



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

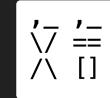
[🔗 //antfu.me](http://antfu.me) [@antfu](https://twitter.com/antfu) [@antfu7](https://github.com/antfu)



Vue



Vite



文言 wenyan



VueUse



Windi CSS



Intlify



Type Challenges

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Nuxt



Vue Mastery

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IU



hiroki



Ben Hong



PENG Rui

Backers

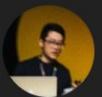


//

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

The image shows two side-by-side browser windows comparing two different React development environments on the repl.it platform.

Left Window (Create React App):

- Title:** Repl.it - Create React App
- URL:** repl.it/@templates/Create-React...
- Code Editor:** Shows a single file named "Create-React-App.tsx" with a large green play button icon indicating it's ready to run.
- Output:** Shows a log entry: "vite-react.amasad.r... ↴".
- Author:** amasad
- Fork:** A blue "Fork" button.

Right Window (vite react):

- Title:** Repl.it - vite react
- URL:** repl.it/@amasad/vite-react?view=1
- Code Editor:** Shows a single file named "vite-react.amasad.tsx" with a large green play button icon indicating it's ready to run.
- Output:** Shows a log entry: "vite-react.amasad.r... ↴".
- Author:** amasad
- Fork:** A blue "Fork" button.

Source

How?

//

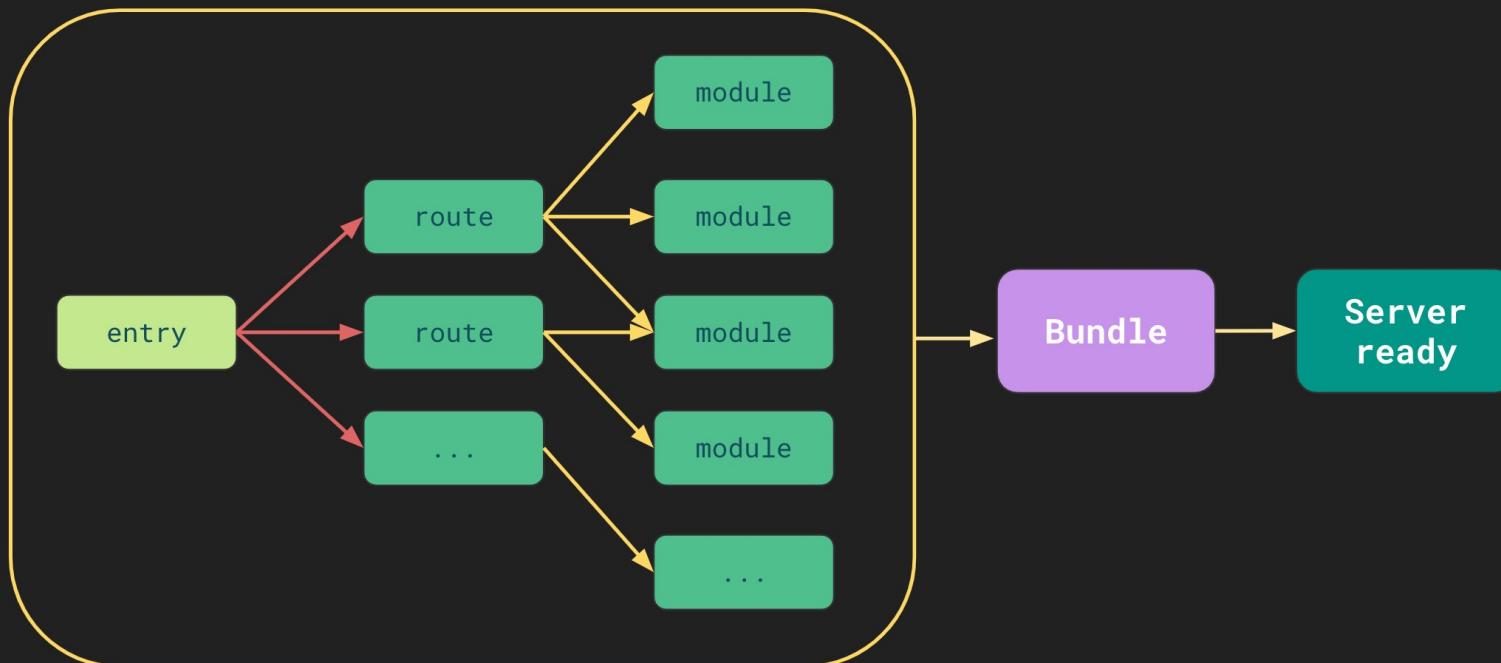
Vite is opinionated on providing better DX

