PsoCEveLibrary

Introduction.

This is not a tutorial about how to use the FT chips but a simple instructions about how to use PsoCEveLibrary and some notes about development of the library.
English is not my native lenguaje, but i hope it is good enough you can understandt this document and use the library or improve it.

Actually the library only supports FT800 chip because it is the chip of the FTDI kit i am using for development. The library it is being developed for Psoc 4 microcontrollers. But i have planned to add support for other FTDI Eve chips, at least new chips FT81x and other Psoc microcontrollers; but i don´t know when.

Realize that this is a work in progress, and some features are not supported yet. I will continue developing the library until all useful and interesting features are supported but in the order i need for some personal projects for wich i need this library.

About testing software and demos, don´t expect something spectacular. I am probably the worst graphics designer in the world so i can only aspire to do something useful to test project features and to contract a professional graphics designer when i need something beautiful.

The library is dual licensed. It uses a MIT license and a GPL license. Why ? Because when i started the development of the library i wanted everyone be able to use it in their own projects: personal, comercial... At first, i decided to use a MIT license but someone tolds me that a MIT license is not compatible with GPL projects. I am not an expert in software licenses and i am not sure if this is true or not, so i decided to dual license the library. I think in this way, it will be compatible with all or most of the projects.

Development environment.

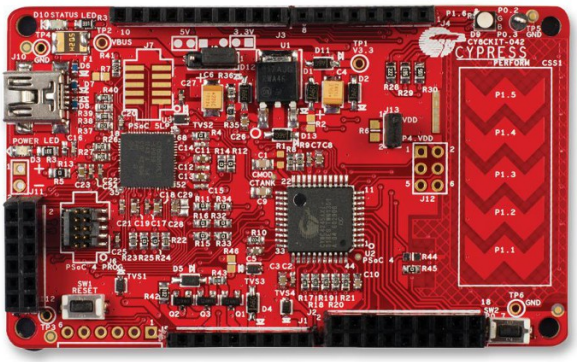
Software

PSOC Creator 3.3 using GCC 4.9 compiler.

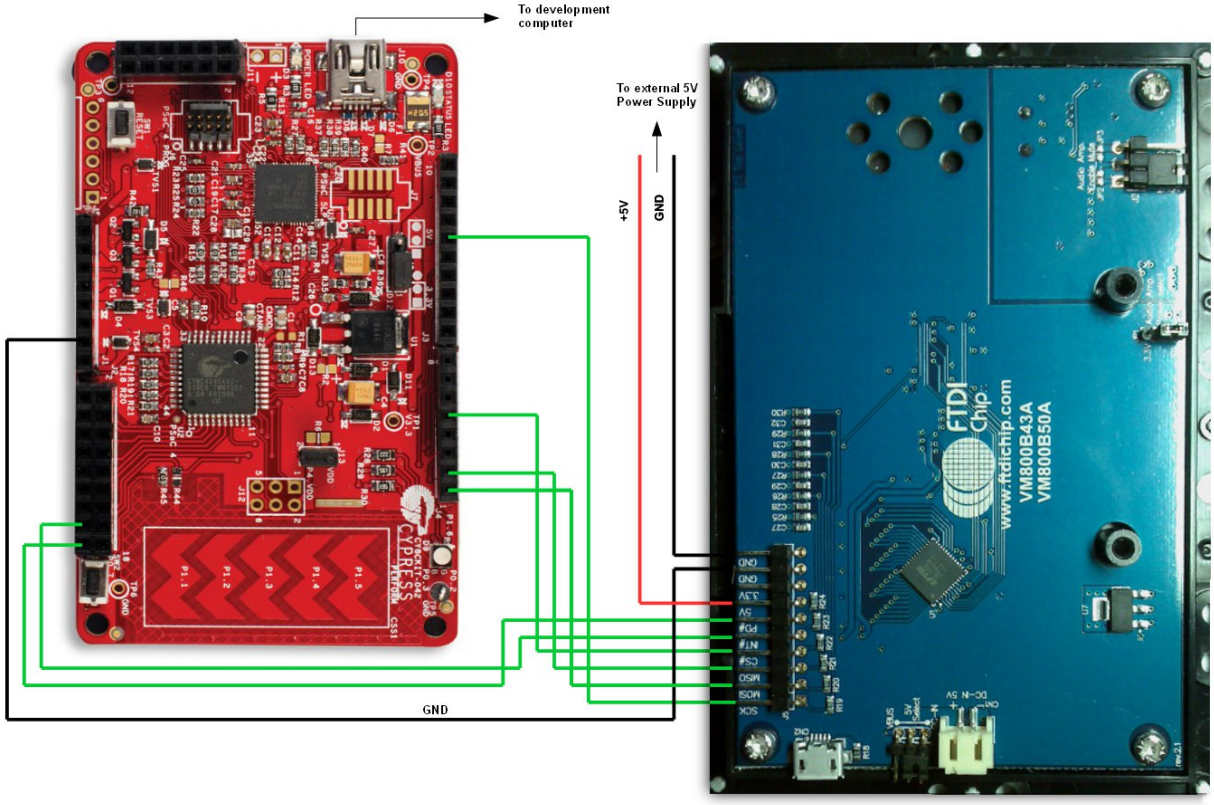
Hardware

- FTDI devlopment kit VM800B with a 4,3" TFT display and resistive touch panel.

- Cypress Pioneer Kit CY8CKIT-042



Following image shows connection of FTDI kit to the PsoC4 board.



References.

If you don´t know about EVE chips and you want to use this library or improve it, it is recomended that first you read at least the following documents:

- FT800 programmers guide
- FT800 datasheet
- VM800B development kit datasheet.

All of them downloadable from FTDI web site.

Actually, there is not too much documentation about how to use the library because this document is also a work in progress.
The library code is full of comments, and there is an example project wich is what i use to test features during development. If you look at them, and your are an embedded developer i think it will not be dificult for you to understandt how it works. And if you have some question you can send me a message and i will try to help you.

Library repository.

- PSOC4EVE folder.
  Software for testing features of the library during development.
- PsoCEveLibrary.
  The library.

Place PSOC4EVE and PsoCEveLibrary folders and their contents in the same place. Under PSOC Creator open project PSOC4_EVE.cywrk. It is inside PSOC4EVE folder.

Library files.

- PSoCEve_config.h
  Configuration file. Commented code inside. Until now, only teste with 4,3" display. From all displays i have at home, this is the only supporte by FT800 chip.
- PSoCEve_Hal.h and PSoCEve.c
  Functions for communications throught SPI bus.
- PSoCEve.h and PSoCEve.c
  The library main files.