

# Install Sun Java JDK/JRE on Fedora 14

This guide is updated/rewritten Jul 29, 2010 to use currently latest Sun/Oracle Java JDK and JRE 6 Update 22 and I added also separated 32-bit and 64-bit installation instructions.

By default, Fedora 14, Fedora 13, Fedora 12, CentOS 5.5 and Red Hat (RHEL) 5.5/6 Linux operating systems use the OpenJDK Java, which is a good choice for normal use and it works with almost all the Java programs normally. OpenJDK is also easy to install and maintain with YUM package management, but some cases, Sun/Oracle Java installation is necessary, for example, if some program have to compile with Sun/Oracle Java or a particular program does not work without Sun/Oracle Java.

Install Sun/Oracle Java JDK (Java Development Kit)/JRE (Java Runtime Environment) 6u22 on Fedora 14, Fedora 13, Fedora 12, CentOS 5.5, Red Hat (RHEL) 5.5 and Red Hat (RHEL) 6

## 1. Download Sun/Oracle Java JDK or JRE RPMs

Download Sun/Oracle Java JDK or JRE from here (current version is JDK 6 Update 22)

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>.

Note: Select rpm.bin package (example `jdk-6u22-linux-i586-rpm.bin`, `jre-6u22-linux-i586-rpm.bin`, `jdk-6u22-linux-x64-rpm.bin` or `jre-6u22-linux-x64-rpm.bin`).

## 2. Change to root user.

```
sudo -i
```

```
## OR ##
```

```
su -
```

## 3a. Run Sun/Oracle Java JDK binary

```
chmod +x /path/to/file/jdk-6u22-linux-*-rpm.bin
```

```
/path/to/binary/jdk-6u22-linux-*-rpm.bin
```

## OR ##

```
sh /path/to/binary/jdk-6u22-linux-*-rpm.bin
```

Note: Use full file name (without asterix) if you have both i586 and x64 versions downloaded.

3b. Run Sun/Oracle Java JRE binary

```
chmod +x /path/to/file/jre-6u22-linux-*-rpm.bin
```

```
/path/to/binary/jre-6u22-linux-*-rpm.bin
```

## OR ##

```
sh /path/to/binary/jre-6u22-linux-*-rpm.bin
```

Note: Use full file name (without asterix) if you have both i586 and x64 versions downloaded.

4a. Install Sun/Oracle JDK java, javaws, libjavaplugin.so (for Firefox/Mozilla) and javac with alternatives – install command

## java ##

```
alternatives --install /usr/bin/java java /usr/java/jdk1.6.0_22/jre/bin/java 20000
```

## javaws (32-bit only) ##

```
alternatives --install /usr/bin/javaws javaws /usr/java/jdk1.6.0_22/jre/bin/javaws 20000
```

```
## Java Browser (Mozilla) Plugin 32-bit ##
```

```
alternatives --install /usr/lib/mozilla/plugins/libjavaplugin.so libjavaplugin.so  
/usr/java/jdk1.6.0_22/jre/lib/i386/libnpjp2.so 20000
```

```
## Java Browser (Mozilla) Plugin 64-bit ##
```

```
alternatives --install /usr/lib64/mozilla/plugins/libjavaplugin.so libjavaplugin.so.x86_64  
/usr/java/jdk1.6.0_22/jre/lib/amd64/libnpjp2.so 20000
```

```
## Install javac only if you installed JDK (Java Development Kit) package ##
```

```
alternatives --install /usr/bin/javac javac /usr/java/jdk1.6.0_22/bin/javac 20000
```

4b. Install Sun/Oracle JRE java, javaws and libjavaplugin.so (for Firefox/Mozilla) with alternatives – install command

```
## java ##
```

```
alternatives --install /usr/bin/java java /usr/java/jre1.6.0_22/bin/java 20000
```

```
## javaws (32-bit only) ##
```

```
alternatives --install /usr/bin/javaws javaws /usr/java/jre1.6.0_22/bin/javaws 20000
```

```
## Java Browser (Mozilla) Plugin 32-bit ##
```

```
alternatives --install /usr/lib/mozilla/plugins/libjavaplugin.so libjavaplugin.so  
/usr/java/jre1.6.0_22/lib/i386/libnjp2.so 20000
```

```
## Java Browser (Mozilla) Plugin 64-bit ##
```

```
alternatives --install /usr/lib64/mozilla/plugins/libjavaplugin.so libjavaplugin.so.x86_64  
/usr/java/jre1.6.0_22/lib/amd64/libnjp2.so 20000
```

5. Check current java, javac, javaws and libjavaplugin.so versions

```
java -version
```

```
java version "1.6.0_22"
```

```
Java(TM) SE Runtime Environment (build 1.6.0_22-b04)
```

```
Java HotSpot(TM) Client VM (build 17.1-b03, mixed mode, sharing)
```

```
javac -version
```

```
javac 1.6.0_22
```

javaws

Java(TM) Web Start 1.6.0\_22

[...]

Note: Check libjavaplugin.so with restarting Mozilla Firefox and writing about:plugins on address bar.



6. Swap between OpenJDK and Sun/Oracle JDK versions

alternatives --config java # or javac or javaws or libjavaplugin.so

There are 4 programs **which** provide 'java'.

