

# Arch Linux Package Management

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(under construction)

# Agenda

- TODO

# Introduction

- TODO

# Important dirs / files

- `/var/lib/pacman/`
  - DATABASE with information about packages
  - `local/$package-$version/files` : list of files contained in package `$package-$version`
- `/var/cache/pacman/pkg/`
  - PACKAGES themselves
- `/etc/pacman.conf`
  - main pacman configuration file

# Common operations

- `pacman -S package`
  - Installs the *package*. Example: `pacman -S vim`
- `pacman -Syu` (upgrade all packages)
- `pacman -Syyu` (Force pacman to refresh the package lists before upgrade)
- `pacman -Q`
  - Lists all the installed packages (**-Qe** explicit installed packages - omits dependencies, **-Qqe** omits version, etc..)
- `pacman -Ss expression`
  - Finds packages that contains the expression in their names or description. Example: `pacman -Ss apache`

# Common operations

- `pacman -Ql package`
  - Lists all files that are part of an installed *package*
- `pkgfile file`
  - Lists the package that owns file “*file*”
- `pkgfile -l package`
  - Lists all files provided by package “*package*”
- `pacman -Sgg`
  - Lists group and all files that is part of that group

# Common operations

- `pacman -Qo file-path`
  - Finds the package that owns that file. Example:  
`pacman -Qo /etc/fstab`
- `pacman -R package`
  - Removes the *package*. Example: `pacman -R vim`
- `pacman -Rc package`
  - Removes the *package* and all its dependencies (DANGEROUS). Example: `pacman -Rc vim`

# Common operations

- Omitting some packages when upgrading
  - I will avoid the upgrade of the linux kernel as an example:

```
sed -i 's/#IgnorePkg    =/IgnorePkg    = linux/g'  
/etc/pacman.conf
```

- See pacman.conf documentation:  
`man pacman.conf`



# Using a local (private) mirror

- Server (192.168.200.198)
- Client
  - put the following line before any other server at `/etc/pacman.d/mirrorlist`

```
Server = http://192.168.200.198/repositorio/archlinux/$repo/os/$arch
```

# Sharing a cache dir as a repo

- Server (192.168.90.43)

```
pacman -S darkhttpd
```

```
darkhttpd /var/cache/pacman/pkg
```

- Client

- put the following line before any other server at  
`/etc/pacman.d/mirrorlist`

```
Server = http://192.168.90.43
```

# Replicating a install

- At the source machine

```
pacman -Qqe > pkglist.txt
```

- transfer the file `pkglist.txt` to the destination machine

- At the destination machine

```
pacman -S - < pkglist.txt
```

# Speeding up

- Reflector
  - script that can retrieve the latest (and fastest) list of mirrors from MirrorStatus page.
- Rank mirrorlist by speed
  - `cp /etc/pacman.d/mirrorlist /etc/pacman.d/mirrorlist.backup`
  - `rankmirror -n 10 /etc/pacman.d/mirrorlist.backup > /etc/pacman.d/mirrorlist`