How to contribute to Symfony

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How to contribute to Symfony (2.5)

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If you find typos or errors, feel free to report them by creating a ticket on the Symfony ticketing system (*http://github.com/symfony/symfony-docs/issues*). Based on tickets and users feedback, this book is continuously updated.

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Chapter 1

Reporting a Bug

Whenever you find a bug in Symfony, we kindly ask you to report it. It helps us make a better Symfony.

If you think you've found a security issue, please use the special *procedure* instead.

Before submitting a bug:

- Double-check the official *documentation* to see if you're not misusing the framework;
- Ask for assistance on the *users mailing-list*[1], the *forum*[2], or on the #symfony *IRC channel*[3] if you're not sure if your issue is really a bug.

If your problem definitely looks like a bug, report it using the official bug *tracker*[4] and follow some basic rules:

- Use the title field to clearly describe the issue;
- Describe the steps needed to reproduce the bug with short code examples (providing a unit test that illustrates the bug is best);
- If the bug you experienced affects more than one layer, providing a simple failing unit test may not be sufficient. In this case, please fork the *Symfony Standard Edition*[5] and reproduce your issue on a new branch;
- Give as much detail as possible about your environment (OS, PHP version, Symfony version, enabled extensions, ...);
- *(optional)* Attach a *patch*.

1. `http://groups.google.com/group/symfony2`
2. `http://forum.symfony-project.org/`
3. `#contributing-code-irc:--irc.freenode.net-symfony`
4. `https://github.com/symfony/symfony/issues`
5. `https://github.com/symfony/symfony-standard/`

Chapter 2
Submitting a Patch

Patches are the best way to provide a bug fix or to propose enhancements to Symfony.

Step 1: Setup your Environment

Install the Software Stack

Before working on Symfony, setup a friendly environment with the following software:

- Git;
- PHP version 5.3.3 or above;
- *PHPUnit*[1] 4.2 or above.

Configure Git

Set up your user information with your real name and a working email address:

Listing 2-1
```
$ git config --global user.name "Your Name"
$ git config --global user.email you@example.com
```

If you are new to Git, you are highly recommended to read the excellent and free *ProGit*[2] book.

If your IDE creates configuration files inside the project's directory, you can use global `.gitignore` file (for all projects) or `.git/info/exclude` file (per project) to ignore them. See *GitHub's documentation*[3].

1. https://phpunit.de/manual/current/en/installation.html
2. http://git-scm.com/book
3. https://help.github.com/articles/ignoring-files

Windows users: when installing Git, the installer will ask what to do with line endings, and suggests replacing all LF with CRLF. This is the wrong setting if you wish to contribute to Symfony! Selecting the as-is method is your best choice, as Git will convert your line feeds to the ones in the repository. If you have already installed Git, you can check the value of this setting by typing:

Listing 2-2

```
1 $ git config core.autocrlf
```

This will return either "false", "input" or "true"; "true" and "false" being the wrong values. Change it to "input" by typing:

Listing 2-3

```
1 $ git config --global core.autocrlf input
```

Replace --global by --local if you want to set it only for the active repository

Get the Symfony Source Code

Get the Symfony source code:

- Create a *GitHub*[4] account and sign in;
- Fork the *Symfony repository*[5] (click on the "Fork" button);
- After the "forking action" has completed, clone your fork locally (this will create a `symfony` directory):

Listing 2-4

```
1 $ git clone git@github.com:USERNAME/symfony.git
```

- Add the upstream repository as a remote:

Listing 2-5

```
1 $ cd symfony
2 $ git remote add upstream git://github.com/symfony/symfony.git
```

Check that the current Tests Pass

Now that Symfony is installed, check that all unit tests pass for your environment as explained in the dedicated *document*.

Step 2: Work on your Patch

The License

Before you start, you must know that all the patches you are going to submit must be released under the *MIT license*, unless explicitly specified in your commits.

Choose the right Branch

Before working on a patch, you must determine on which branch you need to work:

4. `https://github.com/signup/free`
5. `https://github.com/symfony/symfony`

- `2.3`, if you are fixing a bug for an existing feature (you may have to choose a higher branch if the feature you are fixing was introduced in a later version);
- `2.7`, if you are adding a new feature which is backward compatible;
- `master`, if you are adding a new and backward incompatible feature.

All bug fixes merged into maintenance branches are also merged into more recent branches on a regular basis. For instance, if you submit a patch for the `2.3` branch, the patch will also be applied by the core team on the `master` branch.

Create a Topic Branch

Each time you want to work on a patch for a bug or on an enhancement, create a topic branch:

Listing 2-6
```
1 $ git checkout -b BRANCH_NAME master
```

Or, if you want to provide a bugfix for the `2.3` branch, first track the remote `2.3` branch locally:

Listing 2-7
```
1 $ git checkout -t origin/2.3
```

Then create a new branch off the `2.3` branch to work on the bugfix:

Listing 2-8
```
1 $ git checkout -b BRANCH_NAME 2.3
```

Use a descriptive name for your branch (`ticket_XXX` where `XXX` is the ticket number is a good convention for bug fixes).

The above checkout commands automatically switch the code to the newly created branch (check the branch you are working on with `git branch`).

Work on your Patch

Work on the code as much as you want and commit as much as you want; but keep in mind the following:

- Read about the Symfony *conventions* and follow the coding *standards* (use `git diff --check` to check for trailing spaces -- also read the tip below);
- Add unit tests to prove that the bug is fixed or that the new feature actually works;
- Try hard to not break backward compatibility (if you must do so, try to provide a compatibility layer to support the old way) -- patches that break backward compatibility have less chance to be merged;
- Do atomic and logically separate commits (use the power of `git rebase` to have a clean and logical history);
- Squash irrelevant commits that are just about fixing coding standards or fixing typos in your own code;
- Never fix coding standards in some existing code as it makes the code review more difficult;
- Write good commit messages (see the tip below).

When submitting pull requests, *fabbot*[6] checks your code for common typos and verifies that you are using the PHP coding standards as defined in *PSR-1*[7] and *PSR-2*[8].

A status is posted below the pull request description with a summary of any problems it detects or any Travis CI build failures.

A good commit message is composed of a summary (the first line), optionally followed by a blank line and a more detailed description. The summary should start with the Component you are working on in square brackets (`[DependencyInjection]`, `[FrameworkBundle]`, ...). Use a verb (`fixed ...`, `added ...`, ...) to start the summary and don't add a period at the end.

Prepare your Patch for Submission

When your patch is not about a bug fix (when you add a new feature or change an existing one for instance), it must also include the following:

- An explanation of the changes in the relevant `CHANGELOG` file(s) (the `[BC BREAK]` or the `[DEPRECATION]` prefix must be used when relevant);
- An explanation on how to upgrade an existing application in the relevant `UPGRADE` file(s) if the changes break backward compatibility or if you deprecate something that will ultimately break backward compatibility.

Step 3: Submit your Patch

Whenever you feel that your patch is ready for submission, follow the following steps.

Rebase your Patch

Before submitting your patch, update your branch (needed if it takes you a while to finish your changes):

Listing 2-9
```
$ git checkout master
$ git fetch upstream
$ git merge upstream/master
$ git checkout BRANCH_NAME
$ git rebase master
```

Replace `master` with the branch you selected previously (e.g. `2.3`) if you are working on a bugfix

When doing the `rebase` command, you might have to fix merge conflicts. `git status` will show you the *unmerged* files. Resolve all the conflicts, then continue the rebase:

Listing 2-10
```
$ git add ... # add resolved files
$ git rebase --continue
```

Check that all tests still pass and push your branch remotely:

6. `http://fabbot.io`
7. `http://www.php-fig.org/psr/psr-1/`
8. `http://www.php-fig.org/psr/psr-2/`

Listing 2-11

```
1 $ git push --force origin BRANCH_NAME
```

Make a Pull Request

You can now make a pull request on the `symfony/symfony` GitHub repository.

Take care to point your pull request towards `symfony:2.3` if you want the core team to pull a bugfix based on the `2.3` branch.

To ease the core team work, always include the modified components in your pull request message, like in:

Listing 2-12

```
1 [Yaml] fixed something
2 [Form] [Validator] [FrameworkBundle] added something
```

The pull request description must include the following checklist at the top to ensure that contributions may be reviewed without needless feedback loops and that your contributions can be included into Symfony as quickly as possible:

Listing 2-13

```
1  | Q             | A
2  | ------------- | ---
3  | Bug fix?      | [yes|no]
4  | New feature?  | [yes|no]
5  | BC breaks?    | [yes|no]
6  | Deprecations? | [yes|no]
7  | Tests pass?   | [yes|no]
8  | Fixed tickets | [comma separated list of tickets fixed by the PR]
9  | License       | MIT
10 | Doc PR        | [The reference to the documentation PR if any]
```

An example submission could now look as follows:

Listing 2-14

```
1  | Q             | A
2  | ------------- | ---
3  | Bug fix?      | no
4  | New feature?  | no
5  | BC breaks?    | no
6  | Deprecations? | no
7  | Tests pass?   | yes
8  | Fixed tickets | #12, #43
9  | License       | MIT
10 | Doc PR        | symfony/symfony-docs#123
```

The whole table must be included (do **not** remove lines that you think are not relevant). For simple typos, minor changes in the PHPDocs, or changes in translation files, use the shorter version of the check-list:

Listing 2-15

```
1 | Q             | A
2 | ------------- | ---
3 | Fixed tickets | [comma separated list of tickets fixed by the PR]
4 | License       | MIT
```

Some answers to the questions trigger some more requirements:

- If you answer yes to "Bug fix?", check if the bug is already listed in the Symfony issues and reference it/them in "Fixed tickets";
- If you answer yes to "New feature?", you must submit a pull request to the documentation and reference it under the "Doc PR" section;
- If you answer yes to "BC breaks?", the patch must contain updates to the relevant `CHANGELOG` and `UPGRADE` files;
- If you answer yes to "Deprecations?", the patch must contain updates to the relevant `CHANGELOG` and `UPGRADE` files;
- If you answer no to "Tests pass", you must add an item to a todo-list with the actions that must be done to fix the tests;
- If the "license" is not MIT, just don't submit the pull request as it won't be accepted anyway.

