# Astro Web framework CLI

## CONCEPTS

Install Astro per project and run it with npx astro <cmd> or npm scripts; it is not meant to be installed globally.

**src/pages** .astro, .md routes
↓ `astro dev`
**Dev server** HMR, port 4321
↓ `astro build`
**dist/** static output
↓ `astro preview`
**Local preview** check before deploy

Pages are static HTML by default; add an adapter and output or per-page prerender settings for on-demand rendering.

Config lives in astro.config.mjs; CLI flags like --site, --base, --outDir override it for one run.

## PROJECT

**`npm create astro@latest`**
Scaffold a project with the wizard

**`npm create astro@latest -- --template <name>`**
Start from an official template

**`npm create astro@latest -- --add <integration>`**
Scaffold and add an integration

**`npm run dev`**
Run the dev script from package.json

**`npx astro <command>`**
Run the local CLI directly

**`astro info`**
Print environment details

**`astro info --copy`**
Copy details to clipboard, no prompt

**`astro --version`**
Print the Astro version

**`astro --help`**
List commands and flags

## DEVELOP

**`astro dev`**
Start the dev server (HMR)

## DEVELOP (cont.)

**`astro dev --port <n>`**
Use another port (default 4321)

**`astro dev --host`**
Listen on all network addresses

**`astro dev --open`**
Open the browser on start

**`astro dev --force`**
Clear content layer cache, full rebuild

**`s / o / q`**
Dev hotkeys: restart / open / quit

## BUILD AND PREVIEW

**`astro build`**
Build the site into dist/

**`astro build --outDir <path>`**
Write output elsewhere

**`astro build --site <url>`**
Override the site URL

**`astro build --base <path>`**
Override the base path

**`astro preview`**
Serve dist/ locally

**`astro preview --port <n>`**
Preview on another port

**`astro preview --host`**
Preview on the network

## CHECK AND SYNC

**`astro check`**
Type-check .astro and TS files

**`astro check --watch`**
Re-check on every change

**`astro sync`**
Generate .astro/ types and content types

## INTEGRATIONS

**`astro add <name>`**
Install and wire up an integration

**`astro add react tailwind`**
Add several integrations at once

**`astro add node`**
Add an SSR adapter (also vercel, netlify, cloudflare)

**`astro add mdx`**
Add MDX page and content support

## INTEGRATIONS (cont.)

**`astro add sitemap`**
Generate sitemap files on build

**`integrations: [react()]`**
Config key listing active integrations

## CONFIGURATION

**`--config <path>`**
Use another config file

**`--root <path>`**
Set the project root

**`--verbose`**
Verbose logging

**`site: 'https://example.com'`**
Final URL for sitemap and canonical links

**`base: '/docs'`**
Deploy under a subpath

**`output: 'static' / 'server'`**
Prerender by default or render on demand

**`server: { port: 3000, host: true }`**
Dev and preview port and host

**`redirects: { '/old': '/new' }`**
Static redirects

**`vite: { }`**
Pass options through to Vite

## RECIPES

### Config with integration and site

```
// astro.config.mjs
import { defineConfig } from 'astro/config';
import react from '@astrojs/react';

export default defineConfig({
  site: 'https://example.com',
  integrations: [react()],
});
```

### Test on a phone in the LAN

```
astro dev --host --port 3000
# open http://<your-ip>:3000 on the phone
```

### CI pipeline

```
npm ci
astro check
astro build
```

### Preview a build under a subpath

```
astro build --base /docs --site https://example.com
astro preview
```