

af

アンソニ・傅

Anthony Fu

Core Team  Vite  Vue  Nuxt

Creator  Vitest  Sliderv  UnoCSS  Type Challenges  Elk

Maintainer  ESLint  Stylistic  Shiki  Twoslash

Working at  NuxtLabs /  Vercel



 antfu.me

 antfu

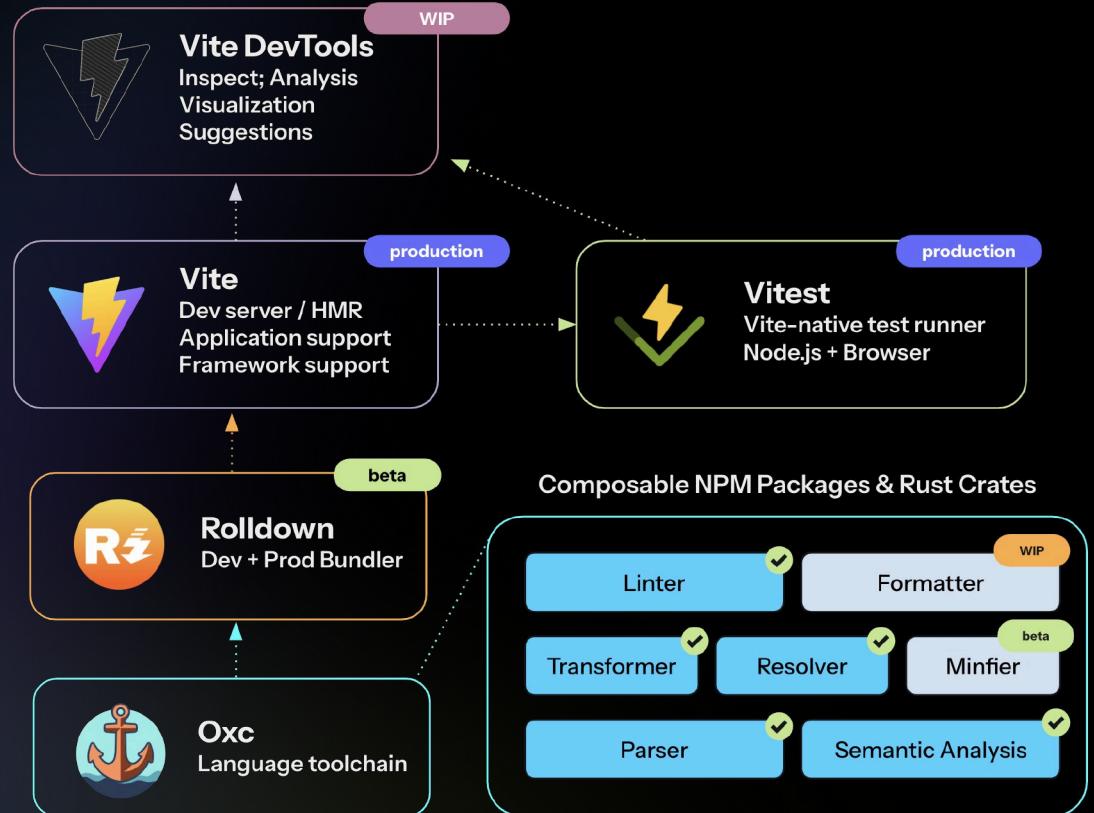
 antfujp (日本語)



DEVTOOLS

`void(0)`

Open Source



なぜ DevTools が必要なの？

広義の Developer Tools

"開発者向けツール"



Vite 自体もデベロッパーツールです！

狭義の DevTools

"ツールをより良く使うためのツール"

Chrome DevTools

Nuxt DevTools

Vue DevTools

Vite Plugin Inspect

UnoCSS Inspector

ESLint Config Inspector

Vitest UI

Node Modules Inspector

...

良いツールの原則

▣ 入門しやすい → 始めやすく、設定がシンプル、一言で説明できる

▣ 直感的な設計 → ユーザーの期待と直感に合致、良いユーザーエクスペリエンス

▢ 透明性 → 内部状態が透明、デバッグと最適化が簡単

▢ 組み合わせ → 分離されたモジュール、組み合わせと拡張が簡単

▢ 拡張性 → 柔軟なプラグインシステムとカスタマイズ

透明性

Transparency

UnoCSS Inspector beta

Inspector beta

Overview

REPL

Project Root

- src
 - components
 - panel
 - PanelOutputCss.vue
 - PanelCustomCss.vue
 - PanelConfig.vue
 - PanelHtml.vue
 - Playground.vue
 - Editor.vue
 - Preview.vue
 - HeaderBar.vue
 - SelectVersion.vue
 - SelectLayers.vue
 - App.vue
 - index.html
 - __play.html
 - __play.html?html-proxy&index=0.js
- Disk Root
 - Users/antfu/i/unocss/packages-inte...
 - TitleBar.vue
 - CodeMirror.vue

Presets

- @unocss/preset-icons
- @unocss/preset-uno
- @unocss/preset-web-fonts
- @unocss/preset-attributify

Rules

245 dynamic
849 static

Variants

62

Shortcuts

6

Version

66.1.2

Included Files

16

CSS Size

4.98 kB gzipped

Matched Rules

234

Layers

icons
shortcuts
default

Merge Alias

TOP 10 UTILITIES

```
w-full60 w-454 inline-flex53 top-035 py-134 justify-center32 ?30 overflow-auto19 transition-transform16 text-sm16
```

COLOR PALETTE 13

gray ¹⁵ #9ca3af	gray-400 ⁴ #9ca3af	\$cm ⁴ var(--cm...)	light-900 ² #dde1e3	dark-900 ² #0f0f0f	gray-600 ² #4b5563	white ² fff	yellow-400 ² #facc15	red-400 ² #f87171	green ² #4ade80	light-700 ¹ #e9ecf
-------------------------------	----------------------------------	-----------------------------------	-----------------------------------	----------------------------------	----------------------------------	---------------------------	------------------------------------	---------------------------------	-------------------------------	----------------------------------

dark-800 ¹ #181818	yellow-4 ¹ #facc15
----------------------------------	----------------------------------

⚡ Vite Plugin Inspect

File	Build Type	Size Change	Time
./devtools-kit/src/runtime/iframe-client.ts	esbuild import-analysis	1.42KB → 1.16KB	15ms
./devtools-ui-kit/src/assets/styles.css	css css-post nuxt:dev-style-ssr import-analysis	1.37KB → 5.66KB	401ms
./devtools-ui-kit/src/components/NBadge.vue	vue vue-tracer import-analysis	71B → 1.94KB	1ms
./devtools-ui-kit/src/components/NBadgeHashed.vue	vue vue-tracer import-analysis	517B → 3.61KB	176ms
./devtools-ui-kit/src/components/NButton.ts	esbuild nuxt:components:imports import-analysis	1.48KB → 1.65KB	213ms
./devtools-ui-kit/src/components/NCard.vue	vue vue-tracer import-analysis	80B → 1.95KB	-
./devtools-ui-kit/src/components/NCheckbox.vue	vue vue-tracer nuxt:components-loader import-analysis	1.05KB → 4.64KB	10ms
./devtools-ui-kit/src/components/NCodeBlock.vue	vue vue-tracer import-analysis	1.79KB → 5.51KB	146ms
./devtools-ui-kit/src/components/NDarkToggle.vue	vue vue-tracer nuxt:components-loader import-analysis	1.71KB → 4.99KB	38ms
./devtools-ui-kit/src/components/NDialog.vue	vue vue-tracer nuxt:components-loader import-analysis	1.70KB → 5.71KB	174ms

