

San Francisco State University
Electrical Engineering

ENGR 378 Digital Systems Design

Lab 1. Introduction to software tools

Objectives

1. To become familiarized with the Modelsim and Quartus programming environment.
2. To become familiarized with basic Verilog instructions.
3. To become familiarized with basic simulation and verification of HDL designs.

Introduction

In this experiment we will simply play with the software environment. We will use Modelsim and Quartus and follow all the steps necessary to create and test a VHDL program.

Important note: THERE IS NOTHING TO TURN IN FOR THIS FIRST LAB.

Prelab

There is no prelab for this lab.

Procedure

1. Log in one of the computers in the lab. User name: students. Password: students.
2. Do the “Quartus_Intro_Tutorial_To_Verilog” in ilearn under the Lab Experiments link for lab 1. Do the tutorial up to page 29 covering waveform generation. Stop at part 7 and don’t do part 7 “Programming and Configuring the FPGA Device”.