University of Colorado Boulder

Expanded FPGA Training with NIOS II: Traffic Light Design Project

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1 Loading the Design

After unzipping the file, look for the "software" directory. It should contain two subdirectories: "traffic_core_DE10" and "traffic_core_DE10_bsp". Open Nios II - Eclipse IDE.

Open the "File" menu, and click on import. Choose the "Nios II Software Build Tools Project" option, and then "Import Nios II Software Build Tools Project".

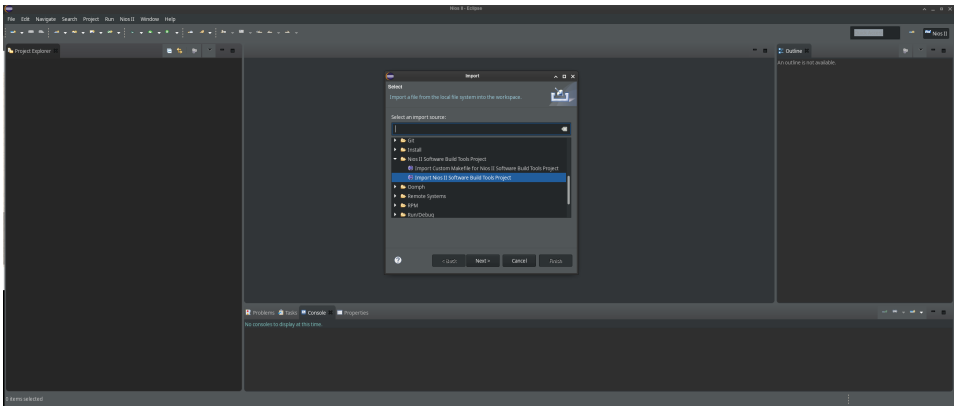

Figure 1: How to Import Project - Part 1

In Project Location, choose the path for the "bsp" project. In name, write "traffic_core_DE10_bsp" and click finish.

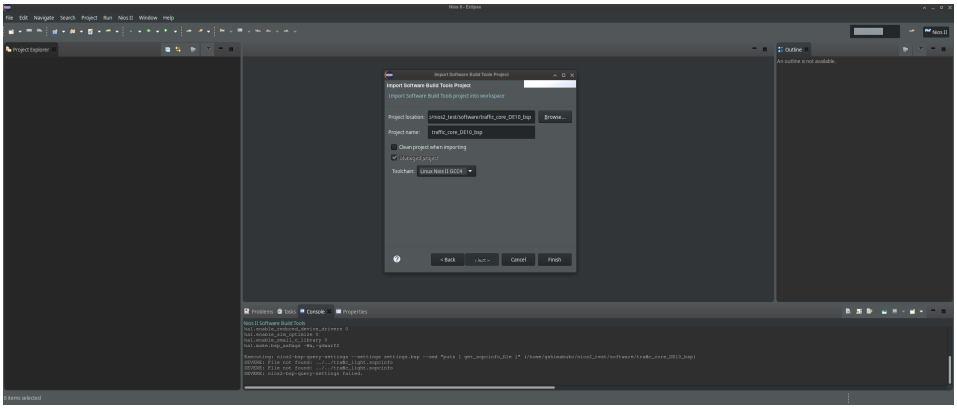

Figure 2: How to import Project - Part 2

Repeat the process for the "traffic_core_DE10" directory. Click on the bsp project on the left menu with the right button of your mouse, and build it. Do the same for the "traffic_core_DE10" project.

Open Quartus Prime and load the project from the previous prompt. Compile the system, connect and program the board.

Go back to eclipse IDE and click on the "Run" menu, and then on "Run Configurations". Choose "Nios II Hardware" and then click on "New launch configuration". Choose the Project "traffic_core_DE10" and the respective elf file, in case the IDE doesn't choose it automatically.

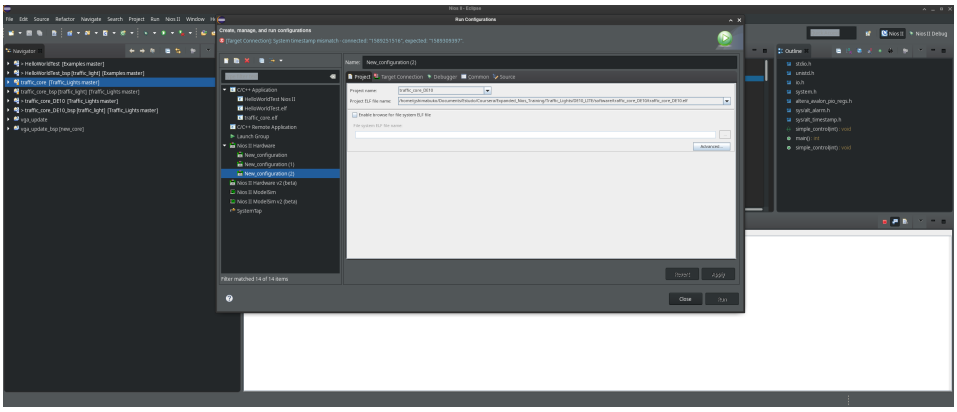

Figure 3: How to Load an Archived Project

Go to "Target Connection" and make sure you find your board's JTAG. Select it. Mark "Ignore mismatched system ID", then click "Apply" and "Run".

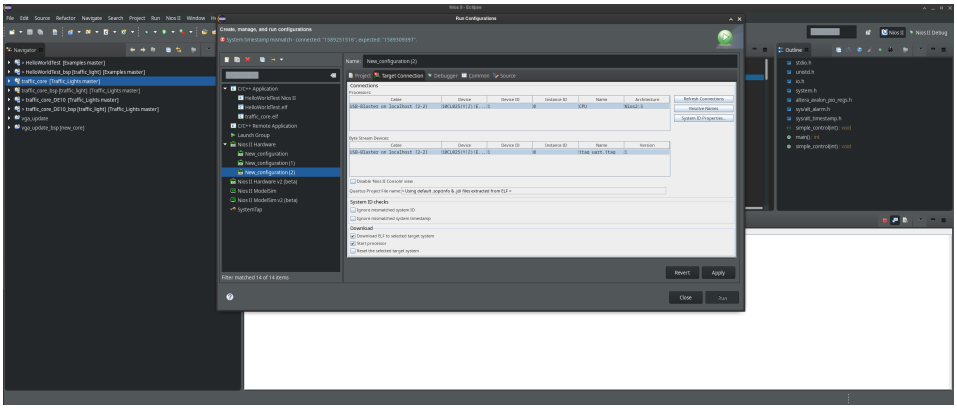

Figure 4: How to Load an Archived Project