



# Using Packit and Testing Farm for CI/CD and automation in an upstream project

or “Packit appreciation talk”

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## Who are we

- We are a team working on various storage libraries and tools, mostly related to the Storaged Project<sup>1</sup>.
- We are both upstream and downstream (Fedora and RHEL) maintainers.
- We are using CI/CD and automation where possible.
- We are not Packit developers, just very happy users.

1) <https://storaged.org>

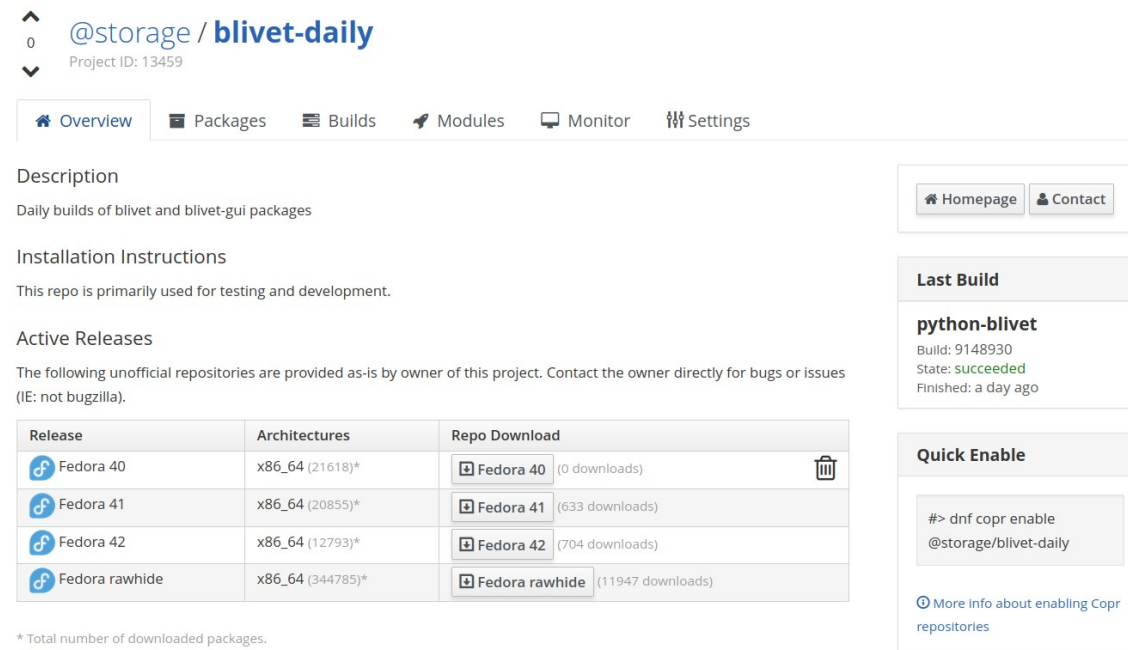


## How we use Packit

- We are using Packit for both manual and automated testing in our upstream projects and for downstream package maintenance automation.
- This includes daily builds in Copr, various CI jobs on GitHub and downstream automation in Fedora dist-git.
- Packit greatly simplifies cross project collaboration with our users like Cockpit and Anaconda.

# Daily builds in Copr

- “Daily” Copr builds triggered by commits merged in the upstream Git.
- RPM spec file available in the upstream repository.
- Used for testing and development both by us and our friends for further testing.



The screenshot shows the Copr project page for `@storage / blivet-daily` (Project ID: 13459). The page has a navigation bar with links for Overview, Packages, Builds, Modules, Monitor, and Settings. The main content area includes a Description, Installation Instructions, and Active Releases. The Active Releases section contains a table with columns for Release, Architectures, and Repo Download. The table lists four releases: Fedora 40, Fedora 41, Fedora 42, and Fedora rawhide, each with its architecture and download count. A sidebar on the right contains links for Homepage and Contact, a Last Build section for python-blivet, and a Quick Enable section with a terminal command to enable the repository.










@storage / **blivet-daily**  
Project ID: 13459

Overview Packages Builds Modules Monitor Settings

**Description**  
Daily builds of blivet and blivet-gui packages

**Installation Instructions**  
This repo is primarily used for testing and development.

**Active Releases**  
The following unofficial repositories are provided as-is by owner of this project. Contact the owner directly for bugs or issues (IE: not bugzilla).

Release	Architectures	Repo Download
 Fedora 40	x86_64 (21618)*	 <b>Fedora 40</b> (0 downloads) 
 Fedora 41	x86_64 (20855)*	 <b>Fedora 41</b> (633 downloads)
 Fedora 42	x86_64 (12793)*	 <b>Fedora 42</b> (704 downloads)
 Fedora rawhide	x86_64 (344785)*	 <b>Fedora rawhide</b> (11947 downloads)

\* Total number of downloaded packages.

**Last Build**  
**python-blivet**  
Build: 9148930  
State: **succeeded**  
Finished: a day ago

**Quick Enable**  

```
#> dnf copr enable  
@storage/blivet-daily
```

  
[More info about enabling Copr repositories](#)

```
- job: copr_build  
  trigger: commit  
  owner: "@storage"  
  project: blivet-daily  
  branch: main  
  preserve_project: true
```

# Copr builds for Pull Requests

- RPM builds triggered by pull request.
- Temporary Copr repositories are created automatically.
- Used as a simple test case and for manual testing and for related projects.


