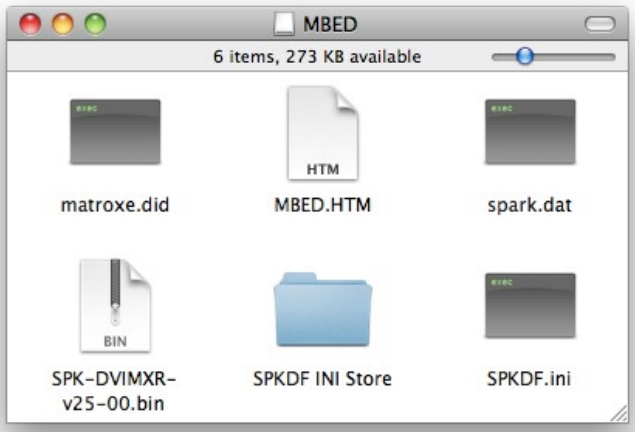
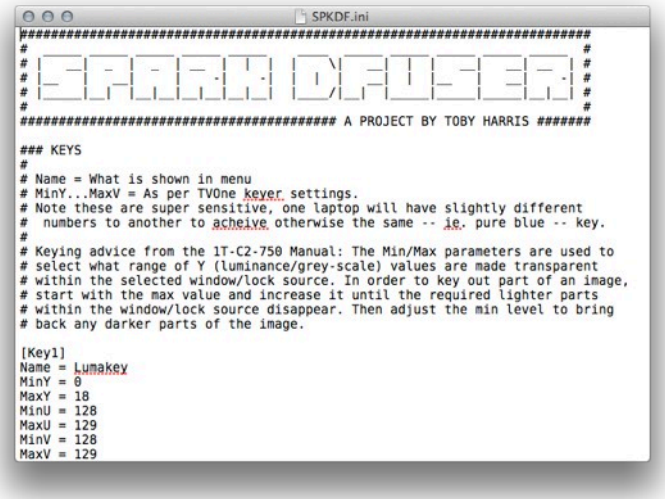
SPARK D-FUSER » Customising the controller by editing the configuration file **Page 1/7**

The *spark d-fuser is designed to be customised. Want to add a resolution to the controller's menu? Want to have specific keying presets for different laptops? Here's how. With the controller's firmware as supplied, the resolution and key menus are created from a plain text, user-editable configuration file. This file is located on the controller's internal USB drive, accessing it is detailed in a separate document.
This document illustrates the process of editing the 'ini' configuration file.
Document v1.0



1. Locate SPKDF.ini

SPKDF.ini is the configuration file that the controller's firmware reads from when powering on. We will edit this to add a new keyer preset and some HD alternative resolution / framerates.



Open SPKDF.ini in a plain text editor such as TextEdit on Mac OSX.

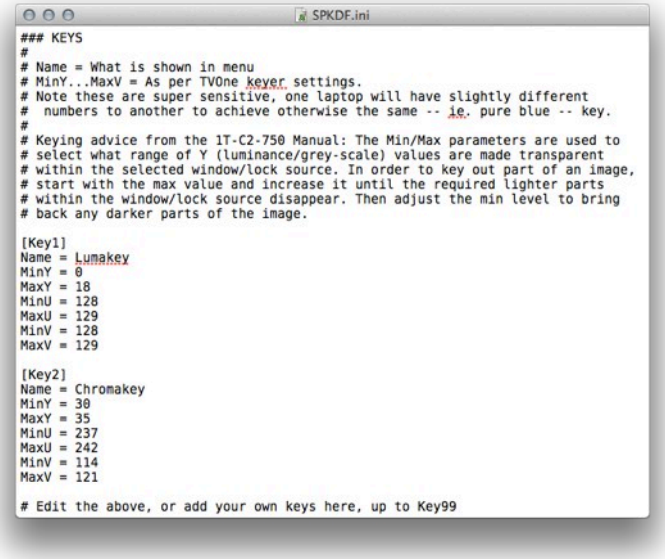
It should look something like the image to the left. If its all one block of solid text, then the text editor is not respecting the line breaks and you'll have to find one that does.

