

Practical Homework set 2

(These problems should be done individually, not with project partner)

Due – As indicated on Canvas

Instructions for submission

1) All answers are to be submitted in a **single** word/pdf file. This would be considered the final submission.

2) Include Libero, Modelsim and observation screenshots whenever possible with appropriate annotations for better presentation in word/pdf file.

Do not submit extra screenshots in submission folder

3) Naming convention and files required

a) LastName_FirstName_PracticalHWSet2.zip - all project files

b) LastName_FirstName_PracticalHWSet2.docx/pdf - for Observations and Answers

* Submit individual folders for each project question for Smart Fusion files within the zip folder.

Practical Question:

1. Download and install the Libero FPGA development software, version 12.6, including SoftConsole 5.1. Don't forget to create the IP vault. Use the instructions in found in "[LiberoInstallation.pdf](#)" on Canvas. Provide screenshots of Libero and SoftConsole in a working state.
2. Implement homework problem 2.5 or 2.7 in Libero with SmartFusion2 as the target device. Provide a screenshot of your completed design after Place and Route. Simulate functionality using ModelSim, and provide a screenshot of your simulation
3. Install Xilinx's Vivado tool (use 15.1 webinstall edition). See the Xilinx Vivado Installation and Startup.docx for instructions. Submit a screenshot of your completed installation.

Grading Rubric

1) - [5 points]

[3 points] Screenshots of Libero Implementation working

[2 points] Screenshots of Soft Console

2) - [10 points]

[5 points] Screenshots of Compiled Design

[5 points] Screenshots of ModelSim Simulation

3) - [5 points]

Screenshots of Vivado Implementation working

** Commenting of code, references and presentation of material also carries weight*