

Lab Assignment #1

Due : 2007.10.4. 10:30 AM

1. Objective

Design simple string recognizer using System C which recognizes the input string "010" and halts for the input string "100".

2. Specification

1-bit input, 1-bit output

Initial value of 'output' is 0.

Program changes output value to 1 when last input string is "010".

If last input string is not "010", output value is changed to 0.

Output value is changed to 0 forever when string "100" is found.

("100" means input sequence 1->0->0.)

3. Example

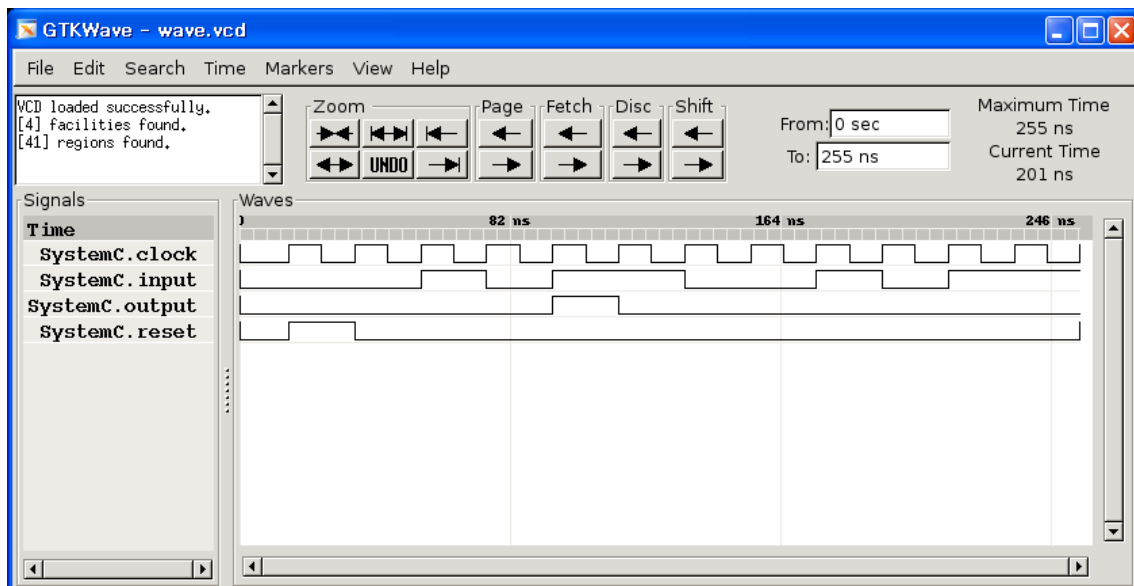


Figure 1 Waveform

input : 0->1->0->1->1->0->0->1->0->1
output : 0->0->1->0->0->0->0->0->0->0
status : <-----working-----><----halt---->

4. How to Compile

Use 'Makefile' and 'Makefile.defs' in your home directory.

ex) your_home> make

5. How to view a wave file

Use gtkwave(/usr/bin/gtkwave, <http://home.nc.rr.com/gtkwave/>)

ex) your_home> gtkwave wave.vcd

6. Due date

Due date is 2007.10.4. 10:30 AM. You should submit the report which contains your source code and captured image of wave form at the class.

Added(2007.09.28.) – Please compress all of your source codes, wave form, document files as lab1_userXX.tar.gz (,bz2, zip or whatever) and send it to sjyon@iris.snu.ac.kr with a title "[codesign07] Lab1-userXX-2007-21000".