If some of the previous requirements are not met, create a todo-list and add relevant items:

Listing 2-16

```
1 - [ ] fix the tests as they have not been updated yet
2 - [ ] submit changes to the documentation
3 - [ ] document the BC breaks
```

If the code is not finished yet because you don't have time to finish it or because you want early feedback on your work, add an item to todo-list:

Listing 2-17

```
1 - [ ] finish the code
2 - [ ] gather feedback for my changes
```

As long as you have items in the todo-list, please prefix the pull request title with "[WIP]".

In the pull request description, give as much details as possible about your changes (don't hesitate to give code examples to illustrate your points). If your pull request is about adding a new feature or modifying an existing one, explain the rationale for the changes. The pull request description helps the code review and it serves as a reference when the code is merged (the pull request description and all its associated comments are part of the merge commit message).

In addition to this "code" pull request, you must also send a pull request to the *documentation repository*[9] to update the documentation when appropriate.

Rework your Patch

Based on the feedback on the pull request, you might need to rework your patch. Before re-submitting the patch, rebase with `upstream/master` or `upstream/2.3`, don't merge; and force the push to the origin:

Listing 2-18

```
1 $ git rebase -f upstream/master
2 $ git push --force origin BRANCH_NAME
```

When doing a `push --force`, always specify the branch name explicitly to avoid messing other branches in the repo (`--force` tells Git that you really want to mess with things so do it carefully).

Often, moderators will ask you to "squash" your commits. This means you will convert many commits to one commit. To do this, use the rebase command:

Listing 2-19

```
1 $ git rebase -i upstream/master
2 $ git push --force origin BRANCH_NAME
```

9. https://github.com/symfony/symfony-docs

After you type this command, an editor will popup showing a list of commits:

Listing 2-20
```
pick 1a31be6 first commit
pick 7fc64b4 second commit
pick 7d33018 third commit
```

To squash all commits into the first one, remove the word `pick` before the second and the last commits, and replace it by the word `squash` or just `s`. When you save, Git will start rebasing, and if successful, will ask you to edit the commit message, which by default is a listing of the commit messages of all the commits. When you are finished, execute the push command.

Chapter 3

Symfony Core Team

This document states the rules that govern the Symfony Core group. These rules are effective upon publication of this document and all Symfony Core members must adhere to said rules and protocol.

Core Organization

Symfony Core members are divided into three groups. Each member can only belong to one group at a time. The privileges granted to a group are automatically granted to all higher priority groups.

The Symfony Core groups, in descending order of priority, are as follows:

1. **Project Leader**

- Elects members in any other group;
- Merges pull requests in all Symfony repositories.

2. **Mergers**

- Merge pull requests for the component or components on which they have been granted privileges.

3. **Deciders**

- Decide to merge or reject a pull request.

Active Core Members

- **Project Leader**:
  - **Fabien Potencier** (fabpot).
- **Mergers** (`@symfony/mergers` on GitHub):

- **Bernhard Schussek** (webmozart) can merge into the *Form*[1], *Validator*[2], *Icu*[3], *Intl*[4], *Locale*[5], *OptionsResolver*[6] and *PropertyAccess*[7] components;
- **Tobias Schultze** (Tobion) can merge into the *Routing*[8] component;
- **Romain Neutron** (romainneutron) can merge into the *Process*[9] component;
- **Nicolas Grekas** (nicolas-grekas) can merge into the *Debug*[10] component;
- **Christophe Coevoet** (stof) can merge into the *BrowserKit*[11], *Config*[12], *Console*[13], *DependencyInjection*[14], *DomCrawler*[15], *EventDispatcher*[16], *HttpFoundation*[17], *HttpKernel*[18], *Serializer*[19], *Stopwatch*[20], *DoctrineBridge*[21], *MonologBridge*[22], and *TwigBridge*[23] components;
- **Kévin Dunglas** (dunglas) can merge into the *Serializer*[24] component.

- **Deciders** (`@symfony/deciders` on GitHub):

  - **Jakub Zalas** (jakzal);
  - **Jordi Boggiano** (seldaek);
  - **Lukas Kahwe Smith** (lsmith77);
  - **Ryan Weaver** (weaverryan).

Core Membership Application

At present, new Symfony Core membership applications are not accepted.

Core Membership Revocation

A Symfony Core membership can be revoked for any of the following reasons:

- Refusal to follow the rules and policies stated in this document;
- Lack of activity for the past six months;
- Willful negligence or intent to harm the Symfony project;
- Upon decision of the **Project Leader**.

Should new Symfony Core memberships be accepted in the future, revoked members must wait at least 12 months before re-applying.

---

1. https://github.com/symfony/Form
2. https://github.com/symfony/Validator
3. https://github.com/symfony/Icu
4. https://github.com/symfony/Intl
5. https://github.com/symfony/Locale
6. https://github.com/symfony/OptionsResolver
7. https://github.com/symfony/PropertyAccess
8. https://github.com/symfony/Routing
9. https://github.com/symfony/Process
10. https://github.com/symfony/Debug
11. https://github.com/symfony/BrowserKit
12. https://github.com/symfony/Config
13. https://github.com/symfony/Console
14. https://github.com/symfony/DependencyInjection
15. https://github.com/symfony/DomCrawler
16. https://github.com/symfony/EventDispatcher
17. https://github.com/symfony/HttpFoundation
18. https://github.com/symfony/HttpKernel
19. https://github.com/symfony/Serializer
20. https://github.com/symfony/Stopwatch
21. https://github.com/symfony/DoctrineBridge
22. https://github.com/symfony/MonologBridge
23. https://github.com/symfony/TwigBridge
24. https://github.com/symfony/Serializer

Code Development Rules

Symfony project development is based on pull requests proposed by any member of the Symfony community. Pull request acceptance or rejection is decided based on the votes cast by the Symfony Core members.

Pull Request Voting Policy

- `-1` votes must always be justified by technical and objective reasons;
- `+1` votes do not require justification, unless there is at least one `-1` vote;
- Core members can change their votes as many times as they desire during the course of a pull request discussion;
- Core members are not allowed to vote on their own pull requests.

Pull Request Merging Policy

A pull request **can be merged** if:

- Enough time was given for peer reviews (a few minutes for typos or minor changes, at least 2 days for "regular" pull requests, and 4 days for pull requests with "a significant impact");
- It is a minor change [1], regardless of the number of votes;
- At least the component's **Merger** or two other Core members voted `+1` and no Core member voted `-1`.

Pull Request Merging Process

All code must be committed to the repository through pull requests, except for minor changes [1] which can be committed directly to the repository.

Mergers must always use the command-line `gh` tool provided by the **Project Leader** to merge the pull requests.

Release Policy

The **Project Leader** is also the release manager for every Symfony version.

Symfony Core Rules and Protocol Amendments

The rules described in this document may be amended at anytime at the discretion of the **Project Leader**.
25

25.

[1] *(1, 2)* Minor changes comprise typos, DocBlock fixes, code standards violations, and minor CSS, JavaScript and HTML modifications.

Chapter 4

Security Issues

This document explains how Symfony security issues are handled by the Symfony core team (Symfony being the code hosted on the main `symfony/symfony` Git repository).

Reporting a Security Issue

If you think that you have found a security issue in Symfony, don't use the mailing-list or the bug tracker and don't publish it publicly. Instead, all security issues must be sent to **security [at] symfony.com**. Emails sent to this address are forwarded to the Symfony core-team private mailing-list.

Resolving Process

For each report, we first try to confirm the vulnerability. When it is confirmed, the core-team works on a solution following these steps:

1. Send an acknowledgement to the reporter;
2. Work on a patch;
3. Get a CVE identifier from mitre.org;
4. Write a security announcement for the official Symfony *blog*[1] about the vulnerability. This post should contain the following information:

    - a title that always include the "Security release" string;
    - a description of the vulnerability;
    - the affected versions;
    - the possible exploits;
    - how to patch/upgrade/workaround affected applications;
    - the CVE identifier;
    - credits.

5. Send the patch and the announcement to the reporter for review;
6. Apply the patch to all maintained versions of Symfony;
7. Package new versions for all affected versions;

1. `http://symfony.com/blog/`

8. Publish the post on the official Symfony *blog*[2] (it must also be added to the "*Security Advisories*[3]" category);
9. Update the security advisory list (see below).
10. Update the public *security advisories database*[4] maintained by the FriendsOfPHP organization and which is used by the `security:check` command.

Releases that include security issues should not be done on Saturday or Sunday, except if the vulnerability has been publicly posted.

While we are working on a patch, please do not reveal the issue publicly.

The resolution takes anywhere between a couple of days to a month depending on its complexity and the coordination with the downstream projects (see next paragraph).

Collaborating with Downstream Open-Source Projects

As Symfony is used by many large Open-Source projects, we standardized the way the Symfony security team collaborates on security issues with downstream projects. The process works as follows:

1. After the Symfony security team has acknowledged a security issue, it immediately sends an email to the downstream project security teams to inform them of the issue;
2. The Symfony security team creates a private Git repository to ease the collaboration on the issue and access to this repository is given to the Symfony security team, to the Symfony contributors that are impacted by the issue, and to one representative of each downstream projects;
3. All people with access to the private repository work on a solution to solve the issue via pull requests, code reviews, and comments;
4. Once the fix is found, all involved projects collaborate to find the best date for a joint release (there is no guarantee that all releases will be at the same time but we will try hard to make them at about the same time). When the issue is not known to be exploited in the wild, a period of two weeks seems like a reasonable amount of time.