Vitest UI

Vitest

Search... Filter

Fail Pass
 Skip Only Tests

FAIL (0) / RUNNING (0)
PASS (119) / SKIP (--)

> ✓ packages/eslint-plugin/rules/array-bracket-spacing.test.ts 1027ms
> ✓ packages/eslint-plugin/rules/array-bracket-spacing.test.ts 605ms
> ✓ packages/eslint-plugin/rules/array-element-spacing.test.ts 774ms
> ✓ packages/eslint-plugin/rules/arrow-parameter-spacing.test.ts 546ms
> ✓ packages/eslint-plugin/rules/arrow-spacing.test.ts 154ms
> ✓ packages/eslint-plugin/rules/block-spacing.test.ts 419ms
> ✓ packages/eslint-plugin/rules/brace-style.test.ts 623ms
> ✓ packages/eslint-plugin/rules/brace-style.test.ts 281ms
> ✓ packages/eslint-plugin/rules/comma-dangle.test.ts 1644ms
> ✓ packages/eslint-plugin/rules/comma-dangle.test.ts 299ms
> ✓ packages/eslint-plugin/rules/comma-spacing.test.ts 597ms
> ✓ packages/eslint-plugin/rules/comma-spaces.test.ts 214ms
> ✓ packages/eslint-plugin/rules/comma-style.test.ts 816ms
> ✓ packages/eslint-plugin/rules/computed-property-spacing.test.ts 664ms
> ✓ packages/eslint-plugin/rules/curly-newline.test.ts 798ms
> ✓ packages/eslint-plugin/rules/dot-location.test.ts 308ms

✓ packages/eslint-plugin/rules/array-bracket-spacing/array-bracket-spacing.test.ts

Report Module Graph Code Console (0)

Hide node_modules Inline Modules

general.ts → ast.ts → array-bracket-spacing.ts → merge.ts → runner.ts
create-rule.ts → array-bracket-spacing.ts
index.ts → array-bracket-spacing.ts
parsers-flow.ts → array-bracket-spacing.ts

```
graph TD; general[general.ts] --> ast[ast.ts]; ast --> arrayBrackets[array-bracket-spacing.ts]; arrayBrackets --> merge[merge.ts]; merge --> runner[runner.ts]; createRule[create-rule.ts] --> arrayBrackets; index[index.ts] --> arrayBrackets; parsersFlow[parsers-flow.ts] --> arrayBrackets;
```

Nuxt DevTools

DevTools

Search...

All Using Not used All Composables Directives

./composables/rpc.ts

clientFunctions extendedRpcMap rpc wsConnecting wsConnectingDebounced wsError

./composables/state-commands.ts

CommandItem getNuxtDocsCommands registerCommands useCommands

./composables/constants.ts

ComposablesDocs DETAILS_MAX_ITEMS ServerRouteTabIcons

./composables/dev-auth.ts

devAuthToken ensureDevAuthToken isDevAuthed requestForAuth updateDevAuthToken userAgentInfo

../../../../devtools-ui-kit/src/composables/notification.ts

devtoolsUiProvideNotificationFn devtoolsUiShowNotification x15 DevtoolsUiShowNotificationPosition

./composables/utils.ts

formatDuration getComponent

getSocialPreviewCard isBui

pluralizeByCount refreshDa

./composables/state-tabs.ts

getCategorizedTabs useAllRe

./composables/client.ts

getColorMode showConnectionWarning useClient useClientHead useClientRoute useClientRouter useInjectionClient

../../../../devtools-ui-kit/src/composables/color.ts

getHslColorFromStringHash

Copy </> Source

It has been referenced 15 times by:

- ./composables/dev-auth.ts
- ./composables/editor.ts
- ./components/AssetDropZone.vue
- ./components/AssetDetails.vue
- ./pages/modules/timeline.vue

meFromPath getRequestMethodClass

Name jsonStringifyCircular parseReadablePath

eNuxtCompatibilityVersion useSessionState

ESLint Config Inspector

ESLint Config Inspector v1.1.0

Composed with **68** config items, updated yesterday

Configs Rules Files ⚡ ⚡ | ⚠ Using 1 deprecated rules

This tab shows the preview for files match from the workspace. This feature is **experimental** and may not be 100% accurate.

#1 Config antfu/yaml/rules ⌚ 2 ⚡ 1

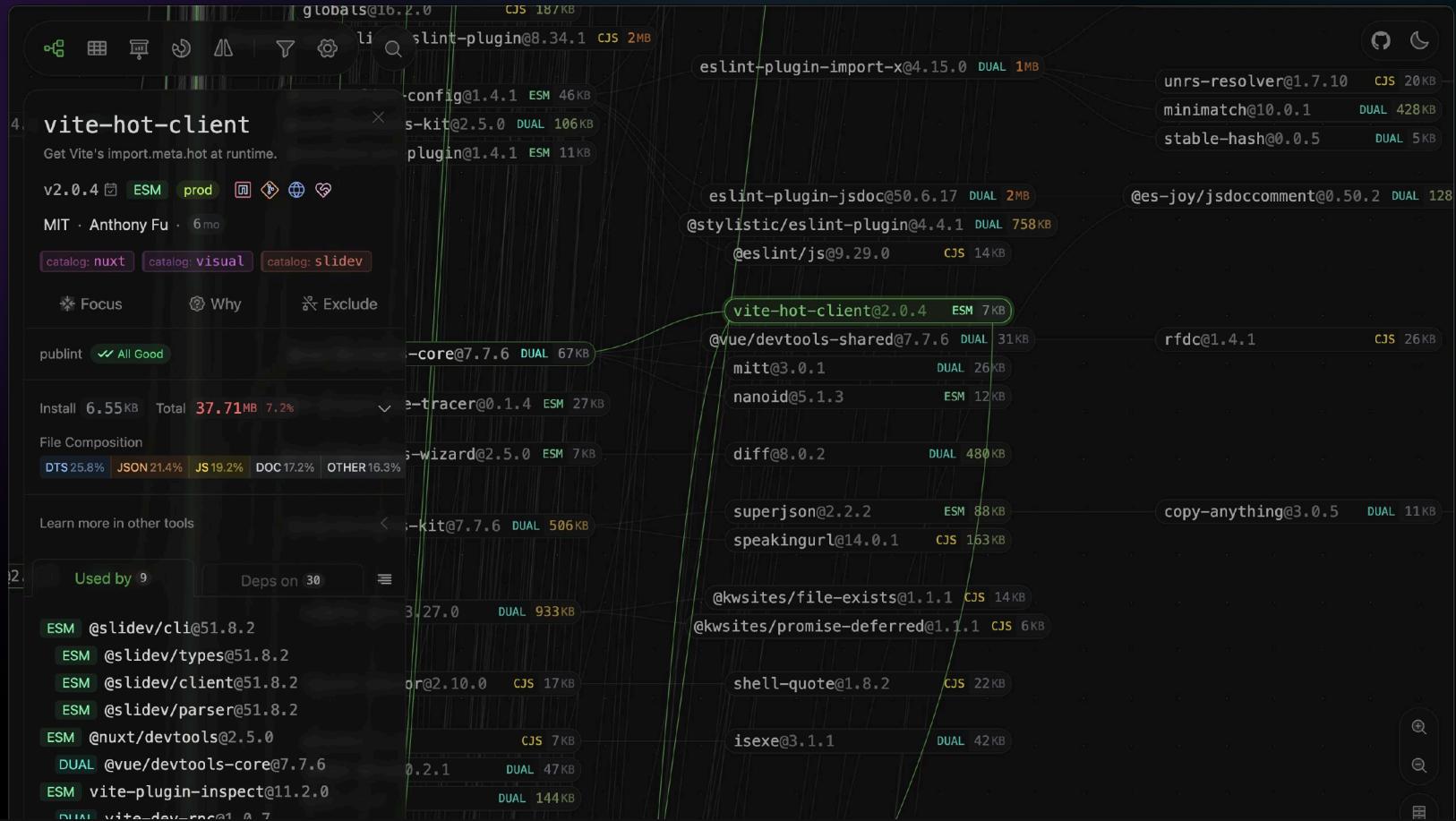
- Configs Specific to the Files (1)
 - antfu/yaml/rules
- Matched Globals
 - **/*.{y?(a)ml}
- Matched Local Files (2)
 - .github/workflows/ci.yml
 - .github/workflows/release.yml

