How to Release

Open Source Library

in 2020

Eunjae Lee

My name is **Eunjae.**
은재

Eunjae in 🇫🇷
algolia

Eunjae in Algolia

PHP
Ruby
JavaScript
Python
Kotlin
.NET
Java
Golang
Scala
iOS
Android

indexing, search, ...

js components

infrastructure

engine

database

...

REST API → API Clients → **Instant Search**

Eunjae in Instant Search

InstantSearch.js

React InstantSearch

Vue InstantSearch

Angular InstantSearch

etc...

Everyone loves

CODING

Many people like

TESTING & DEBUGGING

People barely like

especially

RELEASING LIBRARIES

okay-ish

RELEASING APPS

CI/CD SERVICES

Netlify

Vercel

Bamboo

Jenkins

. . .

Especially, we don't like releasing libraries.

Why?

Why?

Worry about bugs

Why?

Worry about mistakes

Wrong Node.js version

Forgot to `git pull`

```
npm publish --tag beta
```

node_modules

Why?

blocked

lint, unit test, e2e test, etc.

4m 29s

- State and route

gates to the e-commerce demo with refinements set in route
have "mixer" set as initial search box value
have "Appliances" and "Small Kitchen Appliances" items selected
have "KitchenAid" brand selected in the brands menu
have lower price set to $50 and the upper price set to $350 in t
have free shipping box checked
have rating "4 & up" selected in the rating menu
have "Price descending" selected in the sort select
have "32 hits per page" selected in the hits per page select
have page 2 selected in the pagination
have the expected results

cmd + tab

base branch

Things to do
when releasing libraries

Releasing libraries

major   minor   patch

semver v1.2.3

Releasing libraries

conventional commits

Conventional Commits

A specification for adding human and machine readable meaning to commit messages

Quick Summary   Full Specification   Contribute

conventional commits

`fix: should use fallback for scoped slots with...`

conventional commits

`fix(compiler): remove the warning for valid ...`

scope

conventional commits

```
chore: update sponsors
```

conventional commits

`docs: add types directory to CONTRIBUTING.md`

conventional commits

`feat(ssr): inheritAttrs support in SSR`

scope

conventional commits

```
feat: allow provided config object to extend other configs

BREAKING CHANGE: `extends` key in config file is now used
for extending other config files
```

Releasing libraries

fix, chore, docs,
refactor, test, ... ⟶ **patch update**

Releasing libraries

feat $\longrightarrow$ **minor update**

Releasing libraries

BREAKING CHANGE ⟶ major update

Releasing libraries

Inspired by Angular

Releasing libraries

Used by

Vue.js

Webpack

Angular

Nuxt.js

Gatsby

jest

...

Releasing libraries

conventional-changelog

0.19.0 (2020-05-12)

Features

- force push to protected branch with explicit config ([#813](#)) ([3647853](#))

0.18.4 (2020-05-08)

Bug Fixes

- **actions:** fix ejs syntax ([#801](#)) ([8055a9f](#))
- **release:** push to correct branch in toReleaseBranch strategy ([#803](#)) ([1367315](#))

0.18.3 (2020-05-04)

Bug Fixes

- **actions:** add fetch-depth and git fetch ([#778](#)) ([994e4ff](#))
- **deps:** update dependency shelljs to v0.8.4 ([#776](#)) ([b70fc24](#))
- **release:** skip running publishCommand if nullish ([#793](#)) ([eb62c8d](#))

0.18.2 (2020-04-07)

Bug Fixes

```
* fix: pass version to buildCommand

* fix: detect major versions correctly

* feat(error): tell user where to create a GitHub token

* chore: use node 12 and specify min node version

* chore(deps): update dependency eslint-plugin-jest to v23.8.0

* chore(deps): update vuepress monorepo to v1.3.1

* chore(deps): update dependency rollup to v1.31.1

* chore(deps): update dependency eslint-plugin-jest to v23.7.0

* chore: skip preparation if master contain only `chore` commits

* docs: update CHANGELOG

* chore: release v0.15.0          <- last release
```

```
* fix: pass version to buildCommand

* fix: detect major versions correctly

* feat(error): tell user where to create a GitHub token

* chore: use node 12 and specify min node version

* chore(deps): update dependency eslint-plugin-jest to v23.8.0

* chore(deps): update vuepress monorepo to v1.3.1

* chore(deps): update dependency rollup to v1.31.1

* chore(deps): update dependency eslint-plugin-jest to v23.7.0

* chore: skip preparation if master contain only `chore` commits

* docs: update CHANGELOG
                                                    last release
* chore: release v0.15.0  <—
```

```
* fix: pass version to buildCommand

* fix: detect major versions correctly

* feat(error): tell user where to create a GitHub token
```

minor

0.16.0 (2020-02-25)

Bug Fixes

- detect major versions correctly (#666) (5c5cca1), closes #634
- pass version to buildCommand (#676) (c25b49b)

Features

- **error:** tell user where to create a GitHub token (#665) (901fcd8)

0.15.0 (2020-02-03)

Features

Releasing libraries

`--tag`

alpha

beta

dev

canary

rc

...

