

# Debian Packaging Tutorial

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

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February 25, 2012



# Outline

- 1 General Installation Procedure
- 2 Packaging



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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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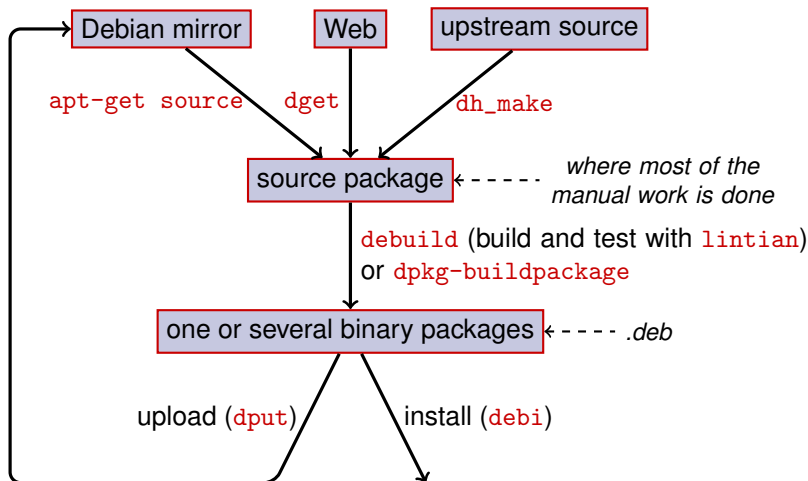


# Tools of Trade

- ▶ 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





# The Deb package format

- ▶ .deb file: an ar archive

```
$ ar tv wget_1.12-2.1_i386.deb
rw-r--r-- 0/0      4 Sep  5 15:43 2010 debian-binary
rw-r--r-- 0/0    2403 Sep  5 15:43 2010 control.tar.gz
rw-r--r-- 0/0   751613 Sep  5 15:43 2010 data.tar.gz
```

- ▶ debian-binary: version of the deb file format, "2.0\n"
- ▶ control.tar.gz: metadata about the package  
control, md5sums, (pre|post)(rm|inst), triggers, shlibs,...
- ▶ data.tar.gz: data files of the package

