

Install JAVA + APACHE + MODJK

by
M.B.G.Suranga De Silva

(suranga@ceylonlinux.com)



1. go to Sun's Java download site and download J2SE for Linux:
<http://java.sun.com/j2se/1.4.2/download.html>. I prefer the SDK version, and I prefer the non-RPM version. From here on out, I will assume that you've got the SDK version, and aren't using any RPMs. The file you will have will be called **j2sdk-1_4_2_01-linux-i586.bin**.
2. Install the J2SDK. I copied the .bin file from the previous step to **/usr/local/**, then ran it:

```
cp -p j2sdk-1_4_2_01-linux-i586.bin /usr/local/  
./j2sdk-1_4_2_01-linux-i586.bin
```

This leaves **/usr/local/j2sdk-1_4_2_01**.

3. Set **JAVA_HOME** as an environment variable, pointing to the location of the J2SDK you just installed, in this case **/usr/local/j2sdk-1_4_2_01**. If you want this environment variable to be available to every user system-wide, then put the following two lines into **/etc/profile**:

```
JAVA_HOME=/usr/local/j2sdk-1_4_2_01  
export JAVA_HOME
```

4. Verify that **JAVA_HOME** is set:

```
echo $JAVA_HOME
```

You should see the value **/usr/local/j2sdk-1_4_2_01** returned. If you don't, go back through the steps until **JAVA_HOME** resolves to the correct value.

SETTING UP THE JAVA CLASSPATH

```
[root@ns1 root]# more ~/.bash_profile
```

```
# .bash_profile

# Get the aliases and functions
if [ -f ~/.bashrc ]; then
    . ~/.bashrc
fi

# User specific environment and startup programs

PATH=$PATH:$HOME/bin
BASH_ENV=$HOME/.bashrc
USERNAME="root"

export USERNAME BASH_ENV PATH

PATH=$PATH:/usr/local/java/j2sdk1.4.1_06/bin
export PATH

export LD_LIBRARY_PATH=$CATALINA_HOME/common/lib
```

Build/Install Apache HTTP

1. Download the Apache source code from a mirror. You want version 2.0.47. The filename is [httpd-2.0.47.tar.gz](#).
2. Unpack the distribution. I like to put it in **/usr/local/src/**.

```
cp -p httpd-2.0.47.tar.gz /usr/local/src/
cd /usr/local/src
tar xvzf httpd-2.0.47.tar.gz
```

This will leave you with **/usr/local/src/httpd-2.0.47**.

3. Read **/usr/local/src/httpd-2.0.47/INSTALL** for installation detail.
4. I'm going to put Apache 2.0.47 in **/usr/local/apache**. We'll want SSL support (included in Apache 2.0), as well as DSO support. So, in **/usr/local/src/httpd-2.0.47**, setup the Apache build:

```
cd /usr/local/src/httpd-2.0.47
./configure --prefix=/usr/local/apache --enable-ssl --enable-so
```

5. When configure completes, compile Apache and install it:

```
make
make install
```

6. You should now have an Apache instance in **/usr/local/apache**. Verify config:

```
/usr/local/apache/bin/apachectl configtest
```

7. If you get a **Syntax OK** message, startup Apache:

```
/usr/local/apache/bin/apachectl start
```

8. Verify Apache is running with **http://localhost**. You should see the Apache welcome page. If you're installing Apache remotely, you should be able to check **http://IP_ADDRESS** where **IP_ADDRESS** is the address of the machine where Apache is installed.
9. Shutdown Apache until you can get the connector installed:

```
/usr/local/apache/bin/apachectl stop
```

Build/Install Tomcat

It's generally a bad idea to run Tomcat (or any web service) as **root**. If you don't care about that, you can skip the next few steps. I happen to prefer running web services under non-root user accounts, so I like to setup a user named **tomcat** before installing/running Tomcat.

1. At a command prompt:

```
groupadd tomcat
useradd -g tomcat -c "Tomcat User" -d /usr/local/tomcat tomcat
passwd tomcat
```

This adds a group called **tomcat** to your system, a user called **tomcat** to your system, and changes the password for the **tomcat user** (set the password to whatever you like...make it good!). It also sets the home directory for the **tomcat user** to **/usr/local/tomcat** (more on that later).

2. Now, grab the Tomcat binary package for 4.1.27 from a mirror site. The filename is [tomcat-4.1.27.tar.gz](#)
3. Unpack it to **/usr/local**:

```
cp -p tomcat-4.1.27.tar.gz /usr/local/
cd /usr/local
tar xvzf tomcat-4.1.27.tar.gz
```

You should end up with **/usr/local/jakarta-tomcat-4.1.27**.

4. Add a symbolic link for easy management:

```
ln -s /usr/local/jakarta-tomcat-4.1.27 /usr/local/tomcat
```

This way, you can install various versions of Tomcat and control which version is linked to **/usr/local/tomcat**. This makes upgrades easier.

