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# アンソニ・傅

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 [antfu.me](http://antfu.me)

 [antfu](https://github.com/antfu)

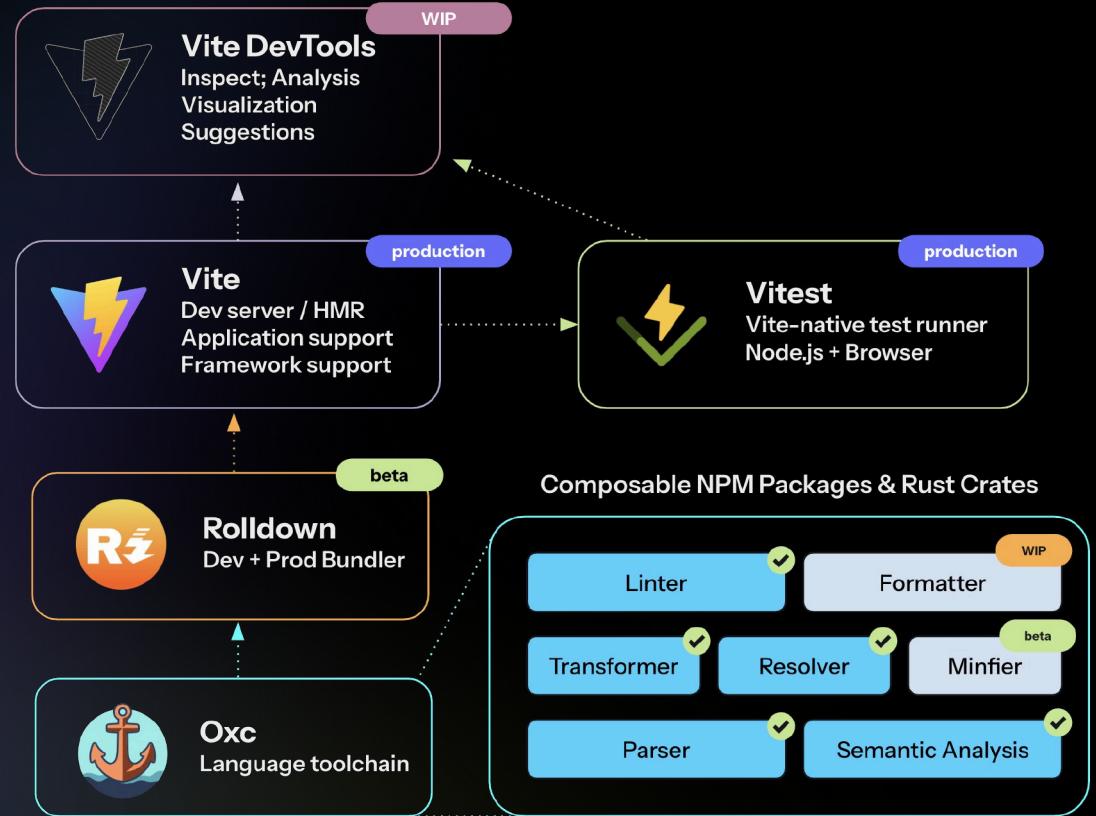
 [antfujp](https://twitter.com/antfujp) (日本語)



# 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

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<sup>13</sup>

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

dark-800 <sup>1</sup> #181818	yellow-4 <sup>1</sup> #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 getComponentNameFromPath getRequestMethodClass

