Composer packages

Installing and Using Composer, Packagist, Packaging your code

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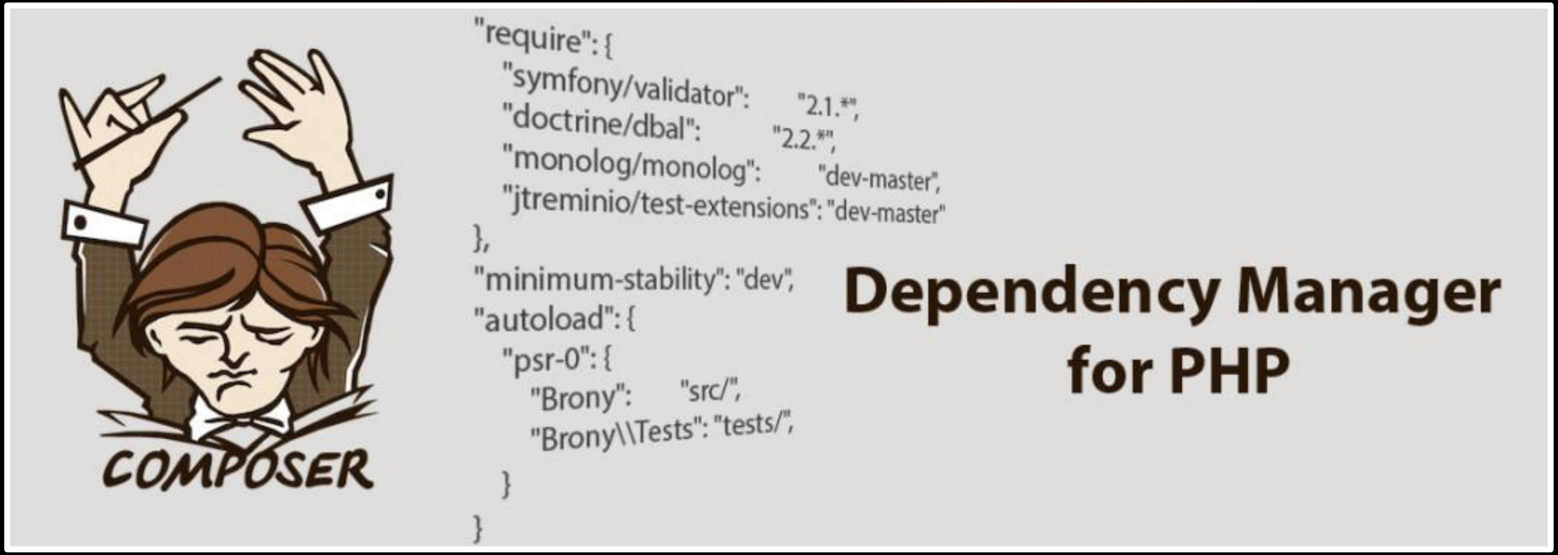

```
"require": {
    "symfony/validator":        "2.1.*",
    "doctrine/dbal":            "2.2.*",
    "monolog/monolog":          "dev-master",
    "jtreminio/test-extensions": "dev-master"
},
"minimum-stability": "dev",
"autoload": {
    "psr-0": {
        "Brony":        "src/",
        "Brony\\Tests": "tests/",
    }
}
```

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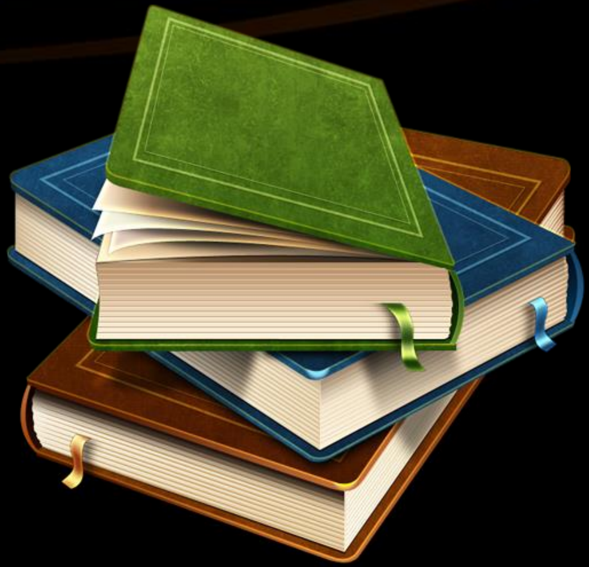


PHP package

```
import(‘weatherForecast.arras.*’);
include(‘weather.arras.*’);
```

What is PHP package?

