

OpenOffice.org 1.1 and the Java Runtime Environment on Linux HOW-TO

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OpenOffice.org and Java

Why does OpenOffice.org 1.1 require a JRE?

The OpenOffice.org (OOo) software has been designed with an 'open' architecture, allowing developers to add new functionality in whatever programming language they choose. Increasingly, they are using Java, the 'flavour of the month' in enterprise programming languages. For example, the following parts of OOo all use Java technologies:

- many of the AutoPilots
- JDBC drivers for database connectivity
- xslt and small device filters
- Java applets
- Java based languages in the scripting framework

To run Java programs, you need to have a Java Runtime Environment (JRE) installed on your computer (these are available as free downloads from a number of sources). If you try to run a part of OOo which requires a JRE and OOo can't find a JRE on your system, you should see a prompt like this:



which will guide you through the installation process.

This HOW-TO shows how to install a JRE, and how to make it available to all OOo users on your system. If you are using the 'official' OOo software from the OpenOffice.org project, this is straightforward. However, if you are using some of the third-party built packages, life may be a bit more complicated - as the next section explains.

OpenOffice.org Linux Packages with Java disabled

As OOo becomes the de-facto standard office suite for Linux, many Linux distributions are re-packaging OOo using their own package managers (e.g. RPMs for Fedora Core). These packages are built and supported by the distributions' own teams, not by the OpenOffice.org project.

Some distributions have strict policies around licencing, which means they have chosen to disable parts of OOo which rely on software which does not meet their criteria. Unfortunately, some distros such as Fedora Core (the former RedHat) have disabled Java support altogether within their OOo package. This only becomes apparent when you try and access a part of OOo that needs a JRE. So, if you try to use the Report AutoPilot within Fedora Core's OOo, (*File -> AutoPilot -> Report*), nothing happens. No error message; no prompt to install a JRE; nothing.

This HOW-TO also describes how to solve the problem by replacing the copy of OOo shipped with Fedora Core 1.0 - 'Fedora OOo' - with the version of OOo 1.1 packaged by the OpenOffice.org project - 'Official OOo'. As the Fedora project have re-engineered OOo specifically for their distribution, replacing it seamlessly can be quite tricky.

It is hoped that users of other distros may also find this HOW-TO useful, as it highlights the sort of problems they may find with other 'Java disabled' distros.

Installing a Java Runtime Environment (JRE)

There are several sources of JREs – OOo is built and tested against the one from Sun Microsystems, so this one will be used in this document. As the example installation is taking place on a Fedora Core system, the rpm version will be used; however, the same principles apply to other Linux distros. The installation assumes you have root access to your system.

Download the latest Sun JRE from http://www.java.com/en/download/help/linux_install.jsp. Warning – this is a big download (about 14Mb).

The JRE is supplied as a self-extracting compressed file. You need to make it executable, run it, delete the download file, and install the rpm:

```
[root@mytux tmp]# chmod a+x j2re-1_4_2_03-linux-i586-rpm.bin
[root@mytux tmp]# ./j2re-1_4_2_03-linux-i586-rpm.bin

                Sun Microsystems, Inc.
                Binary Code License Agreement

                for the

                JAVATM 2 RUNTIME ENVIRONMENT (J2RE), STANDARD EDITION, VERSION 1.4.2_X

[pages of licence stuff]

Do you agree to the above license terms? [yes or no]
yes
Unpacking...
Checksumming...
Extracting...
UnZipSFX 5.40 of 28 November 1998, by Info-ZIP (Zip-Bugs@lists.wku.edu).
  inflating: j2re-1_4_2_03-linux-i586.rpm
Done.
[root@mytux tmp]# rm j2re-1_4_2_03-linux-i586-rpm.bin
rm: remove regular file `j2re-1_4_2_03-linux-i586-rpm.bin'? y
[root@mytux tmp]# rpm -ivh j2re-1_4_2_03-linux-i586.rpm
Preparing...          ##### [100%]
   1:j2re              ##### [100%]
[root@mytux tmp]#
```

If you have an 'official OOo' installation - where Java support is present - skip straight to the section entitled Linking the JRE to OOo on page 6.

