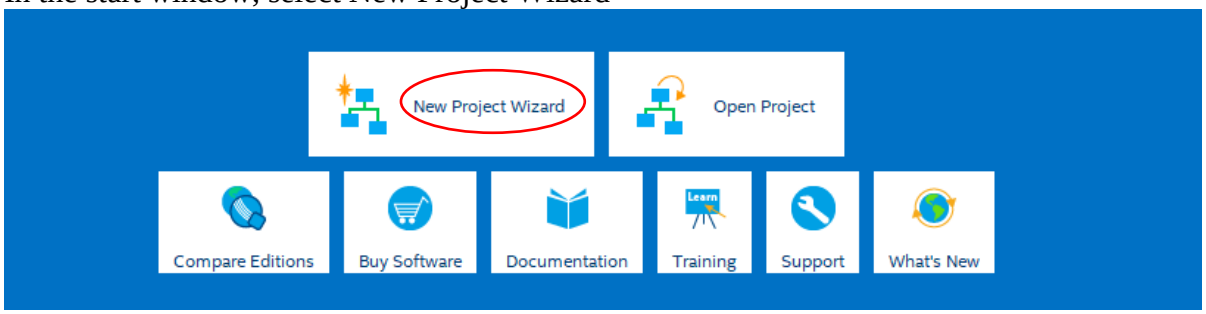
Custom Computing & Embedded Systems

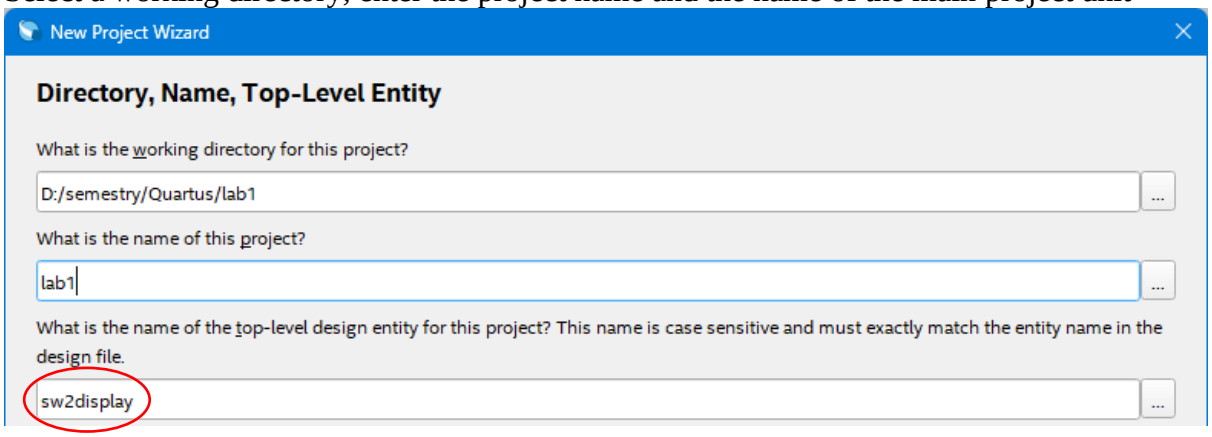
Quartus Prime – quick start

1. Preparing the project

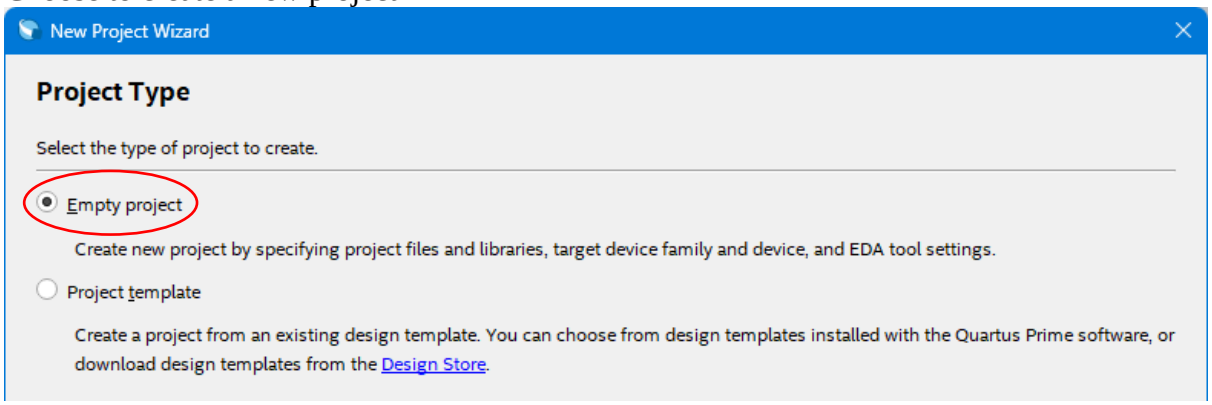
Launch Quartus Prime
In the start window, select New Project Wizard



