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#document # 5

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Please use this at your own risk

Also take backup of your important files, although you might not need that but be prepared for the worst

Characters in bold are system commands/outputs

Installing packages on Linux-II

Packages come in two formats in Linux

1.) rpm packages.

2.) Source packages.

In this document we will be installing source packages.

Source packages generally come in 2 compressed formats

xmms-1.2.10.tar.bz2 --compressed with bunzip(bzip)

xmms-1.2.10.tar.gz --compressed with gunzip(gzip)

and others also

1.)first of all we need to extract these packages .

so copy the packages in your Linux partition. for example in /plugins directory.

go to that directory and extract them as follows

```
[root@aurav root]# cd /plugins/
```

```
[root@aurav plugins]# tar xjf xmms-1.2.10.tar.bz2
```

```
[root@aurav plugins]#
```

OR

```
[root@aurav root]# cd /plugins/
```

```
[root@aurav plugins]# tar xvzf xmms-1.2.10.tar.gz
```

```
[root@aurav plugins]#
```

here we pass the arguments

xjf --for uncompressing packages of the type (.tar.bz2)

xvzf --for uncompressing packages of the type (.tar.gz)

more on these attributes can be found by

```
[root@aurav root]# man tar
```

if the packages are in some another format then u can extract them also by

a.)copy the package in your Linux partition

b.)Right click on the package

c.)choose extract here

this method surely takes some time more than the command line version but if you are having any problems in extracting with the command line then you may proceed in this manner

2.) after packages have been extracted then you need to compile them and then install these. you can go through a file Readme or INSTALL in all the install readme files you will find the procedure for installing source packages I am briefing the procedure down here

a.) go to the directory containing the extracted packages

```
[root@aurav root]# cd /plugins/xmms-1.2.10  
[root@aurav xmms-1.2.10]#
```

b.) './configure' will check if the files necessary for installation are available or not

```
[root@aurav xmms-1.2.10]# ./configure
```

c.) 'make' will compile the package

```
[root@aurav xmms-1.2.10]# make
```

d.) 'make install' will install the executable in '/usr/local/bin' (generally)

after these you can run your new packages by their name only or by giving the full path

```
[root@aurav xmms-1.2.10]# xmms
```

OR

```
[root@aurav xmms-1.2.10]# /usr/local/bin/xmms
```

Tips on installing packages

i) Sometimes it may happen that during './configure' you may get a message that such file is not found, say 'libasound.so'

it may happen that the file is in your system but it is not in those directories where the compiler might be searching so in that case first look out whether if your system does have that file first of all update your database of files by

```
[root@aurav root]# updatedb
```

then you will be able to locate your file by

```
[root@aurav root]# locate libasound.so  
/usr/lib/libasound.so.2.0.0  
/usr/lib/libasound.so.2  
/usr/lib/libasound.so  
/usr/local/lib/libasound.so.2  
[root@aurav root]#
```

Now you have 2 options

Either make a link or copy the entire file
for example libasound.so is in '/usr/local/lib'
and we want it to be in '/lib'
To make a link for that file

```
[root@aurav root]# ln -s /usr/lib/libasound.so /lib/libasound.so
```

this will create a link in /lib for the file libasound.so
so when the compiler look out for libasound .so in /lib instead it will find a link there which will redirect it
/usr/local/lib/libasound.so

alternatively you can copy that file from '/usr/local/lib' to '/lib' but then some program might be
looking for the same file in '/usr/local/lib'
so it is advisable to use links since they save a lot of space

ii) Try to uncompress the packages with the command line options.
uncompressing with the right-click option may make your system to stop responding
if your system stops responding in that case
Ctrl+Esc will bring the process table
choose the process which may cause such activity
in this case you have 'Ark' utility responsible for uncompressing the package
so choose the appropriate process and kill it to remove it from the process table

iii) See that you have appropriate space for extracting and compiling the packages sometime
they take a lot of space for example
While I extract my kernel of 32 Mb it uncompressed to around 130Mb and to compile it I need an extra
space of around 150 Mb!!!

iv) after the packages have been installed you can remove the object files from the package by

```
[root@aurav xmms-1.2.10]# make clean
```

this will remove the object(.o)files which were required only during compile time
also you can remove the package instead from /plugins to save disk space since after the command 'make
install' the required libraries and other files have been installed in '/usr'

v) installing with rpm is easier since they are precompiled and they take less time but they are version and
distribution specific so you will not get .rpm files for your version of Linux, instead source packages are the
same so you will get them everywhere

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