

Bun is killing Node.js









Bun is a fast, all-in-one toolkit for running, building, testing, and debugging JavaScript and TypeScript, from a single file to a full-stack application. It ships as a single executable called bun. At its core is the Bun runtime, a fast JavaScript runtime designed as a drop-in replacement for Node.js. It's written in Zig and powered by JavaScriptCore under the hood, dramatically reducing startup times and memory usage.

Bun version **1.0** is stable and finally production-ready.





Why Bun?

Bun's goal is simple: eliminate slowness and complexity without throwing away everything that's great about JavaScript. Your favorite libraries and frameworks should still work, and you shouldn't need to unlearn the conventions you're familiar with.

Bun is a drop-in replacement for **Node.js**, so you don't need:

- node
- npx bunx is 5x faster
- nodemon Bun has a built-in watch mode!
- dotenv, cross-env Bun reads .env files by default





Bun is an npm-compatible package manager with familiar commands. It reads your package.json and writes to node_modules, just like other package managers, so you can replace:

- npm, .npmrc, package-lock.json
- · yarn, yarn.lock
- pnpm, pnpm.lock, pnpm-workspace.yaml
- lerna

Bun is a JavaScript bundler with best-in-class performance and an esbuild-compatible plugin API, so you don't need:

- esbuild
- webpack
- · parcel, .parcelrc
- · rollup, rollup.config.js





Bun is tested against test suites of the most popular Node.js packages on npm. Server frameworks like Express, Koa, and Hono just work. As do applications built using the most popular full-stack frameworks. Collectively, these libraries and frameworks touch every part of Node.js's API surface that matters.







BUN is FAST!



Bun is fast, starting up to 4x fasterthan Node.js. This difference is only magnified when running a TypeScript file, which requires transpilation before it can be run by Node.js.

⊙	● 8ms	
esbuild	40ms	
tsx	120ms	
tsc	350ms	byee





Package Manager

Even if you don't use Bun as a runtime, Bun's built-in package manager can speed up your development workflow. Gone are the days of staring at that npm spinner as your dependencies install.

Bun may look like the package managers you're used to —

```
$ bun install
$ bun add <package> [--dev|--production|--peer]
$ bun remove <package>
$ bun update <package>
```

```
0.36s

pnpm 6.44s (17x slower)

npm 10.58s (29x slower)

yarn 12.08s (33x slower)
```





ESM & CommonJS

The transition from CommonJS to ES modules has been slow and full of terrors. After ESM was introduced, Node.js took 5 years before supporting it without an --experimental-modules flag. Regardless, the ecosystem is still full of CommonJS.

Bun supports both module systems, all the time. You can even use import and require(), in the same file. It just works.

```
import lodash from "lodash";
const _ = require("underscore");
```





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