# apk Alpine package manager

## CONCEPTS

apk keeps a world file (/etc/apk/world) of what you asked for; everything else is a dependency and goes away with it.

**Repositories** /etc/apk/repositories
↓ `apk update`
**Local index** package list
↓ `apk add`
**World file** wanted packages
↓ `resolve`
**Installed** world + deps

## INSTALL AND REMOVE

`apk add <pkg>`
Install a package

`apk add <pkg1> <pkg2>`
Install several packages

`apk add --no-cache <pkg>`
Install, skip the local index cache

`apk del <pkg>`
Remove a package and unused deps

`apk del -r <pkg>`
Also remove packages depending on it

`apk add -t <name> <pkg>...`
Group packages as a virtual package

`apk del <name>`
Remove a virtual package and its deps

`apk add <pkg>=<version>`
Install a specific version

`apk add <pkg>@<tag>`
Install from a tagged repository

`apk add -u <pkg>`
Upgrade a package if installed

`apk add cmd:<command>`
Install whichever package provides a command

`apk add -s <pkg>`
Simulate an install

## UPDATE AND UPGRADE

`apk update`
Refresh the package index

## UPDATE AND UPGRADE (cont.)

`apk upgrade`
Upgrade all installed packages

`apk update && apk upgrade`
Refresh, then upgrade

`apk upgrade -s`
Preview an upgrade

`apk upgrade --available`
Sync to repos after a release switch

`apk upgrade <pkg>`
Upgrade only this package

`apk list -u`
List upgradable packages

`apk fix`
Repair or reinstall broken packages

## SEARCH AND INSPECT

`apk search <name>`
Search package names

`apk search -e <name>`
Search for an exact name

`apk search -d <text>`
Search descriptions

`apk search -v <name>`
Show versions and descriptions

`apk search cmd:<command>`
Find the package providing a command

`apk info <pkg>`
Show package details

`apk info`
List installed packages

`apk list -I`
List installed packages with versions

`apk info -L <pkg>`
List files in a package

`apk info -W <path>`
Find the package owning a file

`apk info -e <pkg>`
Check whether a package is installed

`apk info -R <pkg>`
List a package's dependencies

## SEARCH AND INSPECT (cont.)

`apk info -r <pkg>`
List packages depending on it

`apk policy <pkg>`
Show available versions and repos

## REPOSITORIES

`cat /etc/apk/repositories`
Show configured repositories

`apk add -X <url> <pkg>`
Add a repository for one command

Repositories are main, community and testing; testing is edge-only. Use a @tag prefix to opt in per package.

**repositories line**

| Part | Example |
|---|---|
| `Plain` | https://dl-cdn.alpinelinux.org/alpine/v3.20/main |
| `Community` | https://dl-cdn.alpinelinux.org/alpine/v3.20/community |
| `Edge testing` | @testing https://dl-cdn.alpinelinux.org/alpine/edge/testing |
| `Local path` | /var/apk/my-packages |

## CACHE AND WORLD

`apk cache clean`
Delete outdated cached packages

`apk fetch <pkg>`
Download a package without installing

`cat /etc/apk/world`
Show explicitly installed packages

`update-conf`
Merge .apk-new config files

## RECIPES

**Dockerfile install**

```
FROM alpine:3.20
RUN apk add --no-cache curl ca-certificates
```

**Temporary build dependencies**

```
apk add --no-cache -t .build-deps build-base
# compile something here
apk del .build-deps
```