



# RENOVATE

A universal dependency update tool that fits into your workflow

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**Beech**

RAISE YOUR HAND IF YOU ALSO  
GET TIRED OF UPDATING DEPENDENCIES MANUALLY

# WHO ARE WE?

## **Beech**

Joey Bouten

- Software Engineer at Beech since 2018
- Specializing in CMS TYPO3
- Works on improving company workflows, processes & operation (incl rollout Renovate)
- Spare time: gym & bar

## **Canon**

Jeroen Janssen

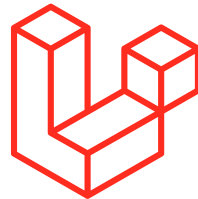
- Software Engineer at Canon since 1999
- Worked on production software and (internal) support software
- Previously in build infrastructure team (which deployed Renovate)
- Spare time: making music (trombone, singing)

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**Beech**

# ABOUT *Beech*

- We build effective custom software for complex business processes
- Several industries: manufacturing, logistics, agriculture, services
- Customers: from startups to multinationals like Canon Production Printing
- 25 passionate experts based in Venlo and Eindhoven
- We love open source
- Very active in TYPO3 community (camp / meetups / code sprints / BCC)
- Organizer of Web Camp Venlo since 2013





# CANON PRODUCTION PRINTING

A Member of the Canon Group



**Canon Production Printing Netherlands B.V.**  
Venlo, the Netherlands



**Canon Printing Systems Germany & Co. KG**  
Poing, Germany



**Canon Production Printing Romania S.R.L.**  
Timisoara, Romania



**Canon Production Printing Singapore Pte. Ltd.**  
Singapore, Singapore

**Canon**



Leader in Commercial Printing



2,900 employees worldwide  
in 2021



Top-10 investor in R&D in the  
Netherlands



2021 revenues €1,4 billion

# WHY ARE WE PRESENTING THIS TOGETHER?

- We have a shared interest in open source software
- We both work with Fontys (Venlo) students
- Several Beech developers work fulltime in Canon projects (using Renovate)



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# WHAT IS RENOVATE?



# RENOVATE

- Universal dependency update tool
- Multi-platform
- Multi-language
- Open source (written in typescript)
- Developed by Mend (previously WhiteSource)



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# RENOVATE APPROACH

- Everyone benefits from automation, whether it's a little or lot
- Renovate adapts to your workflow
  - ▶ You should not need to change your workflow against your wishes
- Renovate allows you to configure its behavior
  - ▶ Down to a ridiculous level if necessary
- Renovate will autodetect settings where possible
  - ▶ Minimize configuration, but always allow overrides

# RENOVATE RESOURCES

- GitHub repository
  - ▶ <https://github.com/renovatebot/renovate>
  - ▶ GitHub Discussions (online community)
- Online Documentation
  - ▶ <https://docs.renovatebot.com/>
- Mend Renovate website
  - ▶ <http://renovatebot.com>

The screenshot displays the GitHub Discussions interface for the Renovate repository. It is divided into three main sections:

- Categories:** A list of discussion categories including 'View all discussions', 'Ideas & General Discussion', 'Mend Renovate App Support', 'Polls', and 'Questions & Answers'.
- Most helpful:** A list of users ranked by helpfulness over the last 30 days. The list includes: rarkins (48), viceice (30), Churro (3), secustor (2), HonkingGoose (2), RahulGautamSingh (2), DuncanCasteleyn (2), and AIGeneratedUsername (1).
- Discussions:** A list of discussion threads. The first thread, 'PR with Updates Not Being Created', is marked with a 'reproduction:needed' label and has 3 answers. Other threads include 'Renovate doesn't support my Dockerfile FROM Image Tag' (13 answers), 'A framework to support spinning testing environments to be used for functional testing' (1 answer), 'New Maven Bazel Support Tries to Update Stable to Unstable' (19 answers), 'Proposal: gitea-releases' (4 answers), 'AWS ECR - IAM permissions needed?' (1 answer), 'How to adding labels with parsing packageFileDir' (3 answers), and 'API to get Pending Dashboard Approvals' (1 answer).