#2 Config antfu/jsonc/rules ⌚ 1 ⚡ 1

- Configs Specific to the Files (1)
 - antfu/jsonc/rules



Node Modules Inspector





DEVTOOLS

The screenshot shows the Vite DevTools interface. At the top left is a "Re-select Session" button. Below it is a sidebar with icons for Home, Recent, Plugins, Chunks, Assets, and a Refresh button. The main area has a dark background with white text. It starts with a "Meta Info" section containing the following data:

# Build ID	sid_0_1752078309530
⌚ Created At	7/10/2025, 12:25:09 AM
📁 Directory	/Users/antfu/i/vite-devtools/packages/devtools
📦 Total Modules	405
⚙️ Plugins	64
💻 Platform	browser
📄 Format	esm

Below this is a "Build Entries" section with a single entry:

entry	.../node_modules/.../nuxt/dist/app/entry.js
-------	---

At the bottom is a "Views" section with four buttons:

- Modules Graph
- Plugins
- Chunks
- Assets

ビルド概要

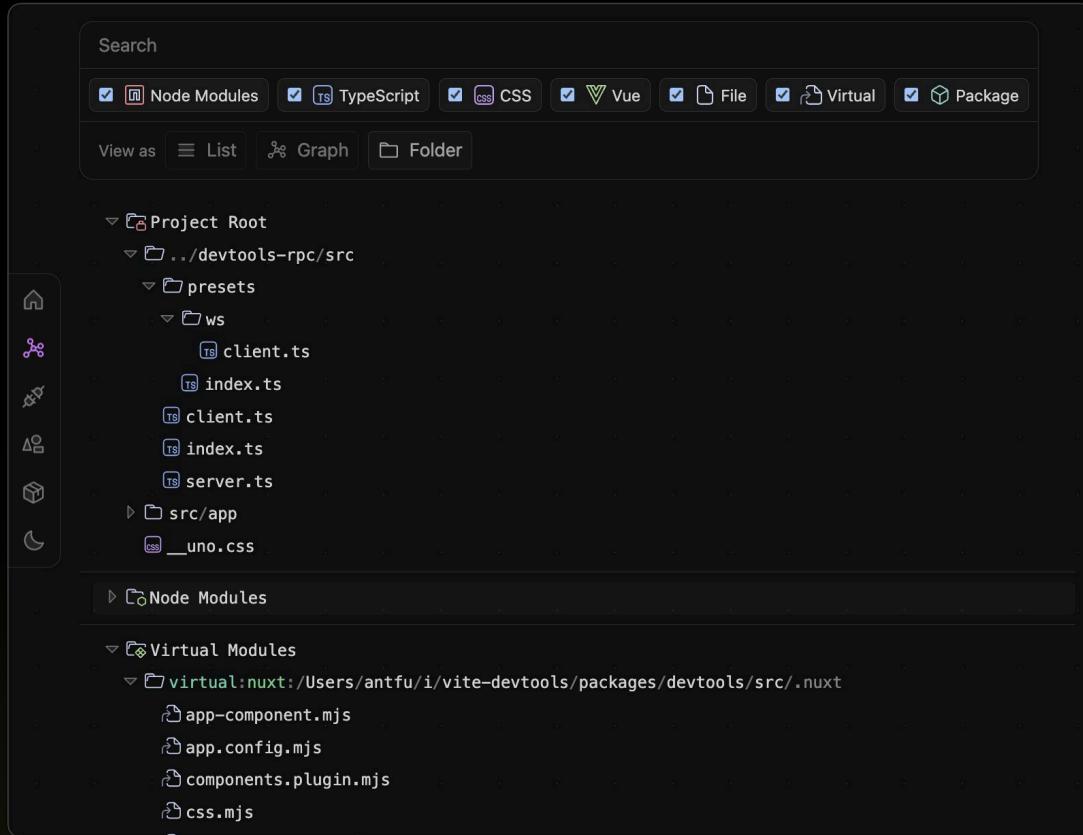
現在はビルドモードに集中
Rolldownの出力を消費して

The screenshot shows the Vite Devtools extension's "Bundle List" feature. The interface has a dark background with light-colored text and icons. On the left, there's a sidebar with icons for Home, Graph, and Folder. The main area is titled "Search" and contains a list of file paths. The list includes:

- ./devtools-rpc/src/client.ts
- ./devtools-rpc/src/index.ts
- ./devtools-rpc/src/presets/index.ts
- ./devtools-rpc/src/presets/ws/client.ts
- ./devtools-rpc/src/server.ts
- ./__uno.css
- ./src/app/app.vue
- ./src/app/app.vue?vue&type=script&setup=true&lang.ts
- ./src/app/components/chart/ModuleFlamegraph.vue
- ./src/app/components/chart/ModuleFlamegraph.vue?vue&type=script&setup=true&lang.ts
- ./src/app/components/code/DiffEditor.vue
- ./src/app/components/code/DiffEditor.vue?vue&type=script&setup=true&lang.ts
- ./src/app/components/code/DiffEditor.vue?vue&type=style&index=0&lang.postcss
- ./src/app/components/data/ChunkDetails.vue
- ./src/app/components/data/ChunkDetails.vue?vue&type=script&setup=true&lang.ts
- ./src/app/components/data/ModuleDetailsLoader.vue
- ./src/app/components/data/ModuleDetailsLoader.vue?vue&type=script&setup=true&lang.ts
- ./src/app/components/data/ModuleImportRelationships.vue
- ./src/app/components/data/ModuleImportRelationships.vue?vue&type=script&setup=true&lang.ts
- ./src/app/components/data/RawEventsTable.vue
- ./src/app/components/data/RawEventsTable.vue?vue&type=script&setup=true&lang.ts
- ./src/app/components/display/Badge.vue

