

Fez Full Installation Procedure

1 About this Document

Purpose

This procedure outlines how the RUBRIC Tech Team installed Fez as well as all the software needed for Fez on RedHat Linux Enterprise Version 4.

Audience

RUBRIC Tech Team and Partner System Administrators

Requirements

Access to test server

Installed basic RedHat EL4 OS on server

References

None

Conventions

Working directory referred to in this document is `/home/[username]/Desktop/[app_name]` (where downloads have been unpacked to)

2 Before you start

You will need to download the following packages from the given locations and save them all to your home (ie working) directory:

1. Java Runtime Environment: `j2sdk-1_4_2_12-linux.i586.rpm` from <http://java.sun.com/j2se/1.4.2/download.html>
2. Apache HTTPD server: `httpd-2.2.3.tar.gz` from <http://httpd.apache.org/download.cgi>
3. MySQL: `mysql-5.0.26.tar.gz` from <http://dev.mysql.com/downloads/mysql/5.0.html>
4. PHP5: `php-5.1.6.tar.gz` from <http://www.php.net/downloads.php>
5. Libtidy: `tidy_src.tgz` from <http://tidy.sourceforge.net/>
6. GD Library: `gd-2.0.33.tar.gz` from <http://www.boutell.com/gd/http/>
7. CURL Library: `curl-7.15.5.tar.gz` from <http://curl.haxx.se/latest.cgi?curl=tar.gz>
8. ImageMagick: `ImageMagick.tar.gz` (6.2.5) from <ftp://mirror.aarnet.edu.au/pub/ImageMagick>
9. Graphviz: `graphviz-2.8.src.rpm` from <http://www.graphviz.org/pub/graphviz/ARCHIVE/>
10. JHOVE: `jhove-1_1e.tar.gz` from <http://hul.harvard.edu/jhove/distribution.html>

11. Fedora: fedora-2.1.1-server.tar.gz from <http://www.fedora.info/download/2.1/download.cgi>
12. Fez: fez_1-2.tar.gz from http://sourceforge.net/project/showfiles.php?group_id=148409
13. libpng: libpng-1.2.12-config.tar.gz from <http://www.libpng.org/pub/png/libpng.html>
14. libjpeg: jpegsrc.v6b.tar.gz from <http://www.ijg.org/files/>

3 Install J2SDK

Execute the following command to install the J2SDK:

```
rpm -Uvh j2sdk-1_4_2_12-linux-i586.rpm
```

4 Install MySQL

Execute the following commands to create a mysql user. These commands are also on the MySQL website: <http://dev.mysql.com/doc/refman/4.1/en/quick-install.html>:

```
su
[enter root password]
groupadd mysql
useradd -g mysql mysql
tar zxvf mysql-5.0.26.tar.gz
cd mysql-5.0.26
./configure --prefix=/usr/local/mysql
make
make install
cp support-files/my-medium.cnf /etc/my.cnf
cd /usr/local/mysql
bin/mysql_install_db --user=mysql
chown -R root .
chown -R mysql var
chgrp -R mysql .
bin/mysqld_safe --user=mysql &
```

```
press 'enter'
```

5 Install Apache, PHP pre-requisites and PHP5

1. Execute the following commands to unpack Apache and PHP5:

```
tar zxvf httpd-2.2.3.tar.gz
tar zxvf php-5.1.6.tar.gz
```

2. Execute the following commands to install Apache, enabling so:

```
cd httpd-2.2.3
./configure --prefix=/usr/local/apache --enable-so
make
su
[enter root password]
make install
exit
```

3. Install libpng using the following commands:

```
tar -zxvf libpng-1.2.12-config.tar.gz
cd libpng-1.2.12-config
./configure --with-prefix=/usr/include --with-include=/usr/include
make
make test
su
[enter root password]
make install
```

4. Install libjpeg using the following commands:

```
tar -zxvf jpegsrc.v6b.tar.gz
cd jpeg-6b
./configure
make
make install
```

5. Install GD library using the following commands:

```
tar zxvf gd-2.0.33.tar.gz
cd gd-2.0.33
./configure --with-png=/usr/local/lib
make
su
[enter root password]
make install
exit
```

6. Install CURL library using the following commands:

```
tar zxvf curl-7.15.5.tar.gz
cd curl-7.15.5
./configure
make
su
[enter root password]
make install
```

7. Install Tidy Library using the following commands:

```
tar zxvf tidy_src.tgz
cd tidy/build/gmake
make
su
[enter root password]
make install
```