The list of downstream projects participating in this process is kept as small as possible in order to better manage the flow of confidential information prior to disclosure. As such, projects are included at the sole discretion of the Symfony security team.

As of today, the following projects have validated this process and are part of the downstream projects included in this process:

- Drupal (releases typically happen on Wednesdays)
- eZPublish

Security Advisories

2. http://symfony.com/blog/
3. http://symfony.com/blog/category/security-advisories
4. https://github.com/FriendsOfPHP/security-advisories

You can check your Symfony application for known security vulnerabilities using the `security:check` command. See *Checking for Known Security Vulnerabilities in Dependencies*.

This section indexes security vulnerabilities that were fixed in Symfony releases, starting from Symfony 1.0.0:

- July 15, 2014: *Security releases: Symfony 2.3.18, 2.4.8, and 2.5.2 released*[5] (*CVE-2014-4931*[6])
- October 10, 2013: *Security releases: Symfony 2.0.25, 2.1.13, 2.2.9, and 2.3.6 released*[7] (*CVE-2013-5958*[8])
- August 7, 2013: *Security releases: Symfony 2.0.24, 2.1.12, 2.2.5, and 2.3.3 released*[9] (*CVE-2013-4751*[10] and *CVE-2013-4752*[11])
- January 17, 2013: *Security release: Symfony 2.0.22 and 2.1.7 released*[12] (*CVE-2013-1348*[13] and *CVE-2013-1397*[14])
- December 20, 2012: *Security release: Symfony 2.0.20 and 2.1.5*[15] (*CVE-2012-6431*[16] and *CVE-2012-6432*[17])
- November 29, 2012: *Security release: Symfony 2.0.19 and 2.1.4*[18]
- November 25, 2012: *Security release: symfony 1.4.20 released*[19] (*CVE-2012-5574*[20])
- August 28, 2012: *Security Release: Symfony 2.0.17 released*[21]
- May 30, 2012: *Security Release: symfony 1.4.18 released*[22] (*CVE-2012-2667*[23])
- February 24, 2012: *Security Release: Symfony 2.0.11 released*[24]
- November 16, 2011: *Security Release: Symfony 2.0.6*[25]
- March 21, 2011: *symfony 1.3.10 and 1.4.10: security releases*[26]
- June 29, 2010: *Security Release: symfony 1.3.6 and 1.4.6*[27]
- May 31, 2010: *symfony 1.3.5 and 1.4.5*[28]
- February 25, 2010: *Security Release: 1.2.12, 1.3.3 and 1.4.3*[29]
- February 13, 2010: *symfony 1.3.2 and 1.4.2*[30]
- April 27, 2009: *symfony 1.2.6: Security fix*[31]
- October 03, 2008: *symfony 1.1.4 released: Security fix*[32]

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5. http://symfony.com/blog/security-releases-cve-2014-4931-symfony-2-3-18-2-4-8-and-2-5-2-released
6. http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2014-4931
7. http://symfony.com/blog/security-releases-cve-2013-5958-symfony-2-0-25-2-1-13-2-2-9-and-2-3-6-released
8. http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2013-5958
9. http://symfony.com/blog/security-releases-symfony-2-0-24-2-1-12-2-2-5-and-2-3-3-released
10. http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2013-4751
11. http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2013-4752
12. http://symfony.com/blog/security-release-symfony-2-0-22-and-2-1-7-released
13. http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2013-1348
14. http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2013-1397
15. http://symfony.com/blog/security-release-symfony-2-0-20-and-2-1-5-released
16. http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2012-6431
17. http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2012-6432
18. http://symfony.com/blog/security-release-symfony-2-0-19-and-2-1-4
19. http://symfony.com/blog/security-release-symfony-1-4-20-released
20. http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2012-5574
21. http://symfony.com/blog/security-release-symfony-2-0-17-released
22. http://symfony.com/blog/security-release-symfony-1-4-18-released
23. http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2012-2667
24. http://symfony.com/blog/security-release-symfony-2-0-11-released
25. http://symfony.com/blog/security-release-symfony-2-0-6
26. http://symfony.com/blog/symfony-1-3-10-and-1-4-10-security-releases
27. http://symfony.com/blog/security-release-symfony-1-3-6-and-1-4-6
28. http://symfony.com/blog/symfony-1-3-5-and-1-4-5
29. http://symfony.com/blog/security-release-1-2-12-1-3-3-and-1-4-3
30. http://symfony.com/blog/symfony-1-3-2-and-1-4-2
31. http://symfony.com/blog/symfony-1-2-6-security-fix
32. http://symfony.com/blog/symfony-1-1-4-released-security-fix

- May 14, 2008: *symfony 1.0.16 is out*[33]
- April 01, 2008: *symfony 1.0.13 is out*[34]
- March 21, 2008: *symfony 1.0.12 is (finally) out !*[35]
- June 25, 2007: *symfony 1.0.5 released (security fix)*[36]

33. http://symfony.com/blog/symfony-1-0-16-is-out
34. http://symfony.com/blog/symfony-1-0-13-is-out
35. http://symfony.com/blog/symfony-1-0-12-is-finally-out
36. http://symfony.com/blog/symfony-1-0-5-released-security-fix

Chapter 5
Running Symfony Tests

Before submitting a *patch* for inclusion, you need to run the Symfony test suite to check that you have not broken anything.

PHPUnit

To run the Symfony test suite, *install PHPUnit*[1] 4.2 (or later) first.

Dependencies (optional)

To run the entire test suite, including tests that depend on external dependencies, Symfony needs to be able to autoload them. By default, they are autoloaded from `vendor/` under the main root directory (see `autoload.php.dist`).

The test suite needs the following third-party libraries:

- Doctrine
- Swift Mailer
- Twig
- Monolog

To install them all, use *Composer*[2]:

Step 1: *Install Composer globally*

Step 2: Install vendors.

Listing 5-1
```
1  $ composer install
```

1. `https://phpunit.de/manual/current/en/installation.html`
2. `http://getcomposer.org/`

Note that the script takes some time to finish.

After installation, you can update the vendors to their latest version with the follow command:

Listing 5-2
```
1 $ composer --dev update
```

Running

First, update the vendors (see above).

Then, run the test suite from the Symfony root directory with the following command:

Listing 5-3
```
1 $ phpunit
```

The output should display `OK`. If not, you need to figure out what's going on and if the tests are broken because of your modifications.

If you want to test a single component type its path after the `phpunit` command, e.g.:

Listing 5-4
```
1 $ phpunit src/Symfony/Component/Finder/
```

Run the test suite before applying your modifications to check that they run fine on your configuration.

Code Coverage

If you add a new feature, you also need to check the code coverage by using the `coverage-html` option:

Listing 5-5
```
1 $ phpunit --coverage-html=cov/
```

Check the code coverage by opening the generated `cov/index.html` page in a browser.

The code coverage only works if you have Xdebug enabled and all dependencies installed.

Chapter 6

Our backwards Compatibility Promise

Ensuring smooth upgrades of your projects is our first priority. That's why we promise you backwards compatibility (BC) for all minor Symfony releases. You probably recognize this strategy as *Semantic Versioning*[1]. In short, Semantic Versioning means that only major releases (such as 2.0, 3.0 etc.) are allowed to break backwards compatibility. Minor releases (such as 2.5, 2.6 etc.) may introduce new features, but must do so without breaking the existing API of that release branch (2.x in the previous example).

This promise was introduced with Symfony 2.3 and does not apply to previous versions of Symfony.

However, backwards compatibility comes in many different flavors. In fact, almost every change that we make to the framework can potentially break an application. For example, if we add a new method to a class, this will break an application which extended this class and added the same method, but with a different method signature.

Also, not every BC break has the same impact on application code. While some BC breaks require you to make significant changes to your classes or your architecture, others are fixed as easily as changing the name of a method.

That's why we created this page for you. The section "Using Symfony Code" will tell you how you can ensure that your application won't break completely when upgrading to a newer version of the same major release branch.

The second section, "Working on Symfony Code", is targeted at Symfony contributors. This section lists detailed rules that every contributor needs to follow to ensure smooth upgrades for our users.

Using Symfony Code

If you are using Symfony in your projects, the following guidelines will help you to ensure smooth upgrades to all future minor releases of your Symfony version.

1. `http://semver.org/`

Using our Interfaces

All interfaces shipped with Symfony can be used in type hints. You can also call any of the methods that they declare. We guarantee that we won't break code that sticks to these rules.

The exception to this rule are interfaces tagged with `@internal`. Such interfaces should not be used or implemented.

If you want to implement an interface, you should first make sure that the interface is an API interface. You can recognize API interfaces by the `@api` tag in their source code:

Listing 6-1

```
/**
 * HttpKernelInterface handles a Request to convert it to a Response.
 *
 * @author Fabien Potencier <fabien@symfony.com>
 *
 * @api
 */
interface HttpKernelInterface
{
    // ...
}
```

If you implement an API interface, we promise that we won't ever break your code. Regular interfaces, by contrast, may be extended between minor releases, for example by adding a new method. Be prepared to upgrade your code manually if you implement a regular interface.

Even if we do changes that require manual upgrades, we limit ourselves to changes that can be upgraded easily. We will always document the precise upgrade instructions in the UPGRADE file in Symfony's root directory.

The following table explains in detail which use cases are covered by our backwards compatibility promise:

Use Case	Regular	API
If you...	**Then we guarantee BC...**	
Type hint against the interface	Yes	Yes
Call a method	Yes	Yes
If you implement the interface and...	**Then we guarantee BC...**	
Implement a method	No [1]	Yes
Add an argument to an implemented method	No [1]	Yes
Add a default value to an argument	Yes	Yes

If you think that one of our regular classes should have an `@api` tag, put your request into a *new ticket on GitHub*[2]. We will then evaluate whether we can add the tag or not.

2. `https://github.com/symfony/symfony/issues/new`

Using our Classes

All classes provided by Symfony may be instantiated and accessed through their public methods and properties.

