

Museum Technology Source Inc.

B-104 Four Button BrightSign Interface Release Notes January 2014

1. The BrightSign player must be running Firmware Version 4.7.112 or higher. All BrightSign players shipped from Museum Technology are already updated to the current version.

Should a later update be required, download the latest firmware from www.brightsign.biz. Save the file, un-zip it and copy to a SD card. With the card in the player, apply power. Shortly thereafter the yellow "UPDATE" light on the BrightSign will turn on, indicating that the firmware update is taking place. When the light turns off, the player is ready for use. The update file will automatically erase itself from the SD card.

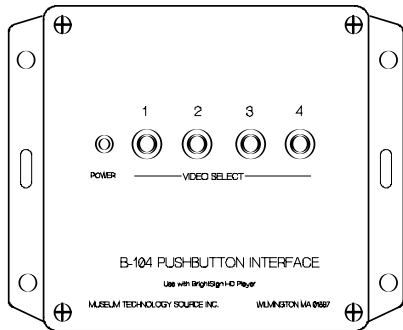
Check for the latest version of BrightAuthor. Currently (January 2014) it is Version 3.7.0.37. If the firmware is updated, it might be necessary to also update the BrightAuthor program to ensure compatibility.

The latest firmware version is available at www.brightsign.biz

2. The default settings for the sample program set the BrightSign video output to HDMI at 720 x 480 60 Hz. If the VGA output is desired, or the resolution is to be changed, use the BrightAuthor program to make the changes. Screen resolution is set under File > Presentation Properties see page 6 if this manual). Also, on the main

B-104 Pushbutton Interface

Also applies to B-101 Single Button Interface



Used with BrightSign video players

Pushbutton selection of four videos

Pushbutton Illumination

These instructions also apply to the B-101 Single Button Interface. Disregard Buttons 2,3&4.

The B-104 provides a convenient method of connecting pushbuttons to BrightSign HD410, HD810 or HD1010 video players. Connection is to the GPIO (General Purpose Input Output). Four of the eight lines are used as inputs, and the remaining four are used as outputs to illuminate the pushbutton light while the selection is playing.

Four RJ-11 connectors are provided for connection to external pushbuttons.

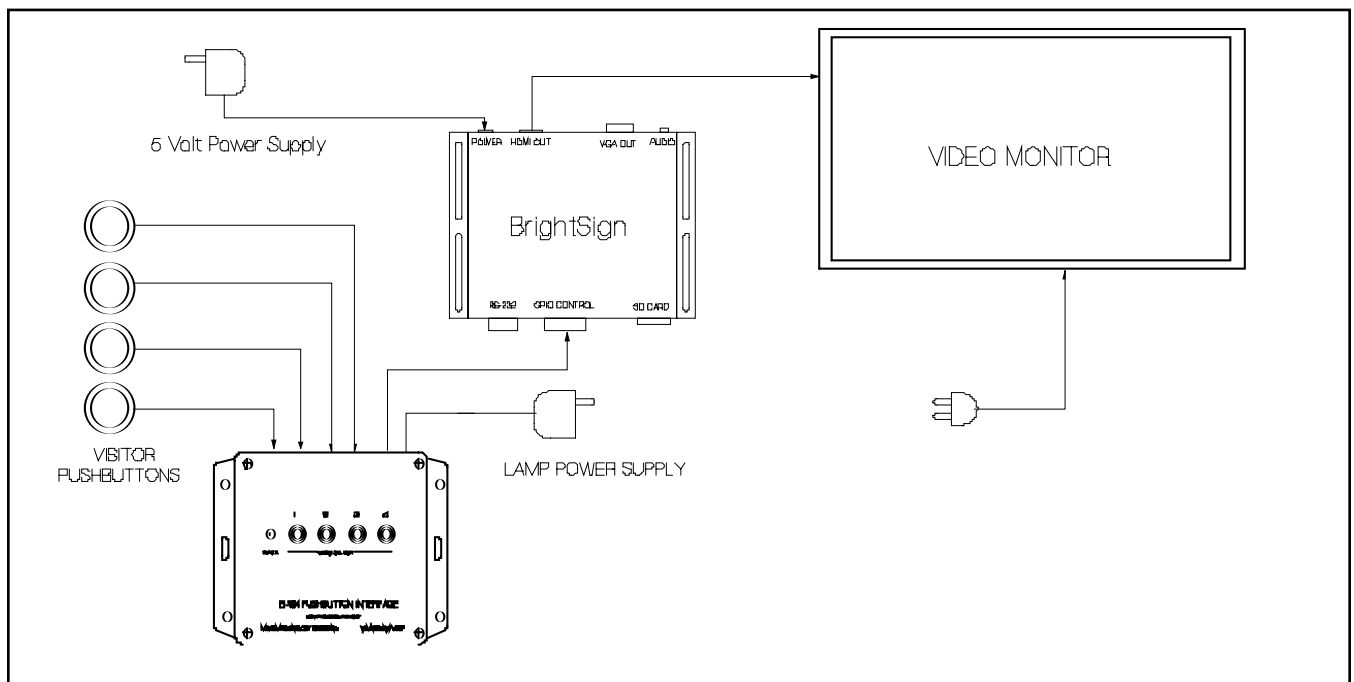
An external wall-mount power supply provides power for pushbutton lamps, or for other activators, such as motion detectors. The B-104 will operate fully without the power supply, but the lamps will not illuminate. If non-illuminated pushbuttons are used, the power supply is not required.

