

DistroDefaultLayout

This guide lists the default installation layouts for Apache HTTPD on various operating systems and distributions.

While examples in the main Apache HTTP Server documentation assume that you are using the standard file layout distributed from apache.org, many third-party distributors change the layout to conform to local policies. This can make it difficult to follow the examples and to find various important files. Using the information below, you can find where things live on your local install, and compare it to the standard Apache httpd paths.

- [Apache httpd 2.4 default layout \(apache.org source package\):](#)
- [Apache httpd 2.2 default layout \(apache.org source package\):](#)
- [Apache httpd 2.0 default layout \(apache.org source package\):](#)
- [Debian, Ubuntu \(Apache httpd 2.x\):](#)
 - [Notes:](#)
- [Fedora Core, CentOS, RHEL:](#)
 - [Notes:](#)
- [RedHat 9.0 and older:](#)
- [Mandriva \(Apache httpd 2.2\):](#)
- [Mac OS X \(Leopard, Apache httpd 2.2\):](#)
 - [Notes:](#)
- [NetBSD Apache httpd 2.0 and 1.3 from pkgsrc \(layout is identical\):](#)
 - [Notes:](#)
- [FreeBSD 6.1 \(Apache httpd 2.2\):](#)
 - [Notes:](#)
- [FreeBSD 6.1 \(Apache httpd 2.0\):](#)
 - [Notes:](#)
- [OpenBSD 5.0 \(Apache httpd 1.3 \(Hardened version for OpenBSD\)\):](#)
 - [Notes:](#)
- [OpenBSD 5.0 \(Apache httpd 2.2 \(Unedited, non-hardened version\)\):](#)
- [Win32 \(Apache httpd 2.2\):](#)
 - [Notes:](#)
- [Solaris 10 \(Apache httpd 2.0\):](#)
 - [Notes:](#)
- [Slackware 14.0+ \(Apache httpd 2.4\):](#)
- [openSUSE and SLES \(Apache httpd 2.2\):](#)
 - [Notes:](#)
- [Gentoo \(Apache httpd 2.2\):](#)
 - [Notes:](#)
- [TODO:](#)

Apache httpd 2.4 default layout (apache.org source package):

```
ServerRoot           ::      /usr/local/apache2
DocumentRoot         ::      /usr/local/apache2/htdocs
Apache Config File    ::      /usr/local/apache2/conf/httpd.conf
Other Config Files    ::      /usr/local/apache2/conf/extra/
SSL Config File       ::      /usr/local/apache2/conf/extra/httpd-ssl.conf
ErrorLog              ::      /usr/local/apache2/logs/error_log
AccessLog             ::      /usr/local/apache2/logs/access_log
cgi-bin               ::      /usr/local/apache2/cgi-bin (enabled by default, but some of the bundled scripts
are 644)
binaries (apachectl)  ::      /usr/local/apache2/bin
start/stop            ::      /usr/local/apache2/bin/apachectl (start|restart|graceful|graceful-
stop|stop|configtest)
```

Apache httpd 2.2 default layout (apache.org source package):

```
ServerRoot           ::      /usr/local/apache2
DocumentRoot         ::      /usr/local/apache2/htdocs
Apache Config File    ::      /usr/local/apache2/conf/httpd.conf
Other Config Files    ::      /usr/local/apache2/conf/extra/
SSL Config File       ::      /usr/local/apache2/conf/extra/httpd-ssl.conf
ErrorLog              ::      /usr/local/apache2/logs/error_log
AccessLog             ::      /usr/local/apache2/logs/access_log
cgi-bin               ::      /usr/local/apache2/cgi-bin (enabled by default, but the bundled scripts are 644)
binaries (apachectl)  ::      /usr/local/apache2/bin
start/stop            ::      /usr/local/apache2/bin/apachectl (start|restart|graceful|graceful-
stop|stop|configtest)
```

Apache httpd 2.0 default layout (apache.org source package):

```
ServerRoot          ::      /usr/local/apache2
DocumentRoot        ::      /usr/local/apache2/htdocs
Apache Config File  ::      /usr/local/apache2/conf/httpd.conf
SSL Config          ::      /usr/local/apache2/conf/ssl.conf
ErrorLog            ::      /usr/local/apache2/logs/error_log
AccessLog           ::      /usr/local/apache2/logs/access_log
cgi-bin             ::      /usr/local/apache2/cgi-bin (enabled by default, but the bundled scripts are 644)
binaries (apachectl) ::      /usr/local/apache2/bin
start/stop          ::      /usr/local/apache2/bin/apachectl (start|stop|graceful|configtest)
```

