Instalación y configuración del servidor web Apache

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Este documento muestra cómo instalar y configurar el servidor web Apache, con las extensiones Php4 (con soporte MySQL) y Perl. Todo el proceso está pensado para la distribución Debian GNU/Linux. Pretende ser una guía que muestre el proceso de una forma genérica, teniendo que ser adaptado el proceso para cada situación específica.

Introducción

Se ha elegido el servidor web Apache (http://httpd.apache.org/) por ser el más utilizado en todo el mundo. Destacan su gran rendimiento, seguridad y escalabilidad, así como la enorme disponibilidad de módulos de todo tipo que nos permiten expandirlo para adaptarlo a nuestras necesidades.

En este caso se utilizarán los módulos disponibles para PHP4 y Perl, dos de los lenguajes de programación más utilizados en entornos web por su potencia y facilidad de uso. PHP4 se instalará con soporte para acceso a bases de datos MySQL. De esta forma se podrán colocar páginas escritas en estos lenguajes y el servidor las interpretará y generará el código HTML correspondiente; pudiendo conseguir realizar páginas webs totalmente dinámicas (contenido variable).

Instalación

Necesitamos instalar los paquetes:

- apache
- apache-doc
- php4
- php4-mysql
- libapache-mod-perl

Para ello, lo único que debemos hacer es ejecutar el comando:

```
# apt-get install apache apache-doc php4 php4-mysql php4-pgsql libapache-mod-perl
```

Una vez finalizada la instalación, deberemos configurar php4 y apache para que reconozcan los distintos módulos instalados.

Configuración

Los ficheros de configuración son:

- /etc/apache/httpd.conf para Apache
- /etc/php4/apache/php.ini para PHP

Veremos las directivas de configuración más importantes para que se puedan utilizar estos módulos. El resto de directivas de configuración se explican detalladamente en los respectivos manuales y no se tratan aquí, debido a su gran número y extensión.

PHP

Debemos asegurarnos que php carga el módulo para MySQL. Para ello añadiremos (si no lo está) la siguiente línea al fichero /etc/php4/apache/php.ini :

```
extension=mysql.so
```

Con este módulo cargado, podremos acceder a cualquier base de datos MySQL utilizando las funciones que provee PHP.

Apache

Debemos activar el uso de php y perl con apache. Deberemos añadir al fichero de configuración de apache (/etc/apache/httpd.conf) las siguientes líneas para que cargue los módulos:

```
LoadModule perl_module /usr/lib/apache/1.3/mod_perl.so
LoadModule php4_module /usr/lib/apache/1.3/libphp4.so
```

También deberemos asegurarnos de que existe la siguiente línea para que apache sepa qué hacer con los ficheros con extensión .php

```
AddType application/x-httpd-php .php
```

Para los ficheros en perl, utilizaremos el directorio /var/www/perl, y deberemos indicarle que en ese directorio se pueden ejecutar scripts. Se creará un alias de ese directorio para un más fácil manejo:

```
<IfModule mod_perl.c>
  Alias /perl/ /var/www/perl/
  <Location /perl>
    SetHandler perl-script
    PerlHandler Apache::Registry
    Options +ExecCGI
  </Location>
</IfModule>
```

