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NEXT-GEN PYTHON TOOLING

MARCH 21, 2025

RUFF

An extremely fast Python linter and formatter.

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RUFF

MONTHLY DOWNLOADS

7.6M

GITHUB STARS

20,539

VS CODE INSTALLS

244,502

CONTRIBUTORS

335

MONTHLY DOWNLOADS

44.6M

GITHUB STARS

36,851

VS CODE INSTALLS

1,625,789

CONTRIBUTORS

609

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UV

An extremely fast Python package manager.

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UV

Powering projects across the Python ecosystem

Since February, uv has grown to over **29M monthly downloads**, and now represents over 10% of all PyPI package downloads, or **~230M requests per day.**

GITHUB STARS

44,622

DOWNLOADS PER MONTH
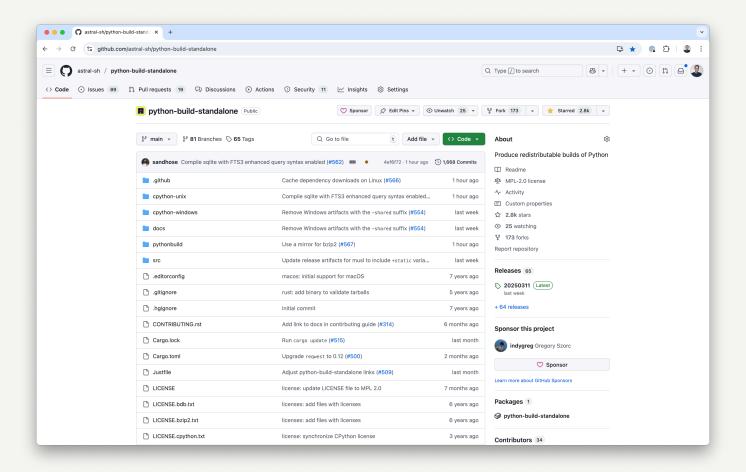
29.7M

PYPI SHARE

12.59%

PYPI REQUESTS PER DAY

~230M

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astral-sh / python-build-standalone

Code | Issues 89 | Pull requests 19 | Discussions | Actions | Security 11 | Insights | Settings

python-build-standalone Public

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main | 81 Branches | 65 Tags

Go to file | Add file | Code

sandhose Compile sqlite with FTS3 enhanced query syntax enabled (#562) 4ef6f72 · 1 hour ago 1,668 Commits

.github	Cache dependency downloads on Linux (#566)	1 hour ago
cpython-unix	Compile sqlite with FTS3 enhanced query syntax enabled...	1 hour ago
cpython-windows	Remove Windows artifacts with the --shared suffix (#554)	last week
docs	Remove Windows artifacts with the --shared suffix (#554)	last week
pythonbuild	Use a mirror for bzip2 (#567)	1 hour ago
src	Update release artifacts for musl to include +static varia...	last week
.editorconfig	macos: initial support for macOS	7 years ago
.gitignore	rust: add binary to validate tarballs	5 years ago
.hgignore	Initial commit	7 years ago
CONTRIBUTING.rst	Add link to docs in contirbuting guide (#314)	6 months ago
Cargo.lock	Run cargo update (#515)	last month
Cargo.toml	Upgrade reqwest to 0.12 (#500)	2 months ago
Justfile	Adjust python-build-standalone links (#509)	last month
LICENSE	license: update LICENSE file to MPL 2.0	7 months ago
LICENSE.bdb.txt	licenses: add files with licenses	6 years ago
LICENSE.bzip2.txt	licenses: add files with licenses	6 years ago
LICENSE.cpython.txt	license: synchronize CPython license	3 years ago

About

Produce redistributable builds of Python

- Readme
- MPL-2.0 license
- Activity
- Custom properties
- 2.8k stars
- 25 watching
- 173 forks

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Releases 65

🏷 20250311 Latest
last week

+ 64 releases

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Packages 1

python-build-standalone

Contributors 34

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06

What's working well?

