Debian Goes Extraterrestrial

Alien is a Perl program and requires Perl Version 5.004 or better. You can call *perl --version* from the command line to discover what version is installed on your machine:

```
huhn@transpluto:~$ perl ↵
--version
This is perl, v5.6.1 built for ↵
i386-linux
```

To create RPMs, you will obviously need to install the Red Hat Package Manager ([1]). If you use *apt* to install Alien, any dependent packages will be installed at the same time:

```
transpluto:~# apt-get install ↵
alien
Reading Package Lists... Done
Building Dependency Tree... Done
The following extra packages ↵
will be installed:
  debconf-utils debhelper html2↵
  text librpm4 rpm
The following NEW packages will↵
  be installed:
  alien debconf-utils debhelper↵
  html2text librpm4 rpm
0 packages upgraded, 6 newly ↵
installed, 0 to remove and 156
not upgraded.
Need to get 1320kB of archives.↵
 After unpacking 4260kB will be↵
 used.
Do you want to continue? [Y/n]
```

Press the [y] key to confirm and Debian will get on with the job. Just one more note before we get down to the nitty gritty: Alien is still under development (this includes the latest version 8.12), i.e. occasional errors may occur. So before you start converting really important packages such as *init* or *libc* with this tool, it is a good idea to find out if your Debian version already has the software you need in Debian package format.

From *.rpm* to *.deb*

A Debian package(.deb suffix) contains a range of information about dependencies

Alien is a program designed for converting packages in third party formats to the format required by your own distribution for installation purposes. The tool runs on most major distributions and can handle various package formats. In this month's article we will be looking into the topic of converting "alien" software to known package formats with Debian. **BY HEIKE JURZIK**

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on and to other packages. This feature ensures perfect integration of the new software, and allows you to remove it cleanly from your system, if required. However, the format is not used by any other distributions (except distributions based on Debian).

Similarly, you will experience some difficulty if you try to install RPM formatted packages on Debian. Of course, there is normally no need for this, as Debian includes a variety of packages, and most new programs are quickly made available in the .deb package format. But if you do happen to need to install a third party RPM package, you can rely on alien for support.

The simplest syntax for alien on the command line is *alien package.rpm*. You will need to have superuser (*root*) access

to convert a package, if not, the following error message will be displayed:

```
Must run as root to convert to ↵
deb format (or you may use fake↵
root).
```

After successfully completing the conversion, alien issues the following message:

```
transpluto:~# alien mypackage.↵
rpm
mypackage.deb generated
```

Before installing the package, you check where the components have been stored by typing *dpkg -c. dpkg --info mypackage.deb* which provides details of the characteristics such as version number, dependencies, or even a description of

the software. If you intend to install the package, you may want ensure that the installation will succeed under your real conditions. To test this you need to type *dpkg --no-act -i mypackage.deb*, then the system will let you know if it finds any dependency issues. Everything OK? Next time you can omit the *--no-act* option, and install the package without prior checks.

If you are sure that you want to install the package without a prior check, you can set the following Alien flag when converting the package *-i* (or the long form: *--install*):

```
transpluto:~# alien -i ⏎
mypackage.rpm
Selecting previously deselected⏎
 package mypackage.
 (Reading database ... 53783 ⏎
 files and directories currently
 installed.)
Unpacking mypackage (from ⏎
mypackage.deb) ...
Setting up mypackage (1.0.3-1) ⏎
...
```

No errors occurred during conversion and installation, but you may still want to ensure that Debian can handle the third party package. To do so you can type *dpkg -s mypackage*. The command line output should be something along the lines of *Status: install ok installed*. By the way: You can type *dpkg* to deinstall any packages you have installed. If you use the *-P* option (abbreviation for *--purge*), you not only deinstall the software, but you also remove the configuration files completely. A simple command, such as *dpkg -r mypackage* (for *--remove*) will only remove the package, leaving all the settings under */etc* intact.

And vice versa?

Of course, you can use alien to create RPMs from Debian packages. To do so, use the *--to-rpm* parameter:

```
transpluto:~# alien --to-rpm ⏎
mypackage.deb
mypackage.rpm generated
```

You can now install this package on those distributions based on RPM. If errors occur when you call *rpm -i mypackage.rpm*, the error may be to do with unresolved dependencies.

In contrast to Debian based systems, where *apt* will automatically perform a complete installation of the required packages, you will need to install the RPM packages manually (see [2]).

Alien will also allow you to create *tgz* packages (parameter *-t* or *--to-tgz*) for Slackware, or *pkg* packages (parameter *-p* or *--to-pkg*) for Solaris. In addition, alien will not only run on Debian, but there is a version for RPM based systems. This tool goes by the name of *alien-extra* – for information and binaries see [4]. Of course, conversions of this kind can cause issues. You will often need libraries and discover that you either have the wrong version or do not have the library at all. So it makes sense to first check and see if the package is included in your own distribution before you start installing "alien" software on your machine. ∎

INFO

[1] *http://www.rpm.org/*

[2] *http://rpmfind.net/*

[3] *http://www.kitenet.net/programs/alien/*

[4] *ftp://ykbsb2.yk.psu.edu/pub/alien/*