- A directory containing something. In this case it is PHP code, but in theory it could be anything.
- Used to help you logically group related elements just like you write classes to group related functions and data together.

Composer overview

requires PHP 5.3.2+ to run

What is Composer?

- Dependency manager for PHP.
- List your project’s dependencies in a composer.json file and with a few simple commands - Composer will automatically download your project’s dependencies and setup autoloading for you.

What is Composer?

- It is not a package manager.
- It deals with "packages" or libraries, but it manages them on a per-project basis, installing them in a directory (e.g. vendor) inside your project.
- By default it will never install anything globally.

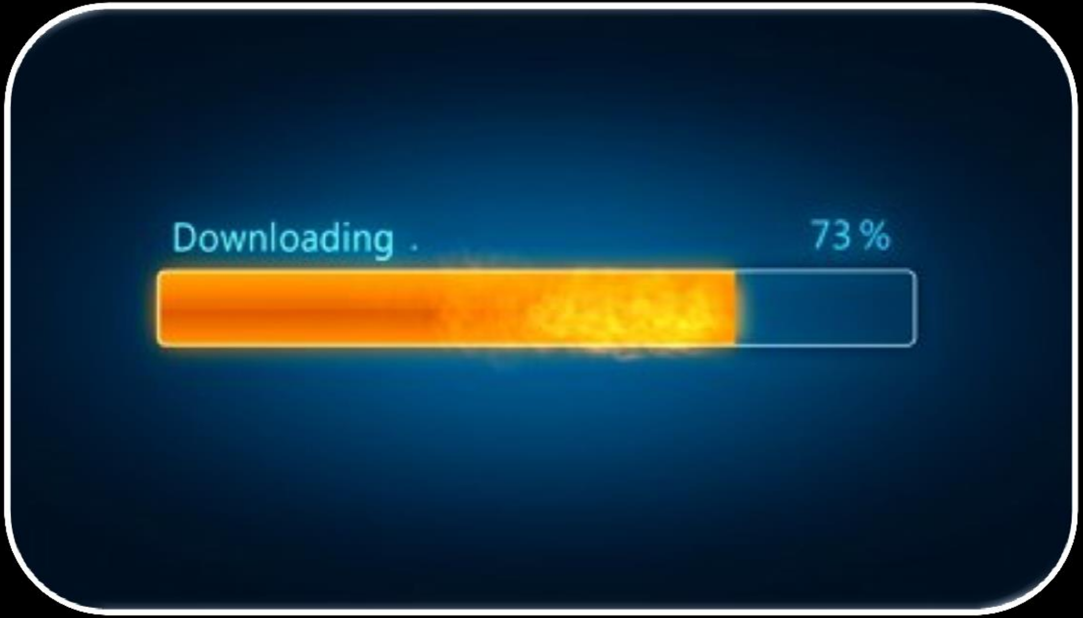
Advantages

Why use Composer?

- lot of PHP libraries that are compatible with Composer
- Already use PHP framework
- ready to be used in your project
- these “packages” are listed on

Packagist *is the official repository for Composer-compatible PHP libraries!*

Download and Install



Download and Install for NON-Windows users

- Download: $ curl -sS https://getcomposer.org/installer | php

- If you don't have curl:

```
$ php -r "readfile('https://getcomposer.org/installer');" | php
```

Download and Install for NON-Windows users

- recommended directory is /usr/local/bin

- install composer to a specific directory:

```
$ cd /path/to/my/project
$ curl -sS https://getcomposer.org/installer | php -- --install-
dir=bin
```

Download and Install on Windows

- Download https://getcomposer.org/Composer-Setup.exe

```
php -r "readfile('https://getcomposer.org/installer');" | php
```

- If you don’t use the Composer-Setup installer - don’t forget to set up your $PATH so that you can just call composer from any directory in your command line.

Packagist

Packagist

The PHP package archivist.

