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General instructions

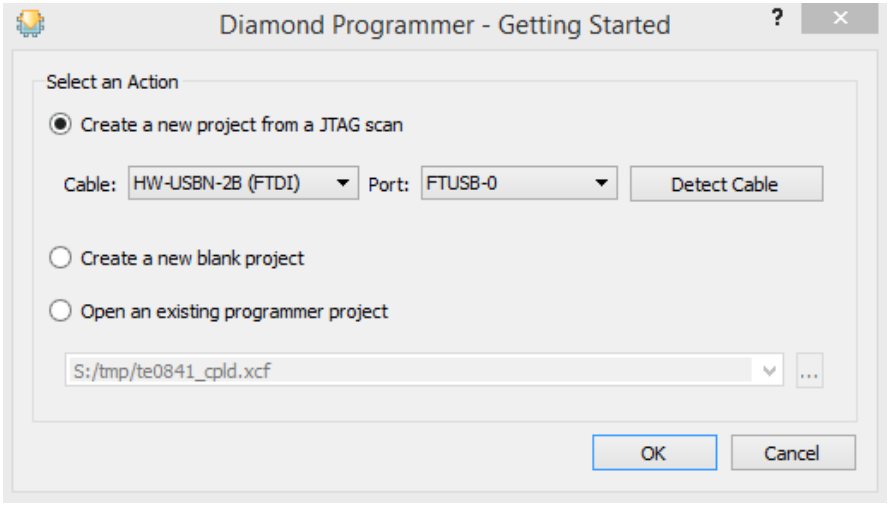
CPLD Firmware Update - General Requirements

- Lattice Diamond or Lattice Diamond Programmer is available for free on http://www.latticesemi.com/
- Lattice compatible JTAG Programmer, for example:
  - Trenz TE0790 or Carrier with FTDI for JTAG
  - Most JTAG programmer, which used FTDI Chip to translate USB to JTAG
    - Digilent FTDI based programmer are not compatible with Lattice.
- JTAG must be connected to CPLD JTAG
- JTAG Enable Pin of CPLD must be selectable and set to VDD
- Correct CPLD Firmware (JED-File) from Trenz Electronic Download

CPLD Firmware Update - General Procedure

Important: Connect only one JTAG to host PC. Close all other programs, like Xilinx tools.

1. **Enable CPLD JTAG access** (See JTAG section on CPLD Firmware description)
2. Connect JTAG
3. Power on System
4. Open Lattice Diamond Programmer
5. Detect Cable and click "Ok"
   For some devices second Port must be selected:



6. Select Device (See CPLD Firmware overview description).
   In the most cases select the correct detected device one time (it's yellow at first on the menue)
7. Select correct Firmware from Download Area (JED File)
8. Program CPLD:
9. **Disable CPLD JTAG access** (See JTAG section on CPLD Firmware description)
10. Restart System

More Information are available on the CPLD Firmware description and on the readme.txt included into the download zip.

CPLD Access

Set B2B Pin J3-136(JTAGENB) to VDD (3.3V).

With TEBT0782:

- Set DIP S1-1 to OFF
- Use XMOD on J8 Pinheader

Available CPLD Firmware

- TE0782 CPLD - Firmware description
  - Default delivered Firmware