Selection      Command

-----

1                /usr/lib/jvm/jre-1.6.0-openjdk/bin/java

2            /usr/lib/jvm/jre-1.5.0-gcj/bin/java

\* 3         /usr/java/jdk1.6.0\_18/jre/bin/java

+ 4            /usr/java/jdk1.6.0\_22/jre/bin/java

Enter to keep the current selection[+], or **type** selection number:

Note: java with [+] is currently on use

Post-Installation Setup

Add JAVA\_HOME environment variable to /etc/profile file or \$HOME/.bash\_profile file

```
## export JAVA_HOME
```

```
export JAVA_HOME="/usr/java/jdk1.6.0_22"
```

•

•

**szal**

Posted

Sorry to say this, but doesn't work for me. Firstly, I installed the JRE RPM on Fedora 13 x86\_64, and I found out that the paths to the binaries are slightly different for JRE than for JDK (/usr/java/jre1.6.0\_22/bin/java; /usr/java/jre1.6.0\_22/lib/amd64/libnpjp2.so (64bit, obviously); javaws links back to the directory it's in, the website says to install the 32bit package for javaws functionality).

But on top of this, even after having configured alternatives with the correct paths, SeaMonkey 2.0.8 doesn't seem to see the plugin, and the check on the Java site fails. For now I have no idea what else to try.

•  **JR**  
Posted  
Hi szal,

Thank you for corrections. I updated this guide to work better with Sun Java JRE version.

And your problem. Do you have any other browser to test the *libjavaplugin*?  
Could you post following command output:

```
alternatives --display libjavaplugin.so
```

- **szal**

Posted  
Hi JR —

Thanks for the reply. I tried the Java check with Konqueror after making sure that *libjavaplugin.so* is listed in the Plugins section of the settings. With Konqueror the site shows no result at all, it just switches to a page linking to the installation instructions after being done scanning.

The output of *alternatives -display libjavaplugin.so* is:

```
[root@zalle ~]# alternatives --display libjavaplugin.so
libjavaplugin.so - status is manual.
link currently points to /usr/java/jre1.6.0_22/lib/amd64/libnjp2.so
/usr/java/jre1.6.0_22/lib/amd64/libnjp2.so - priority 20000
Current `best' version is /usr/java/jre1.6.0_22/lib/amd64/libnjp2.so.
```

I appreciate your help and hope you have an idea.

Greetings

szal



- **JR**  
Posted

Hi again szal,

I figure out that where the problem is and I improved this guide more. I even test this clean installed Fedora 13 64-bit, Sun Java JRE 64-bit and with SeaMonkey 2.0.8, Firefox 3.6.12.

**So to get Java Plugin to work, do following (as root)**

Remove current libjavaplugin with following command:

```
alternatives --remove libjavaplugin.so /usr/java/jre1.6.0_22/lib/amd64/libnjp2.so
```

And then do the alternatives install again, with following command:

```
alternatives --install /usr/lib64/mozilla/plugins/libjavaplugin.so libjavaplugin.so.x86_64
/usr/java/jre1.6.0_22/lib/amd64/libnjp2.so 20000
```

Finally restart browser and it should work. :)

- **szal**

Posted  
Works great, thanks again JR! :)

- **Jozsef**

Posted  
Works! Thanks!

But I did few things more before Firefox java plugin start working:

```
# semanage fcontext -a -t execmem_exec_t '/usr/lib64/firefox-3.6/firefox'
# chcon -t execmem_exec_t '/usr/lib64/firefox-3.6/firefox'
# semanage fcontext -a -t execmem_exec_t '/usr/lib64/nspluginwrapper/plugin-config'
# chcon -t execmem_exec_t '/usr/lib64/nspluginwrapper/plugin-config'
```

Best,  
Jozsef



- **Madalinux**

Posted

I wanted to thank you for the tutorial and ask permission to write an translated version in my language (romanian) on my blog.



**JR**

Posted

Hi Madalinux, nice to see you here!

Glad to hear that you like this guide. Yes you can write translated version of this tutorial to your blog in your own language. :)



**Madalinux**

Posted

thank you, will do and link to the article I translate :)



**Madalinux**

Posted

For Romanian translation: <http://goo.gl/Rp9xe>



**JR**

Posted

Thanks Madalinux. :)

•

• **edwin**

Posted

I have problems with the version of java

```
java -version
```

```
Error: dl failure on line 508
```

```
Error: failed /opt/jdk1.7.0/jre/lib/i386/server/libjvm.so, because /opt/jdk1.7.0/jre/lib/i386/server/libjvm.so: cannot enable executable stack as shared object requires: Permission denied
```

thanks



**JR**

Posted

Hi edwin,

Do you have installed Sun Java 7?

Do you get some SELinux warning?

You could try following as root:

```
chcon -t execmem_exec_t '/opt/jdk1.7.0/jre/lib/i386/server/libjvm.so'
```

•

**Kc**

Posted

Great write up by the way!!! really helped me out

I did receive a SELinux warning. I ran "execstack -c /usr/lib64/mozilla/plugins/libjavaplugin.so" as root and that fixed it for me.

—Here was the SELinux warning—

Summary:

SELinux is preventing /usr/lib64/firefox-3.6/firefox from making the program stack executable.

Detailed Description:

The firefox application attempted to make its stack executable. This is a potential security problem. This should never ever be necessary. Stack memory is not executable on most OSes these days and this will not change. Executable stack memory is one of the biggest security problems. BLAH,BLAH,BLAH (I shortened this because really irrelevant)

Allowing Access:

Sometimes a library is accidentally marked with the execstack flag, if you find a library with this flag you can clear it with the execstack -c LIBRARY\_PATH.

Then retry your application. If the app continues to not work, you can turn the flag back on with `execstack -s LIBRARY_PATH`.

-  **JR**  
Posted  
Hi Kc,

Thanks for the notification and fix!

Did you get this SELinux warning on Fedora 14?

- <http://www.if-not-true-then-false.com/2010/install-sun-oracle-java-jdk-jre-6-on-fedora-centos-red-hat-rhel/>