

Debian Packaging Tutorial

Magic that makes `"apt-get install"` work

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Outline

- ➊ General Installation Procedure
- ➋ Packaging
- ➌ Creating Debian Package Steps



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From Source

- ▶ Download the source from upstream
- ▶ Read the installation instructions
- ▶ Hunt for the pre-requisites of installing (Download Dependencies)
- ▶ Finally install with these commands
 - ❶ `./configure`
 - ❷ `make`
 - ❸ `make install`



From Repository

```
sudo apt-get install package_name
```



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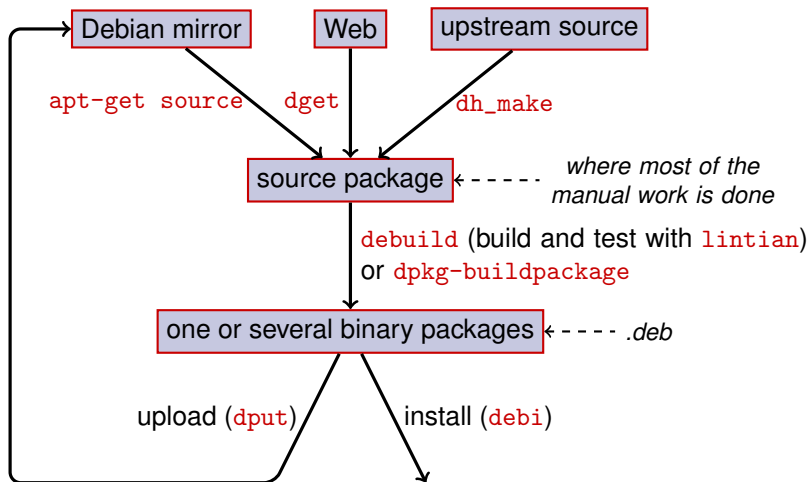


Tools of Trade

- ▶ A Debian (or Ubuntu) system (with root access)
- ▶ Some packages:
 - ▶ **build-essential**: contains basic building tools such as **gcc**, **g++**, **make** and mainly **dpkg-dev**, which contains basic Debian-specific tools to create packages
 - ▶ **devscripts**: contains many useful scripts for Debian maintainers
 - ▶ **dh-make**: tool to Debianize the upstream source easily
 - ▶ **lintian**: Debian package checker



General packaging workflow



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Creating Debian Package Steps

- ➊ Setting up your BASH environment
- ➋ Download the upstream tarball
- ➌ Rename the upstream tarball
- ➍ Unpack the upstream tarball
- ➎ Add the Debian packaging files
- ➏ Build the package
- ➐ Check for errors
- ➑ Install the package
- ➒ If everything is working as expected upload it to mentors.debian.net



Step 1: Setting up your BASH environment

- ▶ Append the following lines to `~/.bashrc`
[replace the values with Your full name and email address]

```
DEBEMAIL="abdulkarimmemon@gmail.com"  
DEBFULLNAME="AbdulKarim Memon"  
export $DEBFULLNAME $DEBEMAIL
```

- ▶ Restart your terminal or execute following in the terminal.

```
$ source ~/.bashrc
```



Step 2: Download upstream tarball

```
$ mkdir ~/packaging
$ cd ~/packaging
$ wget http://download.savannah.gnu.org/releases/smc/
  hyphenation/patterns/hyphen-as-0.7.0.tar.bz2
```



Rename the upstream tarball

Rename the tarball to `<package_name>_<version>.orig.tar.bz2`

