

# Let's Build a Composer Package

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@ramsey

# Hi. I'm Ben.

- ◆ Software Architect at ShootProof
- ◆ Organizer at Nashville PHP
- ◆ Open source advocate
- ◆ ramsey/uuid library
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# Getting started



What problem do  
you want to solve?


You own the code.

How do you want  
others to use it?

Licenses & Standards | Open S... X

https://opensource.org/licenses

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# Open Source Initiative

Guaranteeing the 'our' in source...

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## Licenses & Standards


### About Open Source Licenses

Open source licenses are licenses that comply with the [Open Source Definition](#) — in brief, they allow software to be freely used, modified, and shared. To be approved by the Open Source Initiative (also known as the OSI), a license must go through the [Open Source Initiative's license review process](#).

### Popular Licenses

The following OSI-approved licenses are popular, widely used, or have strong communities:

- [Apache License 2.0](#)
- [BSD 3-Clause "New" or "Revised" license](#)
- [BSD 2-Clause "Simplified" or "FreeBSD" license](#)
- [GNU General Public License \(GPL\)](#)
- [GNU Library or "Lesser" General Public License \(LGPL\)](#)
- [MIT license](#)
- [Mozilla Public License 2.0](#)



open source initiative  
Approved License®

- MIT license
- BSD 2-Clause “Simplified”
- Apache License 2.0
- GNU Library or “Lesser” General Public License (LGPL)

# The project



# github.com/ramsey/php-library-skeleton

The screenshot shows the GitHub repository page for `ramsey/php-library-skeleton`. The browser address bar shows the URL `https://github.com/ramsey/php-library-skeleton`. The repository name is `ramsey / php-library-skeleton`. The page includes navigation links for `Code`, `Issues`, `Pull requests`, `Security`, and `Insights`. The repository description is "A tool to quickly set up the base files of a PHP library project." The repository statistics show 8 commits, 1 branch, 3 releases, 1 contributor, and MIT license. The commit history table is as follows:

Commit	Message	Time
ramsey	Add missing 1.0.2 link to the CHANGELOG	Latest commit 4e76653 on Jan 3
	<code>.github</code>	Preparing for the 1.0.0 release 5 months ago
	<code>app</code>	Initial commit 5 months ago
	<code>skeleton</code>	Remove the root .gitattributes and rename the skeleton one 5 months ago
	<code>.gitignore</code>	Initial commit 5 months ago
	<code>.travis.yml</code>	Update location of php-coveralls in Travis configuration 5 months ago
	<code>CHANGELOG.md</code>	Add missing 1.0.2 link to the CHANGELOG 5 months ago
	<code>LICENSE</code>	Initial commit 5 months ago
	<code>composer.json</code>	Preparing for the 1.0.0 release 5 months ago
	<code>phpstan.neon</code>	Initial commit 5 months ago
	<code>phpunit.xml.dist</code>	Initial commit 5 months ago

```
ramsey at Tinúviel in ~/Code (php-7.3.4) (ruby-2.5.1)  
$ composer create-project ramsey/php-library-skeleton phptek-package  
█
```