WHY DO YOU NEED RENOVATE?

# AUTOMATIC DEPENDENCY UPDATING

- Renovate
  - ▶ Scans your repository to detect package files and their dependencies
  - ▶ Checks if any newer versions exist
  - ▶ Raises Pull Requests for available updates
- Package managers with lock files are also supported
  - ▶ Since package file + lock file need to be updated together
- 60+ types of package files are supported.

















# BEFORE RENOVATE (MANUAL)

- Open project
  - Checkout origin/master
  - docker-compose up
  - docker-compose exec php-cli composer update typo3/cms-\*
  - git checkout -b 'branch-name'
  - git commit -M "[TASK] Update TYPO3 CMS (10.4.35 => 10.4.36)"
  - git push origin/'branch-name'
  - create and merge 'branch-name' => master
  - create and merge master => production
  - deploy
- 
- **for 20+ TYPO3 installations**

# AFTER RENOVATE (AUTOMATIC)

- run gitlab-ci job in the renovate project
- check MR's and merge 'branch-name' => master
- create and merge master => production
- deploy

[#0] RENOVATE - Update TYPO3 CMS (9.5.20 => 9.5.31) (patch) 0 of 1 checklist item completed · created Dec 15, 2022, 12:42 PM by RENOVATE <span>typo3</span>	MERGED  Approved  0 updated Feb 7, 2023, 2:00 PM
[#0] RENOVATE - Update TYPO3 CMS (10.4.6 => 10.4.36) (patch) 0 of 1 checklist item completed · created Dec 15, 2022, 12:55 PM by RENOVATE <span>typo3</span>	MERGED  0 updated Feb 7, 2023, 1:59 PM
[#0] RENOVATE - Update TYPO3 CMS (10.4.34 => 10.4.36) (patch) 0 of 1 checklist item completed · created Feb 7, 2023, 1:33 PM by RENOVATE <span>typo3</span>	MERGED   0 updated Feb 7, 2023, 1:59 PM
[#0] RENOVATE - Update TYPO3 CMS (11.5.21 => 11.5.23) (patch) 0 of 1 checklist item completed · created Feb 7, 2023, 1:35 PM by RENOVATE <span>typo3</span>	MERGED   0 updated Feb 7, 2023, 1:59 PM
[#0] RENOVATE - Update TYPO3 CMS (10.4.34 => 10.4.36) (patch) 0 of 1 checklist item completed · created Feb 7, 2023, 1:35 PM by RENOVATE <span>typo3</span>	MERGED  0 updated Feb 7, 2023, 1:58 PM
[#0] RENOVATE - Update TYPO3 CMS (11.5.22 => 11.5.23) (patch) 0 of 1 checklist item completed · created Feb 7, 2023, 1:36 PM by RENOVATE <span>typo3</span>	MERGED   0 updated Feb 7, 2023, 1:58 PM
[#0] RENOVATE - Update TYPO3 CMS (10.4.34 => 10.4.36) (patch) 0 of 1 checklist item completed · created Feb 7, 2023, 1:37 PM by RENOVATE <span>typo3</span>	MERGED  0 updated Feb 7, 2023, 1:58 PM
[#0] RENOVATE - Update TYPO3 CMS (10.4.34 => 10.4.36) (patch) 0 of 1 checklist item completed · created Feb 7, 2023, 1:37 PM by RENOVATE <span>typo3</span>	MERGED  0 updated Feb 7, 2023, 1:58 PM

HOW DO YOU DEPLOY RENOVATE?

