A

For More Information

This appendix gathers together almost all of the Web sites and books mentioned in this book. We've organized them by subject matter so that, for example, all the Perl resources are listed together inside the "Languages and Programming" section.

About Darwin

These resources relate specifically to the Darwin operating system, which forms the Unix foundation of Mac OS X.

Apple's Darwin Project

(http://developer.apple.com/darwin/)

Apple's official Darwin Project site, where you can download source code and find links to other related projects.

Darwinfo

(http://darwinfo.org)

General-purpose site about Darwin, including links to mailing lists.

Darwin Mailing Lists

(http://developer.apple.com/darwin/mail.html)

Apple hosts a number of email lists on the Darwin operating system. The Darwin-UserLevel and DarwinOS-Users lists are most likely to be useful to a new Unix user.

Darwin NetInfo HOWTO

(http://developer.apple.com/techpubs/macosx/Darwin/howto/netinfo/netinfo.html)

Apple documentation for the NetInfo system.

The GNU-Darwin Distribution

(http://gnu-darwin.sourceforge.net)

Web site that "aims to be the most free Darwin-based Unix distribution."

About Open-Source and Free Software

These resources deal with the general principles of open-source and free software ("free" as in "freedom," not as in "free beer").

GNU (GNU's Not Unix!)

(www.gnu.org)

The Free Software Foundation's site dedicated to the GNU Project.

GNU GPL (GNU General Public License)

(www.gnu.org/licenses/licenses.html)

The most famous of the various open-source software licenses. The GNU GPL requires that people who modify the source code make their modifications available to others under the same terms as the GPL.

ISC (Internet Software Consortium)

(www.isc.org)

Nonprofit corporation "dedicated to developing and maintaining production quality Open Source reference implementations of core Internet protocols."

Open Source Initiative (OSI)

(www.opensource.org)

Nonprofit corporation dedicated to promoting open-source software.

General Help Resources

There's only one entry in this section, but it's a big one. The WELL (Whole Earth 'Lectronic Link) is an intense online discussion system—of stored messages, not live chat—covering hundreds of subject areas. The Macintosh and Unix areas alone have more than 300 ongoing discussion topics between them. Because people must use their real names on The WELL, the general level of discourse is much higher than on most online systems.

WELL

(www.well.com)

The Macintosh and Unix discussion areas are of extremely high quality and worth the $10 per month fee all by themselves. Most of the people who helped us with this book are WELL users. Registration is only available via the Web, but registered users may use `ssh` to log in from the command-line interface.

Languages and Programming

All of the languages mentioned here are programming languages, except for HTML, which is a markup language.

AppleScript

(www.apple.com/applescript/)

This is the main Apple Computer Web site for AppleScript.

AppleScript for Applications: Visual QuickStart Guide, by Ethan Wilde

(Peachpit Press; www.peachpit.com)

Covers AppleScript for Mac OS 9 and Mac OS X.

Bourne Shell scripting

(http://unix.about.com/library/course/blshscript-outline.htm)

(http://steve-parker.org/sh/sh.shtml)

Two online tutorials for learning how to program using the Bourne shell.

"The Development of the C Language"

(http://cm.bell-labs.com/cm/cs/who/dmr/chist.html)

Paper written by Dennis M. Ritchie, father of the C programming language.

HyperText Markup Language (HTML) Home Page

(www.w3c.org/MarkUp/)

The HTML standard is coordinated by the World Wide Web Consortium (W3C).

Mastering Regular Expressions, Second Edition, by Jeffrey E. F. Friedl

(O'Reilly; www.oreilly.com)

This book goes into great depth about the use of the "regular expression" pattern-matching system, which shows up in many Unix programs such as `grep`, `vi`, `awk`, and `perl`.

The Practice of Programming, by Brian W. Kernighan and Rob Pike

(Addison Wesley; www.awl.com)

An excellent general-purpose guide for computer programming. Sort of an *Elements of Style* for computer programming.

Perl

The following resources are all about the Perl programming language.

Learning Perl, Third Edition, by Randal L. Schwartz and Tom Phoenix

(O'Reilly; www.oreilly.com)

An essential resource for beginning Perl programmers.

Perl and CGI for the World Wide Web: Visual QuickStart Guide, Second Edition, by Elizabeth Castro

(Peachpit Press; www.peachpit.com)

Beginner's guide for creating CGI scripts with Perl. Uses the classic Peachpit task-oriented approach.