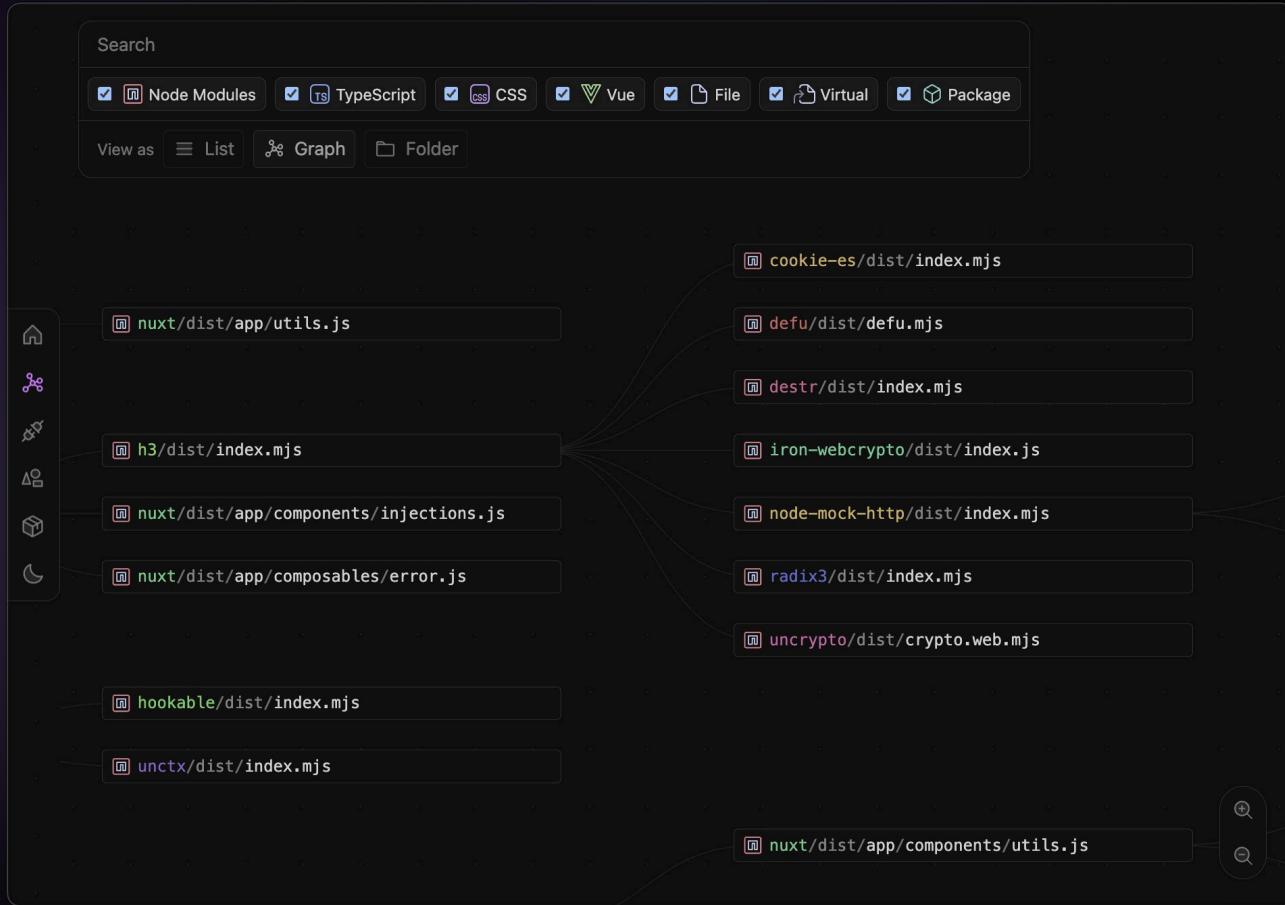
Bundle List

バンドルに参加してあるすべてのファイルを表示、
フィルタリングと検索機能を提供。



File Tree

ツリーでのバンドルファイルの表示



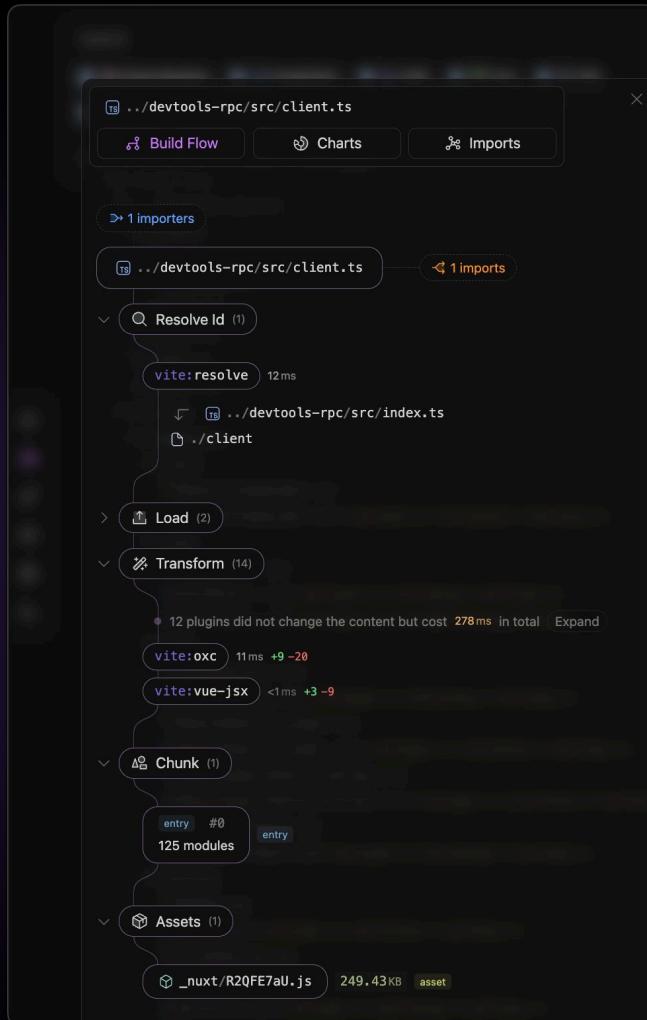
Module Graph

各モジュールの関係と
それがどのように
含まれたかを表示

Module Transformation Flow

Parse → Resolve → Transform → Chunk → Bundle → Output

プロセス全体を追跡、ボトルネックと最適化を見つける



Code 變換比較

The screenshot shows a detailed analysis of a file named `client.ts` from the `devtools-rpc` project. The interface includes tabs for `Build Flow`, `Charts`, and `Imports`.

