

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 Trenez 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 `Open_FUT 3rd generation`.

Python programs [Open_Fut 2nd](#) and [Open_FUT 3rd generation](#) can be found on GitHub.