

APPENDIX A

INSTALLING PYTHON

THIS appendix explains how to install on your computer the software you will need for programming in the Python programming language. All of the software is distributed by its makers for free and is freely available for download on the Internet.

To make best use of the book there are four software packages you should install: the main Python language, and the packages “numpy”, “matplotlib”, and “visual” (also called “vpython” in some places). The simplest way to install these packages is as follows.

1. Open a web browser and go to www.vpython.org, which is the web page for the `visual` package. Then click on the “download” link for your operating system, Windows or Macintosh. (The packages are also available for users of the Linux operating system. The installation procedure is more complicated for Linux, but if you are a Linux user you probably already know what you’re doing.)
2. The `visual` download page helpfully gives a link to the correct version of the Python language itself. You should download and install Python first, before anything else. At the time of writing, the download page gives you a choice between using version 2 or version 3 of Python. This book is based on version 3, so choose version 3 unless you are certain you want to use version 2. If you use version 2 you should read Appendix B before proceeding.
3. Having installed the Python language, you should next follow the instructions to download and install the `visual` package (also called “vpython”). This will automatically install the `numpy` package for you as well.
4. Finally you need to install the `matplotlib` package. To do this you should go to the page www.sourceforge.net/projects/matplotlib/files/matplotlib and click on the link for the latest version of `matplotlib`, which at the

time of writing is version 1.0.1. You will be presented with a list of packages for different computers. Select and install the one that corresponds to your computer and the version of Python that you installed. For instance, you would click on `matplotlib-1.0.1.win32-py2.7.exe` for a Windows computer with Python version 2.7 installed.