

# Renovate: Automating Dependency Management

ARC Collaborations Hour

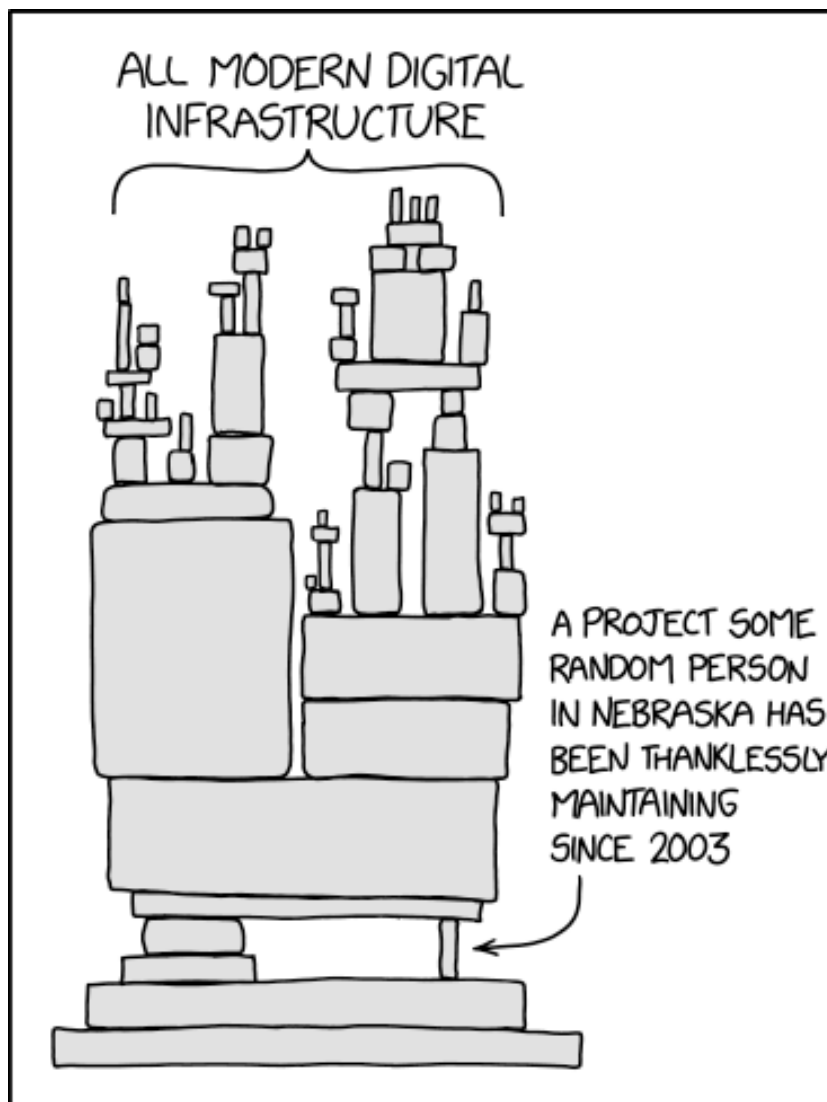
Patrick J. Roddy

2023-11-14

Renovate: Automating Dependency Management: <https://paddyroddy.com>

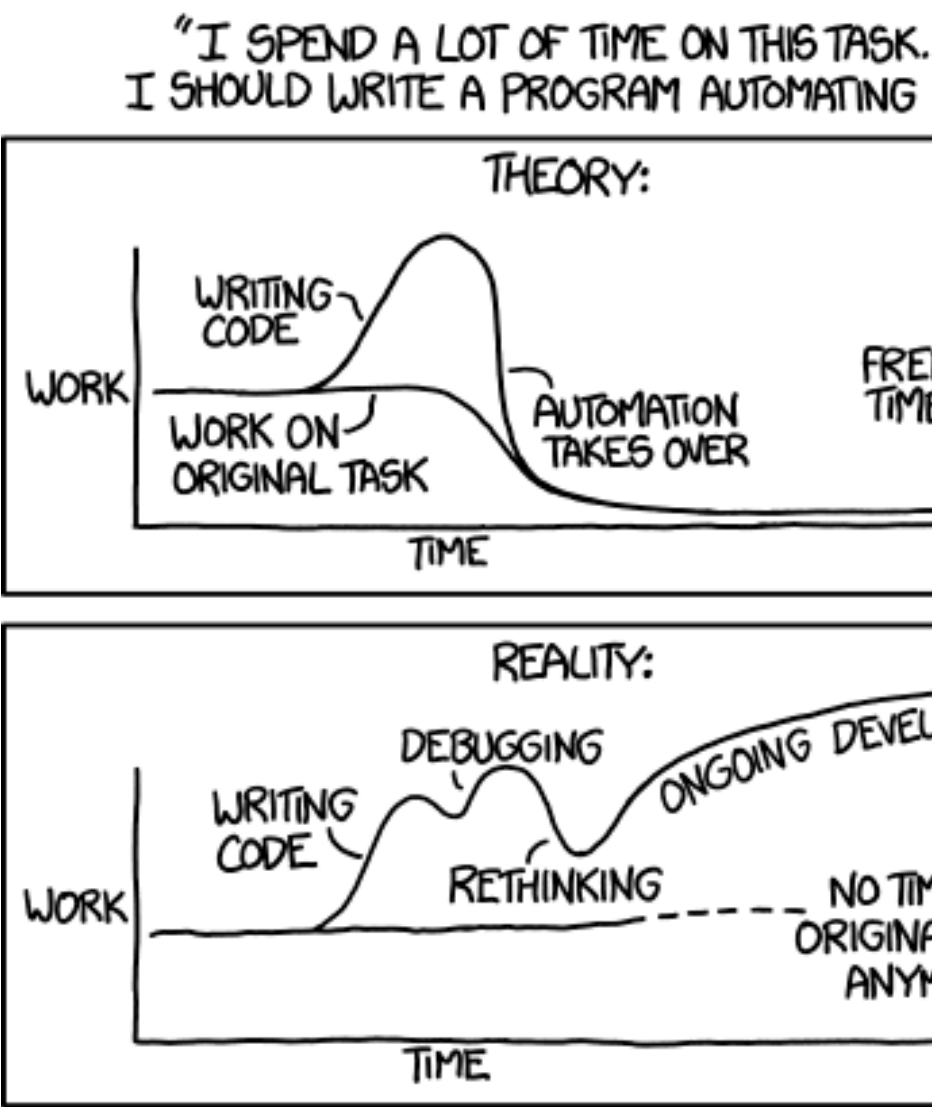
# Introduction

# Dependencies Are Inevitable



xkcd:2347

# Automation Saves Time?



xkcd:1319

# We've All Done This At Some

✓ ↕ 2 ■■■■■ .github/workflows/paper.y

⬆

@@ -22,7 +22,7 @@ jobs:

22	22	.....paper-path: pape
23	23	
24	24	.....- name: Upload
25		.....uses: actions/uplo
	25	.....uses: actions/uplo
26	26	.....with:
27	27	.....name: paper
28	28	.....path: paper/pape