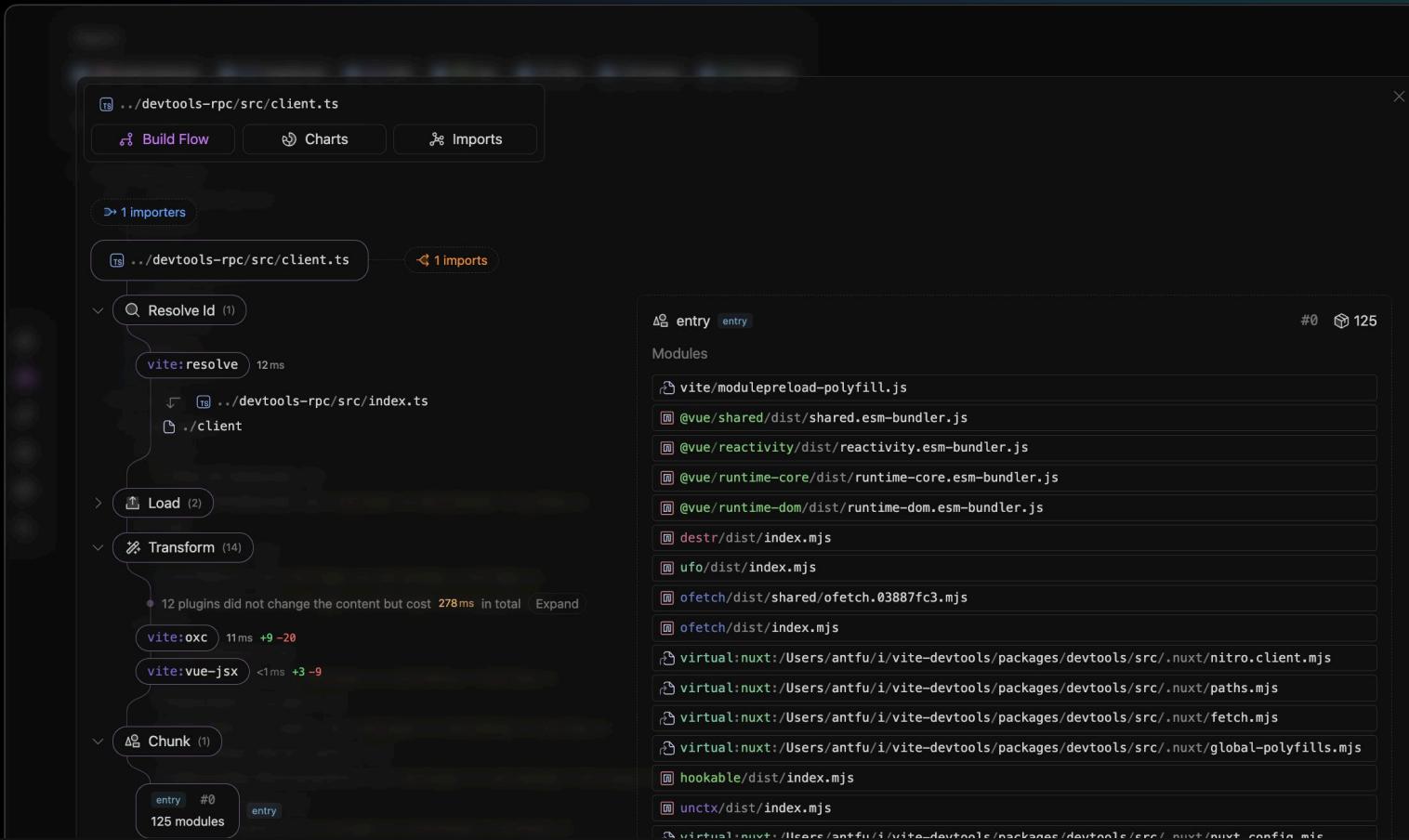
Build Flow:

- 1 importers:** `./client` imports `client.ts`.
- Resolve Id (1):** `vite:resolve` takes 12ms.
- Load (2):** `./client` and `index.ts` are loaded.
- Transform (14):** 12 plugins did not change the content but cost 278ms in total.
 - vite:oxc:** 11ms (+9 -20)
 - vite:vue-jsx:** <1ms (+3 -9)
- Chunk (1):** An entry chunk is generated.

vite:oxc Transform:

```
1 import type { BirpcOptions } from 'birpc'
2 import { createBirpc } from 'birpc'
3
4 export function createRpcClient<ServerFunctions = Record<string, never>, ClientFunctions extends object = Record<string, never>>(
5   preset,
6   options: {
7     rpcOptions?: Partial<BirpcOptions>
8     functions: ClientFunctions
9   }
10 ) {
11   const { preset, rpcOptions = {} } = options
12   return createBirpc<ServerFunctions, ClientFunctions>(
13     ...preset,
14     ...options,
15     ...rpcOptions
16   )
17 }
```