5. Next, set the ownership of the Tomcat directories:

```
chown tomcat:tomcat /usr/local/tomcat
chown -R tomcat:tomcat /usr/local/jakarta-tomcat-4.1.27
```

6. Set **CATALINA_HOME** as an environment variable, pointing to **/usr/local/tomcat**. If you want this environment variable to be available to every user system-wide, then put the following two lines into **/etc/profile**:

```
CATALINA_HOME=/usr/local/tomcat
export CATALINA_HOME
```

7. Verify that **CATALINA_HOME** is set:

```
echo $CATALINA_HOME
```

You should see the value **/usr/local/tomcat** returned. If you don't, go back through the steps until **CATALINA_HOME** resolves to the correct value.

8. Startup Tomcat to test your installation:

```
su - tomcat -c /usr/local/tomcat/bin/startup.sh
```

Verify the Tomcat examples are available at **http://localhost:8080/examples**. If you're installing Tomcat remotely, you should be able to check **http://IP_ADDRESS:8080/examples** where **IP_ADDRESS** is the address of the machine where Tomcat is installed.

9. Shutdown Tomcat until you can get the connector installed:

```
su - tomcat -c /usr/local/tomcat/bin/shutdown.sh
```

Build/Install Connector

The two connectors (JK and JK2) are different; JK2 is a complete rewrite of the earlier JK/AJP13 protocol. We'll cover building JK here. For JK2, check out my [JK2 HOWTO](#).

1. Download the [connector source](#) in **tar.gz** format from the Jakarta site. The file will be called **jakarta-tomcat-connectors-jk-1.2-src-current.tar.gz**:
2. Unpack it to **/usr/local/src**:

```
cd /usr/local/src
tar xvzf jakarta-tomcat-connectors-jk-1.2-src-current.tar.gz
```

This will leave you with **/usr/local/src/jakarta-tomcat-connectors-jk-1.2.5-src**.

3. From this point on, **CONNECTOR_HOME = /usr/local/src/jakarta-tomcat-connectors-jk-1.2.5-src**
4. Change to the **native** directory, run the **configure** script, and build the connector:

```
cd CONNECTOR_HOME/jk/native
./buildconf.sh
./configure --with-apxs=/usr/local/apache/bin/apxs
make
make install
```

This will compile **mod_jk.so** and copy it to **/usr/local/apache/modules**. If **mod_jk.so** isn't in the Apache modules directory, look in **CONNECTOR_HOME/jk/native/apache-2.0** or use the **find** command to find it:

```
find / -name mod_jk.so -print
```

If you find it someplace other than **/usr/local/apache/modules** (you shouldn't if you've followed the commands as shown), copy it to **/usr/local/apache/modules**. Make sure the permissions are 755.

Final Configuration

NOTE: these steps will allow access to the Tomcat examples via Apache on port 80. Successful use of the examples on port 80 shows that mod_jk is working correctly, since Tomcat is configured to run on port 8080 by default for HTTP requests.

1. You're going to be making edits to a file called **server.xml** in Tomcat's **conf** directory. This file is vital to Tomcat operation, so it is a good idea to make a copy before it gets modified:

```
cd $CATALINA_HOME/conf
cp -p server.xml server.xml.ORIG
```

Now you've got a safe copy of server.xml as **server.xml.ORIG**. Worst case, you can copy it back and start over if something gets messed up.

2. Now, let's edit **server.xml** in **CATALINA_HOME/conf**:

```
cd $CATALINA_HOME/conf
vi server.xml
```

3. Look for a line that says "Server" and has a port of 8005. Add the following directly below: **REFER MY server.xml below**

```
<Listener className="org.apache.jsp.tomcat4.config.apacheConfig"
modJk="/usr/local/apache/modules/mod_jk.so" />
```

4. In the Host container add the following Listener directive (yes, it looks very similar to the one above):

```
<Listener className="org.apache.jsp.tomcat4.config.apacheConfig"
append="true" forwardAll="false"
modJk="/usr/local/apache/modules/mod_jk.so" />
```

Save your changes and exit the editor.

HERE IS MY server.xml

[root@ns1 conf]# more server.xml

```
<Server port="8005" shutdown="SHUTDOWN" debug="0">
  <Listener className="org.apache.jsp.tomcat4.config.apacheConfig" modJk="
/usr/local/apache/modules/mod_jk.so" />
  <Listener className="org.apache.catalina.mbeans.ServerLifecycleListener"
debug="0"/>
  <Listener className="org.apache.catalina.mbeans.GlobalResourcesLifecycle
Listener" debug="0"/>
```

```

<!-- Global JNDI resources -->
<GlobalNamingResources>
    <!-- Test entry for demonstration purposes -->
    <Environment name="simpleValue" type="java.lang.Integer" value="
30"/>
    <!--
    Editable user database that can also be used by UserDatabaseReal
m to authenticate users
    -->
    <Resource name="UserDatabase" auth="Container"
        type="org.apache.catalina.UserDatabase"
        description="User database that can be u
pdated and saved">
        </Resource>
<ResourceParams name="UserDatabase">
    <parameter>
        <name>factory</name>
        <value>org.apache.catalina.users.MemoryUserDatab
aseFactory</value>
    </parameter>
    <parameter>
        <name>pathname</name>
        <value>conf/tomcat-users.xml</value>
    </parameter>
</ResourceParams>
</GlobalNamingResources>
<!-- /Global JNDI resources -->

<!-- Define the Tomcat Stand-Alone Service -->
<Service name="Tomcat-Standalone">

<!-- Define a non-SSL Coyote HTTP/1.1 Connector on port 8080 -->
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector"
    port="8080" minProcessors="5" maxProcessors="75"
    enableLookups="true" redirectPort="8443"

