



Model Technology (MTI) Information

Guide Overview

Device Architecture Support

FPGA	XC3000(A, L)	XC4000(E, L)
	XC4000(EX, XL, XV, XLA)	XC5000
	Virtex	XC9000
	Spartan	XC9000XL
	Spartan-XL	
CPLD	XC9500 and XC9500XL	

About Model Technology

ModelSim is the unification of Mentor Graphics QuickHDL and Model Technology's V-System and supports the following:

- UNIX v5.1+, PC v4.7+
- VHDL, Verilog plus Cosimulation of VHDL & Verilog

Full Language Support:

- VHDL IEEE-STD-1076 -'87, -'93
- Standard Logic IEEE-STD-1164
- Verilog IEEE-STD-1364
- VITAL IEEE-STD-1076.4 (VITAL)

Recommended Settings

For recommended settings, go to <http://www.xilinx.com> "Product" → "Software Solutions"

Xilinx

Contacts and Technical Support

World Wide Web:
<http://www.xilinx.com>

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44 1932-820821
ukhelp@xilinx.com

France
33 1-3463-0100
frhelp@xilinx.com
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81 3-3297-9163
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Model Technology

Contacts and Technical Support

World Wide Web:
<http://www.model.com>
Telephone
1-503-641-1340

E-Mail
support@model.com

1 Invoke the tools

PC Start → Programs → Model Tech → ModelSim
UNIX Separate programs
vlib, vmap, vcom, vlog, vsim

2 Create/map working library

GUI File → Directory → *{path to design directory}*
Library → New → *work*
Library → Mapping → New
Library: *work* Directory: *./work*
Command `cd {path to design directory}`
`vlib work`
`vmap work ./work`

3 Map to technology libraries

GUI Library → Mapping → New
Library: *Unisim* or *xc4000x** or *Simprim*
*Verilog Unisim: Use specific technology name
Directory: *{path to compiled library}*
Command `vmap {library name}`
{path to compiled library}

4 Compile input files

GUI VCOM → *{select file}* → Compile* (VHDL)
*Bottom up order, target library is *work*
VLOG → *{select file}* → Compile (Verilog)
Command `vcom -work work {file}`
`vlog -work work {file}`

5 Simulate

GUI VSIM → Design
Simulator Resolution: *ns* Library: *work* Simulate:
{select testbench}
VSIM → SDF, SDF File: *{SDF file}*; View → All
Signals → Add to Waveform → Signals in Design
Signals → Add to List → Signals in Design
VSIM → run *{length of testbench in ns}*
Command `vsim -t nslib* work -sdftyp /UUT* =`
{SDF file} *{testbench}*
*-L for Verilog
*Substitute top-level design instance name within testbench
VSIM → run *{length of testbench in ns}*