Ejemplo de fichero de configuración de Apache

Este es el fichero completo de configuración del servidor web que hemos configurado. Se incluyen los comentarios originales para una mejor comprensión del significado de algunas de las directivas de configuración:

```
##
## httpd.conf -- Apache HTTP server configuration file
##

#
# Based upon the NCSA server configuration files originally by Rob McCool.
#
# This is the main Apache server configuration file.  It contains the
# configuration directives that give the server its instructions.
# See <URL:http://www.apache.org/docs/> for detailed information about
# the directives.
#
# Do NOT simply read the instructions in here without understanding
# what they do.  They're here only as hints or reminders.  If you are unsure
# consult the online docs. You have been warned.
#
# After this file is processed, the server will look for and process
# /etc/apache/srm.conf and then /etc/apache/access.conf
# unless you have overridden these with ResourceConfig and/or
# AccessConfig directives here.
#
# The configuration directives are grouped into three basic sections:
#  1. Directives that control the operation of the Apache server process as a
#     whole (the 'global environment').
#  2. Directives that define the parameters of the 'main' or 'default' server,
#     which responds to requests that aren't handled by a virtual host.
#     These directives also provide default values for the settings
#     of all virtual hosts.
#  3. Settings for virtual hosts, which allow Web requests to be sent to
#     different IP addresses or hostnames and have them handled by the
#     same Apache server process.
#
# Configuration and logfile names: If the filenames you specify for many
# of the server's control files begin with "/" (or "drive:/" for Win32), the
# server will use that explicit path.  If the filenames do *not* begin
# with "/", the value of ServerRoot is prepended -- so "logs/foo.log"
# with ServerRoot set to "/usr/local/apache" will be interpreted by the
# server as "/usr/local/apache/logs/foo.log".
#

### Section 1: Global Environment
#
# The directives in this section affect the overall operation of Apache,
# such as the number of concurrent requests it can handle or where it
# can find its configuration files.
#
```

```
#
# ServerType is either inetd, or standalone.  Inetd mode is only supported on
# Unix platforms.

ServerType standalone

#
# ServerRoot: The top of the directory tree under which the server's
# configuration, error, and log files are kept.
#
# NOTE!  If you intend to place this on an NFS (or otherwise network)
# mounted filesystem then please read the LockFile documentation
# (available at <URL:http://www.apache.org/docs/mod/core.html#lockfile>);
# you will save yourself a lot of trouble.
#
# Do NOT add a slash at the end of the directory path.

ServerRoot /etc/apache

#
# The LockFile directive sets the path to the lockfile used when Apache
# is compiled with either USE_FCNTL_SERIALIZED_ACCEPT or
# USE_FLOCK_SERIALIZED_ACCEPT. This directive should normally be left at
# its default value. The main reason for changing it is if the logs
# directory is NFS mounted, since the lockfile MUST BE STORED ON A LOCAL
# DISK. The PID of the main server process is automatically appended to
# the filename.

LockFile /var/lock/apache.lock

#
# PidFile: The file in which the server should record its process
# identification number when it starts.

PidFile /var/run/apache.pid

#
# ScoreBoardFile: File used to store internal server process information.
# Not all architectures require this.  But if yours does (you'll know because
# this file will be  created when you run Apache) then you *must* ensure that
# no two invocations of Apache share the same scoreboard file.

ScoreBoardFile /var/run/apache.scoreboard

#
# In the standard configuration, the server will process this file,
# srm.conf, and access.conf in that order.  The latter two files are
# now distributed empty, as it is recommended that all directives
# be kept in a single file for simplicity.  The commented-out values
# below are the built-in defaults.  You can have the server ignore
# these files altogether by using "/dev/null" (for Unix) or
# "nul" (for Win32) for the arguments to the directives.
```

```
#ResourceConfig /etc/apache/srm.conf
#AccessConfig /etc/apache/access.conf

#
# Timeout: The number of seconds before receives and sends time out.

Timeout 300

#
# KeepAlive: Whether or not to allow persistent connections (more than
# one request per connection). Set to "Off" to deactivate.

KeepAlive On

#
# MaxKeepAliveRequests: The maximum number of requests to allow
# during a persistent connection. Set to 0 to allow an unlimited amount.
# We recommend you leave this number high, for maximum performance.

MaxKeepAliveRequests 100

#
# KeepAliveTimeout: Number of seconds to wait for the next request from the
# same client on the same connection.

KeepAliveTimeout 15

#
# Server-pool size regulation.  Rather than making you guess how many
# server processes you need, Apache dynamically adapts to the load it
# sees --- that is, it tries to maintain enough server processes to
# handle the current load, plus a few spare servers to handle transient
# load spikes (e.g., multiple simultaneous requests from a single
# Netscape browser).
#
# It does this by periodically checking how many servers are waiting
# for a request.  If there are fewer than MinSpareServers, it creates
# a new spare.  If there are more than MaxSpareServers, some of the
# spares die off.  The default values are probably OK for most sites.

MinSpareServers 4
MaxSpareServers 20

#
# Number of servers to start initially --- should be a reasonable ballpark
# figure.

StartServers 4

#
# Limit on total number of servers running, i.e., limit on the number
# of clients who can simultaneously connect --- if this limit is ever
# reached, clients will be LOCKED OUT, so it should NOT BE SET TOO LOW.
```

```
# It is intended mainly as a brake to keep a runaway server from taking
# the system with it as it spirals down...

MaxClients 150

#
# MaxRequestsPerChild: the number of requests each child process is
# allowed to process before the child dies.  The child will exit so
# as to avoid problems after prolonged use when Apache (and maybe the
# libraries it uses) leak memory or other resources.  On most systems, this
# isn't really needed, but a few (such as Solaris) do have notable leaks
# in the libraries. For these platforms, set to something like 10000
# or so; a setting of 0 means unlimited.
#
# NOTE: This value does not include keepalive requests after the initial
#       request per connection. For example, if a child process handles
#       an initial request and 10 subsequent "keptalive" requests, it
#       would only count as 1 request towards this limit.

MaxRequestsPerChild 100

#
# Listen: Allows you to bind Apache to specific IP addresses and/or
# ports, in addition to the default. See also the <VirtualHost>
# directive.

Listen 8080
Listen 80
#Listen cancerbero:80

#
# BindAddress: You can support virtual hosts with this option. This directive
# is used to tell the server which IP address to listen to. It can either
# contain "*", an IP address, or a fully qualified Internet domain name.
# See also the <VirtualHost> and Listen directives.

BindAddress *

#
# Dynamic Shared Object (DSO) Support
#
# To be able to use the functionality of a module which was built as a DSO you
# have to place corresponding 'LoadModule' lines at this location so the
# directives contained in it are actually available _before_ they are used.
# Please read the file README.DSO in the Apache 1.3 distribution for more
# details about the DSO mechanism and run 'apache -l' for the list of already
# built-in (statically linked and thus always available) modules in your apache
# binary.
#
# Please keep this LoadModule: line here, it is needed for installation.
# LoadModule vhost_alias_module /usr/lib/apache/1.3/mod_vhost_alias.so
# LoadModule env_module /usr/lib/apache/1.3/mod_env.so
LoadModule config_log_module /usr/lib/apache/1.3/mod_log_config.so
```

```
# LoadModule mime_magic_module /usr/lib/apache/1.3/mod_mime_magic.so
LoadModule mime_module /usr/lib/apache/1.3/mod_mime.so
LoadModule negotiation_module /usr/lib/apache/1.3/mod_negotiation.so
LoadModule status_module /usr/lib/apache/1.3/mod_status.so
# LoadModule info_module /usr/lib/apache/1.3/mod_info.so
# LoadModule includes_module /usr/lib/apache/1.3/mod_include.so
LoadModule autoindex_module /usr/lib/apache/1.3/mod_autoindex.so
LoadModule dir_module /usr/lib/apache/1.3/mod_dir.so
LoadModule cgi_module /usr/lib/apache/1.3/mod_cgi.so
# LoadModule asis_module /usr/lib/apache/1.3/mod_asis.so
# LoadModule imap_module /usr/lib/apache/1.3/mod_imap.so
# LoadModule action_module /usr/lib/apache/1.3/mod_actions.so
# LoadModule speling_module /usr/lib/apache/1.3/mod_speling.so
LoadModule userdir_module /usr/lib/apache/1.3/mod_userdir.so
LoadModule alias_module /usr/lib/apache/1.3/mod_alias.so
LoadModule rewrite_module /usr/lib/apache/1.3/mod_rewrite.so
LoadModule access_module /usr/lib/apache/1.3/mod_access.so
LoadModule auth_module /usr/lib/apache/1.3/mod_auth.so
# LoadModule anon_auth_module /usr/lib/apache/1.3/mod_auth_anon.so
# LoadModule dbm_auth_module /usr/lib/apache/1.3/mod_auth_dbm.so
# LoadModule db_auth_module /usr/lib/apache/1.3/mod_auth_db.so
# LoadModule proxy_module /usr/lib/apache/1.3/libproxy.so
# LoadModule digest_module /usr/lib/apache/1.3/mod_digest.so
# LoadModule cern_meta_module /usr/lib/apache/1.3/mod_cern_meta.so
LoadModule expires_module /usr/lib/apache/1.3/mod_expires.so
# LoadModule headers_module /usr/lib/apache/1.3/mod_headers.so
# LoadModule usertrack_module /usr/lib/apache/1.3/mod_usertrack.so
LoadModule unique_id_module /usr/lib/apache/1.3/mod_unique_id.so
LoadModule setenvif_module /usr/lib/apache/1.3/mod_setenvif.so
# LoadModule sys_auth_module /usr/lib/apache/1.3/mod_auth_sys.so
# LoadModule throttle_module /usr/lib/apache/1.3/mod_throttle.so
# LoadModule allowdev_module /usr/lib/apache/1.3/mod_allowdev.so
# LoadModule eaccess_module /usr/lib/apache/1.3/mod_eaccess.so
LoadModule perl_module /usr/lib/apache/1.3/mod_perl.so
LoadModule php4_module /usr/lib/apache/1.3/libphp4.so
# LoadModule roaming_module /usr/lib/apache/1.3/mod_roaming.so

#
# ExtendedStatus: controls whether Apache will generate "full" status
# information (ExtendedStatus On) or just basic information (ExtendedStatus
# Off) when the "server-status" handler is called. The default is Off.

ExtendedStatus On

### Section 2: 'Main' server configuration
#
# The directives in this section set up the values used by the 'main'
# server, which responds to any requests that aren't handled by a
# <VirtualHost> definition.  These values also provide defaults for
# any <VirtualHost> containers you may define later in the file.
#
# All of these directives may appear inside <VirtualHost> containers,
# in which case these default settings will be overridden for the
```

```
# virtual host being defined.
#

#
# If your ServerType directive (set earlier in the 'Global Environment'
# section) is set to "inetd", the next few directives don't have any
# effect since their settings are defined by the inetd configuration.
# Skip ahead to the ServerAdmin directive.
#

#
# Port: The port to which the standalone server listens. For
# ports < 1023, you will need apache to be run as root initially.

Port 8080

