Indirect SPI Programming using iMPACT (bitstream only)

For your convenience, a reference video is available on the TrenzElectronic's Channel at YouTube.

For further reference, please read Xilinx XAPP974: Indirect Programming of SPI Serial Flash PROMs with Spartan-3A FPGAs and this discussion (in particular for TE0630 Spartan 6 module) on the Xilinx forum.

Direct SPI configuration is supported only up to Xilinx iMPACT version 11.x. See Xilinx AR#36156.

To indirect program SPI Flash using Xilinx iMPACT do following steps.

Connect JTAG cable to corresponding module connector (see JTAG connector).

Connect JTAG cable to host computer with installed Xilinx iMPACT software.

Power-on module by external power supply source or by USB cable.

Run Xilinx iMPACT.

()

Select Boundary Scan mode.

After initialization iMPACT window should look like





MPACT Boundary Scan identification success

Right click on FPGA image and select "Add SPI/BPI Flash..." from menu.



"Add SPI/BPI Flash..." selection

Select mcs file to program.

Select SPI Flash type corresponding to your module type and revision.

| Select Attached SPI/BPI | × | |
|-----------------------------------|----------|--|
| Select the PROM attached to FPGA: | | |
| SPI PROM | ✓ M25P32 | |
| | | |
| | | |
| | | |
| | Canal | |
| OK | Cancel | |
| | | |

Select SPI Flash type pop-up

Right click on Flash image and select "Program" from menu.





Select "Program"

Leave default programming properties and press "OK".

| Device Programming Properties - Device 1 Programming Properties | | |
|---|---|--|
| | | |
| Property Name | Value | |
| Verify | V | |
| General CPLD And PROM Properties | | |
| Design-Specific Erase Before Programming | ✓ | |
| FPGA Device Specific Programming Properties | | |
| After programming Flash | automatically load FPGA with | |
| < III | Anniv Heln | |
| | Property Name Verify General CPLD And PROM Properties Design-Specific Erase Before Programming FPGA Device Specific Programming Properties After programming Flash | |

Press "OK" in the pop-up

Wait for operation to complete.

After completion iMPACT window should show "Program Succeeded" sign.



Flash Program Succeeded