



VUE BEIJING 北京

Mar. 28th, 2021

~~Build with Vite~~

Develop with Vite

Intro to Vite, the next-generation development tool

Anthony Fu



Anthony Fu

Vue core team member and Vite team member.

Creator of VueUse, i18n Ally and Type Challenges.

A fanatical full-time open sourceror

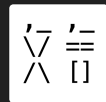
 [//antfu.me](https://antfu.me)  [@antfu](https://github.com/antfu)  [@antfu7](https://twitter.com/antfu7)



Vue



Vite



文言 wenyan



VueUse



Windi CSS

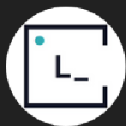


Intlify



Type Challenges

Gold Sponsors



Leniolabs_



Nuxt



Vue Mastery

Sponsors



IU



hiroki

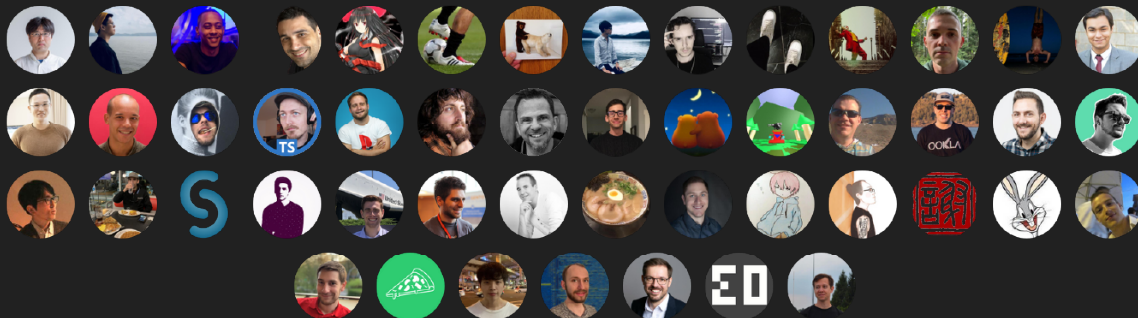


Ben Hong



PENG Rui

Backers



//

|

Alright,
so what is Vite?

/vit/ - "fast"

//



Evan You
@youyuxi

As I was going to bed, I had an idea about a no-bundler dev setup (using native browser ES imports), but with support for Vue SFCs ****with hot reload****. Now it's almost 6AM and I have PoC working. The hot reload is so fast it's near instant.

5:54 PM · Apr 20, 2020 · Twitter Web App

[Source](#)

//

|

It's Fast! ⚡

Server starts in <300ms, HMR in <100ms

Repl.it - Create React App

repl.it/@templates/Create-React...

Search and run commands


Create React App

templates, theangrypicbanana + 17 others

Fork

Output Code

Create-React-App.t... Edit repl



Repl.it - vite react

repl.it/@amasad/vite-react?view=1

Search and run commands


vite react

amasad

Fork

Output Code

vite-react.amasad.r... Edit repl



[Source](#)

How?