#
# If you wish apache to run as a different user or group, you must run
# apacheas root initially and it will switch.
#
# User/Group: The name (or #number) of the user/group to run apache as.
#  . On SCO (ODT 3) use "User nouser" and "Group nogroup".
#  . On HPUX you may not be able to use shared memory as nobody, and the
#    suggested workaround is to create a user www and use that user.
#  NOTE that some kernels refuse to setgid(Group) or semctl(IPC_SET)
#  when the value of (unsigned)Group is above 60000;
#  don't use Group nobody on these systems!

User www-data
Group www-data

#
# ServerAdmin: Your address, where problems with the server should be
# e-mailed.  This address appears on some server-generated pages, such
# as error documents.

ServerAdmin webmaster@cancerbero.uimagen.iaf

#
# ServerName: allows you to set a host name which is sent back to clients for
# your server if it's different than the one the program would get (i.e., use
# "www" instead of the host's real name).
#
# Note: You cannot just invent host names and hope they work. The name you
# define here must be a valid DNS name for your host. If you don't understand
# this, ask your network administrator.
# If your host doesn't have a registered DNS name, enter its IP address here.
# You will have to access it by its address (e.g., http://123.45.67.89/)
# anyway, and this will make redirections work in a sensible way.

ServerName cancerbero.unileon.es

#
```

```
# DocumentRoot: The directory out of which you will serve your
# documents. By default, all requests are taken from this directory, but
# symbolic links and aliases may be used to point to other locations.

DocumentRoot /var/www

#
# Each directory to which Apache has access, can be configured with respect
# to which services and features are allowed and/or disabled in that
# directory (and its subdirectories).
#
# First, we configure the "default" to be a very restrictive set of
# permissions.

<Directory />
    Options SymLinksIfOwnerMatch
    AllowOverride None
</Directory>

#
# Note that from this point forward you must specifically allow
# particular features to be enabled - so if something’s not working as
# you might expect, make sure that you have specifically enabled it
# below.
#

#
# This should be changed to whatever you set DocumentRoot to.

<Directory /var/www/>

#
# This may also be "None", "All", or any combination of "Indexes",
# "Includes", "FollowSymLinks", "ExecCGI", or "MultiViews".
#
# Note that "MultiViews" must be named *explicitly* --- "Options All"
# doesn’t give it to you.

    Options Indexes Includes FollowSymLinks MultiViews

#
# This controls which options the .htaccess files in directories can
# override. Can also be "All", or any combination of "Options", "FileInfo",
# "AuthConfig", and "Limit"

    AllowOverride None

#
# Controls who can get stuff from this server.

    Order allow,deny
    Allow from all
</Directory>
```

```
#
# UserDir: The name of the directory which is appended onto a user's home
# directory if a ~user request is received.

<IfModule mod_userdir.c>
    UserDir public_html
</IfModule>

#
# Control access to UserDir directories.  The following is an example
# for a site where these directories are restricted to read-only.

<Directory /home/*/public_html>
    AllowOverride FileInfo AuthConfig Limit
    Options MultiViews Indexes FollowSymLinks Includes
    <Limit GET POST OPTIONS PROPFIND>
        Order allow,deny
        Allow from all
    </Limit>
    <Limit PUT DELETE PATCH PROPPATCH MKCOL COPY MOVE LOCK UNLOCK>
        Order deny,allow
        Deny from all
    </Limit>
</Directory>

#
# DirectoryIndex: Name of the file or files to use as a pre-written HTML
# directory index.  Separate multiple entries with spaces.

<IfModule mod_dir.c>
    DirectoryIndex index.php index.html index.htm index.php3 index.shtml index.cgi
</IfModule>

#
# AccessFileName: The name of the file to look for in each directory
# for access control information.

AccessFileName .htaccess

#
# The following lines prevent .htaccess files from being viewed by
# Web clients.  Since .htaccess files often contain authorization
# information, access is disallowed for security reasons.  Comment
# these lines out if you want Web visitors to see the contents of
# .htaccess files.  If you change the AccessFileName directive above,
# be sure to make the corresponding changes here.
#
# Also, folks tend to use names such as .htpasswd for password
# files, so this will protect those as well.

<Files ~ "^\.ht">
    Order allow,deny
```

```
    Deny from all
</Files>

#
# CacheNegotiatedDocs: By default, Apache sends "Pragma: no-cache" with each
# document that was negotiated on the basis of content. This asks proxy
# servers not to cache the document. Uncommenting the following line disables
# this behavior, and proxies will be allowed to cache the documents.

#CacheNegotiatedDocs

#
# UseCanonicalName:  (new for 1.3)  With this setting turned on, whenever
# Apache needs to construct a self-referencing URL (a URL that refers back
# to the server the response is coming from) it will use ServerName and
# Port to form a "canonical" name.  With this setting off, Apache will
# use the hostname:port that the client supplied, when possible.  This
# also affects SERVER_NAME and SERVER_PORT in CGI scripts.

UseCanonicalName On

#
# TypesConfig describes where the mime.types file (or equivalent) is
# to be found.

TypesConfig /etc/mime.types

#
# DefaultType is the default MIME type the server will use for a document
# if it cannot otherwise determine one, such as from filename extensions.
# If your server contains mostly text or HTML documents, "text/plain" is
# a good value.  If most of your content is binary, such as applications
# or images, you may want to use "application/octet-stream" instead to
# keep browsers from trying to display binary files as though they are
# text.

DefaultType text/plain