```

```

        acceptCount="100" debug="0" connectionTimeout="20000"
useURIVValidationHack="false" disableUploadTimeout="true" />
    <!-- Note : To disable connection timeouts, set connectionTimeout value to 0
-->

    <!-- Define a Coyote/JK2 AJP 1.3 Connector on port 8009 -->
    <Connector className="org.apache.coyote.tomcat4.CoyoteConnector"
        port="8009" minProcessors="5" maxProcessors="75"
        enableLookups="true" redirectPort="8443"
        acceptCount="10" debug="0" connectionTimeout="0"
        useURIVValidationHack="false"
        protocolHandlerClassName="org.apache.jk.server.JkCoyoteHandler"/>

    <!-- Define the top level container in our container hierarchy -->
    <Engine name="Standalone" defaultHost="localhost" debug="0">

        <!-- Global logger unless overridden at lower levels -->
        <Logger className="org.apache.catalina.logger.FileLogger" prefix="catalina_
og." suffix=".txt" timestamp="true"/>
        <Realm className="org.apache.catalina.realm.UserDatabaseRealm" debug="0" res
ourceName="UserDatabase"/>
    <!-- JANASHAKTHI HOST -->
        <Host name="www.janashakthi.com" debug="1" appBase="/var/www/jan
ashakthi" unpackWARs="true" autoDeploy="true">

            <Listener className="org.apache.ajp.tomcat4.config.Apach
eConfig" append="true" forwardAll="false" modJk="/usr/local/apache/modules/mod_j
k.so" />

            <Logger className="org.apache.catalina.logger.FileLogger
" directory="logs" prefix="janashakthi_log." suffix=".txt" timestamp="true"
/>

            <!-- JANASHAKTHI CONTEXT -->
            <Context path="" docBase="/var/www/janashakthi" debug="0
" reloadable="true" crossContext="true">

                <Environment name="maxExemptions" type="java.lan

```

```

g.Integer" value="15"/>
        <Parameter name="context.param.name" val
ue="context.param.value" override="false"/>
        <Resource name="mail/Session" auth="Con
tainer" type="javax.mail.Session"/>
<ResourceParams name="mail/Session">
        <parameter>
                <name>mail.smtp.host</na
me>
                <value>localhost</value>

        </parameter>
</ResourceParams>
<ResourceLink name="linkToGlobalResource
" global="simpleValue" type="java.lang.Integer"/>
        </Context>
        <!-- /JANASHAKTHI CONTEXT -->
        </Host>
        <!-- /JANASHAKTHI HOST -->
</Engine>
</Service>
</Server>

```

- Now, we need to make a small edit to Apache's **httpd.conf**. Edit **httpd.conf** in **APACHE_HOME/conf**. Don't worry about making a copy, the Apache team put one there for you already (it's called **httpd-std.conf**): **REFER MY httpd.conf below**

```

cd /usr/local/apache/conf
vi httpd.conf

```

Add a single line at the end of the file:

```

Include /usr/local/tomcat/conf/auto/mod_jk.conf

```

Note: the `mod_jk.conf` file gets created by Tomcat when Tomcat starts. It gets created every time Tomcat starts. So, if you have your `server.xml` configured, you can ignore `httpd.conf` (in most cases) except to add the `Include` directive for `mod_jk.conf`. You don't need to create or edit `mod_jk.conf`, Tomcat will do this for you. A sample `mod_jk.conf` file generated automatically by Tomcat on each startup.

6. Create a file in **CATALINA_HOME/conf/jk** called **workers.properties**:

```
cd $CATALINA_HOME/conf
mkdir jk
chown tomcat:tomcat jk
cd jk
vi workers.properties
```

In that file, put the following lines:

```
worker.list=ajp13
worker.ajp13.port=8009
worker.ajp13.host=localhost
worker.ajp13.type=ajp13
```

Save the file. **chown** the file:

```
chown tomcat:tomcat workers.properties
```

This file provides necessary information to mod_jk, like where to find Tomcat and what port to use when connecting.

BUT I PUT **workers.properties** in **/usr/local/apache/conf** and here is my **workers.properties**

```
////////////////////contents of workers.properties/////
```

```
workers.tomcat_home=/usr/local/tomcat/jakarta-tomcat
```

```
workers.java_home=$JAVA_HOME
```

```
ps=/
```

```
worker.list=default
```

```
worker.default.port=8009
```

```
worker.default.host=localhost
```

```
worker.default.type=ajp13
```

```
worker.default.lbfactor=1
```

```
////////////////////////////////////
```

7. Start Tomcat:

```
su - tomcat -c /usr/local/tomcat/bin/startup.sh
```

Wait at least 30 seconds for tomcat to complete the startup process. Verify that you have a file called **usr/local/tomcat/conf/auto/mod_jk.conf** and that the timestamp on that file is recent before going to the next step.

8. Start apache:

```
/usr/local/apache/bin/apachectl start
```

9. Verify examples at <http://localhost:8080/examples>. On success, Tomcat is working correctly.
10. Verify examples at <http://localhost/examples>. On success, Apache is working correctly, and JSP and servlet requests are being passed to Tomcat.