# DEPLOYMENT OPTIONS FOR RENOVATE

- Available distributions
  - ▶ NPM package
  - ▶ Docker Image
  - ▶ GitHub Action
  - ▶ GitLab Runner
  - ▶ Mend Renovate On-Premises (WSOP)
  - ▶ Mend Remediate (WSOP extension)
- Self-host Renovate
  - ▶ You are the “administrator” of the bot
    - Provide infrastructure for Renovate to run on (including needed package managers)
    - Configure it
    - Ensure it is running regularly
    - Ensure Renovate bot itself is updated
- Supported platforms
  - ▶ AzureDevOps (Cloud + Server)
  - ▶ Bitbucket / Bitbucket-server
  - ▶ Codecommit
  - ▶ Gitea
  - ▶ Github
  - ▶ Gitlab

# EXAMPLE GITLAB SETUP

- gitlab-ci.yml
- config.js
- renovate.json in each project

```
image: renovate/renovate:latest

Update Web Project:
  rules:
  - if: $RENOVATE_WEB_TOKEN
    when: manual
  variables:
    RENOVATE_TOKEN: $RENOVATE_WEB_TOKEN
    RENOVATE_COMPOSER_IGNORE_PLATFORM_REQS: 'false'
  script:
  - cp config-web.js config.js
  - renovate $RENOVATE_EXTRA_FLAGS
  when: manual
```



# EXAMPLE CONFIG.JS

```
module.exports = {  
  endpoint: 'https://gitlab.selfhosted.it/api/v4/',  
  token: '**gitlab_token**',  
  platform: 'gitlab',  
  baseBranches: ["master"],  
  enabledManagers: "composer",  
  onboardingConfig: {  
    extends: [  
      "github>support-beech/renovate-config",  
    ],  
  },  
  repositories: [  
    {  
      repository: 'CMS/projects/beech/beech-website'  
    },  
    {  
      repository: 'CMS/projects/group/project-name'  
    },  
  ],  
};
```

# HOW DO YOU CONFIGURE RENOVATE?

# DEFAULT RENOVATE BEHAVIOR

- Find and process all package files (e.g. package.json, composer.json, Dockerfile, etc)
- Use separate branches/PR for each dependency
- Update yarn.lock or package-lock.json files, if found
- Create Pull Requests immediately after branch creation

# RENOVATE.JSON

- Repository level settings
  - ▶ prConcurrentLimit
  - ▶ baseBranches
  - ▶ enabledManagers
  - ▶ commitMessage
- packageRules
  - ▶ Can be applied to individual packages or groups of packages (using regex matching)
- Use Presets (through “Extends”)

# INCLUDED PRESETS

- config:base

```
{
  "extends": [
    ":dependencyDashboard",
    ":semanticPrefixFixDepsChoreOthers",
    ":ignoreModulesAndTests",
    ":autodetectRangeStrategy",
    ":prHourlyLimit2",
    ":prConcurrentLimit10",
    "group:monorepos",
    "group:recommended",
    "workarounds:all"
  ]
}
```

- group:phpstan

```
{
  "packageRules": [
    {
      "groupName": "PHPStan packages",
      "matchDataSources": [
        "packagist"
      ],
      "matchPackagePatterns": [
        "phpstan\\phpstan$",
        "\\phpstan-"
      ]
    }
  ]
}
```

Included Presets ▼

[Compatibility Presets](#)

| [compatibility:additionalBranch](#)

Default Presets

Docker Presets

Full Config Presets

Group Presets

Helper Presets

Monorepo Presets

npm Presets

Package Presets

Preview Presets

Regex Manager Presets

Replacement Presets

Schedule Presets

Workaround Presets



# USING YOUR OWN PRESET

```
{  
  "$schema": "https://docs.renovatebot.com/renovate-schema.json",  
  "extends": [  
    "github>support-beech/renovate-config"  
  ]  
}
```

# MAKING YOUR OWN PRESET (REPOSITORY SETTINGS)

```
{
  "$schema": "https://docs.renovatebot.com/renovate-schema.json",
  "extends": [
    "config:base",
    ":disableDependencyDashboard",
    ":separatePatchReleases"
  ],
  "prHourlyLimit": 0,
  "prConcurrentLimit": 0,
  "baseBranches": [
    "master"
  ],
  "enabledManagers": [
    "composer"
  ],
  "separateMinorPatch": true,
  "commitMessagePrefix": "[#0] RENOVATE - ",
  "commitMessageTopic": "{{depName}}",
  "commitMessageExtra": "({{displayFrom}} => {{displayTo}})",
  "rangeStrategy": "update-lockfile",
  "packageRules": [
```