Note that the controller will display “ini OK” after the SW version if it has successfully read the configuration file on powering-on.

If you have corrupted the file somehow, you will find backups in the SPKDF INI Store folder. They are named with the firmware version of the 1T-C2-750 they correspond to, necessary as the numbers corresponding to resolutions differ between firmware versions. v423 is correct for D-Fuser Processors.

KEYS Section

In the controller’s ‘Mix Mode’ menu, once you go past the first option ‘Crossfade’, you get keying options. Out of the box, there are two labelled ‘Lumakey’ and ‘Chromakey’. These are in fact the two defaults as shipped in the configuration file, which provides a number of keyer presets, and the name to call them by.

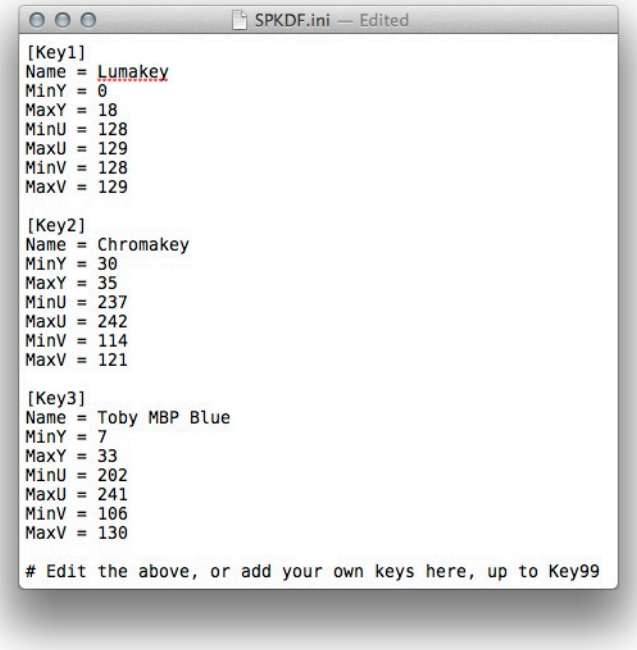


In the KEYS section of the .ini file, you will see an comment block to explain the contents, and then the two as-shipped key presets.

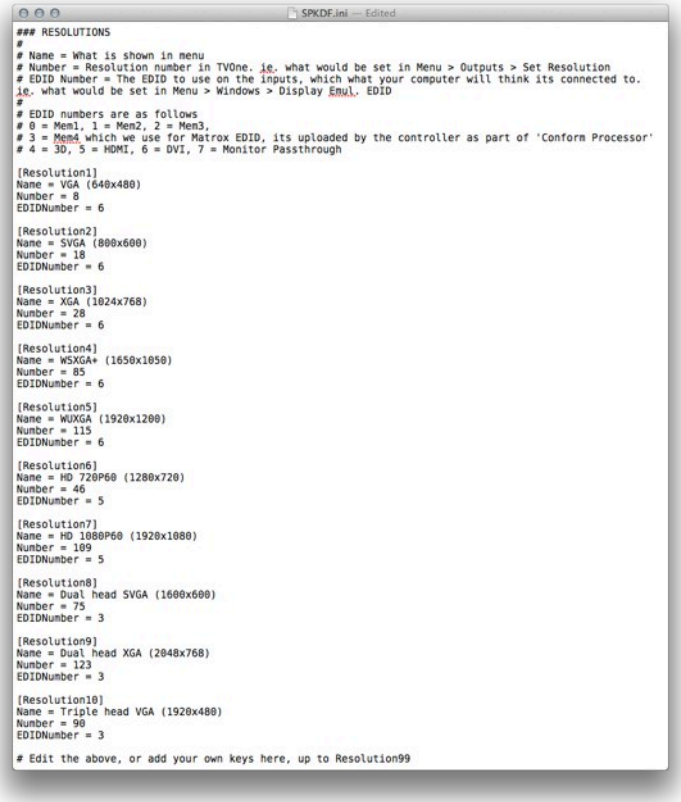
In the *spark d-fuser getting started video, the process of pulling a key is demonstrated, and the precise values to pull a specific blue key on the output of a specific laptop are found.
We are going to add a key preset to the controller so this key is properly named and permanently made a menu option.

```
[Key3]
Name = Toby MBP Blue
MinY = 7
MaxY = 33
MinU = 202
MaxU = 241
MinV = 106
MaxV = 130
```