# What About Security Upda

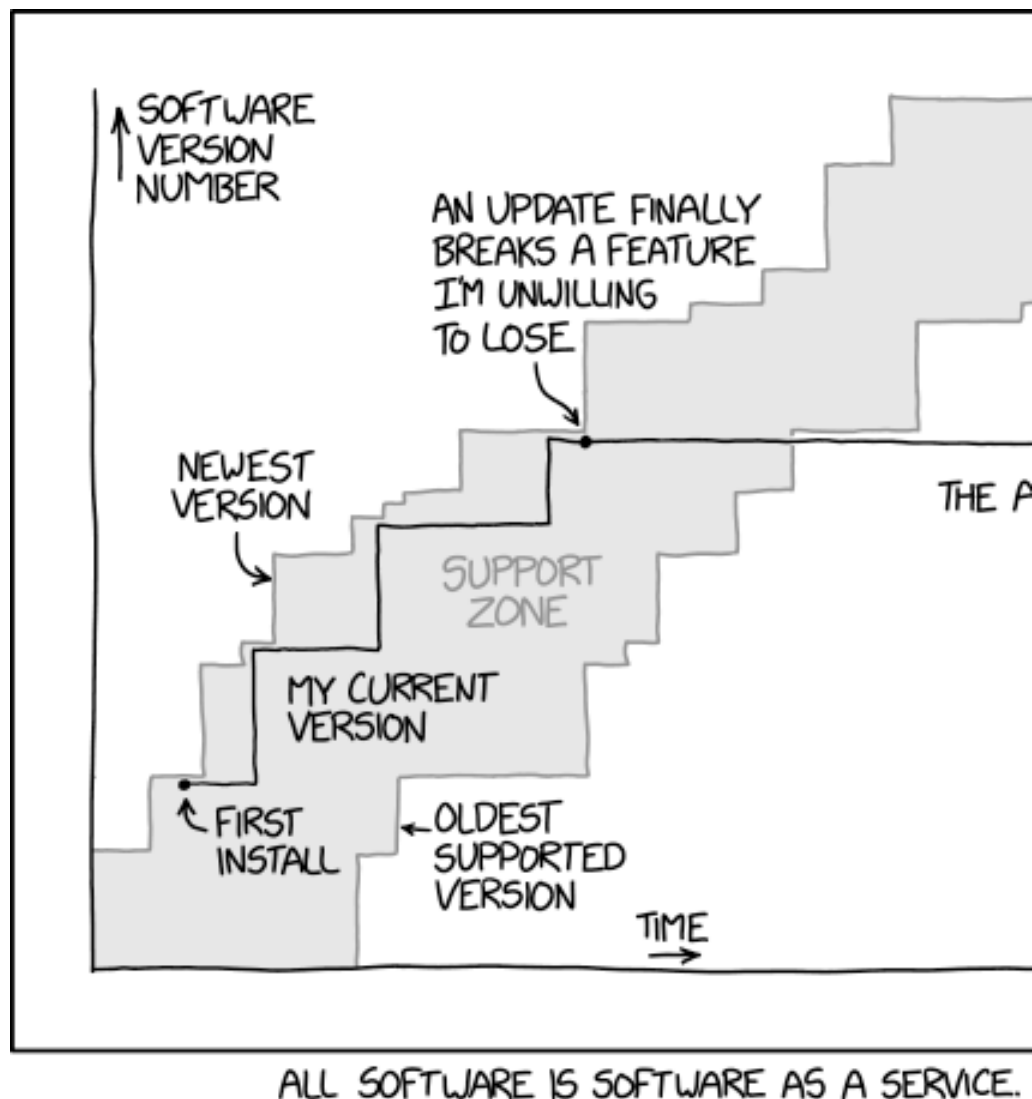
```
Bump activesupport from 6.0.2.1 to 6.0.3.1
Bumps [activesupport](https://github.com/rails/rails) from 6.0.2.1 to 6.0.3.1.
- [Release notes](https://github.com/rails/rails/releases)
- [Changelog](https://github.com/rails/rails/blob/v6.0.3.1/activesupport/CHANGELOG.md)
- [Commits](rails/rails@v6.0.2.1...v6.0.3.1)

Signed-off-by: dependabot[bot] <support@github.com>

🔗 main (#1)

dependabot[bot] committed on May 26, 2020 Verified 1 parent
```

# Why Should I Update?



xkcd:2224

# Renovate



**Renovate**



# Why Use Renovate?

- Get automated Pull Requests to update your dependencies
  - Reduce noise by running Renovate on a schedule, for example:
    - on weekends
    - outside of working hours
    - each week
    - each month
- Relevant package files are discovered automatically

# Why Use Renovate?

- Supports monorepo architectures with w extra configuration
- Bot behavior is customisable via configur as code)
- Use ESLint-like shared config presets for simplifying configuration (JSON format o
- Lock files are supported and updated in t including immediately resolving conflicts merged

# Why Use Renovate?

- Get replacement PRs to migrate from a deprecated dependency to the community suggested replacement. Renovate works with most managers, see [issue 141](#)
- Open source (installable via npm/Yarn or Docker) or can be self-hosted or used via the Mend Renovate SaaS

