

# Manajemen Paket di Linux



## Praktikum Sistem Operasi



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# Tujuan Pembelajaran

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1. Mahasiswa dapat mengetahui Manajemen Paket.

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2. Mahasiswa dapat mengimplementasikan perintah dpkg.

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3. Mahasiswa dapat mengimplementasikan perintah apt.

# Manajemen Paket

- Manajemen paket adalah sistem untuk mengelola software (instalasi, pembaruan, penghapusan) secara efisien di sistem operasi Linux.

# dpkg (Debian Package)

- dpkg digunakan untuk mengelola file .deb secara langsung — cocok saat instalasi paket secara manual (offline).

| Fungsi                     | Perintah                                |
|----------------------------|---|
| Instalasi                  | <code>sudo dpkg -i nama_file.deb</code> |
| Hapus paket                | <code>sudo dpkg -r nama_paket</code>    |
| Daftar paket terinstal     | <code>dpkg -l</code>                    |
| Cek apakah paket terinstal | <code>dpkg -s nama_paket</code>         |

Jika muncul error dependency setelah instalasi .deb, gunakan:

```
sudo apt --fix-broken install
```

# Contoh Penerapan dpkg

- Anda dapat mengunduh file deb dengan **wget** atau **curl**:

```
wget --no-check-certificate https://download.teamviewer.com/download/linux/teamviewer_amd64.de
```

```
curl -k -O -L https://download.teamviewer.com/download/linux/teamviewer_amd64.deb
```

```
sudo dpkg -i teamviewer_amd64.deb
```



# Kekurangan dpkg

1. Dpkg tidak menangani dependensi atau ketergantungan suatu paket akan paket lain secara otomatis, sehingga jika menginstall paket dan paket tersebut memerlukan paket lain untuk berfungsi, maka user harus secara manual menginstall paket yang dibutuhkan tersebut.
2. Dpkg tidak dapat mengambil paket dari lokasi lain di network, seperti yang APT lakukan. Jadi saat bekerja dengan dpkg, paket-paket tersebut sudah di download ke dalam system lokal

# APT (Advanced Package Tool)

- **APT** adalah alat berbasis command-line yang memudahkan pengguna mengelola paket dari repositori Debian/Ubuntu.
- Sumber-sumber repository dimana APT dapat mengambil paket-paketnya dikonfigurasi melalui sebuah file di **`/etc/apt/sources.list`**.



# Perintah Umum Apt

| Fungsi                               | Perintah                                 |
|--------------------------------------|--|
| Instal paket                         | <code>sudo apt install nama_paket</code> |
| Hapus paket                          | <code>sudo apt remove nama_paket</code>  |
| Hapus lengkap (termasuk konfigurasi) | <code>sudo apt purge nama_paket</code>   |
| Cari paket                           | <code>apt search kata_kunci</code>       |
| Lihat info paket                     | <code>apt show nama_paket</code>         |
| Update daftar repo                   | <code>sudo apt update</code>             |
| Upgrade sistem                       | <code>sudo apt upgrade</code>            |

# Contoh Penerapan Apt

## sudo apt update

```
Get:31 http://id.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [28.7 kB]
Get:32 http://id.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [46.5 kB]
Get:33 http://id.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [11.8 kB]
Get:34 http://id.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [592 B]
Fetched 16.7 MB in 60s (279 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
100 packages can be upgraded. Run 'apt list --upgradable' to see them.
yunia@linux:~$
```

```
yunia@linux:~$ sudo apt update
Hit:1 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:2 http://id.archive.ubuntu.com/ubuntu jammy InRelease
Hit:3 http://id.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:4 http://id.archive.ubuntu.com/ubuntu jammy-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
100 packages can be upgraded. Run 'apt list --upgradable' to see them.
yunia@linux:~$ _
```

# Contoh Penerapan Apt

**sudo apt install git**

```
yunia@linux:~$ sudo apt install git
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
git is already the newest version (1:2.34.1-1ubuntu1.12).
git set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 100 not upgraded.
yunia@linux:~$ git --version
git version 2.34.1
yunia@linux:~$ _
```

# Contoh Penerapan Apt

sudo apt remove git

```
yunia@linux:~$ sudo apt remove git
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  git-man liberror-perl
Use 'sudo apt autoremove' to remove them.
The following packages will be REMOVED:
  git ubuntu-server
0 upgraded, 0 newly installed, 2 to remove and 99 not upgraded.
After this operation, 19.0 MB disk space will be freed.
Do you want to continue? [Y/n] y
(Reading database ... 128591 files and directories currently installed.)
Removing ubuntu-server (1.481.3) ...
Removing git (1:2.34.1-1ubuntu1.12) ...
yunia@linux:~$ git --version
-bash: /usr/bin/git: No such file or directory
yunia@linux:~$ _
```