



U-Boot updater guide v1.8 – Dec 04, 2020

WARNING!

***Upgrading the Sam440ep firmware is potentially dangerous.
If something should go wrong during the update, it might leave your system unusable.
In case this should happen, send an email to the following address:
support@acube-systems.com
and ask for help on how to solve the problem.***

How to update U-Boot on a Sam440ep board:

Burn the downloaded ISO image on a CD using your preferred burning software.
Do not select "Bootable CD" or any similar option on the burning software.

When the CD is ready, insert it into the CD/DVD reader connected to your Sam board, and press Reset on your computer case.
If the cdrom is the first bootable device, the Updater CD will auto start (otherwise change the boot devices priority accordingly)

Press ENTER at the "Select Boot Option".

Once the image has booted, you will be presented with a warning message.
If you wish to continue with the update, press SPACE.

Warning: pressing SPACE the re-flashing process starts immediately.

The re-flashing process takes only a few seconds and in case the updater finds any problem, it will notify them. After the update is finished, the updater will output a few lines of information and ask you to reset the machine.

To verify if you reflashed correctly to the new U-Boot version, interrupt the boot process, enter the prompt and type "**version**"

```
] version
```

You will see an output similar to this:

```
U-Boot 1.3.1g (Dec 04 2020 - 17:39:13)
```

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What's new:

- Improved support for Radeon HD and Radeon RX (*) graphic cards. Now you can use a Radeon HD / RX via a PCI to PCI Express adapter. On the Sam440ep flex motherboard, it is recommended to use PCI slot #1 for maximum performance. Of note, support for Radeon RX is still ongoing, with many models of gfx cards, u-boot does not show any screens, but the card works fine once the operating system is loaded.
- introduced a new menu entry to change the x86 gfx BIOS emulator accuracy. If your graphic card show some visual problems on startup, try increasing the x86 BIOS emulator accuracy

Alternative way to update U-Boot on your Sam440ep

If, for any reason, you cannot use the ISO image to update U-Boot, you can use TFTP.

This alternative way requires a second machine running a TFTP server (for example, on OS4Depot there is a TFTP server for AmigaOS4)

Copy the file **updater-131g-mini** (for Sam440ep-mini), the file **updater-131g-flex** (for Sam440ep-flex) or the file **updater-131g-flex-se** (for Sam440ep-flex SE) on your TFTP server directory.

Stop the boot sequence on the Sam440 and enter the U-Boot prompt by pressing **ESC**.

Execute the **menu** command.

Select the **Boot Sequence / Network Boot Options** menu.

Set the **Server TCP/IP Address** filed to the address of the machine running the TFTP server.

Set the **Local TCP/IP Address** filed to the address of your Sam in the same network of the TFTP server.

Select **Save setting and exit**.

Now you're back at the U-Boot prompt, execute the following command:

tftp 500000 updater-131g-mini (or **updater-131g-flex** for the flex board or **updater-131g-flex-se** for the flex SE board)

U-boot will load the file over network.

Once loading is finished, execute the command **bootm** and follow the on screen instructions.