//

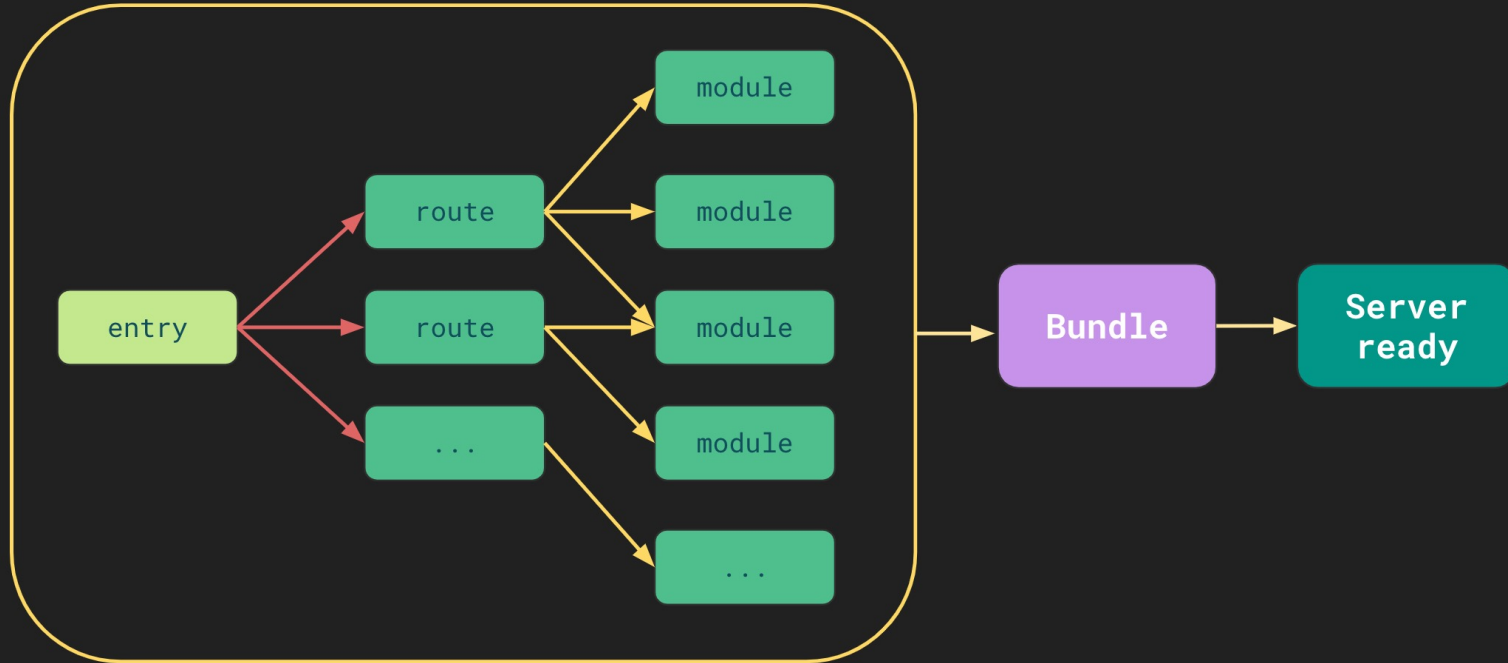
Vite is opinionated on providing better DX

- Assumes you are using modern browsers for development
- Browsers already understand Native ESM (>92% caniuse, 2021-03-20)
- No bundling, and on-demand transpiling
- Optimizations: esbuild, deps Pre-bundling, etc
- Native ESM on dev server + Pre-configured rollup bundling for production

Bundle based dev server

//

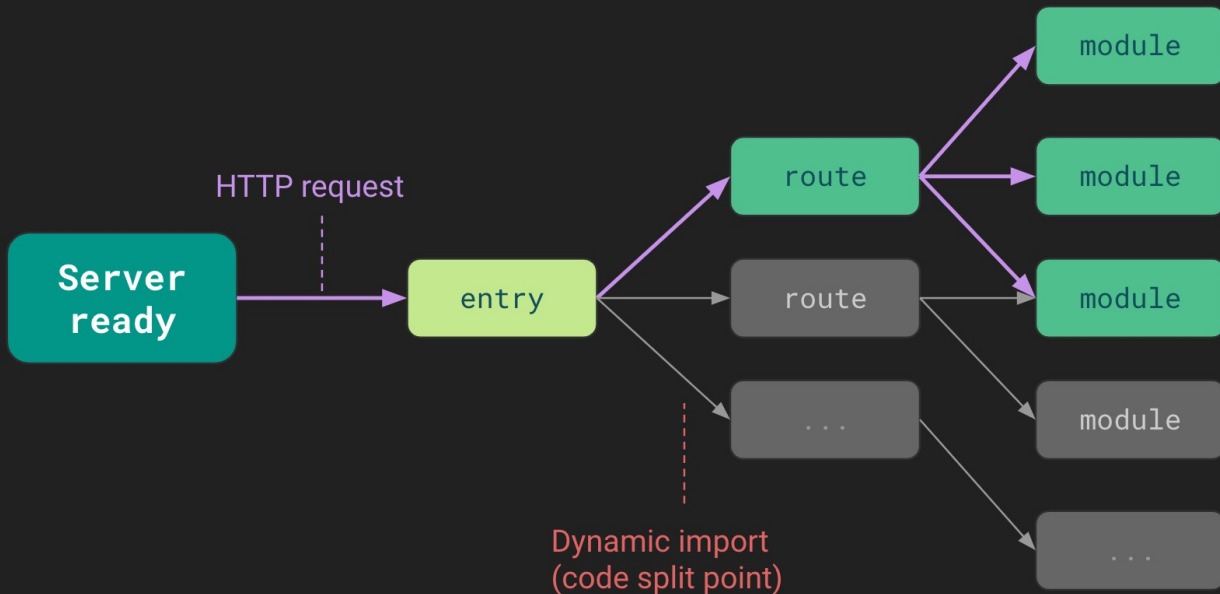
Server ready until the entire project bundle is built