Chunk 情報



Search

Rollup Vite Unocss Nuxt

Builtin

User Plugins



#0 builtin:oxc-runtime

#1 vite:watch-package-data

#2 builtin:alias

#3 unocss:transformers:pre

#4 unocss:global:build:scan

#5 unocss:global:content

#6 nuxt:components-loader-pre

#7 nuxt:layer-aliasing

#8 nuxt:server-devonly:transform

#9 impound

#10 nuxt:import-protection

#11 builtin:module-preload-polyfill

#12 vite:resolve-builtin:get-environment

#13 rolldown:vite-resolve

#14 vite:html-inline-proxy

#15 vite:css

#16 builtin:transform

#17 builtin:json

Plugins

実行順序でのすべてのプラグインのリスト

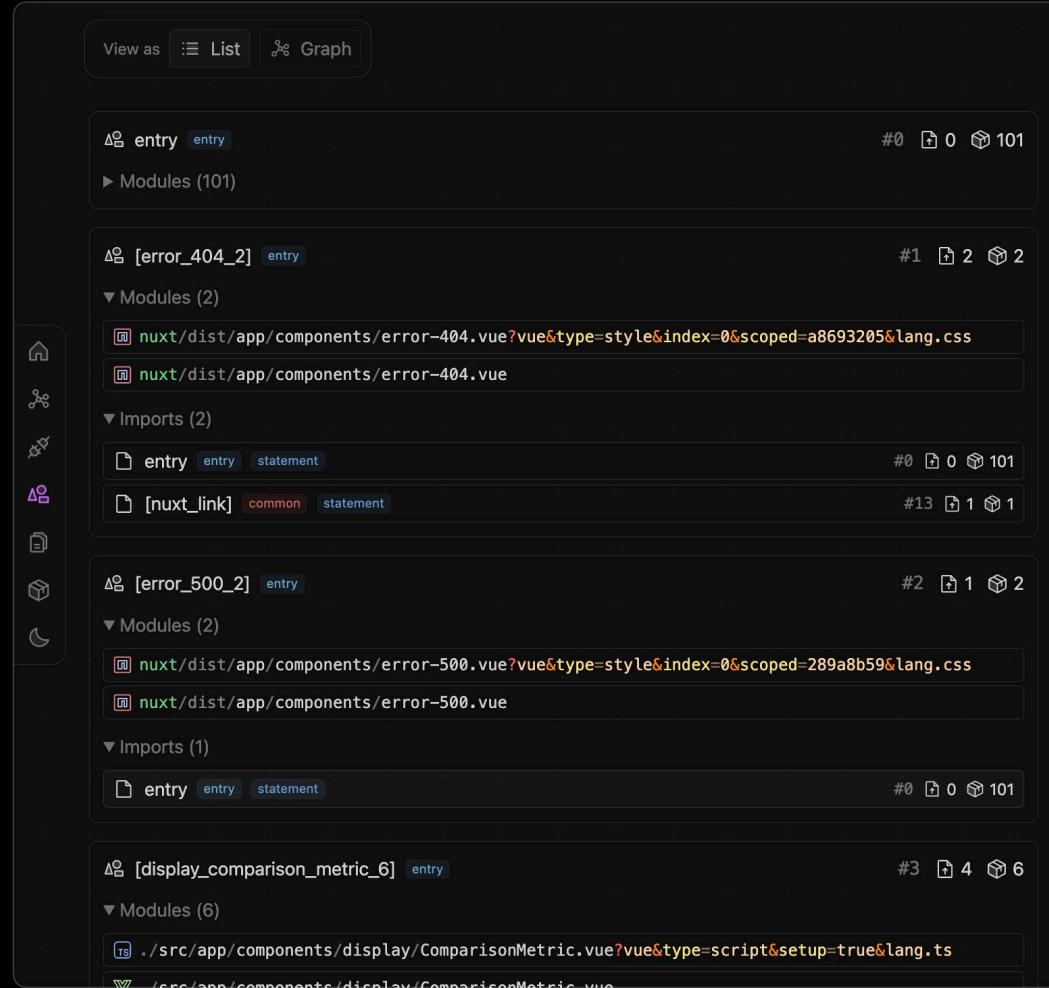
Plugin Hooks

unocss:global:build:scan

⌚ 3.0 min ⚡ 15.5 s ⚡ 16.4 s | ⚡ 3.6 min | ⚡ 720 | ⚡ 2,001

[Build Flow](#) [Charts](#)

Hook name	Module	Duration
Resolve Id	node_modules/~/.nuxt/dist/app/entry.js	1ms
Resolve Id	vite/modulepreload-polyfill	3ms
Resolve Id	vue	2ms
Resolve Id	./nuxt.js	2ms
Resolve Id	./composables/error.js	2ms
Transform	virtual:nuxt:/Users/antfu/i/vite-devtools/packages/vite/src/node_modules/.cache/nuxt...	43ms
Load	node_modules/~/.vue/dist/vue.runtime.esm-bundler.js	97ms
Load	virtual:nuxt:/Users/antfu/i/vite-devtools/packages/vite/src/node_modules/.cache/nuxt...	11ms
Resolve Id	h3	11ms
Resolve Id	vue	4ms
Resolve Id	./nuxt.js	24ms
Resolve Id	./router.js	23ms
Resolve Id	node_modules/~/.nuxt/dist/app/plugins/revive-payload.client.js	57ms
Resolve Id	node_modules/~/.nuxt/dist/head/runtime/plugins/unhead.js	53ms
Resolve Id	node_modules/~/.nuxt/dist/pages/runtime/plugins/router.js	33ms
Resolve Id	node_modules/~/.nuxt/dist/app/plugins/payload.client.js	27ms
Resolve Id	node_modules/~/.nuxt/dist/app/components/nuxt-root.vue	1ms
Resolve Id	node_modules/~/.nuxt/dist/app/plugins/navigation-repaint.client.js	31ms



Chunking

チャンクとファイルの関係

Bundled Packages

重複パッケージ検出付き

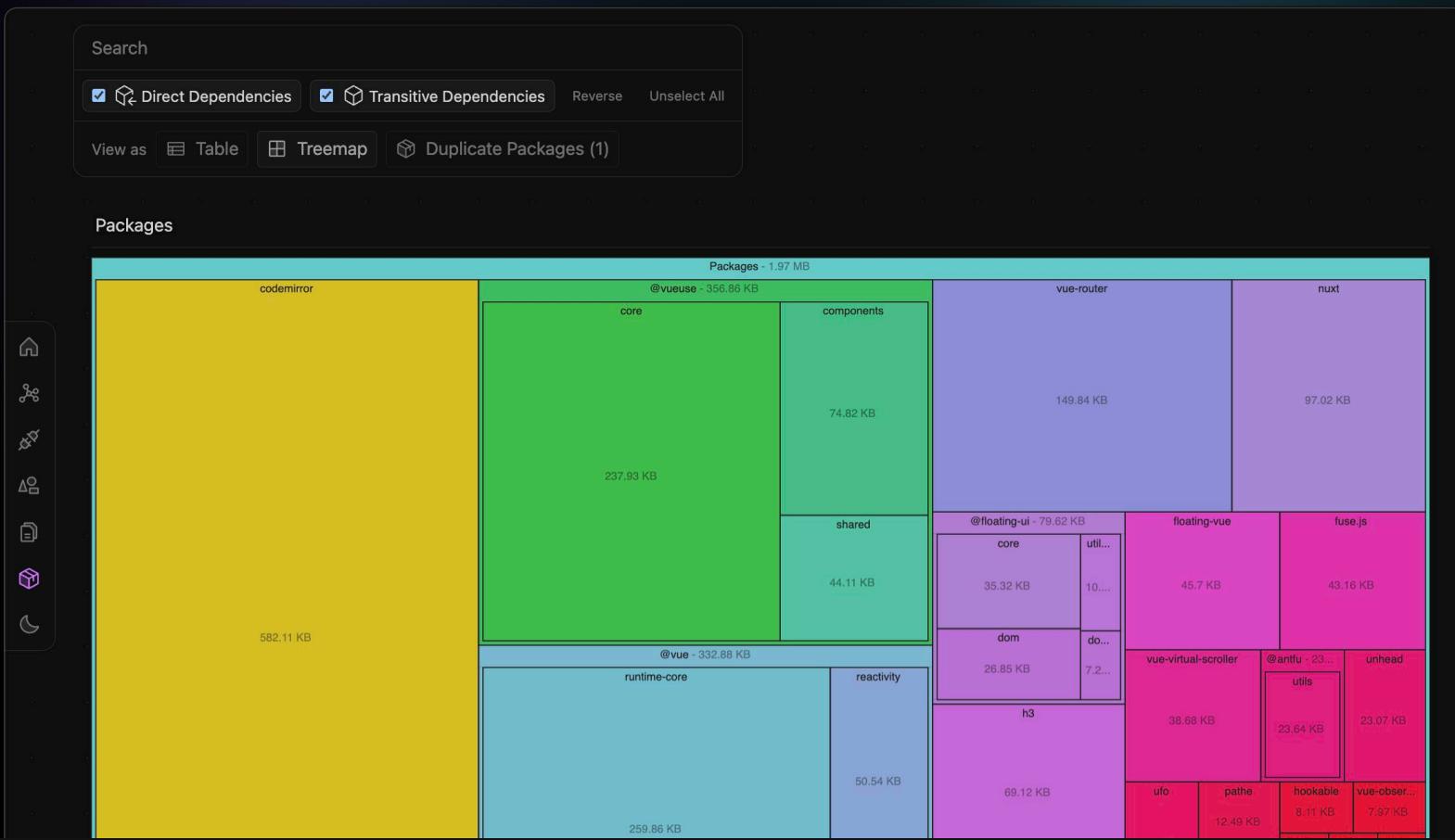
Search

Direct Dependencies Transitive Dependencies Reverse Unselect All

View as Table Treemap Duplicate Packages (1)