To the existing [Key1] and [Key2] sections we are going to add a third. Copy and paste one of the existing sections to make the template for our third entry. First, number this section correctly - to [Key3]. Then, update the name entry to something appropriate, in this case ‘Toby MBP Blue’. Now the actual keyer parameters, which you will have to have noted from the key you pulled. They’re in order, left to right on the screen is top to bottom in the file.



The key preset part of the configuration file should now look like this.
Save the text file, and your new key preset should be there, a permanent new entry in the controller’s menu.



RESOLUTIONS Section

Similarly to the controller's keying menu options, the controller's resolutions menu is made by reading the resolution items in the configuration file. You can edit these, remove ones or add in new entries – just ensure the [ResolutionX] numbers start at 1 and there are numbered consecutively.

There is a comment block to explain the contents, which is elaborated upon below.

```
[ResolutionXX]
Name = HD 1080i50 (1920x1080)
Number = 95
EDIDNumber = 5
```

For instance to add a resolution for 1080i50 the entry would look something like this. The 'XX' would be updated to fit where you add the entry in the numbered list of resolutions. Name is up to you, this is what is shown in the menu. Number and EDIDNumber you will have to determine as follows.

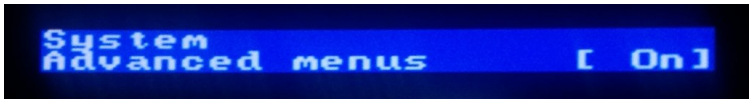
```
61  = 1280x1024 50Hz
62  = 1280x1024 60Hz
95  = 1080i50
98  = 1080i60
103 = 1080p25
```

Number' is what the processor knows the resolution by internally. The processor has over 120 resolutions in total, instructions to explore these are at the end of this section. Listed here are some resolutions added by various users.

```
4 = Matrox - ie. TripleHead2Go options
5 = HDMI - ie. HD options
6 = DVI - ie. Computer Monitor options
```

EDIDNumber will determine what resolution options your source will detect when connected to the processor. Chances are you'll want 5 or 6.

To experiment with the full range of resolutions the 1T-C2-750 processor ships with, you'll need to explore the processor's own on-screen menu. The obvious way to do this is to try and set the output resolution directly: Menu > Adjust Outputs > Set Resolution. As its easy to set the output resolution to one your monitor can't display, always do this with the D-Fuser controller plugged in, so you can set it back to a known-good resolution!

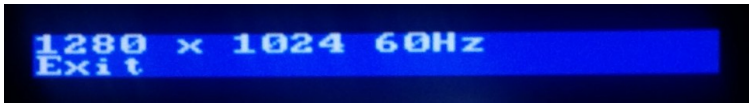


There is a better option however: a hidden menu that won't actually set the output to the resolutions you're looking through. Turn advanced menus on: press Menu, Up, Up…, Menu buttons.

Enter the Adjust Resolutions sub menu: press Up…, Up, Menu buttons to enter.

Press ‘Up’ to go pass the warning message. You should be on ‘Image to adjust’. Press Menu to start controlling this number, the square brackets should start flashing. You can now press up and down buttons to look through the resolution list. Here we have found out that number 61 corresponds to 1280x1024 at 50Hz...

...and 62 corresponds to 60Hz.



Once you’re done, press menu to stop controlling the number. The square brackets should stop flashing. Hit up, up…, up until you reach the end of the submenu where it says Exit. Pressing menu now will exit from this submenu back to the main one. Note the warning message you click past is right: you don’t want to change any of the actual timing numbers for each resolution. We just went up and down the list of resolutions, and skipped past the parts where you can actually edit the parameters of each resolution.