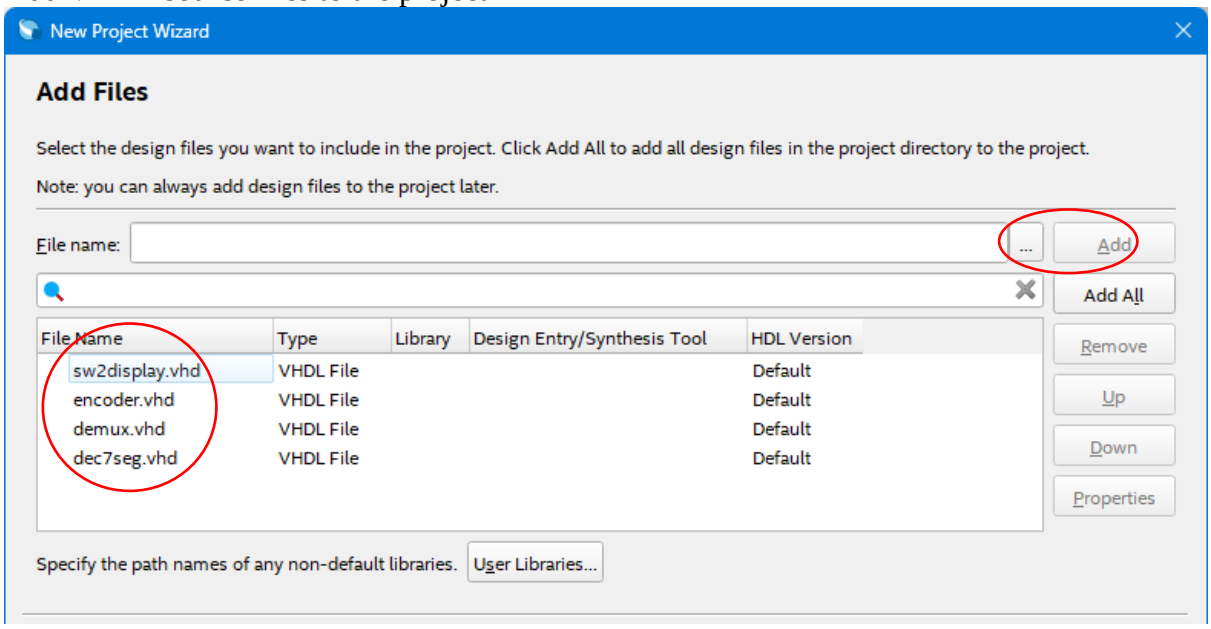
Select a working directory, enter the project name and the name of the main project unit



