### Introduction

Apache is one of the most popular web servers, and part of its charm is that it's free. It also has a lot of features that make it very extensible and useful for many different types of websites. It is a server that is used for everything from personal web pages to enterprise level sites.

This article will discuss how to install Apache on a Linux system. Before we start you should be at least comfortable working in Linux - changing directories, using tar and gunzip, and compiling with make (I'll discuss where to get binaries if you don't want to mess with compiling your own). You should also have access to the root account on the server machine.

### Download Apache

Apache can be installed in two ways. You can either use rpm or source file.

**1. Getting the latest Apache RPM Packages**

Download the following packages from the [Fedora download site](http://download.fedora.redhat.com/) or its [mirrors](http://fedora.redhat.com/download/mirrors.html):

* httpd-2.0.49-4.i386.rpm
* httpd-devel-2.0.49-4.i386.rpm
* httpd-manual-2.0.49-4.i386.rpm

The Apache packages do not include additional modules, such as SSL and perl. If you need these or other modules, you will need to download the appropriate RPM packages, such as:

* mod\_ssl-2.0.49-4.i386.rpm
* mod\_perl-1.99\_12-2.1.i386.rpm
* mod\_perl-devel-1.99\_12-2.1.i386.rpm
* mod\_dav\_svn-1.0.2-1.i386.rpm

# 2. Installing Apache

This is a relatively simple process. You can either download the packages from the Fedora site and install as follows:

|  |
| --- |
| # **rpm -ivh httpd-2.0.49-4.i386.rpm**  # **rpm -ivh httpd-devel-2.0.49-4.i386.rpm**  # **rpm -ivh httpd-manual-2.0.49-4.i386.rpm** |

You will want to check if there are any updates available for these packages on the [Fedora Updates](http://download.fedora.us/fedora/fedora/2/i386/RPMS.updates/) directory. You should be able to upgrade the packages like so:

|  |
| --- |
| # **rpm -Uvh httpd-2.0.xx-xx.i386.rpm**  # **rpm -Uvh httpd-devel-2.0.xx-xx.i386.rpm**  # **rpm -Uvh httpd-manual-2.0.xx-xx.i386.rpm** |

A much simpler way is to install yum or apt-get, which will automatically resolve dependencies for you. You can find information about yum [here](http://www.fedoranews.org/tchung/howto/2003-11-09-yum-intro.shtml). If your yum updates seems slow, look at the information [here](http://www.fedoranews.org/tchung/howto/2004-01-15-yum-speed.shtml).

A yum installation of httpd looks like this:

|  |
| --- |
| # **yum install httpd httpd-devel httpd-manual** |

**Source file installation**

### Extract the Apache Files

Once you've downloaded the files you need to uncompress them:

gunzip -d httpd-2\_0\_NN.tar.gz  
tar xvf httpd-2\_0\_NN.tar

This creates a new directory under the current directory with the source files.

### Configuring Your Server for Apache

Once you've got the files, you need to tell your machine where to find everything by configuring the source files. The easiest way is to accept all the defaults and just type:

./configure

Of course, most people don't want to accept just the default choices. The most important option is the prefix=PREFIX option. This specifies the directory where the Apache files will be installed. You can also set specific environment variables and modules. Some of the [modules](http://httpd.apache.org/docs/2.2/mod/) I like to have installed include:

* mod\_alias - to map different parts of the URL tree
* mod\_include - to parse Server Side Includes
* mod\_mime - to associate file extensions with its MIME-type
* mod\_rewrite - to rewrite URLs on the fly
* mod\_speling (sic) - to help your readers who might misspell URLs
* mod\_ssl - to allow for strong cryptography using SSL
* mod\_userdir - to allow system users to have their own web page directories

Please keep in mind that these aren't all the modules I might install on a given system. Read the [details about the modules](http://httpd.apache.org/docs/2.2/mod/) to determine which ones you need.

### Build Apache

As with any source installation, you'll then need to build the installation:

make  
make install

### Customize Apache

Assuming that there were no problems, you are ready to customize your Apache configuration. This really just amounts to editing the httpd.conf file. This file is located in the PREFIX/conf directory. I generally edit it with [text editor](http://webdesign.about.com/od/htmleditors/g/bldeftexted.htm).

vi PREFIX/conf/httpd.conf

Note: you'll need to be root to edit this file.

Follow the instructions in this file to edit your configuration the way you want it. More help is available on the [Apache website](http://webdesign.about.com/gi/o.htm?zi=1/XJ&zTi=1&sdn=webdesign&cdn=compute&tm=150&f=10&su=p284.13.342.ip_p504.6.342.ip_&tt=2&bt=0&bts=1&zu=http%3A//httpd.apache.org/docs/2.2/mod/quickreference.html).

**Stop/Start the web server**

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| --- |
| Stop web server  # **service httpd stop**  Start web server  # **service httpd start**  Restart web server  # **service httpd restart** |

### Test Your Apache Server

Open a web browser on the same machine and type http://localhost/ in the address box. You should see a page similar to the one in the partial screen shot above. It will say in big letters **"Seeing this instead of the website you expected?"** This is good news, as it means your server is installed correctly.