Debian, Ubuntu (Apache httpd 2.x):

```
ServerRoot          ::      /etc/apache2
DocumentRoot        ::      /var/www
Apache Config Files  ::      /etc/apache2/apache2.conf
                   ::      /etc/apache2/ports.conf
Default VHost Config ::      /etc/apache2/sites-available/default, /etc/apache2/sites-enabled/000-default
Module Locations     ::      /etc/apache2/mods-available, /etc/apache2/mods-enabled
ErrorLog            ::      /var/log/apache2/error.log
AccessLog           ::      /var/log/apache2/access.log
cgi-bin             ::      /usr/lib/cgi-bin
binaries (apachectl) ::      /usr/sbin
start/stop          ::      /etc/init.d/apache2 (start|stop|restart|reload|force-reload|start-
htcacheclean|stop-htcacheclean)
```

Notes:

1. The Debian/Ubuntu layout is fully documented in `/usr/share/doc/apache2/README.Debian`
2. Debian/Ubuntu use symlinks to configure vhosts and load modules. Configuration files are created in their respective `sites-available` and `mods-available` directories. To activate vhosts and modules, symlinks are created in the respective `sites-enabled` and `mods-enabled` directories to the config files in either `sites-available` and `mods-available`. Debian provides scripts to handle this process called `'a2ensite'` and `'a2enmod'` which activates vhosts and modules.
3. The default vhost is defined in `/etc/apache2/sites-available/default`, and overrides the [DocumentRoot](#) set in the server context.

Fedora Core, CentOS, RHEL:

```
ServerRoot          ::      /etc/httpd
Primary Config File  ::      /etc/httpd/conf/httpd.conf
Other Config Files   ::      /etc/httpd/conf.d
Module Locations     ::      /usr/lib/httpd/modules
DocumentRoot        ::      /var/www/html
ErrorLog            ::      /var/log/httpd/error_log
AccessLog           ::      /var/log/httpd/access_log
cgi-bin             ::      /var/www/cgi-bin (empty and disabled by default)
binary              ::      /usr/sbin/httpd
runtime directory    ::      /etc/httpd/run
start/stop          ::      /sbin/service httpd
{start|stop|restart|condrestart|reload|status|fullstatus|graceful|help|configtest}
```

Notes:

1. There is an extra config file in `/etc/sysconfig/httpd` which can be used to change to the worker mpm `/usr/sbin/httpd.worker`.
2. Extra config files named `*.conf` are loaded from `/etc/httpd/conf.d`. This directory is used by packages like `mod_python` for drop-in configs
3. If you're having issues with authorization and your permissions are correct, you might have problems with SELinux permissions. Take a look at [httpd_selinux\(8\)](#) and related documentation. Particularly `sealert(8)` can be used for analysis and suggested solutions.

RedHat 9.0 and older:

```

ServerRoot      ::      /etc/httpd
Primary Config File  ::      /etc/httpd/conf/httpd.conf
DocumentRoot    ::      /var/www/html
ErrorLog        ::      /var/log/httpd/error_log
AccessLog       ::      /var/log/httpd/access_log
cgi-bin         ::      /var/www/cgi-bin (empty and disabled by default)
binary          ::      /usr/sbin/httpd
start/stop      ::      /sbin/service httpd
{start|stop|restart|condrestart|reload|status|fullstatus|graceful|help|configtest}

```

Mandriva (Apache httpd 2.2):

```

ServerRoot      ::      /etc/httpd
Primary Config File  ::      /etc/httpd/conf/httpd.conf
DocumentRoot    ::      /var/www/html
ErrorLog        ::      /var/log/httpd/error_log
AccessLog       ::      /var/log/httpd/access_log
cgi-bin         ::      /var/www/cgi-bin
binary          ::      /usr/sbin/httpd
start/stop      ::      /sbin/service httpd
{start|stop|restart|reload|graceful|condrestart|closelogs|update|condrestart|status|extendedstatus|configtest|configtest_vhosts|semcleanrestart|debug|show_defines}

```

Mac OS X (Leopard, Apache httpd 2.2):

```

ServerRoot      ::      /usr
Primary Config File  ::      /etc/apache2/httpd.conf
DocumentRoot    ::      /Library/WebServer/Documents
ErrorLog        ::      /var/log/apache2/error_log
AccessLog       ::      /var/log/apache2/access_log
cgi-bin         ::      /Library/WebServer/CGI-Executables (empty by default)
binary          ::      /usr/sbin/httpd
start/stop      ::      /usr/sbin/apachectl (start|stop|restart|fullstatus|status|graceful|graceful-stop|configtest|help)

```

Notes:

1. apachectl graceful is equivalent to apachectl restart and doesn't keep running connections alive. Similarly, graceful-stop is not graceful.
2. The /usr/sbin/envvars script is ineffective for setting environment variables. See <http://lists.apple.com/archives/web-dev/2008/Apr/msg00059.html>

NetBSD Apache httpd 2.0 and 1.3 from pkgsrc (layout is identical):

```

ServerRoot      ::      /usr/pkg
Config File     ::      /usr/pkg/etc/httpd/httpd.conf
DocumentRoot    ::      /usr/pkg/share/httpd/htdocs
ErrorLog        ::      /var/log/httpd/error_log
AccessLog       ::      /var/log/httpd/access_log
cgi-bin         ::      /usr/pkg/libexec/cgi-bin
binaries (apachectl) ::      /usr/pkg/sbin
start/stop      ::      /etc/rc.d/apache [fast|force|one](start stop restart rcvar reload status poll)
/etc/rc.conf variables ::      apache=YES, apache_start="start" (or "startssl")

```

Notes:

1. The "apache" script must be copied from the installation default /usr/pkg/share/examples/rc.d to /etc/rc.d (for automatic rc.conf usage) or /usr/pkg/etc/rc.d (for advanced usage).

FreeBSD 6.1 (Apache httpd 2.2):

```

ServerRoot      ::      /usr/local
Config File     ::      /usr/local/etc/apache22/httpd.conf
DocumentRoot    ::      /usr/local/www/apache22/data
ErrorLog        ::      /var/log/httpd-error.log
AccessLog       ::      /var/log/httpd-access.log
cgi-bin         ::      /usr/local/www/apache22/cgi-bin
binaries (apachectl) ::  /usr/local/sbin
start/stop      ::      /usr/local/etc/rc.d/apache22.sh
(start|restart|stop|reload|graceful|gracefulstop|configtest)
/etc/rc.conf variables ::  apache22_enable="YES"

```

Notes:

1. Other variables to insert in `rc.conf` are listed in the comments at the top of the `start/stop` script
2. To start 2.2 on FreeBSD 6.1 the [accf_http](#) kernel module must be loaded. To do this once, run `{{kldload accf_http}}`. To do so at boot time, add `accf_http_load="YES"` to `/boot/loader.conf`
3. Apache 2.2.6 in the FreeBSD 6.2 release will start regardless of the [accf_http](#) kernel module being loaded, and by default doesn't use it. To reverse this, add `apache22_http_accept_enable="YES"` to `/etc/rc.conf` (which will cause the kernel module to be loaded and Apache to use it).

FreeBSD 6.1 (Apache httpd 2.0):

```

ServerRoot      ::      /usr/local
Config File     ::      /usr/local/etc/apache2/httpd.conf
DocumentRoot    ::      /usr/local/www/data
ErrorLog        ::      /var/log/httpd-error.log
AccessLog       ::      /var/log/httpd-access.log
cgi-bin         ::      /usr/local/www/cgi-bin
binaries (apachectl) ::  /usr/local/sbin
start/stop      ::      /usr/local/etc/rc.d/apache2.sh [fast|force|one]
(start|restart|stop|reload|configtest|rcvar)
/etc/rc.conf variables ::  apache2_enable="YES"

```

Notes:

1. Other variables to insert in `rc.conf` are listed in the comments at the top of the `start/stop` script

OpenBSD 5.0 (Apache httpd 1.3 (Hardened version for OpenBSD)):

```

ServerRoot      ::      /var/www
Config File     ::      /var/www/conf/httpd.conf
DocumentRoot    ::      /var/www/htdocs
ErrorLog        ::      /var/www/logs/error_log
AccessLog       ::      /var/www/logs/access_log
cgi-bin         ::      /var/www/cgi-bin
binaries (apachectl) ::  /usr/sbin/apachectl
start/stop      ::      /usr/sbin/apachectl
(start|startssl|stop|restart|graceful|status|fullstatus|configtest|help)
user:group      ::      www:www

```

Notes:

1. The OpenBSD team has added default chrooting, privilege revocation, and other security-related improvements to their Apache httpd 1.3 package.