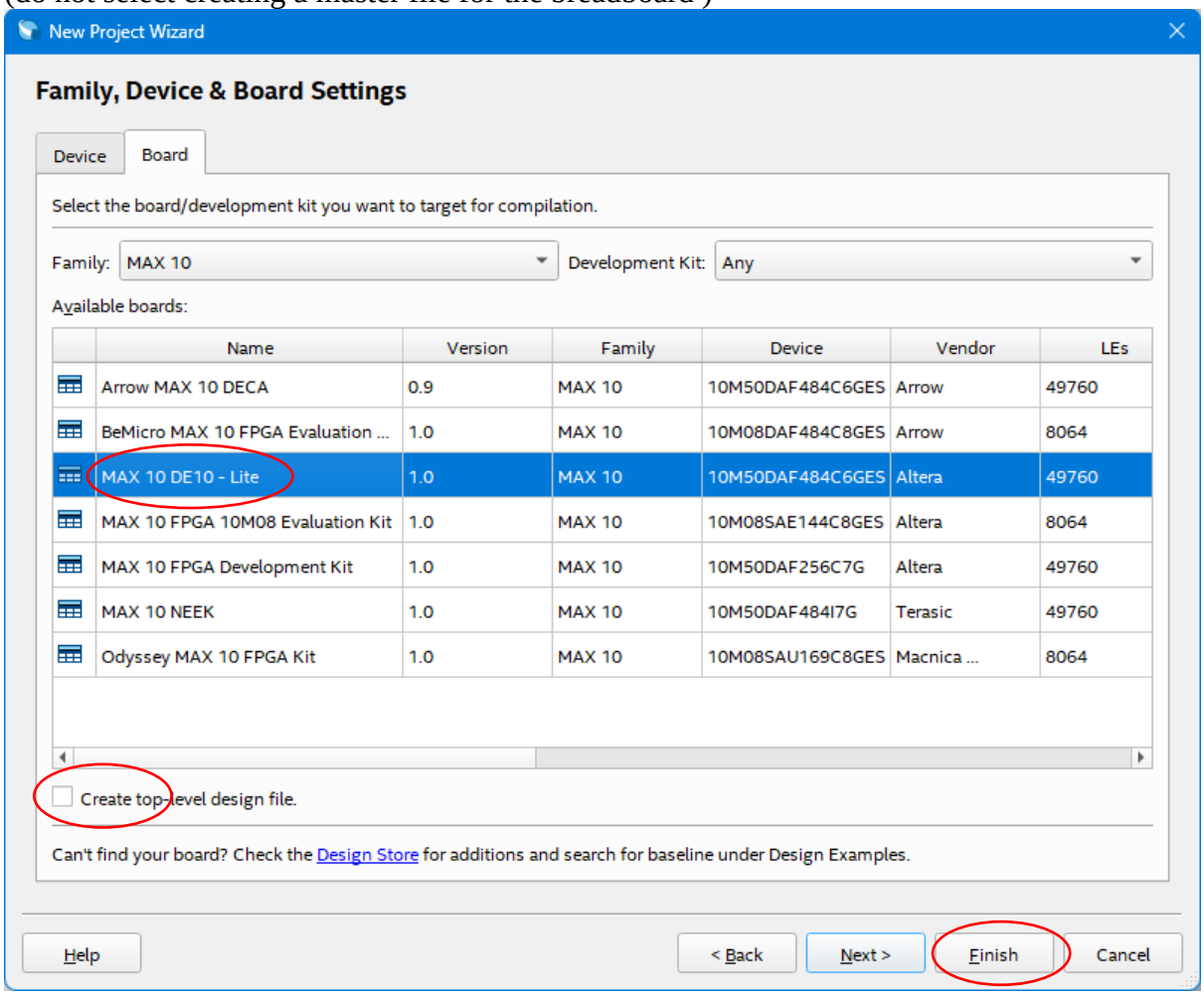
Choose to create a new project



Add VHDL source files to the project

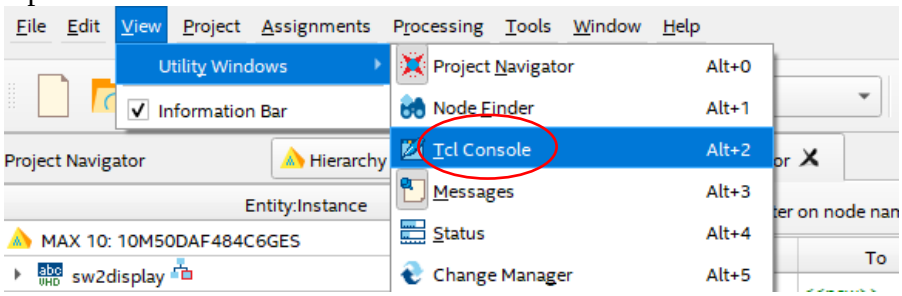


Select the type of breadboard from the **Board** tab
(do not select creating a master file for the breadboard)

