TE USB FX2 Software tools

Currently Supported File Extensions

It is possible to use these files with firmware (FX2 USB microcontroller's EEPROM and RAM) and bitstream (SPI Flash and FPGA) upgrade tools.

`.iic` file: it contains the firmware to be written in the large EEPROM of the EZ-USB FX2LP USB FX2 microcontroller and loaded at module start-up to implement the Trenz Electronic instruction set (TE API Commands).

.bit file : (bitstream file) FPGA configuration file. iMPACT **can't** use this file for SPI Flash programming; OpenFutNet (C#) and Open_FUT (Python) **can** use this file for SPI Flash programming.

.mcs file : (bitstream file) FPGA configuration PROM file. iMPACT **can** use this file for SPI Flash programming; OpenFutNet (C#) and Open_FUT (Python) **can** use this file for SPI Flash programming.

For a difference between recovery boot and update boot see here.

OpenFutNet and other tools that can be used

OpenFutNet SW tool can be used to download/update USB firmware and FPGA bitstream

In the case of 2nd generation firmware (DEWESoft):

- you should use a .iic file (EZ-USB FX2LP USB FX2 microcontroller firmware) with CyConsole, CyControl or the TE Python program Open_FUT 2nd generation;
- you should use a .bit (or a Xilinx Flash .mcs file, not third-party SPI Flash) with the Python program Open_FUT 2nd generation.

In the case of 3rd generation firmware (Trenz Electronic):

- you should use a .iic file (EZ-USB FX2LP USB FX2 microcontroller firmware) with CyConsole, CyControl, the TE Python program Open_FUT 3rd generation or the TE C# program OpenFutNet;
- you should use a .bit or a .mcs file (both Xilinx Flash and third-party SPI Flash can be used) with the TE C# program OpenFutNET; for .bit (or a Xilinx Flash .mcs file) you can also use the Python program Opent_FUT 3rd generation.

Python programs Open_Fut 2nd and Open_FUT 3rd generation can be found on GitHub.