*Live-coding demo*

# Maintaining your package

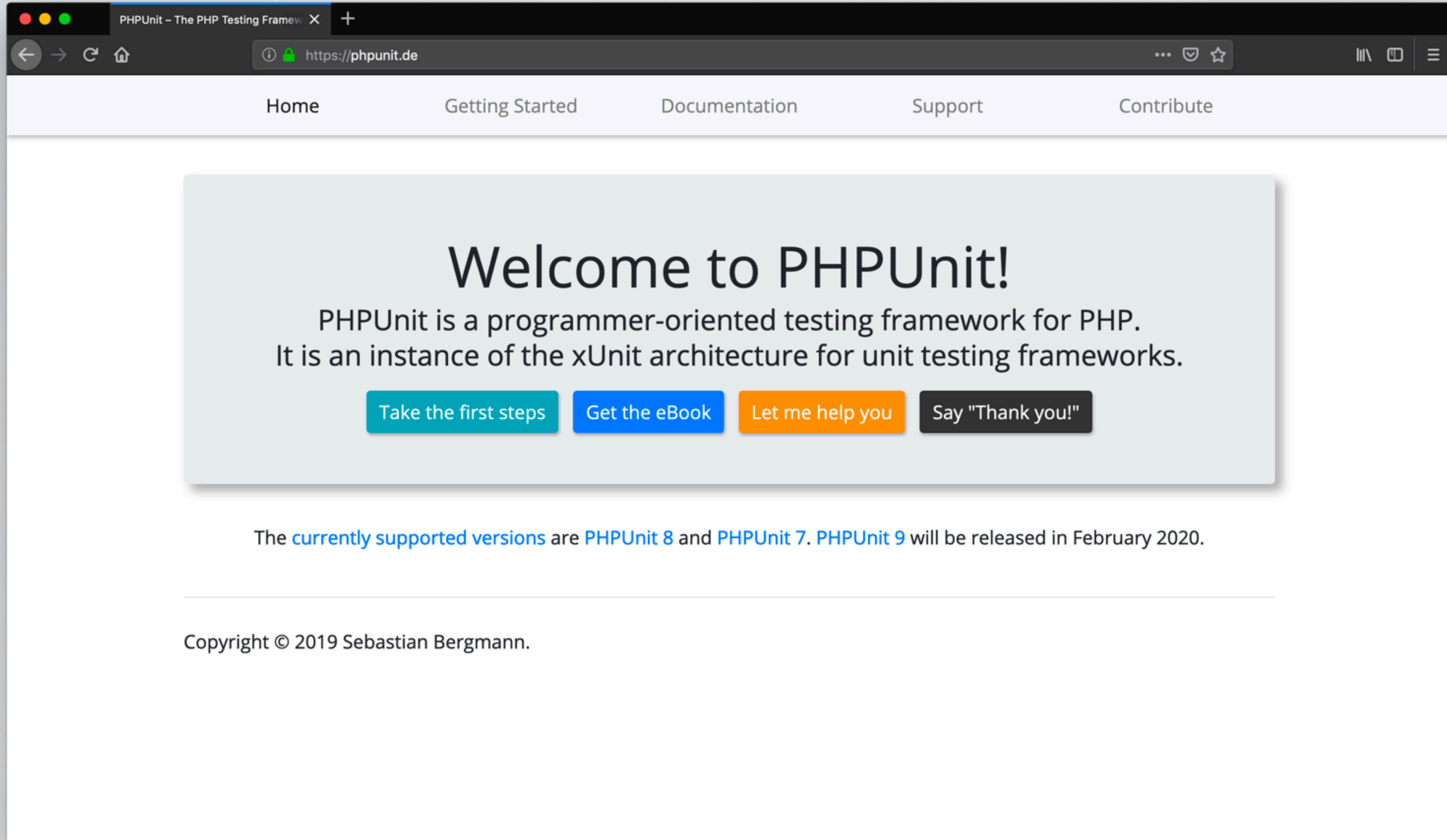


# **.gitattributes**

- Add your `tests/` directory
- Add your `docs/` directory
- Add your `phpunit.xml.dist` file

Add anything that shouldn't be bundled into the distribution when someone requires your package with Composer.

<code>.gitattributes</code>	<code>export-ignore</code>
<code>.github/</code>	<code>export-ignore</code>
<code>.gitignore</code>	<code>export-ignore</code>
<code>.travis.yml</code>	<code>export-ignore</code>
<code>docs/</code>	<code>export-ignore</code>
<code>phpstan.neon</code>	<code>export-ignore</code>
<code>phpunit.xml.dist</code>	<code>export-ignore</code>
<code>tests/</code>	<code>export-ignore</code>



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# Welcome to PHPUnit!

PHPUnit is a programmer-oriented testing framework for PHP.  
It is an instance of the xUnit architecture for unit testing frameworks.

[Take the first steps](#)

[Get the eBook](#)

[Let me help you](#)

[Say "Thank you!"](#)

The [currently supported versions](#) are [PHPUnit 8](#) and [PHPUnit 7](#). [PHPUnit 9](#) will be released in February 2020.