Classes, properties and methods that bear the tag `@internal` as well as the classes located in the various `*\\Tests\\` namespaces are an exception to this rule. They are meant for internal use only and should not be accessed by your own code.

Just like with interfaces, we also distinguish between regular and API classes. Like API interfaces, API classes are marked with an `@api` tag:

Listing 6-2

```
/**
 * Request represents an HTTP request.
 *
 * @author Fabien Potencier <fabien@symfony.com>
 *
 * @api
 */
class Request
{
    // ...
}
```

The difference between regular and API classes is that we guarantee full backwards compatibility if you extend an API class and override its methods. We can't give the same promise for regular classes, because there we may, for example, add an optional argument to a method. Consequently, the signature of your overridden method wouldn't match anymore and generate a fatal error.

As with interfaces, we limit ourselves to changes that can be upgraded easily. We will document the precise upgrade instructions in the UPGRADE file in Symfony's root directory.

In some cases, only specific properties and methods are tagged with the `@api` tag, even though their class is not. In these cases, we guarantee full backwards compatibility for the tagged properties and methods (as indicated in the column "API" below), but not for the rest of the class.

To be on the safe side, check the following table to know which use cases are covered by our backwards compatibility promise:

Use Case	Regular	API
If you...	**Then we guarantee BC...**	
Type hint against the class	Yes	Yes
Create a new instance	Yes	Yes
Extend the class	Yes	Yes
Access a public property	Yes	Yes
Call a public method	Yes	Yes
If you extend the class and...	**Then we guarantee BC...**	
Access a protected property	No [1]	Yes
Call a protected method	No [1]	Yes

Use Case	Regular	API
Override a public property	Yes	Yes
Override a protected property	No [1]	Yes
Override a public method	No [1]	Yes
Override a protected method	No [1]	Yes
Add a new property	No	No
Add a new method	No	No
Add an argument to an overridden method	No [1]	Yes
Add a default value to an argument	Yes	Yes
Call a private method (via Reflection)	No	No
Access a private property (via Reflection)	No	No

If you think that one of our regular classes should have an `@api` tag, put your request into a *new ticket on GitHub*[3]. We will then evaluate whether we can add the tag or not.

Working on Symfony Code

Do you want to help us improve Symfony? That's great! However, please stick to the rules listed below in order to ensure smooth upgrades for our users.

Changing Interfaces

This table tells you which changes you are allowed to do when working on Symfony's interfaces:

Type of Change	Regular	API
Remove entirely	No	No
Change name or namespace	No	No
Add parent interface	Yes [2]	Yes [3]
Remove parent interface	No	No
Methods		
Add method	Yes [2]	No
Remove method	No	No
Change name	No	No
Move to parent interface	Yes	Yes
Add argument without a default value	No	No
Add argument with a default value	Yes [2]	No
Remove argument	Yes [4]	Yes [4]

3. `https://github.com/symfony/symfony/issues/new`

Type of Change	Regular	API
Add default value to an argument	Yes [2]	No
Remove default value of an argument	No	No
Add type hint to an argument	No	No
Remove type hint of an argument	Yes [2]	No
Change argument type	Yes [2] [5]	No
Change return type	Yes [2] [6]	No

Changing Classes

This table tells you which changes you are allowed to do when working on Symfony's classes:

Type of Change	Regular	API
Remove entirely	No	No
Make final	No	No
Make abstract	No	No
Change name or namespace	No	No
Change parent class	Yes [7]	Yes [7]
Add interface	Yes	Yes
Remove interface	No	No
Public Properties		
Add public property	Yes	Yes
Remove public property	No	No
Reduce visibility	No	No
Move to parent class	Yes	Yes
Protected Properties		
Add protected property	Yes	Yes
Remove protected property	Yes [2]	No
Reduce visibility	Yes [2]	No
Move to parent class	Yes	Yes
Private Properties		
Add private property	Yes	Yes
Remove private property	Yes	Yes
Constructors		
Add constructor without mandatory arguments	Yes [2]	Yes [2]
Remove constructor	Yes [2]	No
Reduce visibility of a public constructor	No	No
Reduce visibility of a protected constructor	Yes [2]	No

Type of Change	Regular	API
Move to parent class	Yes	Yes
Public Methods		
Add public method	Yes	Yes
Remove public method	No	No
Change name	No	No
Reduce visibility	No	No
Move to parent class	Yes	Yes
Add argument without a default value	No	No
Add argument with a default value	Yes [2]	No
Remove argument	Yes [4]	Yes [4]
Add default value to an argument	Yes [2]	No
Remove default value of an argument	No	No
Add type hint to an argument	Yes [8]	No
Remove type hint of an argument	Yes [2]	No
Change argument type	Yes [2] [5]	No
Change return type	Yes [2] [6]	No
Protected Methods		
Add protected method	Yes	Yes
Remove protected method	Yes [2]	No
Change name	No	No
Reduce visibility	Yes [2]	No
Move to parent class	Yes	Yes
Add argument without a default value	Yes [2]	No
Add argument with a default value	Yes [2]	No
Remove argument	Yes [4]	Yes [4]
Add default value to an argument	Yes [2]	No
Remove default value of an argument	Yes [2]	No
Add type hint to an argument	Yes [2]	No
Remove type hint of an argument	Yes [2]	No
Change argument type	Yes [2] [5]	No
Change return type	Yes [2] [6]	No
Private Methods		
Add private method	Yes	Yes
Remove private method	Yes	Yes
Change name	Yes	Yes
Reduce visibility	Yes	Yes

Type of Change	Regular	API
Add argument without a default value	Yes	Yes
Add argument with a default value	Yes	Yes
Remove argument	Yes	Yes
Add default value to an argument	Yes	Yes
Remove default value of an argument	Yes	Yes
Add type hint to an argument	Yes	Yes
Remove type hint of an argument	Yes	Yes
Change argument type	Yes	Yes
Change return type	Yes	Yes
Static Methods		
Turn non static into static	No	No
Turn static into non static	No	No

4 5 6 7 8 9 10 11

4.

[1] *(1, 2, 3, 4, 5, 6, 7, 8)* Your code may be broken by changes in the Symfony code. Such changes will however be documented in the UPGRADE file.

5.

[2] *(1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28)* Should be avoided. When done, this change must be documented in the UPGRADE file.

6.

[3] The added parent interface must not introduce any new methods that don't exist in the interface already.

7.

[4] *(1, 2, 3, 4, 5, 6)* Only the last argument(s) of a method may be removed, as PHP does not care about additional arguments that you pass to a method.

8.

[5] *(1, 2, 3)*

The argument type may only be changed to a compatible or less specific type. The following type changes are allowed:

Original Type	New Type
boolean	any *scalar type*[12] with equivalent *boolean values*[13]
string	any *scalar type*[14] or object with equivalent *string values*[15]
integer	any *scalar type*[16] with equivalent *integer values*[17]
float	any *scalar type*[18] with equivalent *float values*[19]
class `<C>`	any superclass or interface of `<C>`
interface `<I>`	any superinterface of `<I>`

9.

[6] *(1, 2, 3)*

The return type may only be changed to a compatible or more specific type. The following type changes are allowed:

Original Type	New Type
boolean	any *scalar type*[20] with equivalent *boolean values*[21]
string	any *scalar type*[22] or object with equivalent *string values*[23]
integer	any *scalar type*[24] with equivalent *integer values*[25]
float	any *scalar type*[26] with equivalent *float values*[27]
array	instance of `ArrayAccess`, `Traversable` and `Countable`
`ArrayAccess`	array
`Traversable`	array
`Countable`	array
class `<C>`	any subclass of `<C>`
interface `<I>`	any subinterface or implementing class of `<I>`

10.

[7] *(1, 2)* When changing the parent class, the original parent class must remain an ancestor of the class.

11.

[8] A type hint may only be added if passing a value with a different type previously generated a fatal error.

12. `http://php.net/manual/en/function.is-scalar.php`
13. `http://php.net/manual/en/function.boolval.php`
14. `http://php.net/manual/en/function.is-scalar.php`
15. `http://www.php.net/manual/en/function.strval.php`
16. `http://php.net/manual/en/function.is-scalar.php`

17. http://www.php.net/manual/en/function.intval.php
18. http://php.net/manual/en/function.is-scalar.php
19. http://www.php.net/manual/en/function.floatval.php
20. http://php.net/manual/en/function.is-scalar.php
21. http://php.net/manual/en/function.boolval.php
22. http://php.net/manual/en/function.is-scalar.php
23. http://www.php.net/manual/en/function.strval.php
24. http://php.net/manual/en/function.is-scalar.php
25. http://www.php.net/manual/en/function.intval.php
26. http://php.net/manual/en/function.is-scalar.php
27. http://www.php.net/manual/en/function.floatval.php

Chapter 7
Coding Standards

When contributing code to Symfony, you must follow its coding standards. To make a long story short, here is the golden rule: **Imitate the existing Symfony code**. Most open-source Bundles and libraries used by Symfony also follow the same guidelines, and you should too.

Remember that the main advantage of standards is that every piece of code looks and feels familiar, it's not about this or that being more readable.

Symfony follows the standards defined in the *PSR-0*[1], *PSR-1*[2] and *PSR-2*[3] documents.