Installation:

The B-104 should be connected as show in the drawing below.

The pushbuttons on the B-104 duplicate the function of the remote visitor pushbuttons. These buttons are useful for test and setup purposes, but are not intended for use by the public.

It is suggested to test the installation using the video files supplied either on an SD Memory card or on CD to verify that the equipment is working properly prior to loading the actual video files to be used.



Preparing the Content

A sample program is included on a CD. This program was generated using the BrightAuthor program, a copy of which is also on the CD. The latest version of BrightAuthor may be obtained at no charge from www.brightsign.biz Full documentation on using BrightAuthor is available at the same website.

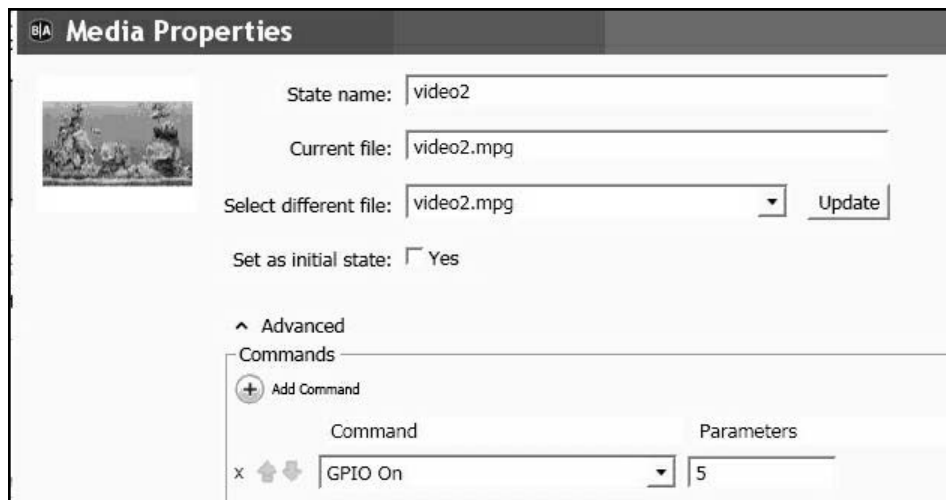
Please refer to the Appendix for a discussion on file types and video quality.

Although any grade of SD memory card is likely to work, the safest choice is a high speed Class 10 card.

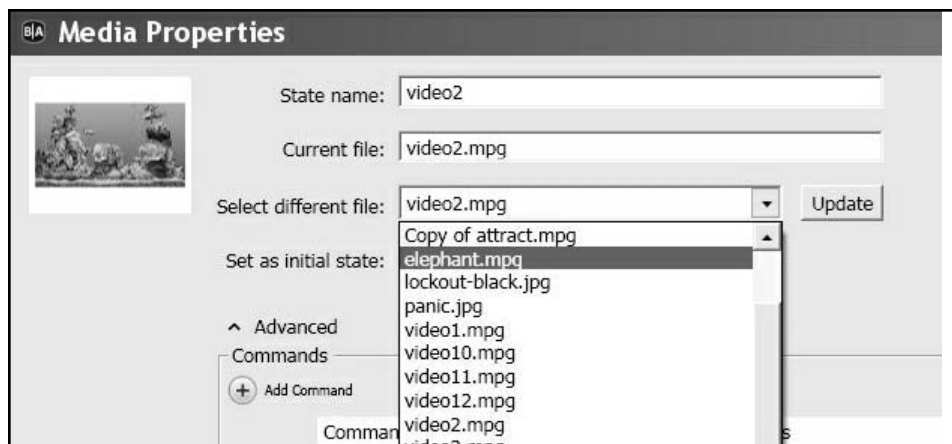
BrightAuthor requires the player to be running Firmware version 4.7.112 or higher. The latest version may be downloaded from www.brightsign.biz The version number is displayed on the video monitor while the player is powering up.

