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**SPARK D-FUSER » Upgrading to v30 controller firmware**

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The firmware that runs the controller can be updated. This document describes the changes since v25 and illustrates the update process.

Document v30-r75

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v30

**Troubleshooting menu:** Added Matrox entry that tweaks processor's settings to work with either the analogue or digital editions of Matrox Dual/Triplehead devices.

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v29

**Mix mode menu:** rather than selecting a keying preset as a mix mode itself, you now set the mixer to key, it uses the last keying parameters used, and these parameters can be tweaked or presets loaded in.

**Key right over left:** mix modes for keying left-over-right and right-over-left.

**Key changes saved:** keying parameters for both the left and right sources persist through power cycles.

**Key presets:** the .ini configuration file ships with better presets (key in white, key out black / blue / green).

**Network:** All DMX, OSC and ArtNet parameters configurable from .ini configuration file; bugfixes.

**OSC:** Now accepts /dvimxr/xFadeFadeUp ff message; default ports now the same; bugfixes.

**Troubleshooting menu:** reset of controller + processor now one simpler operation.

**TVOne Status Line:** snappy again by only queuing messages when appropriate.

**Resolution List:** Added 1080P30 for full HD Blackmagic Intensity compatibility.

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v26

**Resolution list:** the .ini configuration file ships with more HD modes, adding 24 and 25 fps to the menu.

**Troubleshooting menu:** new - handle mismatched sources, ie. Fit / Fill / 1:1

**Resolution changes:** user experience better, notifying user if processor power cycle is appropriate.

**Network In:** updating crossfade and fade to black from DMX etc. now plays nicely with hands-on controls.

**ConformProcessor:** more thorough.

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### CONTROLLER FIRMWARE



The firmware that runs the controller can be updated. The current production version is

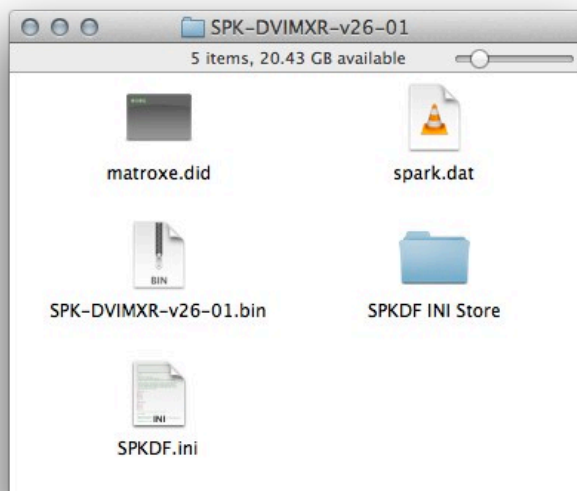
v25. You can download the beta v26 and installation instructions [here](#).

PDF | v26-00 | Updated 23 May 2013

ZIP | v26-01 | Updated 25 June 2013

### Download v30 Firmware

Download the firmware zip from <http://sparklive.net/dfuser/support>



### Check contents of zip

The zip should expand into a folder with the following files

SPK-DVIMXR-v30-xx.bin

SPKDF.ini

SPKDF INI Store

matroxe.did

spark.dat

### CONTROLLER'S USB DRIVE



To customise the \*spark d-fuser controller, you need to access the firmware and support files on the controller's internal USB drive. This document illustrates the process of opening the controller to access this drive.

PDF | v1.0 | Updated 23 May 2013

### Access controller's USB drive

Refer to the separate guide that details opening the controller to access the drive, also hosted at