#
# The mod_mime_magic module allows the server to use various hints from the
# contents of the file itself to determine its type.  The MIMEMagicFile
# directive tells the module where the hint definitions are located.
# mod_mime_magic is not part of the default server (you have to add
# it yourself with a LoadModule [see the DSO paragraph in the 'Global
# Environment' section], or recompile the server and include mod_mime_magic
# as part of the configuration), so it's enclosed in an <IfModule> container.
# This means that the MIMEMagicFile directive will only be processed if the
# module is part of the server.

<IfModule mod_mime_magic.c>
    MIMEMagicFile share/magic
</IfModule>
```

```
#
# HostnameLookups: Log the names of clients or just their IP addresses
# e.g., www.apache.org (on) or 204.62.129.132 (off).
# The default is off because it'd be overall better for the net if people
# had to knowingly turn this feature on, since enabling it means that
# each client request will result in AT LEAST one lookup request to the
# nameserver.

HostnameLookups Off

#
# ErrorLog: The location of the error log file.
# If you do not specify an ErrorLog directive within a <VirtualHost>
# container, error messages relating to that virtual host will be
# logged here.  If you *do* define an error logfile for a <VirtualHost>
# container, that host's errors will be logged there and not here.

ErrorLog /var/log/apache/error.log

#
# LogLevel: Control the number of messages logged to the error_log.
# Possible values include: debug, info, notice, warn, error, crit,
# alert, emerg.

LogLevel warn

#
# The following directives define some format nicknames for use with
# a CustomLog directive (see below).

LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-Agent}i\" %T %v" full
LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-Agent}i\" %P %T" debug
LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-Agent}i\"" combined
LogFormat "%h %l %u %t \"%r\" %>s %b" common
LogFormat "%{Referer}i -> %U" referer
LogFormat "%{User-agent}i" agent

#
# The location and format of the access logfile (Common Logfile Format).
# If you do not define any access logfiles within a <VirtualHost>
# container, they will be logged here.  Contrariwise, if you *do*
# define per-<VirtualHost> access logfiles, transactions will be
# logged therein and *not* in this file.

#CustomLog /var/log/apache/access.log common

#
# If you would like to have agent and referer logfiles, uncomment the
# following directives.

#CustomLog /var/log/apache/referer.log referer
#CustomLog /var/log/apache/agent.log agent
```

```
#
# If you prefer a single logfile with access, agent, and referer information
# (Combined Logfile Format) you can use the following directive.

CustomLog /var/log/apache/access.log combined

#
# Optionally add a line containing the server version and virtual host
# name to server-generated pages (error documents, FTP directory listings,
# mod_status and mod_info output etc., but not CGI generated documents).
# Set to "EMail" to also include a mailto: link to the ServerAdmin.
# Set to one of:  On | Off | EMail

ServerSignature On

#
# Aliases: Add here as many aliases as you need (with no limit). The format is
# Alias fakename realname
#
# Note that if you include a trailing / on fakename then the server will
# require it to be present in the URL.  So "/icons" isn't aliased in this
# example, only "/icons/"..


Alias /icons/ /usr/share/apache/icons/

<Directory /usr/share/apache/icons>
    Options Indexes MultiViews
    AllowOverride None
    Order allow,deny
    Allow from all
</Directory>

#
# ScriptAlias: This controls which directories contain server scripts.
# ScriptAliases are essentially the same as Aliases, except that
# documents in the realname directory are treated as applications and
# run by the server when requested rather than as documents sent to the client.
# The same rules about trailing "/" apply to ScriptAlias directives as to
# Alias.

ScriptAlias /cgi-bin/ /usr/lib/cgi-bin/

#
# "/usr/lib/cgi-bin" could be changed to whatever your ScriptAliased
# CGI directory exists, if you have that configured.

<Directory /usr/lib/cgi-bin/>
    AllowOverride None
    Options ExecCGI
    Order allow,deny
    Allow from all
</Directory>
```

```
#
# Redirect allows you to tell clients about documents which used to exist in
# your server's namespace, but do not anymore. This allows you to tell the
# clients where to look for the relocated document.
# Format: Redirect old-URI new-URL

Redirect /miguel http://sanpedro.uimagen.iaf/

#
# Directives controlling the display of server-generated directory listings.


<IfModule mod_autoindex.c>

    #
    # FancyIndexing: whether you want fancy directory indexing or standard

    IndexOptions FancyIndexing NameWidth=*

    #
    # AddIcon* directives tell the server which icon to show for different
    # files or filename extensions.  These are only displayed for
    # FancyIndexed directories.

    AddIconByEncoding (CMP,/icons/compressed.gif) x-compress x-gzip

    AddIconByType (TXT,/icons/text.gif) text/*
    AddIconByType (IMG,/icons/image2.gif) image/*
    AddIconByType (SND,/icons/sound2.gif) audio/*
    AddIconByType (VID,/icons/movie.gif) video/*

    AddIcon /icons/binary.gif .bin .exe
    AddIcon /icons/binhex.gif .hqx
    AddIcon /icons/tar.gif .tar
    AddIcon /icons/world2.gif .wrl .wrl.gz .vrml .vrm .iv
    AddIcon /icons/compressed.gif .Z .z .tgz .gz .zip
    AddIcon /icons/a.gif .ps .ai .eps
    AddIcon /icons/layout.gif .html .shtml .htm .pdf
    AddIcon /icons/text.gif .txt
    AddIcon /icons/c.gif .c
    AddIcon /icons/p.gif .pl .py
    AddIcon /icons/f.gif .for
    AddIcon /icons/dvi.gif .dvi
    AddIcon /icons/uuencoded.gif .uu
    AddIcon /icons/script.gif .conf .sh .shar .csh .ksh .tcl
