

Website:

https://www.vuedc.io

Twitter:

@vuejsdc

Discord:

https://discordapp.com/invite/6MZWP8z

wifi: TPGuest password: #1politics

Announcements

- Connect.Tech Atlanta, Georgia
 - o Now!
 - @connect_js / @bencodezen
- JS Playday
 - Saturday, October 20, 2018
 - o 1 4:30pm
- VueToronto Toronto, Canada
 - November 14-16, 2018
- VueConf US Tampa, FL
 - March 25-27, 2019Call For Papers

We're always looking for speakers!

If you don't have a topic, that's okay! We can work with you to come up with one or collaborate together on a talk.

And if you're interested in being a part of our show & tell, let us know so we can slot you in a future meetup!

Reach out to us at vueisdc@gmail.com!

Many thanks to our gold sponsor POLITICO

Vue CLI 3 Walkthrough

Christian Guirreri
Senior Front-End Developer
POLITICO

Why Vue CLI 3?

Full Rewrite:

- Zero config
- Best practices by default

Default Features:

- Pre-configured webpack
- ES2017
- PostCSS
- Auto-generated HTML
- Environment modes & variables
- Modern mode
- Multiple Pages
- Build targets

Optional Features:

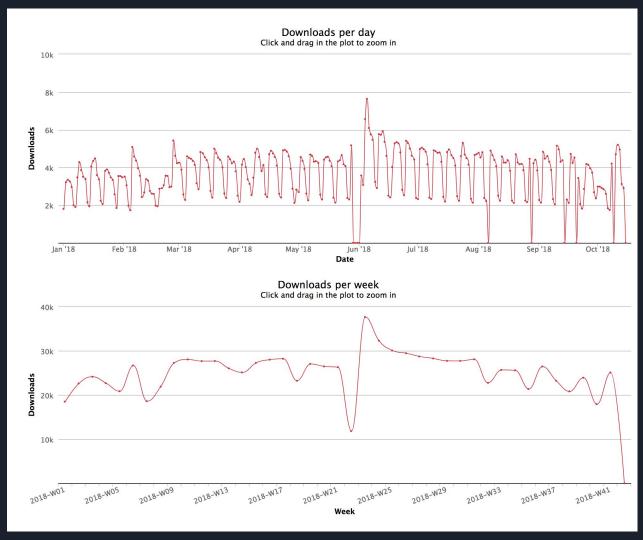
- TypeScript
- Progressive Web App
- Vue Router
- Vuex
- Linting: ESLint / TSLint / Prettier
- Unit Testing: Jest / Mocha
- E2E Testing: Cypress / Nightwatch

And More...

