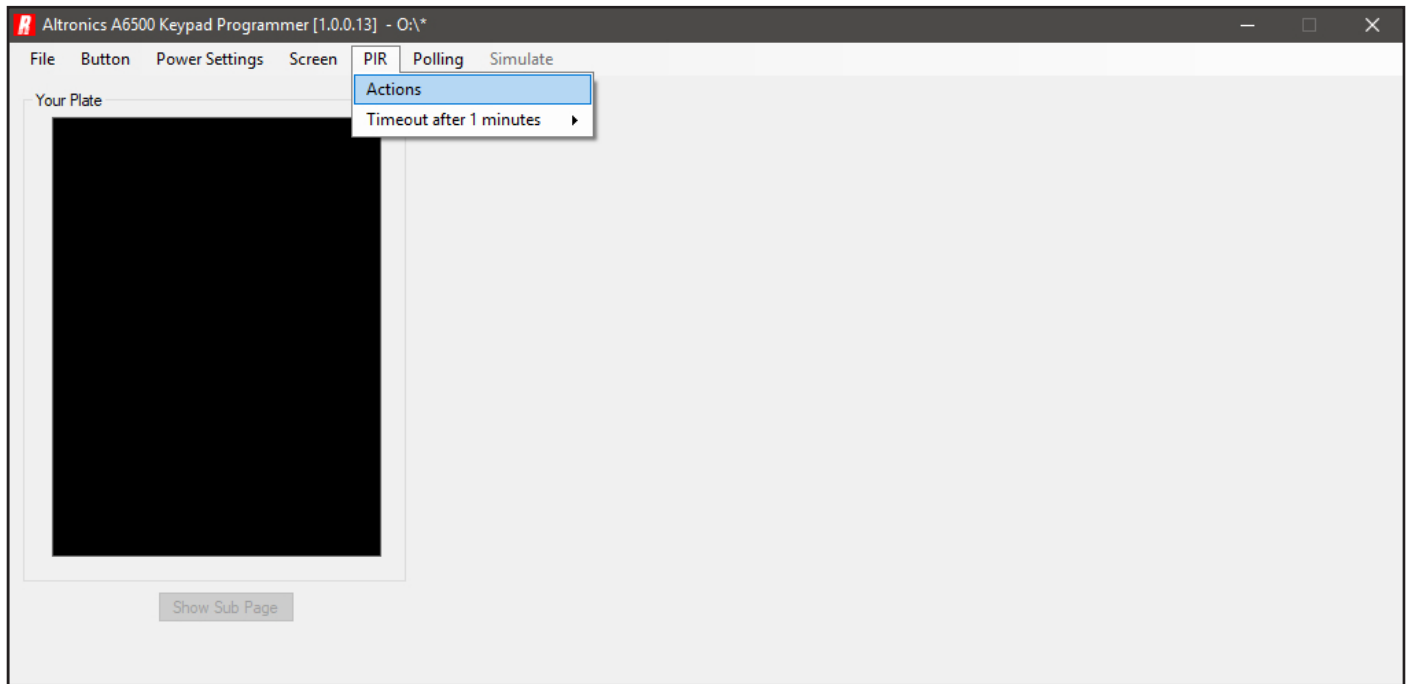

Fig 20.1

Once selected the PIR commands window will appear as shown in figure 20.2. From here is is simply a matter of entering the commands in exactly the same manner as the procedure for the buttons. A splash screen can also be entered from this window.
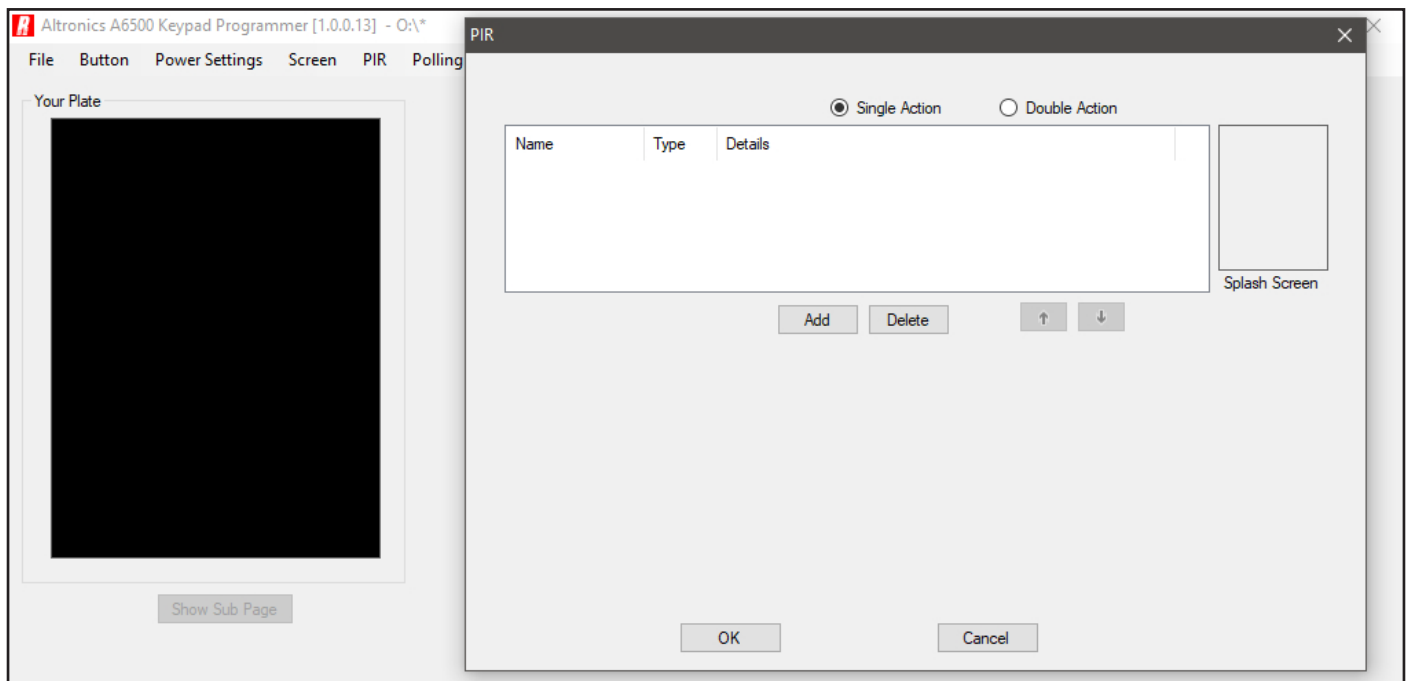

Fig 20.2