Perl Mongers' Perl Fast Facts

(www.perl.org/press/fast_facts.html)

Start here if you have never heard of Perl.

Programming Perl, Third Edition, by Larry Wall, Tom Christiansen, and Jon Orwant

(O'Reilly; www.oreilly.com)

The definitive programmer's guide to Perl.

Programming the Perl DBI, by Alligator Descartes and Tim Bunce

(O'Reilly; www.oreilly.com)

The Perl DBI (DataBase Independent Module) is the standard Perl module for working with databases. It was created by Tim Bunce.

Mac OS X in General

These resources all focus on the Macintosh and the Mac OS X operating system, as opposed to Unix or Darwin.

Apple Discussion Forums

(http://discussions.info.apple.com)

Apple's official Mac OS X discussion forums are found here.

"The Challenges of Integrating the Unix and Mac OS Environments"

(www.mit.edu/people/wsanchez/papers/USENIX_2000/)

An excellent paper on some of the technical problems Apple had to deal with in creating Mac OS X.

Mac OS X Apps

(www.macosxapps.com)

This Web site provides a large and growing collection of Mac OS X applications.

Mac OS X Hidden Files & Directories

(www.westwind.com/reference/OS-X/invisibles.html)

Table describing the different types and purposes of hidden files and directories in Mac OS X.

Mac OS X Hints

(www.macosxhints.com)

A Web site devoted to tricks, hints, help, and arcana about Mac OS X. Includes extensive discussion forums. Created and run as a labor of love by Rob Griffiths. If you find the site useful, consider donating $10.

People

The people listed here are all mentioned in the book or in other resources we refer to.

Matisse Enzer

(www.matisse.net)

As the author of this book, he gets to list his own Web site.

Bill Joy

(www.sun.com/aboutsun/media/ceo/mgt_joy.html)

His official Sun Microsystems biography.

Jon Postel

(www.postel.org/jonpostel.html)

Jon Postel made major contributions to the development of the Internet, including managing the assignment of IP addresses for many years. His philosophy was encapsulated in his statement "Be liberal in what you accept, and conservative in what you send." See the "Protocols and Standards" section.

Dennis M. Ritchie

(www.cs.bell-labs.com/who/dmr/)

Home page of the coinventor of Unix and the C programming language.

Wilfredo Sánchez

(www.mit.edu/people/wsanchez/)

One of the technical leads for Mac OS X. Also did a great deal of development work on the `tcsh` shell.

Richard M. Stallman

(www.stallman.org)

Personal Web page of the founder of the Free Software Foundation and inventor of the GNU General Public License.

Linus Torvalds

(www.cs.helsinki.fi/u/torvalds/)

(www.tuxedo.org/~esr/faqs/linus/)

The home page and the unofficial Linus Torvalds FAQ, respectively, for the developer of Linux.

Protocols and Standards

CIFS (Common Internet File System)

(http://ubiqx.org/cifs/)

A detailed guide to CIFS.

Domain Names: Implementation and Specification

(www.ietf.org/rfc/rfc1035.txt)

The official Internet Engineering Task Force explanation of DNS (the Domain Name System).

HTTP Made Really Easy

(www.jmarshall.com/easy/http/)

Introduction to the HTTP protocol.

HTTP Pocket Reference, by Clinton Wong

(O'Reilly; www.oreilly.com)

Compact, terse reference guide to the HTTP protocol.

IANA (Internet Assigned Numbers Authority)

(www.iana.org)

The ultimate authority for the assignment of blocks of IP addresses.

The IMAP Connection

(www.imap.org)

Web site devoted to IMAP (Internet Message Access Protocol).

NAT (Network Address Translation)

(www.ietf.org/rfc/rfc1631.txt)

(www.ietf.org/rfc/rfc2766.txt)

These are the main RFCs for NAT. (See RFC, below.)

RFC (Request for Comments)

(www.ietf.org/rfc)

The Internet Engineering Task Force (IETF) coordinates the documents that establish the technology standards used on the Internet. The IETF's motto is "Rough Consensus and Running Code."

XML for the World Wide Web: Visual QuickStart Guide, by Elizabeth Castro

(Peachpit Press; www.peachpit.com)

A beginner's guide to XML (Extensible Markup Language).

Security

Here we have gathered a collection of resources about Unix and Macintosh security.

Apple security information for developers

(http://developer.apple.com/internet/macosx/securityintro.html)

Information for people developing software for Mac OS X.

