



Renovate at Roche

How to automate dependency updates with the Renovate bot

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Roche at a glance

Who we are and what we do

127 years

founded in Basel in
1896



3 Nobel prizes and
44 Prix Galien,
since 1974



CHF 58.7 billion*
in Roche Group sales in
2023



**A leader in
healthcare R&D**
with CHF13.2 billion
invested in 2023



**>22 million
people** treated with
our medicines in 2023



**Multiple Roche
medicines &
diagnostics**

on the WHO List of
Essential Medicines & Tests



103,000+ dedicated
employees worldwide



29 billion tests
conducted with our
Diagnostics products in
2023

*Unless otherwise stated, all growth rates and comparisons to the previous year are at constant exchange rates (CER; average rates 2022) and all total figures quoted are reported in CHF.

Roche Informatics Poland

Where code meets care



Warsaw & Poznań

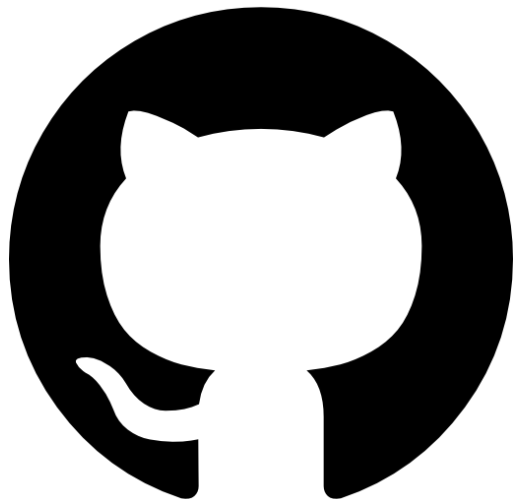
are among key strategic locations for Roche Informatics

We are currently home to **around 550 employees** getting together under one informatics organization

40 people leaders & 20 product managers from Poland are leading teams around the globe

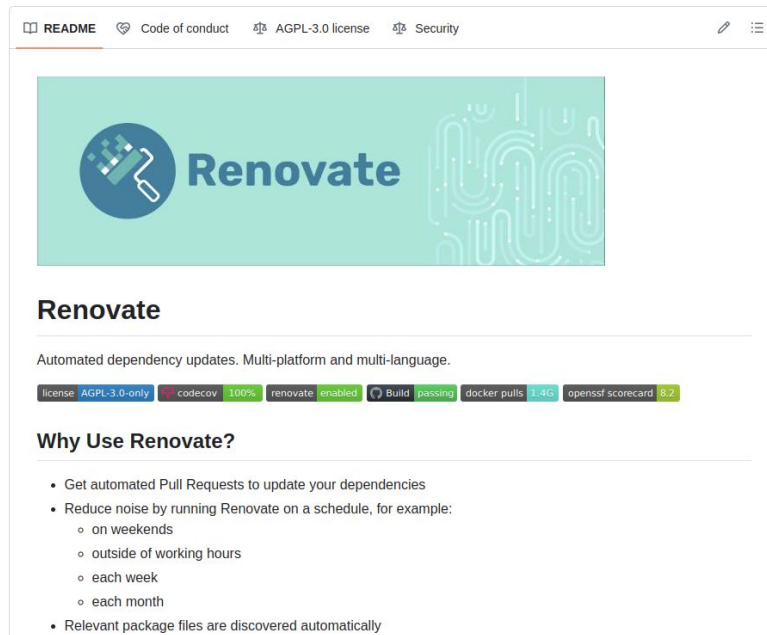
Show of hands 🖐️

What version control platform do you use?



What is Renovate?

Open-source tool to get automated dependency updates



Source: <https://github.com/renovatebot/renovate>

What is Renovate?

Supported package managers

Ansible	<code>ansible</code>	ansible , ansible-galaxy
Batect	<code>batect</code>	batect , batect-wrapper
Bazel	<code>bazel</code>	bazel , bazel-module , bazelisk
C and C++	<code>c</code>	conan
Continuous Delivery	<code>cd</code>	argocd , cdnurl , fleet , flux , helmfile , helmsman , html , tekton
Continuous Integration	<code>ci</code>	azure-pipelines , bitbucket-pipelines , buildkite , circleci , cloudbuild , droneci , github-actions , gitlabci , gitlabci-include , jenkins , tekton , travis , velaci , woodpecker
Dart	<code>dart</code>	pub
Docker	<code>docker</code>	devcontainer , docker-compose , dockerfile
.NET	<code>dotnet</code>	cake , nuget
Elixir	<code>elixir</code>	mix
Go	<code>golang</code>	gomod , ocb
Helm	<code>helm</code>	helm-requirements , helm-values , helmfile , helmsman , helmv3
Infrastructure as Code	<code>iac</code>	ansible , ansible-galaxy , bicep , crossplane , puppet , terraform , terraformunt