- Presets (Templates)
- Plugin API
- GUI
- Prototyping

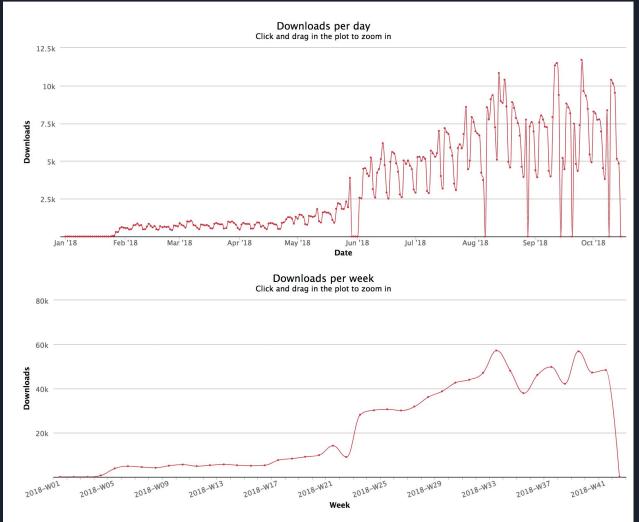
Adoption

Vue CLI 2.x



Adoption

Vue CLI 3.x



Installation







npm install -g @vue/cli yarn global add @vue/cli

```
Vue CLI v3.0.5
? Please pick a preset: (Use arrow keys)
  default (babel, eslint)
> Manually select features
```

```
Vue CLI v3.0.5
? Please pick a preset: Manually select features
? Check the features needed for your project: (Press <space> to select, <a> to
toggle all, <i> to invert selection)
Babel
TypeScript
O Progressive Web App (PWA) Support
○ Router
Vuex
CSS Pre-processors
> Linter / Formatter
Unit Testing
   E2E Testing
```

```
Vue CLI v3.0.5
? Please pick a preset: Manually select features
? Check the features needed for your project: Linter
? Pick a linter / formatter config:
    ESLint with error prevention only
    ESLint + Airbnb config

> ESLint + Standard config
    ESLint + Prettier
```

```
Vue CLI v3.0.5
? Please pick a preset: Manually select features
? Check the features needed for your project: Babel, CSS Pre-processors, Linter
? Pick a CSS pre-processor (PostCSS, Autoprefixer and CSS Modules are supported
by default): Sass/SCSS
? Pick a linter / formatter config: Standard
? Pick additional lint features: Lint on save
? Where do you prefer placing config for Babel, PostCSS, ESLint, etc.? In
dedicated config files
? Save this as a preset for future projects? Yes
? Save preset as: Linting and SASS
```

Create a project (presets)

```
Vue CLI v3.0.5
? Please pick a preset: (Use arrow keys)
> Linting and SASS (sass, babel, eslint)
  default (babel, eslint)
  Manually select features
```

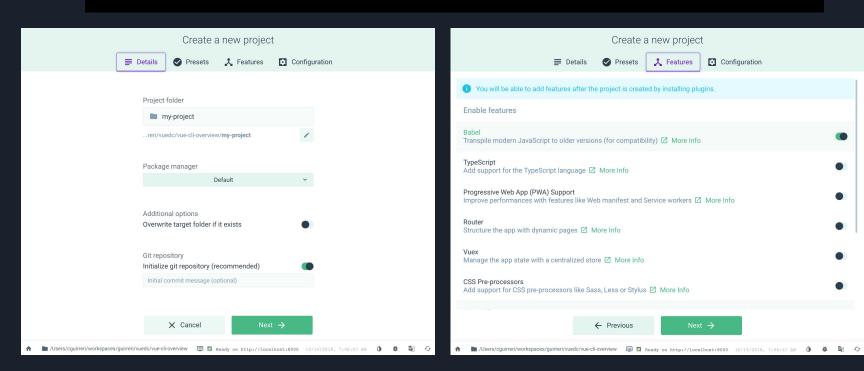
Create a project (presets)

System Preset

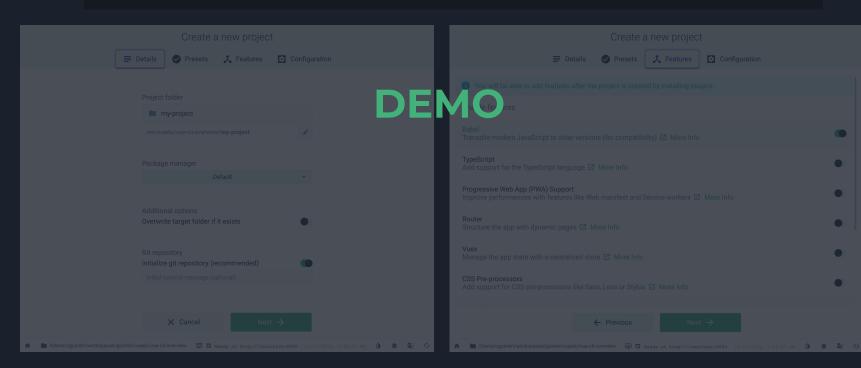
> vue create my-project -p "Linting and SASS"

Create a project (UI)

> vue ui



> vue ui



- ▶ public
- ▶ src
- ▶ tests
- **≡** .browserslistrc
- gitignore
- Js babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.json
- JS postcss.config.js
- ① README.md
- {} tsconfig.json
- {} tslint.json
- yarn.lock

- ▶ public
- ▶ src
- ▶ tests
- .gitignore
- JS babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.json
- JS postcss.config.js
- (i) README.mc
- {} tsconfig.json
- {} tslint.jsor
- yarn.lock

■ public

- - android-chrome-192x192.png
 - android-chrome-512x512.png
 - apple-touch-icon-60x60.png
 - apple-touch-icon-76x76.png
 - apple-touch-icon-120x120.png
 - apple-touch-icon-152x152.png
 - apple-touch-icon-180x180.png
 - apple-touch-icon.png
 - favicon-16x16.png

 - msapplication-icon-144x144.png
 - mstile-150x150.png
 - safari-pinned-tab.svg
- * favicon.ico
- index.html
- {} manifest.json
- **≡** robots.txt

- public
- ▶ src
- ▶ tests

Web App icon placeholders (PWA)