Since a picture - or some code - is worth a thousand words, here's a short example containing most features described below:

Listing 7-1
```php
<?php

/*
 * This file is part of the Symfony package.
 *
 * (c) Fabien Potencier <fabien@symfony.com>
 *
 * For the full copyright and license information, please view the LICENSE
 * file that was distributed with this source code.
 */

namespace Acme;

/**
 * Coding standards demonstration.
 */
class FooBar
{
    const SOME_CONST = 42;

    private $fooBar;
```

1. http://www.php-fig.org/psr/psr-0/
2. http://www.php-fig.org/psr/psr-1/
3. http://www.php-fig.org/psr/psr-2/

```
22
23      /**
24       * @param string $dummy Some argument description
25       */
26      public function __construct($dummy)
27      {
28          $this->fooBar = $this->transformText($dummy);
29      }
30
31      /**
32       * @param string $dummy Some argument description
33       * @param array  $options
34       *
35       * @return string|null Transformed input
36       *
37       * @throws \RuntimeException
38       */
39      private function transformText($dummy, array $options = array())
40      {
41          $mergedOptions = array_merge(
42              array(
43                  'some_default' => 'values',
44                  'another_default' => 'more values',
45              ),
46              $options
47          );
48
49          if (true === $dummy) {
50              return;
51          }
52
53          if ('string' === $dummy) {
54              if ('values' === $mergedOptions['some_default']) {
55                  return substr($dummy, 0, 5);
56              }
57
58              return ucwords($dummy);
59          }
60
61          throw new \RuntimeException(sprintf('Unrecognized dummy option "%s"', $dummy));
62      }
63
64      private function reverseBoolean($value = null, $theSwitch = false)
65      {
66          if (!$theSwitch) {
67              return;
68          }
69
70          return !$value;
71      }
72  }
```

Structure

- Add a single space after each comma delimiter;
- Add a single space around binary operators (==, &&, ...), with the exception of the concatenation (.) operator;

- Place unary operators (`!`, `--`, ...) adjacent to the affected variable;
- Add a comma after each array item in a multi-line array, even after the last one;
- Add a blank line before `return` statements, unless the return is alone inside a statement-group (like an `if` statement);
- Use braces to indicate control structure body regardless of the number of statements it contains;
- Define one class per file - this does not apply to private helper classes that are not intended to be instantiated from the outside and thus are not concerned by the *PSR-0*[4] standard;
- Declare class properties before methods;
- Declare public methods first, then protected ones and finally private ones. The exceptions to this rule are the class constructor and the `setUp` and `tearDown` methods of PHPUnit tests, which should always be the first methods to increase readability;
- Use parentheses when instantiating classes regardless of the number of arguments the constructor has;
- Exception message strings should be concatenated using *`sprintf`*[5].

Naming Conventions

- Use camelCase, not underscores, for variable, function and method names, arguments;
- Use underscores for option names and parameter names;
- Use namespaces for all classes;
- Prefix abstract classes with `Abstract`. Please note some early Symfony classes do not follow this convention and have not been renamed for backward compatibility reasons. However all new abstract classes must follow this naming convention;
- Suffix interfaces with `Interface`;
- Suffix traits with `Trait`;
- Suffix exceptions with `Exception`;
- Use alphanumeric characters and underscores for file names;
- For type-hinting in PHPDocs and casting, use `bool` (instead of `boolean` or `Boolean`), `int` (instead of `integer`), `float` (instead of `double` or `real`);
- Don't forget to look at the more verbose *Conventions* document for more subjective naming considerations.

Service Naming Conventions

- A service name contains groups, separated by dots;
- The DI alias of the bundle is the first group (e.g. `fos_user`);
- Use lowercase letters for service and parameter names;
- A group name uses the underscore notation;
- Each service has a corresponding parameter containing the class name, following the `SERVICE NAME.class` convention.

Documentation

- Add PHPDoc blocks for all classes, methods, and functions;
- Omit the `@return` tag if the method does not return anything;
- The `@package` and `@subpackage` annotations are not used.

4. http://www.php-fig.org/psr/psr-0/
5. http://php.net/manual/en/function.sprintf.php

License

- Symfony is released under the MIT license, and the license block has to be present at the top of every PHP file, before the namespace.

Chapter 8
Conventions

The *Coding Standards* document describes the coding standards for the Symfony projects and the internal and third-party bundles. This document describes coding standards and conventions used in the core framework to make it more consistent and predictable. You are encouraged to follow them in your own code, but you don't need to.

Method Names

When an object has a "main" many relation with related "things" (objects, parameters, ...), the method names are normalized:

- `get()`
- `set()`
- `has()`
- `all()`
- `replace()`
- `remove()`
- `clear()`
- `isEmpty()`
- `add()`
- `register()`
- `count()`
- `keys()`

The usage of these methods are only allowed when it is clear that there is a main relation:

- a `CookieJar` has many `Cookie` objects;
- a Service `Container` has many services and many parameters (as services is the main relation, the naming convention is used for this relation);
- a Console `Input` has many arguments and many options. There is no "main" relation, and so the naming convention does not apply.

For many relations where the convention does not apply, the following methods must be used instead (where `XXX` is the name of the related thing):

Main Relation	Other Relations
`get()`	`getXXX()`
`set()`	`setXXX()`
n/a	`replaceXXX()`
`has()`	`hasXXX()`
`all()`	`getXXXs()`
`replace()`	`setXXXs()`
`remove()`	`removeXXX()`
`clear()`	`clearXXX()`
`isEmpty()`	`isEmptyXXX()`
`add()`	`addXXX()`
`register()`	`registerXXX()`
`count()`	`countXXX()`
`keys()`	n/a

While "setXXX" and "replaceXXX" are very similar, there is one notable difference: "setXXX" may replace, or add new elements to the relation. "replaceXXX", on the other hand, cannot add new elements. If an unrecognized key is passed to "replaceXXX" it must throw an exception.

Deprecations

From time to time, some classes and/or methods are deprecated in the framework; that happens when a feature implementation cannot be changed because of backward compatibility issues, but we still want to propose a "better" alternative. In that case, the old implementation can simply be **deprecated**.

A feature is marked as deprecated by adding a `@deprecated` phpdoc to relevant classes, methods, properties, ...:

Listing 8-1

```
/**
 * @deprecated Deprecated since version 2.X, to be removed in 2.Y. Use XXX instead.
 */
```

The deprecation message should indicate the version when the class/method was deprecated, the version when it will be removed, and whenever possible, how the feature was replaced.

A PHP `E_USER_DEPRECATED` error must also be triggered to help people with the migration starting one or two minor versions before the version where the feature will be removed (depending on the criticality of the removal):

Listing 8-2

```
trigger_error('XXX() is deprecated since version 2.X and will be removed in 2.Y. Use XXX
instead.', E_USER_DEPRECATED);
```

Chapter 9
Git

This document explains some conventions and specificities in the way we manage the Symfony code with Git.

Pull Requests

Whenever a pull request is merged, all the information contained in the pull request (including comments) is saved in the repository.

You can easily spot pull request merges as the commit message always follows this pattern:

Listing 9-1
```
merged branch USER_NAME/BRANCH_NAME (PR #1111)
```

The PR reference allows you to have a look at the original pull request on GitHub: *https://github.com/symfony/symfony/pull/1111*[1]. But all the information you can get on GitHub is also available from the repository itself.

The merge commit message contains the original message from the author of the changes. Often, this can help understand what the changes were about and the reasoning behind the changes.

Moreover, the full discussion that might have occurred back then is also stored as a Git note (before March 22 2013, the discussion was part of the main merge commit message). To get access to these notes, add this line to your `.git/config` file:

Listing 9-2
```
fetch = +refs/notes/*:refs/notes/*
```

After a fetch, getting the GitHub discussion for a commit is then a matter of adding `--show-notes=github-comments` to the `git show` command:

Listing 9-3
```
$ git show HEAD --show-notes=github-comments
```

1. `https://github.com/symfony/symfony/pull/1111`

Chapter 10
Symfony License

Symfony is released under the MIT license.

According to *Wikipedia*[1]:

> "It is a permissive license, meaning that it permits reuse within proprietary software on the condition that the license is distributed with that software. The license is also GPL-compatible, meaning that the GPL permits combination and redistribution with software that uses the MIT License."

The License

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1. `http://en.wikipedia.org/wiki/MIT_License`

Chapter 11

Contributing to the Documentation

One of the essential principles of the Symfony project is that **documentation is as important as code**. That's why a great amount of resources are dedicated to documenting new features and to keeping the rest of the documentation up-to-date.

More than 700 developers all around the world have contributed to Symfony's documentation and we are glad that you are considering joining this big family. This guide will explain everything you need to contribute to the Symfony documentation.

Before Your First Contribution

Before contributing, you should consider the following:

- Symfony documentation is written using *reStructuredText*[1] markup language. If you are not familiar with this format, read *this article* for a quick overview of its basic features.
- Symfony documentation is hosted on *GitHub*[2]. You'll need a GitHub user account to contribute to the documentation.
- Symfony documentation is published under a *Creative Commons BY-SA 3.0 License* and all your contributions will implicitly adhere to that license.

Your First Documentation Contribution

In this section, you'll learn how to contribute to the Symfony documentation for the first time. The next section will explain the shorter process you'll follow in the future for every contribution after your first one.

Let's imagine that you want to improve the installation chapter of the Symfony book. In order to make your changes, follow these steps:

1. `http://docutils.sourceforge.net/rst.html`
2. `https://github.com/`

Step 1. Go to the official Symfony documentation repository located at *github.com/symfony/symfony-docs*[3] and *fork the repository*[4] to your personal account. This is only needed the first time you contribute to Symfony.

Step 2. Clone the forked repository to your local machine (this example uses the `projects/symfony-docs/` directory to store the documentation; change this value accordingly):

Listing 11-1
```
1  $ cd projects/
2  $ git clone git://github.com/<YOUR GITHUB USERNAME>/symfony-docs.git
```

Step 3. Switch to the **oldest maintained branch** before making any change. Nowadays this is the `2.3` branch:

Listing 11-2
```
1  $ cd symfony-docs/
2  $ git checkout 2.3
```

If you are instead documenting a new feature, switch to the first Symfony version which included it: `2.5`, `2.6`, etc.

Step 4. Create a dedicated **new branch** for your changes. This greatly simplifies the work of reviewing and merging your changes. Use a short and memorable name for the new branch:

Listing 11-3
```
1  $ git checkout -b improve_install_chapter
```

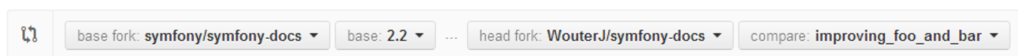
Step 5. Now make your changes in the documentation. Add, tweak, reword and even remove any content, but make sure that you comply with the *Documentation Standards*.