    AddIcon /icons/tex.gif .tex
    AddIcon /icons/bomb.gif core

    AddIcon /icons/back.gif ..
    AddIcon /icons/hand.right.gif README
    AddIcon /icons/folder.gif ^^DIRECTORY^^
    AddIcon /icons/blank.gif ^^BLANKICON^^
```

```
    #
    # DefaultIcon: which icon to show for files which do not have an icon
    # explicitly set.

    DefaultIcon /icons/unknown.gif

    #
    # AddDescription: allows you to place a short description after a file in
    # server-generated indexes.  These are only displayed for FancyIndexed
    # directories.
    # Format: AddDescription "description" filename

    #AddDescription "GZIP compressed document" .gz
    #AddDescription "tar archive" .tar
    #AddDescription "GZIP compressed tar archive" .tgz

    #
    # ReadmeName: the name of the README file the server will look for by
    # default, and append to directory listings.
    #
    # HeaderName: the name of a file which should be prepended to
    # directory indexes.
    #
    # The server will first look for name.html and include it if found.
    # If name.html doesn't exist, the server will then look for name.txt
    # and include it as plaintext if found.

    ReadmeName README
    HeaderName HEADER

    #
    # IndexIgnore: a set of filenames which directory indexing should ignore
    # and not include in the listing.  Shell-style wildcarding is permitted.

    IndexIgnore .??* *~ *# HEADER* README* RCS CVS *,v *,t

</IfModule>

#
# Document types.

<IfModule mod_mime.c>

    # AddEncoding allows you to have certain browsers (Mosaic/X 2.1+)
    # uncompress information on the fly. Note: Not all browsers support
    # this.  Despite the name similarity, the following Add* directives
    # have nothing to do with the FancyIndexing customization
    # directives above.

    AddEncoding x-compress Z
    AddEncoding x-gzip gz tgz
```

```
#
# AddLanguage: allows you to specify the language of a document. You can
# then use content negotiation to give a browser a file in a language
# it can understand.
#
# Note 1: The suffix does not have to be the same as the language
# keyword --- those with documents in Polish (whose net-standard
# language code is pl) may wish to use "AddLanguage pl .po" to
# avoid the ambiguity with the common suffix for perl scripts.
#
# Note 2: The example entries below illustrate that in quite
# some cases the two character 'Language' abbriviation is not
# identical to the two character 'Country' code for its country,
# E.g. 'Danmark/dk' versus 'Danish/da'.
#
# Note 3: In the case of 'ltz' we violate the RFC by using a three char
# specifier. But there is 'work in progress' to fix this and get
# the reference data for rfc1766 cleaned up.
#
# Danish (da) - Dutch (nl) - English (en) - Estonian (ee)
# French (fr) - German (de) - Greek-Modern (el)
# Italian (it) - Portugese (pt) - Luxembourgeois* (ltz)
# Spanish (es) - Swedish (sv) - Catalan (ca) - Czech(cz)
# Polish (pl) - Brazilian Portuguese (pt-br) - Japanese (ja)

AddLanguage da .dk
AddLanguage nl .nl
AddLanguage en .en
AddLanguage et .ee
AddLanguage fr .fr
AddLanguage de .de
AddLanguage el .el
AddLanguage it .it
AddLanguage ja .ja
AddCharset ISO-2022-JP .jis
AddLanguage pl .po
AddCharset ISO-8859-2 .iso-pl
AddLanguage pt .pt
AddLanguage pt-br .pt-br
AddLanguage ltz .lu
AddLanguage ca .ca
AddLanguage es .es
AddLanguage sv .se
AddLanguage cz .cz

# LanguagePriority: allows you to give precedence to some languages
# in case of a tie during content negotiation.
#
# Just list the languages in decreasing order of preference. We have
# more or less alphabetized them here. You probably want to change
# this.

<IfModule mod_negotiation.c>
```

```
    LanguagePriority es en da nl et fr de el it ja pl pt pt-br ltz ca sv
</IfModule>

#
# AddType allows you to tweak mime.types without actually editing
# it, or to make certain files to be certain types.

# For example, the PHP 3.x module (not part of the Apache
# distribution - see http://www.php.net) will typically use:

#AddType application/x-httpd-php3 .php3
#AddType application/x-httpd-php3-source .phps
#
# And for PHP 4.x, use:

AddType application/x-httpd-php .php
AddType application/x-httpd-php-source .phps

AddType application/x-tar .tgz
AddType image/bmp .bmp

# hdml
AddType text/x-hdml .hdml

#
# AddHandler allows you to map certain file extensions to "handlers",
# actions unrelated to filetype. These can be either built into
# the server or added with the Action command (see below).
#
# If you want to use server side includes, or CGI outside
# ScriptAliased directories, uncomment the following lines.
#
# To use CGI scripts:

#AddHandler cgi-script .cgi .sh .pl

#
# To use server-parsed HTML files

#AddType text/html .shtml
#AddHandler server-parsed .shtml

#
# Uncomment the following line to enable Apache's send-asis HTTP
# file feature.

#AddHandler send-as-is asis

#
# If you wish to use server-parsed imagemap files, use

#AddHandler imap-file map
```

```
    #
    # To enable type maps, you might want to use

    #AddHandler type-map var

</IfModule>
# End of document types.

# Default charset to iso-8859-1 (ttp://www.apache.org/info/css-security/).

AddDefaultCharset on

#
# Action: lets you define media types that will execute a script whenever
# a matching file is called. This eliminates the need for repeated URL
# pathnames for oft-used CGI file processors.
# Format: Action media/type /cgi-script/location
# Format: Action handler-name /cgi-script/location
#

#
# MetaDir: specifies the name of the directory in which Apache can find
# meta information files. These files contain additional HTTP headers
# to include when sending the document

#MetaDir .web

#
# MetaSuffix: specifies the file name suffix for the file containing the
# meta information.

#MetaSuffix .meta