## Copr Build Results

[stored-project/blivet#1394](#) [e231d01](#) 

### SRPM Build

[Details](#)

#### Copr build

 [fedora-41-x86\\_64](#) ([Logs](#))



Submitted  
yesterday




Build successful  
Took 53 seconds

### Installation instructions

Please note that the RPMs should be used only in a testing environment

#### Repository


```
sudo dnf install -y 'dnf*-command(copr)' 
```

```
sudo dnf copr enable packit/stored-project-blivet-1394 fedora-41-x86_64 
```

```
- job: tests
  trigger: pull_request
  targets:
    - fedora-latest
  branch: main
```

# Running tests

- Tests run on pull requests using Testing Farm<sup>1</sup>.
- Test plans are part of the upstream GitHub repositories.
- Plans are standard Testing Farm test plans and can be also started manually with tmt.



The screenshot shows a GitHub Actions workflow run for the 'tests' job on the 'x86\_64' architecture using the 'Fedora-42' image. The overall status is 'pass'. Below the job summary, there is a link 'Go to Logs and Artifacts'. Two steps are listed: '/script-00' which took 1157 seconds, and '/script-01' which took 0 seconds.

```
▼ /plans/tests pass
  ■ x86_64 🔄 Fedora-42

Go to Logs and Artifacts

▶ /script-00 took 1157 s
▶ /script-01 took 0 s
```

```
- job: tests
  trigger: pull_request
  targets:
    - fedora-latest
  branch: main
```

1) <https://docs.fedoraproject.org/en-US/ci/testing-farm/>

# Reverse-dependency tests













- Running test suites of users of our APIs on pull requests.
- Ensures we don't break projects depending on us.
- Our projects and Cockpit<sup>1</sup> are currently covered.

```
- job: tests
  identifier: revdeps
  trigger: pull_request
  branch: main
  notifications:
    failure_comment:
      message: "Blivet-GUI tests failed for
commit {commit_sha}. @vojtechtrfny please
check."
  targets:
    - fedora-latest
  tf_extra_params:
    environments:
      - artifacts:
        - type: repository-file
          id: https://copr....
      tmt:
        context:
          revdeps: "yes"
```

1) <https://cockpit-project.org/blog/tmt-cross-project-testing.html>

# Downstream builds automation

- Triggered by upstream release (git tag).
- Packit opens Pagure PRs against all Fedora branches.
- Koji build is triggered after merging the PR.
- Bodhi updates are created automatically for branched Fedora versions.

 <b>#22 Update f41 to upstream release 3.12.1</b> Cancelled 3 months ago. Opened 3 months ago by packit.	 f41	 0
 <b>#21 Update f40 to upstream release 3.12.1</b> Cancelled 3 months ago. Opened 3 months ago by packit.	 f40	 0
 <b>#20 Update rawhide to upstream release 3.12.1</b> Merged 3 months ago. Opened 3 months ago by packit.	 rawhide	 0
 <b>#19 Update f42 to upstream release 3.12.1</b> Merged 3 months ago. Opened 3 months ago by packit.	 f42	 0

```
- job: propose_downstream
  trigger: release
  dist_git_branches:
    - fedora-all

- job: koji_build
  trigger: commit
  dist_git_branches:
    - fedora-all

- job: bodhi_update
  trigger: commit
  dist_git_branches:
    - fedora-branched
```



## Not only Fedora

- Other distributions supported by Copr and Testing Farm can be used as well.
- We have Copr builds and tests set up to help with backporting patches for RHEL/CentOS Stream.
- Support for building openSUSE packages in OBS was added recently<sup>1</sup>.



# CentOS

```
- job: copr_build
  targets:
    - centos-stream-10-x86_64
  trigger: pull_request
  branch: rhel10-branch

- job: tests
  trigger: pull_request
  targets:
    - centos-stream-10-x86_64
  branch: rhel10-branch
```

1) <https://pretalx.devconf.info/devconf-cz-2025/talk/7DESJP/>

## ...and more

### ■ Packit CLI<sup>1</sup>

- Need RPMs for manual testing?  
Simply run

```
$ packit build locally
```

### ■ OpenScan Hub<sup>2</sup> integration

- Runs OSH check for every PR
- Can be triggered manually with

```
$ packit scan-in-osh
```

```
$ packit scan-in-osh
...
Directory with sources:
/home/vtrefny/Projekty/blivet
...
Full command passed to osh-cli -> ['osh-cli',
'mock-build',
'/home/vtrefny/Projekty/blivet/python-
blivet-3.12.1-
1.20250611131534246573.main.67.g53f74344.fc42.sr
c.rpm', '--config=fedora-rawhide-x86_64', '--
nowait', '--json', '--comment=Submitted through
Packit.']]
Scan URL:
http://openscanhub.fedoraproject.org/task/59518/
```

1) <https://packit.dev/docs/cli>

2) <https://openscanhub.dev/>



# Packit is great!

- Packit is great for both upstream and downstream and **you should use it too.**
- Copr builds, both daily and on PR, are very useful for developers working in Fedora and RHEL ecosystem.
- Integration with Testing Farm is great for CI, especially for test cases that cannot run in a container.
- Dist-git automation saves a lot of time.

# Thank you for your attention

## ■ Packit resources

- <https://packit.dev/>
- <https://dashboard.packit.dev/>

## ■ Stored Project

- <https://storaged.org/>
- <https://github.com/storaged-project>

## ■ Contact:

- [vtrefny@redhat.com](mailto:vtrefny@redhat.com)