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phpstan / phpstan Sponsor Watch 186 Star 6,788 Fork 470


Code Issues 215 Pull requests 34 Projects 0 Security Insights

PHP Static Analysis Tool - discover bugs in your code without running it!

phpstan static-analysis php php7 testing static-code-analysis static-analyzer

2,478 commits 7 branches 44 releases 143 contributors MIT

Branch: master New pull request Find File Clone or download

 <b>ondrejmirtes</b> Native GitHub sponsorship	Latest commit 0553ea5 an hour ago
<a href="#">.github</a>	Native GitHub sponsorship an hour ago
<a href="#">bin</a>	Removed debugging info 2 months ago
<a href="#">build</a>	Validate parameters (bleeding edge) 11 days ago
<a href="#">conf</a>	Parameter schema for missingClosureNativeReturnCheckObjectTypehint sh... 4 days ago
<a href="#">src</a>	Fix "Couldn't find constant __COMPILER_HALT_OFFSET_" 2 days ago
<a href="#">tests</a>	More level tests for partially wrong unions 2 days ago
<a href="#">tmp</a>	Build requires cache directory to exist 7 months ago
<a href="#">.editorconfig</a>	Fix glob patterns in .editorconfig 2 years ago
<a href="#">.gitattributes</a>	gitattributes - build directory is also ignored 2 years ago
<a href="#">.gitignore</a>	Ignore tests/tmp directory 2 years ago
<a href="#">travis.yml</a>	Use Ubuntu 16.04 5 months ago

squizlabs / PHP\_CodeSniffer Watch 212 Star 6,431 Fork 1,075

Code Issues 137 Pull requests 41 Projects 2 Wiki Security Insights

PHP\_CodeSniffer tokenizes PHP, JavaScript and CSS files and detects violations of a defined set of coding standards.  
[http://pear.php.net/package/PHP\\_CodeS...](http://pear.php.net/package/PHP_CodeS...)

php coding-standards automation cli qa static-analysis

5,948 commits 5 branches 73 releases 171 contributors View license

Branch: master New pull request Find File Clone or download

peternolland	Fixed bug #2391 : Sniff-specific ignore rules inside rulesets are fil...	Latest commit 8b713e1 12 hours ago
bin	Simplify Windows BAT files	2 years ago
scripts	Minor improvement to ValidatePEARPackageXML script	2 months ago
src	Fixed bug #2391 : Sniff-specific ignore rules inside rulesets are fil...	12 hours ago
tests	Fixed bug #2391 : Sniff-specific ignore rules inside rulesets are fil...	12 hours ago
.gitattributes	Re-adding tests to git exports (ref #548)	2 years ago
.gitignore	gitignore: composer.lock that is already missing added	3 years ago
.travis.yml	Try and get snapshots running again	a month ago
CONTRIBUTING.md	Fixed old phpcs command + output info	2 years ago
CodeSniffer.conf.dist	Fix typo in config.	6 years ago
README.md	Typos in README.md	4 months ago


```
"scripts": {
  "lint": "parallel-lint src tests",
  "phpcs": "phpcs src tests --standard=psr12 -sp --colors",
  "phpstan": [
    "phpstan analyse src -c phpstan.neon --level max --no-progress",
    "phpstan analyse tests -c phpstan.neon --level 4 --no-progress"
  ],
  "phpunit": "phpunit --verbose --colors=always",
  "phpunit-ci": "phpunit --coverage-clover build/logs/clover.xml",
  "phpunit-coverage": "phpunit --coverage-html build/coverage",
  "test": ["@lint", "@phpcs", "@phpstan", "@phpunit"],
  "test-ci": ["@lint", "@phpcs", "@phpstan", "@phpunit-ci"]
}
```

```
ramsey at Tinúviel in ~/Code/phptek-package (php-7.3.4) (ruby-2.5.1)
$ composer run-script test
█
```

Keep a Changelog

https://keepachangelog.com/en/1.0.0/

1.0.0 English



# keep a changelog

Don't let your friends dump git logs into changelogs.