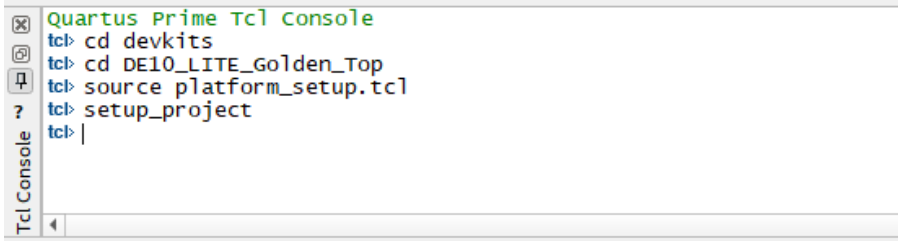


2. Pin configuration

Open the Tcl console



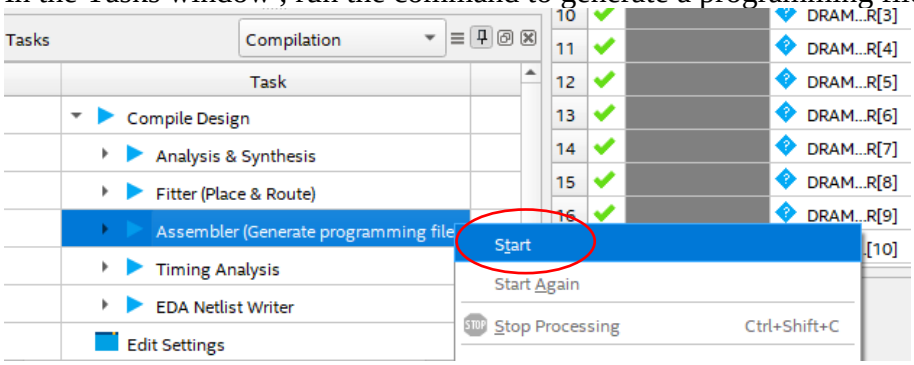
Go to the ./devkits/DE10_LITE_Golden_Top directory and run the configuration script



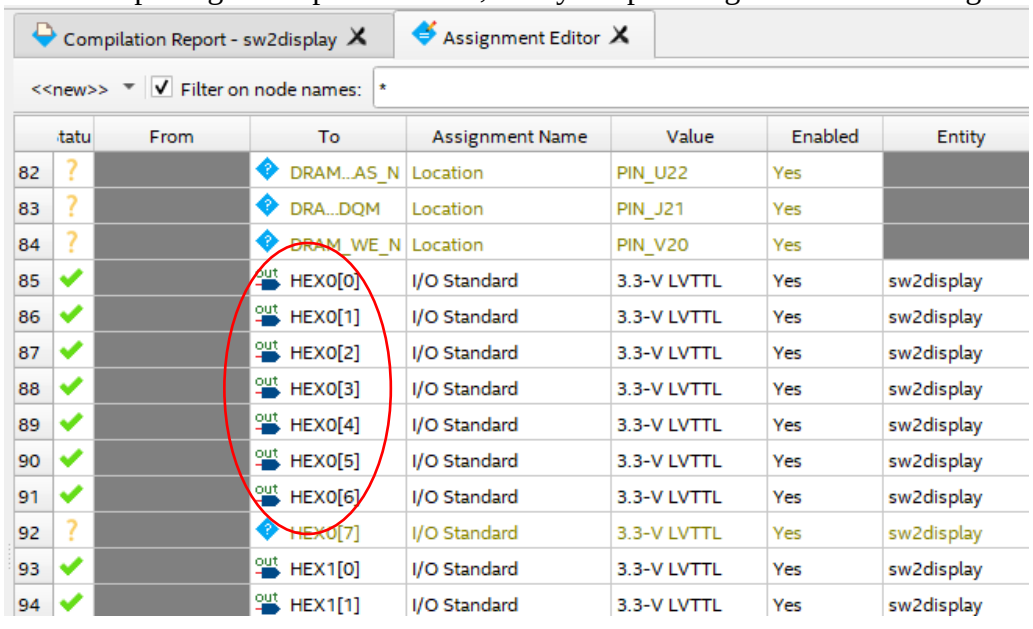
If the ports in the main unit match the names on the prototype board, the assignment of the IC pin numbers has been done automatically.

3. Project build

In the Tasks window , run the command to generate a programming file

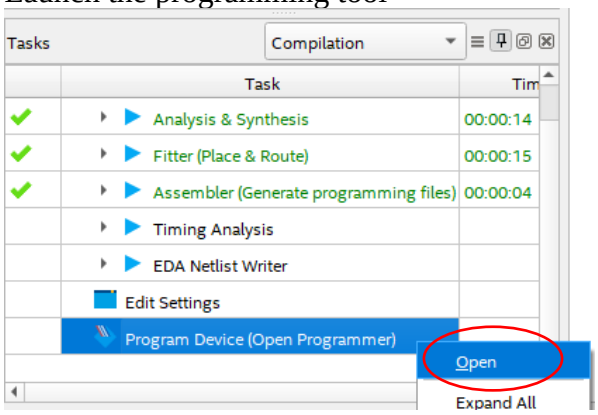


After completing the implementation, verify the pin assignment in the Assignment Editor window