- .gitignore
- JS babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.jsor
- JS postcss.config.js
- (i) README.mo
- {} tsconfig.json
- {} tslint.jsor
- 🎩 yarn.lock

- ₄ img
 - ✓ icons
 - android-chrome-192x192.png
 - android-chrome-512x512.png
 - apple-touch-icon-60x60.png
 - apple-touch-icon-76x76.png
 - apple-touch-icon-120x120.png
 - apple-touch-icon-152x152.png
 - apple-touch-icon-180x180.png
 - apple-touch-icon.png
 - favicon-16x16.png
 - favicon-32x32.png
 - msapplication-icon-144x144.png
 - mstile-150x150.png
 - safari-pinned-tab.svg
- * favicon.ico
- index.html
- {} manifest.jsor
- F robots.txt

- ▶ public
- ▶ src
- ▶ tests
- .gitignore
- JS babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.json
- JS postcss.config.js
- README.mo
- {} tsconfig.json

Entry point

🎩 yarn.lock

- ₄ img

 - android-chrome-192x192.png
 - android-chrome-512x512.png
 - apple-touch-icon-60x60.png
 - apple-touch-icon-76x76.png
 - apple-touch-icon-120x120.png
 - apple-touch-icon-152x152.png
 - apple-touch-icon-180x180.png
 - apple-touch-icon.png
 - favicon-16x16.png
 - favicon-32x32.png
 - msapplication-icon-144x144.pnc
 - mstile-150x150.png
 - safari-pinned-tab.svq
- * favicon.ic
- index.html
- {} manifest.json
- F robots.tx¹

- ▶ public
- ▶ src
- ▶ tests
- .gitignore
- JS babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.jsor
- JS postcss.config.js
- (i) README mo
- {} tsconfig.json
- {} tslint.jsor

Web App icon source / theme (PWA)

- → img
 - - android-chrome-192x192.png
 - android-chrome-512x512.png
 - apple-touch-icon-60x60.png
 - apple-touch-icon-76x76.png
 - apple-touch-icon-120x120.png
 - apple-touch-icon-152x152.png
 - 🖾 apple-touch-icon-180x180.png
 - apple-touch-icon.png
 - favicon-16x16.png
 - favicon-32x32.png
 - msapplication-icon-144x144.png
 - mstile-150x150.png
 - safari-pinned-tab.svg
- * favicon.icc
- index.html
- {} manifest.json
 - F robots.txt

- ▶ public
- ▶ src
- ▶ tests
- .gitignore
- JS babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.jsor
- JS postcss.config.js
- (i) README.mo
- {} tsconfig.json
- {} tslint.jsor
- yarn.lock

Control Crawlers for SEO

- → img
 - ₄ icons
 - android-chrome-192x192.png
 - android-chrome-512x512.png
 - 🖾 apple-touch-icon-60x60.png
 - apple-touch-icon-76x76.png
 - apple-touch-icon-120x120.png
 - apple-touch-icon-152x152.png
 - 🖾 apple-touch-icon-180x180.png
 - apple-touch-icon.png
 - favicon-16x16.png
 - favicon-32x32.png
 - msapplication-icon-144x144.png
 - mstile-150x150.png
 - safari-pinned-tab.svg
- * favicon.ico
- index.html
- {} manifest.json



- ▶ public
- ▶ src
- ▶ tests
- **≡** .browserslistrc
- .gitignore
- JS babel.config.js
- {} cypress.json
- Js jest.config.js
- {} package.json
- JS postcss.config.js
- (i) README.md
- {} tsconfig.json
- {} tslint.json
- yarn.lock

- ▲ assets
- logo.png
- - ▼ HelloWorld.vue
- ✓ views
- About.vue
- ▼ Home.vue
- ▼ App.vue
- TS main.ts
- TS registerServiceWorker.ts
- TS router.ts
- TS shims-tsx.d.ts
- TS shims-vue.d.ts
- TS store.ts

Optimized assets

- ▶ public
- ▶ src
- ▶ tests
- .gitignore
- JS babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.json
- JS postcss.config.js
- (i) README.mo
- {} tsconfig.jsor
- {} tslint.jsor
- 🦶 yarn.lock

- assets
- logo.png
- components
- ▼ HelloWorld.vue
- - ▼ About.vue
- ▼ Home.vue
- ▼ App.vue
- TS main.ts
- TS registerServiceWorker.ts
- TS router.ts
- TS shims-tsx.d.ts
- TS shims-vue.d.ts
- TS store.ts