Version 1.0.0

```
# Changelog
All notable changes to this project will be documented in this file.

The format is based on [Keep a Changelog](https://keepachangelog.com/en/1.0.0/)
and this project adheres to [Semantic Versioning](https://semver.org/spec/v2.0.0).

## [Unreleased]

## [1.0.0] - 2017-06-20
### Added
- New visual identity by [@tylerfortune8](https://github.com/tylerfortune8).
- Version navigation.
- Links to latest released version in previous versions.
- "Why keep a changelog?" section.
- "Who needs a changelog?" section.
```

## What is a changelog?

A changelog is a file which contains a curated, chronologically ordered

العربية (ar) català (ca) český (cs) deutsch (de) english (en) español (es) فارسی (fa)  
français (fr) עברית (he) हिन्दी (hin) hrvatski (hr) magyar (hu) indonesia (id)  
italiano (it) 日本語 (ja) ქართული (ka) 한국어 (ko) polski (pl)  
português brasileiro (pt-BR) русский (ru) slovensky (sk) slovenščina (sl) svenska (sv)  
Türkçe (tr) 简体中文 (zh-CN) 繁體中文 (zh-TW)

2.0.0 2.0.0-rc.2 2.0.0-rc.1 1.0.0 1.0.0-beta

# Semantic Versioning 2.0.0

## Summary

Given a version number MAJOR.MINOR.PATCH, increment the:

1. MAJOR version when you make incompatible API changes,
2. MINOR version when you add functionality in a backwards-compatible manner, and
3. PATCH version when you make backwards-compatible bug fixes.

Additional labels for pre-release and build metadata are available as extensions to the MAJOR.MINOR.PATCH format.

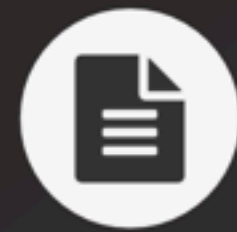
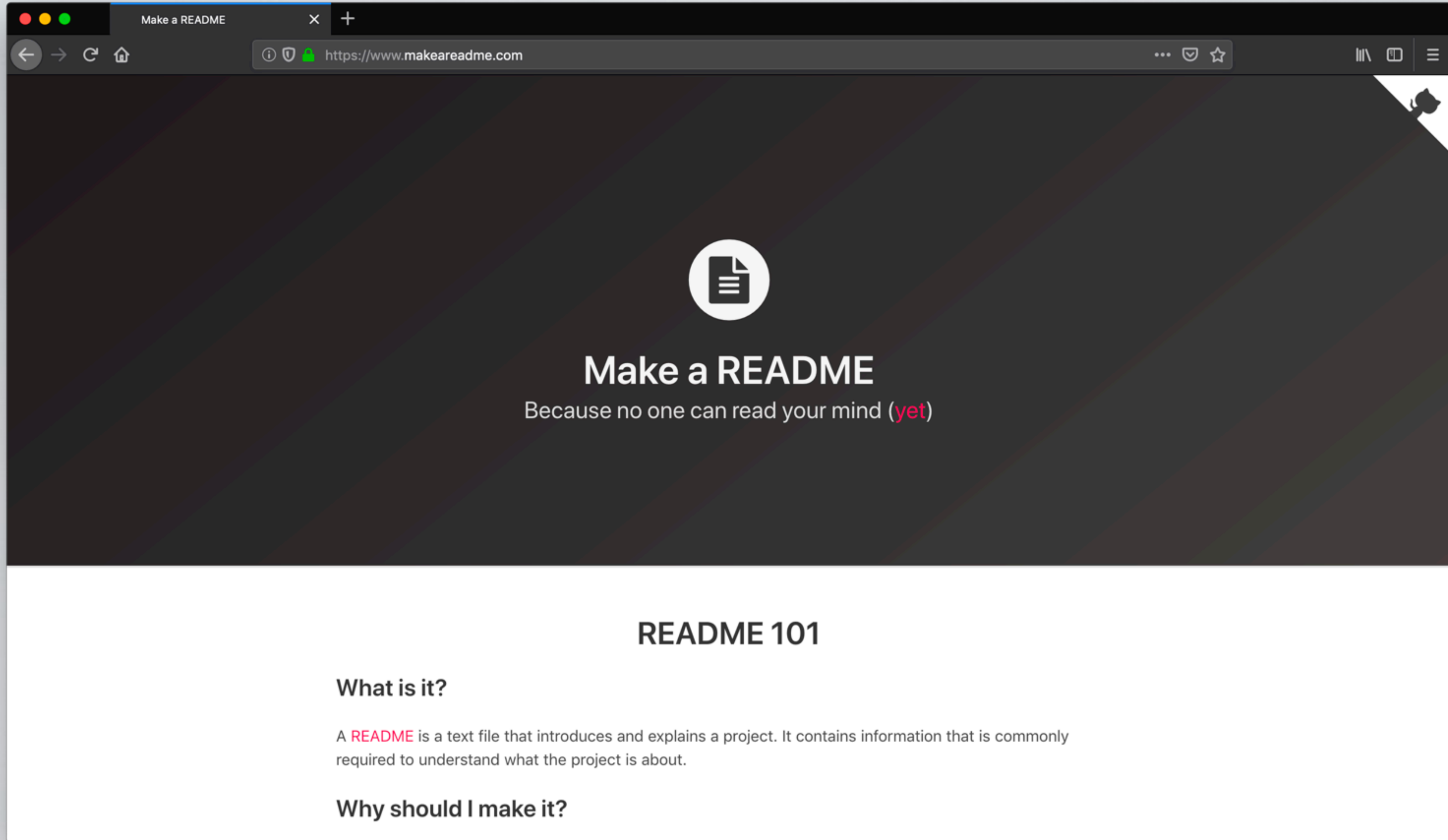
## Introduction

