Sometimes you’re presented with a package file in one format, but you want to use another  
format. This is particularly common when you use a Debian-based distribution and can  
find only tarballs or RPM files of a package. When this happens, you can keep looking for  
a package file in the appropriate format, install the tools for the foreign format, create a  
package from a source tarball using the standard RPM or Debian tools, or convert between  
package formats with a utility like alien.  
This section focuses on this last option. The alien program comes with Debian and a  
few other distributions, but it may not be installed by default. If it’s not installed on your  
system, install it by typing **apt-get install alien** on a system that uses APT, or use  
the RPMFind or Debian package website to locate it. This program can convert between  
RPM packages, Debian packages, Stampede packages (used by Stampede Linux), and  
tarballs.  
You need to be aware of some caveats. For one thing, alien requires that you have  
appropriate package manager software installed—for instance, both RPM and Debian—to

convert between these formats. The alien utility doesn’t always convert all dependency  
information completely and correctly. When converting from a tarball, alien copies the  
files directly as they had been in the tarball, so alien works only if the original tarball has  
files that should be installed off the root (/) directory of the system.

Although alien requires both RPM and Debian package systems to be  
installed to convert between these formats, it doesn’t use the database  
features of these packages unless you use the --install option. The  
presence of a foreign package manager isn’t a problem as long as you  
don’t use it to install software that might duplicate or conflict with  
software installed with your primary package manager.

The basic syntax of alien is as follows:  
alien [options] file[...]  
The most important options are --to-deb, --to-rpm, --to-slp, and --to-tgz, which  
convert to Debian, RPM, Stampede, and tarball format, respectively. (If you omit the destination format, alien assumes that you want a Debian package.) The --install option  
installs the converted package and removes the converted file. Consult the alien man page  
for additional options.  
For instance, suppose you have a Debian package called someprogram-1.2.3-4\_i386.  
deb, and you want to create an RPM from it. You can issue the following command to  
create an RPM called someprogram-1.2.3-4.i386.rpm:  
# **alien --to-rpm someprogram-1.2.3-4\_i386.deb**  
If you use a Debian-based system and want to install a tarball but keep a record of  
the files it contains in your Debian package database, you can do so with the following  
command:  
# **alien --install binary-tarball.tar.gz**  
It’s important to remember that converting a tarball converts the files in the directory  
structure of the original tarball using the system’s root directory as the base. Therefore, you  
may need to unpack the tarball, juggle files around, and repack it to get the desired results  
*prior to* installing the tarball with alien. For instance, suppose you have a binary tarball  
that creates a directory called program-files, with bin, man, and lib directories under  
this. The intent may have been to unpack the tarball in /usr or /usr/local and create links  
for critical files. To convert this tarball to an RPM, you can issue the following commands:  
# **tar xvfz program.tar.gz**  
# **mv program-files usr**  
# **tar cvfz program.tgz usr**  
# **rm -r usr**  
# **alien --to-rpm program.tgz**

By renaming the program-files directory to usr and creating a new tarball, you’ve  
created a tarball that, when converted to RPM format, will have files in the locations you  
want—/usr/bin, /usr/man, and /usr/lib. You might need to perform more extensive  
modifications, depending on the contents of the original tarball.