Apple Security Updates

(www.info.apple.com/usen/security/security_updates.html)

A list of the frequent security updates provided by Apple.

BugTraq mailing lists

(http://online.securityfocus.com/archive/1)

"BugTraq is a full disclosure moderated mailing list for the *detailed* discussion and announcement of computer security vulnerabilities: what they are, how to exploit them, and how to fix them." (From the BugTraq Web site.)

Building Your Own Personal Firewall

(http://wopr.norad.org/articles/firewall/)

Article by Stefan Arentz covering the use of `ipfw`, which comes with Mac OS X.

The CERT Advisory Mailing List

(www.cert.org/contact_cert/certmaillist.html)

CERT (which originally stood for "Computer Emergency Response Team") advisories are the primary central source of Internet security notifications.

CERT Unix Security Checklist

(www.cert.org/tech_tips/usc20_essentials.html)

A good checklist for securing a Unix system, with links to more resources; compare with our checklist in Chapter 12, "Security."

Common Vulnerabilities and Exposures (CVE) email list

(http://cve.mitre.org/cve/)

The CVE list is a dictionary of security issues that seeks to present standardized descriptions of security problems.

FreeBSD Handbook: Firewalls section

(www.freebsd.org/doc/en_US.ISO8859-1/books/handbook/firewalls.html)

The Darwin layer of Mac OS X is based largely on FreeBSD, so Mac OS X users may be interested in this online manual.

Mac-specific security sites

SecureMac.com (www.securemac.com)

MacSecurity.org (www.macsecurity.org)

Two Web sites devoted entirely to Macintosh security.

Privacy.org

(www.privacy.org)

Web site for news about information privacy issues.

Books on Unix Security

Building Internet Firewalls, Second Edition, by Elizabeth D. Zwicky, Simon Cooper, and D. Brent Chapman

Practical UNIX & Internet Security, Second Edition, by Simson Garfinkel and Gene Spafford

(Both from O'Reilly; www.oreilly.com)

Both books are written by people who are well regarded in the Unix community and who have many years of experience in the Unix security field.

Security-Related Software

ettercap

(http://ettercap.sourceforge.net)

A packet-sniffer/logging program that can be installed using `fink`.

Firewalk

(www.pliris-soft.com/products/firewalkx/)

A low-cost commercial Mac OS X package for setting up a firewall.

Kerberos

(http://web.mit.edu/kerberos/www/)

Software for creating secure connections between systems.

Nmap

(www.insecure.org/nmap/)

An open-source network-mapping tool.

RBrowser

(www.rbrowser.com)

Aqua software for secure file transfer. Shareware version handles both FTP and secure transfers; freeware version handles only FTP.

Snort

(www.snort.org)

An intrusion-detection system. Documentation and source code are online.

OpenSSH

(www.openssh.org)

The SSH (Secure Shell) tool facilitates secure connections between computers.

Swatch

(www.stanford.edu/~atkins/swatch/)

A tool for automating the watching of system log files, written in Perl.

Tripwire

(www.tripwire.com)

A commercial security tool capable of monitoring hundreds (or even thousands) of servers.

Virtual Private Network Daemon

(http://sunsite.dk/vpnd/)

Web site for `vpnd`, software for creating secure connections between two or more networks, across the public Internet.

System Administration

Where to find more information about Unix system administration.

Boot Sequence for Mac OS X

(http://developer.apple.com/techpubs/macosx/Essentials/SystemOverview/BootingLogin/The_Boot_Sequence.html)

Describes the various pieces of software that execute, in order, when Mac OS X boots up.

Creating new StartupItems

(http://developer.apple.com/techpubs/macosx/Darwin/howto/system_starter_howto/system_starter_howto.html)

The Apple documentation on creating StartupItems.

Essential System Administration, Third Edition, by Aileen Frisch

(O'Reilly; www.oreilly.com)

Comprehensive book covering all aspects of Unix system administration. Describes many variants of Unix, showing how to perform the same task on different Unix systems. Does not yet specifically cover Darwin or Mac OS X.

System Administration with Webmin, by Joe Cooper

(www.swelltech.com/support/webminguide/)

Users' guide for the Web-based system-administration software, Webmin.

UNIX System Administration Handbook, Third Edition, by Evi Nemeth, Garth Snyder, Scott Seebass, and Trent R. Hein

(www.admin.com)

Widely used reference guide for Unix system administration. While comprehensive in its approach, the book does not (yet) specifically cover Darwin or Mac OS X.