After the BrightAuthor program is installed, copy the file B-104-A from the supplied CD. Now copy the videos to be played into the same folder. Open the folder and click on the B-104-A.bpf icon. This should launch the BrightAuthor program which consists of five video files: Attract.mpg, video1.mpg, video2.mpg, video3.mpg, and video4.mpg. These are the files that need to be replaced with the actual files to be used.

To update the file, double-click on the icon of the file to be changed. In the example below, video2.mpg has been selected causing the MEDIA PROPERTIES dialog box to open.



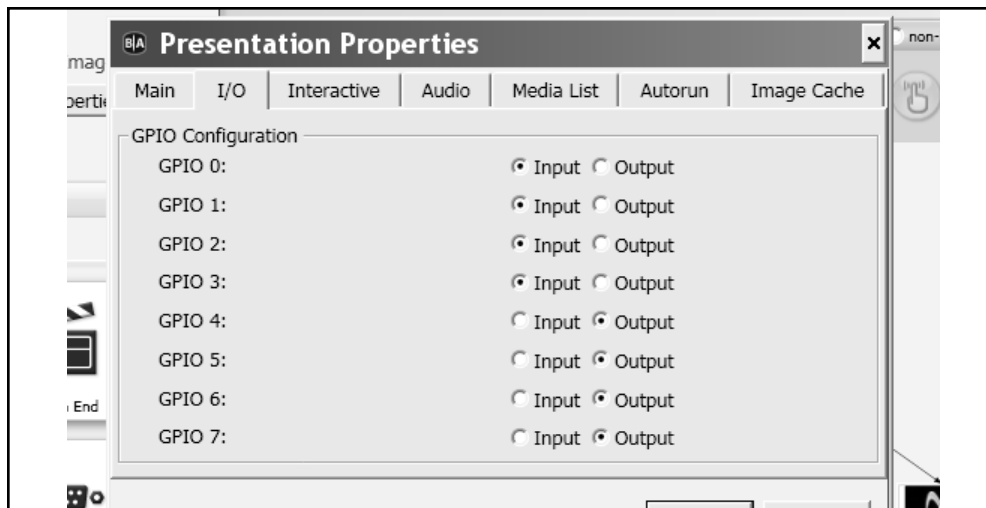
Now use the Select different file pull-down menu to select the desired new video. In this case, video2.mpg will be changed to elephant.mpg **Be sure to click the Update box**, otherwise the change will not go into effect.



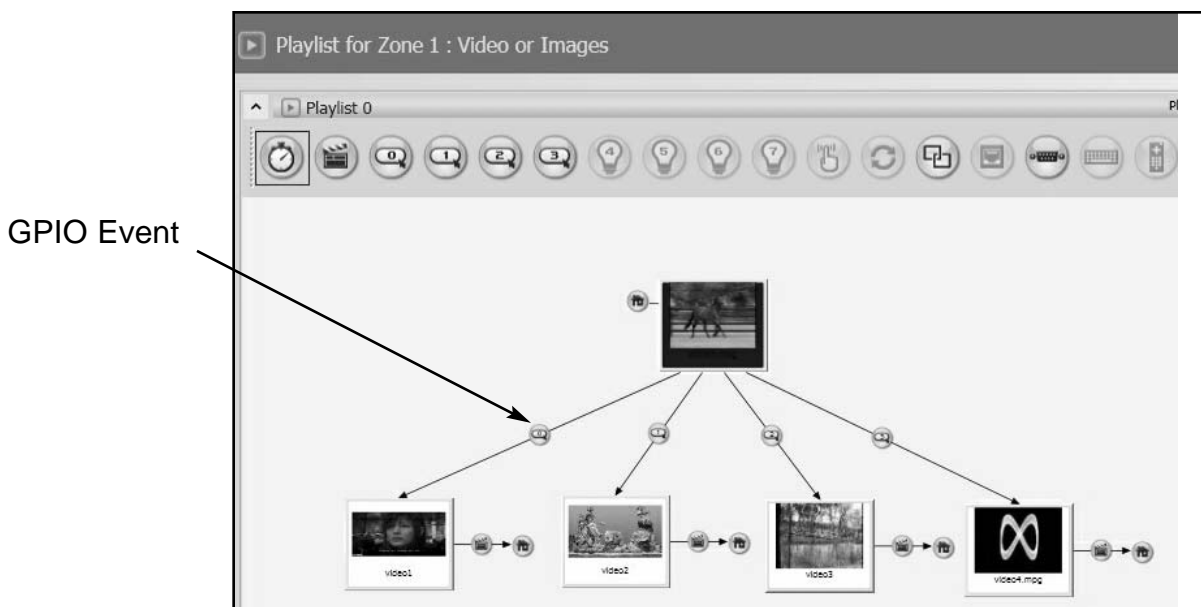
The same technique is used to change the other videos as required. When finished, save the file and use the PUBLISH tab to publish the presentation to the SD memory card.