- ▶ public
- ▶ src
- ▶ tests

SFCs and Javascript

- .gitignore
- JS babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.json
- JS postcss.config.js
- (i) README.mo
- {} tsconfig.jsor
- {} tslint.jsor
- 🦊 yarn.lock

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- assets
- logo.png
- **△** components
 - W HelloWorld.vue
- views
 - About.vue
 - ▼ Home.vue
- App.vue
- TS main.ts
- TS registerServiceWorker.ts
- TS router.ts
- TS shims-tsx.d.ts
- TS shims-vue.d.ts
- TS store.ts

- ▶ public
- ▶ src
- ▶ tests
- .gitignore
- JS babel.config.js
- {} cypress.json
- Service Workers (PWA)
 - JS postcss.config.js
 - (i) README.mo
 - {} tsconfig.jsor
 - {} tslint.jsor
 - 🦶 yarn.lock

- assets
- 🖾 logo.png
- components
- ▼ HelloWorld.vue
- - ▼ About.vue
 - ▼ Home.vue
- ▼ App.vue
- TS main.ts

TS registerServiceWorker.ts

- TS router.ts
- TS shims-tsx.d.ts
- TS shims-vue.d.ts
- TS store.ts

- ▶ public
- ▶ src
- ▶ tests
- .gitignore
- JS babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.jsor
- JS postcss.config.js

Vue Router / Vuex

- {} tsconfig.json
- {} tslint.jsor
- 🦊 yarn.lock

- assets
- 🖾 logo.png
- components
- ▼ HelloWorld.vue
- ▼ About.vue
- ▼ Home.vue
- ▼ App.vue
- TS main.ts
- TS registerServiceWorker.ts
- TS router.ts
- TS shims-tsx.d.ts
- TS shims-vue.d.ts
- TS store.ts

- ▶ public
- ▶ src
- ▶ tests
- .gitignore
- JS babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.jsor
- JS postcss.config.js

TypeScript/E.md

- {} tsconfig.json
- {} tslint.jsor
- yarn.lock

- assets
- 🖾 logo.png
- components
- ▼ HelloWorld.vue
- ▼ About.vue
- ▼ Home.vue
- ▼ App.vue
- TS main.ts
- TS registerServiceWorker.ts
- TS router to
- TS shims-tsx.d.ts
- TS shims-vue.d.ts
- TS store.ts

- ▶ public
- ▶ src
- ▶ tests
- **≡** .browserslistrc
- gitignore
- Js babel.config.js
- {} cypress.json
- Js jest.config.js
- {} package.json
- JS postcss.config.js
- (i) README.md
- {} tsconfig.json
- {} tslint.json
- yarn.lock

- ₄ e2e
 - plugins
 - Js index.js
 - ▲ specs
 - JS test.js

 - Js commands.js
 - Js index.js
- ✓ unit
- TS example.spec.ts

- ▶ public
- ▶ src
- ▶ tests

End-to-end (Cypress)

- JS babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.json
- JS postcss.config.js
- ① README.mo
- {} tsconfig.json
- 🚹 tslint.jsor
- 🦶 yarn.lock

```
✓ tests
✓ e2e
✓ plugins
JS index.js
✓ specs
JS test.js
✓ support
JS commands.js
JS index.js
```

- ▶ public
- ▶ src
- ▶ tests
- .gitignore
- JS babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.jsor

Unit Testing (Jest)

- (i) README.mo
- {} tsconfig.jsor
- {} tslint.jsor
- 👃 yarn.lock

⊿ tests

- 4 e2e

 - Js index.js
 - ▲ specs
 - JS test.js

 - JS commands.js
 - Js index.js
- unit
- TS example.spec.ts

- ▶ public
- ▶ src
- ▶ tests
- **≡** .browserslistrc
- gitignore
- Js babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.json
- JS postcss.config.js
- ① README.md
- {} tsconfig.json
- {} tslint.json
- yarn.lock

- ▶ public
- ▶ src
- ▶ tests

≡ .browserslistrc

- .gitignore
- JS babel.config.is
- {} cypress.json
- JS jest.config.js
- {} package.json
- JS postcss.config.js
- (i) README.mo
- {} tsconfig.json
- {} tslint.jsor
- 🦊 yarn.lock

```
> 1%
last 2 versions
not ie <= 8</pre>
```