Backups

Meta Object

(www.metaobject.com/Community.html)

From here you can download a version of hfstar, a version of gnutar for Mac OS X that supports archiving HFS+ specific information such as resource forks, type and creator codes as well as other finder flags.

Howard Oakley's Web Page

(http://homepage.mac.com/howardoakley/)

From here you can download hfspax, another solution for archiving HFS-based file systems.

Mac OS X Labs

(www.macosxlabs.org/rsyncx/rsyncx.html)

RsyncX is an implementation of the rsync synchronization tool with HFS+ support and configuration through a command line or graphical user interface.

PocketBackup

(Pocket Software; www.pocketsw.com)

Minimalist Aqua software for automated backups.

Retrospect

(www.dantz.com)

Dantz's full-featured commercial Aqua software for performing automated backups.

The Domain Name System

DNS HOWTO

(www.tldp.org/HOWTO/DNS-HOWTO.html)

Online how-to guide for DNS and BIND ("BIND" is the Berkeley Internet Name Daemon; it is the full name for the standard version of `named`.)

DNS and BIND, Fourth Edition, by Paul Albitz and Cricket Liu

(O'Reilly; www.oreilly.com)

The definitive book on managing DNS software.

Quick DNS

(www.menandmice.com/products/quickdnspro/)

Nice commercial Mac OS X Aqua application (free trial version available).

Unix in General

These are general-purpose Unix resources, not focusing on any particular version of Unix.

"The Challenges of Integrating the Unix and Mac OS Environments"

(www.mit.edu/people/wsanchez/papers/USENIX_2000/)

Delivered by Wilfredo Sánchez at a Unix professionals convention in 2000. Describes several of the issues Apple faced in building Mac OS X on top of Unix.

CrackMonkey History of Unix

(http://crackmonkey.org/unix.html)

A history of the operating system, including a discussion of its important flavors, including Linux.

"The Evolution of the Unix Time-Sharing System"

(http://cm.bell-labs.com/cm/cs/who/dmr/hist.html)

Unix coinventor Dennis M. Ritchie offers a technical and social history of Unix.

The Open Group

(www.opengroup.org)

The nonprofit organization that currently owns the trademark on "Unix."

UGU Unix Flavors

(www.ugu.com/sui/ugu/show?ugu.flavors)

A good list of dozens of versions of Unix.

Unix/Darwin Software

The software in this section all works without the Aqua graphical interface. It's all command-line Unix software (although many of the packages also have versions for Windows and/or other operating systems).

See the "Security" section in this appendix for software specifically used for security purposes.

Apache Web server

(www.apache.org)

By far the most popular Web server in the world, Apache provides a huge variety of configuration options and can be altered easily to add new ones. Mac OS X comes with Apache (see Chapter 14, "Installing and Configuring Servers").

CPAN (Comprehensive Perl Archive Network)

(www.cpan.org)

A vast collection of add-on modules for Perl. See also the Perl entries in the "Languages and Programming" section.

Fink

(http://fink.sourceforge.net)

The Fink program makes it easy to download and install Unix software from a constantly growing collection of packages configured to build on Mac OS X.

The FreeBSD Ports Collection

(www.freebsd.org/ports/)

A collection of software packages for the FreeBSD version of Unix. Since Darwin is based on FreeBSD, most of these will work on Mac OS X.

Managing Projects with make, Second Edition, by Andy Oram and Steve Talbott

(O'Reilly; www.oreilly.com)

The `make` program is widely used for managing software development, especially software written in C.

OpenSSH

(www.openssh.org)

The SSH (Secure Shell) tool facilitates secure connections between computers.

Samba

(www.samba.org)

The primary Web site for Samba, which provides Windows file sharing for Unix systems.

Sed & awk, Second Edition, by Dale Dougherty and Arnold Robbins

(O'Reilly; www.oreilly.com)

The standard reference for these two venerable Unix utility programs.

Sudo

(www.sudo.ws)

Web site devoted to the `sudo` program.

Database Software

A Gentle Introduction to SQL

(www.sqlzoo.net)

An online tutorial that takes you step-by-step through learning basic SQL.

MySQL

(www.mysql.com)

PostgreSQL

(www.postgresql.org)

The two most popular open-source SQL database engines.