getSocialPreviewCard isBuiltInNuxtCompatibilityVersion useSessionState

pluralizeByCount refreshDataName jsonStringifyCircular parseReadablePath

./composables/state-tabs.ts  
getCategorizedTabs useAllRoutes

./components/AssetDropZone.vue  
./components/AssetDetails.vue

./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

# 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

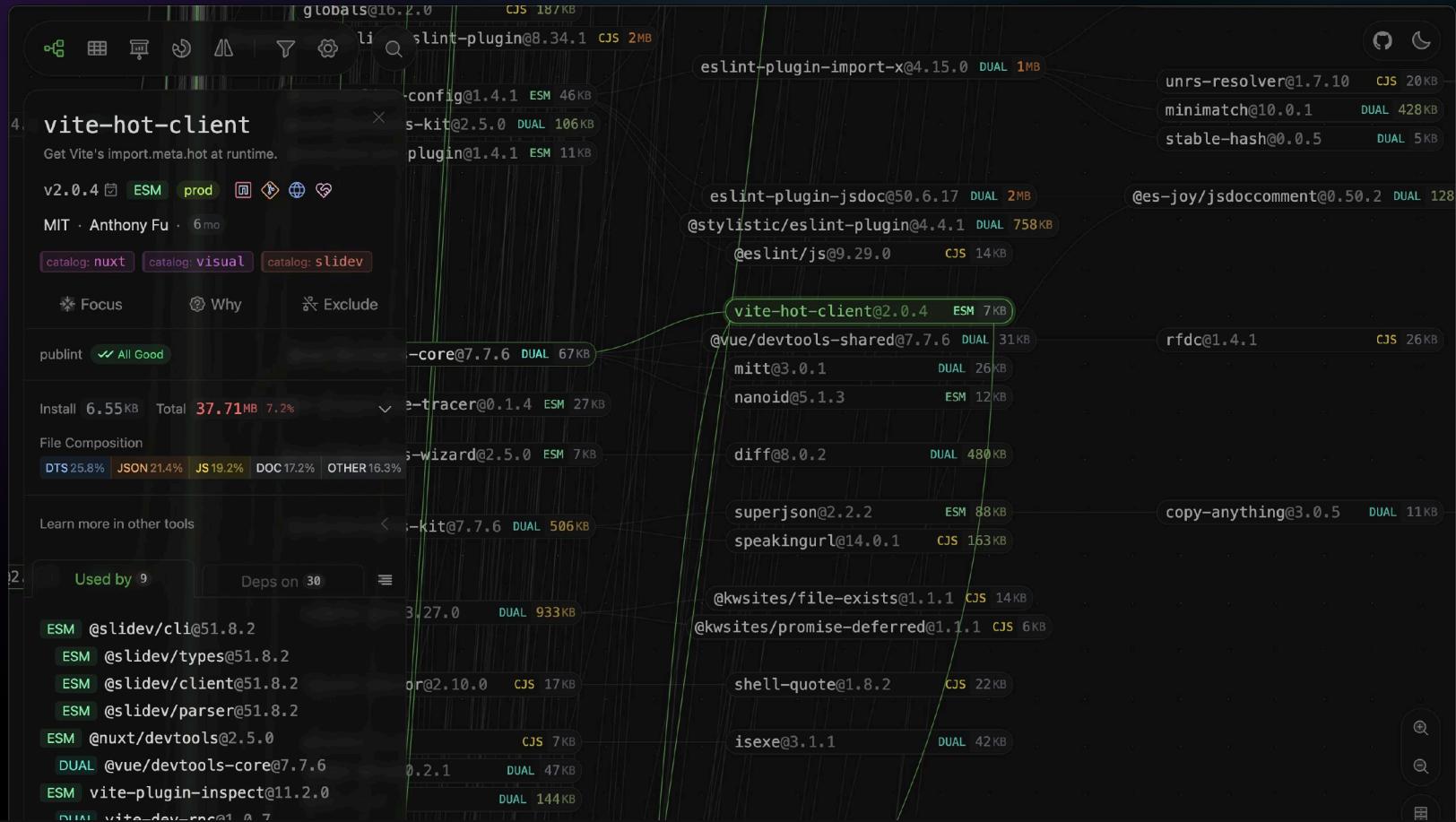
- Configs Specific to the Files (1)
  - antfu/yaml/rules
- Matched Globals
  - \*\*/\*.{y?(a)ml}
- Matched Local Files (2)
  - .github/workflows/ci.yml
  - .github/workflows/release.yml

#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 for a session named "vite-devtools".