Please send comments, suggestions, or changes to john AT johnturner DOT com. Be advised that I will be happy to help where I can, but I am not available for free one-on-one tech support to the whole world. :)

HERE is my httpd.conf

```
#
# 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://httpd.apache.org/docs-2.0/> 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.
#
# 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.
#

#
# 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://httpd.apache.org/docs-
2.0/mod/mpm_common.html#lockfile>);
# you will save yourself a lot of trouble.
#
# Do NOT add a slash at the end of the directory path.
#
ServerRoot "/usr/local/apache"

#
# The accept serialization lock file MUST BE STORED ON A LOCAL DISK.
#
<IfModule !mpm_winnt.c>
<IfModule !mpm_netware.c>
#LockFile logs/accept.lock
</IfModule>
</IfModule>

#
# ScoreBoardFile: File used to store internal server process
information.
# If unspecified (the default), the scoreboard will be stored in an
# anonymous shared memory segment, and will be unavailable to third-
party
# applications.
# If specified, ensure that no two invocations of Apache share the same
# scoreboard file. The scoreboard file MUST BE STORED ON A LOCAL DISK.
#
<IfModule !mpm_netware.c>
<IfModule !perchild.c>
#ScoreBoardFile logs/apache_runtime_status
</IfModule>
</IfModule>

#
# PidFile: The file in which the server should record its process
# identification number when it starts.
#
<IfModule !mpm_netware.c>
```

```
PidFile logs/httpd.pid
</IfModule>

#
# 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 (MPM specific)
##

# prefork MPM
# StartServers: number of server processes to start
# MinSpareServers: minimum number of server processes which are kept
# spare
# MaxSpareServers: maximum number of server processes which are kept
# spare
# MaxClients: maximum number of server processes allowed to start
# MaxRequestsPerChild: maximum number of requests a server process
# serves
<IfModule prefork.c>
StartServers      5
MinSpareServers   5
MaxSpareServers   10
MaxClients        150
MaxRequestsPerChild  0
</IfModule>

# worker MPM
# StartServers: initial number of server processes to start
# MaxClients: maximum number of simultaneous client connections
# MinSpareThreads: minimum number of worker threads which are kept
# spare
# MaxSpareThreads: maximum number of worker threads which are kept
# spare
```

```
# ThreadsPerChild: constant number of worker threads in each server
process
# MaxRequestsPerChild: maximum number of requests a server process
serves
<IfModule worker.c>
StartServers      2
MaxClients        150
MinSpareThreads   25
MaxSpareThreads   75
ThreadsPerChild   25
MaxRequestsPerChild 0
</IfModule>

# perchild MPM
# NumServers: constant number of server processes
# StartThreads: initial number of worker threads in each server process
# MinSpareThreads: minimum number of worker threads which are kept
spare
# MaxSpareThreads: maximum number of worker threads which are kept
spare
# MaxThreadsPerChild: maximum number of worker threads in each server
process
# MaxRequestsPerChild: maximum number of connections per server process
<IfModule perchild.c>
NumServers        5
StartThreads      5
MinSpareThreads   5
MaxSpareThreads   10
MaxThreadsPerChild 20
MaxRequestsPerChild 0
</IfModule>

# WinNT MPM
# ThreadsPerChild: constant number of worker threads in the server
process
# MaxRequestsPerChild: maximum number of requests a server process
serves
<IfModule mpm_winnt.c>
ThreadsPerChild 250
MaxRequestsPerChild 0
</IfModule>

# BeOS MPM
# StartThreads: how many threads do we initially spawn?
# MaxClients: max number of threads we can have (1 thread == 1
client)
# MaxRequestsPerThread: maximum number of requests each thread will
process
<IfModule beos.c>
StartThreads      10
MaxClients        50
MaxRequestsPerThread 10000
</IfModule>

# NetWare MPM
# ThreadStackSize: Stack size allocated for each worker thread
# StartThreads: Number of worker threads launched at server startup
```

```

# MinSpareThreads: Minimum number of idle threads, to handle request
spikes
# MaxSpareThreads: Maximum number of idle threads
# MaxThreads: Maximum number of worker threads alive at the same time
# MaxRequestsPerChild: Maximum number of requests a thread serves. It
is
#           recommended that the default value of 0 be set
for this
#           directive on NetWare. This will allow the
thread to
#           continue to service requests indefinitely.
<IfModule mpm_netware.c>
ThreadStackSize      65536
StartThreads        250
MinSpareThreads     25
MaxSpareThreads     250
MaxThreads          1000
MaxRequestsPerChild 0
MaxMemFree          100
</IfModule>

# OS/2 MPM
# StartServers: Number of server processes to maintain
# MinSpareThreads: Minimum number of idle threads per process,
#           to handle request spikes
# MaxSpareThreads: Maximum number of idle threads per process
# MaxRequestsPerChild: Maximum number of connections per server process
<IfModule mpmt_os2.c>
StartServers        2
MinSpareThreads     5
MaxSpareThreads     10
MaxRequestsPerChild 0
</IfModule>

#
# Listen: Allows you to bind Apache to specific IP addresses and/or
# ports, instead of the default. See also the <VirtualHost>
# directive.
#
# Change this to Listen on specific IP addresses as shown below to
# prevent Apache from glomming onto all bound IP addresses (0.0.0.0)
#
#Listen 12.34.56.78:80

Listen 80

#THIS PART IS ADDED BY SURANGA 14-03-2005

#
# Mod_jk settings
#

    JkWorkersFile "conf/workers.properties"
    JkLogFile "logs/mod_jk.log"

    JkLogLevel error