• Babel and autoprefixer

- public
- ▶ src
- tests
- .gitignore
- Js babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.jsor
- JS postcss.config.js
- (i) README.mo
- {} tsconfig.json
- {} tslint.jsor
- 👢 yarn.lock

```
module.exports = {
    presets: [
        '@vue/app'
    ]
}
```

- Babel 7
- Latest ECMAScript features (babel-preset-env)
- Object rest spread and dynamic import
- Transform Vue JSX
- Transform generator and async/await

- ▶ public
- ▶ src
- ▶ tests
- .gitignore
- JS babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.jsor
- JS postcss.config.js
- (i) README.mo
- {} tsconfig.jsor
- {} tslint.jsor
- 🦶 yarn.lock

```
module.exports = {
    plugins: {
        autoprefixer: {}
    }
};
```

- Supports postcss-load-config and postcss-loader
- Autoprefixer enabled by default

Project Structure

- ▶ public
- ▶ src
- ▶ tests
- .gitignore
- Js babel.config.js
- {} cypress.json
- JS jest.config.js
- {} package.jsor
- JS postcss.config.js
- ① README.mo
- {} tsconfig.json
- {} tslint.json
- 👃 yarn.lock

TypeScript

- 1) Develop
- > npm run serve / yarn serve

- 1) Develop
- > npm run serve / yarn serve
- 2) Lint
- > npm run lint / yarn lint

- 1) Develop
- > npm run serve / yarn serve
- 2) Lint
- > npm run lint / yarn lint
- 3) Test
- > npm run test:unit / yarn test:unit

- 1) Develop
- > npm run serve / yarn serve
- 2) Lint
- > npm run lint / yarn lint
- 3) Test
- > npm run test:unit / yarn test:unit
- 4) Build
- > npm run build / yarn build

- 1) Develop
- > npm run serve / yarn > vue-cli-service serve
- 2) Lint
- > npm run lint / yarn] > vue-cli-service lint
- 3) Test
- > npm run test / yarn t > vue-cli-service test:unit
- 4) Build
- > npm run build / yarn > vue-cli-service build

5) Deploy

Copy ./dist folder to your server.

5) Deploy

Copy ./dist folder to your server.



vue.config.js

Optional file, automatically loaded by vue-cli-service

> vue inspect > output.js

baseUrl
outputDir
assetsDir
indexPath
filenameHashing
pages
lintOnSave
runtimeCompiler
transpileDependencies
productionSourceMap
crossorigin

integrity
configureWebpack
chainWebpack
css.modules
css.extract
css.sourceMap
css.loaderOptions
devServer
devServer.proxy
parallel
pwa
pluginOptions

vue.config.js

```
module.exports = {
    assetsDir: 'assets',
    productionSourceMap: false,
    lintOnSave: true,
    devServer: {
        port: 8080,
        host: 'localhost',
        proxy: {
            '/api/': {
                target: 'http://localhost:8083',
```

vue.config.js (Webpack)

configureWebpack: Merge configuration using webpack-merge

vue.config.js (Webpack)

chainWebpack: Modify specific details via webpack-chain

```
> vue inspect --rule html
module.exports = {
    chainWebpack: config => {
        config
            .plugin('html')
            .tap(args => {
                args[0].template = '/path/to/templates/index.html'
                return args
            })
```

> vue add @vue/cli-plugin-eslint

- > vue add @vue/cli-plugin-eslint
- > vue add @vue/eslint

> vue add @vue/eslint

Why not npm install?

> vue add @vue/eslint

Why not npm install?

> npm install @vue/cli-plugin-eslint

▶ public ▶ src > VU **■** .browserslistrc .eslintrc.js .gitignore Js babel.config.js {} package.json Js postcss.config.js README.md yarn.lock

- ▶ public
- ▶ src
- **≡** .browserslistrc
- .gitignore
- Js babel.config.js
- {} package.json
- JS postcss.config.js
- README.md
- yarn.lock

> vue add @vue/eslint

Why not npm install?

> npm install @vue/cli-plugin-eslint

> vue add @vue/eslint

Why not npm install?

- > npm install @vue/cli-plugin-eslint
- > vue invoke @vue/cli-plugin-eslint

Add a 3rd party plugin

> vue add apollo

Add a 3rd party plugin

> vue add apollo

Equates to...

