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Chapter 6

Apache Resources



Apache, like UNIX, was not designed to stop people from doing stupid things with it, because that would also stop them from doing clever things with it.

— Unknown (paraphrased)

This chapter lists selected resources from the Apache world. The number of Apache-related projects on the Internet is very large, so only the essential ones are included here. The goal is to present you with only the most important and stable entry points, rather than a comprehensive list. The Apache world changes daily, so a very concise list of entry points to reach the latest news about Apache and further details on technical issues will prove more useful than an all-in-one list.

6.1 Online Resources

The first and most interesting group of resources are those you can find directly on the Internet. They may provide the latest news, but are usually not very concise. Nevertheless, they should be your primary entry point to the Apache world.

6.1.1 Apache Itself

Three major locations deal directly with Apache: the Apache Software Foundation, the Apache HTTP server project, and the Apache Conference (ApacheCon):

- **Apache Software Foundation (ASF)**

<http://www.apache.org/>

The home page of the Apache Software Foundation, a nonprofit organization representing the Apache Group. Whenever you are dealing with an Apache-related project, license, sponsoring, or press issues, go to this site. It is under direct control of the Apache Group's board of trustees (a subset of the Apache Group's developer core team) and is located in San Francisco, California.

- **Apache HTTP Server Project (Apache)**

<http://www.apache.org/httpd>

The home page of the *Apache HTTP server project*, also known as "The Apache." Here you can find official information about the Apache web server. Any new Apache release is announced on this site. Whenever a security problem occurs, you can find the details (and fixes) there. The site also provides information about the people behind Apache. It is under direct control of the Apache Group core team and is located in San Francisco, California.

- **Apache Annual Conference (ApacheCon)**

<http://www.apachecon.com/>

The web site of ApacheCon, the annual conference dedicated to Apache. When you attend ApacheCon, refer to this resource to obtain the conference agenda and other background information. It's under control of the Apache Group and the company managing the next conference.

6.1.2 Apache News

To keep informed about current events in the Apache market, visit at least the following two web sites on a regular basis.

- **ApacheWeek**

<http://www.apacheweek.com/>

The primary source for weekly Apache news. When you want to follow Apache developments, visit these sites on a regular basis. You will get concise overviews of the latest source changes and issues from the *new-httpd@apache.org* mailing list. This web site is located in London,

United Kingdom, and provided by Mark J. Cox. Mark is a member of the *Apache Software Foundation* and an Apache developer. Some important topics covered in ApacheWeek issues have evolved into interesting stand-alone feature articles. Watch for those on the ApacheWeek site, too.

■ **O'Reilly Apache DevCenter**

<http://www.oreillynet.com/apache/>

A resource location for Apache developers provided by the O'Reilly & Associates Network. Here you can find additional documentation and articles related to Apache.

■ **ApacheToday**

<http://apachetoday.com/>

A news site provided by the internet.com Corp. for the Apache community. Here one can find new feature articles about Apache on a regular basis.

■ **Slashdot Apache Section**

<http://slashdot.org/index.pl?section=apache>

One of the most popular news sites for hackers. It includes a section dedicated to Apache, where you can find all types of weekly news and discussions of hot topics. If you want to read user opinions, look there. The site is moderated by Jim Jagielski, an Apache developer.

■ **Netcraft Server Survey**

<http://www.netcraft.com/survey/>

A commercial company that summarizes the web server market on a monthly basis by analyzing and accumulating the HTTP Server response headers of more than 4 million web sites. The results are impressive, showing that Apache owns more than half of the web server market (and is leaving Microsoft and Netscape servers behind). This site is located the United Kingdom.

■ **E-Soft, Inc. Server Survey**

http://www.securityspace.com/s_survey/

Another commercial company that summarizes the web server market on a monthly basis. It also provides statistics about the various Apache modules and their community and evolution.

6.1.3 Apache Support

If you need support for Apache, check the following resources.

- **USENET Newsgroup c.i.w.s.u**

`news:comp.infosystems.www.servers.unix`

The primary Apache support forum on the Internet. If you are an Apache user and have a question, ask it here first. If you do not have access to USENET directly, you can reach the newsgroups through Deja (see <http://deja.com/>) or similar access services.

- **Apache Support Companies and Contractors**

<http://www.apache.org/info/support.cgi>

This is a list of other officially known companies and contractors providing commercial support for Apache.

- **Apache 1st**

<http://www.apache1st.com/>

Apache1st is a commercial service from *Covalent Technologies* for expert Apache support.

6.1.4 Apache Documentation

Plenty of documentation, articles, papers, and other texts for Apache are flying around on the Internet. Most of this information, however, derives from the following locations.

- **Apache Documentation and F.A.Q. List**

<http://www.apache.org/docs/>

<http://www.apache.org/docs/misc/FAQ.html>

The primary online resource for Apache documentation. Here you can always find the latest set of HTML pages describing the Apache web server parts. The site provides an always up-to-date, checked-out version of the Apache documentation from the source repository. It is the definitive reference and authority.