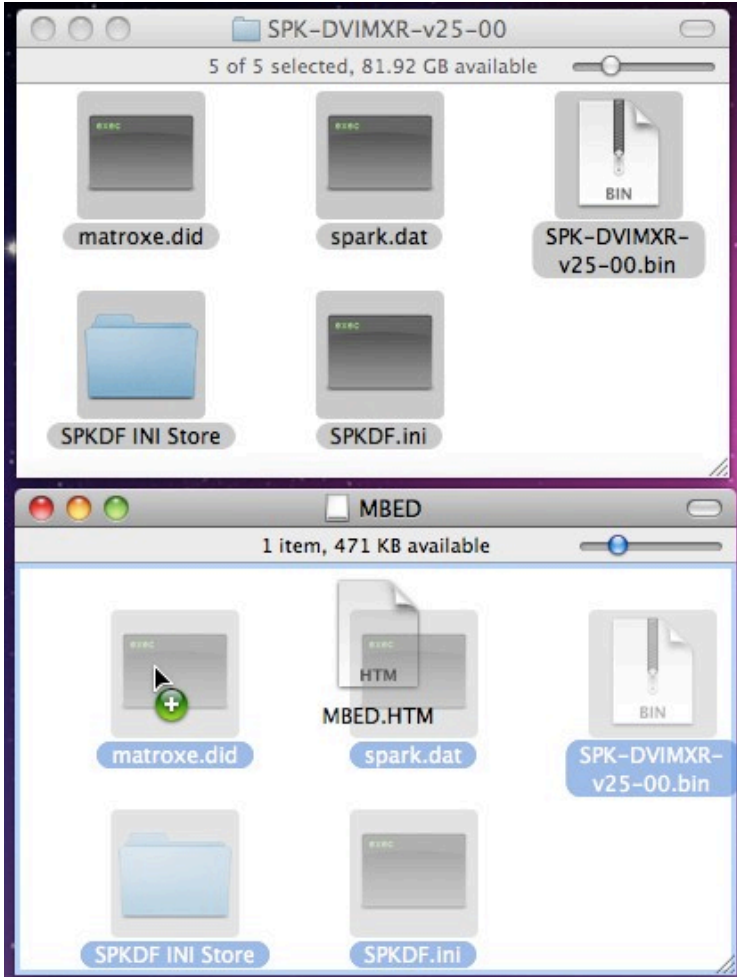
<http://sparklive.net/dfuser/support>

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**Copy folder contents to MBED**

Copy the contents of the downloaded folder to the MBED drive. Overwrite the existing files when prompted.

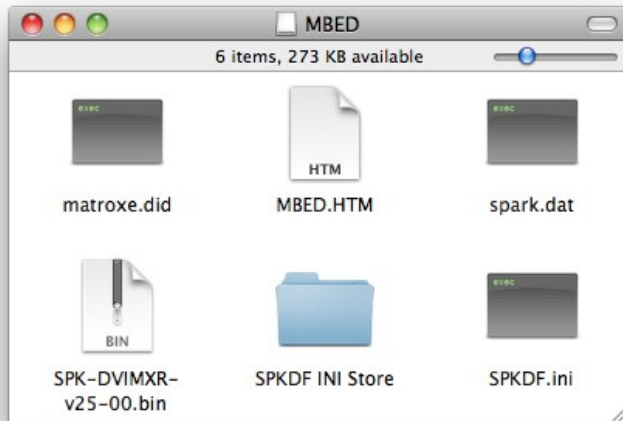
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**Check MBED drive**

Check the MBED drive to make sure the files are there. You need to have:

- SPK-DVIMXR-v30-xx.bin
- SPKDF.ini
- matrox.e.did
- spark.dat

The "SPKDF.ini" file is there for you to update the resolutions and keying parameters that the controller will load up. It's plain text, you can open it in TextEdit / Notepad.

You will also have the configuration file backup folder 'SPKDF INI Store' which has a copy of the default .ini file for each version of the processor.

You will also have any previous version of the firmware program, such as SPK-DVIMXR-v23-01.bin.

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**Close controller**

Eject the MBED drive from your computer, remove the USB cable, and close the controller.

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**Power controller on**

Connect the processor and controller. Do not connect any source to the processor yet. Power on.

The upgrade of the controller has been successful if the second line reads "SW30; ini OK". The controller has established it's connection to the processor when the status line at the bottom of the controller's display changes from

"TVOne: "

to

"TVOne: L: Logo R: Logo"

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**Select Troubleshooting**

Using the menu controller, select the troubleshooting options by spinning the dial clockwise and pressing in to select.

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**Conform processor**

Select the last item in the troubleshooting menu: 'Advanced Commands' which will take to you a menu with 'Processor full conform'. This is a one-off operation to program the processor and will take ten minutes. You will see "Uploading..." for around six minutes, then "Conforming..." for a shorter period, and finally "Conform Success". The success message will hold for five seconds and the processor will beep. If you get an error message, use the menu control to try the conform process again (and ensure no sources are plugged in, and the processor is otherwise untouched).

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**Power cycle processor**

Once conformed, remove and reattach the power to the processor.

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**Verify Output**

The output of the processor should be set to 640x480@60Hz. You should see a white \*spark logo on a black background, and the fade-to-black knob should fade this in and out.

You're done!