If you need to replace a 'Java disabled' version, please read on. The example shown is for Fedora Core; similar principles will apply to other distributions.

Removing the Fedora Core version of OOo

Removing 'Fedora OOo' from each user's account

For safety, it is a good idea to remove the OOo configuration files that were installed the first time the user ran any of the 'Fedora OOo' programs. From each user account, run:

```
[user@mytux user]$ .openoffice/setup -deinstall
```

and make sure the 'Delete all files' checkbox is **not** checked (this will preserve any settings the user has made).

Migrating each user's OOo settings

'Fedora OOo' saves user settings in a hidden directory ~/.openoffice. The 'Official OOo' equivalent is ~/OpenOffice.org1.1.0, so to enable the user's 'Fedora OOo' settings to be carried forward to 'Official OOo':

```
[user@mytux user]$ mv .openoffice OpenOffice.org1.1.0
```

Removing 'Fedora OOo' from the system

This is a standard rpm erase command:

```
[root@mytux tmp]# rpm -ev openoffice.org openoffice.org-libs openoffice.org-i18n  
[root@mytux tmp]#
```

At this stage, the OpenOffice option will disappear from the system menus. The Writer, Calc, etc icons will still be present on the users' desktop panels but clicking on them will give an error message.

Installing the full OpenOffice.org 1.1 software

Download the 'official' version of OOO from <http://download.openoffice.org/1.1.0/>. Warning - this is a big download – about 78Mb - you may prefer to purchase a CD from a local distributor - see <http://distribution.openoffice.org/cdrom/#cdrom>.

Installing 'Official OOO'

The OOO download is a compressed file – you need to uncompress it, install into /opt, and then remove the installation files:

```
[root@mytux tmp]# tar -xzf 00o_1.1.0_LinuxIntel_install.tar.gz
[root@mytux tmp]# 00o_1.1.0_LinuxIntel_install/install -prefix=/opt

[lots of stuff]

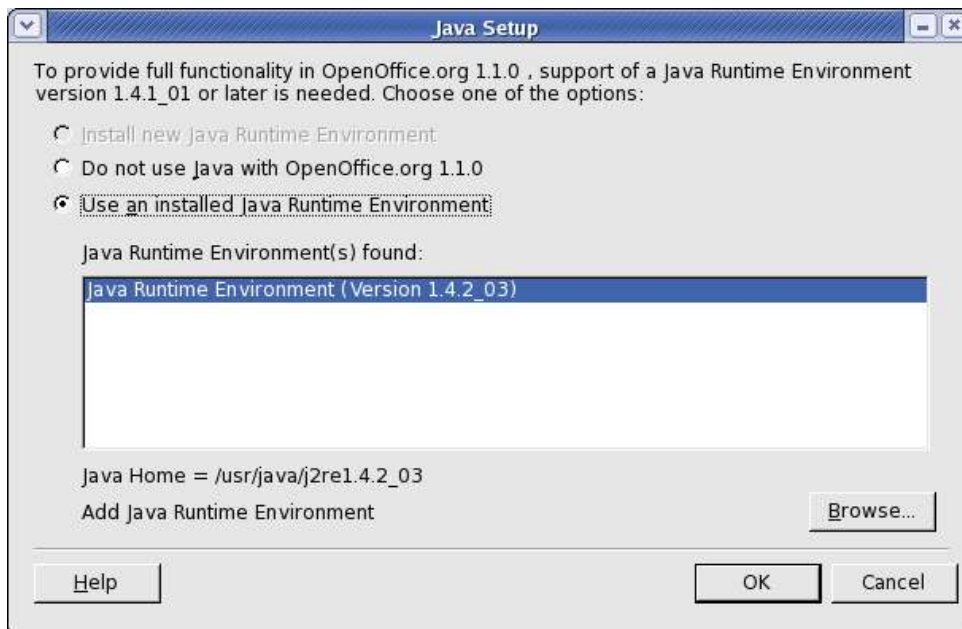
Installation Completed
[root@mytux tmp]# rm -rf 00o_1.1.0_LinuxIntel_install
[root@mytux tmp]# rm -rf 00o_1.1.0_LinuxIntel_install.tar.gz
[root@mytux tmp]#
```