**Meta Info**

# 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

**Build Entries**

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

**Views**

- Modules Graph
- Plugins
- Chunks
- Assets

# ビルド概要

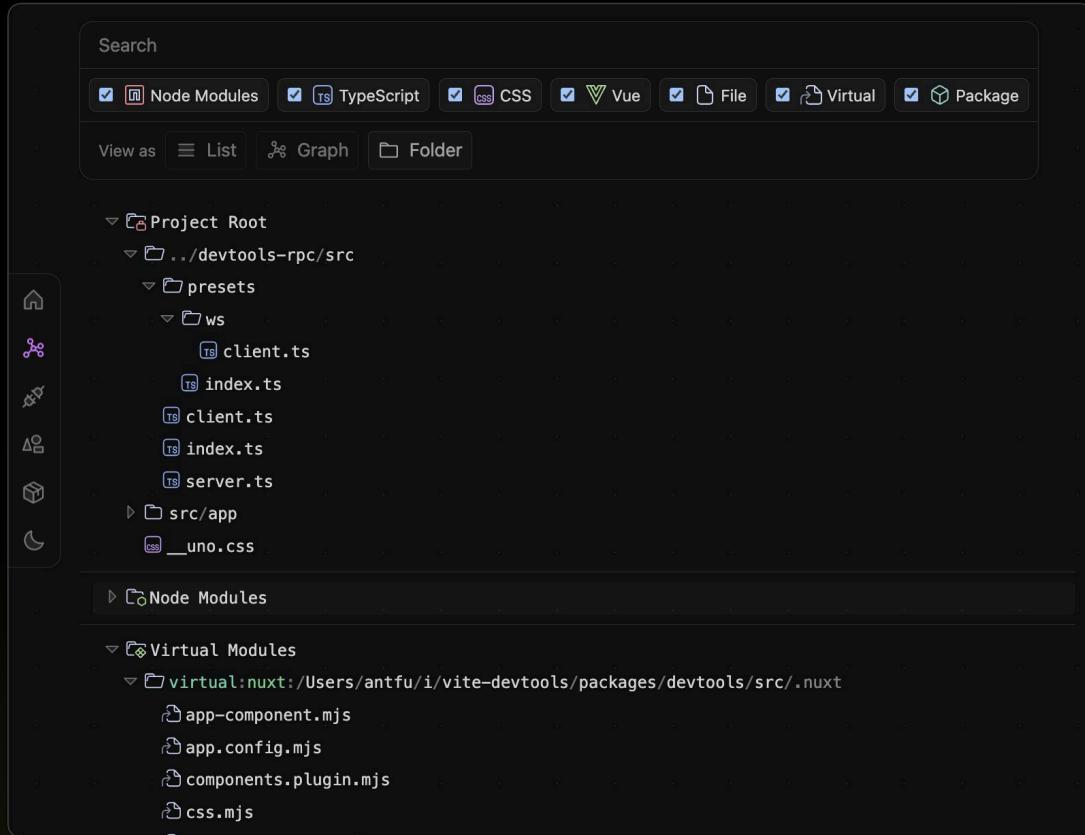
現在はビルドモードに集中  
Rolldownの出力を消費して

The screenshot shows the Vite Devtools extension's "Bundle List" feature. It displays a sidebar with navigation icons (Home, Graph, Folder) and a search bar at the top. Below the search bar is a filter section with checkboxes for "Node Modules", "TypeScript", "CSS", "Vue", "File", "Virtual", and "Package". Underneath these are buttons for "View as List" (selected), "Graph", and "Folder". The main area lists numerous files and components, each preceded by a small icon indicating its type (e.g., .ts file, .vue component). The listed files include:

- ./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

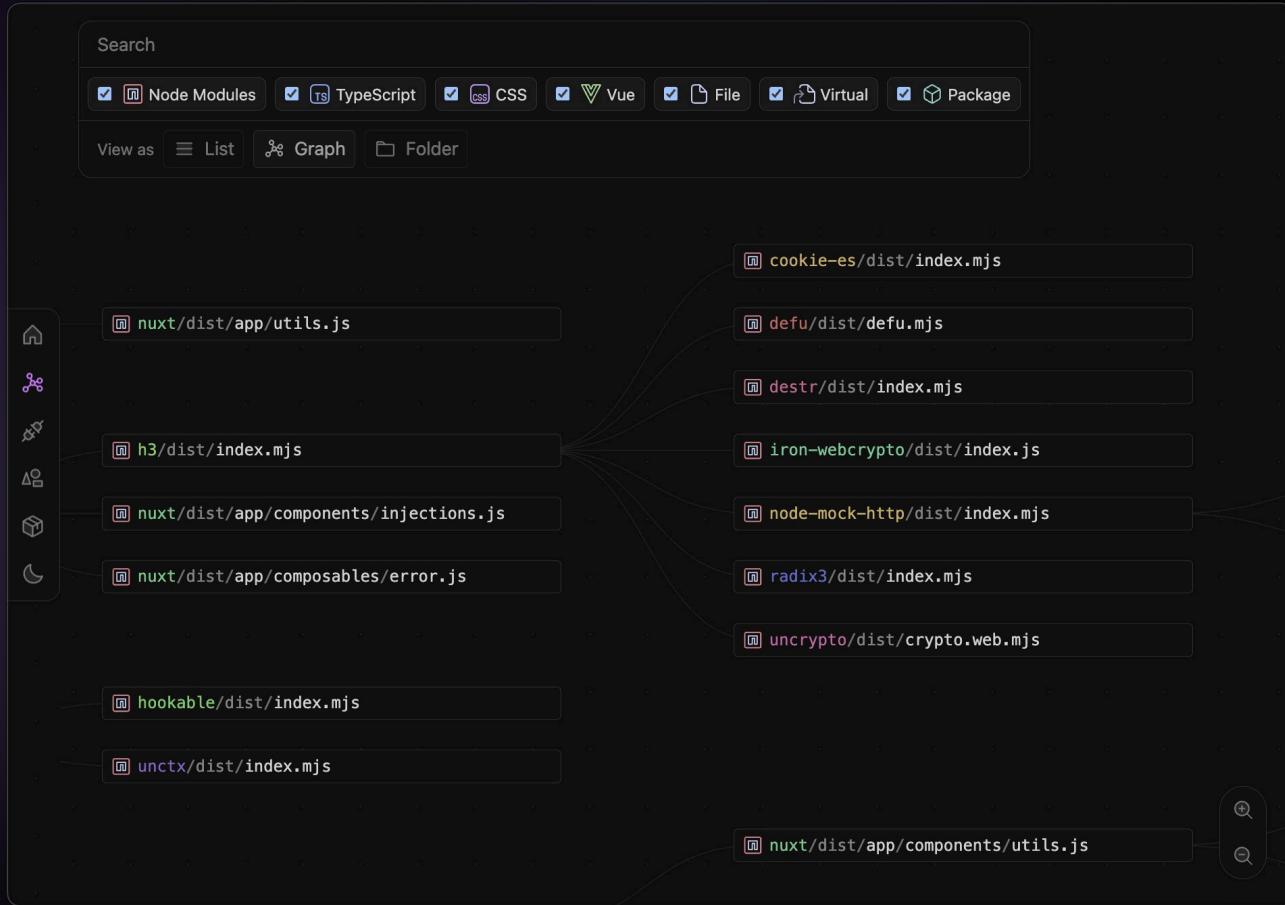
# Bundle List

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



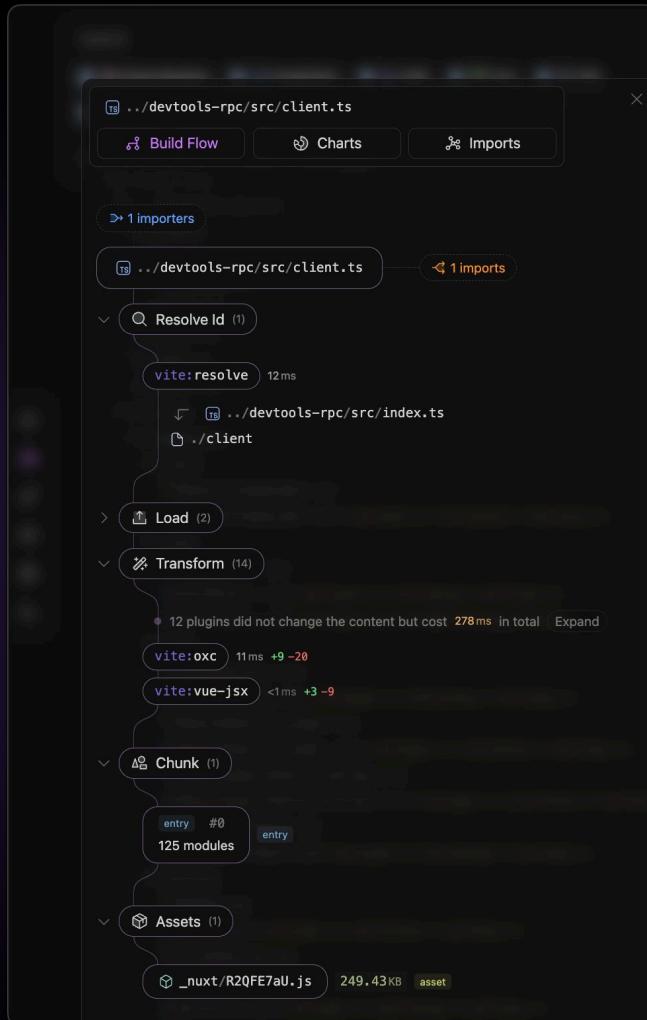
# Module Graph

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's build flow and transformation history.

