CyConsole: write Firmware in the USB FX2 microcontroller's EEPROM and/or RAM

Open CyConsole

> ⚠ The firmware actually changes (it runs on USB FX2 microcontroller's RAM) only when
>
> - you reset the TE USB FX2 module;
> - you power off and power on the TE USB FX2 module;
> - you write the USB FX2 microcontroller's RAM (but the new firmware is lost if the TE USB FX2 module goes under reset or power off/on cycle).

To start CyConsole (Cypress USB Console) you should double click the file CyConsole.exe.

After this one of this two windows appears.

Recovery boot

Cypress USB Console

File   Options   Help

Selected Script:

Select Device

USB Address	Device Name	Name in Windows Device Mgr (from .inf)	
1		Cypress EZ-USB FX2LP No EEPROM(3...	

Device Properties | Control Endpt Xfers | Other Endpt Xfers | Misc.

VendorID . . . . . . 0x04B4   Class 0xFF
ProductID . . . . . 0x8613   Subclass . . 0xFF
Manufacturer . . . Trenz Electronic   Protocol . . 0xFF
Product . . . . TE USB FX2   bcdDevice 0xA001
Serial Number . . 101

Device Configurations (1)

Value	Attributes	Max Power	
0x01	0x80	0x32 (100 mA)	

Configuration Interfaces (4)

Intfc	Alt Setting	Class	Subclass	Protocol	
0	0	0xFF (Vendor)	0xFF	0xFF	
0	1	0xFF (Vendor)	0xFF	0xFF	
0	2	0xFF (Vendor)	0xFF	0xFF	

Interface Endpoints (0)

Address	Attributes	Max Pkt Size	Interval	

Update/normal boot

CyConsole starts

⚠️ **"Misc" tab step: force the selection of the desired driver**

If you encounter some problem here or after this step the problem may be caused by the fact that CyConsole could be unable to automatically select Cypress_generic_USB_driver.MS-Windows-Vista+7-64-bit.signed (or the other desired driver).

You may need to follow this procedure (in particular if you are using Cypress_generic_USB_driver.MS-Windows-Vista+7-64-bit.signed):

- Run Cypress USB console
- Go to "Misc" tab and select the driver in the drop-down menu, even if it is already selected (this is a small bug of CyConsole).
- After that, a USB device should appear in the list.

The "Misc" tab step is not always required, but it could be necessary for Cypress_generic_USB_driver.MS-Windows-Vista+7-64-bit.signed driver. We have not observed this behavior with other drivers.

EZ-USB Interface

To program the EEPROM and/or the RAM you should click "Option" and select "EZ-USB Interface".

Recovery boot	

| Update/normal boot | |
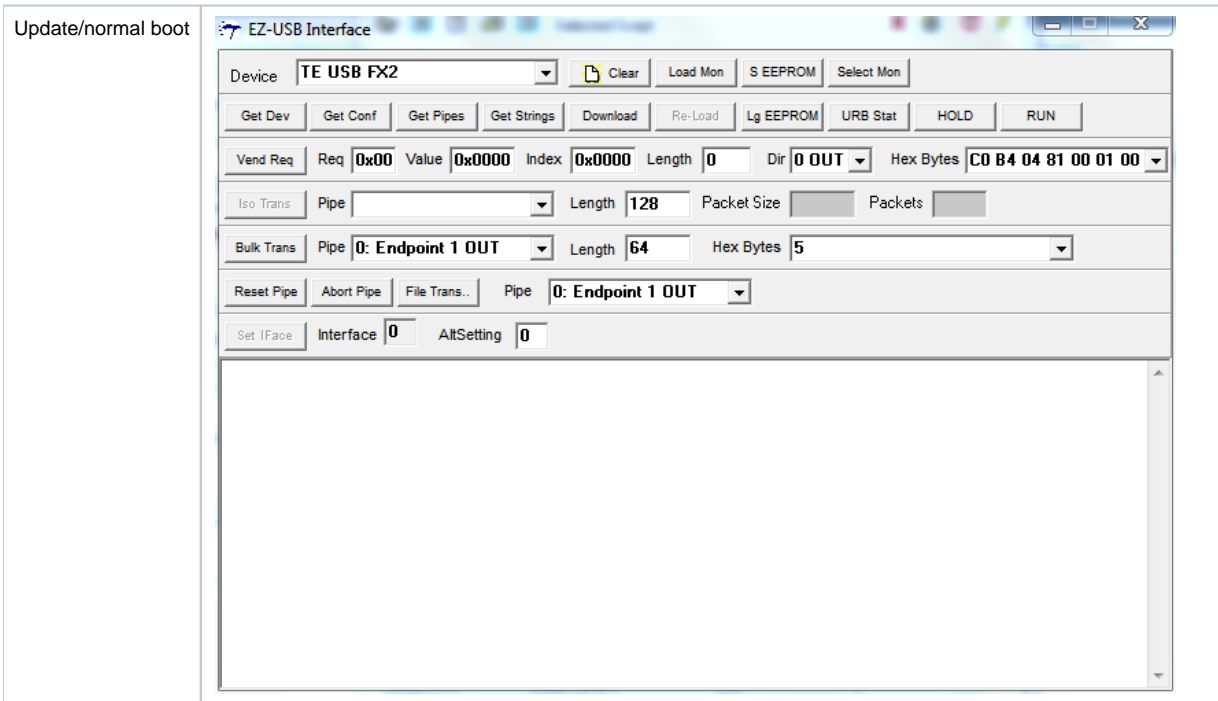
"EZ-USB Interface" starts