8. Install PHP5 using the following commands (the configure command is all one line):

```
cd php-5.1.6
./configure --with-apxs2=/usr/local/apache/bin/apxs \
--with-mysql=/usr/local/mysql --with-tidy \
--with-ldap --with-gd --with-png --with-curl \
--with-zlib
make
```

```

su

[enter root password]

make install

libtool --finish /usr/local/apache/modules/

cp php.ini-dist /usr/local/lib/php.ini

```

6 Install ImageMagick, Graphviz and JHOVE

1. Execute the following commands to install ImageMagick:

```

tar zxvf ImageMagick.tar.gz

cd ImageMagick-6.2.6

./configure

make

su

[enter root password]

make install

```

2. Execute the following command to install Graphviz:

```

tar zxvf graphviz-2.8.tar.gz

cd graphviz-2.8

./configure

make

su

make install

exit

```

3. Execute the following commands to install JHOVE:

```

tar zxvf jhove-1_1e.tar.gz

su

mv jhove /usr/local/

chown -R [username]:[groupname] jhove/

exit

cd /usr/local/jhove

```

```
./configure.pl /usr/local/jhove /usr/java /usr/java
/usr/java/j2sdk1.4.2_10/jre
```

7 Install Fedora

1. Do the following, before you install Fedora:

```
su

[enter root password]

cd /etc

vi profile

[Add the following lines between the indicated '...' lines]

[HISTSIZE=1000....]

JAVA_HOME=/usr/java/j2sdk1.4.2_10

FEDORA_HOME=/usr/local/fedora-2.1

PATH=/usr/bin:/usr/sbin:/bin:/sbin:/usr/local/bin:/usr/local
/sbin:$JAVA_HOME/bin:$FEDORA_HOME/server/bin:/usr/local/mysq
l/bin

[...if [ -z "$INPUTRC"...]

[press ESC]

:wq
```

2. Pick up the new environment variables (this will only pick them up for this particular session)

```
. /etc/profile
```

3. While installing, you need the environment variables set:

```
export FEDORA_HOME=/usr/local/fedora-2.1

export JAVA_HOME=/usr/java/j2sdk1.4.2_10
```

4. Execute the following commands to install Fedora:

```
su

[enter root password]

mv fedora-2.1.1-server.tar.gz /usr/local

cd /usr/local/

tar zxvf fedora-2.1.1-server.tar.gz
```

```

chown -R [username]:[groupname] fedora-2.1.1

exit

cd /usr/local/fedora-2.1.1/server

bin/mysql-config /usr/local/mysql root "" fedoraAdmin
fedoraAdmin fedora21 mysql41_flag

[Answer the two questions with the MySQL root password that you
may (or may not) have set earlier while installing MySQL]

```

5. Run `fedora-setup` (make sure `FEDORA_HOME` and `JAVA_HOME` environment variables are set first):

```
$FEDORA_HOME/server/bin/fedora-setup no-ssl-authenticate-apim
```

6. Edit the following settings in `fedora-2.1.1/server/config/fedora.fcfg`:
 1. Edit Title of Repository (`repositoryName`)
 2. Edit Email address (`adminEmailList`)
 3. Edit PID Namespace (`pidNamespace`)
 4. Edit Repository Name (OAI) (`repositoryName`)
7. Edit both `/usr/local/fedora-2.1/server/bin/fedora-start` and `fedora-stop` and add the following lines directly after the initial comments. Note that this performs the same action as above without the user having to execute these commands:

```

FEDORA_HOME=/usr/local/fedora-2.1.1

JAVA_HOME=/usr/java/j2sdk1.4.2_12

export FEDORA_HOME JAVA_HOME

[esc]

:wq

```

8. Start Fedora using the following command:

```
fedora-start
```

8 Install Fez

1. Unpack Fez using the following command:

```

tar zxvf fez_1_2.tar.gz

mv fez /usr/local/apache/htdocs/

cd /usr/local/apache/htdocs

```

2. Edit the following parts of the Apache configuration file(`apache/conf/httpd.conf`) :

```
[the following username and groupname are whoever owns apache]
```

```
User [username]
Group [groupname]

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

DirectoryIndex index.php index.html index.html.var
```

3. Start Apache:

```
su -
[enter root password]
/usr/local/apache/bin/apachectl start
```

4. Browse to the following URL:

<http://localhost/fez/setup>

5. Enter the appropriate values in the following fields:

```
Your Organisation
Your Organization Initials
MySQL Server hostname: localhost.localdomain
MySQL database: fez
[tick 'Create database' and 'Drop tables if created']
MySQL Username: fedoraAdmin
MySQL Password: fedoraAdmin
Note: The password given must match the details given in
"7 Install fedora" step 2
```

6. This should provide you with a redirect to the following URL:

<http://localhost/fez>

7. Setup of Fez should now be complete!