```

```

    JkMount / default
    JkMount /* default
    JkMount /examples default

# End of mod_jk settings

#END SURANGA

#
# 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.
# Statically compiled modules (those listed by `httpd -l') do not need
# to be loaded here.
#
# Example:
# LoadModule foo_module modules/mod_foo.so
#

####THIS PART IS ADDED BY SURANGA 14-03-2005

LoadModule php4_module      modules/libphp4.so
LoadModule jk_module modules/mod_jk.so

#END SURANGA

#
# 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.
#

<IfModule !mpm_winnt.c>
<IfModule !mpm_netware.c>
#
# If you wish httpd to run as a different user or group, you must run

```

```
# httpd as root initially and it will switch.
#
# User/Group: The name (or #number) of the user/group to run httpd 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 #-1 on these systems!
#
User nobody
Group #-1
</IfModule>
</IfModule>

#
# ServerAdmin: Your address, where problems with the server should be
# e-mailed. This address appears on some server-generated pages, such
# as error documents. e.g. admin@your-domain.com
#
ServerAdmin you@example.com

#
# ServerName gives the name and port that the server uses to identify
itself.
# This can often be determined automatically, but we recommend you
specify
# it explicitly to prevent problems during startup.
#
# If this is not set to valid DNS name for your host, server-generated
# redirections will not work. See also the UseCanonicalName directive.
#
# If your host doesn't have a registered DNS name, enter its IP address
here.
# You will have to access it by its address anyway, and this will make
# redirections work in a sensible way.
#
#ServerName www.example.com:80

#
# UseCanonicalName: Determines how Apache constructs self-referencing
# URLs and the SERVER_NAME and SERVER_PORT variables.
# When set "Off", Apache will use the Hostname and Port supplied
# by the client. When set "On", Apache will use the value of the
# ServerName directive.
#
UseCanonicalName Off

#
# 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 "/usr/local/apache/htdocs"
```

```
#
# 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
# features.
#
<Directory />
    Options FollowSymLinks
    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 "/usr/local/apache/htdocs">

#
# Possible values for the Options directive are "None", "All",
# or any combination of:
#   Indexes Includes FollowSymLinks SymLinksifOwnerMatch ExecCGI
MultiViews
#
# Note that "MultiViews" must be named *explicitly* --- "Options All"
# doesn't give it to you.
#
# The Options directive is both complicated and important. Please see
# http://httpd.apache.org/docs-2.0/mod/core.html#options
# for more information.
#
    Options Indexes FollowSymLinks

#
# AllowOverride controls what directives may be placed in .htaccess
# files.
# It can be "All", "None", or any combination of the keywords:
#   Options FileInfo AuthConfig Limit
#
    AllowOverride None

#
# Controls who can get stuff from this server.
#
    Order allow,deny
    Allow from all

</Directory>
```

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

#
# 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 Indexes
#   Options MultiViews Indexes SymLinksIfOwnerMatch IncludesNoExec
#   <Limit GET POST OPTIONS PROPFIND>
#       Order allow,deny
#       Allow from all
#   </Limit>
#   <LimitExcept GET POST OPTIONS PROPFIND>
#       Order deny,allow
#       Deny from all
#   </LimitExcept>
#</Directory>

#
# DirectoryIndex: sets the file that Apache will serve if a directory
# is requested.
#
# The index.html.var file (a type-map) is used to deliver content-
# negotiated documents.  The MultiViews Option can be used for the
# same purpose, but it is much slower.
#
DirectoryIndex index.html index.html.var default.htm default.html
index.php default.php

#
# AccessFileName: The name of the file to look for in each directory
# for additional configuration directives.  See also the AllowOverride
# directive.
#
AccessFileName .htaccess

#
# The following lines prevent .htaccess and .htpasswd files from being
# viewed by Web clients.
#
<Files ~ "\.ht">
    Order allow,deny
    Deny from all
</Files>

#
# TypesConfig describes where the mime.types file (or equivalent) is
# to be found.
#
TypesConfig conf/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.
#
<IfModule mod_mime_magic.c>
    MIMEMagicFile conf/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

#
# EnableMMAP: Control whether memory-mapping is used to deliver
# files (assuming that the underlying OS supports it).
# The default is on; turn this off if you serve from NFS-mounted
# filesystems.  On some systems, turning it off (regardless of
# filesystem) can improve performance; for details, please see
# http://httpd.apache.org/docs-2.0/mod/core.html#enablemmap
#
#EnableMMAP off

#
# EnableSendfile: Control whether the sendfile kernel support is
# used to deliver files (assuming that the OS supports it).
# The default is on; turn this off if you serve from NFS-mounted
# filesystems.  Please see
# http://httpd.apache.org/docs-2.0/mod/core.html#enablesendfile
#
#EnableSendfile 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 logs/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\"" combined
LogFormat "%h %l %u %t \"%r\" %>s %b" common
LogFormat "%{Referer}i -> %U" referer
LogFormat "%{User-agent}i" agent