This illustrated a single action use for the PIR, which would run a series of commands once the PIR is triggered. It is also possible to run a series of commands after a set amount cof time of the PIR being triggered. This time is known as the PIR timeout and is set by navigating to the "PIR" tab and selecting "PIR Timeout" as shown in figure 20.3. Move the slider to the desired time.
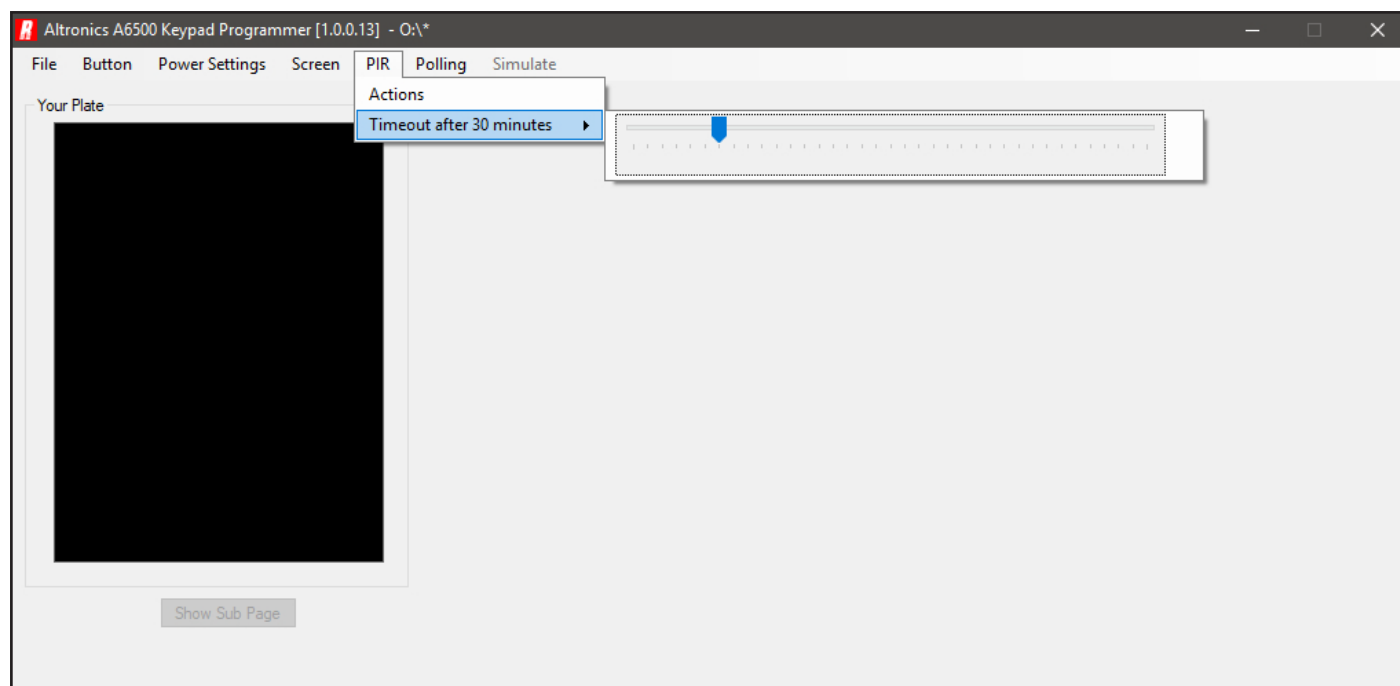
Fig 20.3