OpenBSD 5.0 (Apache httpd 2.2 (Unedited, non-hardened version)):

```

ServerRoot      ::      /var/apache2
Config File     ::      /etc/apache2/httpd2.conf
DocumentRoot    ::      /var/apache2/htdocs/
ErrorLog        ::      /var/apache2/logs/error_log
AccessLog       ::      /var/apache2/logs/access_log
cgi-bin         ::      /var/apache2/cgi-bin
binaries (apachectl) ::  /usr/local/sbin/apachectl2
start/stop      ::      /usr/local/sbin/apachectl2 (start|stop|restart|graceful|graceful-
stop|status|fullstatus|configtest)
user:group      ::      _apache2:_apache2

```

Win32 (Apache httpd 2.2):

```

ServerRoot      ::      "C:/Program Files/Apache Software Foundation/Apache2.2"
Config File     ::      "C:/Program Files/Apache Software Foundation/Apache2.2/conf/httpd.conf"
DocumentRoot    ::      "C:/Program Files/Apache Software Foundation/Apache2.2/htdocs"
ErrorLog        ::      "C:/Program Files/Apache Software Foundation/Apache2.2/logs/error.log"
AccessLog       ::      "C:/Program Files/Apache Software Foundation/Apache2.2/logs/access.log"
cgi-bin         ::      "C:/Program Files/Apache Software Foundation/Apache2.2/cgi-bin/"
binaries (apachectl) ::  "C:/Program Files/Apache Software Foundation/Apache2.2/bin"

```

Notes;

1. There are extra config files in "C:/Program Files/Apache Software Foundation/Apache2.2/conf/extra" that can be included for options such as vhosts

Solaris 10 (Apache httpd 2.0):

```

ServerRoot      ::      /usr/apache2
Config File     ::      /etc/apache2/httpd.conf
DocumentRoot    ::      /var/apache2/htdocs
ErrorLog        ::      /var/apache2/logs/error_log
AccessLog       ::      /var/apache2/logs/access_log
cgi-bin         ::      /var/apache2/cgi-bin
binaries        ::      /usr/apache2/bin

```

Notes:

1. Config needs to be copied from example file to httpd.conf. Apache-1.3 is the default installation in /etc/init.d and /etc/rc3.d files.

Slackware 14.0+ (Apache httpd 2.4):

```

ServerRoot      ::      /usr
DocumentRoot    ::      /srv/httpd/htdocs
AccessLog       ::      /var/log/httpd/access_log
ErrorLog        ::      /var/log/httpd/error_log
binaries (apachectl) ::  /usr/sbin
modules         ::      /usr/lib(64)/httpd
system startup script :: /etc/rc.d/rc.httpd (start|restart|graceful|graceful-stop|stop)
Apache config file ::  /etc/httpd/httpd.conf
mod_ssl config file ::  /etc/httpd/extra/httpd-ssl.conf
mod_php config file ::  /etc/httpd/mod_php.conf
vhosts config file ::  /etc/httpd/extra/httpd-vhosts.conf
cgi-bin         ::      /srv/httpd/cgi-bin
on-line docs ("manual") :: /srv/httpd/htdocs/manual

```

openSUSE and SLES (Apache httpd 2.2):

```

ServerRoot      ::      /srv/www
DocumentRoot    ::      /srv/www/htdocs
Apache Config File  ::      /etc/apache2/httpd.conf
Other Config Files  ::      /etc/sysconfig/apache2
SSL Config File    ::      /etc/apache2/ssl-global.conf
ErrorLog         ::      /var/log/apache2/error_log
AccessLog        ::      /var/log/apache2/access_log
cgi-bin          ::      /srv/www/cgi-bin
binaries (apachectl) ::      /usr/sbin
start/stop       ::      /etc/init.d/apache2 (start|restart|restart-graceful|reload|graceful|graceful-
stop|stop|configtest)

```

Notes:

1. Modules are enabled in `/etc/sysconfig/apache2` which is read by the startup script. The `a2enmod/a2dismod` tool can be used to activate/deactivate modules.
2. See `/usr/share/doc/packages/apache2/README.SUSE` for more information.

Gentoo (Apache httpd 2.2):

```

ServerRoot      ::      /usr/lib/apache2
DocumentRoot     ::      /var/www/localhost/htdocs
Apache Config File  ::      /etc/apache2/httpd.conf
Other Config Files  ::      /etc/conf.d/apache2
Default VHost Config ::      /etc/apache2/vhosts.d/00_default_vhost.conf
Module Configuration ::      /etc/apache2/modules.d
Module Locations    ::      /usr/lib/apache2/modules
ErrorLog          ::      /var/log/apache2/error_log
AccessLog         ::      /var/log/apache2/access_log
cgi-bin           ::      /var/www/localhost/cgi-bin
binaries (apache2ctl) ::      /usr/sbin
start/stop        ::      /etc/init.d/apache2 (start|restart|graceful|stop|configtest)

```

Notes:

1. To enable a module, `"-D MODULENAME"` must be added to `APACHE_OPTS` in `/etc/conf.d/apache2`

TODO:

Add:

- Netware. eek!

Add apache group name in different distros (ex: ubuntu: `www-data`, [CentOs](#): `apache ...etc`)