- > npm install vue-cli-plugin-apollo
- > vue invoke vue-cli-plugin-apollo

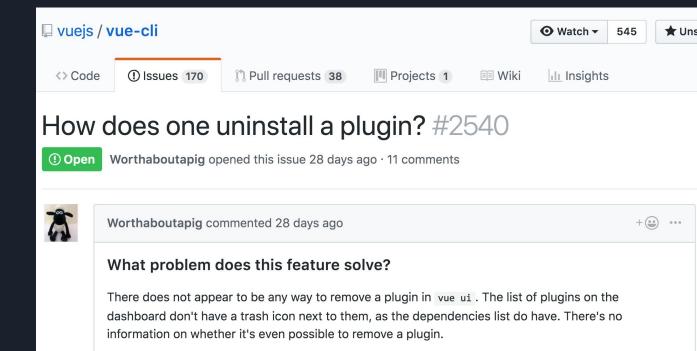
Remove a plugin

> vue remove @vue/eslint

Remove a plugin

> vue remove @vue/eslint

Not quite...



Remove a plugin

> vue remove @vue/eslint

Not quite...

[link]

They aren't install-only: you can uninstall them using yarn or npm and clean up the files they added/modified (for example with git). My point is there isn't an automatic way of doing this, we don't have an IA to do that (yet?).

Ok.

preset.json: Define a project without needing command prompts.
 vue create

generator.js: Modify contents and configurations of project files.
 vue create (if included with preset.json)
 vue invoke

index.js: Modify the webpack config.
 vue-cli-service

prompts.js: Modify options based on user input.
 vue_invoke

Create a project revisited

System Preset

> vue create my-project -p "Linting and SASS"

```
> vue config
```

```
~/.vuerc
    "presets": {
        "Linting and SASS": {
            "useConfigFiles": true,
            "plugins": {
                "@vue/cli-plugin-babel": {},
                "@vue/cli-plugin-eslint": {
                    "config": "standard",
                    "lintOn": ["save"]
            "cssPreprocessor": "sass"
    "useTaobaoRegistry": false,
    "packageManager": "yarn"
```

Create a project revisited

System Preset (~/.vuerc)

> vue create my-project -p "Linting and SASS"

Local Preset

> vue create my-project -p ../presets/linting-sass.json

Create a project (presets)

Remote Preset (GitHub)

> vue create my-project -p guirreri/vue-dc

Remote Preset (GitLab)

> vue create my-project -p gitlab:guirreri/vue-dc --clone

Remote Preset (Bitbucket)

> vue create my-project -p bitbucket:guirreri/vue-dc --clone

Issues with private Bitbucket / download-git-repo

Create a preset

- Initialize an npm package.
- Open ~/.vuerc
- Copy your preset to a preset.json file in your package's root.
- Create and test a new project using the local preset:
 - > vue create -p <package-folder> <project-name>
 - > npm run serve

• Create index.js.

preset.json: Define a project without needing command prompts.
 vue create

generator.js: Modify contents and configurations of project files.
 vue create (if included with preset.json)
 vue invoke

index.js: Modify the webpack config.
 vue-cli-service

prompts.js: Modify options based on user input.
 vue_invoke

- Create index.js.
- Create generator.js.

- preset.json: Define a project without needing command prompts.
- Creavue createjs.
- generator.js: Modify contents and configurations of project files.

```
vue create (if included with preset.json)
vue invoke
```

• index.js: Modify the webpack config.

```
vue-cli-service
```

prompts.js: Modify options based on user input.

```
vue invoke
```

- Create index.js.
- Create generator.js.
- Add the plugin to your project locally for development:
 - > yarn add ../vue-cli-plugin-vuedc-init
- Invoke the plugin:
 - > vue invoke vuedc-init
- Re-add and re-invoke to test the plugin.

- Add api.render to generator.js.
- Add a template folder and modify some files.
- Re-add and re-invoke to test the plugin.

• Add prompts.js.

preset.json: Define a project without needing command prompts.
 vue create

generator.js: Modify contents and configurations of project files.
 vue create (if included with preset.json)
 vue invoke

index.js: Modify the webpack config.
 vue-cli-service

prompts.js: Modify options based on user input.
 vue invoke

- Add prompts.js.
 - o Based on <u>Inquirer.js</u>

Questions?

Thanks everyone for coming and hope to see you at the next meetup!

If you need support on a day to day, we got you.

Make sure to:

- Check out our Discord channel (https://discordapp.com/invite/6MZWP8z)
- Bookmark our site (https://www.vuedc.io)
- Find talk resources on GitHub (https://github.com/VueDC)