Native ESM based dev server

//

Server ready immediately, and serve on-demand



Fast Transpling

//

No bundling needed

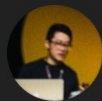
- Transpile TypeScript, JSX, TSX into ESM powered by esbuild
 - Written in Go
 - Optimized with speed in mind and utilizes parallelism
 - No Babel involved

Dependencies Pre-bundling

//

Treat user code and dependencies differently

- Inspired by Snowpack v1
- Transform dependencies into standard ESM
- Bundle into single files to avoid HTTP request waterfall
- Powered by esbuild



Evan You
@youyuxi

Replying to @youyuxi

Tested on Cypress's real world React app.

Pre-bundling w/ Rollup: 28s 🏠
Pre-bundling w/ esbuild: 1.2s ⚡

Hot Module Replacement

//

a.k.a HMR, over native ESM

- Out-of-box
- Native ESM “HMR boundary”
 - Only replace the module you changed, again no bundling
- First-party Vue SFC and React Fast Refresh support

//

|

Not only for Vue

It's framework-agonistic, even vanilla!



1.0.0-rc.x

- Coupled with Vue
- Plugins for dev / build are different
- Requires dependencies to have ESM



2.0.0

- Framework-agnostic
- Universal plugin for dev/build
- Compatible with rollup plugins
- Dependencies auto discovery
- First-class SSR

[Read More](#)

```
→ npm init @vitejs/app my-app
```

```
Scaffolding project in /Users/antfu/my-app...
```

```
? Select a template: ...
```

```
> vanilla
```

```
vue
```

```
vue-ts
```

```
react
```

```
react-ts
```

```
preact
```

```
preact-ts
```

```
lit-element
```

```
lit-element-ts
```

```
svelte
```

```
svelte-ts
```


//

|

Powerful Plugin System

Rollup plugins are compactible with Vite,
and works magically even on dev server

Rollup Compatible

vite-rollup-plugins.patak.dev

- Universal plugins that works for both dev and server
- List of the compatibility of popular rollup plugins
- Demo and guide of how to use them

//

Plugins

A list of rollup plugins compatibility for Vite v2.0.5

①

[alias](#)

Define and resolve aliases for bundle dependencies

included

[auto-install](#) [enforce: 'pre'](#)

Automatically install dependencies that are imported by a bundle

①

incompatible

[babel](#)

Compile your files with Babel

①

covered

[beep](#)

System beeps on errors and warnings

①

compatible



awesome

[vitejs/awesome-vite](https://vitejs.dev/guide/awesome-vite)

//

|

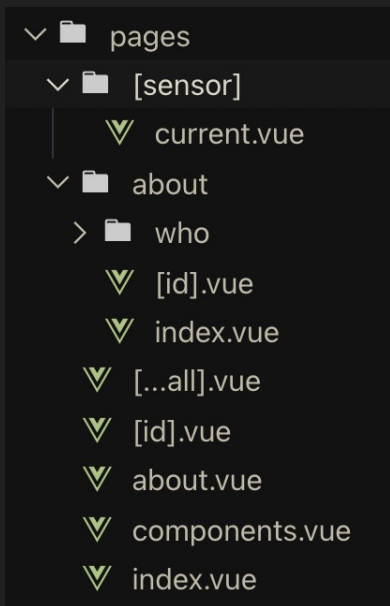
Fresh Authoring Experience

Show cases for Vue plugins

File-based Routes

//

vite-plugin-pages by @hannoeru



- Nuxt.js -like routing
- [arguments] as dynamic routes
- Minimal setup process
- Fully-customizable