Email software

IMAP servers—commercial

(www.stalker.com/CommuniGatePro/)

(www.tenon.com/products/post_office/)

Two commercial IMAP servers: Stalker Software's CommuniGate Pro and Tenon Intersystems' Post.Office, respectively.

IMAP servers—no-cost

(www.washington.edu/imap/)

(http://asg.web.cmu.edu/cyrus/imapd/)

The University of Washington and Cyrus IMAP servers, respectively.

Majordomo—email list manager

(www.greatcircle.com/majordomo/)

The Majordomo Web site.

Pine—text-only email client

(www.washington.edu/pine/)

The University of Washington's Pine Information Center.

Sendmail—email server

(www.sendmail.org)

Web site for the most commonly used Unix email server.

SpamAssassin—anti-spam software

(http://spamassassin.org/)

Anti-spam software for mail servers.

SpamAssassin how-to for Mac OS X

(www.stupidfool.org/docs/sa.html)

Describes how to install SpamAssassin on Mac OS X.

Printing software

CUPS Home Page (Unix/Darwin)

(www.cups.org)

The Common UNIX Printing System (CUPS) is a cross-platform printing solution for all UNIX environments. It is based on the "http://www.pwg.org/ipp" and provides complete printing services to most PostScript and raster printers.

Gimp-Print Project (Unix/Darwin)

(gimp-print.sourceforge.net/MacOSX.php3)

Information about the latest versions of this printing software for Mac OS X 10.2 and related drivers.

The vi editor

vi Cheat Sheet #1

(www.kcomputing.com/vi.html)

Has a link to an excellent PDF cheat sheet that is very graphically oriented. Highly recommended.

vi Cheat Sheet #2

(http://cac.uvi.edu/miscfaq/vi-cheat.html)

A text-based cheat sheet that covers many commands. Created by the University of the Virgin Islands, Center for Administrative Computing.

vi Cheat Sheet #3

(www.tufts.edu/as/medept/compstudio/vihelp.html)

A short, text-based cheat sheet, created by the folks at the Tufts University Computational Mechanics Studio.

Vim—(Vi Improved)

(www.vim.org)

This improved version of the vi editor has several features that make it easier to use.

Unix shells

Bash:

The Bash Reference Manual

(www.gnu.org/manual/bash/)

A complete reference manual for the popular bash shell.

Bash tutorial

(www-106.ibm.com/developerworks/library/bash.html)

This is at IBM's developer Web site.

Learning the bash Shell, Second Edition, by Cameron Newham and Bill Rosenblatt

(O'Reilly; www.oreilly.com)

A comprehensive guide to learning and using the bash shell.

Ksh, tcsh, zsh:

The KornShell (ksh)

(www.kornshell.com).

Ksh is widely used for programming. It is now open-source software, although you must agree to AT&T's license to install it.

The tcsh shell

(www.tcsh.org)

The standard shell in Darwin/Mac OS X.

The zsh shell

(www.zsh.org)

An alternative Unix shell with many features designed for programming.

X Windows

The XFree86 Project

(www.xfree86.org)

Web site for the version of X Windows that forms the basis for XonX.

X.org

(www.x.org)

Main X Windows Web site.

Miscellaneous

These are the resources that didn't fit into any of the other categories. Fun stuff, oddments, and trivia.

BBEdit text editor

(www.barebones.com).

An Aqua program designed for editing text files such as HTML pages, shell scripts, Perl scripts, and files in other programming languages.

Calculating the difference between two squares

(www.mste.uiuc.edu/users/dildine/sketches/Diff2sq.htm)

A classic algebraic equation: $A^2 - B^2 = (A - B)(A + B)$.

Distributed Computing

(www.distributed.net)

Web site for worldwide projects coordinating the use of hundreds of thousands of computers to work on the same problem.

Einstein on *E = mc2* (the special theory of relativity)

(www.aip.org/history/einstein/voice1.htm)

Audio files of Einstein stating the basic premises of the special theory of relativity.

RPN (Reverse Polish Notation)

(www.hpmuseum.org/rpn.htm)

You thought it was folklore? Nope, real math. Invented by Jan Lukasiewicz in the 1920s.

Search for Extraterrestrial Intelligence

(http://setiathome.ssl.berkeley.edu)

SETI@home is a scientific experiment that uses Internet-connected computers in the Search for Extraterrestrial Intelligence (SETI). You can participate by running a free program that downloads and analyzes radio telescope data.