In the world of software management there exists a dreaded place called "dependency hell." The bigger your system grows and the more packages you integrate into your software, the more likely you are to find yourself, one day, in this pit of despair.

In systems with many dependencies, releasing new package versions can quickly become a nightmare. If the dependency specifications are too tight, you are in danger of version lock (the inability to upgrade a package without having to release new versions of every dependent package). If dependencies are specified too loosely,

# Building your community





# Make a README

Because no one can read your mind (yet)

## README 101

### What is it?

A **README** is a text file that introduces and explains a project. It contains information that is commonly required to understand what the project is about.

### Why should I make it?

Wrangling Web Contributions: How to Build a CONTRIBUTING.md

*In this activity you will learn how to create and maintain a CONTRIBUTING.md for an open source project.*

**30 minutes**  
**For beginners**

Format	Target Audience	Materials
This exercise works well as an in-person workshop or an online exercise. It can be done individually or in a group.	Open science project and community leads and Mozilla Study Group leads seeking to attract and grow communities of contributors around their projects	<ul style="list-style-type: none"><li>• Pen/pencil &amp; paper</li><li>• Collaborative document editor like <a href="#">Etherpad</a> or Google Docs</li><li>• A markdown viewer (such as <a href="#">Mou</a>) to test your file before posting online</li></ul>

### Introduction

A CONTRIBUTING.md file, in your open source repository or site, provides potential project contributors with a short guide to how they can help with your project or study group. It is convention to capitalize the word "contributing" as the file title, and to save it as a resource in markdown (hence the extension .md).

This file is for:

**Introduction**

Steps to Complete

Glossary

Resources

# Your Code of Conduct

Facilitate healthy and constructive community behavior by adopting and enforcing a code of conduct.

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Help make Open Source a better place and start building better software today!

