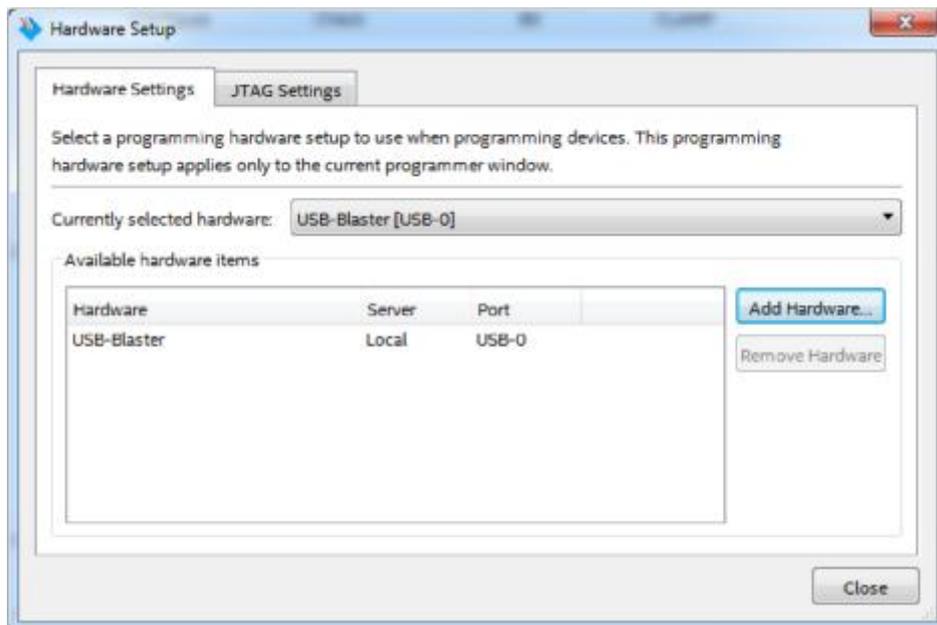# Convert SOF file to JIC and Flashing EclaireXL V2 PCB core

Document rev1. By Nir Dary – June 2017
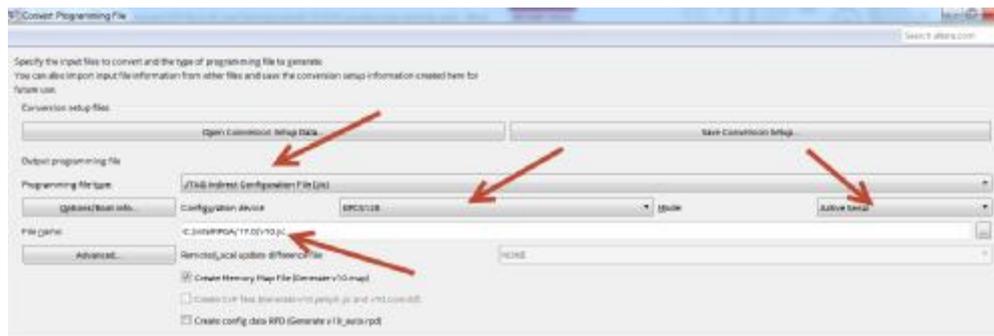
1. You need a USB Blaster, you can purchase one from EBay
2. Download the and install Quartus Prime software from Altera website:
    http://dl.altera.com/?edition=lite

3. Connect the USB Blaster on one side to your PC USB port , Windows should detect the hardware immediately, and on the other side to the JTAG port on the EclaireXL board

4. Start the Quartus Prime software

At the Hardware setup menu make sure that the currently selected hardware is set to point to you USB Blaster device as shown in the image below

5. In Quartus Prime programmer tool go to file => convert programming files
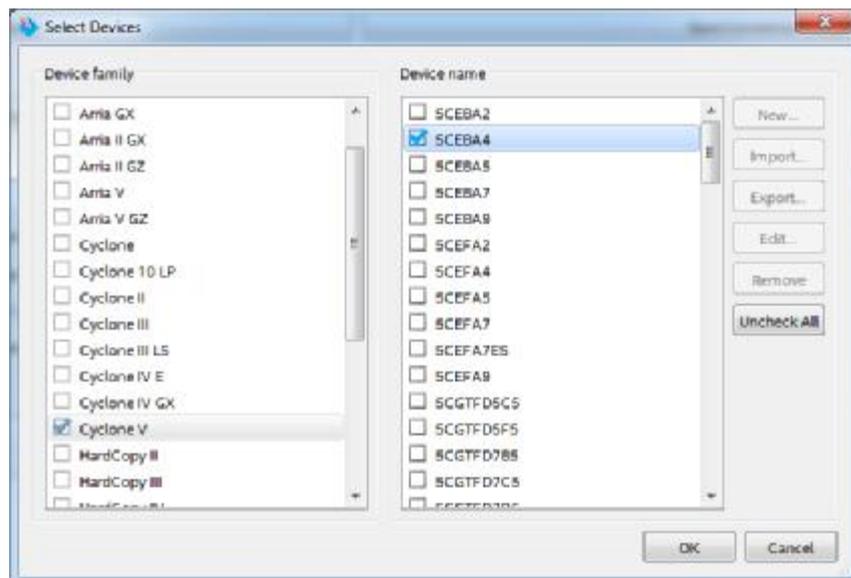
   Select programming file type 'jtag indirect programming file'
   Select configuration device (EPCS128)
   Select mode: Active serial
   Set appropriate file name to output

