

# Quick Migration Guide

## Documentation

- Migration from the 2<sup>nd</sup> to the 3<sup>rd</sup> generation – firmware and device driver: see the [Quick Migration Procedure](#) section in this page and the [UM-TE-USB-FX2-gen2\\_to\\_gen3.pdf](#).
- [video play list](#): generation 2 to generation 3 migration (firmware + driver)

<p><b>Generation 2 to generation 3 migration (firmware + driver)</b></p>  <p>video play list.</p>	<p>Migration from the second generation (aka DEWESoft) to the third generation (aka TE USB FX2) of Trenz Electronic USB FX2 technology stack (firmware and driver).</p>
	<p><b>TE0300: migration from 2nd to 3rd generation (firmware + driver)</b></p> <p>This video shows how to upgrade a Trenz Electronic TE0300 device form the second to the third generation (firmware and driver). The video has been recorded on a Microsoft Windows 7 (64 bit) operating system with a TE0300-01 FPGA module connected to a USB port, but the procedure is almost the same for any Trenz Electronic USB FX2 device.</p> <p>In this video, power-on reset is used.</p> <p>Please note that TE0300 has master reset, thus a powered reset (S2 switch) is possible.</p>
	<p><b>TE0320: migration from 2nd to 3rd generation (firmware + driver)</b></p> <p>This video shows how to upgrade a Trenz Electronic TE0320 device form the second to the third generation (firmware and driver). The video has been recorded on a Microsoft Windows 7 (64 bit) operating system with a TE0320 FPGA module connected to a USB port, but the procedure is almost the same for any Trenz Electronic USB FX2 device.</p> <p>In this video, power-on reset is used.</p> <p>Please note that TE0320 has master reset, thus a powerered reset ( S1D switch to ON) is possible.</p>
	<p><b>TE0630: migration from 2nd to 3rd generation (firmware + driver)</b></p> <p>This video shows how to upgrade a Trenz Electronic TE0630 device form the second to the third generation (firmware and driver). The video has been recorded on a Microsoft Windows 7 (64 bit) operating system with a TE0630-00 FPGA module connected to a USB port, but the procedure is almost the same for any Trenz Electronic USB FX2 device.</p> <p>Please note that, unlike TE0300 and TE0320, TE0630-00 has no -master reset-, thus a power-on reset is required.</p>
	<p><b>Cypress USB Console used for 2nd to 3rd generation update.</b></p> <p>This video explains how to use -Cypress USB Console- instead of "Cypress Control Center".</p> <p>This video assumes that you have followed the first 6 minutes of "generation 2 to generation 3" videos (for anyone of the Trenz Electronic USB FX2 modules).</p> <p>This video is an extension to 6:00 to 6:40 of "generation 2- to -generation 3" videos.</p>

## Quick Migration Procedure

When migrating from the second generation of the software stack for Trenz Electronic FPGA modules with USB interface (aka DEWESoft firmware and DEWESoft driver derivative) to the third generation (aka Trenz Electronic firmware and Cypress driver derivative), we recommend the following 3 steps:

- [Firmware](#) and [driver](#) migration from Generation 2 to Generation 3
- C++/C# Generation 3 [SW API](#) download
- C++/C# Generation 3 [SW Application](#) Examples download

## Firmware and driver migration from Generation 2 to Generation 3

At first, the user should [check VID/PID of connected TE USB FX2 module](#) and follow the steps advised in the table below.

VID/PID of connected TE USB FX2 module	Firmware installed	Required Driver	Required procedure for migration
0547/1002	Gen2: <a href="#">Trenz Electronic firmware</a> with old VID/PID	<a href="#">Regular driver</a> (Gen 2): DEWESoft USB FX2	<ul style="list-style-type: none"> <li>• <a href="#">Install Cypres Driver</a></li> <li>• <a href="#">Recovery Boot</a>: download Gen 3 firmware</li> <li>• Uninstall and remove Gen2 Driver <sup>(2)</sup></li> <li>• <a href="#">Install Gen3 Driver</a></li> </ul>
0DB0/0300	Gen3: <a href="#">Trenz Electronic firmware</a> with new VID/PID	<a href="#">Regular driver</a> (Gen 3): TE USB FX2 Driver	<ul style="list-style-type: none"> <li>• None or</li> <li>• <a href="#">Install Gen3 Driver</a></li> <li>• <a href="#">Update Boot</a>: download Gen 3 firmware</li> </ul>
04B4/8613	Cypress firmware <sup>(1)</sup>	<a href="#">Recovery driver</a> (Cypress)	<ul style="list-style-type: none"> <li>• <a href="#">Enable EEPROM switch</a></li> <li>• <a href="#">Reset TE USB FX2 module</a></li> <li>• One of the two previous case should happens</li> </ul>

### Firmware and driver migration from Generation 2 to Generation 3

(1) EEPROM switch (S1A on TE0320 and TE0630, S1 on TE0300) is disabled during a **reset** ("**power-on reset**" or "**powered reset**")

(2) Only for Windows XP is strictly necessary. Full uninstallation of Generation 2 driver is advisable. (i.e. with "delete files" option activated on Windows Vista or later versions, in Windows XP the deletion must be done manually: see section 4 of [UM-Drivers-TE\\_USB\\_FX2 manual](#)).

## C++/C# Generation 3 SW API download

After the firmware and driver migration, the user should download latest C++/C# [SW API](#).

On the GitHub repository, the developer can find the current C++/C# API. The code is associated with Microsoft Visual Studio Express 2010 project. This project can also be opened in Visual Studio Professional 2010.

The C++ DLL and sample code is preset for Microsoft Windows 32 bit operating systems. If you desire to compile the solution for 64 bit operating systems, the procedure in Microsoft Visual Studio Express and Microsoft Visual Studio Professional has some differences and is specified in *Appendix A : Open the Visual Studio 2010 project of C++ TE\_USB\_FX2 API - reference manual* published here: [http://www.trenz-electronic.de/download/d0/Trenz\\_Electronic/d1/TE-USB-Suite/d2/generation\\_3/d3/APIs.html](http://www.trenz-electronic.de/download/d0/Trenz_Electronic/d1/TE-USB-Suite/d2/generation_3/d3/APIs.html)

The differences are the following

- Express requires the installation of *Microsoft Windows SDK 7.1* and it must be selected under Platform Toolset as *Windows7.1SDK*;
- Professional uses the same v100 (10.0) runtime components as in Platform Toolset. The developer does not need to install *Microsoft Windows SDK 7.1*.



The straightforward procedure to install both *Microsoft Windows SDK 7.1* and *Microsoft Visual Studio 2010 Express* on the same computer will fail: see [here](#). In this page, 2 different procedures are described; we have successfully tested both procedures.

## C++/C# Generation 3 SW Application Examples download

It is possible to download some *Microsoft Visual Studio 2010 Express* projects ([SW Application Layer](#)) already correctly configured (for *Microsoft Visual Studio 2010 Express* 32/64 bit and *Microsoft Visual Studio 2010 Professional* 64 bit) from here:

- [http://www.trenz-electronic.de/download/d0/Trenz\\_Electronic/d1/TE-USB-Suite/d2/generation\\_3/d3/reference\\_designs.html](http://www.trenz-electronic.de/download/d0/Trenz_Electronic/d1/TE-USB-Suite/d2/generation_3/d3/reference_designs.html)