- **Apache API Dictionary**

<http://dev.apache.org/apidoc/>

This is a complete reference for the *Application Programming Interface* (API) of the Apache server.

- **Apache Reference**

<http://www.apacheref.com/>

The accompanying web site to *Apache Desktop Reference* (the book you are currently reading). Here you can find the electronic version of the entire book, errata, and other updated material. It also provides online the complete reference of the Apache configuration directives.

■ **Apache Quick Reference Card**

<http://www.refcards.com/about/apache.html>

A very concise and tiny reference card for the Apache web server. It is also available in print form from O'Reilly & Associates, but the online version is always more up-to-date.

■ **Apache Developer Site**

<http://dev.apache.org/>

When you participate in Apache development (by writing an extension module) or just want to learn technical background information about the Apache release cycle, the Apache Group's voting guidelines, and other aspects of Apache, this site is for you. It's a horrible mess in terms of content and style, but nevertheless has a few interesting things for people working with and on Apache.

6.1.5 Apache Modules

As shipped, Apache is a very powerful web server. Nevertheless, plenty of additional modules are available to extend the web server. The following are the most important references.

■ **Apache Module Registry**

<http://modules.apache.org/>

A site containing references to most existing Apache modules. It should be your first entry point when you search for an Apache module or a particular functionality that is already implemented by a module. It's provided by Covalent in Lincoln, Nebraska and is under the personal control of Randy Terbush, an Apache developer.

■ **mod_perl**

<http://perl.apache.org/>

Doug MacEachern's popular integration of the Perl language into Apache. It can be used for Perl-based, server-side scripting; for persistent and fast CGI-like programming; and even for programming your own Apache modules in Perl. This module provides most of the Apache API in Perl.

- **mod_php**

<http://www.php.net/>

Rasmus Lerdorf's popular server-side scripting language, PHP. One of the killer modules for Apache, it is a de facto standard for creating dynamic content with Apache.

- **mod_jserv**

<http://java.apache.org/>

The Java Servlet Engine module for Apache. It allows you to run Java servlets under Apache. This project also includes Java-related sub-projects.

- **mod_dav**

http://www.webdav.org/mod_dav/

The WebDAV module from Greg Stein. It provides the functionality of the Distributed Authoring and Versioning (DAV) standard to Apache. DAV is the forthcoming standard for manipulating documents on a web server through HTTP.

- **mod_ssl**

<http://www.modssl.org/>

The Apache interface to OpenSSL created by Ralf S. Engelschall, the author of this book. This module integrates the Secure Sockets Layer (SSL) and Transfer Layer Security (TLS) protocols into Apache with the help of the SSL/TLS toolkit OpenSSL. SSL/TLS is the de facto standard for secure communications between web browsers and servers.

6.2 Print Resources

The second most important source for Apache information includes print resources — that is, books about Apache. This section gives a quick overview of selected references to help you make your decision for a companion book more easily.

6.2.1 Apache Developer Books

The following books are intended for developers.

- **Writing Apache Modules with Perl and C** (1st ed.)

Authors: Lincoln Stein, Doug MacEachern

Published by: O'Reilly & Associates, 1999

Companion web site: <http://www.apachemod.com/>

ISBN: 1-56592-567-X
Language: English
Pages: 725

- **Apache Server Commentary** (1st ed.)
Authors: Greg Holden, Matthew Keller, Nick Wells
Published by: The Coriolis Group, 1999
Companion web site: none
ISBN: 1-57610-468-0
Language: English
Pages: 592

6.2.2 Apache User Books

The following books are intended mainly for users. References to more (especially older) books of this type can be found under http://www.apache.org/info/apache_books.html.

- **Apache Pocket Reference** (1st ed.)
Author: Andrew Ford
Published by: O'Reilly & Associates, 2000
Companion web site: none
ISBN: 1-56592-706-0
Language: English
Pages: 108
- **Apache Desktop Reference** (1st ed.)
Author: Ralf S. Engelschall
Published by: Addison-Wesley, 2000
Companion web site: <http://www.apacheref.com/>
ISBN: 0-201-60470-1
Language: English
Pages: 180
- **Apache Server Unleashed** (1st ed.)
Authors: Bowen, Coar, Grip-Jansson, Kozlov, Tuñon, Marlowe
Published by: Sams Publishing, 2000
Companion web site: <http://apacheunleashed.com/>
ISBN: 0-672-31808-3
Language: English
Pages: 656
- **Apache Web-Server** (3rd ed.)
Author: Lars Eilebrecht
Published by: MITP-Verlag GmbH, 2000

Companion web site: none
ISBN: 3-8266-0612-4
Language: German
Pages: 600

■ **Apache Administrator's Handbook** (1st ed.)

Author: Mohammed J. Kabir
Published by: IDG Books Worldwide, 1999
Companion web site: none
ISBN: 0-7645-3306-1
Language: English
Pages: 550

■ **Apache — The Definitive Guide** (2nd ed.)

Authors: Ben Laurie, Peter Laurie
Published by: O'Reilly & Associates, 1999
Companion web site: none
ISBN: 1-56592-528-9 (en), 3-89721-127-0 (de)
Language: English or German
Pages: 370

■ **Professional Apache** (1st ed.)

