

# Getting Started with Composer

## Composer

<https://getcomposer.org/>



(image used under MIT license by <https://getcomposer.org/>)

Composer is a tool for dependency management in PHP. It allows you to declare the libraries your project depends on and will manage (install / update) them for you. Manages packages on a per-project basis. Cross platform - strives for functionality on Windows, Linux and MacOS.

## Requirements

PHP 5.3.2+

git or other vcs to install packages beyond simple zip archives

System / php.ini settings (composer will warn about invalid settings)

## Installation

**Windows / Linux / MacOS / Unix**

Find instructions at:

<https://getcomposer.org/doc/00-intro.md>

## Project Setup

Have Composer run through the interactive configuration generator where you define your project and search for dependencies.

Creates initial `composer.json`:

```
php /path/to/composer init
```

Add packages to your project. Composer will add an entry for each package to the `require` key of your `composer.json` file:

```
php /path/to/composer require name-of-package [version constraints]
```

Install packages. Package resources are installed in `vendor` directory of project:

```
php /path/to/composer install
```

Commit `composer.json` and `composer.lock` to vcs, but exclude `vendor` directory

## Updating Resources

Update project dependencies:

```
php /path/to/composer update
```

Update Composer:

```
php /path/to/composer self-update
```

## Install vs. Update

`install` looks for `composer.lock` file and installs dependencies listed there if found  
`update` installs latest versions of all dependencies and writes to `composer.lock`

## Using Package Resources

`include` / `require` the generated `autoload.php` file in your application:

```
<?php  
include "path/to/vendor/autoload.php";
```

Add project files to Composer autoloader by adding `autoload` key in `composer.json`:

```
"autoload": {  
    "psr-4":  
    "path/to/project/files"  
}
```

## Finding packages

Visit <https://packagist.org/> to find packages

Use Composer to search for packages

```
php /path/to/composer search [search]
```

## Version constraints

Rules for package versioning constraints at: <https://getcomposer.org/doc/articles/versions.md>

Check constraints at <https://semver.mwl.be/>