RAM programming

The .iic file can be succesfully downloaded in RAM but it doesn't actually work: if you desire to program RAM with .iic file you should use CyControl or Open FutNet instead.

To program the RAM you should click "Download" button in "EZ-USB Interface" window and select the desired file to download.
Unfortunately, you couldn't actually use .iic files but only .hex or .bix files.

> ⚠ The RAM can be programmed even if EEPROM switch is disabled.
>
> If you don't also write the IIC EEPROM ("Options" > "EZ-USB Interface" > "Lg EEPROM"), the new firmware is lost if the TE USB FX2 module goes under reset or power off/on cycle.
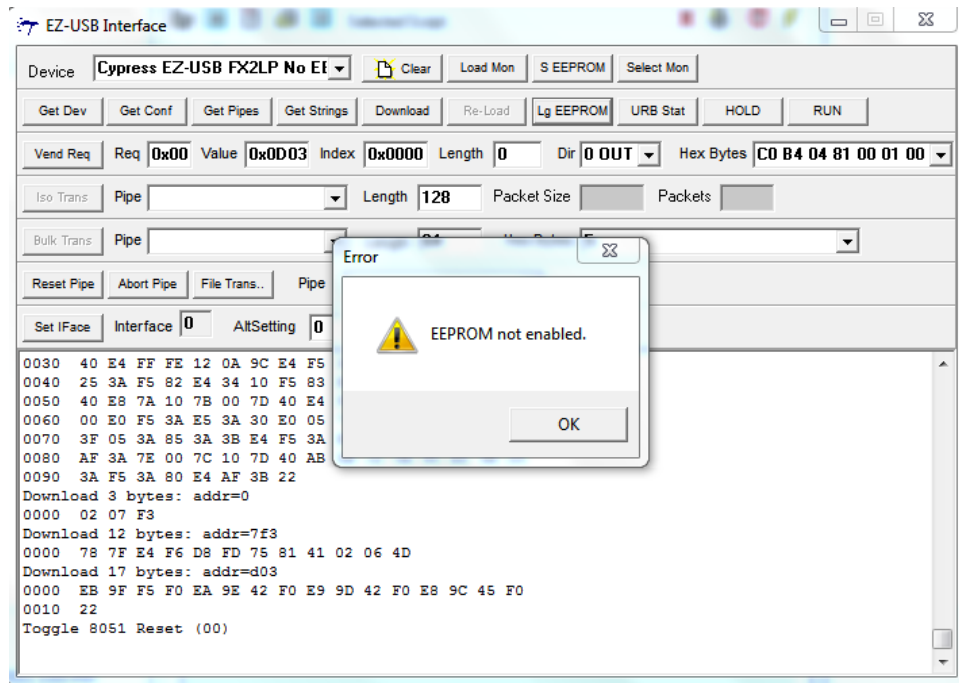
EEPROM programming