# You need to enable mod_logio.c to use %I and %O
#LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-
Agent}i\" %I %O" combinedio

#
# 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 logs/access_log common

#
# If you would like to have agent and referer logfiles, uncomment the
# following directives.
#
#CustomLog logs/referer_log referer
#CustomLog logs/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 logs/access_log combined

#
# ServerTokens
# This directive configures what you return as the Server HTTP response
# Header. The default is 'Full' which sends information about the OS-
# Type

```

```
# and compiled in modules.
# Set to one of: Full | OS | Minor | Minimal | Major | Prod
# where Full conveys the most information, and Prod the least.
#
ServerTokens Full

#
# Optionally add a line containing the server version and virtual host
# name to server-generated pages (internal error documents, FTP
directory
# listings, mod_status and mod_info output etc., but not CGI generated
# documents or custom error 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/". If the fakename is slash-terminated, then
the
# realname must also be slash terminated, and if the fakename omits the
# trailing slash, the realname must also omit it.
#
# We include the /icons/ alias for FancyIndexed directory listings. If
you
# do not use FancyIndexing, you may comment this out.
#
Alias /icons/ "/usr/local/apache/icons/"

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

#
# This should be changed to the ServerRoot/manual/. The alias provides
# the manual, even if you choose to move your DocumentRoot. You may
comment
# this out if you do not care for the documentation.
#
AliasMatch ^/manual(?:/(?:de|en|es|fr|ja|ko|ru))?(/.*)?$
"/usr/local/apache/manual$1"

<Directory "/usr/local/apache/manual">
    Options Indexes
    AllowOverride None
    Order allow,deny
```

```

Allow from all

<Files *.html>
    SetHandler type-map
</Files>

    SetEnvIf Request_URI ^/manual/(de|en|es|fr|ja|ko|ru)/ prefer-
language=$1
    RedirectMatch 301 ^/manual(?:/(de|en|es|fr|ja|ko|ru)){2,}(/.*)?$
/manual/$1$2
</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/local/apache/cgi-bin/"

<IfModule mod_cgid.c>
#
# Additional to mod_cgid.c settings, mod_cgid has Scriptsock <path>
# for setting UNIX socket for communicating with cgid.
#
#Scriptsock          logs/cgisock
</IfModule>

#
# "/usr/local/apache/cgi-bin" should be changed to whatever your
# ScriptAliased
# CGI directory exists, if you have that configured.
#
<Directory "/usr/local/apache/cgi-bin">
    AllowOverride None
    Options None
    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.
# Example:
# Redirect permanent /foo http://www.example.com/bar

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

```

```
#
# IndexOptions: Controls the appearance of server-generated directory
# listings.
#
IndexOptions FancyIndexing VersionSort

#
# 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 is 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 is the name of the README file the server will look for by
# default, and append to directory listings.
#
# HeaderName is the name of a file which should be prepended to
# directory indexes.
ReadmeName README.html
HeaderName HEADER.html

#
# IndexIgnore is 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

#
# DefaultLanguage and 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 the user can understand.
#
# Specify a default language. This means that all data
# going out without a specific language tag (see below) will
# be marked with this one. You probably do NOT want to set
# this unless you are sure it is correct for all cases.
#
# * It is generally better to not mark a page as
# * being a certain language than marking it with the wrong
# * language!
#
# DefaultLanguage nl
#
# 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 some cases
# the two character 'Language' abbreviation 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. There is 'work in progress' to fix this and get
# the reference data for rfc1766 cleaned up.
#
# Catalan (ca) - Croatian (hr) - Czech (cs) - Danish (da) - Dutch (nl)
# English (en) - Esperanto (eo) - Estonian (et) - French (fr) - German
(de)
# Greek-Modern (el) - Hebrew (he) - Italian (it) - Japanese (ja)
# Korean (ko) - Luxembourgish* (ltz) - Norwegian Nynorsk (nn)
# Norwegian (no) - Polish (pl) - Portugese (pt)
# Brazilian Portuguese (pt-BR) - Russian (ru) - Swedish (sv)
# Simplified Chinese (zh-CN) - Spanish (es) - Traditional Chinese (zh-
TW)
```

```
#
AddLanguage ca .ca
AddLanguage cs .cz .cs
AddLanguage da .dk
AddLanguage de .de
AddLanguage el .el
AddLanguage en .en
AddLanguage eo .eo
AddLanguage es .es
AddLanguage et .et
AddLanguage fr .fr
AddLanguage he .he
AddLanguage hr .hr
AddLanguage it .it
AddLanguage ja .ja
AddLanguage ko .ko
AddLanguage ltz .ltz
AddLanguage nl .nl
AddLanguage nn .nn
AddLanguage no .no
AddLanguage pl .po
AddLanguage pt .pt
AddLanguage pt-BR .pt-br
AddLanguage ru .ru
AddLanguage sv .sv
AddLanguage zh-CN .zh-cn
AddLanguage zh-TW .zh-tw

