Flatpak Sandboxed Linux apps

CONCEPTS

Apps run in a sandbox on a shared runtime. Installing one app may pull in a runtime that other apps reuse.

Remote e.g. flathub
↓ install
Installation --user or --system
↓ run
Sandbox app + runtime
↓ override
Permissions per app or global

A ref is name/arch/branch, e.g. org.mozilla.firefox/x86_64/stable. The short app ID is usually enough.

Install without --user or --system defaults to system-wide and may ask for admin rights. Use --user for a per-user install.

REMOTES

flatpak remotes
List configured remotes

flatpak remote-add --if-not-exists *<name> <url-or-.flatpakrepo>*
Add a remote

flatpak remote-ls *<remote>*
List what a remote offers

flatpak remote-delete *<remote>*
Remove a remote

INSTALL AND UPDATE

flatpak search *<text>*
Search remotes for apps

flatpak install *<remote> <app-id>*
Install from a remote

flatpak install --user *<app-id>*
Install for the current user only

flatpak install -y *<app-id>*
Install without prompts

flatpak update
Update apps and runtimes

INSTALL AND UPDATE (cont.)

flatpak update *<app-id>*
Update one app

flatpak update --commit=*<commit> <app-id>*
Move to a specific commit

flatpak uninstall *<app-id>*
Remove an app

flatpak uninstall --unused
Remove unused runtimes

flatpak uninstall --delete-data *<app-id>*
Remove app and its data

flatpak mask *<pattern>*
Block updates for matches

flatpak pin *<runtime>*
Keep a runtime from auto-removal

RUNNING

flatpak run *<app-id>*
Start an app

flatpak run --command=*<cmd> <app-id>*
Run another command in the sandbox

flatpak run --filesystem=*<path> <app-id>*
Grant a path for this run

flatpak ps
List running instances

flatpak kill *<app-id>*
Stop a running app

INSPECT

flatpak list
List installed apps and runtimes

flatpak list --app
List only apps

flatpak list --runtime
List only runtimes

flatpak info *<app-id>*
Show an installed app

flatpak info -m *<app-id>*
Show its metadata and permissions

INSPECT (cont.)

flatpak history
Show install and update history

PERMISSIONS

flatpak override --user --filesystem=*<path> <app-id>*
Give an app a path

flatpak override --user --socket=*<socket> <app-id>*
Allow a socket, e.g. wayland

flatpak override --user --nosocket=*<socket> <app-id>*
Deny a socket

flatpak override --user --env=*<VAR>=<value> <app-id>*
Set an env var

flatpak override --user --show *<app-id>*
Show your overrides

flatpak override --user --reset *<app-id>*
Clear your overrides

MAINTENANCE

flatpak repair --user
Check and fix the user install

RECIPES

Set up Flathub and install

```
flatpak remote-add --if-not-exists flathub \
  https://dl.flathub.org/repo/flathub.flatpakrepo
flatpak install flathub org.mozilla.firefox
flatpak run org.mozilla.firefox
```

Tidy up

```
flatpak update
flatpak uninstall --unused
flatpak repair --user
```

Let one app see a folder

```
flatpak override --user --filesystem=$HOME/Projects <app-id>
flatpak override --user --show <app-id>
flatpak override --user --reset <app-id>
```

Hang app? Stop it

```
flatpak ps
flatpak kill <app-id>
```