6. In 'Input files to convert' clock on 'Flash Loader' to select it then click 'Add Device' on the right
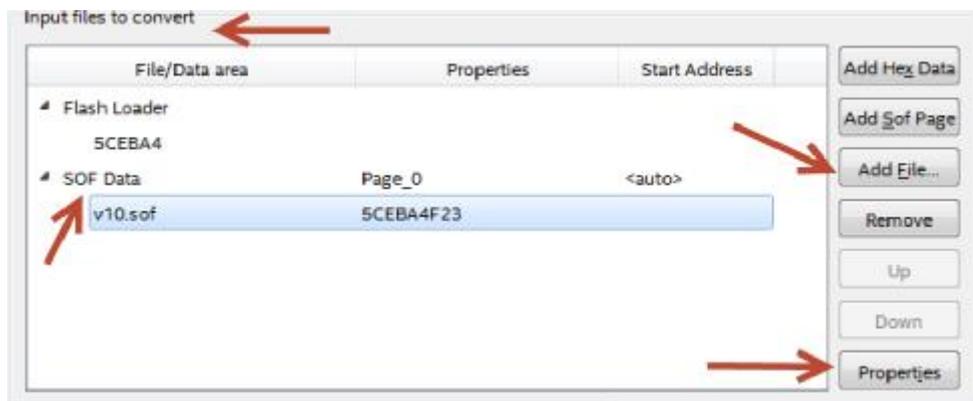

   Select 'Cyclone V' on left and the correct FPGA from the right (5CEBA4)

7. In 'input files to convert' click on 'SOF Data' to select it and click 'Add File'
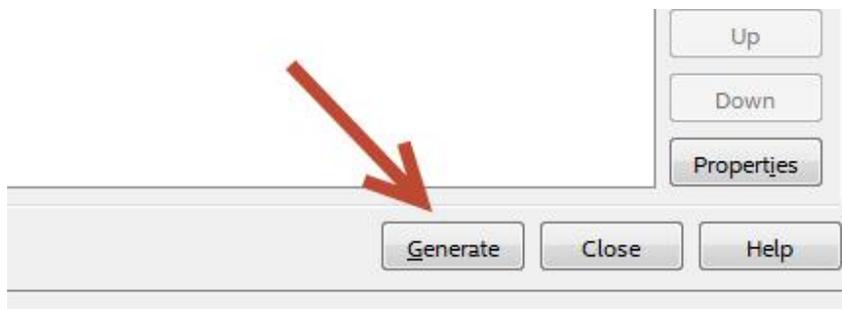
Then select the .sof file you want to convert

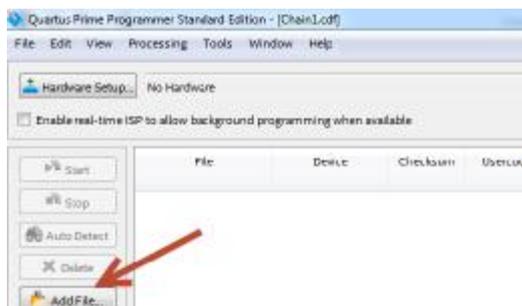Select properties on the new line and enable 'compression' and select "ok"

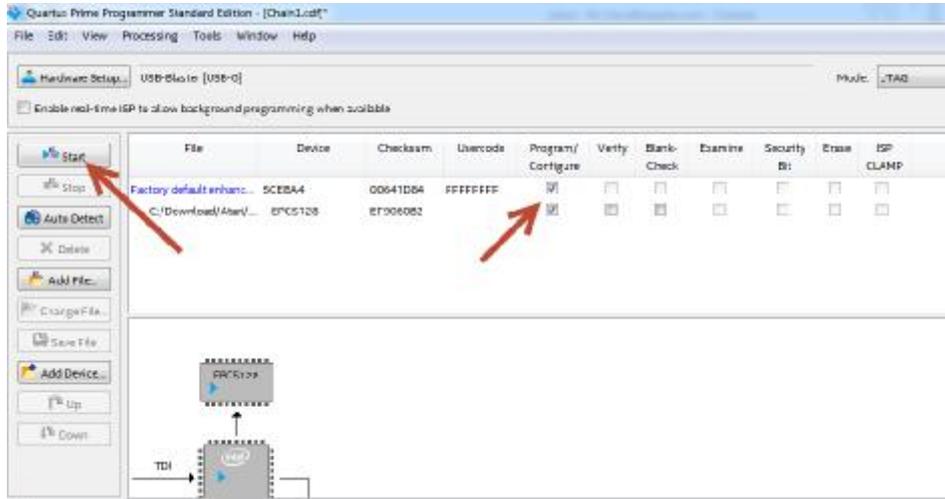8. When all done click on 'Generate' to generate the JIC file

You will be prompt with a successful message and click 'Close'

9. In the Quartus Prime programmer tool click on "Add File" button and select the JIC file you created

And select the JIC file you created\

Check the "Program / Configure" Check box and click on the "START" button to start programming

Wait until you complete the process and exit the software