#
# Customizable error response (Apache style)
#  these come in three flavors
#
#    1) plain text
#ErrorDocument 500 "The server made a boo boo.
#  n.b.  the (") marks it as text, it does not get output
#
#    2) local redirects
#ErrorDocument 404 /missing.html
#  to redirect to local URL /missing.html
#ErrorDocument 404 /cgi-bin/missing_handler.pl
#  N.B.: You can redirect to a script or a document using server-side-includes.
#
#    3) external redirects
#ErrorDocument 402 http://some.other_server.com/subscription_info.html
#  N.B.: Many of the environment variables associated with the original
#  request will *not* be available to such a script.

<IfModule mod_setenvif.c>
```

```
    #
    # The following directives modify normal HTTP response behavior.
    # The first directive disables keepalive for Netscape 2.x and browsers that
    # spoof it. There are known problems with these browser implementations.
    # The second directive is for Microsoft Internet Explorer 4.0b2
    # which has a broken HTTP/1.1 implementation and does not properly
    # support keepalive when it is used on 301 or 302 (redirect) responses.

    BrowserMatch "Mozilla/2" nokeepalive
    BrowserMatch "MSIE 4\.0b2;" nokeepalive downgrade-1.0 force-response-1.0

    #
    # The following directive disables HTTP/1.1 responses to browsers which
    # are in violation of the HTTP/1.0 spec by not being able to grok a
    # basic 1.1 response.

    BrowserMatch "RealPlayer 4\.0" force-response-1.0
    BrowserMatch "Java/1\.0" force-response-1.0
    BrowserMatch "JDK/1\.0" force-response-1.0
</IfModule>


# If the perl module is installed, this will be enabled.
<IfModule mod_perl.c>
  Alias /perl/ /var/www/perl/
  <Location /perl>
    SetHandler perl-script
    PerlHandler Apache::Registry
    Options +ExecCGI
  </Location>
</IfModule>

#
# Allow http put (such as Netscape Gold's publish feature)
# Use htpasswd to generate /etc/apache/passwd.
# You must unremark these two lines at the top of this file as well:
#LoadModule put_module modules/mod_put.so

#Alias /upload /tmp
#<Location /upload>
#    EnablePut On
#    AuthType Basic
#    AuthName Temporary
#    AuthUserFile /etc/apache/passwd
#    EnableDelete Off
#    umask 007
#    <Limit PUT>
# require valid-user
#    </Limit>
#</Location>

#
# Allow server status reports, with the URL of http://servername/server-status
```

```
# Change the ".your_domain.com" to match your domain to enable.

#<Location /server-status>
#    SetHandler server-status
#    Order deny,allow
#    Deny from all
#    Allow from .your_domain.com
#</Location>

#
# Allow remote server configuration reports, with the URL of
#  http://servername/server-info (requires that mod_info.c be loaded).
# Change the ".your_domain.com" to match your domain to enable.

#<Location /server-info>
#    SetHandler server-info
#    Order deny,allow
#    Deny from all
#    Allow from .your_domain.com
#</Location>

# Allow access to local system documentation from localhost.
# (Debian Policy assumes /usr/share/doc is "/doc/", at least from the localhost.)
#Alias /doc/ /usr/share/doc/

#<Location /doc>
#  order deny,allow
#  deny from all
#  allow from 127.0.0.0/255.0.0.0
#  Options Indexes FollowSymLinks
#</Location>

#
# There have been reports of people trying to abuse an old bug from pre-1.1
# days.  This bug involved a CGI script distributed as a part of Apache.
# By uncommenting these lines you can redirect these attacks to a logging
# script on phf.apache.org.  Or, you can record them yourself, using the script
# support/phf_abuse_log.cgi.

#<Location /cgi-bin/phf*>
#    Deny from all
#    ErrorDocument 403 http://phf.apache.org/phf_abuse_log.cgi
#</Location>

<IfModule mod_proxy.c>
    #
    # Proxy Server directives. Uncomment the following lines to
    # enable the proxy server:
    #
    #<IfModule mod_proxy.c>
    #ProxyRequests On
    #
    #<Directory proxy:*>
```

```
    #    Order deny,allow
    #    Deny from all
    #    Allow from .your_domain.com
    #</Directory>
</IfModule>

#
# Enable/disable the handling of HTTP/1.1 "Via:" headers.
# ("Full" adds the server version; "Block" removes all outgoing Via: headers)
# Set to one of: Off | On | Full | Block

#ProxyVia On

#
# To enable the cache as well, edit and uncomment the following lines:
# (no cacheing without CacheRoot)

#CacheRoot "/var/cache/apache"
#CacheSize 5
#CacheGcInterval 4
#CacheMaxExpire 24
#CacheLastModifiedFactor 0.1
#CacheDefaultExpire 1
#NoCache a_domain.com another_domain.edu joes.garage_sale.com

#</IfModule>
# End of proxy directives.

### Section 3: Virtual Hosts
#
# VirtualHost: If you want to maintain multiple domains/hostnames on your
# machine you can setup VirtualHost containers for them.
# Please see the documentation at <URL:http://www.apache.org/docs/vhosts/>
# for further details before you try to setup virtual hosts.
# You may use the command line option '-S' to verify your virtual host
# configuration.

#
# If you want to use name-based virtual hosts you need to define at
# least one IP address (and port number) for them.

#NameVirtualHost 12.34.56.78:80
NameVirtualHost 193.146.99.248:80

#
# VirtualHost example:
# Almost any Apache directive may go into a VirtualHost container.
#
<VirtualHost 193.146.99.248:80>
    ServerAdmin votobit@unileon.es
    DocumentRoot /var/www/votobit
    ServerName votobit.unileon.es
#    ErrorLog logs/host.some_domain.com-error.log
```

```
#    CustomLog logs/host.some_domain.com-access.log common
</VirtualHost>


<VirtualHost 193.146.99.248:80>
#    ServerAdmin votobit@unileon.es
    DocumentRoot /var/www
    ServerName cancerbero.unileon.es
#    ErrorLog logs/host.some_domain.com-error.log
#    CustomLog logs/host.some_domain.com-access.log common
</VirtualHost>

#<VirtualHost _default_:*>
#</VirtualHost>
```