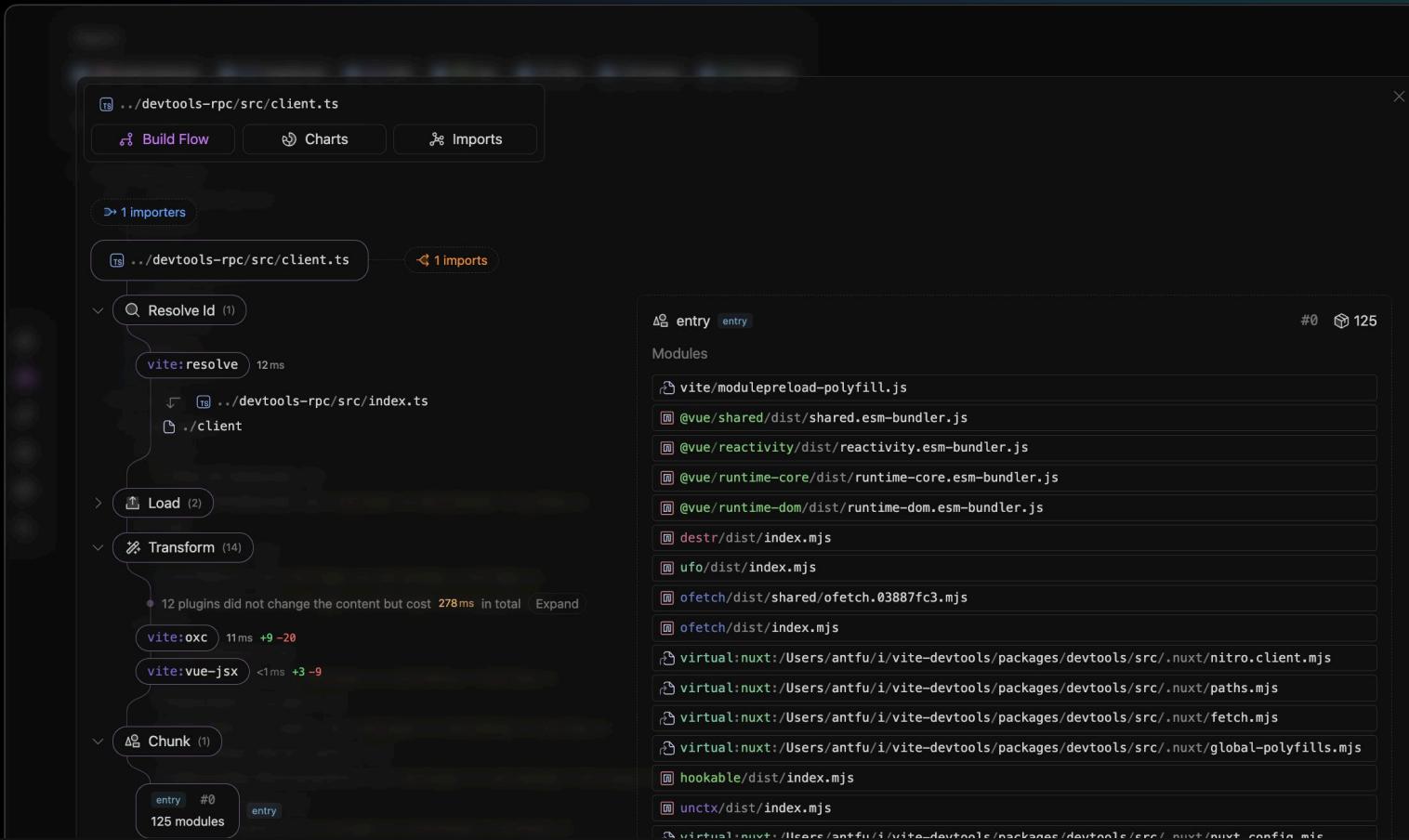
**Build Flow:**

- File: `.../devtools-rpc/src/client.ts`
- Imports: `vite: Build Flow`, `vite: Charts`, `vite: Imports`
- Importers: `.../devtools-rpc/src/client.ts` (1 importer)
- Resolve Id: `vite:resolve` (12ms)
- Load: `.../devtools-rpc/src/index.ts`, `./client` (2)
- Transform: `vite:oxc` (11ms), `vite:vue-jsx` (<1ms)
- Chunk: `entry #0`

**vite:oxc Transform:**

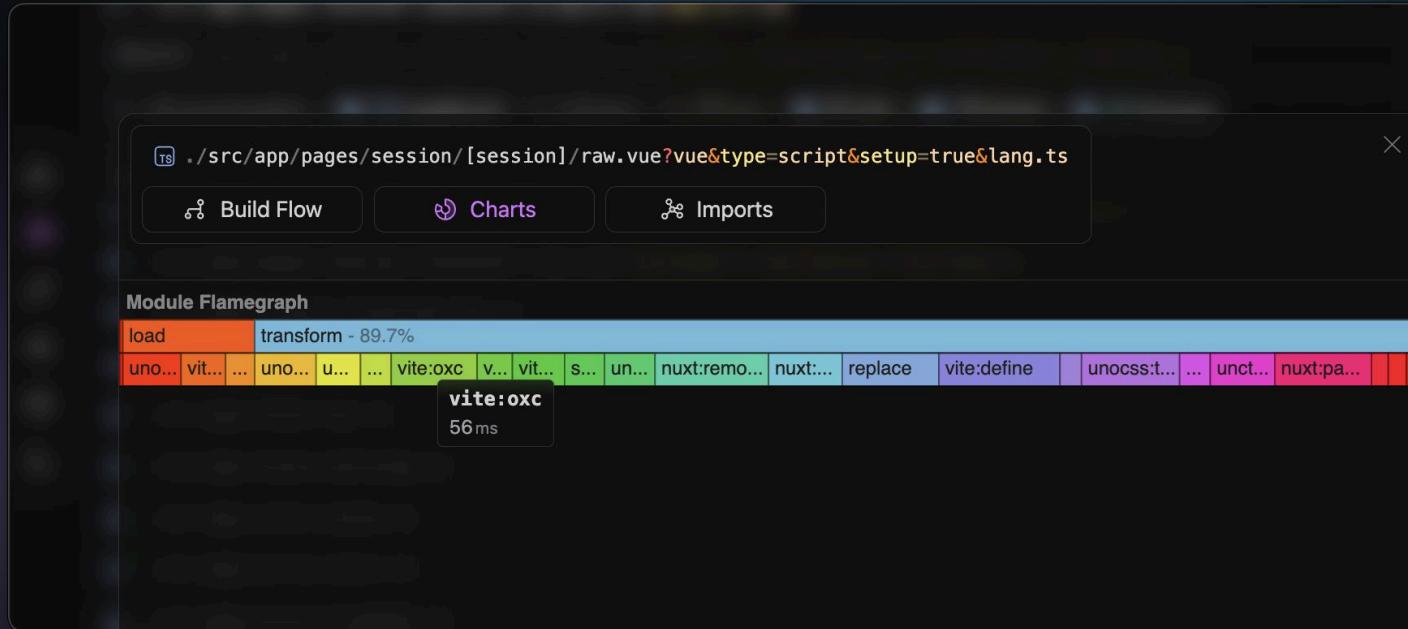
```
1 import type { BirpcOptions } from 'birpc'
2 import { createBirpc } from 'birpc'
3
4 export function createRpcClient<ServerFunctions = Record<string, never>, ClientFunctions extends object = Record<string, never>>(
5   preset,
6   rpcOptions?: Partial<BirpcOptions>
7 ) {
8   const functions = Object.create(null)
9   for (const [key, value] of Object.entries(preset)) {
10     if (typeof value === 'function') {
11       functions[key] = value
12     } else if (value !== undefined) {
13       functions[key] = value.default
14     }
15   }
16   return createBirpc<ServerFunctions, ClientFunctions>(
17     functions,
18     rpcOptions
19   )
20 }
```