Package	Version	Size ↓	Importers
@antfu/utils	9.2.1	23.64KB	./src/app/pages/session/[session]/plugins.vue?vue&type=script +1
@floating-ui/core	1.7.3	35.32KB	.../node_modules/~@floating-ui/dom/dist/floating-ui.dom.mjs +1
@floating-ui/dom	1.1.1	7.27KB	.../node_modules/~floating-vue/dist/floating-vue.mjs +1
@floating-ui/dom	1.7.4	26.85KB	./src/app/components/display/GraphHoverView.vue?vue&type=script +1
@floating-ui/utils	0.2.10	10.18KB	.../node_modules/~@floating-ui/core/dist/floating-ui.core.mjs +1
@unhead/vue	2.0.14	3.35KB	.../node_modules/~@unhead/vue/dist/client.mjs +9
@vue/reactivity	3.5.22	50.54KB	.../node_modules/~@vue/runtime-core/dist/runtime-core.esm.js +1
@vue/runtime-core	3.5.22	259.86KB	.../node_modules/~@vue/runtime-dom/dist/runtime-dom.esm.js +1
@vue/shared	3.5.22	22.48KB	.../node_modules/~@vue/runtime-dom/dist/runtime-dom.esm.js +1
@vueuse/components	13.9.0	74.82KB	./src/app/components/flowmap/ModuleFlow.vue?vue&type=script +1
@vueuse/core	13.9.0	237.93KB	./src/app/composables/dark.ts +24
@vueuse/shared	13.9.0	44.11KB	.../node_modules/~@vueuse/core/index.mjs +2
birpc	2.6.1	6.38KB	.../rpc/src/server.ts +2
codemirror	5.65.20	582.11KB	./src/app/composables/codemirror.ts +59

Packages Size Graph

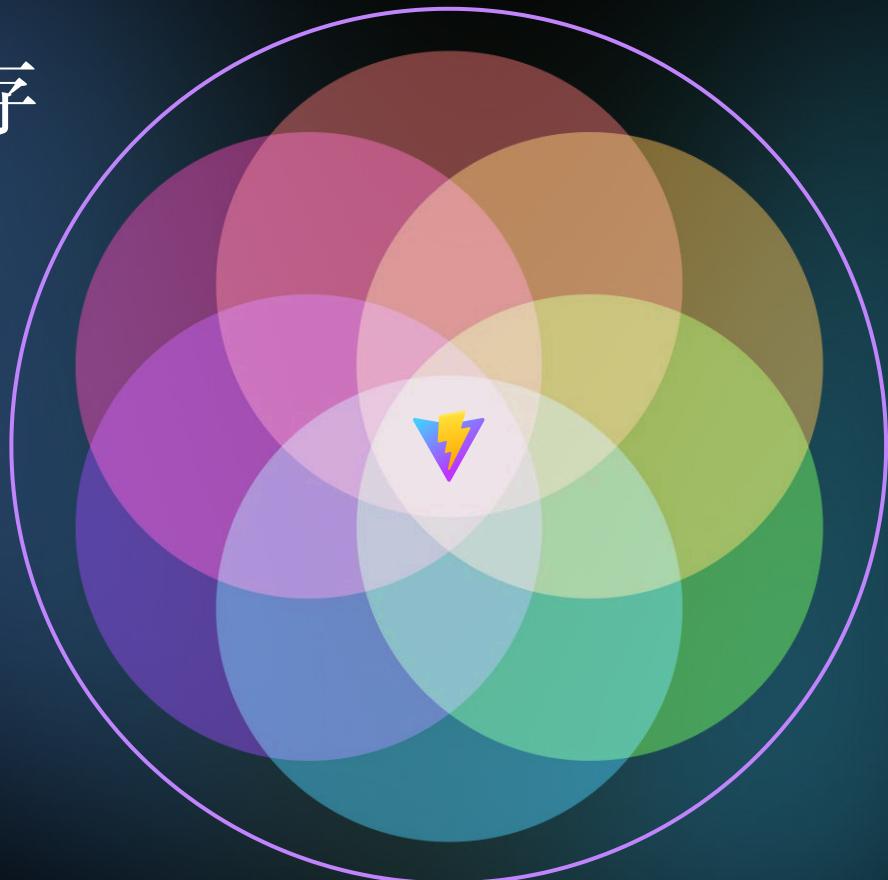


Vite DevTools とは
可視化だけではありません

フレームワーク非依存

Framework Agnostic

- ユーザーの関心から遠い（低レベルすぎる）
- すべてのフレームワークの「共通部分」
- 「拡張可能」である必要もある

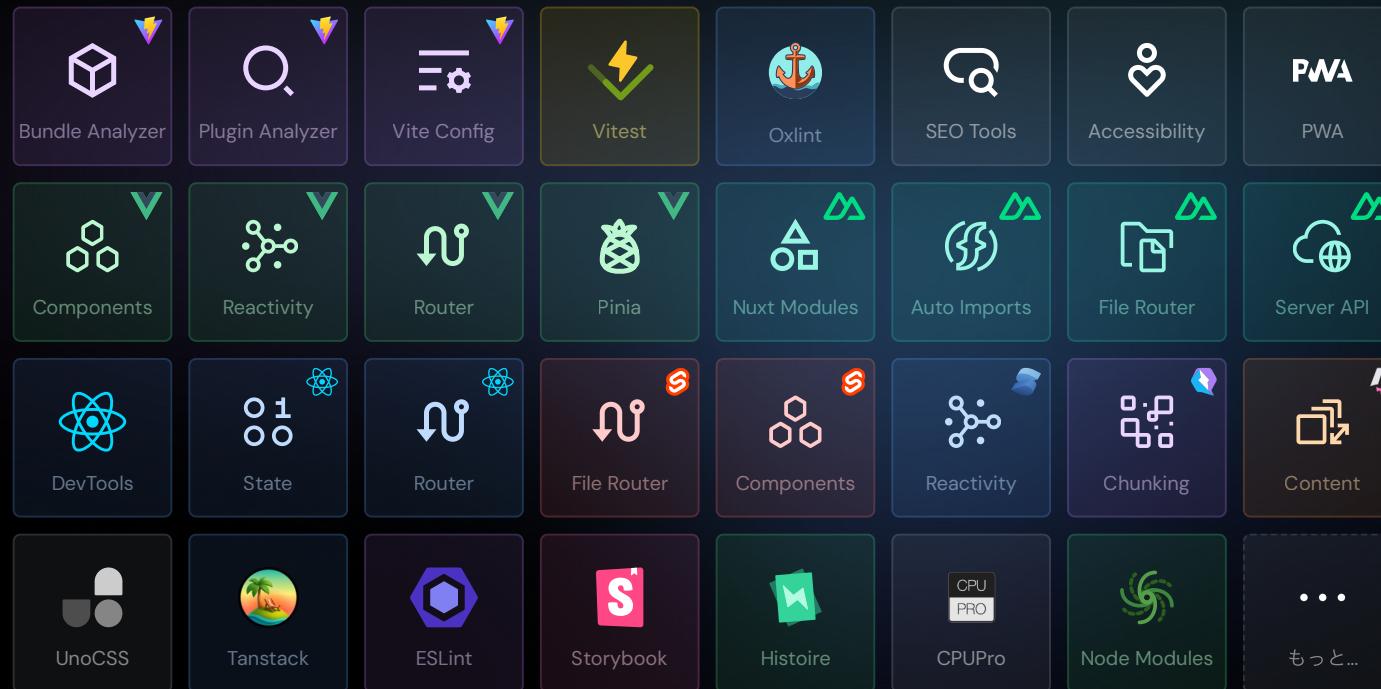


拡張性

Extensibility

あなたの DevTools?