Component Auto-import

//

vite-plugin-components by @antfu

```
<script>
import MyDialog from './MyDialog.vue'

export default {
  components: {
    MyDialog
  }
}
</script>

<template>
  <MyDialog />
</template>
```



```
<template>
  <MyDialog />
</template>
```

- On-demand auto-importing
- Works for libraries
 - Vuetify, Antdv, Element+, Vant etc

Icons, from any set

//

vite-plugin-icons by @antfu

```
<template>
  <p>
    <i-mdi-account />
    <i-fa-briefcase />
    <i-carbon-car style="color: skyblue"/>
  </p>
</template>
```

- Powered Iconify
- Access to over 90+ popular iconsets
- Works well with vite-plugin-components
- Only bundles the icons you use
- Works as Vue component and easy to style



Windi CSS

//

vite-plugin-windicss by @antfu

- On-demand "Tailwind CSS"
- 20-100x faster than traditional Tailwind
- Additional features like unit auto-infering
 - p-2em m-3.2 color-hex-42b883 ...

Love them all?

//

I made a starter template for you!

<https://github.com/antfu/vitesse>



Vitesse

Opinionated Vite Starter Template

COMPOSITION API / FILE-BASED ROUTER / LAYOUTS / COMPONENTS AUTO-IMPORTING

WINDICSS / MARKDOWN / SSG / PWA / I18N / DARK MODE



//

Again, do remember to
check the awesome list!

[vitejs/awesome-vite](https://vitejs.dev/awesome-vite)



awesome

//

|

Still on Vue 2?

We have you covered!

Via vite-plugin-vue2 by @underfin

Vue 2 for Vite

//

vite-plugin-vue2 by @underfin

```
import { defineConfig } from 'vite'
import { createVuePlugin } from 'vite-plugin-vue2'




export default defineConfig({
  plugins: [
    createVuePlugin()
  ]
})
```

Plugins for Vue 2


[vitejs/awesome-vite#vue](https://vitejs.dev/awesome-vite#vue)


Vue

In this section, we use badges to indicate the targeted Vue version for each plugin.

 for Vue 2 only,  for Vue 3 only, and  for plugins that compatible with both versions.


Integrations

 [@vitejs/plugin-vue](#) - Official Vue 3 support.


 [vite-plugin-vue2](#) - Vue 2 integration.


Routing


 [vite-plugin-voie](#) - File system based routing.


 [vite-plugin-pages](#) - File system based route generator.

Loaders


 [vite-plugin-md](#) - Markdown as Vue components / Vue components in Markdown.


 [vite-plugin-icons](#) - Access thousands of icons as Vue components.


 [vite-plugin-vuedoc](#) - Markdown Code block as Vue Preview components.

 [vite-svg-loader](#) - Load SVG files as Vue components.


SSR / SSG


 [vite-ssg](#) - Server-side generation.

 [vite-ssr](#) - Server-side rendering.


 [vitedge](#) - Edge-side rendering with fullstack utilities.

Ecosystem


 [vite-plugin-vue-i18n](#) - Integration for Vue I18n.

 [vite-plugin-i18n-resources](#) - Load I18n translation message files.

Helpers

 [vite-plugin-components](#) - On-demand components auto-importing.

Bundling

 [vite-plugin-multi-device](#) - Outputs for different devices.

//

|

Support for Legacy Browsers?

Sure, officially supported

Legacy browser support

//

@vitejs/plugin-legacy

```
// vite.config.js
import legacy from '@vitejs/plugin-legacy'

export default {
  plugins: [
    legacy({
      targets: ['defaults', 'not IE 11']
    })
  ]
}
```

- For supporting legacy browsers that do not support native ESM
- Generate a corresponding legacy chunk in the final bundle
- Babel + System JS module

//

|

What does Vite mean for the existing Vue Ecosystem?