#
# 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.
#
LanguagePriority en ca cs da de el eo es et fr he hr it ja ko ltz nl nn
no pl pt pt-BR ru sv zh-CN zh-TW

#
# ForceLanguagePriority allows you to serve a result page rather than
# MULTIPLE CHOICES (Prefer) [in case of a tie] or NOT ACCEPTABLE
# (Fallback)
# [in case no accepted languages matched the available variants]
#
ForceLanguagePriority Prefer Fallback

#
# Commonly used filename extensions to character sets. You probably
# want to avoid clashes with the language extensions, unless you
# are good at carefully testing your setup after each change.
# See http://www.iana.org/assignments/character-sets for the
# official list of charset names and their respective RFCs.
#
AddCharset ISO-8859-1 .iso8859-1 .latin1
AddCharset ISO-8859-2 .iso8859-2 .latin2 .cen
AddCharset ISO-8859-3 .iso8859-3 .latin3
```

```

AddCharset ISO-8859-4 .iso8859-4 .latin4
AddCharset ISO-8859-5 .iso8859-5 .latin5 .cyr .iso-ru
AddCharset ISO-8859-6 .iso8859-6 .latin6 .arb
AddCharset ISO-8859-7 .iso8859-7 .latin7 .grk
AddCharset ISO-8859-8 .iso8859-8 .latin8 .heb
AddCharset ISO-8859-9 .iso8859-9 .latin9 .trk
AddCharset ISO-2022-JP .iso2022-jp .jis
AddCharset ISO-2022-KR .iso2022-kr .kis
AddCharset ISO-2022-CN .iso2022-cn .cis
AddCharset Big5 .Big5 .big5
# For russian, more than one charset is used (depends on client,
mostly):
AddCharset WINDOWS-1251 .cp-1251 .win-1251
AddCharset CP866 .cp866
AddCharset KOI8-r .koi8-r .koi8-ru
AddCharset KOI8-ru .koi8-uk .ua
AddCharset ISO-10646-UCS-2 .ucs2
AddCharset ISO-10646-UCS-4 .ucs4
AddCharset UTF-8 .utf8

# The set below does not map to a specific (iso) standard
# but works on a fairly wide range of browsers. Note that
# capitalization actually matters (it should not, but it
# does for some browsers).
#
# See http://www.iana.org/assignments/character-sets
# for a list of sorts. But browsers support few.
#
AddCharset GB2312 .gb2312 .gb
AddCharset utf-7 .utf7
AddCharset utf-8 .utf8
AddCharset big5 .big5 .b5
AddCharset EUC-TW .euc-tw
AddCharset EUC-JP .euc-jp
AddCharset EUC-KR .euc-kr
AddCharset shift_jis .sjis

#
# AddType allows you to add to or override the MIME configuration
# file mime.types for specific file types.
#
#AddType application/x-tar .tgz
#
# AddEncoding allows you to have certain browsers 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
#
# If the AddEncoding directives above are commented-out, then you
# probably should define those extensions to indicate media types:
#
AddType application/x-compress .Z
AddType application/x-gzip .gz .tgz

```

```
#
# 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 directive (see below)
#
# To use CGI scripts outside of ScriptAliased directories:
# (You will also need to add "ExecCGI" to the "Options" directive.)
#
#AddHandler cgi-script .cgi

#
# For files that include their own HTTP headers:
#
#AddHandler send-as-is asis

#
# For server-parsed imagemap files:
#
#AddHandler imap-file map

#
# For type maps (negotiated resources):
# (This is enabled by default to allow the Apache "It Worked" page
# to be distributed in multiple languages.)
#
AddHandler type-map var

#
# Filters allow you to process content before it is sent to the client.
#
# To parse .shtml files for server-side includes (SSI):
# (You will also need to add "Includes" to the "Options" directive.)
#
#AddType text/html .shtml
#AddOutputFilter INCLUDES .shtml

#
# 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
#

#
# Customizable error responses come in three flavors:
# 1) plain text 2) local redirects 3) external redirects
#
# Some examples:
#ErrorDocument 500 "The server made a boo boo."
#ErrorDocument 404 /missing.html
#ErrorDocument 404 "/cgi-bin/missing_handler.pl"
#ErrorDocument 402 http://www.example.com/subscription_info.html
#
```

```
#
# Putting this all together, we can internationalize error responses.
#
# We use Alias to redirect any /error/HTTP_<error>.html.var response to
# our collection of by-error message multi-language collections. We
use
# includes to substitute the appropriate text.
#
# You can modify the messages' appearance without changing any of the
# default HTTP_<error>.html.var files by adding the line:
#
#   Alias /error/include/ "/your/include/path/"
#
# which allows you to create your own set of files by starting with the
# /usr/local/apache/error/include/ files and copying them to
/your/include/path/,
# even on a per-VirtualHost basis. The default include files will
display
# your Apache version number and your ServerAdmin email address
regardless
# of the setting of ServerSignature.
#
# The internationalized error documents require mod_alias, mod_include
# and mod_negotiation. To activate them, uncomment the following 30
lines.