Step 6. Push the changes to your forked repository:

Listing 11-4
```
1  $ git commit book/installation.rst
2  $ git push origin improve_install_chapter
```

Step 7. Everything is now ready to initiate a **pull request**. Go to your forked repository at https//github.com/<YOUR GITHUB USERNAME>/symfony-docs and click on the `Pull Requests` link located in the sidebar.

Then, click on the big `New pull request` button. As GitHub cannot guess the exact changes that you want to propose, select the appropriate branches where changes should be applied:º



In this example, the **base repository** should be `symfony/symfony-docs` and the **base branch** should be the `2.3`, which is the branch that you selected to base your changes on. The **compare repository** should be your forked copy of `symfony-docs` and the **compare branch** should be `improve_install_chapter`, which is the name of the branch you created and where you made your changes.

Step 8. The last step is to prepare the **description** of the pull request. To ensure that your work is reviewed quickly, please add the following table at the beginning of your pull request description:

Listing 11-5
```
1  | Q             | A
2  | ------------- | ---
3  | Doc fix?      | [yes|no]
4  | New docs?     | [yes|no] (PR # on symfony/symfony if applicable)
```

3. https://github.com/symfony/symfony-docs
4. https://help.github.com/articles/fork-a-repo

```
5 | Applies to    | [Symfony version numbers this applies to]
6 | Fixed tickets | [comma separated list of tickets fixed by the PR]
```

In this example, this table would look as follows:

Listing 11-6
```
1 | Q             | A
2 | ------------- | ---
3 | Doc fix?      | yes
4 | New docs?     | no
5 | Applies to    | all
6 | Fixed tickets | #10575
```

Step 9. Now that you've successfully submitted your first contribution to the Symfony documentation, **go and celebrate!** The documentation managers will carefully review your work in short time and they will let you know about any required change.

In case you need to add or modify anything, there is no need to create a new pull request. Just make sure that you are on the correct branch, make your changes and push them:

Listing 11-7
```
1 $ cd projects/symfony-docs/
2 $ git checkout improve_install_chapter
3
4 # ... do your changes
5
6 $ git push
```

Step 10. After your pull request is eventually accepted and merged in the Symfony documentation, you will be included in the *Symfony Documentation Contributors*[5] list. Moreover, if you happen to have a *SensioLabsConnect*[6] profile, you will get a cool *Symfony Documentation Badge*[7].

Your Second Documentation Contribution

The first contribution took some time because you had to fork the repository, learn how to write documentation, comply with the pull requests standards, etc. The second contribution will be much easier, except for one detail: given the furious update activity of the Symfony documentation repository, odds are that your fork is now out of date with the official repository.

Solving this problem requires you to *sync your fork*[8] with the original repository. To do this, execute this command first to tell git about the original repository:

Listing 11-8
```
1 $ cd projects/symfony-docs/
2 $ git remote add upstream https://github.com/symfony/symfony-docs.git
```

Now you can **sync your fork** by executing the following command:

Listing 11-9
```
1 $ cd projects/symfony-docs/
2 $ git fetch upstream
3 $ git checkout 2.3
4 $ git merge upstream/2.3
```

5. http://symfony.com/contributors/doc
6. https://connect.sensiolabs.com/
7. https://connect.sensiolabs.com/badge/36/symfony-documentation-contributor
8. https://help.github.com/articles/syncing-a-fork

This command will update the `2.3` branch, which is the one you used to create the new branch for your changes. If you have used another base branch, e.g. `master`, replace the `2.3` with the appropriate branch name.

Great! Now you can proceed by following the same steps explained in the previous section:

Listing 11-10
```
# create a new branch to store your changes based on the 2.3 branch
$ cd projects/symfony-docs/
$ git checkout 2.3
$ git checkout -b my_changes

# ... do your changes

# submit the changes to your forked repository
$ git add xxx.rst     # (optional) only if this is a new content
$ git commit xxx.rst
$ git push

# go to GitHub and create the Pull Request
#
# Include this table in the description:
# | Q             | A
# | ------------- | ---
# | Doc fix?      | [yes|no]
# | New docs?     | [yes|no] (PR # on symfony/symfony if applicable)
# | Applies to    | [Symfony version numbers this applies to]
# | Fixed tickets | [comma separated list of tickets fixed by the PR]
```

Your second contribution is now complete, so **go and celebrate again!** You can also see how your ranking improves in the list of *Symfony Documentation Contributors*[9].

Your Next Documentation Contributions

Now that you've made two contributions to the Symfony documentation, you are probably comfortable with all the Git-magic involved in the process. That's why your next contributions would be much faster. Here you can find the complete steps to contribute to the Symfony documentation, which you can use as a **checklist**:

Listing 11-11
```
# sync your fork with the official Symfony repository
$ cd projects/symfony-docs/
$ git fetch upstream
$ git checkout 2.3
$ git merge upstream/2.3

# create a new branch from the oldest maintained version
$ git checkout 2.3
$ git checkout -b my_changes

# ... do your changes

# add and commit your changes
$ git add xxx.rst     # (optional) only if this is a new content
$ git commit xxx.rst
$ git push

```

9. `http://symfony.com/contributors/doc`

```
18 # go to GitHub and create the Pull Request
19 #
20 # Include this table in the description:
21 # | Q             | A
22 # | ------------- | ---
23 # | Doc fix?      | [yes|no]
24 # | New docs?     | [yes|no] (PR # on symfony/symfony if applicable)
25 # | Applies to    | [Symfony version numbers this applies to]
26 # | Fixed tickets | [comma separated list of tickets fixed by the PR]
27
28 # (optional) make the changes requested by reviewers and commit them
29 $ git commit xxx.rst
30 $ git push
```

You guessed right: after all this hard work, it's **time to celebrate again!**

Frequently Asked Questions

Why Do my Changes Take so Long to Be Reviewed and/or Merged?

Please be patient. It can take up to several days before your pull request can be fully reviewed. After merging the changes, it could take again several hours before your changes appear on the symfony.com website.

What If I Want to Translate Some Documentation into my Language?

Read the dedicated *document*.

Why Should I Use the Oldest Maintained Branch Instead of the Master Branch?

Consistent with Symfony's source code, the documentation repository is split into multiple branches, corresponding to the different versions of Symfony itself. The `master` branch holds the documentation for the development branch of the code.

Unless you're documenting a feature that was introduced after Symfony 2.3, your changes should always be based on the `2.3` branch. Documentation managers will use the necessary Git-magic to also apply your changes to all the active branches of the documentation.

What If I Want to Submit my Work without Fully Finishing It?

You can do it. But please use one of these two prefixes to let reviewers know about the state of your work:

- `[WIP]` (Work in Progress) is used when you are not yet finished with your pull request, but you would like it to be reviewed. The pull request won't be merged until you say it is ready.
- `[WCM]` (Waiting Code Merge) is used when you're documenting a new feature or change that hasn't been accepted yet into the core code. The pull request will not be merged until it is merged in the core code (or closed if the change is rejected).

Would You Accept a Huge Pull Request with Lots of Changes?

First, make sure that the changes are somewhat related. Otherwise, please create separate pull requests. Anyway, before submitting a huge change, it's probably a good idea to open an issue in the Symfony Documentation repository to ask the managers if they agree with your proposed changes. Otherwise,

they could refuse your proposal after you put all that hard work into making the changes. We definitely don't want you to waste your time!

Chapter 12
Documentation Format

The Symfony documentation uses *reStructuredText*[1] as its markup language and *Sphinx*[2] for generating the documentation in the formats read by the end users, such as HTML and PDF.

reStructuredText

reStructuredText is a plaintext markup syntax similar to Markdown, but much stricter with its syntax. If you are new to reStructuredText, take some time to familiarize with this format by reading the existing *Symfony documentation*[3]

If you want to learn more about this format, check out the *reStructuredText Primer*[4] tutorial and the *reStructuredText Reference*[5].

If you are familiar with Markdown, be careful as things are sometimes very similar but different:

- Lists starts at the beginning of a line (no indentation is allowed);
- Inline code blocks use double-ticks (` ``like this`` `).

Sphinx

Sphinx is a build system that provides tools to create documentation from reStructuredText documents. As such, it adds new directives and interpreted text roles to the standard reST markup. Read more about the *Sphinx Markup Constructs*[6].

1. `http://docutils.sourceforge.net/rst.html`
2. `http://sphinx-doc.org/`
3. `https://github.com/symfony/symfony-docs`
4. `http://sphinx-doc.org/rest.html`
5. `http://docutils.sourceforge.net/docs/user/rst/quickref.html`
6. `http://sphinx-doc.org/markup/`

Syntax Highlighting

PHP is the default syntax highlighter applied to all code blocks. You can change it with the `code-block` directive:

Listing 12-1
```
.. code-block:: yaml

    { foo: bar, bar: { foo: bar, bar: baz } }
```

Besides all of the major programming languages, the syntax highlighter supports all kinds of markup and configuration languages. Check out the list of *supported languages*[7] on the syntax highlighter website.