- 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

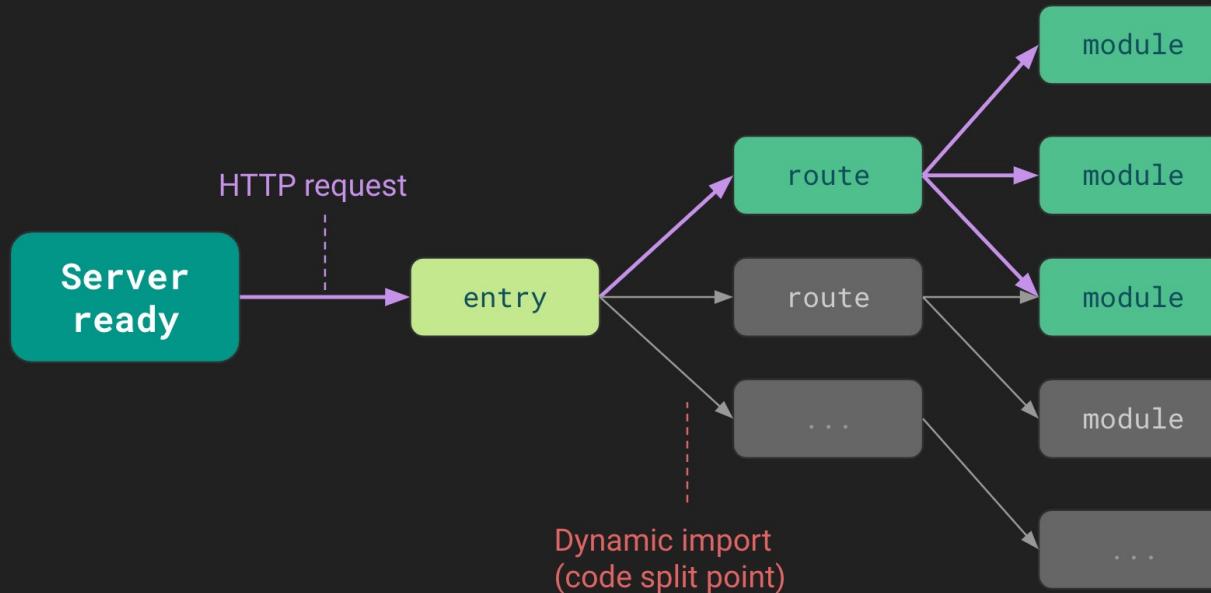
//

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

Replies 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-agnostic, 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 compatible 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

//

Vite Rollup Plugins

A list of rollup plugins compatibility for Vite v2.0.5

ⓘ

alias

included

Define and resolve aliases for bundle dependencies

auto-install enforce: 'pre'

ⓘ

incompatible

Automatically install dependencies that are imported by a bundle

babel

ⓘ

covered

Compile your files with Babel

beep

ⓘ

compatible

System beeps on errors and warnings



awesome

vitejs/awesome-vite

//

|

Fresh Authoring Experience

Show cases for Vue plugins

File-based Routes

//

vite-plugin-pages by @hannoeru



- Nuxt.js -like routing
- [arugments] 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 icons
- 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-inferring
 - `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://github.com/vitejs/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](#)

Vue

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

v2 for Vue 2 only, v3 for Vue 3 only, and 2/3 for plugins that compatible with both versions.