INPUT - OUTPUT SETTINGS

The supplied program will turn on the button lamp while the video associated with that button is playing, turning off at the end of the video. To accomplish this, GPIO 0, 1, 2, and 3 are defined as INPUTS, while GPIO 4, 5, 6, and 7 are defined as OUTPUTS. If for any reason it is necessary to change these, it may be done under FILE > PRESENTATION PROPERTIES > I/O as illustrated below.

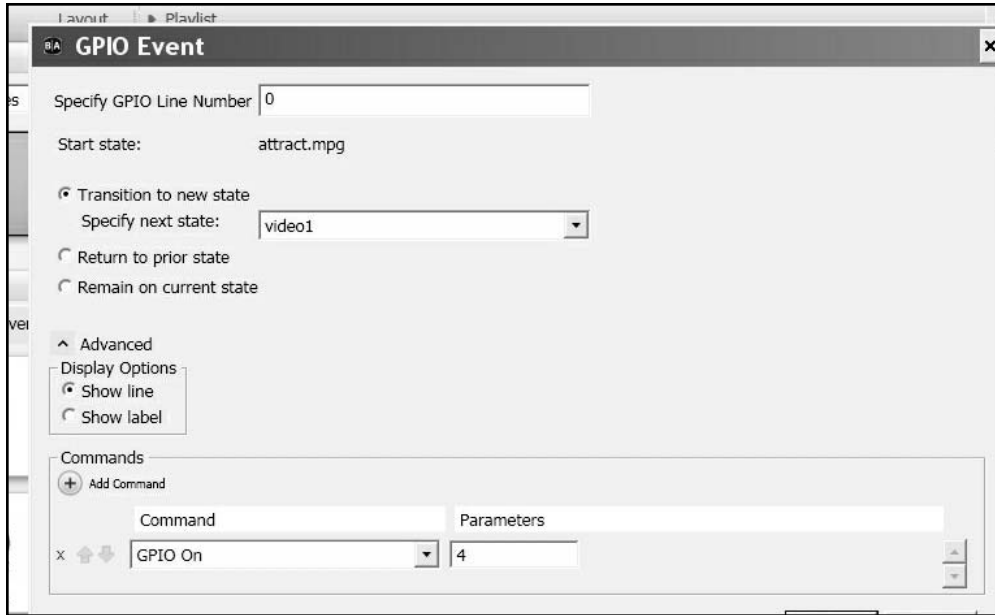


To set the action of the pushbuttons click on the GPIO EVENT icon (see below).



This will cause the GPIO EVENT dialog box to open. SPECIFY GPIO LINE NUMBER is where the pushbutton number is entered as follows:

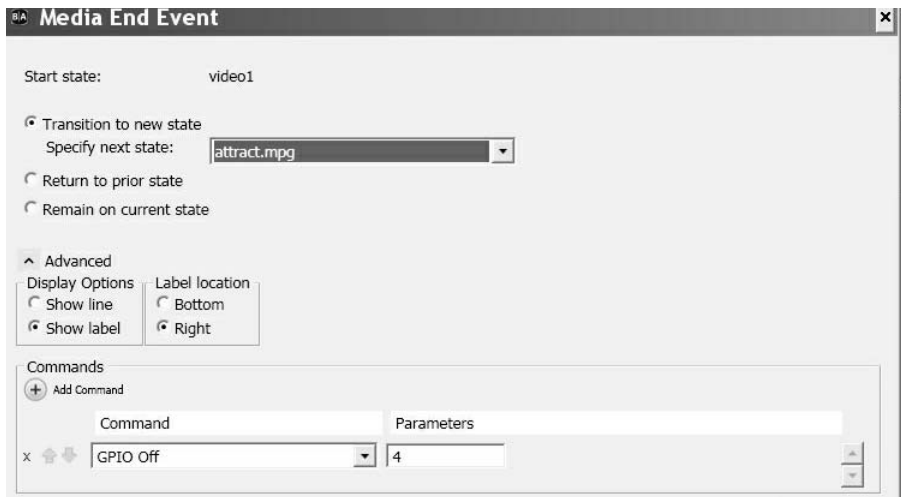
- Button 1 = GPIO 0
- Button 2 = GPIO 1
- Button 3 = GPIO 2
- Button 4 = GPIO 3



To turn on the pushbutton lamp, the ADD COMMAND function is employed. To turn on an output, select GPIO On from the pull-down menu, and enter the output number in the Parameters box using the following assignments:

- Button Lamp 1 = 4
- Button Lamp 2 = 5
- Button Lamp 3 = 6
- Button Lamp 4 = 7

To turn off the button lamp, double click on the MEDIA END icon which appears with each of the video icons on the edit screen. The following dialog box will appear:

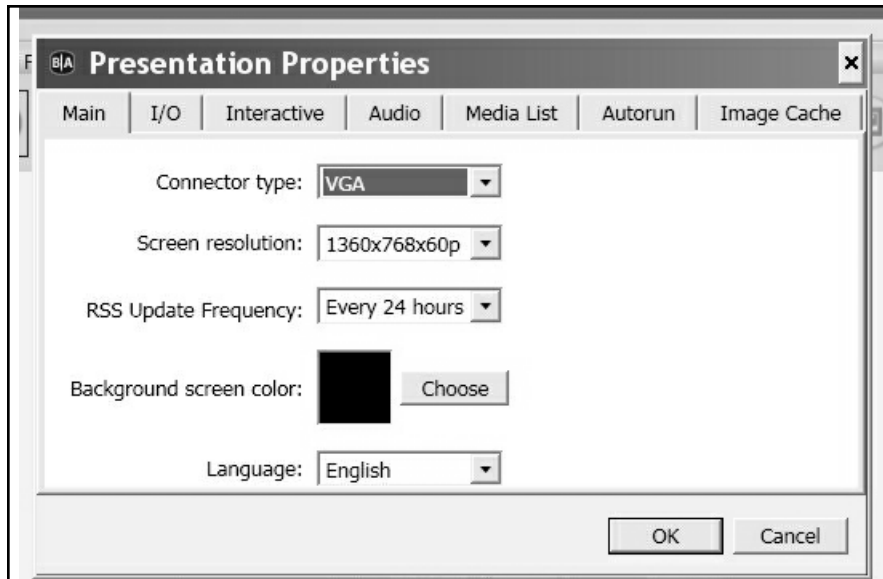


Using ADD Command, select GPIO Off and enter the output number using the same Button Lamp assignments as were used to turn the output on.

Presentation Properties:

Under the main FILE menu, select Presentation Properties.

The Connector Type pull down is used to select the type of connector that is being used with the monitor. The choices are VGA, which is the 15 pin connector commonly used on personal computers. The other option is HDMI, which is standard on flat-screen video monitors. An advantage of HDMI is the same cable that carries the picture also carries the sound, whereas VGA will require a separate patch cord from the BrightSign to the monitor, provided the monitor has built-in sound. Otherwise amplified speakers will be required.



It is suggested that Screen resolution be set to match the available resolution of the monitor being used.

RSS Update Frequency does not apply in this application, so the default 24 hour setting need not be changed.

