08-2 Installing Newer Packages

Living on the "Testing" Edge

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apt-get install

- **apt-get install** installs a stable version of software
- May not be the most current version
- You can see what's available with

```
bone$ apt-cache pkgnames | sort > /tmp/list
bone$ wc /tmp/list
 46677  46677 818844 /tmp/list
bone$ less /tmp/list
0ad-data
2ping
2vcard
3270-common
389-console
3dchess
3depict
```

Example: git

```
bone$ git --version
git version 2.1.4
```

- This isn't the current version of git
- https://packages.debian.org/stable/ shows current versions
- https://packages.debian.org/jessie/git
- May not be current version, but is well tested

Installing a more recent version

- Debian has different distributions of packages
- Different levels of testing
- Packages start in *Unstable* distribution
- Move to *Testing*
- Finally move to *Stable* if it is a significant upgrade
- Currently *Jessie* (version 8) is stable (on Bone)
- *Stretch* (version 9) is in testing
- What if you need a newer version than what Jessie has?

Backports

- If you don't want to risk a *Testing* distribution…
- Use backports
- Packages taken from the next release and compiled for the current release

```
bone$ cd /etc/apt/sources.list.d
bone$ echo "deb http://ftp.us.debian.org/debian/ jessie-backports main" > jessie-backports.list
bone$ echo "deb http://ftp.us.debian.org/debian/ stretch main contrib non-free" > stretch.list
bone$ echo " deb http://ftp.us.debian.org/debian/ sid main contrib non-free" > sid.list
```

```
bone$ apt update
```

- http://linuxconfig.org/debian-apt-get-wheezy-sources-list

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*.list

Debian Free Software Guidelines

```
deb url distribution main contrib non-free
```

- **url**: http://ftp.us.debian.org/debian/
- **distribution**: wheezy, jessie, stretch, sid OR oldstable, stable, testing, unstable
- **main**: DFSG-compliant packages, which do not rely on software outside this area to operate. These are the only packages considered part of the Debian distribution.
- **contrib**: DFSG-compliant software, but have dependencies not in **main** (possibly packaged for Debian in **non-free**).
- **non-free**: contains software that does not comply with the DFSG.

https://wiki.debian.org/SourcesList

https://www.debian.org/social_contract#guidelines

Installing from other releases

```
bone$ git --version
git version 2.1.4
```
- Install stretch
```
bone$ apt install git/stretch
bone$ git --version
git version 2.9.3
```
- Install Sid
```
bone$ apt-get install git/sid
bone$ git --version
git version 2.10.1
```

Clean up

- Best not to have unneeded releases in `/etc/apt/sources.list.d`
- They make **apt update** take extra time.
```
bone$ cd /etc/apt/sources.list.d
bone$ mkdir hide
bone$ mv jessie-backports.list hide
bone$ mv stretch.list sid.list hide
bone$ apt update
```