# MAKING YOUR OWN PRESET (PACKAGE RULES)

```
    "packageRules": [
      {
        "matchUpdateTypes": [
          "minor",
          "patch",
          "digest",
          "major"
        ],
        "enabled": false
      },
      {
        "matchUpdateTypes": [
          "patch"
        ],
        "matchPackagePatterns": [
          "*"
        ],
        "excludePackagePatterns": [ "^typo3/cms-" ],
        "enabled": false
      },
      {
        "matchUpdateTypes": [
          "patch"
        ],
        "matchPackagePrefixes": [
          "typo3/cms-"
        ],
        "groupName": "TYPO3 CMS",
        "labels": [
          "typo3"
        ],
        "enabled": true
      }
    ]
  }
```

# WHAT DOES A RENOVATE PR LOOK LIKE?

# ONBOARDING EXAMPLE

[MERGE] Configure Renovate

Edit

Code

Merged

RENOVATE requested to merge `renovate/configure` into `master` Dec 13, 2022, 12:00 PM

Overview 0

Commits 1

Pipelines 1

Changes 1

Welcome to [Renovate](#)! This is an onboarding MR to help you understand and configure settings before regular Merge Requests begin.

To activate Renovate, merge this Merge Request. To disable Renovate, simply close this Merge Request unmerged.

Detected Package Files

- `composer.json` (composer)
- `extensions/site_template/composer.json` (composer)

Configuration Summary

Based on the default config's presets, Renovate will:

- Start dependency updates only once this onboarding MR is merged
- Enable Renovate Dependency Dashboard creation.
- If Renovate detects semantic commits, it will use semantic commit type `fix` for dependencies and `chore` for all others.
- Ignore `node_modules`, `bower_components`, `vendor` and various test/tests directories.
- Autodetect whether to pin dependencies or maintain ranges.
- Rate limit MR creation to a maximum of two per hour.
- Limit to maximum 10 open MRs at any time.
- Group known monorepo packages together.
- Use curated list of recommended non-monorepo package groupings.
- A collection of workarounds for known problems with packages.
- Disable Renovate Dependency Dashboard creation.
- Separate `patch` and `minor` releases of dependencies into separate MRs.

Would you like to change the way Renovate is upgrading your dependencies? Simply edit the `renovate.json` in this branch with your custom config and the list of Merge Requests in the "What to Expect" section below will be updated the next time Renovate runs.

You have configured Renovate to use branch `master` as base branch.

What to Expect

With your current configuration, Renovate will create 1 Merge Request:

► [#0] RENOVATE - Update TYPO3 CMS (11.5.16 => 11.5.20) (patch)





# TYPO3 CMS UPDATE EXAMPLE

## [#0] RENOVATE - Update TYPO3 CMS (11.5.21 => 11.5.23) (patch)

Edit

Code ▾

⋮

Merged

 RENOVATE requested to merge [renovate/patch-typo3-cms](#) into [master](#) Feb 7, 2023, 1:35 PM

Overview 0

Commits 1

Pipelines 1

Changes 1

This MR contains the following updates:

Package	Type	Update	Change
<a href="#">typo3/cms-adminpanel</a> (source)	require	patch	11.5.21 -> 11.5.23
<a href="#">typo3/cms-backend</a> (source)	require	patch	11.5.21 -> 11.5.23
<a href="#">typo3/cms-belog</a> (source)	require	patch	11.5.21 -> 11.5.23
<a href="#">typo3/cms-beuser</a> (source)	require	patch	11.5.21 -> 11.5.23
<a href="#">typo3/cms-core</a> (source)	require	patch	11.5.21 -> 11.5.23
<a href="#">typo3/cms-extbase</a> (source)	require	patch	11.5.21 -> 11.5.23
<a href="#">typo3/cms-extensionmanager</a> (source)	require	patch	11.5.21 -> 11.5.23
<a href="#">typo3/cms-filelist</a> (source)	require	patch	11.5.21 -> 11.5.23