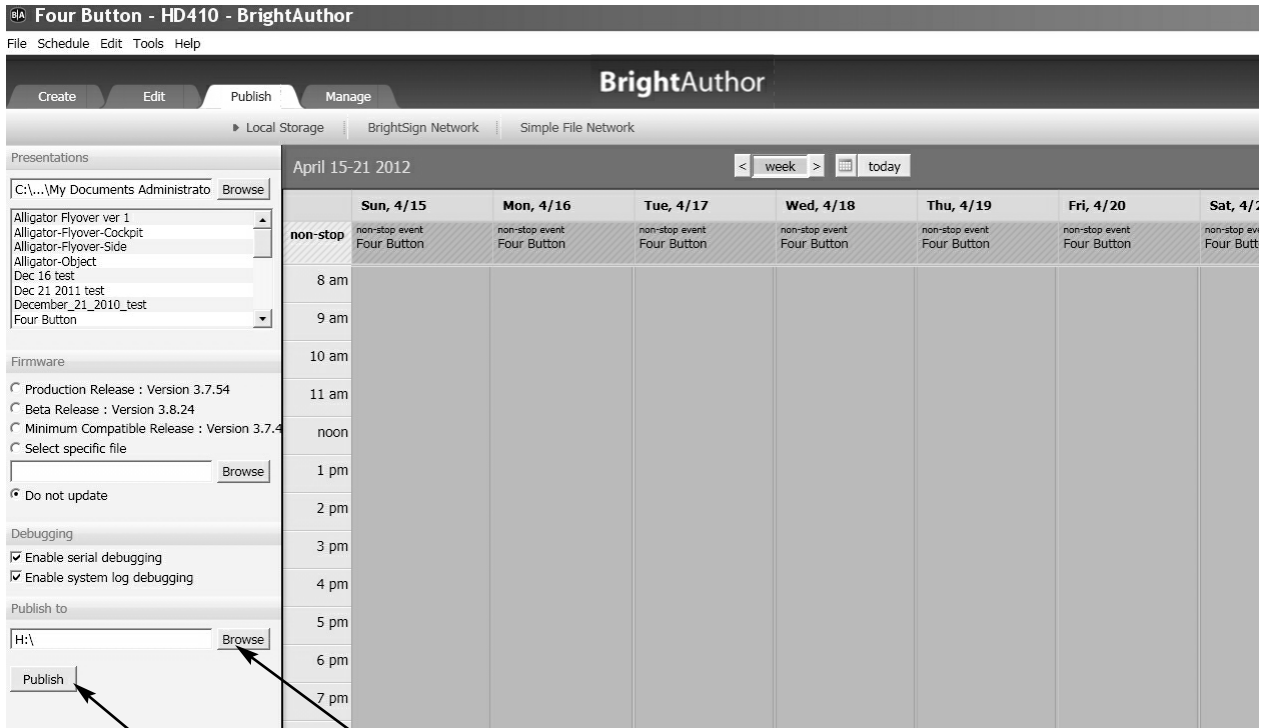
Background Screen Color sets the color of the default background. Normally, the images will fill the screen, so this color will not be seen. However, if the image doesn't fill the entire screen, the background color will fill in around it. Generally black is a good choice.

Publishing

When finished editing the presentation, the next step is to publish it to the SD Flash Memory Card to be used in the player. Although almost any SD card will work, a Class 10 card is recommended because of its high speed characteristic. Of course the card must have sufficient capacity to store the video content. Simply add together the size of the individual videos to arrive at the required size. A card of larger than required capacity may be used.

Use the **file** menu to **Save** the presentation, then click the **Publish** button. When the process finishes, the card may be plugged into the BrightSign player. Make sure that the player is disconnected from its power supply. After inserting the card, reconnect power to the BrightSign. **Allow 2 to 3 minutes for the player to boot.**

Publishing Screen



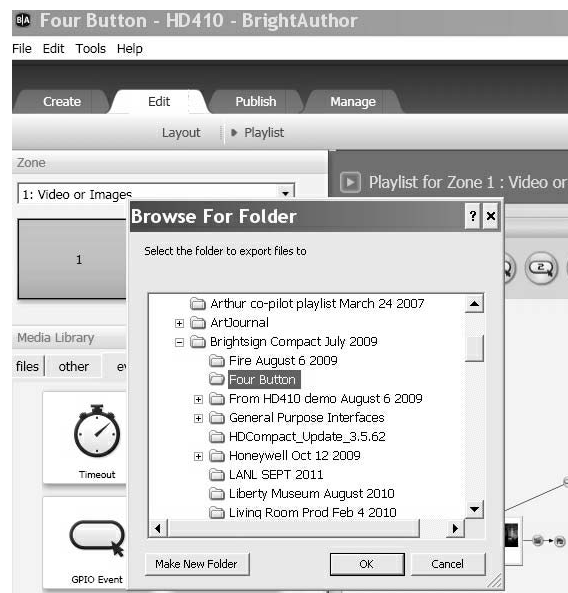
Select the location of the SD Memory Card

