# Volta Node toolchain manager

**node / npm / tsc** you type a command → shim on PATH → **Volta shim** in ~/.volta/bin → looks up → **package.json "volta"** else your default → runs → **Pinned binary** right Node engine

## CONCEPTS

Volta swaps tool versions per directory: a pin in package.json wins, otherwise your default applies. No shell hook or use command needed.

Global packages are pinned to the Node they were installed with and keep it until you reinstall them.

Commit the "volta" block in package.json so the whole team and CI get the same toolchain.

## INSTALL VOLTA

**curl https://get.volta.sh | bash**
Install on Linux, macOS, WSL

**winget install Volta.Volta**
Install on Windows

**volta setup**
Add shims to PATH for your user

**volta --version**
Show Volta version

## INSTALL VOLTA (cont.)

**volta completions** *<shell>*
Print shell completions

Manual setup: export VOLTA_HOME=$HOME/.volta and put $VOLTA_HOME/bin first on PATH.

## DEFAULT TOOLS

**volta install node**
Default to the latest LTS Node

**volta install node@***<version>*
Default to an exact or partial version

**volta install npm@***<version>*
Default npm instead of the bundled one

**volta install yarn@***<version>*
Default Yarn

**volta install** *<package>*
Install a global package binary

**volta uninstall** *<package>*
Remove a global package or tool

## DEFAULT TOOLS (cont.)

**volta fetch** *<tool>*@*<version>*
Download to cache only, no default

install changes your default everywhere outside pinned projects; use pin for a single project.

## PIN PER PROJECT

**volta pin node@***<version>*
Pin Node in package.json

**volta pin node@lts**
Pin the current LTS Node

**volta pin npm@***<version>*
Pin npm

**volta pin yarn@***<range>*
Pin Yarn

### What pin writes

```
"volta": {
  "node": "20.16.0",
  "npm": "10.8.1"
}
```

pin only handles Node and package managers. Change library versions with npm install or yarn add.

## INSPECT

**volta list**
Show the active toolchain

**volta list all**
Everything installed

**volta list node**
Installed Node versions

**volta list --default**
Show your defaults only

**volta list** *<package>*
Look up a package or binary

**volta list --format plain**
Script-friendly output

**volta which** *<binary>*
Real path behind a shim

## RUN ONCE

**volta run --node** *<version>* *<cmd>*
Run with another Node

**volta run --npm** *<version>* *<cmd>*
Run with another npm

## MONOREPOS AND MIRRORS

### Share pins with extends

```
# packages/cli/package.json
"volta": { "extends":
"../../package.json" }
```

## MONOREPOS AND MIRRORS (cont.)

**~/.volta/hooks.json**
System-wide hooks file (mirrors, proxies)

## COMMON OPTIONS

**volta help** *<command>*
Help for one command

## RECIPES

### Set up a project

```
cd my-app
volta pin node@lts
volta pin npm@<version>
git add package.json && git
commit -m "Pin toolchain"
```

### Test on another Node

```
volta run --node 18 npm test
volta run --node 22 npm test
# default and pin stay
unchanged
```

### Fresh machine to working Node

```
curl https://get.volta.sh |
bash
# open a new terminal
volta install node
volta list
```

### Debug the wrong version

```
volta list
volta which node
# project pin in
package.json beats the
default
```