Authors: P. Wainwright, L. Eilebrecht, A. Halberstadt, B. Moon
Published by: Wrox Press Ltd., 1999
Companion web site: none
ISBN: 1-861003-02-1
Language: English
Pages: 800

■ **Apache Server for Dummies** (1st ed.)

Author: Ken Coar
Published by: IDG Books Worldwide, 1998
Companion web site: <http://apache-server.com/>
ISBN: 0-7645-0291-3
Language: English
Pages: 350

6.3 Apache-Related Standards

The third resource for Apache are the related protocol and system standards.

6.3.1 Hypertext Transfer Protocol (HTTP)

The *Hypertext Transfer Protocol* is the workhorse of the World Wide Web. You can find general information about HTTP at the home of the *IETF Hypertext Transfer Protocol (HTTP) Working Group* on <http://www.ics.uci.edu/~pub/ietf/http/>. The most important references are provided here.

- **Hypertext Transfer Protocol, Version 0.9 (HTTP/0.9)**

The original HTTP version as defined in 1991 by the World Wide Web initiative prototype software and extended in 1992. This version is still supported by Apache but its use has been strongly deprecated.

<http://www.w3.org/Protocols/HTTP/AsImplemented.html>

<http://www.w3.org/Protocols/HTTP/HTTP2.html>

- **Hypertext Transfer Protocol, Version 1.0 (HTTP/1.0)**

The first really standardized and complete HTTP version as defined in 1996 as Request For Comments (RFC) 1945. This version, which is fully supported by Apache, is the version used by most browsers.

<ftp://ftp.isi.edu/in-notes/rfc1954.txt>

- **Hypertext Transfer Protocol, Version 1.1 (HTTP/1.1)**

The third generation of HTTP as defined in 1997 as RFC (p.171) 2068 and updated in 1999 by RFC (p.171) 2616. This version is fully supported by Apache when acting as an origin server (the usual case), but only partially supported when acting as a proxy server. ¹ This HTTP version is not fully supported by all browsers. ²

<ftp://ftp.isi.edu/in-notes/rfc2068.txt>

<ftp://ftp.isi.edu/in-notes/rfc2616.txt>

- **Use and Interpretation of HTTP Version Numbers**

An informational RFC that describes the proper use and interpretation of HTTP version numbers in HTTP request and response messages.

¹The original design of Apache's proxy module (`mod_proxy`) doesn't allow the implementation of some HTTP/1.1 features like *Keep-Alive connections*. Also, to fulfil the proxy-related caching requirements of HTTP/1.1, much programming effort would be needed, which isn't reasonable. Thus, for Apache 2.0, a complete rewrite of the proxy module is a must.

²Current browsers usually support HTTP/1.0 with a few extensions borrowed from HTTP/1.1, like the `Host` header. They usually do not support the full HTTP/1.1 protocol.

This RFC is a companion to the HTTP standards.
<ftp://ftp.isi.edu/in-notes/rfc2145.txt>

6.3.2 Uniform Resource Identifier (URI)

Uniform Resource Identifiers are the addresses of the World Wide Web. You can find general information about them at the home of the *IETF Uniform Resource Identifiers (URI) Working Group* at <http://www.ics.uci.edu/pub/ietf/uri/>. References to the most prominent variant, the *Uniform Resource Locators (URL)*, are present here.

- **Uniform Resource Identifiers (URI): Generic Syntax**
<ftp://ftp.isi.edu/in-notes/rfc2396.txt>, 1998
- **Uniform Resource Locators (URL)**
<ftp://ftp.isi.edu/in-notes/rfc1738.txt>, 1994
- **Relative Uniform Resource Locators**
<ftp://ftp.isi.edu/in-notes/rfc1808.txt>, 1995

6.3.3 Other Important Standards

- **Common Gateway Protocol, Version 1.1 (CGI/1.1)**
<http://hoohoo.ncsa.uiuc.edu/cgi/interface.html>
- **World Wide Web Distributed Authoring and Versioning (WebDAV)**
<http://www.ics.uci.edu/pub/ietf/webdav/>
- **Transport Layer Security, Version 1.0 (TLS/1.0)**
<ftp://ftp.isi.edu/in-notes/rfc2246.txt>
- **IANA Assigned Numbers**
<http://www.iana.org/>
<ftp://ftp.isi.edu/in-notes/std/std2.txt>
- **Multipurpose Internet Mail Extensions (MIME)**
 The MIME standard describes the format of Internet message bodies. It is related to Apache in that HTTP request and response messages use MIME format for representing at least the headers.
<ftp://ftp.isi.edu/in-notes/rfc2045.txt>
<ftp://ftp.isi.edu/in-notes/rfc2046.txt>
<ftp://ftp.isi.edu/in-notes/rfc2047.txt>
<ftp://ftp.isi.edu/in-notes/rfc2048.txt>
<ftp://ftp.isi.edu/in-notes/rfc2049.txt>