Java	<code>java</code>	deps-edn , gradle , gradle-wrapper , kotlin-script , leiningen , maven , maven-wrapper , sbt , scalafmt
JavaScript	<code>js</code>	bun , meteor , nodenv , npm , nvm
Kubernetes	<code>kubernete s</code>	argocd , crossplane , fleet , flux , helm-requirements , helm-values , helmfile , helmsman , helmv3 , jsonnet-bundler , kubernetes , kustomize
Node.js	<code>node</code>	nodenv , nvm
Perl	<code>perl</code>	cpanfile
PHP	<code>php</code>	composer
Python	<code>python</code>	pep621 , pip-compile , pip-requirements , pip-setup , pipenv , poetry , pyenv , setup-cfg
Ruby	<code>ruby</code>	bundler , puppet , ruby-version
Rust	<code>rust</code>	cargo
Swift	<code>swift</code>	cocoapods , mint , swift
Terraform	<code>terraform</code>	terraform , terraform-version , terragrunt , terragrunt-version , tflint-plugin
No Category	<code>n/a</code>	asdf , fvm , git-submodules , hermit , homebrew , nix , osgi , pre-commit , vendor , regex

Source: <https://docs.renovatebot.com/modules/manager/>

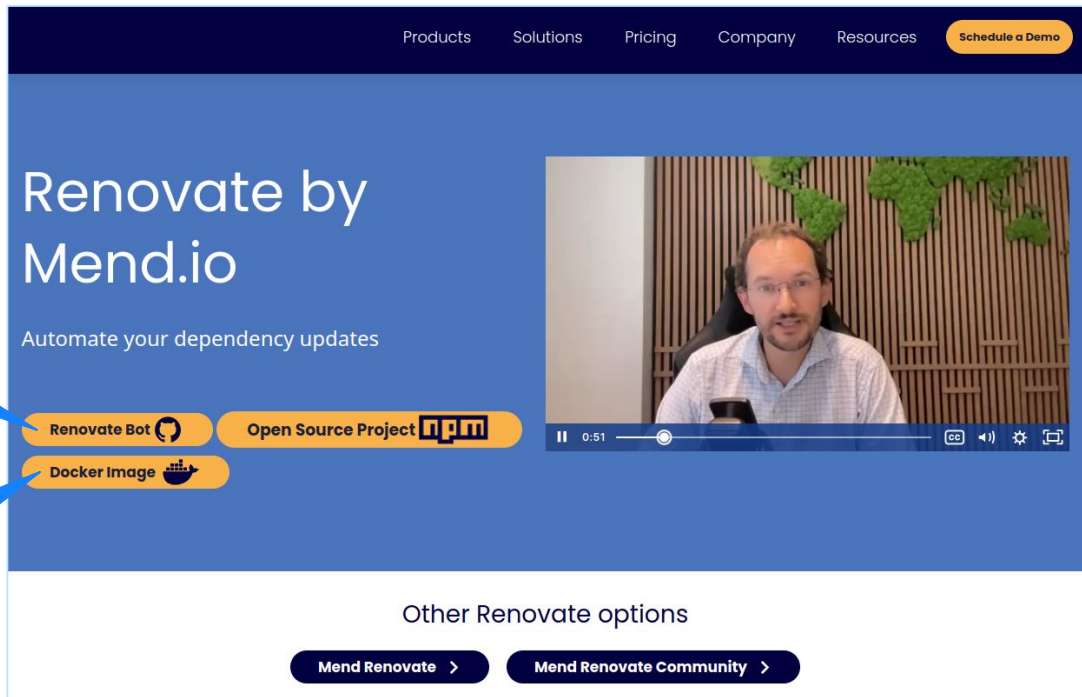
What is Renovate?

Different options to use Renovate

- Mend Renovate
- Mend Renovate Community
- **Renovate by Mend.io**

github.com/marketplace/renovate

hub.docker.com/r/renovate/renovate



Source: <https://www.mend.io/renovate-free/>

Customization

Extra set of configuration options for self-hosted instances

Configuration Options

This document describes all the configuration options you may use in a Renovate configuration file. Any config you define applies to the whole repository (e.g. if you have a monorepo).

You can store your Renovate configuration file in one of these locations:

1. `renovate.json`
2. `renovate.json5`
3. `.github/renovate.json`
4. `.github/renovate.json5`
5. `.gitlab/renovate.json`
6. `.gitlab/renovate.json5`
7. `.renovaterc`
8. `.renovaterc.json`
9. `.renovaterc.json5`
10. `package.json` (within a "renovate" section)

Warning

Storing the Renovate configuration in a `package.json` file is deprecated and support may be removed in the future.