# ramsey / uuid-console build passing

[Current](#) [Branches](#) [Build History](#) [Pull Requests](#) [More options](#)

✓ **master** Add PHP 7.3 to the build matrix ↻ #28 passed

- ↻ Commit 80594b4
- ↻ Compare 92e36e2..80594b4
- ↻ Branch master
- Ben Ramsey

🕒 Ran for 4 min 58 sec  
🕒 Total time 1 hr 27 min 36 sec  
📅 3 months ago

[Build jobs](#) [View config](#)

✓ # 28.1	🐙 </> PHP: 5.4	📦 no environment variables set	🕒 2 min 47 sec
✓ # 28.2	🐙 </> PHP: 5.5	📦 no environment variables set	🕒 2 min 6 sec
✓ # 28.3	🐙 </> PHP: 5.6	📦 no environment variables set	🕒 2 min 41 sec
✓ # 28.4	🐙 </> PHP: 7	📦 no environment variables set	🕒 2 min 22 sec
✓ # 28.5	🐙 </> PHP: 7.1	📦 no environment variables set	🕒 1 min 44 sec
✓ # 28.6	🐙 </> PHP: 7.2	📦 no environment variables set	🕒 3 min 8 sec

# COVERALLS



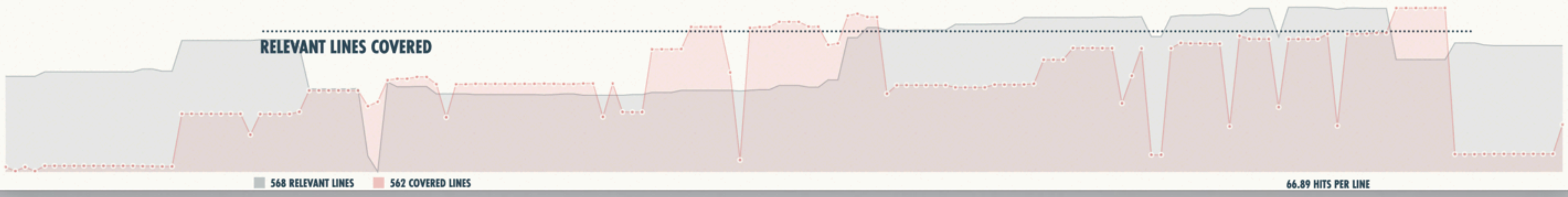
DEFAULT BRANCH: MASTER

REPO ADDED 28 FEB 2014 02:24PM UTC	TOTAL FILES 47	# BUILDS 499	BADGE coverage 99%
---------------------------------------	-------------------	-----------------	-----------------------

## LAST BUILD ON BRANCH MASTER

COMMITTED 7 JAN 2019 - 2:08 COVERAGE REMAINED THE SAME AT 98.944%

BUILD #	BUILD TYPE	COMMITTED BY	COMMIT MESSAGE	RUN DETAILS
655	push travis-ci	web-flow	Add CodeTriage statement	562 of 568 relevant lines covered (98.94%) 66.89 hits per line



Browser window showing the Packagist website (https://packagist.org). The page title is "Packagist The PHP Package Repository". The navigation menu includes "Browse", "Submit", "Create account", and "Sign in".

**Search packages...**

Packagist is the main [Composer](#) repository. It aggregates public PHP packages installable with Composer.

## Getting Started

### Define Your Dependencies

Put a file named `composer.json` at the root of your project, containing your project dependencies:

```
{
  "require": {
    "vendor/package": "1.3.2",
    "vendor/package2": "1.*",
    "vendor/package3": "^2.0.3"
  }
}
```

For more information about packages versions usage, see the [composer documentation](#).

### Install Composer In Your Project

Run this in your command line:

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

Or [download composer.phar](#) into your project root.

See the Composer documentation for complete [installation instructions](#) on various platforms.

### Install Dependencies

Execute this in your project root.

```
php composer.phar install
```

## Publishing Packages

### Define Your Package

Put a file named `composer.json` at the root of your package's repository, containing this information:

```
{
  "name": "your-vendor-name/package-name",
  "description": "A short description of what your package does",
  "require": {
    "php": "^7.2",
    "another-vendor/package": "1.*"
  }
}
```

This is the strictly minimal information you have to give.

For more details about package naming and the fields you can use to document your package better, see the [about](#) page.

### Commit The File

Add the `composer.json` to your git or other VCS repository and commit it.

