

1/5/2012, 8/23/2012, 1/11/2013, 5/21/2013, 8/13/2015, 12/28/2015, 1/17/2016, 5/18/2016

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Dear EE457 students,

The following instructions are for installing tools on a PC running Windows 7 or Windows 10. If you have a Mac, and if you are computer savvy person, you may like to consider running windows OS (using the Parallels or the free VitrualBox from <https://www.virtualbox.org/>). If you are using a Linux system, we assume that you are a computer-savvy person and you can follow the vendors installation instructions for Linux. Or you can choose not to install Modelsim and use Modelsim on UNIX or on VDI or in ECC's SAL user-room computers. Details at the end of this note.

Windows users: It is a good practice to perform **windows update** before installing any new tool. <http://windows.microsoft.com/en-us/windows/windows-update>

Windows 7 / 8 / 10 support?

Mentor Graphics officially says that their Modelsim and Questasim tools work on Windows 7 and Windows 8. Though they did not officially confirm that their tools work on Windows 10, several students started using their tools on Windows 10 without any problem.

Installation of 6 tools on your PC

Please do the installation of the tools in the following order.

Go to the following page to find all instructions:
http://www-classes.usc.edu/engr/ee-s/457/ee457_tools/

Besides the main tool, Modelsim SE or the student edition PE, we are asking you to install some auxiliary tools (7-Zip, notepad++, VncViewer, Journal Viewer, TSCC Codec) also to help you with related tasks.

If you do not have any unzip utility, you may want to start with downloading and installing 7-zip first.

1. 7-Zip 15.12 as of 5/18/2016 (or a later version)

This helps to zip, unzip, tar, untar, etc. <http://www.7-zip.org/> But any unzip utility is fine. So this is optional.

7-Zip is a file archiver with a high compression ratio.

Download 7-Zip 16.00 (2016-05-10) for Windows:

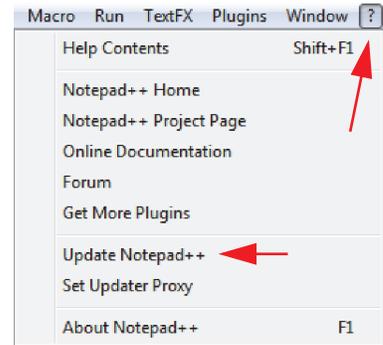
Link	Type	Windows	Size
Download	.exe	32-bit x86	1 MB
Download	.exe	64-bit x64	1 MB

2. notepad++ 6.9.2 as of 5/18/2016 (or a later version)

Language sensitive text editor for a number of languages including Verilog, VHDL for windows.

Go to: <https://notepad-plus-plus.org/> Click on the Download and come to <https://notepad-plus-plus.org/download/v6.9.2.html>

Install the 6.9.2 version. To check for update, go to the  on the menu bar as shown on the side. Periodically update your installation.



3. RealVnc VncViewer 5.3.0 (as of 12/28/2015) (or later version)

This is an optional tool only for windows users if they do not want to use XWin-32 for invoking model-sim on USC's UNIX servers. Mac users use a mac ssh terminal. RealVnc helps windows users to work on UNIX tools (for example, using Modelsim on our UNIX system). You need viewer only, not the server and viewer.

<http://www.realvnc.com/download/viewer/>

Go to <http://www-scf.usc.edu/~eeview/README.vnc.setup.pdf>

4. Microsoft Windows Journal Viewer 1.5 (not needed anymore)

This helps viewing .jnt files created on Tablets. I post my slides often in .jnt form. Windows journal Viewer is part of Windows 7 and later. To check to see if your computer can display a .jnt file, click on the link below.

http://www-classes.usc.edu/engr/ee-s/457/test_viewer.jnt

For Windows XP users, Microsoft is providing Windows journal viewer at the following link.

<http://www.microsoft.com/en-us/download/details.aspx?id=20771>



Microsoft Windows Journal Viewer 1.5

This accessory enables users who do not have a computer running Microsoft® Windows® XP Tablet PC Edition to view files that were created in Microsoft® Windows ...

FREE

Date: 3/14/2005

5. TechSmith TSCC Codec Version: v2.0.6 (or later version)

This helps viewing .avi video files created on Camtasia and posted for you to view.

<https://www.techsmith.com/codecs.html> .

TSCC® Codec

The TechSmith Screen Capture Codec (TSCC) is included with Camtasia. Download this decoder to play an AVI file that is encoded with TSCC on a system where Camtasia is not installed.

Free Download

6. ModelSim PE/SE or Questasim

6A. ModelSim PE Student Edition (latest version 10.?)

EE101 and EE209 students may install the student edition if they are not going to EE354L and EE457
http://www.mentor.com/company/higher_ed/modelsim-student-edition

6B. ModelSim SE (latest version 10.4a as of 5/15/2015)

CECS and EE students of EE209, and all students of EE354L and EE457 classes shall install the fully licensed version Modelsim SE.

Installation for Modelsim SE (10.4a)

http://www-classes.usc.edu/engr/ee-s/201/Spring2012/Modelsim/ModelSim_SE_10_2_Installation_by_USC_students.pdf

6C. QuestaSim (latest version 10.4c as of 8/28/2015)

Graduate students in EE457 who may be taking EE560 in future may like to install Questasim instead of Modelsim. Questasim is a super set of Modelsim and supports System Verilog fully.

Installation for QuestaSim (10.4c)

http://ee-classes.usc.edu/ee201/01O100ooll11/f0r_UsC_oN1y/QuestaSim_10.4c/QuestaSim_10_4c_Installation_by_USC_students.pdf

http://ee-classes.usc.edu/ee201/01O100ooll11/f0r_UsC_oN1y/QuestaSim_10.4c/

VPN to get license:

After installing, when using the fully licensed Modelsim/Questasim from home, you need to be on the Internet and should be running vpn (<https://sslvpn.usc.edu/> same as ( Cisco AnyConnect Secure Mobility Client)) so as to get license from the university's pool of floating licenses. But if you are on campus, do not use USC Guest wireless (with or without VPN). Just get on to the USC secured wireless. Please close the tool once you finish your work so that you do not hold up a license unnecessarily.

Testing

Even though the following document talks about Modelsim PE, the procedure is equally applicable to Modelsim SE or Questasim. One point to remember is that **we should unselect "Enable optimization" in the "start Simulation" dialog box.**

http://www-classes.usc.edu/engr/ee-s/457/ee457_tools/EE457_ModelSim_PE_Testing_USC.pdf

http://www-classes.usc.edu/engr/ee-s/457/ee457_tools/ee201L_Middle_Finder.zip

Other related information: (for MAC users who cannot install Modelsim/Questasim)

1. You can go to the ECC (Engineering Computing Center) and use Questsim (which is identical to Modelsim so far as the user interface is concerned) on their computers. You can also borrow a laptop from ECC.
2. You can access Questasim on VDI (Virtual Desktop Infrastructure) from anywhere you have internet access using a MAC or a PC. Please wait until the 2nd week of classes for your class to be authorized so that you can start accessing VDI. http://www-classes.usc.edu/engr/ee-s/254/Spring2012/Modelsim/VDI/VDI_getting_started.pdf
3. You can use Modelsim on the university UNIX system by logging into one of the scf servers, aludra or nunki. It is quick and easy and you can use your Mac or PC from your home. The procedure is narrated at:
http://www-classes.usc.edu/engr/ee-s/457/ee457_Verilog/ee457_unix_modelsims_setup_and_testing.pdf

Enjoy using the tools!

Gandhi Puvvada