Para una explicación detallada de todas las directivas, se ruega consultar el manual de Apache.

Prueba

Una vez esté todo configurado, pondremos en marcha el servidor mediante el comando:

```
# /etc/init.d/apache restart
```

A partir de este momento, podremos visualizar cualquier fichero que esté dentro del directorio /var/www desde cualquier navegador web poniendo como dirección en la barra de navegación

```
http://nombre.del.servidor/
```

> **Importante:** Si se hace alguna modificación al fichero de configuración, se deberá arrancar de nuevo el servidor para que lea la nueva configuración.

Más información

Debido a las múltiples opciones que soporta Apache, se recomienda leer la extensa documentación que acompaña al servidor. Esta documentación se encuentra en el directorio /usr/share/doc/apache

Otra fuente de información puede ser la página web oficial, en la que siempre se encuentra la última versión disponible de la documentación: http://httpd.apache.org (http://httpd.apache.org/). En ella se explican todas y cada una de las directivas que posee, junto con ejemplos variados de aplicación.

Sobre este documento

Este documento ha sido escrito en formato XML utilizando la DTD de DocBook (http://www.docbook.org). Mediante este sistema, puede ser fácilmente transformado a múltiples formatos (HTML, TXT, PDF, PostScript, LaTeX, DVI, ...). Se recomienda su utilización como herramienta de documentación potente y libre.