



Composer: good practices

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Semantic Versioning

MAJOR.MINOR.PATCH

1. **MAJOR** – incompatible (breaking) API changes,
2. **MINOR** – add functionality in a backwards-compatible manner,
3. **PATCH** – backwards-compatible bug fixes.

semver.org

Symfony Backward Compatibility Promise

Semantic Versioning

Dev:

→ 0.1.0

Fixes:

→ 0.1.1

Breaking changes:

→ 0.2.0

First stable:

→ 1.0.0

Fixes:

→ 1.0.1

Fixes:

→ 1.0.2

New features:

→ 1.1.0

Breaking changes:

→ 2.0.0

Releasing packages

README

LICENSE

phppackagechecklist.com

tag

CHANGELOG

Version Constraints

any

*

Version Constraints

exact match

1.0.0

dev-master

Version Constraints

wildcard range

1.0.*

2.*

Version Constraints

hyphen range

1.0 - 2.0

(>=1.0.0 <2.1)

Version Constraints

unbounded range

`>=2.0`

Version Constraints

operators

(*space*)

||

Version Constraints

next significant release

`~1.2`

`(>=1.2.0 <2.0.0)`

Version Constraints

next significant release

`~1.2.3`

`(>=1.2.3 <1.3.0)`

Version Constraints

caret / semver operator

`^1.2.3`

`(>=1.2.3 <2.0.0)`

Version Constraints

libraries

PHP

PHP extensions

`maglnet/composer-require-checker`

Installing new packages

```
composer require acme/package
```

```
{  
    "require": {  
        "acme/package": "^1.2"  
    }  
}
```

Overly strict requirements

```
// composer.json
{
  "require": {
    "cool/alice": "~1.3",
    "lazy/bob": "~1.2"
  }
}

// dependencies
{
  "name": "cool/alice",
  "require": {
    "monolog/monolog": "~1.6"
  }
}
{
  "name": "lazy/bob",
  "require": {
    "monolog/monolog": "1.3.*"
  }
}
```


PHIVE for the rescue

The Phar Installation and Verification Environment

Root of a conflict is PHP cannot have 2 versions of the same class in the codebase

PHIVE is still under heavy development

(since 2015)

Stabilities

dev → alpha → beta → RC → stable

Tags

2.0.2 → stable

2.0.0-beta2 → beta

Branches

2.0 → 2.0.x-dev (dev)

master → dev-master (dev)

Stabilities

allowing various stabilities

```
{  
  "require": {  
    "foo/bar": "^1.0@dev",  
    "foo/baz": "^1.0@alpha",  
    "foo/qux": "1.0.x-dev"  
  },  
  "minimum-stability": "beta"  
}
```

Minimum stability

Don't set `minimum-stability` flag,

it defaults to `stable`.

Use stability flags,

... if you REALLY have to.

Specify the production PHP version

```
"config": {  
    "platform": {  
        "php": "7.2"  
    }  
}
```

Packages types

- library (default)
- project
- metapackage
- composer-plugin
- custom (symfony-pack, wordpress-plugin)

composer.lock

- erusev/parsedown
- fzaninotto/faker
- guzzlehttp/guzzle
- laravel/framework
- monolog/monolog
- nesbot/carbon
- nikic/php-parser
- phpmailer/phpmailer
- phpunit/phpunit
- symfony/symfony

composer.lock

So, add it to `.gitignore`.

composer.lock

TODO: check if previous slide is true.

composer.lock

If does not exist `composer install` and `composer update` do the same.

If exists `composer install` works much faster.

`composer .lock` in vendor's dependencies will not have any effect.

Try change content of `composer.json` to `{}` and run `composer install`.

composer.lock

commit it to git

put it into .gitignore

in applications

in libraries

Check your minimum dependencies

```
composer update --prefer-stable --prefer-lowest
```

Optimize class map

```
"autoload": {  
    "psr-4": {  
        "Acme\\": "src/"  
    }  
}
```

```
composer dump-autoload --classmap-authoritative
```

```
composer dump-autoload --apcu-autoloader
```

Using a forked project

```
{  
  "repositories": [  
    {  
      "type": "vcs",  
      "url": "https://github.com/kubawerlos/symfony"  
    }  
  ],  
  "require": {  
    "symfony/symfony": "dev-master"  
  }  
}
```

Using a forked project

```
{
  "repositories": [
    {
      "type": "vcs",
      "url": "https://github.com/kubawerlos/symfony"
    }
  ],
  "require": {
    "symfony/symfony": "dev-my-patch"
  }
}
```

Using a forked project

```
{  
  "repositories": [  
    {  
      "type": "vcs",  
      "url": "https://github.com/kubawerlos/symfony"  
    }  
  ],  
  "require": {  
    "symfony/symfony": "dev-my-patch as 4.2.0"  
  }  
}
```


Commands

```
{  
  "scripts": {  
    "post-install-cmd": [  
      "MyVendor\\MyClass::warmCache"  
    ],  
    "check": [  
      "@analyse",  
      "@test"  
    ],  
    "analyse": [  
      "PHP_CS_FIXER_FUTURE_MODE=1 vendor/bin/php-cs-fixer fix --dry-run -v",  
      "vendor/bin/phpstan analyse --level=max src"  
    ],  
    "test": [  
      "phpdbg -qrr vendor/bin/phpunit --exclude-group covers-nothing"  
    ]  
  }  
}
```

Plugins

`hirak/prestissimo`

`localheinz/composer-normalize`

<https://github.com/jakoch/awesome-composer#plugins>

Features

why / why-not

```
composer why-not phpunit/phpunit:^8 -t
phpunit/phpunit 7.5.4 The PHP Unit Testing framework.
└─johnkary/phpunit-speedtrap v3.0.0 (requires phpunit/phpunit ^7.0)
```

outdated

```
composer outdated
phpunit/php-code-coverage 6.1.4 7.0.1 Library that provides collection, processing, ...
phpunit/phpunit 7.5.4 8.0.2 The PHP Unit Testing framework.
```

config -e

Experiencing a strange behavior?

- `composer self-update`
- `composer diagnose`
- `composer update -v`
- `rm composer.lock`
`rm -rf vendor/`
`composer update -v`

Automating

```
composer validate --strict --with-dependencies
```

```
composer normalize --dry-run
```

```
composer global show hirak/prestissimo -q || composer global require hirak/prestissimo
```

```
composer require sensiolabs/security-checker
```

```
vendor/bin/security-checker security:check
```

Composer 2.0

package lowercase name

must contain slash

1.8

No due date  Last updated about 20 hours ago



84% complete 8 open 44 closed

1.9

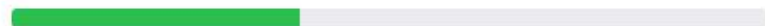
No due date  Last updated 14 days ago



87% complete 1 open 7 closed

2.0

No due date  Last updated about 1 hour ago

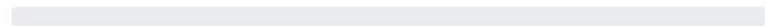


38% complete 34 open 21 closed

2.0-core

No due date  Last updated 1 day ago

Core work to be done for the initial 2.0



0% complete 31 open 0 closed

Bugs

No due date  Last updated 8 days ago

Bugs that have to be looked at



84% complete 37 open 195 closed

Useful links

semver.mwl.be

packanalyst.com

repo-stats.github.io

github.com/ziadoz/awesome-php

Questions?

Thank you

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kubawerlos