Linking the JRE to OOO

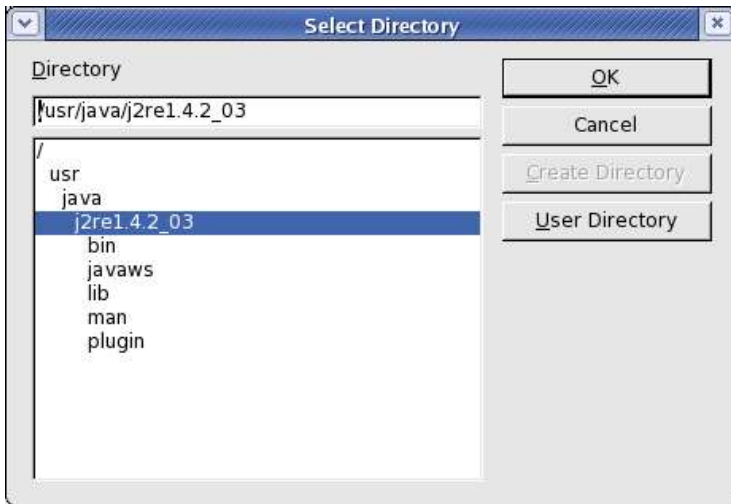
It's simplest to do this now, then it's done once for all users:

```
[root@mytux tmp]# /opt/OpenOffice.org1.1.0/program/setup -net -repair
```

The repair program should detect that no JRE has been registered within OOO. It is supposed to find the JRE automatically; if it doesn't, point it at the right directory by using the browse button:



Note: the Sun JRE RPM can be found here:



If you are doing a straight install of a JRE into 'Official Oo', then that's all you need to do.

If you are replacing a 'Fedora Oo' installation, this is a good time to do the menu hack (see *Reclassifying Oo as RedHat Base Software* on page 8) - if that's what you want to do.

Post-installation tasks for Fedora Core

Providing 'Fedora compatible' links for 'Official OOO'

Erasing the 'Fedora OOO' rpms leaves the OOO icons on the user desktops. However, these are set up to run (e.g.) Writer from `/usr/bin/ooowriter`, whereas the 'Official OOO' install has put the program in `/opt/OpenOffice.org/programs/swriter`. One way to fix this is to create some symlinks:

```
[root@mytux tmp]# cd /usr/bin
[root@mytux bin]# ln -s /opt/OpenOffice.org1.1.0/program/swriter oowriter
[root@mytux bin]# ln -s /opt/OpenOffice.org1.1.0/program/scalc oocalc
[root@mytux bin]# ln -s /opt/OpenOffice.org1.1.0/program/sdraw oodraw
[root@mytux bin]# ln -s /opt/OpenOffice.org1.1.0/program/soffice ooffice
[root@mytux bin]# ln -s /opt/OpenOffice.org1.1.0/program/simpress ooimpress
[root@mytux bin]# ln -s /opt/OpenOffice.org1.1.0/program/smath oomath
[root@mytux bin]#
```

Now, the first time a user clicks on one of the desktop icons, the standard OOO 'first time user' setup process will run. When the process is complete, they should be able to use OOO as before, and their own settings should have been preserved wherever possible.

Forcing a fresh User Install

If there are still problems with a user's setup, you can force a fresh install for a user by doing:

```
[user@mytux user]$ rm .sversionrc
[user@mytux user]$ rm -rf OpenOffice.org1.1.0
```

but beware that this loses any personal settings they may have created.

Gnome 2 Menu Hacks

When you install the 'Fedora OOO' rpm, OpenOffice.org automatically appears as an option in the site-wide user menus under Office -> OpenOffice. When you remove the rpm, the menu entries disappear too (although the panel icons remain on users' desktops).

'Official OOO' works differently - installing OOO does not make any changes to the site-wide menu system. It creates a master copy of the menu structure in the central OOO directories. Then, when a user accesses an OOO program for the first time, the OOO 'first time user' setup process copies the OOO menu entries into the user's personal menus.