#   Alias /error/ "/usr/local/apache/error/"
#
#   <Directory "/usr/local/apache/error">
#       AllowOverride None
#       Options IncludesNoExec
#       AddOutputFilter Includes html
#       AddHandler type-map var
#       Order allow,deny
#       Allow from all
#       LanguagePriority en cs de es fr it ja ko nl pl pt-br ro sv tr
#       ForceLanguagePriority Prefer Fallback
#   </Directory>
#
#   ErrorDocument 400 /error/HTTP_BAD_REQUEST.html.var
#   ErrorDocument 401 /error/HTTP_UNAUTHORIZED.html.var
#   ErrorDocument 403 /error/HTTP_FORBIDDEN.html.var
#   ErrorDocument 404 /error/HTTP_NOT_FOUND.html.var
#   ErrorDocument 405 /error/HTTP_METHOD_NOT_ALLOWED.html.var
#   ErrorDocument 408 /error/HTTP_REQUEST_TIME_OUT.html.var
#   ErrorDocument 410 /error/HTTP_GONE.html.var
#   ErrorDocument 411 /error/HTTP_LENGTH_REQUIRED.html.var
#   ErrorDocument 412 /error/HTTP_PRECONDITION_FAILED.html.var
#   ErrorDocument 413 /error/HTTP_REQUEST_ENTITY_TOO_LARGE.html.var
#   ErrorDocument 414 /error/HTTP_REQUEST_URI_TOO_LARGE.html.var
#   ErrorDocument 415 /error/HTTP_UNSUPPORTED_MEDIA_TYPE.html.var
#   ErrorDocument 500 /error/HTTP_INTERNAL_SERVER_ERROR.html.var
#   ErrorDocument 501 /error/HTTP_NOT_IMPLEMENTED.html.var
#   ErrorDocument 502 /error/HTTP_BAD_GATEWAY.html.var
#   ErrorDocument 503 /error/HTTP_SERVICE_UNAVAILABLE.html.var
#   ErrorDocument 506 /error/HTTP_VARIANT_ALSO_VARIES.html.var
```

```
#
# The following directives modify normal HTTP response behavior to
# handle known problems with browser implementations.
#
BrowserMatch "Mozilla/2" nokeepalive
BrowserMatch "MSIE 4\.0b2;" nokeepalive downgrade-1.0 force-response-
1.0
BrowserMatch "RealPlayer 4\.0" force-response-1.0
BrowserMatch "Java/1\.0" force-response-1.0
BrowserMatch "JDK/1\.0" force-response-1.0

#
# The following directive disables redirects on non-GET requests for
# a directory that does not include the trailing slash.  This fixes a
# problem with Microsoft WebFolders which does not appropriately handle
# redirects for folders with DAV methods.
# Same deal with Apple's DAV filesystem and Gnome VFS support for DAV.
#
BrowserMatch "Microsoft Data Access Internet Publishing Provider"
redirect-carefully
BrowserMatch "^WebDrive" redirect-carefully
BrowserMatch "^WebDAVFS/1.[012]" redirect-carefully
BrowserMatch "^gnome-vfs" redirect-carefully

#
# Allow server status reports generated by mod_status,
# with the URL of http://servername/server-status
# Change the ".example.com" to match your domain to enable.
#
#<Location /server-status>
#   SetHandler server-status
#   Order deny,allow
#   Deny from all
#   Allow from .example.com
#</Location>

#
# Allow remote server configuration reports, with the URL of
# http://servername/server-info (requires that mod_info.c be loaded).
# Change the ".example.com" to match your domain to enable.
#
#<Location /server-info>
#   SetHandler server-info
#   Order deny,allow
#   Deny from all
#   Allow from .example.com
#</Location>

#
# Bring in additional module-specific configurations
#
<IfModule mod_ssl.c>
    Include conf/ssl.conf
</IfModule>
```

```
Include /usr/local/tomcat/jakarta-tomcat-4.1.29/conf/auto/mod_jk.conf

### Section 3: Virtual Hosts
#
# VirtualHost: If you want to maintain multiple domains/hostnames on
your
# machine you can setup VirtualHost containers for them. Most
configurations
# use only name-based virtual hosts so the server doesn't need to worry
about
# IP addresses. This is indicated by the asterisks in the directives
below.
#
# Please see the documentation at
# <URL:http://httpd.apache.org/docs-2.0/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.

#THIS PART IS ADDED BY SURANGA 14-03-2005
#
# Use name-based virtual hosting.
#
#NameVirtualHost *:80
NameVirtualHost 192.168.122.2
#
# VirtualHost example:
# Almost any Apache directive may go into a VirtualHost container.
# The first VirtualHost section is used for requests without a known
# server name.
#
#<VirtualHost *:80>
#   ServerAdmin webmaster@dummy-host.example.com
#   DocumentRoot /www/docs/dummy-host.example.com
#   ServerName dummy-host.example.com
#   ErrorLog logs/dummy-host.example.com-error_log
#   CustomLog logs/dummy-host.example.com-access_log common
#</VirtualHost>
<VirtualHost 192.168.122.2>
#   ServerAdmin webmaster@dummy-host.example.com
#   DocumentRoot /var/www/janashakthi
#   ServerName janashakthi.ragedev
#   ErrorLog logs/janashakthi.ragedev-error_log
#   CustomLog logs/janashakthi.ragedev-access_log combined
</VirtualHost>

#END SURANGA
```