- Wheels

- "Universal" locking and "universal" lockfiles

- Declarative configuration
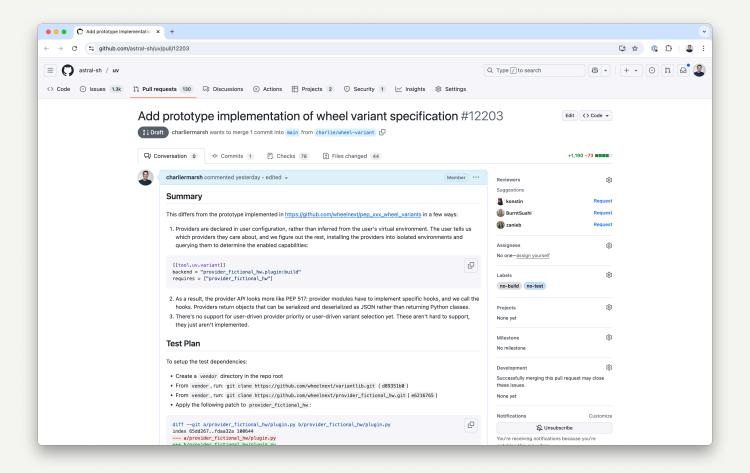
- Speed

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Where should we focus?

- Hardware-accelerated dependencies

- Consistent metadata within a distribution

- Relocatable Python distributions

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How can we help?

- Building prototypes into uv directly ([#12203](#))

- A proving ground for new ideas, pre-PEP

- A close connection to users and a significant focus on user experience

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github.com/astral-sh/uv/pull/12203

astral-sh / uv

Code | Issues 1.3k | Pull requests 130 | Discussions | Actions | Projects 2 | Security 1 | Insights | Settings

Add prototype implementation of wheel variant specification #12203

Edit | ◇ Code ▾

Draft charliermarsh wants to merge 1 commit into `main` from `charlie/wheel-variant`

💬 Conversation 0 | Commits 1 | Checks 78 | Files changed 44

+1,190 −73 ▪▪▪▪

charliermarsh commented yesterday · edited ▾ — Member · · ·

Summary

This differs from the prototype implemented in https://github.com/wheelnext/pep_xxx_wheel_variants in a few ways:

1. Providers are declared in user configuration, rather than inferred from the user's virtual environment. The user tells us which providers they care about, and we figure out the rest, installing the providers into isolated environments and querying them to determine the enabled capabilities:

```
[[tool.uv.variant]]
backend = "provider_fictional_hw.plugin:build"
requires = ["provider_fictional_hw"]
```

2. As a result, the provider API looks more like PEP 517: provider modules have to implement specific hooks, and we call the hooks. Providers return objects that can be serialized and deserialized as JSON rather than returning Python classes.

3. There's no support for user-driven provider priority or user-driven variant selection yet. These aren't hard to support, they just aren't implemented.

Test Plan

To setup the test dependencies:

- Create a `vendor` directory in the repo root
- From `vendor`, run: `git clone https://github.com/wheelnext/variantlib.git` (`d89351b0`)
- From `vendor`, run: `git clone https://github.com/wheelnext/provider_fictional_hw.git` (`e6216765`)
- Apply the following patch to `provider_fictional_hw`:

```
diff --git a/provider_fictional_hw/plugin.py b/provider_fictional_hw/plugin.py
index 65dd267..fdaa32a 100644
--- a/provider_fictional_hw/plugin.py
+++ b/provider_fictional_hw/plugin.py
```

Reviewers

Suggestions

konstin — Request
BurntSushi — Request
zanieb — Request

Assignees

No one—assign yourself

Labels

no-build no-test

Projects

None yet

Milestone

No milestone

Development

Successfully merging this pull request may close these issues.

None yet

Notifications — Customize

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THANK YOU