# Chunk 情報



WIP

# Performance 消費 Chart



## 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

View as List Graph

entry entry

#0 ↗ 0 ⚡ 101

► Modules (101)

[error\_404\_2] entry

#1 ↗ 2 ⚡ 2

▼ Modules (2)

↳ nuxt/dist/app/components/error-404.vue?vue&type=style&index=0&scoped=a8693205&lang.css

↳ nuxt/dist/app/components/error-404.vue

▼ Imports (2)

↳ entry entry statement #0 ↗ 0 ⚡ 101

↳ [nuxt\_link] common statement #13 ↗ 1 ⚡ 1

[error\_500\_2] entry

#2 ↗ 1 ⚡ 2

▼ Modules (2)

↳ nuxt/dist/app/components/error-500.vue?vue&type=style&index=0&scoped=289a8b59&lang.css

↳ nuxt/dist/app/components/error-500.vue

▼ Imports (1)

↳ entry entry statement #0 ↗ 0 ⚡ 101

[display\_comparison\_metric\_6] entry

#3 ↗ 4 ⚡ 6

▼ Modules (6)

↳ ./src/app/components/display/ComparisonMetric.vue?vue&type=script&setup=true&lang.ts

↳ ./src/app/components/display/ComparisonMetric.vue

# 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

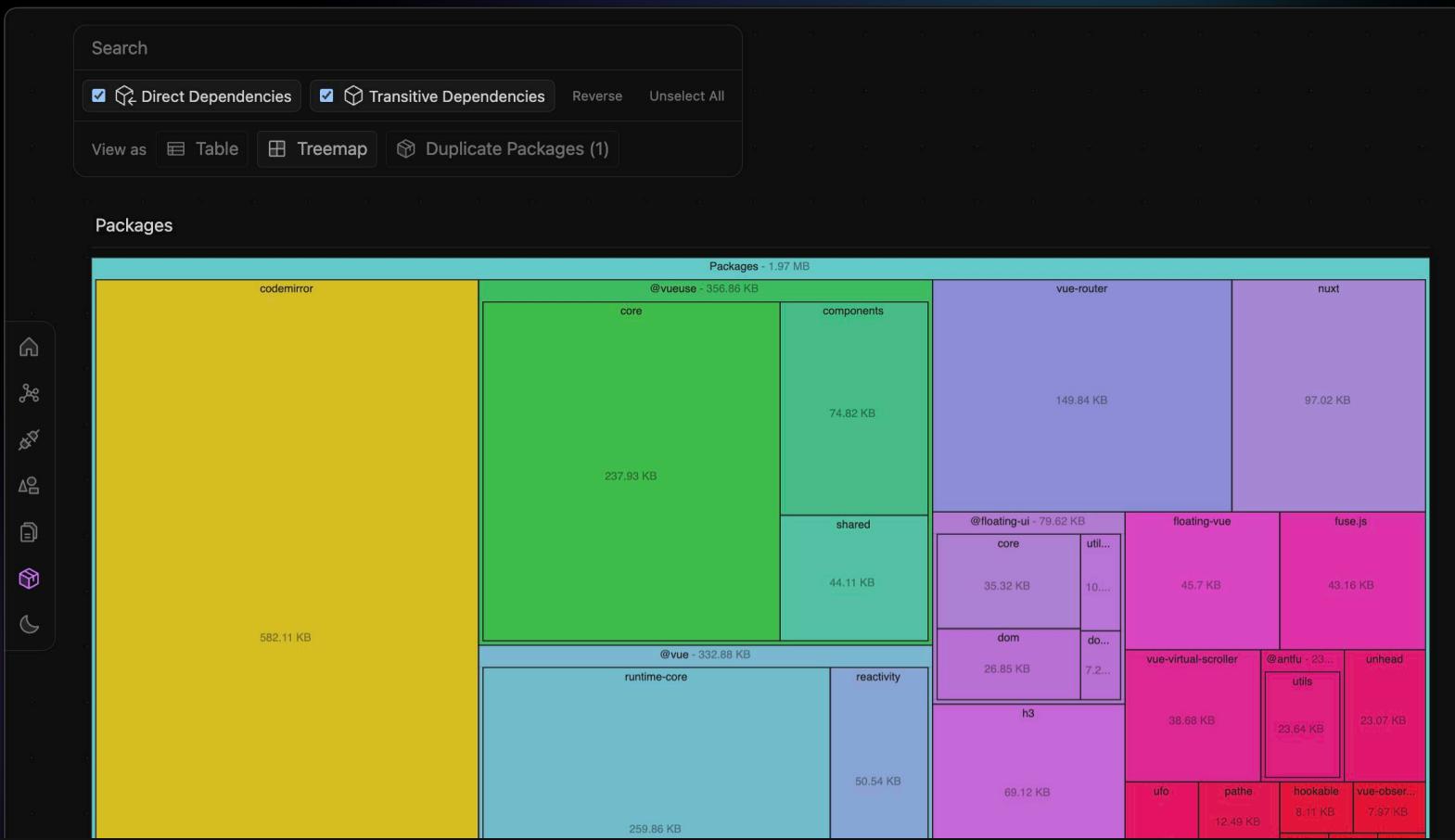
Search

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

# Packages Size Graph

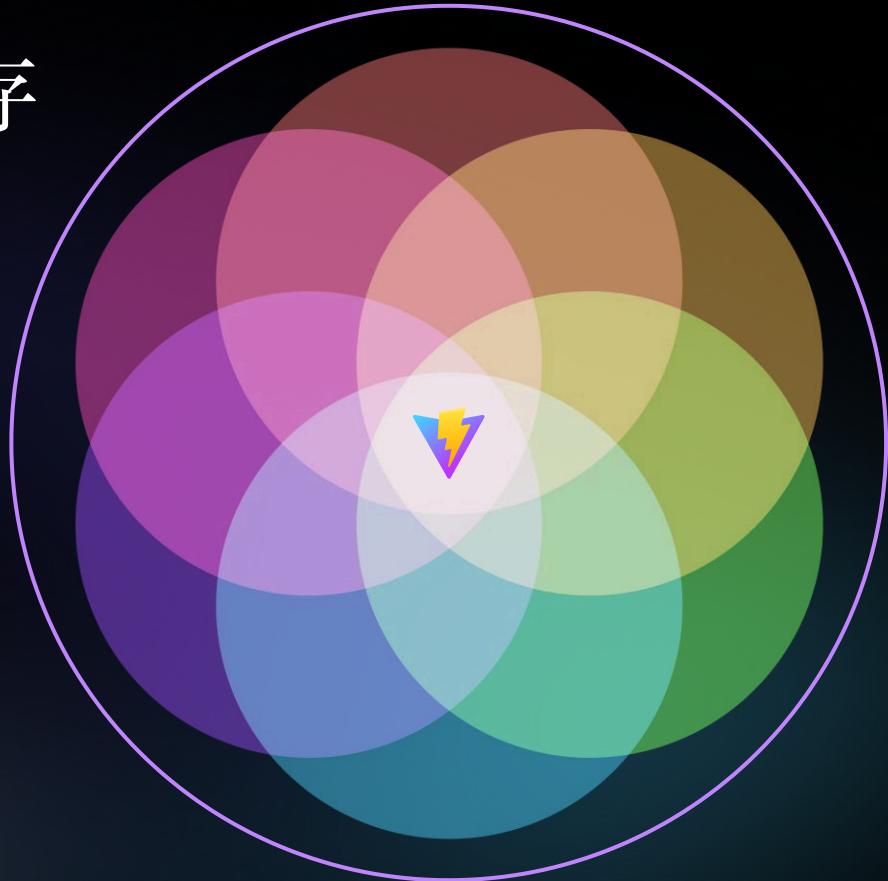


Vite DevTools とは  
可視化だけではありません

# 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

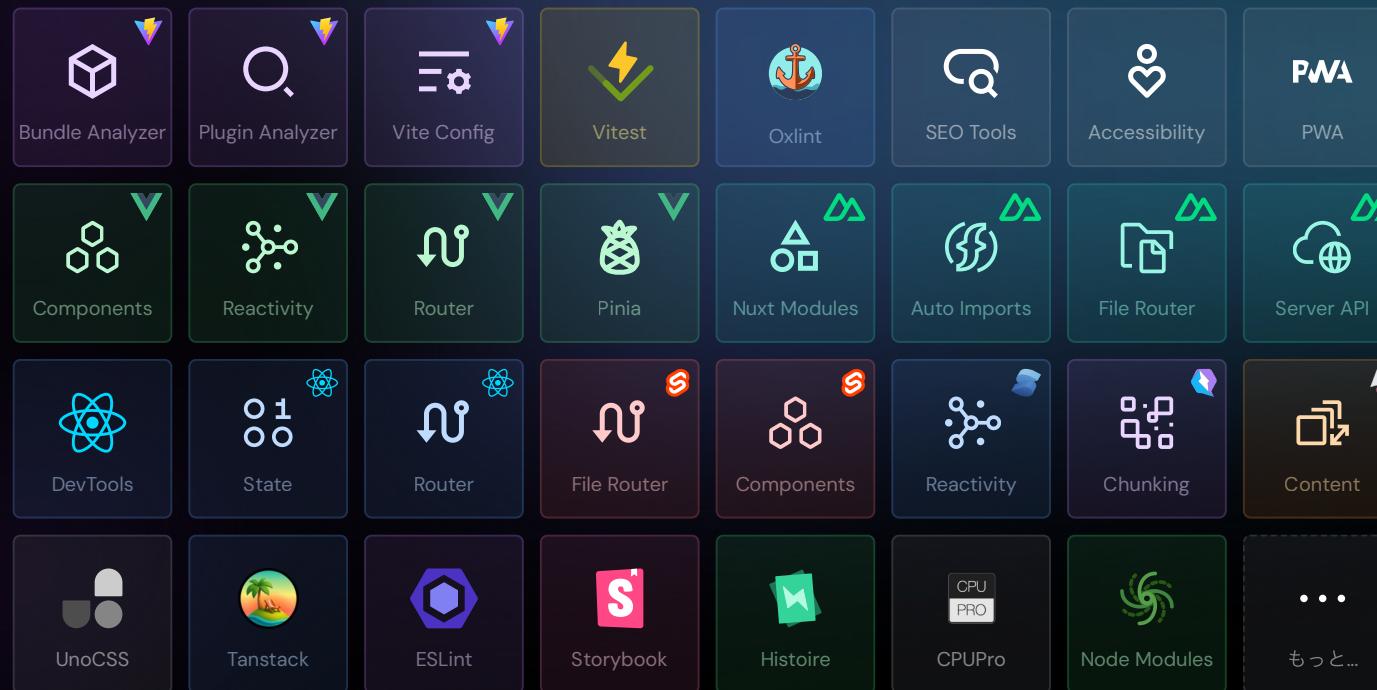


# 拡張性

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



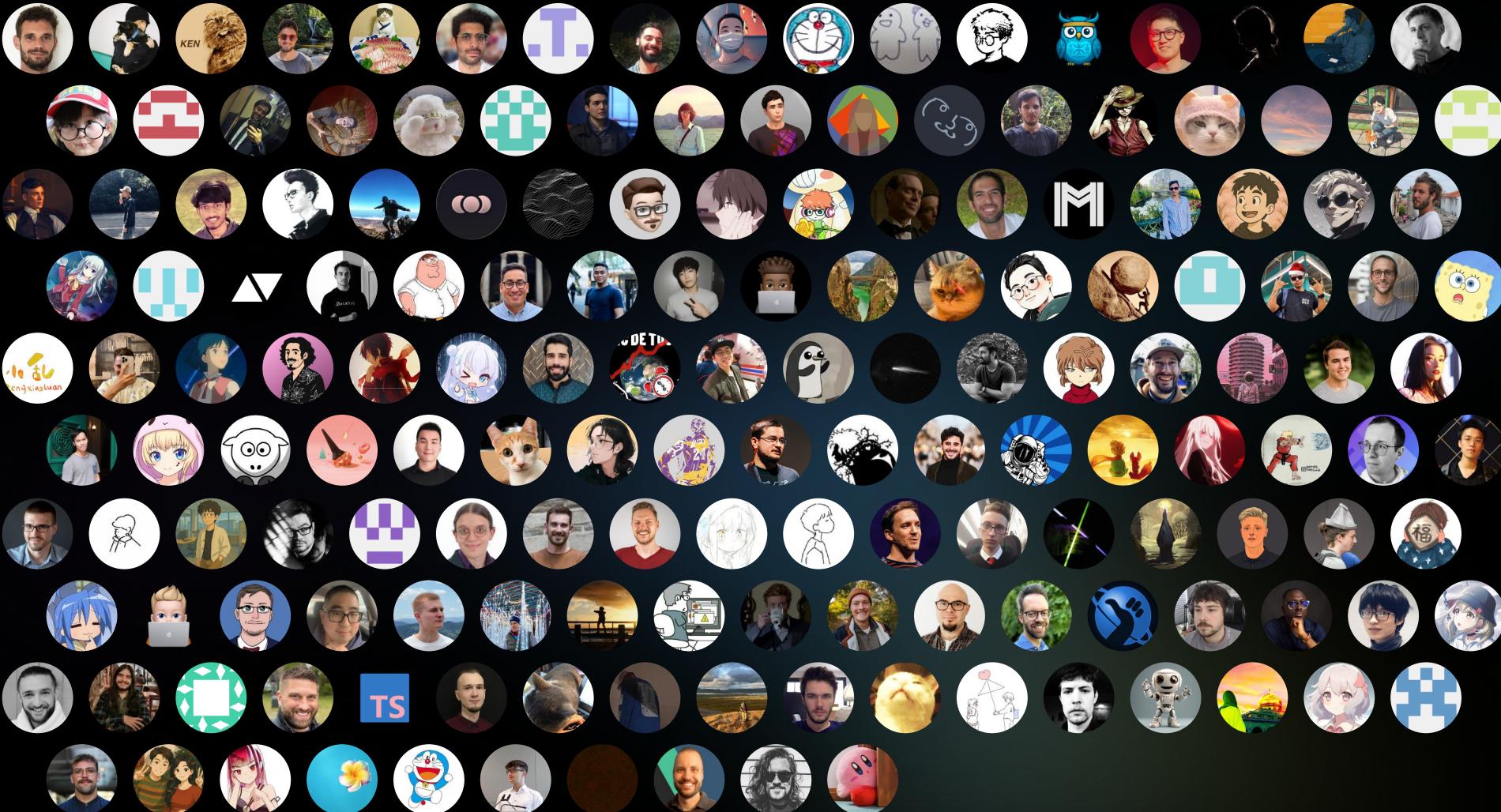
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