Configuration Blocks

Whenever you include a configuration sample, use the `configuration-block` directive to show the configuration in all supported configuration formats (`PHP`, `YAML` and `XML`). Example:

Listing 12-2
```
.. configuration-block::

    .. code-block:: yaml

        # Configuration in YAML

    .. code-block:: xml

        <!-- Configuration in XML -->

    .. code-block:: php

        // Configuration in PHP
```

The previous reST snippet renders as follow:

Listing 12-3
```
# Configuration in YAML
```

The current list of supported formats are the following:

Markup Format	Use It to Display
`html`	HTML
`xml`	XML
`php`	PHP
`yaml`	YAML
`jinja`	Pure Twig markup
`html+jinja`	Twig markup blended with HTML
`html+php`	PHP code blended with HTML
`ini`	INI

7. `http://pygments.org/languages/`

Markup Format	Use It to Display
php-annotations	PHP Annotations

Adding Links

The most common type of links are **internal links** to other documentation pages, which use the following syntax:

Listing 12-4
```
:doc:`/absolute/path/to/page`
```

The page name should not include the file extension (`.rst`). For example:

Listing 12-5
```
:doc:`/book/controller`

:doc:`/components/event_dispatcher/introduction`

:doc:`/cookbook/configuration/environments`
```

The title of the linked page will be automatically used as the text of the link. If you want to modify that title, use this alternative syntax:

Listing 12-6
```
:doc:`Spooling Email </cookbook/email/spool>`
```

Although they are technically correct, avoid the use of relative internal links such as the following, because they break the references in the generated PDF documentation:

Listing 12-7
```
:doc:`controller`

:doc:`event_dispatcher/introduction`

:doc:`environments`
```

Links to the API follow a different syntax, where you must specify the type of the linked resource (`namespace`, `class` or `method`):

Listing 12-8
```
:namespace:`Symfony\\Component\\BrowserKit`

:class:`Symfony\\Component\\Routing\\Matcher\\ApacheUrlMatcher`

:method:`Symfony\\Component\\HttpKernel\\Bundle\\Bundle::build`
```

Links to the PHP documentation follow a pretty similar syntax:

Listing 12-9
```
:phpclass:`SimpleXMLElement`

:phpmethod:`DateTime::createFromFormat`

:phpfunction:`iterator_to_array`
```

New Features or Behavior Changes

If you're documenting a brand new feature or a change that's been made in Symfony, you should precede your description of the change with a `.. versionadded:: 2.X` directive and a short description:

Listing 12-10
```
.. versionadded:: 2.3
    The ``askHiddenResponse`` method was introduced in Symfony 2.3.

You can also ask a question and hide the response. This is particularly [...]
```

If you're documenting a behavior change, it may be helpful to *briefly* describe how the behavior has changed.

Listing 12-11
```
.. versionadded:: 2.3
    The ``include()`` function is a new Twig feature that's available in
    Symfony 2.3. Prior, the ``{% include %}`` tag was used.
```

Whenever a new minor version of Symfony is released (e.g. 2.4, 2.5, etc), a new branch of the documentation is created from the `master` branch. At this point, all the `versionadded` tags for Symfony versions that have reached end-of-life will be removed. For example, if Symfony 2.5 were released today, and 2.2 had recently reached its end-of-life, the 2.2 `versionadded` tags would be removed from the new `2.5` branch.

Testing Documentation

When submitting a new content to the documentation repository or when changing any existing resource, an automatic process will check if your documentation is free of syntax errors and is ready to be reviewed.

Nevertheless, if you prefer to do this check locally on your own machine before submitting your documentation, follow these steps:

- Install *Sphinx*[8];
- Install the Sphinx extensions using git submodules: `$ git submodule update --init`;
- Run `make html` and view the generated HTML in the `build/` directory.

8. http://sphinx-doc.org/

Chapter 13

Documentation Standards

In order to help the reader as much as possible and to create code examples that look and feel familiar, you should follow these standards.

Sphinx

- The following characters are chosen for different heading levels: level 1 is `=`, level 2 `-`, level 3 `~`, level 4 `.` and level 5 `"`;
- Each line should break approximately after the first word that crosses the 72nd character (so most lines end up being 72-78 characters);
- The `::` shorthand is *preferred* over `.. code-block:: php` to begin a PHP code block (read *the Sphinx documentation*[1] to see when you should use the shorthand);
- Inline hyperlinks are **not** used. Separate the link and their target definition, which you add on the bottom of the page;
- Inline markup should be closed on the same line as the open-string;

Example

Listing 13-1

```
Example
=======

When you are working on the docs, you should follow the
`Symfony Documentation`_ standards.

Level 2
-------

A PHP example would be::

    echo 'Hello World';

```

1. `http://sphinx-doc.org/rest.html#source-code`

```
14 Level 3
15 ~~~~~~~
16
17 .. code-block:: php
18
19     echo 'You cannot use the :: shortcut here';
20
21 .. _`Symfony Documentation`: http://symfony.com/doc
```

Code Examples

- The code follows the *Symfony Coding Standards* as well as the *Twig Coding Standards*[2];
- To avoid horizontal scrolling on code blocks, we prefer to break a line correctly if it crosses the 85th character;
- When you fold one or more lines of code, place `...` in a comment at the point of the fold. These comments are: `// ...` (php), `# ...` (yaml/bash), `{# ... #}` (twig), `<!-- ... -->` (xml/html), `; ...` (ini), `...` (text);
- When you fold a part of a line, e.g. a variable value, put `...` (without comment) at the place of the fold;
- Description of the folded code: (optional) If you fold several lines: the description of the fold can be placed after the `...` If you fold only part of a line: the description can be placed before the line;
- If useful to the reader, a PHP code example should start with the namespace declaration;
- When referencing classes, be sure to show the `use` statements at the top of your code block. You don't need to show *all* `use` statements in every example, just show what is actually being used in the code block;
- If useful, a `codeblock` should begin with a comment containing the filename of the file in the code block. Don't place a blank line after this comment, unless the next line is also a comment;
- You should put a `$` in front of every bash line.

Formats

Configuration examples should show all supported formats using *configuration blocks*. The supported formats (and their orders) are:

- **Configuration** (including services and routing): YAML, XML, PHP
- **Validation**: YAML, Annotations, XML, PHP
- **Doctrine Mapping**: Annotations, YAML, XML, PHP
- **Translation**: XML, YAML, PHP

Example

Listing 13-2

```
1 // src/Foo/Bar.php
2 namespace Foo;
3
4 use Acme\Demo\Cat;
5 // ...
6
7 class Bar
```

2. http://twig.sensiolabs.org/doc/coding_standards.html

```
8 {
9     // ...
10
11     public function foo($bar)
12     {
13         // set foo with a value of bar
14         $foo = ...;
15
16         $cat = new Cat($foo);
17
18         // ... check if $bar has the correct value
19
20         return $cat->baz($bar, ...);
21     }
22 }
```

In YAML you should put a space after { and before } (e.g. `{ _controller: ... }`), but this should not be done in Twig (e.g. `{'hello' : 'value'}`).

Files and Directories

- When referencing directories, always add a trailing slash to avoid confusions with regular files (e.g. "execute the `console` script located at the `app/` directory").
- When referencing file extensions explicitly, you should include a leading dot for every extension (e.g. "XML files use the `.xml` extension").
- When you list a Symfony file/directory hierarchy, use `your-project/` as the top level directory. E.g.

Listing 13-3

```
1 your-project/
2 ├─ app/
3 ├─ src/
4 ├─ vendor/
5 └─ ...
```

English Language Standards

- **English Dialect**: use the United States English dialect, commonly called *American English*[3].
- **Section titles**: use a variant of the title case, where the first word is always capitalized and all other words are capitalized, except for the closed-class words (read Wikipedia article about *headings and titles*[4]).

  E.g.: The Vitamins are in my Fresh California Raisins
- **Punctuation**: avoid the use of *Serial (Oxford) Commas*[5];

3. http://en.wikipedia.org/wiki/American_English
4. http://en.wikipedia.org/wiki/Letter_case#Headings_and_publication_titles
5. http://en.wikipedia.org/wiki/Serial_comma

* **Pronouns**: avoid the use of *nosism*[6] and always use *you* instead of *we*. (i.e. avoid the first person point of view: use the second instead);
* **Gender-neutral language**: when referencing a hypothetical person, such as *"a user with a session cookie"*, use gender-neutral pronouns (they/their/them). For example, instead of: * he or she, use they * him or her, use them * his or her, use their * his or hers, use theirs * himself or herself, use themselves

6. http://en.wikipedia.org/wiki/Nosism

Chapter 14
Translations

The Symfony documentation is written in English and many people are involved in the translation process.

Symfony Project officially discourages starting new translations for the documentation. As a matter of fact, there is *an ongoing discussion*[1] in the community about the benefits and drawbacks of community driven translations.

Contributing

First, become familiar with the *markup language* used by the documentation.

Then, subscribe to the *Symfony docs mailing-list*[2], as collaboration happens there.

Finally, find the *master* repository for the language you want to contribute for. Here is the list of the official *master* repositories:

- *English*: *https://github.com/symfony/symfony-docs*[3]
- *French*: *https://github.com/symfony-fr/symfony-docs-fr*[4]
- *Italian*: *https://github.com/garak/symfony-docs-it*[5]
- *Japanese*: *https://github.com/symfony-japan/symfony-docs-ja*[6]
- *Portuguese (Brazilian)*: *https://github.com/andreia/symfony-docs-pt-BR*[7]

If you want to contribute translations for a new language, read the *dedicated section*.

1. https://github.com/symfony/symfony-docs/issues/4078
2. http://groups.google.com/group/symfony-docs
3. https://github.com/symfony/symfony-docs
4. https://github.com/symfony-fr/symfony-docs-fr
5. https://github.com/garak/symfony-docs-it
6. https://github.com/symfony-japan/symfony-docs-ja
7. https://github.com/andreia/symfony-docs-pt-BR

Joining the Translation Team

If you want to help translating some documents for your language or fix some bugs, consider joining us; it's a very easy process:

- Introduce yourself on the *Symfony docs mailing-list*[8];
- *(optional)* Ask which documents you can work on;
- Fork the *master* repository for your language (click the "Fork" button on the GitHub page);
- Translate some documents;
- Ask for a pull request (click on the "Pull Request" from your page on GitHub);
- The team manager accepts your modifications and merges them into the master repository;
- The documentation website is updated every other night from the master repository.

Adding a new Language

This section gives some guidelines for starting the translation of the Symfony documentation for a new language.

