Bun JS runtime and toolkit

CONCEPTS

Bun is one binary: runtime, package manager, test runner and bundler. It runs TypeScript and JSX directly, no build step.

Put Bun flags right after bun: 'bun --watch run dev'. After the script name they go to the script.

Dependency lifecycle scripts (postinstall) are blocked unless the package is in trustedDependencies.

INSTALL AND ADD

bun install
Install all dependencies

bun add *<pkg>*
Add a dependency

bun add *<pkg>*@*<version>*
Add a specific version or tag

bun add -d *<pkg>*
Add a dev dependency

bun add --exact *<pkg>*
Pin the exact version

bun add -g *<pkg>*
Install a CLI tool globally

bun install --frozen-lockfile
Fail if lockfile is out of date

bun ci
Same as install --frozen-lockfile

bun install --production
Skip devDependencies

REMOVE AND UPDATE

bun remove *<pkg>*
Remove a dependency

bun update
Update within package.json ranges

bun update --latest
Ignore ranges, take latest

bun update -i
Pick updates interactively

bun outdated
Show packages with newer versions

REMOVE AND UPDATE (cont.)

bun audit
Check for known vulnerabilities

RUN AND WATCH

bun *<file>*
Run a TS, JS or JSX file

bun run *<script>*
Run a package.json script

bun --watch *<file>*
Restart on file change

bunx *<pkg>*
Run a package binary without installing

TEST

bun test
Run all tests

bun test *<path>*
Run files matching a path filter

bun test -t '*<regex>***'**
Run tests by name pattern

bun test --watch
Re-run on file change

bun test --coverage
Print a coverage report

BUILD AND SCAFFOLD

bun init -y
Scaffold with default answers

bun build *<entry>* **--outdir** *<dir>*
Bundle to a directory

bun build *<entry>* **--compile --outfile** *<name>*
Make a standalone executable

bun build *<entry>* **--target** *<env>*
Target browser, bun or node

WORKSPACES AND PACKAGES

bun run --filter '*<pattern>***'** *<script>*
Run a script in matching workspaces

bun add *<pkg>* **--filter** *<workspace>*
Add a dependency to one workspace

bun why *<pkg>*
Explain why a package is installed