

Suggested readings:

- Debian package management introduction and reference.
- 15 Practical Examples of “dpkg commands” for Debian Based Distros
- Using PPA in Ubuntu Linux

. deb packages

- Sample: `firefox_75.0-2_amd64.deb`
- Archive containing:
 - Files
 - Pre- and post installation scripts
 - trigger

The **dpkg** command

- Query installed, install / update from file system and purge packages, i.e.:

```
> dpkg -i skypeforlinux-64.deb
```

```
> dpkg -l apt*
```

```
Desired=Unknown/Install/Remove/Purge/Hold
```

```
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/...
```

```
+++-----
```

ii	apt	2.0.2	amd64	..
ii	apt-config-icons	0.12.10-2	all	
un	apt-config-icons-hi-dpi	<none>	<none>	
un	apt-doc	<none>	<none>	
un	apt-listbugs	<none>	<none>	...

- Low level package management
- Dependency unaware

The **apt** command

- Network based
- Dependency aware
- Automated system updates

```
#> apt update ❶
Hit:1 http://security.debian.org/buster/updates InRelease
...
4 packages can be upgraded

#> apt upgrade ❷
... The following packages will be upgraded:
      libldap-2.4-2 libldap-common libssl1.1 openssl
...
Get:1 http://security.debian.org/buster/updates/main ...
Get:2 http://security.debian.org/buster/updates/main ...
```

Rationale using PPA's

Problems:

- “Not available here”
- Version outdated
- Needing “bleeding edge” version