

Updater Module of the TBBLUE / ZX-NEXT

<https://www.specnext.com/updater-module/>

The updater module reads the hardware type and version of the currently installed firmware, and reads the hardware type and version of the file 'TBBLUE.TBU' by displaying this information on the screen. The user is asked if he wants to perform the update, pressing the 'Y' key for yes or 'N' for no.

If the user chooses 'N' the module restarts the IPL, if the 'Y' option is chosen, the firmware update process starts, being initially checked if the hardware type is correct for the firmware, giving an error if it is not. If the hardware type is the same the updater first reads the updater file to calculate a checksum and verify that the file is intact, in which case the flash erase process is started, followed by the sequential reading and writing of the flash.

At this point the machine should not be turned off, it is recommended to use an anti-power failure system if possible.

The update time depends on the type of hardware (TBBlue Altera, Devkits with SLX9, or final Next with SLX16, for instance), and at the end of the process the screen is cleaned and displays only the message that the user must turn off and on the machine so that the FPGA can re-read the flash code.

If any error occurs in the process the ULA border is set to red colour and an error message is displayed on the screen, leaving the machine in an infinite loop.

Instructions:

Put the TBU file in the root folder. This is a new bitstream or CORE as we call it which will replace what you have. There are two ways to do this:

1. Standard via Updater Screen. Press F1 (or M1 – 1) and while on the "Press Spacebar..." etc message hit U to enter the updater. This may fail a couple of times, try again. Once in the Update screen, press Y and let the core update the machine.
2. If that fails, there's the AB (Antibrick) method: This works as follows. Remove power. Press and hold the M1 and Drive buttons. Keep holding and reapply power. Once the update screen appears release the buttons and press Y at the prompt.

IF you find yourself entering a blank screen during either Anti-Brick or Regular updater you can try pressing F3 (M1-3) to switch frequencies from 50/60Hz and vice versa so you can get a picture (Thanks to Mark Green for pointing this out)