University of Florida **EEL3701C** - Electrical & Computer Engineering Dept.

## **EEL3701C – Digital Logic and Computer Systems**

Homework # Report: **Homework 1 Tutorial** 

Poche, Natalie Class #: 11198 January 26, 2025

REQUIREMENTS NOT MET

N/A

# PROBLEMS ENCOUNTERED

When switching between devices from MAX V back to MAX X, there were some compilation errors, where I would have to select from "Device  $\mid$  Available Devices" in order to successfully compile when switching back from MAX V.

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# **HOMEWORK EXERCISES**

<insert copy of homework problem numbers from homework document, as well as an answer directly following each of the questions (if not applicable, write "N/A"); also specify the Roth textbook version number you used; all scans must be clear and legible>

- I. Creating a Project In Quartus
  - a. A New Project Design Creation
    - i. N/A
    - ii. N/A
    - iii. N/A
    - iv. N/A
    - v. N/A
    - vi. N/A
    - vii. N/A
    - viii. N/A
  - b. Configuring Quartus Window
    - i. N/A
    - ii. N/A
- Designing II.
  - a. Creating A BDF
    - i. N/A
    - ii. N/A
    - iii. N/A
  - b. Adding Text
    - i. N/A
    - ii. N/A
    - iii. N/A
    - iv. N/A
    - v. N/A
    - vi. N/A
    - vii. N/A
    - viii. N/A
  - c. Component Selection Process and Moving Components
    - i. N/A
    - ii. N/A
    - iii. N/A
    - iv. N/A
    - v. N/A
    - vi. N/A
    - vii. N/A

    - viii. N/A
    - ix. N/A x. N/A
    - xi. N/a
    - xii. N/A

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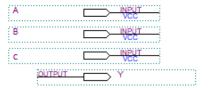
### d. Adding/Deleting Wires

- i. N/A
- ii. N/A
- iii. N/A
- iv. N/A
- v. N/A
- vi. N/A

#### e. Adding Input and Output Ports

- i. N/A
- ii. N/A
- iii. N/A
- iv. N/A
- v. N/A
- vi. N/A

Homework 1 Tutorial Name: Natalie Poche Class: 11198 PI Name: Jaiden Magnan Description: Y = A \* /B + /C



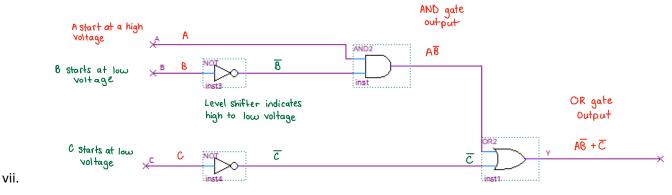


Figure 1: BDF with inputs and outputs

- Full Compilation (for programming your PLD)
  - i. N/A
  - ii. N/A
- g. Functional Compilation (for simulation only)
  - i. N/A
  - ii. N/A
- III. Simulating
  - a. Creating a VWF (Vector Waveform)
    - i. N/A
    - ii. N/A
  - b. Adding Signals
    - i. N/A
    - ii. N/A
    - iii. N/A
  - c. Changing Grid Size and End Table Time

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- i. N/A
- ii. N/A
- d. Manually Changing VWF
  - i. N/A
  - ii. N/A
  - iii. N/A
  - iv. N/A
  - v. N/A
- e. Functional and Timing Simulation

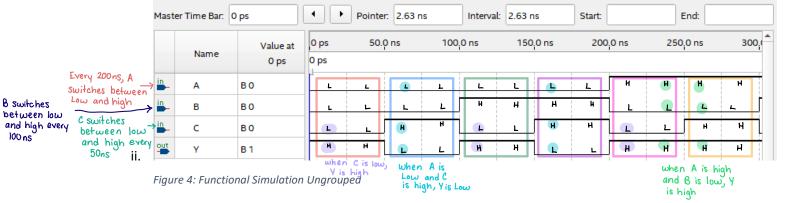
#### i. N/A

A_H	B_L	C_L	$Y_H = A * /B + /C$
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	1 -
1	1	0	1
1	1	1	0

Figure 2: Logic Table for Y = A \* /B + /C

A_H	B_L	C_L	$Y_H = A * /B + /C$
L	L	Ь	Н
L	L	Н	L
L	Н	L	H
L	Н	Н	L
H	•	L	H
Н	L	Н	H
Н	Н	L	Н
Н	Н	Н	L

Figure 3: Voltage Table for Y = A \* /B + /C



#### iii. N/A

- 1. N/A
- 2. N/A
- 3. N/A

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## Homework # Report: Homework 1 Tutorial

- 4. N/A
- 5. N/A

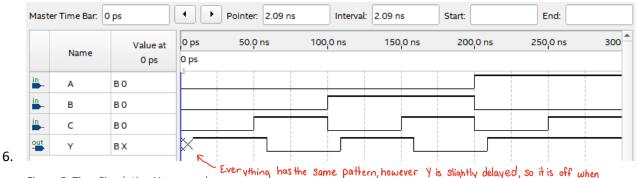


Figure 5: Time Simulation Ungrouped Compared to the inputs

- iv. N/A
- v. N/A
- vi. N/A
- vii. N/A
- f. Grouping Signals and Using Count Value and Clock Value
  - i. N/A
  - ii. N/A
  - iii. N/A
  - iv. N/A
  - v. N/A

vi.

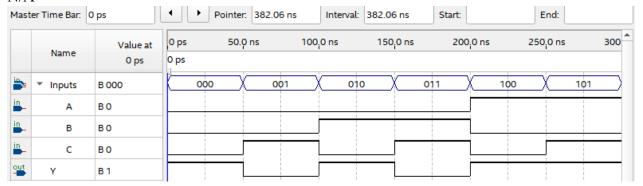


Figure 6: Functional Simulation Grouped

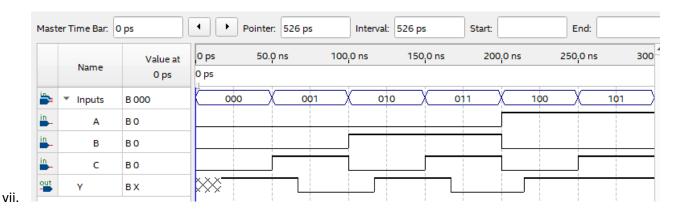


Figure 7: Time Simulation Grouped

#### V. Archiving Your Project

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a. Archiving your project into a qar file

- i. N/A
- ii. N/A
- b. Un-archiving (restoring) your project into a qar file
  - i. N/A
  - ii. N/A
- iii. N/A