Packagist

- Packagist is the main Composer repository
- A Composer repository is a place where you can get packages from
- You can automatically require any package that is available there
- https://packagist.org – You can browse all available packages on the official website

Using Composer

Autoloading

- To use it, just add the following line to your code's bootstrap process:

```
require ‘vendor/autoload.php’;
```

Adding a library

- To add a library to your project, create a file named composer.json with content that resembles this example:

```
{
       "require": {
              "illuminate/foundation": "1.0.*“
      },
      "minimum-stability": "dev“
}
```

- You must run composer to have your dependencies installed:

```
$ php composer.phar install
```

Using Composer

Live Demo

Packaging Your Own Code

Packaging Your Own Code

- Using custom repositories key:

```
"repositories": [
    {
        "type": "package",
        "package": {
            "name": "weaverryan/derp-dangerzone",
            "version": "dev-master",
            "source": {
                "url": "git://github.com/weaverryan/derp-
dangerzone.git",
                "type": "git",
                "reference": "master"
            },
```

Packaging Your Own Code (2)

```
"autoload": {
                "psr-0" : {
                    "Weaverryan\\DangerZone" : "src"
                }
            }
        }
    }
],
```

Packaging Your Own Code (3)

- You can later require it

```
"require": {
    "weaverryan/derp-dangerzone": "dev-master"
},
```

Packaging Your Own Code (4)

- You can simplify the packaging by creating a composer.json file in the library itself with a simillar content

```
{
    "name": "weaverryan/derp-dangerzone",
    "autoload": {
        "psr-0" : {
            "Weaverryan\\DangerZone" : "src"
        }
    }
}
```

- Version and Source keys are removed. Composer will look at branches and tags to get information

Packaging Your Own Code (5)

- Update your composer.json to have the following:

```
"repositories": [
    {
        "type": "vcs",
        "url": "https://github.com/weaverryan/derp-
dangerzone"
    }
],
```

- Now, instead of a packages key, you have a simpler vcs key, which consumes the repository's composer.json file

Registering with Packagist

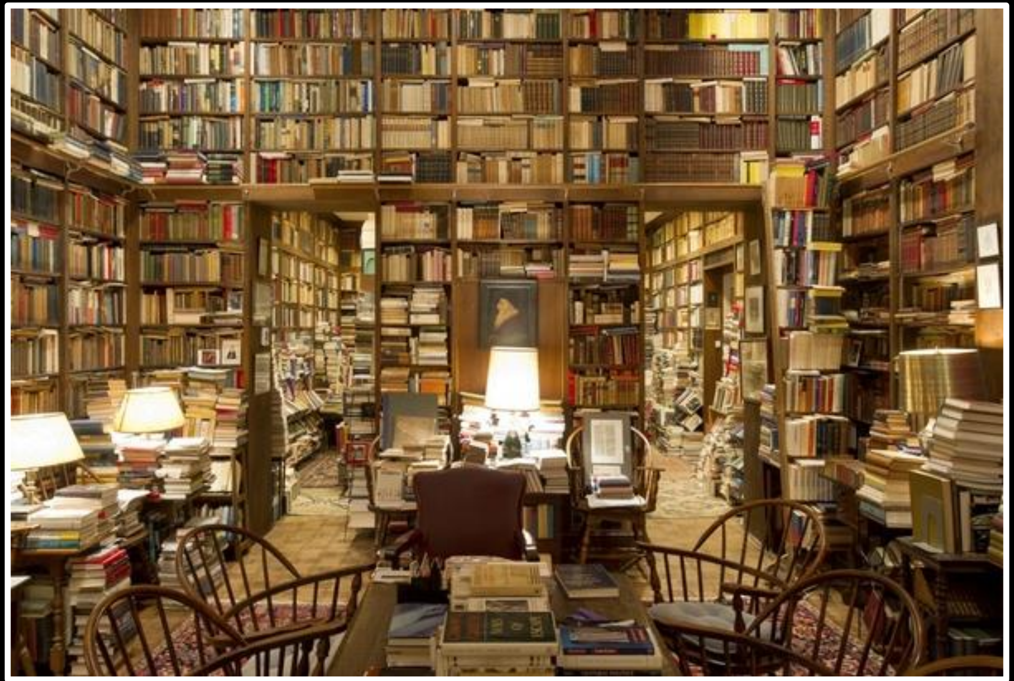
- In order to register you package with packagist you have to fill a form in the official website
- Once you have registered you library with Packagist and it has been crawled – you can use it by just requiring it

```
"require": {
        "weaverryan/derp-dangerzone": "dev-master"
},
```

Packaging Your Own Code

Live Demo

Famous Libraries Examples



Facebook SDK

- The Facebook SDK is added to Packagist

```
{
    "require": {
        "facebook/php-sdk": "dev-master"
    }
}
```

- Run composer and you will have a file named composer.lock and a directory named vendor
- The lock file sets the dependency to one specific revision
- In the vendor directory you will find the Facebook SDK