When Renovate runs on a repository, it tries to find the configuration files in the order listed above. Renovate stops the search after it finds the first match.


Renovate always uses the config from the repository's default branch, even if that configuration

Table of contents


- addLabels
- additionalBranchPrefix
- additionalReviewers
- assignAutomerge
- assignees
- assigneesFromCodeOwners
- assigneesSampleSize
- autoApprove
- autoReplaceGlobalMatch
- automerger
- automergerComment
- automergerSchedule
- automergerStrategy
- automergerType
- azureWorkItemId
- baseBranches
- bbUseDefaultReviewers
- branchConcurrentLimit
- branchName
- branchNameStrict
- branchPrefix
- branchPrefixOld
- branchTopic
- bumpVersion
- cloneSubmodules
- commitBody


What could go wrong? 🤔

What could go wrong? 🤔



Renovate - DevOps Pro Europe 2024





[New subgroup](#)

[New project](#)

Recent activity

Last 30 days

Merge requests created

17

























Issues created

2

Members added

2

[Subgroups and projects](#)
[Shared projects](#)
[Archived projects](#)

Name		
  dummy-project-with-outdated-deps 	★ 0	1 hour ago
  dummy-project-with-outdated-deps-1 	★ 0	1 hour ago
  dummy-project-with-outdated-deps-2 	★ 0	1 hour ago
  dummy-project-with-outdated-deps-3 	★ 0	1 hour ago
  dummy-project-with-outdated-deps-4 	★ 0	1 hour ago
  dummy-project-with-outdated-deps-5 	★ 0	1 hour ago
  dummy-project-with-outdated-deps-TEMPLATE 	★ 0	10 hours ago
  renovate-runner 	★ 0	57 minutes ago

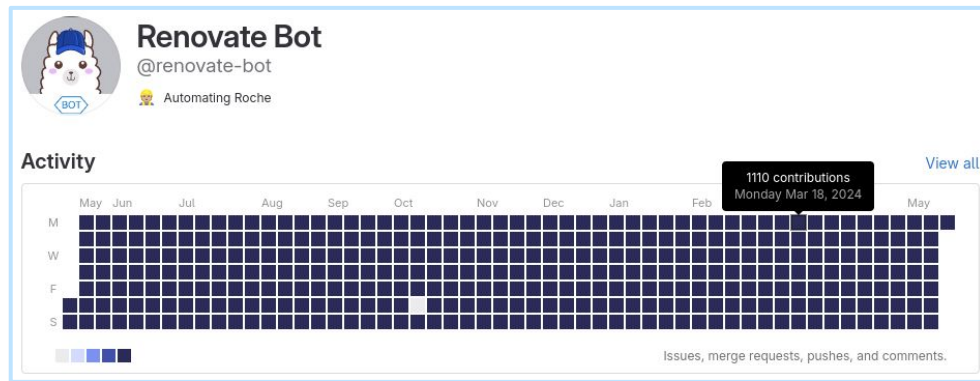
Key takeaways

Three things to remember

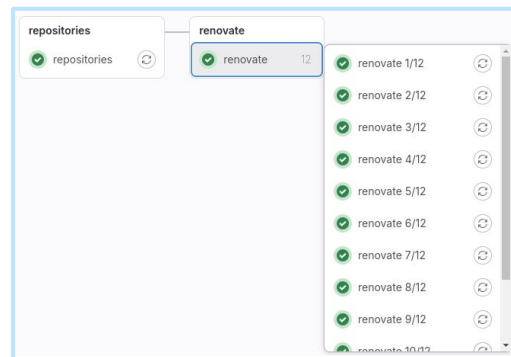
1. Renovate gives you automated dependency updates
2. A self-hosted Renovate instance may simply be a GitLab project
 - a. Git - store the configuration files
 - b. GitLab CI - define and schedule the Renovate pipelines
 - c. GitLab runners - run the scans
3. Renovate fits right into your existing development process

Renovate at Roche

Running Renovate at scale



- 1000+ projects scanned
- Pipelines scheduled to run every 2 hours
- 12 parallel jobs



Renovate at Roche

Lesson learnt

1. Simple onboarding process
2. Constant promotion and education
3. Help users to customize their project configuration
4. Proactive support (i.e. monitor the logs for new errors or warnings)
5. DevOps practices implemented in projects are a foundation for Renovate
6. Parallelize the scans (see the [parallel](#) job option)
7. Configure access to internal and external registries, repositories and package indexes
8. Stale onboarding or update MRs (with 100s of edits) slow down the scans significantly

Thank you!

Code and slides:

github.com/grzenkom/renovate-self-hosted

Doing now what patients need next