### Publish It

[Login](#) or [register](#) on this site, then hit the [submit](#) button in the menu.

Once you entered your public repository URL in there, your package will be automatically crawled periodically. You just have to make sure you keep the `composer.json` file up to date.

### Sharing Private Code



**Enjoy the OSS  
community**

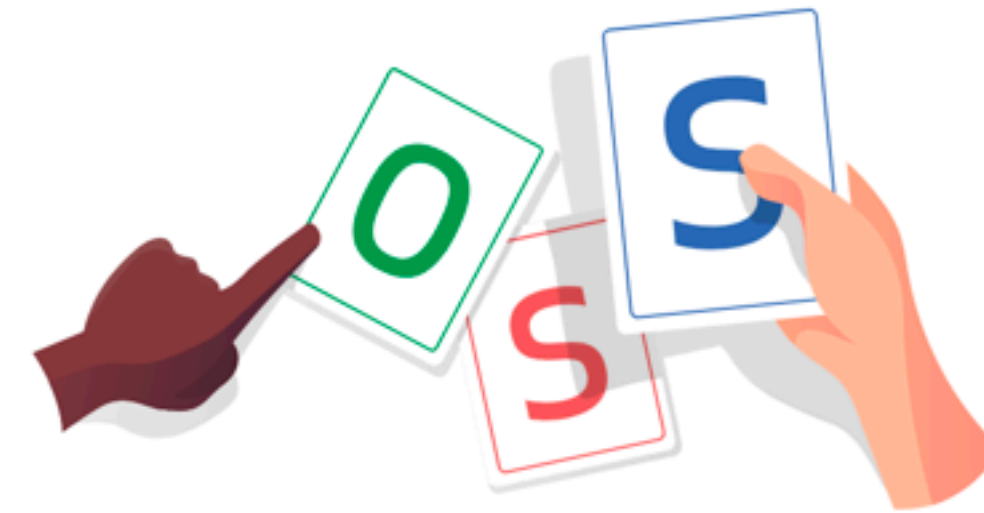
# Open Source Guides

Open source software is made by people just like you. Learn how to launch and grow your project.



## How to Contribute to Open Source

Want to contribute to open source? A guide to making open source contributions, for first-timers and for veterans.



## Starting an Open Source Project

Learn more about the world of open source and get ready to launch your own project.

# LINKS TO RESOURCES

1. Composer: <https://getcomposer.org/>
2. Packagist: <https://packagist.org/>
3. Open Source Licenses: <https://opensource.org/licenses>
4. ramsey/php-library-skeleton: <https://github.com/ramsey/php-library-skeleton>
5. PHP Framework Interoperability Group: <http://www.php-fig.org/>
6. PHP Package Development Standards: <http://php-pds.com/>
7. Semantic Versioning: <http://semver.org/>
8. PHP CodeSniffer: [https://github.com/squizlabs/PHP\\_CodeSniffer](https://github.com/squizlabs/PHP_CodeSniffer)
9. PHPUnit: <https://phpunit.de/>
10. phpstan: <https://github.com/phpstan/phpstan>
11. Travis CI: <https://travis-ci.org/>
12. CHANGELOG.md: <http://keepachangelog.com>
13. Code of Conduct
  - ▶ Contributor Covenant: <http://contributor-covenant.org/>
  - ▶ Citizen Code of Conduct: <http://citizencodeofconduct.org/>
14. CONTRIBUTING.md: <http://mozillascience.github.io/working-open-workshop/contributing/>
15. Open Source Guides: <https://opensource.guide/>
16. A Beginner's Guide to Creating a Readme: <https://changelog.com/posts/a-beginners-guide-to-creating-a-readme>
17. Use .gitattributes: <https://blog.madewithlove.be/post/gitattributes/>

# THANK YOU. ANY QUESTIONS?

If you want to talk more, feel free to contact me.

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This presentation was created using Keynote. The text is set in [Chunk Five](#) and Helvetica Neue. The source code is set in [Source Code Pro](#). The iconography is provided by [Font Awesome](#).

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