You'll also find that 'Official OOO' and 'Fedora OOO' place OpenOffice in different places in the menus. 'Fedora OOO' is *Office -> OpenOffice*; 'Official OOO' is moved down a level to *Office -> More Office Applications -> OpenOffice.org 1.1.0*. This is because 'Official OOO' is not classed as RedHat Base software, and so Fedora don't want to show it in their top level menus...

There are a couple of ways you can fix this.

Reclassifying OOO as RedHat Base Software

Probably the easiest way to 'promote' 'Official OOO' in the directory structure is to edit the master copies of the .desktop files and add the keyword X-Red-Hat-Base to the Categories entry:

```
[root@mytux root]# gedit /opt/OpenOffice.org1.1.0/share/gnome/net/ooo645*.desktop &
```



```
Categories=Application;Office;X-Red-Hat-Base;
```

These master .desktop files will be copied to each user by the 'first time user' setup process, and then they sit in read-only files in a hidden directory. The menu system will read the *X-Red-Hat-Base* keyword and 'promote' *OpenOffice 1.1.0* to the *Office* menu entry.

If a user has already run the 'first time user' setup process, then changing the master menu files will have no effect. You can either delete their OOO profile (see '*Forcing a fresh User Install*' above), or copy the master files in manually:

```
[user@mytux user]$ chmod u+w .gnome2/vfolders/applications/ooo645*.desktop
[user@mytux user]$ cp /opt/OpenOffice.org1.1.0/share/gnome/net/ooo645*.desktop \
.gnome2/vfolders/applications/
[user@mytux user]$ chmod u-w .gnome2/vfolders/applications/ooo645*.desktop
```

Ignoring the *Red-Hat-Base* flag for *Office* menu items

An alternative approach is to hack the master Gnome2 applications menu to tell it to ignore the *X-Red-Hat-Base* flags altogether for *Office* menu items. Please make a backup copy first and don't blame me if you break your system:

```
[root@mytux root]# cp /etc/X11/desktop-menus/applications.menu \
/etc/X11/desktop-menus/applications.menu.orig
[root@mytux root]# gedit /etc/X11/desktop-menus/applications.menu &
```

and delete all the stuff in *italics* to collapse both menus into one:

```
<!-- Office -->
<Folder>
  <Name>Office</Name>
  <Desktop>Office.directory</Desktop>
  <Query>
    <And>
      <Keyword>X-Red-Hat-Base</Keyword>
      <Keyword>Application</Keyword>
    <Or>
      <Keyword>Office</Keyword>
      <Keyword>Spreadsheet</Keyword>
      <Keyword>WordProcessor</Keyword>
      <Keyword>Calendar</Keyword>
      <Keyword>ProjectManagement</Keyword>
    </Or>
  </And>
</Query>

<!-- More Office -->
<Folder>
  <Name>MoreOffice</Name>
  <Desktop>Office-More.directory</Desktop>
  <Query>
    <And>
      <Keyword>Application</Keyword>
      <Not><Keyword>X-Red-Hat-Base-Only</Keyword></Not>
      <Not><Keyword>X-Red-Hat-Base</Keyword></Not>
    <Or>
      <Keyword>Office</Keyword>
      <Keyword>Spreadsheet</Keyword>
      <Keyword>WordProcessor</Keyword>
      <Keyword>Calendar</Keyword>
```

```
        <Keyword>ProjectManagement</Keyword>
      </Or>
    </And>
  </Query>

  <DontShowIfEmpty/>
</Folder>
```

```
  <DontShowIfEmpty/>
</Folder>
```

This is a fairly serious hack - as noted above, don't blame me if it breaks your system. And of course, it doesn't work if you're using KDE menus :-)

Appendix - Public Documentation Licence Notice

Original Documentation

The contents of this Documentation are subject to the Public Documentation License Version 1.0 (the "License"); you may only use this Documentation if you comply with the terms of this License. A copy of the License is available at <http://www.openoffice.org/licenses/pdl.pdf>

The Original Documentation is <http://openoffice.homelinux.org/docs/OOoJava.sxw>.

The Initial Writer of the Original Documentation is John McCreesh Copyright (C)2003. All Rights Reserved. (Initial Writer contact: jpmcc@openoffice.org).

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