Instant Search

Instant Search

src/scripts/publish.js

src/scripts/publish.js

Is the working directory clean?

src/scripts/publish.js

version

src/scripts/publish.js

CHANGELOG.md

src/scripts/publish.js

git commit

src/scripts/publish.js

npm run test

src/scripts/publish.js

npm run build

src/scripts/publish.js

npm publish --tag beta

src/scripts/publish.js

git tag v1.2.3

src/scripts/publish.js

git push

src/scripts/publish.js

InstantSearch.js/src/scripts/publish.js

InstantSearch.js/src/scripts/publish.js

React InstantSearch/src/scripts/publish.js

InstantSearch.js/src/scripts/publish.js

React InstantSearch/src/scripts/publish.js

Vue InstantSearch/src/scripts/publish.js

InstantSearch.js/src/scripts/publish.js

React InstantSearch/src/scripts/publish.js

Vue InstantSearch/src/scripts/publish.js

Angular InstantSearch/src/scripts/publish.js

NOT THE SAME

I still make mistakes.

I am nervous.

I am still blocked.

What are the other options?

Other options

np by Sindre Sorhus

<> Code   ⊘ Issues 78   � Pull requests 9   ▶ Actions

A better `npm publish`

npm   npm-package   publish   javascript   nodejs   npm-publi

---

-○- **281** commits   ⌥ **2** branches

Branch: **master** ▾

sindresorhus 6.2.4

```
✔ Cleanup
✔ Installing dependencies
∴ Running tests
  Bumping version
  Publishing package
  Pushing tags
```

~/dev/cat-pad master
❯ np

Publish a new version of **cat-pad** (2.0.0)

? **Select semver increment or specify new version**
  patch (2.0.1)
❯ minor (2.1.0)
  major (3.0.0)
  prepatch (2.0.1-0)
  preminor (2.1.0-0)
  premajor (3.0.0-0)
  prerelease (2.0.1-0)
  ─────────────────────
  Other (specify)

Other options

semantic-release

📦🚀 semantic-release

Fully automated version management and package publishing

💬 join the community | on spectrum   build | passing   coverage | 100%   Greenkeeper | Move to Snyk   📦🚀 | semantic-release

npm@latest | v17.0.8   npm@next | v15.14.0   npm@beta | v16.0.0-beta.47

Release steps

After running the tests, the command `semantic-release` will execute the following steps:

Step	Description
Verify Conditions	Verify all the conditions to proceed with the release.
Get last release	Obtain the commit corresponding to the last release by analyzing Git tags.
Analyze commits	Determine the type of release based on the commits added since the last release.
Verify release	Verify the release conformity.
Generate notes	Generate release notes for the commits added since the last release.
Create Git tag	Create a Git tag corresponding to the new release version.
Prepare	Prepare the release.
Publish	Publish the release.
Notify	Notify of new releases or errors.

📦🚀 semantic-release

Fully automated version management and package publishing

join the community `on spectrum` build `passing` coverage `100%` Greenkeeper `Move to Snyk` 📦🚀 `semantic-release`

npm@latest `v17.0.8` npm@next `v15.14.0` npm@beta `v16.0.0-beta.47`

Whole Different Process

Whole different process

Part 1. Prepare

Part 2. Review

Part 3. Trigger

Whole different process

Part 1. Prepare

Part 1. Prepare

Get the next version

Part 1. Prepare

check out to a staging branch

```
git checkout -b releases/v1.2.3
```

Part 1. Prepare

Update the version

Update CHANGELOG.md

Part 1. Prepare

`git commit`

Part 1. Prepare

Create a pull request

Whole different process

Part 2. Review

Part 2. Review

Review the PR

Part 2. Review

Status checks

✓ 💛 **Semantic Pull Request** — ready to be squashed   `Required` Details

✓ 📦 **bundlesize** — Total bundle size is 214.06KB/224KB (-null)   `Required` Details

✓ ◉ **ci/circleci: build and size** — Your tests passed on CircleCI!   `Required` Details

✓ ◉ **ci/circleci: lint** — Your tests passed on CircleCI!   `Required` Details

✓ ◉ **ci/circleci: release if needed** — Your tests passed on CircleCI!   Details

✓ ◉ **ci/circleci: type check algoliasearch v3** — Your tests passed on CircleCI!   Details

✓ ◉ **ci/circleci: unit tests** — Your tests passed on CircleCI!   `Required` Details

✓ 🔷 **deploy/netlify** — Deploy preview ready!   `Required` Details

Extra test w/ CodeSandbox CI, Pika CI, etc.

codesandbox `bot` commented 4 days ago • edited ▾

This pull request is automatically built and testable in CodeSandbox.