Vite has first-class Vue support, of course

VuePress

//

Vite is supported in v2 beta 🎉



meteorlxy
@meteorlxy_cn

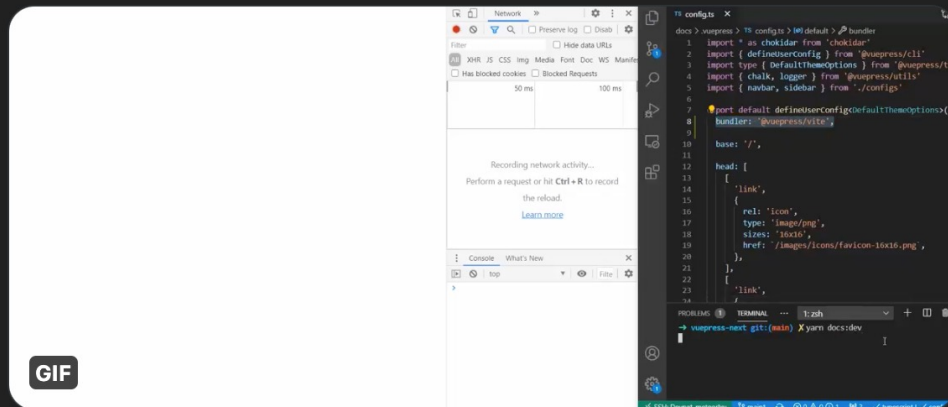
VuePress ❤️ Vite !

VuePress v2 beta has been released, which supports
[@vite_js](#) as the bundler.

[GitHub Repo](#)

[Documentation](#)

[Video Demo](#)



Nuxt

//

The upcoming Nuxt 3 will support interchangeable engines between Webpack and Vite.

An experimental project for Nuxt 2 with Vite is also available [nuxt/vite](https://github.com/nuxt/vite)



Pooya Parsa 
@_pi0_

Replying to @_pi0_

Nuxt3 architecture, allows using Webpack and Vite interchangeably with an option. So alongside with vite mode, we have first class SSR support with Webpack5 in Nuxt3



Pooya Parsa 
@_pi0_ · Feb 26
You can now try Nuxt with Vite 






Vite Experience with Nuxt 2

github.com/nuxt/vite



nuxt/vite

 Vite Experience with Nuxt 2  . Contribute to nuxt/vite development by creating an account on GitHub.

 github.com

Vue CLI

//



Evan You @youyuxi · Jan 28

Will Vite replace vue-cli? Initially I wasn't sure, but at this stage I believe it will eventually be the case.

The main disparity now is just test runner integrations.

And we have a community maintained plugin that enables Vite support in Vue CLI that you can try it today:

[IndexXuan/vue-cli-plugin-vite](https://github.com/IndexXuan/vue-cli-plugin-vite)

