Installing VPython for Python 2.4 on OS X 10.4
A Cyclist's Guide

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1. Introduction

This guide gives step by step installation instructions for VPython for Python 2.4 on Mac OS X 10.4. This guide explains as much as possible but some knowledge of terminal commands is assumed. The guide is broken down into sections which can be completed all at once or step by step. Please direct questions to electronic mail.[1]

2. Installing X11

We will install Apple's X window system, X11, in order to build a graphical interface for Unix Applications like VPython for Python 2.4.

(1) Insert OS X 10.4 DVD - The X11 installation program is located on this DVD.
(2) Double click Optional Installs - Installation Window appears
(3) Follow Instructions until Custom Install Window appears
(4) Expand Applications arrow by clicking it
(5) Select X11
(6) Click install and enter Admin password (usually, the one you use to log in)
(7) After successful install, click close

You have installed Apple's X window system X11.

3. Update Xcode

Later, we will use Fink, a package management system, to install VPython for Python 2.4. However, Fink requires Apple's Xcode 2.2.1 or later. Xcode contains all the little programs and compilers that make installation using Fink simple.

(1) With the OS X 10.4 DVD inserted, double click Xcode Tools
(2) Double click About Xcode Tools.pdf and make sure the version is 2.2.1 or later
(3) If it is, double click XcodeTools.mpkg and install Xcode
(4) If not, go to developer.apple.com to upgrade Xcode
(5) Sign up as a developer (it's free) and sign in
(6) Click downloads
(7) Click developer tools on right hand menu
(8) Scroll to Xcode 2.*.* (as of this writing, 2.4.1)
(9) Download and install

You have updated Xcode.

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4. Getting Fink and FinkCommander

We will now install Fink, a package managment system that ports UNIX applications to Mac OS X. It uses Debian's APT and dpkg. We will install Fink and its front-end FinkCommander.

(1) Go to www.finkproject.org
(2) Click download and select proper install (For MacBook, MacBook Pro, and Mac Pro select Intel. For iBook, PowerBook, and PowerMac select PowerPC. For Mac Mini, determine your chip manufacturer by clicking the Apple in Finder and selecting "About This Mac".)
(3) Double click the downloaded disk image
(4) Double click Fink Installer.pkg
(5) Follow on-screen instructions and click install
(6) After a successful installation, the installer will ask to setup the Fink environment, click yes
(7) After completed setup, click ok and then close

You have installed Fink. Now, we will install FinkCommander.

(1) Open the FinkCommander folder in the Fink installation folder
(2) Drag the FinkCommander application to the Applications folder on your Mac (This installs the front-end)

You have installed FinkCommander, the front-end for Fink.

5. Indexing, Updating, Getting your money's worth

We will use FinkCommander to install VPython for Python 2.4. But first, we must make sure that everything is up-to-date. So we'll index all available packages, update fink and probably have a popsicle or 2.

(1) Double click FinkCommander in the Applications Folder
(2) Click Source in the menu bar, and select Scan Packages
(3) After that's completed (you'll see "done" in the lower left corner of the FinkCommander window), click Source → Utilities → Index
(4) After that's done, we need to update Fink
(5) Click Source and select Selfupdate-rsync
(6) Go get a popsicle or maybe 2, this update will take a long time (maybe go to a movie)
(7) After that's done, close FinkCommander or proceed to next step with it open

You have updated Fink and indexed all available packages. You may have also enjoyed long walk, a nice movie, or a few dozen popsicles.

6. Installing VPython for Python 2.4, Finally

We will now install VPython for Python 2.4, at long last.

(1) Open FinkCommander
(2) Search for visual-py24 and highlight by clicking
(3) Click Binary in the menu bar and select install
(4) VPython is installed in the directory /sw/bin

You installed VPython for Python 2.4 and IDLE. You now have a working VPython installation. To use it, open X11. At the xterm prompt type */sw/bin/vpython2.4* and hit enter. IDLE will open up and you'll be able to open a new editor to program in. That's it, you're done! If you'd like to avoid typing */sw/bin/vpython2.4* every time you want to open idle, the next section is for you. If not, you're done. Go have another popsicle.

7. For true Cyclists, Changing the PATH variable

We will change the PATH variable to contain VPython's directory. If you are squeamish about using UNIX commands then don't attempt this. That being said, this isn't difficult at all. But, bad things can happen if you mess up your PATH. Italics mean type this exactly.

(1) Backup the old bashrc file:
sudo cp /etc/bashrc /etc/baschrc_backup
You'll be asked for your password.
(2) Find out what's in your PATH:
echo $PATH
(3) Edit your bashrc:
sudo pico /etc/bashrc
(4) To the end of the file add these two lines:
PATH = "Everything that echo $PATH output:/sw/bin' '
export PATH
(5) Write the file out:
Type Ctrl+O, and then Enter
(6) Exit the pico editor:
Type Ctrl+X
(7) Exit X11 and restart it.

You have edited for path. To verify this, open X11 and type *echo $PATH* and the end of the output you will see */sw/bin*. To open VPython for Python 2.4, you can simply type *vpython2.4*. If you did this right, you deserve two popsicles.