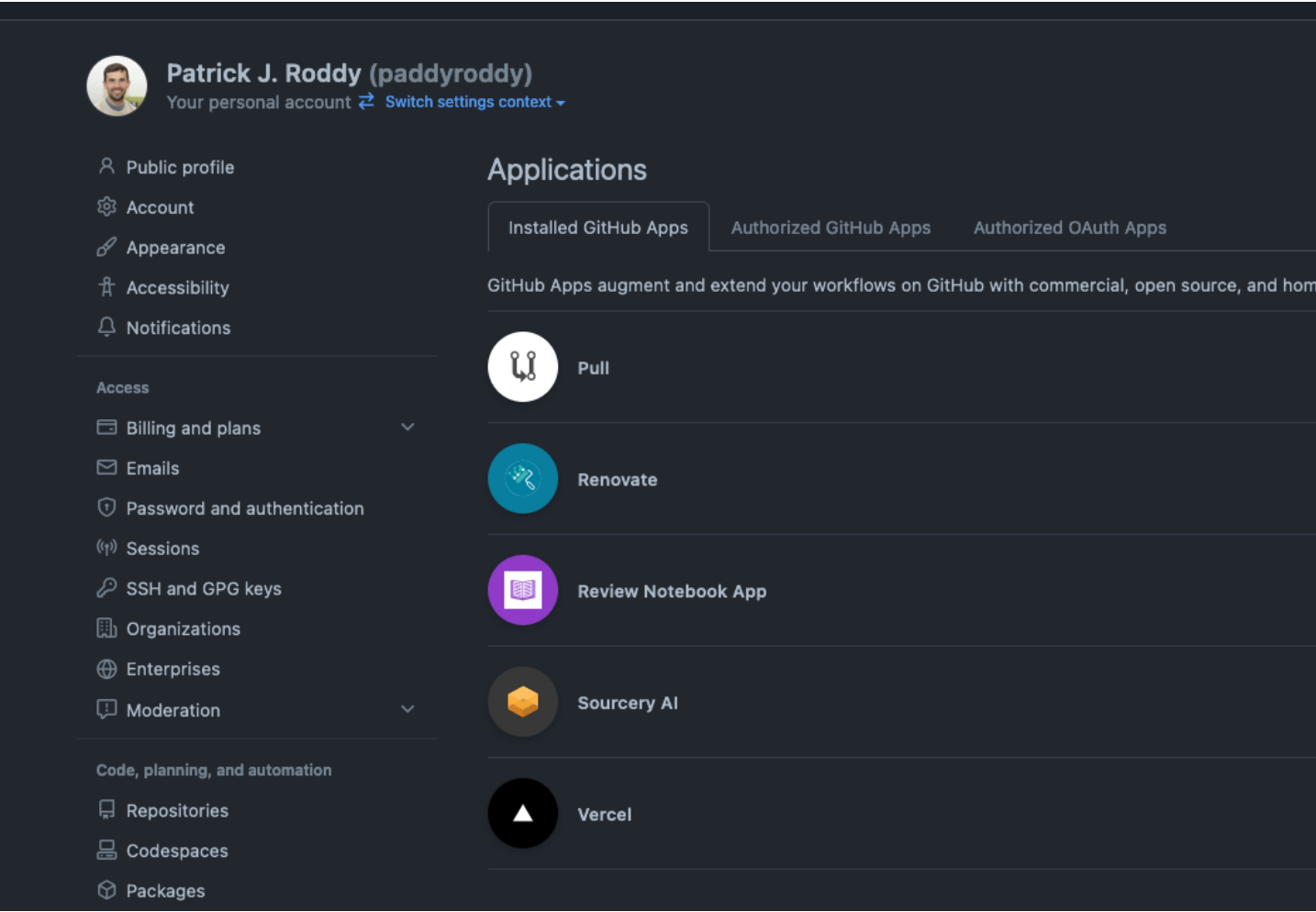
# Open Source Projects

- <https://github.com/paddyroddy/talks>
- <https://github.com/renovatebot/renovate>
- <https://github.com/astro-informatics/sleuth>
- <https://github.com/microsoft/lage>
- <https://github.com/loopbackio/loopback>
- <https://github.com/ampproject/amphtml>
- ...

# How to Setup

# Install the Application

<https://github.com/apps/renovate>



# Example Config

```
1 {
2   $schema: "https://docs.renovatebot.com/renovate-
3   extends: [
4     "config:best-practices",
5     "schedule:weekdays",
6     ":assignAndReview(paddyroddy)",
7     ":automergeBranch",
8     ":automergeDigest",
9     ":automergeMinor",
10    ":automergePatch",
11    ":disableDependencyDashboard",
12    ":enablePreCommit",
13    ":label(renovate)",
14    ":maintainLockFilesMonthly",
15    ":noUnscheduledUpdates",
16  ],
17  commitMessageAction: "Renovate:",
18  "git-submodules": {
19    enabled: true
```

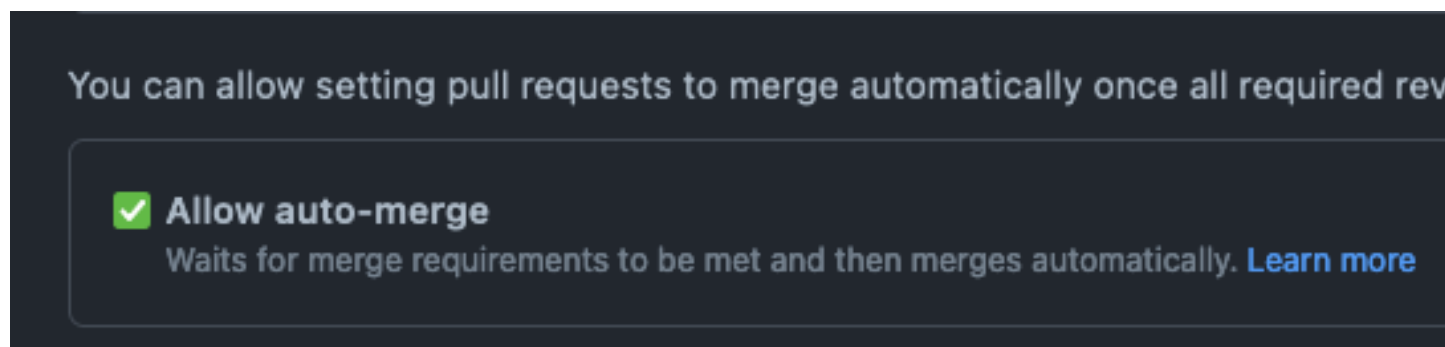
# Config is Reusable!

```
1 {
2   $schema: "https://docs.renovatebot.com/renovate-
3   extends: [
4     "github>paddyroddy/.github//renovate/default-c
5     "schedule:monthly",
6   ],
7   "pre-commit": {
8     fileMatch: [
9       "precommit/general/general-hooks.yaml",
10      "precommit/latex/latex-hooks.yaml",
11      "precommit/python/python-hooks.yaml",
12    ],
13  },
14 }
```