Click here to save presentation to SD Memory Card

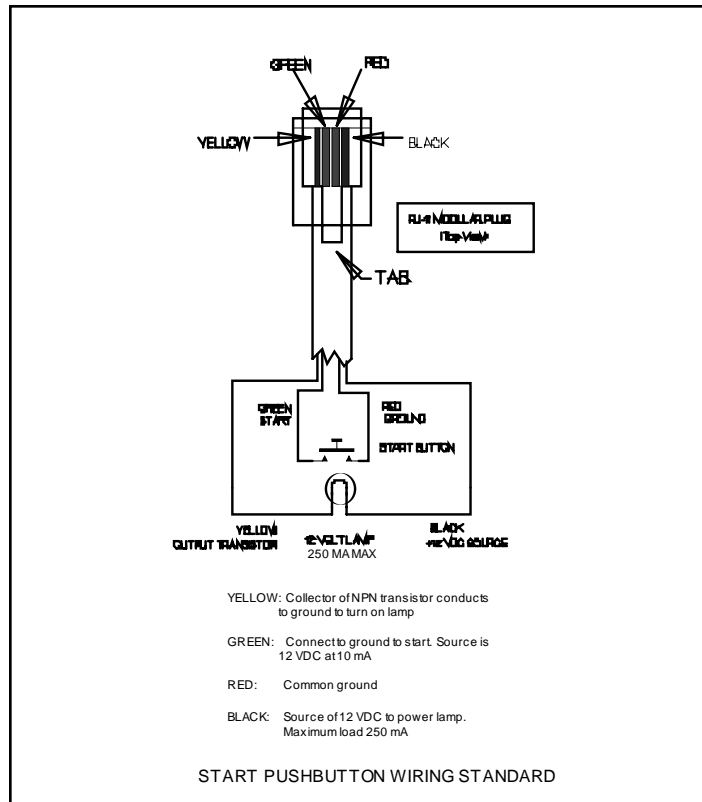
Exporting the Presentation

There is a difference between Publishing and Exporting a presentation. The Publishing process manipulates and merges the files into a form readable by the BrightSign player. It is not possible to later edit a published presentation. Exporting a presentation keeps the files separate, so they may be loaded into BrightAuthor using the **File Open Presentation** command. The exported files may then be editing on any computer running BrightAuthor.

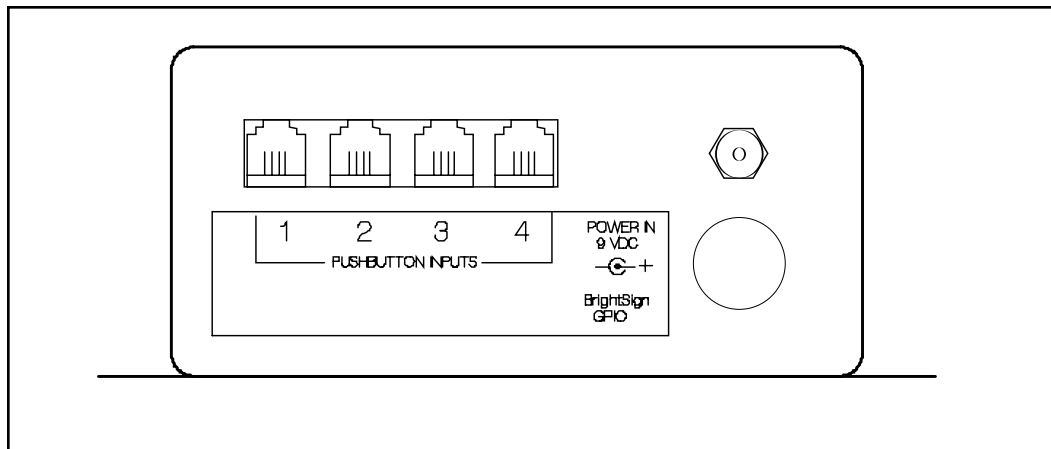
To export a presentation select **Export** from the **File** menu, then browse to locate the folder in which the presentation is to be saved.



Export screen



Pushbutton Wiring



Rear panel showing connectors

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