PHP Unit

- The Unit Testing library PHP Unit is also added to Packagist

```
{
    "require": {
        "phpunit/phpunit": "4.3.*@dev"
    }
}
```

Laravel Framework

- The Famous MVC Framework – Laravel can be obtained from Packagist too

```
{
       "require": {
             "laravel/laravel": "dev-master"
      }
}
```

And a thousand more libraries on Packagist…

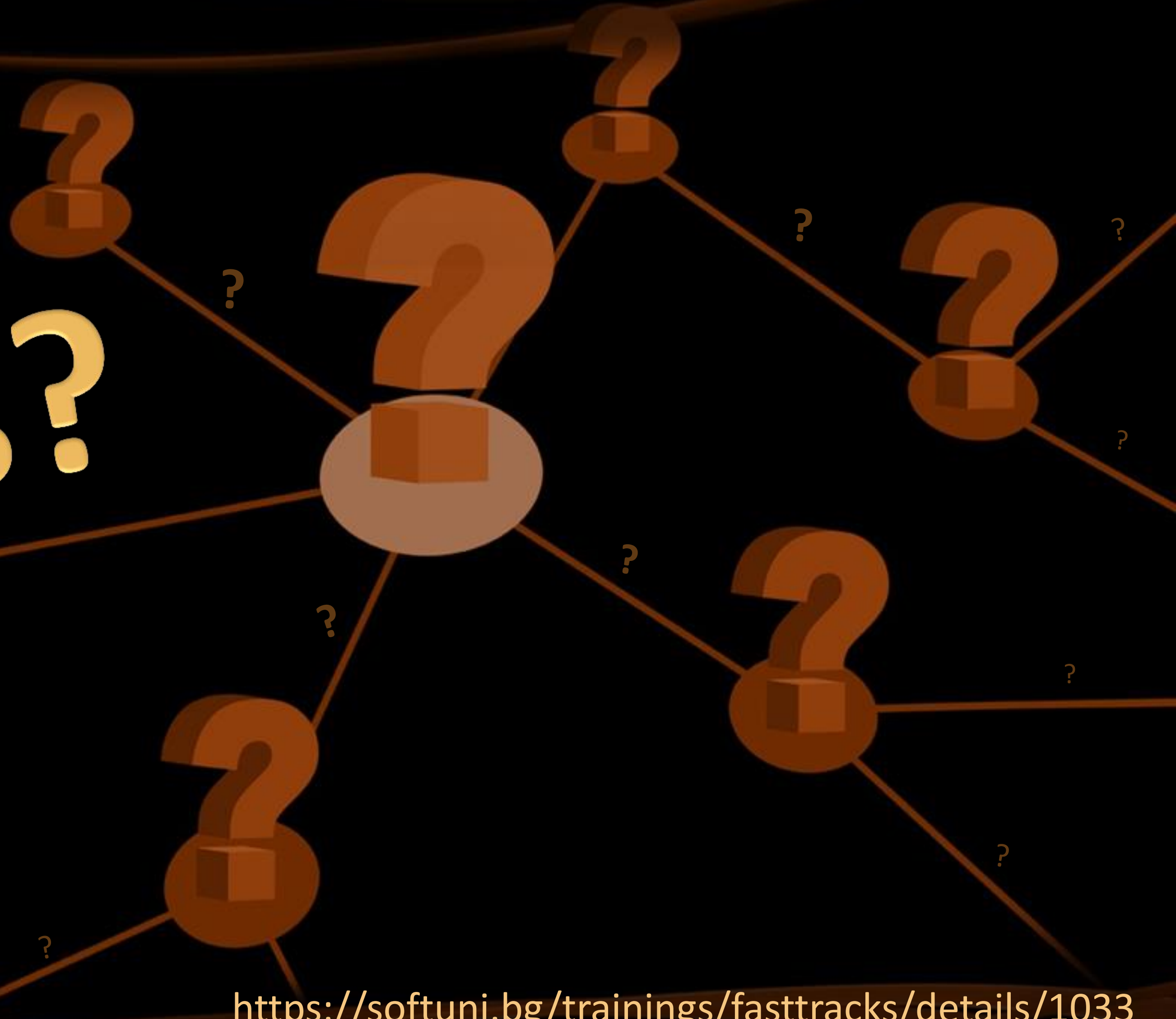
Famous Libraries Examples

Live Demo

Summary

- Easy to use – just list your dependencies in a composer.json file
- Packagist is the default package repository
- You can package your own code
- You can submit your package to Packagist

Questions?



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