To program the Large (64K) EEPROM you should click "Lg EEPROM" button in "EZ-USB Interface" window and select the desired file to download.
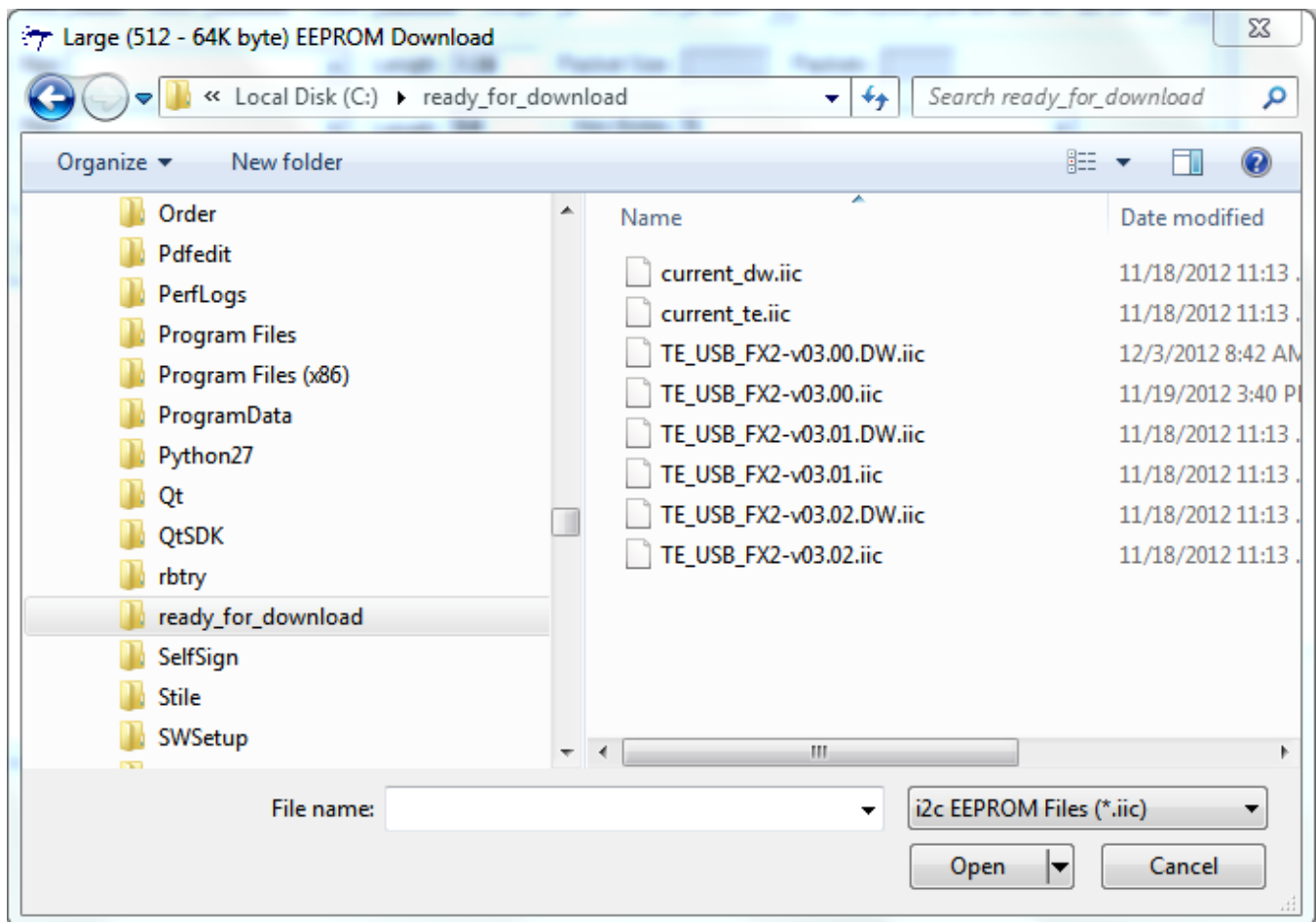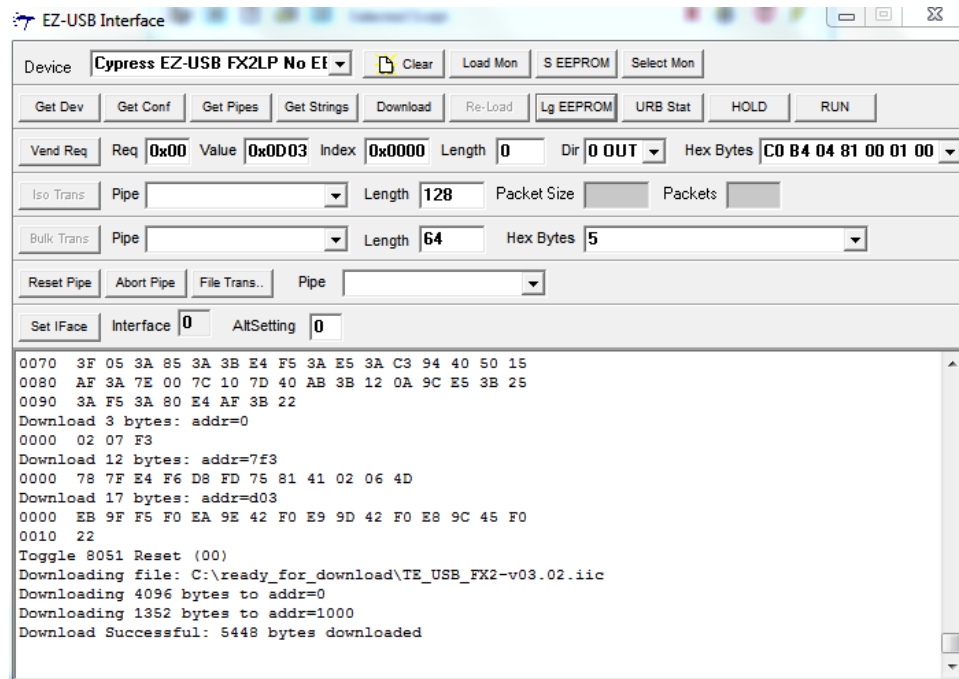
Select .iic file to download

Programming failed: it happens when EEPROM switch is disabled.	
Programming succeeded: it happens when EEPROM switch is enabled.	

EEPROM Programming Status

If the TE USB FX2 module exit from reset or is powered on, the IIC EEPROM content programs/configures the USB FX2 microcontroller RAM