Build your own RPM repositories

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copr.fedorainfracloud.org

Agenda

- What is Copr and why use it
- Demo: Web UI — project, build, results
- Demo: copr-cli — same thing from the terminal
- Installing a package from Copr
- Integration, automation & links
- Q&A

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What is Copr?

📦 Source

You provide SRPM, spec file, or Git URL

⚙️ Build

Copr builds in desired mock chroot

🚀 Install

`dnf copr enable` + `dnf install`

- Like PPA or AUR - but for Fedora, EPEL, CentOS Stream, ...
- All you need: FAS account - free, no approval
- No need to be a Fedora packager

⚠️ Resulting repo is public!

Copr vs. Koji

	Fedora Copr	Koji
For	Personal / community	Official Fedora
Access	Anyone (FAS)	Sponsored
Repo	Own per-project	Fedora repos
Guidelines	Not required	Required

Supported sources

- 📥 Upload SRPM / URL
- 🔀 SCM (Git) — rpkg, tito, make srpm
- 📦 DistGit — Fedora / CentOS
- 🐍 PyPI / 💎 RubyGems
- </> Custom script

Demo: Copr Web UI

- FAS account needed

Test SRPM: `https://github.com/fedora-copr/copr-test-sources/raw/main/hello-2.8-1.src.rpm`

⚠️ Project name cannot be changed later!

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⌨️ Demo: copr-cli — setup

1. Install

```
sudo dnf install copr-cli
```

2. Get API token

👉 copr.fedorainfracloud.org/api

3. Save config

```
# ~/.config/copr
[copr-cli]
login = <generated-login>
username = <your-username>
token = <generated-token>
copr_url = https://copr.fedorainfracloud.org
```

⚠️ Without this config file, copr-cli won't work (except read-only commands).

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Demo: copr-cli — commands

```
# Create a project
copr create workshop-cli-demo \
    --chroot fedora-rawhide-x86_64 \
    --chroot fedora-43-x86_64

# Submit a build (from URL)
copr build workshop-cli-demo \
    https://github.com/fedora-copr/copr-test-sources/raw/main/hello-2.8-1.src.rpm

# Submit a build from a local SRPM
copr build workshop-cli-demo ./hello-2.8-1.src.rpm

# Build status / list builds
copr status <BUILD_ID>
copr list-builds workshop-cli-demo

# Download results
copr download-build <BUILD_ID> --dest ./results/
```

✅ Without `--nowait`, the CLI tracks the build progress in real time.

Installing a package from Copr

Enable

```
sudo dnf copr enable <user>/<project>
```

Install

```
sudo dnf install hello
```

```
dnf copr list                              # list active Copr repos
sudo dnf copr disable <USER>/workshop-demo  # disable (keeps packages!)
sudo dnf remove hello                       # uninstall
```

Alternative: Download .repo file from the UI → Overview tab → button next to chroot.

Integration & automation

🔗 Webhooks

GitHub / GitLab / Bitbucket
Auto-rebuild on push or tag
Settings → Integrations

🤖 Packit

Copr builds from GitHub PRs
Results posted in the PR
packit.dev

📡 API

Full REST API Python lib python-copr
Swagger docs

SCM builds: `.copr/Makefile` - monorepo with multiple packages, custom SRPM build script

Summary

📦 Source

SRPM, URL, Git, PyPI...

⚙️ Build

Multi-distro, multi-arch

🚀 Install

Web UI + CLI + REST API + webhooks

🌐 **copr.fedorainfracloud.org**

📖 **Documentation · API**

💻 **GitHub** · `man copr-cli`

Q&A

?

Frequently Asked Questions

- **How long are builds kept?** - latest successful forever, old/failed after 14 days
- **Build timeout?** - default 5h
- **Is it safe?** - FAS accounts, GPG signing, public SRPM, you can verify
- **Koji vs Copr?** - Koji = official Fedora, Copr = community / personal
- **Packaging guidelines?** - recommended, but not required

Happy building! 🏗️

copr.fedorainfracloud.org · docs · github

#fedora-buildsys (Matrix) · #copr (Slack) · GitHub Issues

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