Integrations

v3 [@vitejs/plugin-vue](#) - Official Vue 3 support.

v2 [vite-plugin-vue2](#) - Vue 2 integration.

Routing

2/3 [vite-plugin-voie](#) - File system based routing.

2/3 [vite-plugin-pages](#) - File system based route generator.

Loaders

2/3 [vite-plugin-md](#) - Markdown as Vue components / Vue components in Markdown.

2/3 [vite-plugin-icons](#) - Access thousands of icons as Vue components.

v3 [vite-plugin-vuedoc](#) - Markdown Code block as Vue Preview components.

v3 [vite-svg-loader](#) - Load SVG files as Vue components.

SSR / SSG

v3 [vite-ssg](#) - Server-side generation.

v3 [vite-ssr](#) - Server-side rendering.

v3 [vitedge](#) - Edge-side rendering with fullstack utilities.

Ecosystem

v3 [vite-plugin-vue-i18n](#) - Integration for Vue i18n.

v3 [vite-plugin-i18n-resources](#) - Load i18n translation message files.

Helpers

2/3 [vite-plugin-components](#) - On-demand components auto-importing.

Bundling

v3 [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 

GitHub Repo

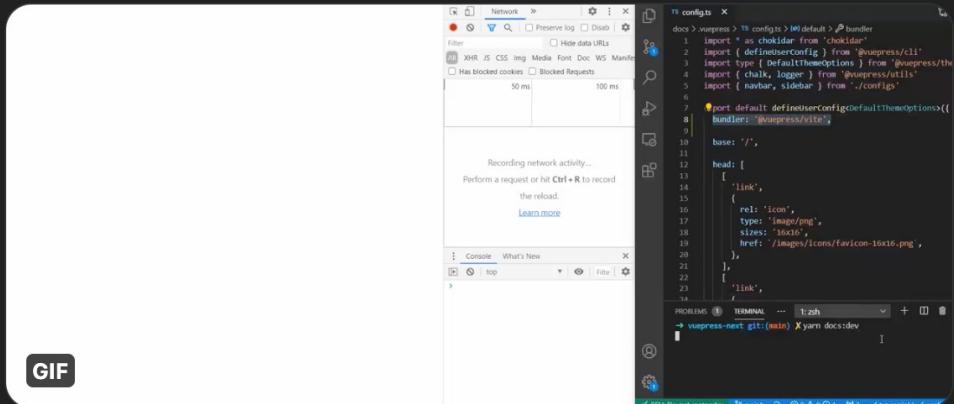
Documentation

Video Demo



VuePress ❤️ Vite !

VuePress v2 beta has been released, which supports
@vite_js as the bundler.



A screenshot of a developer's workspace. On the left, a browser developer tools window shows network activity with a single request to 'localhost:3000'. In the center, a code editor displays a file named 'ts configs' containing VuePress configuration code. On the right, a terminal window shows the command 'yarn docs:dev' being run. The bottom status bar indicates the project is running on port 3000.

```
docs > vuepress > ts configs > (6) default > (6) bundler
1 import * as chalk from 'chalk';
2 import { defineUserConfig } from 'vuepress';
3 import type { DefaultThemeOptions } from '@vuepress/theme';
4 import { chalk, logger } from '@vuepress/utils';
5 import { navbar, sidebar } from './config';
6
7 port default defineUserConfigDefaultThemeOptions<{
8   bundler: '@vuepress/vite';
9 }
10 base: '/',
11 head: [
12   [
13     {
14       'link',
15       rel: 'icon',
16       type: 'image/png',
17       sizes: '16x16',
18       href: '/images/icons/favicon-16x16.png',
19     },
20   ],
21   [
22     {
23       'link',
24     },
25   ],
26 ];
27
28 PROBLEMS TERMINAL ... zsh
→ vuepress-next git:(main) ✘ yarn docs:dev
I
```