# Automerging

The [GitHub automerge](#) setting is required



It is **highly recommended** to ensure you have **operate** on the Renovate branches.

```
1 on:
2   push:
3     branches:
4       - main
5       - "renovate/**"
6   pull_request:
```

# Rulesets - Status Checks

Rulesets / Status Checks

Ruleset Name

Status Checks

Enforcement status

Active

Bypass list

+ Add bypass

Bypass list is empty

Exempt roles, teams, or apps from this ruleset by adding them to the bypass list

Target branches

+ Add target

+ Default

+ release

Applies to 2 targets including main , and release .

☒ Restrict deletions

Only allow users with bypass permission

☐ Require linear history

Prevent merge commits from being pushed

☐ Require deployments to succeed

Choose which environments must be successful

☐ Require signed commits

Commits pushed to matching refs must be signed

☐ Require a pull request before merging

Require all commits be made to a non-target branch

☒ Require status checks to pass

Choose which status checks must pass before merging

Additional settings

☒ Require branches to be up to date

Whether pull requests targeting a branch must be up to date

Enter the name of a status check that must pass

Status checks that are required to pass

linting

documentation

☒ Block force pushes

Prevent users with push access from force pushing



# Rulesets - Pull Requests

Rulesets / Pull Requests

Ruleset Name

Pull Requests

Enforcement status

Active

Bypass list

Renovate App

Always

+ Add bypass

Target branches

Default

release

+ Add target

Applies to 2 targets including main , and release .

Require a pull request before merging

Require all commits be made to a non-production branch

Additional settings

Required approvals

1

The number of approving reviews that must be provided before merging

Dismiss stale pull request

New, reviewable commits pushed to the branch

Require review from Code Owners

Require an approving review in the pull request

Require approval of the most recent review

Whether the most recent review must be approved
















Require conversation resolution

All conversations on code must be resolved

Require status checks to pass

Choose which status checks must pass before merging

# Monitoring

<div> paddyroddy / .github  Public </div>				
<div> <span>Run Renovate</span></div>				
<div>Recent jobs </div>				
ID	Engine	Reason	Completed At ↓	Status
c8cafb6d 	renovate	hourly		PENDING
dc9fff2a 	renovate	hourly	3 hours ago	DONE
101bcb65 	renovate	hourly	6 hours ago	DONE
aca7efe9 	renovate	hourly	8 hours ago	DONE
9faa1617 	renovate	hourly	12 hours ago	DONE
9ddc2d42 	renovate	hourly	14 hours ago	DONE
dc10cfba 	renovate	requested	17 hours ago	DONE
d26109a4 	renovate	hourly	20 hours ago	DONE
9c444e88 	renovate	requested	a day ago	DONE
f5592b50 	renovate	hourly	a day ago	DONE

## Detected Depend

- ▼ pre-commit
  - ▼ .pre-commit-con
  - paddyroddy/.
  - renovatebot/
- ▼ precommit/gene
  - codespell-pr
  - Lucas-C/pre-
  - python-jsons
  - pre-commit/m
  - pre-commit/p
- ▼ precommit/latex
  - cmhughes/lat
- ▼ precommit/pytho
  - adamchainz/b
  - pre-commit/m
  - astral-sh/ru
  - pappasam/tom
- ▼ github-actions
  - ▼ .github/workflow

# Conclusions

# Summary

- Renovate is massively flexible
- Maintainers respond incredibly quickly
- Renovate is widely used
- If you think it can be automated, it probably can
- Be careful with CI use in private projects
- Embrace automerging (if you like inbox zero)
- Renovate **renovates** itself very frequently
- There's always more to learn!

# Demo Time

<https://developer.mend.io>

