

ELI Launcher Configuration

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1.0 Introduction

The ELI Launcher was created to give users an easy to use touch interface to demonstrate the capabilities of SBCs using ELI. Configuration of the Launcher is as easy as modifying a simple configuration file. Modification of the Launcher is also possible using the configuration file and some script files.

2.0 Required Hardware

- Windows PC
- SD Card Reader/Writer
- ELI
- Raspberry Pi
- 4GB MicroSD Card
- MicroSD-to-SD Converter
- Flash Drive (1GB is plenty)

3.0 Required Software

- Notepad++

4.0 Configuration

4.1 Configuring ELI Launcher for your ELI unit

1. First, write our Demonstration disk image to a MicroSD card
 - a. Current download links for disk images and instructions on how to write them to a microSD card can be found in our ELI Software Manual located here: <http://www.teamfdi.com/wp-content/uploads/ELI-Software-Users-Manual.pdf>
2. After the Disk Image has been written to the MicroSD card, open the MicroSD card directory which should automatically mount to your computer.
3. Open “config.ini” using Notepad++. (Notepad has issues with word wrapping)
4. Uncomment the section of the file for your ELI unit. For example, if you have an ELI70-CR, you would scroll down to the ELI70-CR section and uncomment everything between the first line, “Uncomment Next Section for ELI70-CR” and the line that says “;END ELI70-CR/IRHW SECTION”.

Note: Semicolons (;) denote that a line of the text is a comment. Here, we are using comments to make the Launcher ignore the information we don't need (like the configurations for the other ELI units).
5. Comment out any other section of the configuration file besides the section for your



ELI device.

Note: Leave the [Startup] section alone. It should always be uncommented.

6. Save the file.
7. Copy config.ini to a flash drive.
8. Eject the MicroSD card and use it as normal. The ELI Launcher will now be configured for your ELI device.



5.0 Modification

Note: The ELI Launcher only supports up to 7 buttons.

5.1 Adding a Slideshow

1. The ELI Launcher can only use images of the proper resolution and in PNG format. The resolution for each ELI is as follows:
 - a. ELI43: 480x272
 - b. ELI70: 800x480
 - c. ELI101: 1024x600
 - d. ELI121: 1024x768
2. The images must be numbered from 1 to the amount of images in the slideshow. For example a slideshow with 4 images would have the following file names:
 - a. 1.png, 2.png, 3.png, 4.png

Note: The “png” in the file name must be lower case
3. Place the images on a flash drive.
4. Open the config.ini file with notepad++
5. When adding a slideshow or a script, be sure to increment the “numberOfButtons” setting by 1. This setting is found at the top of the document in the “[Startup]” section.
6. Scroll to the section for the ELI unit you are using (If you are using an ELI70-CR, scroll to the ELI70 section). This section should be the only section that is not commented out if the directions in Section 2 were followed correctly.
7. Do the following for each of the sections:
 - a. [Resolution]
 - i. No change needed
 - b. [ButtonNames]
 - i. Add a new setting. If the last setting in this section is “ButtonName6” then add “ButtonName7” below it.
 - ii. Name the button whatever you want to appear on the button in the program. Letters, numbers, spaces and special characters are allowed.
 - iii. For example: ButtonName7=Example Button Name
 - c. [ButtonPaths]
 - i. Add a new setting. If the last setting in this section is “ButtonPath6” then add “ButtonPath7” below it.
 - ii. Use the full path for the slideshow you want to add. If the slides are in a folder on the desktop named “slides” the path would be:
“/home/pi/Desktop/slides/”
 - iii. For example: ButtonPath7=/home/pi/slides/
 - d. [ButtonTypes]
 - i. Add a new setting. If the last setting in this section is “ButtonType6”