As starting a translation is a lot of work, talk about your plan on the *Symfony docs mailing-list*[9] and try to find motivated people willing to help.

When the team is ready, nominate a team manager; they will be responsible for the *master* repository.

Create the repository and copy the *English* documents.

The team can now start the translation process.

When the team is confident that the repository is in a consistent and stable state (everything is translated, or non-translated documents have been removed from the toctrees -- files named `index.rst` and `map.rst.inc`), the team manager can ask that the repository is added to the list of official *master* repositories by sending an email to Fabien (fabien at symfony.com).

Maintenance

Translation does not end when everything is translated. The documentation is a moving target (new documents are added, bugs are fixed, paragraphs are reorganized, ...). The translation team need to closely follow the English repository and apply changes to the translated documents as soon as possible.

Non maintained languages are removed from the official list of repositories as obsolete documentation is dangerous.

8. http://groups.google.com/group/symfony-docs
9. http://groups.google.com/group/symfony-docs

Chapter 15
Symfony Documentation License

The Symfony documentation is licensed under a Creative Commons Attribution-Share Alike 3.0 Unported License (*CC BY-SA 3.0*[1]).

You are free:

- to *Share* — to copy, distribute and transmit the work;
- to *Remix* — to adapt the work.

Under the following conditions:

- *Attribution* — You must attribute the work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work);
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- *Waiver* — Any of the above conditions can be waived if you get permission from the copyright holder;
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    - The author's moral rights;
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- *Notice* — For any reuse or distribution, you must make clear to others the license terms of this work. The best way to do this is with a link to this web page.

This is a human-readable summary of the *Legal Code (the full license)*[2].

1. `http://creativecommons.org/licenses/by-sa/3.0/`
2. `http://creativecommons.org/licenses/by-sa/3.0/legalcode`

Chapter 16

The Release Process

This document explains the Symfony release process (Symfony being the code hosted on the main `symfony/symfony` *Git repository*[1]).

Symfony manages its releases through a *time-based model*; a new Symfony minor version comes out every *six months*: one in *May* and one in *November*.

The meaning of "minor" comes from the *Semantic Versioning*[2] strategy.

Each minor version sticks to the same very well-defined process where we start with a development period, followed by a maintenance period.

This release process has been adopted as of Symfony 2.2, and all the "rules" explained in this document must be strictly followed as of Symfony 2.4.

Development

The full development period lasts six months and is divided into two phases:

- *Development*: *Four months* to add new features and to enhance existing ones;
- *Stabilisation*: *Two months* to fix bugs, prepare the release, and wait for the whole Symfony ecosystem (third-party libraries, bundles, and projects using Symfony) to catch up.

During the development phase, any new feature can be reverted if it won't be finished in time or if it won't be stable enough to be included in the current final release.

1. `https://github.com/symfony/symfony`
2. `http://semver.org/`

Maintenance

Each Symfony minor version is maintained for a fixed period of time, depending on the type of the release. We have two maintenance periods:

- *Bug fixes and security fixes*: During this period, all issues can be fixed. The end of this period is referenced as being the *end of maintenance* of a release.
- *Security fixes only*: During this period, only security related issues can be fixed. The end of this period is referenced as being the *end of life* of a release.

Standard Versions

A standard minor version is maintained for an *eight month* period for bug fixes, and for a *fourteen month* period for security issue fixes.

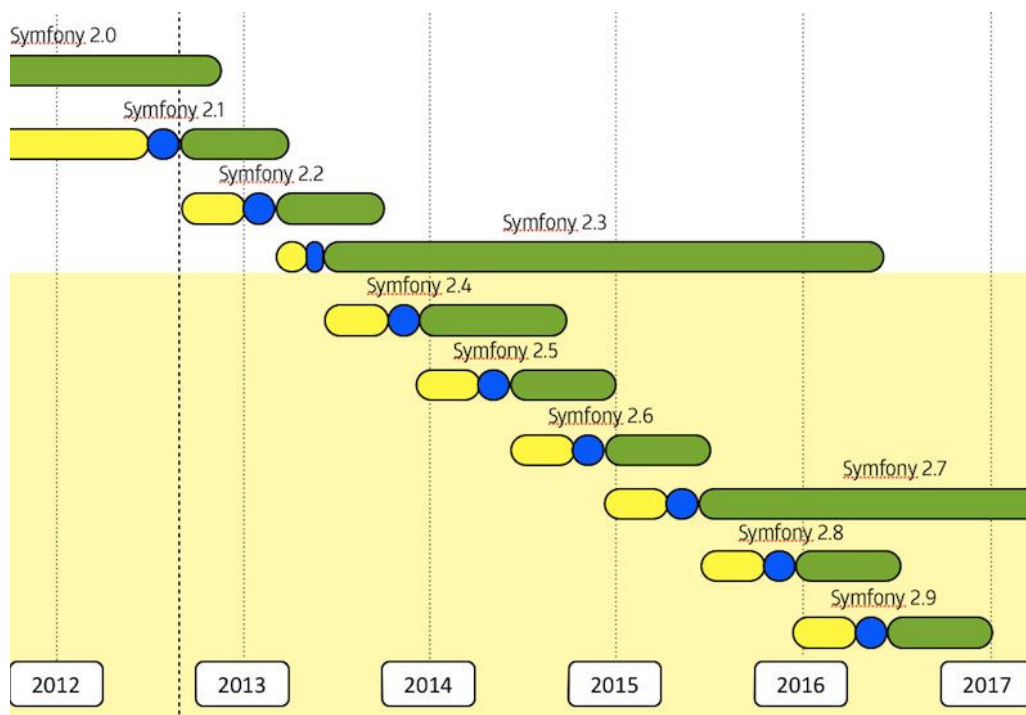
Long Term Support Versions

Every two years, a new Long Term Support Version (aka LTS version) is published. Each LTS version is supported for a *three year* period for bug fixes, and for a *four year* period for security issue fixes.

Paid support after the three year support provided by the community can also be bought from *SensioLabs*[3].

Schedule

Below is the schedule for the first few versions that use this release model:



3. http://sensiolabs.com/

- **Yellow** represents the Development phase
- **Blue** represents the Stabilisation phase
- **Green** represents the Maintenance period

This results in very predictable dates and maintenance periods:

Version	Feature Freeze	Release	End of Maintenance	End of Life
2.0	05/2011	07/2011	03/2013 (20 months)	09/2013
2.1	07/2012	09/2012	05/2013 (9 months)	11/2013
2.2	01/2013	03/2013	11/2013 (8 months)	05/2014
2.3	03/2013	05/2013	05/2016 (36 months)	05/2017
2.4	09/2013	11/2013	09/2014 (10 months [1])	01/2015
2.5	03/2014	05/2014	01/2015 (8 months)	07/2015
2.6	09/2014	11/2014	07/2015 (8 months)	01/2016
2.7	03/2015	05/2015	05/2018 (36 months [2])	05/2019
3.0	09/2015	11/2015	07/2016 (8 months)	01/2017
3.1	03/2016	05/2016	01/2017 (8 months)	07/2017
3.2	09/2016	11/2016	07/2017 (8 months)	01/2018
3.3	03/2017	05/2017	05/2020 (36 months)	05/2021
...	...	...	...	...

4 5

If you want to learn more about the timeline of any given Symfony version, use the online *timeline calculator*[7]. You can also get all data as a JSON string via a URL like *http://symfony.com/roadmap.json?version=2.x*.

Whenever an important event related to Symfony versions happens (a version reaches end of maintenance or a new patch version is released for instance), you can automatically receive an email notification if you subscribed on the *roadmap notification*[8] page.

4.

[1] Symfony 2.4 maintenance has been *extended to September 2014*[6].

5.

[2] Symfony 2.7 is the last version of the Symfony 2.x branch.

6. http://symfony.com/blog/extended-maintenance-for-symfony-2-4
7. http://symfony.com/roadmap
8. http://symfony.com/roadmap

Backwards Compatibility

Our *Backwards Compatibility Promise* is very strict and allows developers to upgrade with confidence from one minor version of Symfony to the next one.

Whenever keeping backward compatibility is not possible, the feature, the enhancement or the bug fix will be scheduled for the next major version.

The work on a new major version of Symfony starts whenever enough major features breaking backward compatibility are waiting on the todo-list.

Deprecations

When a feature implementation cannot be replaced with a better one without breaking backward compatibility, there is still the possibility to deprecate the old implementation and add a new preferred one along side. Read the *conventions* document to learn more about how deprecations are handled in Symfony.

Rationale

This release process was adopted to give more *predictability* and *transparency*. It was discussed based on the following goals:

- Shorten the release cycle (allow developers to benefit from the new features faster);
- Give more visibility to the developers using the framework and Open-Source projects using Symfony;
- Improve the experience of Symfony core contributors: everyone knows when a feature might be available in Symfony;
- Coordinate the Symfony timeline with popular PHP projects that work well with Symfony and with projects using Symfony;
- Give time to the Symfony ecosystem to catch up with the new versions (bundle authors, documentation writers, translators, ...).

The six month period was chosen as two releases fit in a year. It also allows for plenty of time to work on new features and it allows for non-ready features to be postponed to the next version without having to wait too long for the next cycle.

The dual maintenance mode was adopted to make every Symfony user happy. Fast movers, who want to work with the latest and the greatest, use the standard version: a new version is published every six months, and there is a two months period to upgrade. Companies wanting more stability use the LTS versions: a new version is published every two years and there is a year to upgrade.

Chapter 17
Other Resources

In order to follow what is happening in the community you might find helpful these additional resources:

- List of open *pull requests*[1]
- List of recent *commits*[2]
- List of open *bugs and enhancements*[3]
- List of open source *bundles*[4]

1. `https://github.com/symfony/symfony/pulls`
2. `https://github.com/symfony/symfony/commits/master`
3. `https://github.com/symfony/symfony/issues`
4. `http://knpbundles.com/`