Once the PIR timeout is set, the double action option can be utilised. With this option a series of commands can be executed when the PIR is triggered and another set of commands can be executed when the PIR times out.
Note: Every time the PIR is triggered the time will be reset. (But the triggered commands will not execute again).

A double action window is shown in an example in figure 20.4.

Simply add the commands in the same manner as adding commands to buttons. Splash screens have been loaded for both action states of our example.
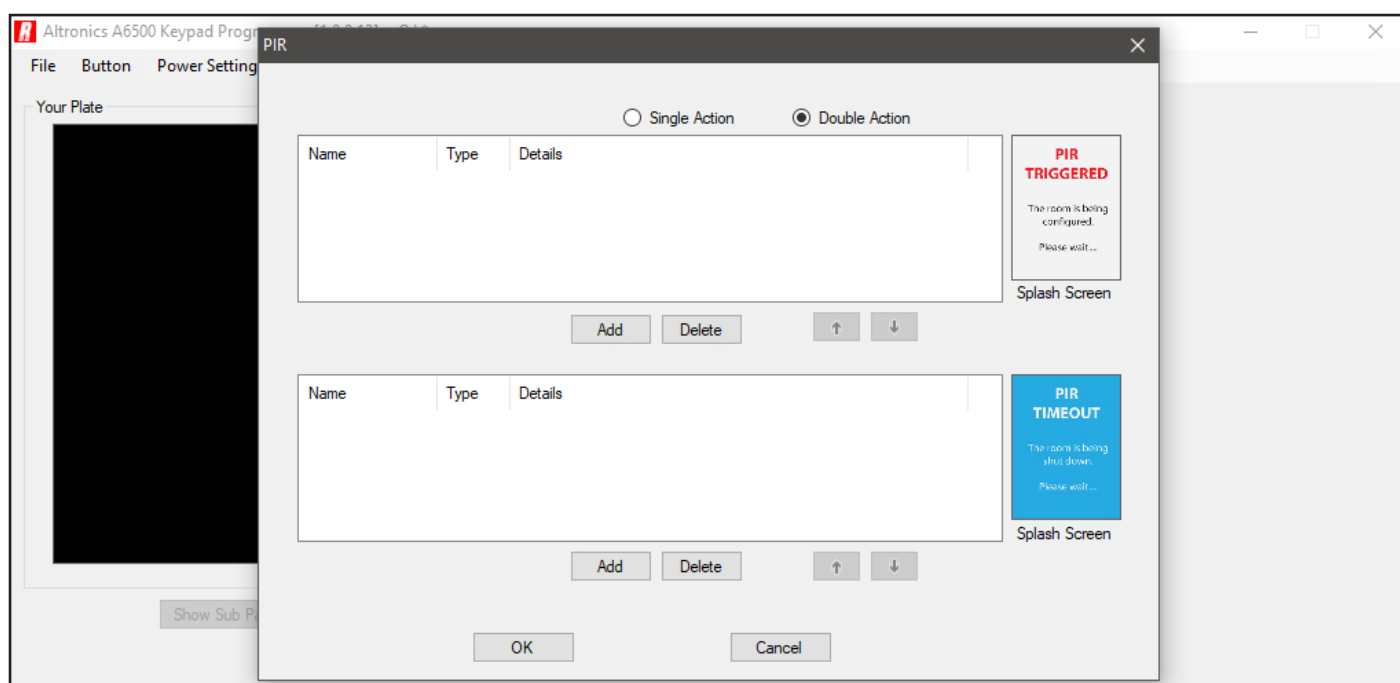

Fig 20.4

Note: Care needs to be taken when using the PIR option, especially the double action option. The PIR option has a priority over the rest of the system. When the PIR times out, the second set of commands will be executed no matter what else the A 6500A may be doing at the time.