# LOCKFILE CHANGES EXAMPLE

↓ ↑	@@ -6780,16 +6779,16 @@	
6780 6779		},
6781 6780		{
6782 6781		"name": "typo3/ <b>cms</b> -adminpanel",
6783	-	"version": "v11.5.21",
6782	+	"version": "v11.5.23",
6784 6783		"source": {
6785 6784		"type": "git",
6786 6785		"url": "https://github.com/TYP03- <b>CMS</b> /adminpanel.git",
6787	-	"reference": "6d12608f1df3c08ae06d3eadb1d88e594729fead"
6786	+	"reference": "eee80ff496af460000b605c0e1b5cedc27d0591a"
6788 6787		},
6789 6788		"dist": {
6790 6789		"type": "zip",
6791	-	"url": "https://api.github.com/repos/TYP03- <b>CMS</b> /adminpanel/zipball/6d12608f1df3c08ae06d3eadb1d88e594729fead",
6792	-	"reference": "6d12608f1df3c08ae06d3eadb1d88e594729fead",
6790	+	"url": "https://api.github.com/repos/TYP03- <b>CMS</b> /adminpanel/zipball/eee80ff496af460000b605c0e1b5cedc27d0591a",
6791	+	"reference": "eee80ff496af460000b605c0e1b5cedc27d0591a",
6793 6792		"shasum": ""
6794 6793		},
6795 6794		"require": {
↕	@@ -6797,10 +6796,10 @@	

# NPM UPDATE EXAMPLE

## [TASK] Update rxjs (7.5.7 => 7.8.0)

EditCode ⋮

Merged

Renovate requested to merge `renovate/rxjs-7.x-lockfile` into `main` Jan 18, 2023, 9:17 AM

Overview0

Commits1

Pipelines2

Changes1

This MR contains the following updates:

Package	Change	Age	Adoption	Passing	Confidence
rxjs (source)	7.5.7 -> 7.8.0	81d	16%	98%	high

### ⚠️ Dependency Lookup Warnings ⚠️

Warnings were logged while processing this repo. Please check the logs for more information.

### Release Notes

▼ reactivex/rxjs

v7.8.0

[Compare Source](#)

#### Features

- **buffer:** `closingNotifier` now supports any `ObservableInput` (#7073) (61b877a)
- **delayWhen:** `delayWhen`'s `delayDurationSelector` now supports any `ObservableInput` (#7049) (dfd95db)
- **sequenceEqual:** `compareTo` now supports any `ObservableInput` (#7102) (d501961)
- **share:** `ShareConfig` factory properties now supports any `ObservableInput` (#7093) (cc3995a)
- **skipUntil:** `notifier` now supports any `ObservableInput` (#7091) (60d6c40)
- **window:** `windowBoundaries` now supports any `ObservableInput` (#7088) (8c4347c)

v7.7.0

[Compare Source](#)



WHAT DID WE LEARN?

# WHAT DID WE LEARN? (1)

- Permissions to repositories
  - ▶ Solution: In gitlab, the job gets the same permissions by the user that starts the job. So make sure the user who starts it has sufficient permissions
- What PHP version should be used for composer?
  - ▶ Solution: The config.platform.php value should be defined in composer.json else the latest supported php version will be used.
- Logging.
  - ▶ No pretty overview of errors/warnings.
  - ▶ Solution: Always run in debug mode.
    - When renovate bot does nothing when you expect it to, you have to check the logs.

# WHAT DID WE LEARN (2)

- Config 'tuning' is required to get things right
  - ▶ E.g. group packages that belong to each other
- Limit concurrent PRs during “on-boarding”!
  - ▶ Else many conflicts on package lock files
- Review PRs
  - ▶ Successful build does not always mean “done”

# WAS IT WORTH IT?

- Packages are updated when new version becomes available
- Projects will not be forgotten.
- All projects updated and released in a couple of hours instead of multiple days.
- No local environment needed for updating.



# QUESTIONS?



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