

## Suggested readings:

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

# . deb packages

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

# The dpkg command

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- 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-hidpi <none> <none>
un apt-doc <none> <none>
un apt-listbugs <none> <none> ..
```

- Low level package management
- Dependency unaware

# The **apt** command

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- 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

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## Problems:

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- Version outdated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