- then add "ButtonType7" below it.
 - ii. Since we are adding a slideshow, this will be set to 1.
 - iii. For example: ButtonType7=1
- e. [NumberOfImages]
 - i. Add a new setting. If the last setting in this section is "Button6Images" then add "Button7Images" below it.
 - ii. This should be set to the number of images in your slideshow.
 - iii. For example: Button7Images=8 (for a slideshow with 8 images).
- 8. Place the config.ini file on the flash drive.
- 9. Plug the flash drive, along with a USB keyboard and mouse into the Raspberry Pi.
- 10. A dialog box will ask what action to perform with the flash drive. Select "Open in File Manager" and click <OK>.
- 11. Navigate to the location on the flash drive that the slides are saved to.
- 12. Click "Tools" at the top and click "Open current Folder in Terminal"
- 13. When the terminal appears, create a location for the slides. If you want the slides to be in the home folder, type the following:
 - a. `mkdir /home/pi/slides/`
- 14. Now that the folder is created, copy the slides to that folder. This can be done easily with the following command:
 - a. `cp *.png /home/pi/slides/`
- 15. Copy the config.ini file from the flash drive to the Raspberry Pi:
 - a. Navigate to the folder on the flash drive containing the config.ini file.
 - b. Type the following command:
 - i. `sudo cp config.ini /boot/`
- 16. The slideshow has now been added!

5.2 Adding a Script

1. Make note of the location of the script you have created (and make sure the script has execute permissions). For these steps we will use the following fake path:
"/path/to/script.sh"
2. When adding a slideshow or a script, be sure to increment the "numberOfButtons" setting by 1. This setting is found at the top of the document in the "[Startup]" section.
3. Scroll to the section for the ELI unit you are using (If you are using an ELI70-CR, scroll to the ELI70 section). This section should be the only section that is not commented out if the directions in Section 2 were followed correctly.
4. Do the following for each of the sections:
 - a. [Resolution]
 - i. No change needed
 - b. [ButtonNames]
 - i. Add a new setting. If the last setting in this section is "ButtonName6"



- then add "ButtonName7" below it.
- ii. Name the button whatever you want to appear on the button in the program. Letters, numbers, spaces and special characters are allowed.
- iii. For example: ButtonName7=Example Button Name
- c. [ButtonPaths]
 - i. Add a new setting. If the last setting in this section is "ButtonPath6" then add "ButtonPath7" below it.
 - ii. Use the full file path for the script you want to add.
 - iii. For example: ButtonPath7=/path/to/script.sh
- d. [ButtonTypes]
 - i. Add a new setting. If the last setting in this section is "ButtonType6" then add "ButtonType7" below it.
 - ii. Since we are adding a script, this will be set to 0.
 - iii. For example: ButtonType7=0
- e. [NumberOfImages]
 - i. Add a new setting. If the last setting in this section is "Button6Images" then add "Button7Images" below it.
 - ii. This is set to 0 since this is a script.
 - iii. For example: Button7Images=0
- 5. Place the config.ini file on the flash drive.
- 6. Plug the flash drive, along with a USB keyboard and mouse into the Raspberry Pi.
- 7. A dialog box will ask what action to perform with the flash drive. Select "Open in File Manager" and click <OK>.
- 8. Navigate to the folder containing the config.ini file.
- 9. Click "Tools" at the top and click "Open current Folder in Terminal"
- 10. Type the following command in the terminal:
 - a. `sudo cp config.ini /boot/`
- 11. The script has now been added!



6.0 Support

6.1 Where to Get Help

Online technical support is available at <http://www.teamfdi.com/support/>.

6.2 Useful Links

- Future Designs, Inc. Forums: http://www.teamfdi.com/?post_type=forum
- ELI70-CR Product Page: <http://www.teamfdi.com/product-details/eli70-cr/>
- ELI70-IRHW Product Page: <http://www.teamfdi.com/product-details/eli70-irhw/>
- ELI43-CP Product Page: <http://www.teamfdi.com/product-details/eli43-cp/>
- ELI43-CR Product Page: <http://www.teamfdi.com/product-details/eli43-cr/>
- ELI101-CP Product Page: <http://www.teamfdi.com/product-details/eli101-cp/>
- ELI121-CR Product Page: <http://www.teamfdi.com/product-details/eli121-cr/>
- Raspberry Pi Home Page: <https://www.raspberrypi.org/>
- Beaglebone Black Home Page: <http://beagleboard.org/black>