Modular, Composable, Collaborative



⚠ DevToolsKit



⚡ DEVTOOLS

Vite DevTools Plugin

- Vite Pluginの上位集合
- 追加の `devtools` フック経由
- 内蔵 RPC レイヤー
- 内蔵同型ビューホスティング
 - 埋め込みフローティングパネル
 - ブラウザ拡張
 - スタンドアロンWebページ
 - デプロイ可能SPA

```
import type { Plugin } from 'vite'

export default function MyPlugin(): Plugin {
  return {
    name: 'my-plugin',
    transform: [ /* ... */ ],
    devtools: [
      /* pesudo-code for demo */
      async setup({ rpc, views, docks }) {
        rpc.register({
          name: 'my-plugin:hello',
          async handler(message) {
            console.log(`Hello from client, ${message}`)
          }
        })
      }

      views.staticHost('./dist/client', './my-plugin')

      docks.register({
        id: 'my-plugin',
        title: 'My Plugin',
        icon: './my-plugin/favicon.svg',
        // type can also be 'webcomponent', 'action' etc.
        type: 'iframe',
        url: './my-plugin',
      })
    }
  }
}
```

目標と展望



可視化

Vite/Rollupの内部状態とプロセスを表示



分析と提案

ビルドとプラグインの提案と最適化ソリューションを提供



ビルド比較

コミット間のビルド結果を比較・追跡



ビルドスナップショット

ビルドプロセスを記録、共有可能で分析可能な再現



Vite Plus

Vitest UI、Oxlint 可視化などを統合



DevTools Kit

統一 DevTools アーキテクチャ、上位フレームワークが拡張を提供可能



今開発中



モジュール分析

各ファイルの各プラグインのロードと変換結果を表示



バンドル可視化

各ファイルの依存関係とバンドル構成を表示



バンドル分析

ビルドサイズ、最適化提案などを表示



DevTools Kit

拡張可能 DevTools アーキテクチャ



開発モード

フルバンドルモードを待機中



統合

フレームワークと協力して DevTools 体験を統一

感謝



Arlo
@webfansplz



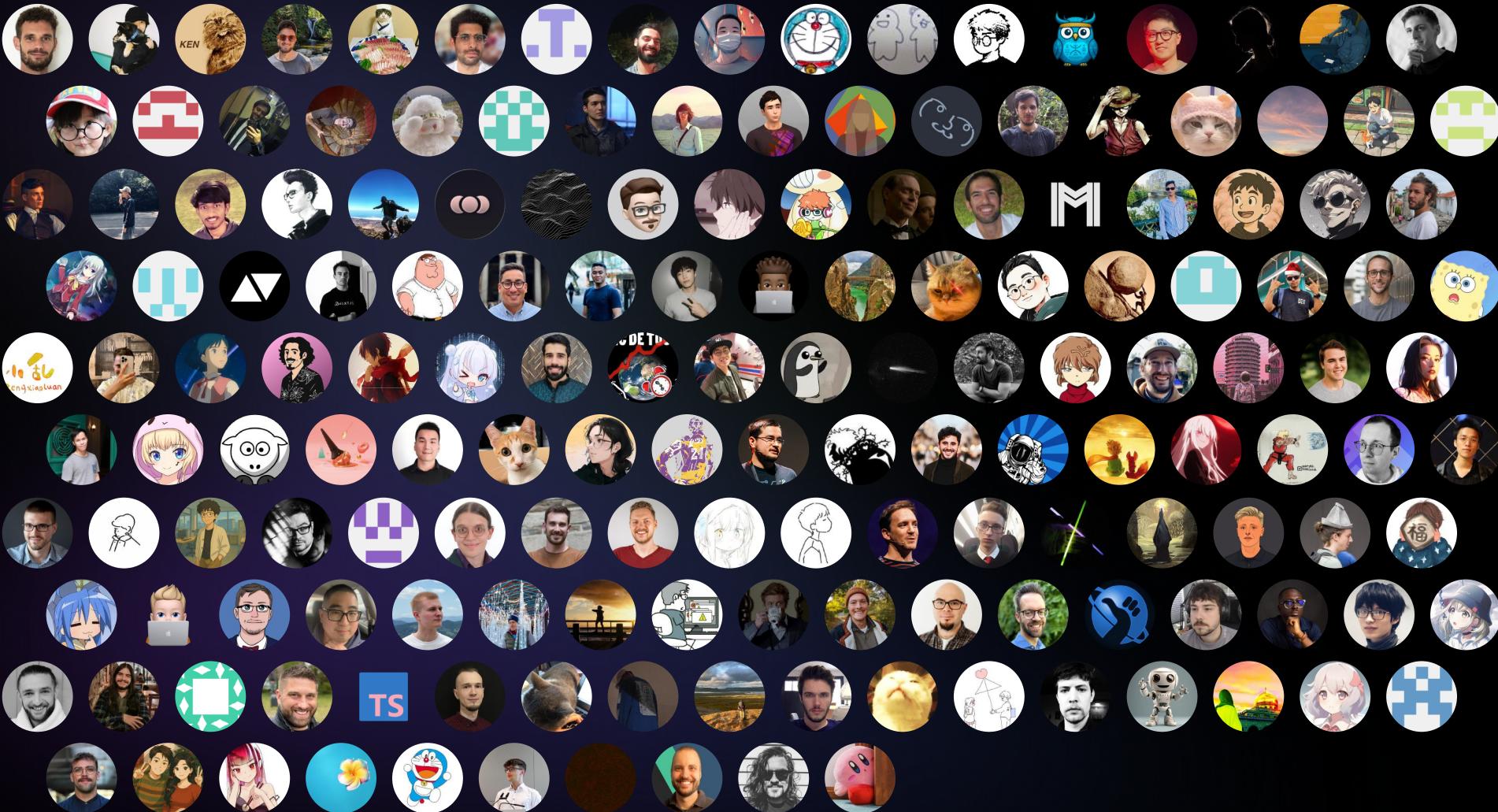
Guillaume Chau
@Akryum



Yunfei He
@hyf0



Sébastien Chopin
@Atinux





vitejs/devtools

ご清聴ありがとうございました

スライドは antfu.me で見つけられます