Building a Debian Package from Source (Lab)

coursera.org/learn/linux-tools-for-developers/supplement/yv6ec/building-a-debian-package-from-source-lab

Exercise

Note: If you are on an APT packaging system, you should do this exercise. If you are on a RPM-based system you should do the previous one.

In this exercise, we will build a Debian package from its upstream source **tarball** (of course if you are on a non-Debian based system you can not perform this exercise!). We will use a simple **hello** program package.

📄 myappdebian-1.0.tarGZ File
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Before beginning, you may want to make sure you have the necessary utilities installed with:

```
1
$ sudo apt-get install dh-make fakeroot build-essential
```

The contents are:

```
1
2
3
4
5
$ tar xvf myappdebian-1.0.tar.gz

myappdebian-1.0/

myappdebian-1.0/Makefile

myappdebian-1.0/myhello.c

myappdebian-1.0/README
```

where:

```
33
        rm -f $(TARGET)
```

Note: You can certainly construct a simpler **Makefile**. However, you must have the line:

```
1
BIN = $(DESTDIR)/usr/bin
```

and point the installation to the **BIN** directory, or the executable will not be installed as part of the package.

The main steps in the following are encapsulated in the **lab_makedeb.sh** file:

≣ lab_makedebSH File
[Download file] ↓

Make a working directory and put a copy of the source tarball in there:

```
1
2
$ rm -rf  WORK && mkdir WORK && cd WORK
$ cp ../myappdebian-1.0.tar.gz .
```

Expand the source tarball:

```
1
 $ tar xvf myappdebian-1.0.tar.gz
```

Go into the expanded directory and build the package, using **dh_make**, one of several possible package builder programs:

```
1
2
3
$ cd myappdebian-1.0
$ dh_make -f ../*myappdebian-1.0.tar.gz
$ dpkg-buildpackage -uc -us
```

Make sure the program works!

```
1
2
$ ./myhello
hello world
```

Verify its contents:

```
1
$ dpkg --contents ../*.deb
```

- Take a good look at all the files in the **debian** directory and try to imagine building them all by hand!

- Install the package:

```
1
2
$ cd ..
$ sudo dpkg --install *.deb
```

Verify the installation worked:

```
1
2
$ myhello
hello world
```

You can uninstall the package with:

```
1
$ sudo dpkg --remove myappdebian
```

Solution

📄 nomakeSH File
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