//

|

Higher level integrations

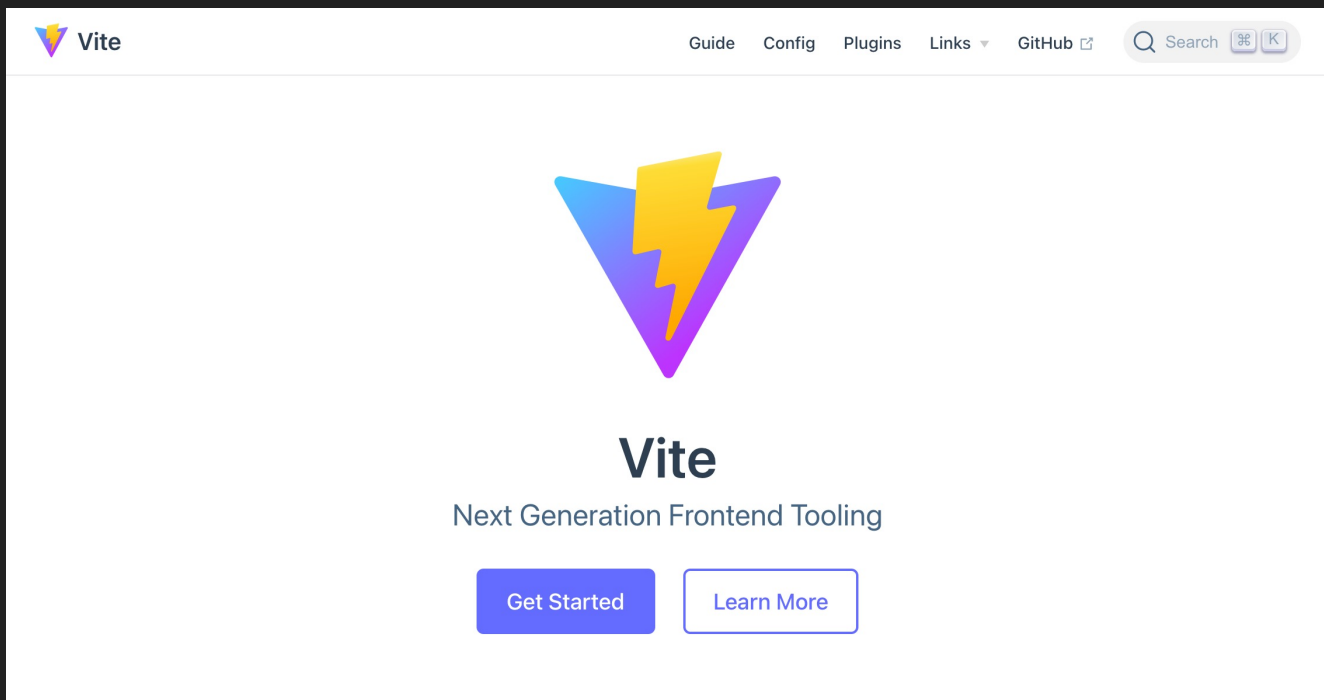
Tools built on-top of Vite

VitePress

Vite & Vue powered static site generator

[vuejs/vitepress](https://vuejs.org/vitepress)

//



Ream

//

A Vite based toolkit for building web apps with any framework

ream.dev

**Ream: a super-
fast SSR
framework for
Vue 3**



Vitedge

//

Edge-side rendering and full-stack Vite framework

[frandiox/vitedge](https://frandiox.com/vitedge)



Vitesse × Vitedge

Opinionated Vite Starter Template

Backend Integrations

//



Vite Ruby

Vite backend integrations with Ruby, supports Rails and Hanami



Laravel Vite

Vite integration for Laravel

Read more about setting up backend integrations for Vite:

vitejs.dev/guide/backend-integration

//

|

Love from other communities


Tools you like are also going to support Vite!

Svelte Kit


sveltejs/kit#409


//


Vite #409

 Merged from vite 19 days ago

 Conversation 2

 Commits 18

 Checks 3

 Files changed 111



Rich Harris 19 days ago

Member



This PR switches the build system underlying SvelteKit, from Snowpack to Vite. This isn't a decision we're taking lightly, but after careful analysis we feel that it's the right one — while we had misgivings about Vite 1 (which gave Vue apps preferential treatment, and didn't really support SSR), Vite 2 does a really great job of solving some tricky problems that were previously in SvelteKit's domain, like CSS code-splitting or fixing stack traces during SSR. Since it's Rollup-based, it also means that SvelteKit apps can benefit from the very large ecosystem of Rollup plugins.

I did some spot checking on how this would affect things like build time and bundle sizes. I wasn't scientific about it and

Cypress

//



getjessicasachs() { return this._jessicasachs }
@_jessicasachs

Adding 1st class Vite support to Cypress Component Testing's alpha is on our roadmap for Q1. We've started spiking integrations already.

We rearchitected Cypress Component Testing
specifically to be devserver agnostic.

[Source](#)

Storybook

//



Storybook
@storybookjs

Storybook 6.2 introduces pluggable builders, opening the door to next-generation bundlers.

While still in its early stages, we are exploring Snowpack, ESBUILD, Vite and more.

[Source](#)

//

|

Start Vite Today!

We are waiting for you to join our community
and start playing with Vite!



```
npm init @vitejs/app
```



Join the discussions with us on Discord chat.vitejs.dev



Follow us on Twitter [@vite_js](https://twitter.com/vite_js)



Read the docs on vitejs.dev

Thank you!

