Composer PHP package manager

START HERE

`composer init`
Create composer.json

`composer require <vendor/pkg>`
Add a dependency

`composer install`
Install from the lock file

`composer update`
Upgrade within constraints

`composer remove <vendor/pkg>`
Drop a dependency

`composer show`
List installed packages

`composer outdated`
See newer versions

`composer dump-autoload`
Rebuild the autoloader

composer.json your constraints → `update` / `require` → **composer.lock** exact versions → `install` → **vendor/** packages + autoload.php

CONCEPTS

Commit composer.lock for applications: install then gives every machine the same versions.

install reads the lock file; update re-solves composer.json and rewrites the lock.

Libraries usually do not commit composer.lock; only applications do.

PROJECT

`composer init`
Create composer.json interactively

`composer create-project <vendor/pkg> <dir>`
Start a new project from a package

`composer validate`
Check composer.json is valid

`composer validate --strict`
Treat warnings as errors

`composer config <key> <value>`
Set a config value

`composer config --list`
Show the effective config

`composer config --global <key> <value>`
Set a user-wide config value

`composer bump`
Raise constraints to installed versions

`composer diagnose`
Check system and network problems

`composer status`
Show locally changed packages

INSTALL & REMOVE

`composer install`
Install exactly what the lock says

`composer install --no-dev`
Skip require-dev packages

`composer install -o`
Optimize the autoloader

`composer install -a`
Authoritative classmap (production)
Skips filesystem lookups for missing classes, so classes created later are not found.

INSTALL & REMOVE (cont.)

`composer install --dry-run`
Show what would happen

`composer reinstall <vendor/pkg>`
Reinstall a package from scratch

`composer remove <vendor/pkg>`
Remove a dependency

`composer remove --unused`
Remove packages nothing needs

`composer clear-cache`
Empty the download cache

REQUIRE & UPDATE

`composer require <vendor/pkg>`
Add a package and install it

`composer require <vendor/pkg>:<constraint>`
Add with a version constraint
e.g. composer require "monolog/monolog:^3.0" (quote the constraint).

`composer require --dev <vendor/pkg>`
Add a dev-only dependency

`composer require --no-update <vendor/pkg>`
Edit composer.json only

`composer update`
Update everything within constraints

`composer update <vendor/pkg>`
Update only one package

`composer update <vendor/pkg> -W`
Also update its dependencies

`composer update --dry-run`
Preview an update

`composer update --lock`
Refresh lock hashes, no upgrades

`composer update --prefer-lowest --prefer-stable`
Test against the lowest versions

`composer update -m`
Prefer minimal changes

`composer update --no-dev`
Update without dev packages

INSPECT

`composer show`
List installed packages

INSPECT (cont.)

`composer show <vendor/pkg>`
Details of one package

`composer show -t`
Dependency tree

`composer show --self`
Show the root package

`composer show -P`
Show install paths

`composer outdated`
List packages with newer versions

`composer outdated -D`
Only direct dependencies

`composer outdated -M`
Only major updates

`composer outdated -m`
Only minor updates

`composer why <vendor/pkg>`
Why is this installed?

`composer why-not <vendor/pkg> <version>`
Why can't this version be installed?

`composer search <text>`
Search Packagist

`composer licenses`
List licenses of dependencies

`composer check-platform-reqs`
Check PHP and extension needs

AUTOLOAD & SCRIPTS

`composer dump-autoload`
Regenerate the autoloader

`composer dump-autoload -o`
Generate an optimized classmap

`composer dump-autoload -a`
Authoritative classmap

`composer run-script <name>`
Run a script from composer.json

`composer <name>`
Shortcut for run-script
Works unless the name clashes with a built-in command.

`composer run-script -l`
List available scripts

`composer run-script <name> -- <args>`
Pass arguments to a script

`composer exec <bin>`
Run a binary from vendor/bin

SECURITY & AUDIT

`composer audit`
Check for known vulnerabilities

`composer audit --locked`
Audit the lock file only

`composer audit -f json`
Machine-readable audit output

`composer audit --no-dev`
Ignore dev dependencies

GLOBAL & OPTIONS

`composer global require <vendor/pkg>`
Install a tool for your user

`composer self-update`
Update Composer itself

`composer -d <dir> <command>`
Run in another directory

`composer -n <command>`
Never ask questions (CI)

`composer -v / -vv / -vvv`
More output

`composer --ignore-platform-reqs install`
Ignore PHP/extension checks
Only a workaround; the code may still fail at runtime.

`composer --version`
Show the Composer version

`composer help <command>`
Help for a command

`composer list`
List all commands

RECIPES

New project with a dev tool

```
composer init
composer require monolog/monolog
composer require --dev phpunit/phpunit
vendor/bin/phpunit
```

Production deploy

```
composer install --no-dev -o --no-interaction
# or: -a for an authoritative classmap
```

Careful dependency upgrade

```
composer outdated -D
composer update <vendor/pkg> --dry-run
composer update <vendor/pkg>
composer audit
```

Find out why a version is blocked

```
composer why <vendor/pkg>
composer why-not <vendor/pkg> <version>
composer update <vendor/pkg> -W
```