GIF

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](#)



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/nuxt/vite

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](#)

//



Higher level integrations

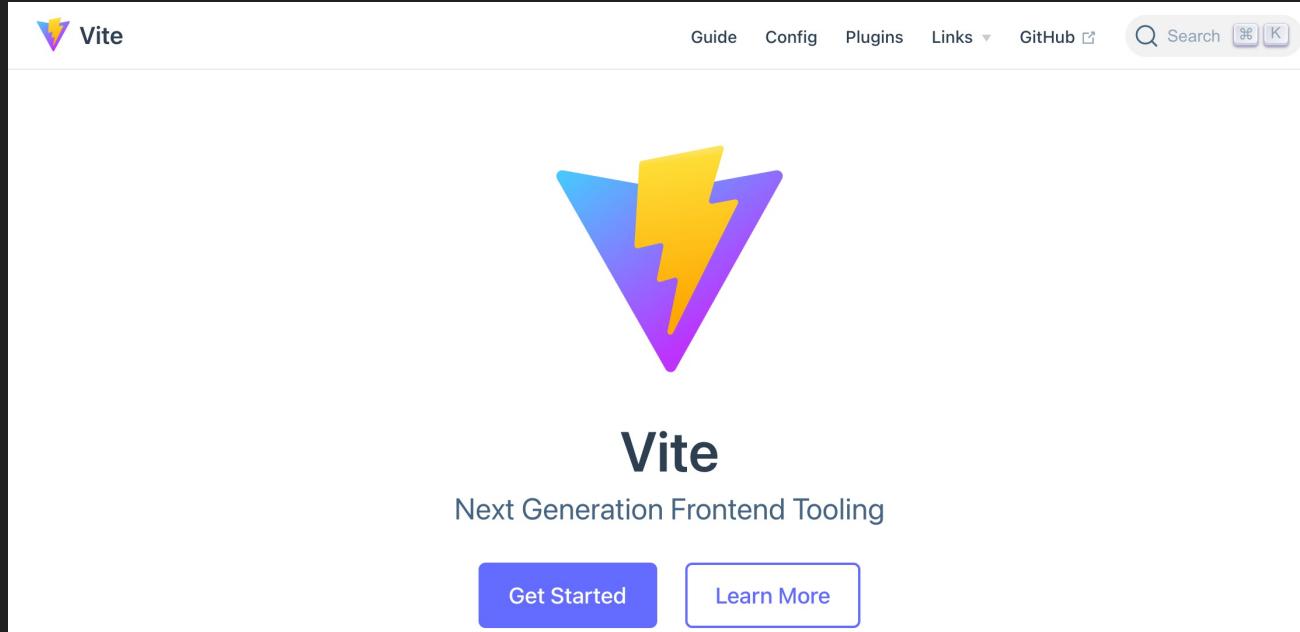
Tools built on-top of Vite

VitePress

//

Vite & Vue powered static site generator

[vuejs/vitepress](#)



The screenshot shows the homepage of the VitePress website. At the top, there's a navigation bar with the Vite logo, a search bar, and links for Guide, Config, Plugins, Links, GitHub, and a user icon. The main content area features a large, stylized Vite logo (a yellow lightning bolt inside a blue-to-purple gradient triangle). Below the logo, the word "Vite" is written in a large, bold, dark font, followed by the tagline "Next Generation Frontend Tooling". At the bottom, there are two buttons: a blue "Get Started" button and a white "Learn More" button.

Rream

//

A Vite based toolkit for building web apps with any framework
ream.dev

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



Vitedge

//

Edge-side rendering and full-stack Vite framework

frandiox/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

//



```
get jessicasachs() { 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 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!



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