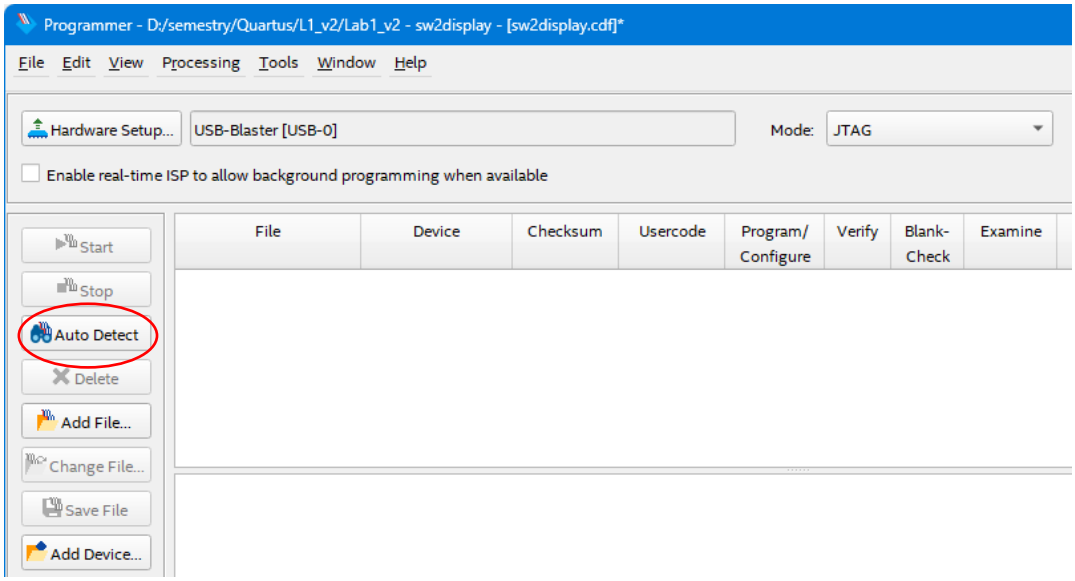


4. Disc programming

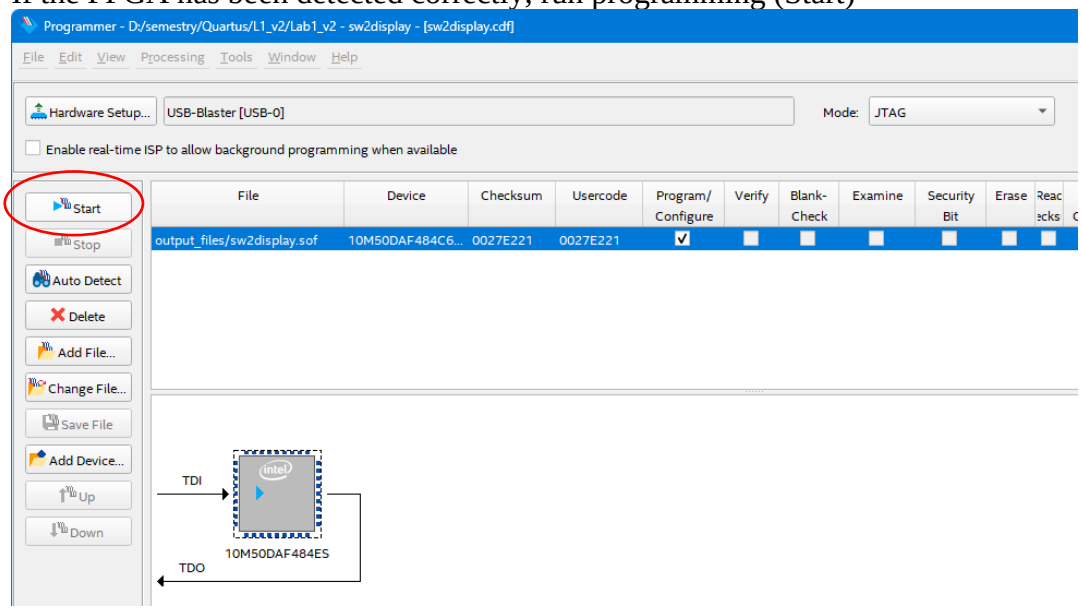
Launch the programming tool



Connect the USB- Blaster interface and execute the AutoDetect command



If the FPGA has been detected correctly, run programming (Start)



Test the operation of the system using the **SW** switches