To see build info of the built libraries, click here or the icon next to each commit SHA.

Latest deployment of this branch, based on commit `838e5e2` :

Sandbox	Source
InstantSearch.js	Configuration

```
npm install https://pkg.csb.dev/algolia/
instantsearch.js/commit/838e5e23/instantsearch.js
```

```
8         pagination,
9    } from 'instant
10
11   const searchCli
12       'latency',
13       '6be0576ff61c
14   );
15
16   const search =
17       indexName: 'i
18       searchClient,
19   });
20
21   search.addWidge
22       searchBox({
23           container:
24       }),
25       hits({
```

.eslintrc.js

.gitignore

.prettierrc

README.md

favicon.png

index.html

manifest.webmanifest

package.json

▼ Dependencies

instantsearch.js   csb:838e5e23

Add dependency

Add more commits

`CHANGELOG.md`

. . .

Part 2. Review

Squash and merge

✓ **2 approving reviews**   Show all reviewers

✓ **2 approvals**   ⌄

✓ **1 successful check**   Show all checks

✓ **This branch has no conflicts with the base branch**
You can update the base branch.

Squash and merge ⌄   or view command line instructions.

A new commit is added

```
chore: release v1.2.3
```

Whole different process

Part 3. Trigger

Part 3. Trigger

Your CI/CD is triggered by new commit

Part 3. Trigger

It runs a script.

Part 3. Trigger

`npm run build`

Part 3. Trigger

`npm publish --tag beta`

Part 3. Trigger

`git tag v1.2.3`

Part 3. Trigger

`git push`

Part 1

version

CHANGELOG.md

git commit

Part 2

npm run test

Part 3

npm run build

npm publish

git tag v.1.2.3

git push

Whole different process

Less blocked

Part 1

version
CHANGELOG.md
git commit

↑

Your Machine

Part 2

npm run test

↑

GitHub

Part 3

npm run build
npm publish
git tag v.1.2.3
git push

↑

CI/CD

Part 1

version

CHANGELOG.md

git commit

↑

Your Machine

≤ 1 min.

Whole different process

Less mistakes

Whole different process

Less nervous

Part 2

npm run test

↑

GitHub

Review Together

Whole different process

Let's automate Part 1 & Part 3

Introducing

🛳️ **Ship.js**

🚢 Ship.js

Part 1. `shipjs prepare`   you

Part 2. Review on GitHub   you & colleagues

Part 3. `shipjs trigger`   CI/CD

Releasing Ship.js with Ship.js

Releasing Ship.js with Ship.js

0.20.0-beta.3 ⟶ 0.20.0

eunjae-math-library

eunjae-math-library

`"version": "0.1.0"` ⟶ `"0.1.0"`

shipjs setup

GitHub Actions

Useful Configurations

Reference

All Configurations

Commands

Resources

Configurable

Contributors ✨

Thanks goes to these wonderful people ([emoji key](#)):
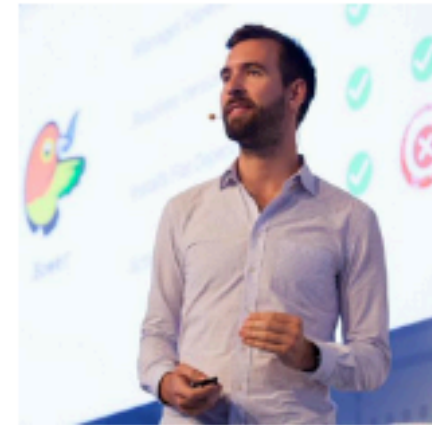
Eunjae Lee 💻 📖	**Fred K. Schott** 📖	**Yasuaki Uechi** 💻 📖	**Dmitry Ivakhnenko** 💻 📖	**James George** 💻 📖	**kazuya kawaguchi** 💻 📝	**tyankatsu** 💻 📖
Haroen Viaene 💻	**Shinya Ohyanagi** 💻					
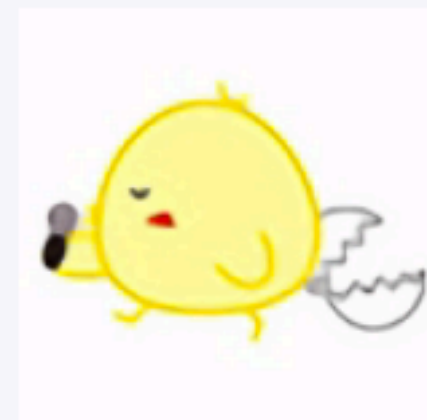
🛳 Ship.js

It's not about the tool.

It's about the process.

Enjoy your release 🎉

Thank You!

@ eunjae_lee

@ ship_js