# Appendix C

# Oscad on Windows XP

In this chapter, we explain the procedure to install and use Oscad on Windows XP. At present, because of the difficulties in installing its constituent components, Oscad is not available in other flavours of Windows.

#### C.1 Installing Oscad on Windows XP

The procedure to install Oscad on Windows is given below in conversational style:

- 1. Insert the Oscad installer CD for Win XP in the CD/DVD drive of the computer.
- 2. Browse to the CD contents. Double click on OSCAD\_Setup.exe file.
- 3. The window as shown in Fig. C.1a appears. Click on Next.
- 4. Click on Next again when the window as shown in Fig. C.1b appears. DO NOT change the Destination Folder.
- 5. Click on Install when the window shown in Fig. C.1c appears.
- 6. Wait for a few seconds. The window shown in Fig. C.1d appears. Click on OK for installing KiCad. DO NOT change the installation path. Click Next/Install when prompted.
- 7. Python installation dialog box appears. Click on OK. This starts the installation of Python.
- 8. Select the option Install for all users and click on Next as shown in Fig. C.1e.
- DO NOT change the directory for Python 2.7.3 files and click on Next as shown in Fig. C.1f.

- 10. Click Next as shown in Fig. C.2a. Wait for a few seconds.
- 11. Click Finish as shown in Fig. C.2b.
- 12. Now wxPython2.8 will be installed. Click on OK as shown in Fig. C.2c.
- 13. Click Next as shown in Fig. C.2d.
- 14. Choose I accept the agreement and click on Next as shown in Fig. C.2e.
- 15. Click Next and Next again as shown in Figures C.2f and C.3a. DO NOT change the destination location.
- 16. Uncheck the View README.win32.txt and click on Finish as shown in Fig. C.3b.
- 17. A terminal window appears as shown in Fig. C.3c. Nothing needs to be done here. Wait for a few seconds.
- 18. PIL package for Python will be installed next. Click on OK as shown in Fig. C.3d.
- 19. A new wizard appears for PIL installation. Click Next/Install whenever prompted and DO NOT change the installation path.
- 20. With this the installation of Oscad is complete. Click on Close as shown in Fig. C.3e.
- 21. To launch oscad, go to Start menu. Click on All programs, click on OSCAD and choose OSCAD.

## C.2 Procedure to set paths in the environment variable PATH for Windows XP

It is important NOT to change any installation paths during installation. One should keep the default paths.

The user needs to manually set the paths of KiCad, Ngspice and Python in the environment variable *PATH*, if an error of the type Failed to set the path is seen towards the end of installation. The paths for the above are given in Table C.1.

The procedure to set the environmental variable *PATH* for various software packages is given below.

- 1. Right click on My Computer from the Desktop and click on Properties.
- 2. In the System Properties window, click on the tab Advanced.
- 3. In the Advanced section, click on the Environment Variables button.

#### C.3. Special instructions to use Oscad on Windows XP

Software	Path
Python	C:\Python27
KiCad	C:\Program Files\KiCad\bin
Ngspice	C:\OSCAD\spice\bin

Table C.1: Paths for software in Windows XP

- 4. Select the variable Path under System variables and click on Edit.
- 5. Type the path of the software and end it with a semicolon. Do this for all the software packages (KiCad, Ngspice and Python).

### C.3 Special instructions to use Oscad on Windows XP

The following instructions have to be kept in mind while using Oscad. Details of the use of Oscad are explained throughout the rest of the book.

• To load Oscad libraries to the schematic, browse to

C:\OSCAD\OSCAD\library.

• Oscad Examples can be found in

C:\OSCAD\OSCAD\Examples.

New and updated examples can be downloaded from [20].

- The Schematic Editor, Layout Editor and Footprint Editor windows might appear minimised, when one opens them. One may maximise them for better view. This will be helpful to view all the tools in the toolbars.
- To load a MOSFET (N or P) to the schematic, type MOS\_N (or MOS\_P) after choosing the Place a component tool from the toolbar on the right. The component reference may be 'Q'. Before simulating the circuit, ensure that the component reference has been changed to 'M' (M without quotes). One need not change the reference for PCB design. Refer to the Oscad book to know more about changing component references.
- Check command prompt window for parameter entry during Netlist conversion, subcircuit creation and model building.

Updated information on Oscad is available at [20].

뤚 OSCAD Setup				
Choose Components Choose which features of OSCAD you want to install.				
Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.				
Select components to install:	Iggpice circuit simulator Position your mouse over a component to see its description.			
Space required: 0.0KB				
Nullsoft Install System v3.0a0 —	(	Next > Cancel		

(a) Ngspice Installation. Click on Next

A OSCAD Setup	
Choose Start Menu Folder Choose a Start Menu folder for the OSCAD shortcuts.	4
Select the Start Menu folder in which you would like to create the program can also enter a name to create a new folder.	's shortcuts. You
Accessories Administrative Tools 3T Devices 3T Program Del Vieccam Games Google Chrome	A
Intel LibreOffice 4.0 Maintenance Do not create shortcuts	-
Ruisur Laistan System VS/Jao	Cancel

(c) Oscad Setup: Click on Next



(e) Python Setup: Choose Install for all users. Click on Next



(b) Oscad Setup: Click on Next

뤚 OSCAD Setup		
Installing Please wait while OSCAD is being insta	iled.	2
Copy to C:\OSCAD		
Show details	oscAD Set	
Nullsoft Install System v3.0a0	< Back Close	Cancel

(d) Installing KiCad. Click on OK



(f) Python Setup: Do not change the directory. Click on Next.

Figure C.1: Steps in installing Oscad on Windows

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對 Python 2.7.3 Setup	×			
	Customize Python 2.7.3 Select the way you want features to be installed. Click on the icons in the tree below to change the way features will be installed.			
ę	Python Register Extensions To(Tk Documentation Utility Scripts Test suite			
	Python Interpreter and Libraries			
pyth <mark>on</mark> wind <mark>ows</mark>	This feature requires 22MB on your hard drive. It has 5 of 5 subfeatures selected. The subfeatures require 29MB on your hard drive.			
Disk Usage Advanced < Back Next > Cancel				

(a) Python Setup: Click on Next



(c) Installing wxPython2.8. Click on OK



(e) wxPython2.8 Setup: Choose I accept the agreement and click on Next



(b) Python Setup: Click on Finish



(d) wxPython2.8 Setup: Click on Next



(f) wxPython2.8 Setup: Do not change Destination Location. Click on Next

Figure C.2: Steps in installing Oscad in Windows



(a) wxPython2.8 Setup: Click on Next



(b) wxPython2.8 Setup: Uncheck the View README option and click on Finish



🚇 OSCAD Setup		A OSCAD Setup	
Installing Please wait while OSCAD is being installed.	2	Installation Complete Setup was completed successfully.	4
Could not write updated PATH to HKLM		Completed	
Show details OSCAD Set		Show details	
Nullsoft Instal System v3.0a0	Cancel	Nullsoft Install System v3.0a0 < Back	Ciose Cancel
			au 1 au

(d) Installing PIL: Click on OK

(e) Installation Complete: Click on Close

Figure C.3: Steps in installing Oscad