

Aim: Introduction to VHDL and MODELSIM simulator

Software used: MODELSIM

Theory :

VHDL:

VHDL : Very high speed intergrated circuit Hardware Description Language.

It is a hardware description language that can be used to model a digital system at many levels of abstraction ranging from algorithmic level to the gate level. The complexity of the digital system being modeled could vary from that of a simple gate to a complete digital electronic systems, or anything in between. The Digital Systems can be also be described hierarchically. Timing can also be explicitly modeled of the Following languages: - sequential language - concurrent language - net-list language - timing specifications - waveform generation language

Physical Design Flow:

Block Diagram showing ModelSim Software:

Steps for using Software:

Example of VHDL Code:

and or not nand nor xor xnor

Result: