



# Installation et Configuration – Symfony 7

## 1. Présentation

### Description courte

Ce TP consiste à installer Symfony via Symfony CLI et Composer sous Windows, créer un nouveau projet Symfony 7, vérifier les prérequis système et générer les premiers contrôleurs .

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## 2. Objectif

- Installer Composer
  - Installer Symfony CLI
  - Vérifier les prérequis PHP
  - Créer un projet Symfony 7
  - Lancer le serveur local
  - Générer des contrôleurs
- 

## 3. Environnement technique

- OS : Windows
  - PHP : 8.2.x
  - Gestionnaire de dépendances : Composer
  - Gestionnaire CLI : Symfony CLI
  - Outil package manager : Scoop
- 

## Partie I – Installation des outils

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### 4. Vérification PHP

```
php -v
```

#### Capture – Version PHP

```
PS C:\Users\alexi\slam> php -v
PHP 8.2.12 (cli) (built: Oct 24 2023 21:15:15) (ZTS Visual C++ 2019 x64)
Copyright (c) The PHP Group
Zend Engine v4.2.12, Copyright (c) Zend Technologies
PS C:\Users\alexi\slam> Set-ExecutionPolicy RemoteSigned -Scope CurrentUser
>> irm get.scoop.sh | iex
Initializing...
Scoop is already installed. Run 'scoop update' to get the latest version.
Abort.
```

## 5. Installation Composer

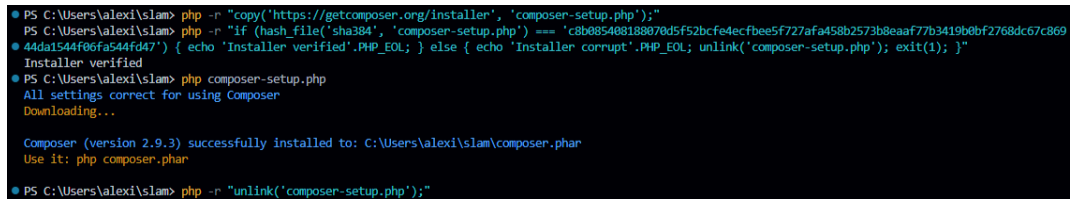
Téléchargement :

```
php -r "copy('https://getcomposer.org/installer', 'composer-setup.php');"
php composer-setup.php
```

Vérification :

```
composer -V
```

### Capture – Installation Composer



```
PS C:\Users\alexi\slam> php -r "copy('https://getcomposer.org/installer', 'composer-setup.php');"
PS C:\Users\alexi\slam> php -r "if (hash_file('sha384', 'composer-setup.php') == 'c8b085408188070d5f52bcfe4ecfbee5f727afa458b2573b8eaaf77b3419b0bf2768dc67c869
44da1544f06fa544fd47') { echo 'Installer verified'.PHP_EOL; } else { echo 'Installer corrupt'.PHP_EOL; unlink('composer-setup.php'); exit(1); }"
Installer verified
PS C:\Users\alexi\slam> php composer-setup.php
All settings correct for using Composer
Downloading...

Composer (version 2.9.3) successfully installed to: C:\Users\alexi\slam\composer.phar
Use it: php composer.phar
PS C:\Users\alexi\slam> php -r "unlink('composer-setup.php');"

```

## 6. Installation Symfony CLI via Scoop

Si Scoop n'est pas installé :

```
Set-ExecutionPolicy RemoteSigned -Scope CurrentUser
irm get.scoop.sh | iex
```

Installation Symfony CLI :

```
scoop install symfony-cli
```

### Capture – Installation Symfony CLI

```

PS C:\Users\alexi\slam> scoop install symfony-cli
Updating Scoop...
Updating Buckets...
 * 801879abf90d tor: Update to version 0.4.8.21-15.0.4 main 59 minutes ago
 * 5195029638e2 superfile: Update to version 1.5.0 main 59 minutes ago
 * deabb0b04cda rumdl: Update to version 0.0.216 main 59 minutes ago
 * 81f45a21b4c2 nconvert: Update to version 7.230 main 59 minutes ago
 * 08f87d0d9a6b lefthook: Update to version 2.0.15 main 59 minutes ago
 * 8bdabdae7dcf jenkins: Update to version 2.546 main 59 minutes ago
 * 207c6ab4abe3 clink: Update to version 1.9.9 main 59 minutes ago
 * 58fc7035e7dd balena-cli: Update to version 23.2.18 main 59 minutes ago
 * c5e5eebf564f argocd: Update to version 3.0.21 main 59 minutes ago
 * 3c002d14397b vmr: Add version 0.7.5 (#7530) main 3 hours ago
 * eab15aba07ab sing-box: Update to version 1.12.16 main 5 hours ago
 * a7ef4683ad35 tombi: Update to version 0.7.19 main 9 hours ago
 * 15e3e5c3fad3 sourcegraph-cli: Update to version 6.12.0 main 9 hours ago
 * 6ee20fe5fbdd slang: Update to version 2026.1 main 9 hours ago
 * 5702192a1f40 railway: Update to version 4.23.2 main 9 hours ago
 * 038ee327589e bun: Update to version 1.3.6 main 9 hours ago
 * 1b16a8fc9cdc azure-cli: Update to version 2.82.0 main 9 hours ago
 * dde689e00c97 telegraf: Update to version 1.37.1 main 13 hours ago
 * c511c290c960 railway: Update to version 4.23.1 main 13 hours ago
 * 916cd6739181 mongodb-atlas-cli: Update to version 1.51.1 main 13 hours ago
 * f10db4d0e124 fossa: Update to version 3.15.3 main 13 hours ago
 * 4fe4b4406c03 cuda: Update to version 13.1.1 main 13 hours ago
 * d3d4e9ca719a balena-cli: Update to version 23.2.17 main 13 hours ago
 * 2c66f4185861 red: Update to version 12jan26 main 17 hours ago
 * eb852b2d0579 red-view: Update to version 12jan26 main 17 hours ago
 * aea279e7efbd red-toolchain: Update to version 12jan26 main 17 hours ago
 * 367234521343 dbmate: Update to version 2.29.3 main 17 hours ago
 * 34a4d9076adc bazel: Update to version 8.5.1 main 17 hours ago
 * 15862db95bd6 aws: Update to version 2.32.33 main 17 hours ago
 * 998c207e49dc air: Update to version 1.64.0 main 17 hours ago
 * c12c2a0508b3 sqlite@3.51.2: Fix hash (Closes #7523) main 18 hours ago
 * d7e58bc116af sentry-cli: Update to version 3.1.0 main 21 hours ago
 * c878ba2ffeb2 rumdl: Update to version 0.0.215 main 21 hours ago
 * 012f85067063 ngrok: Update to version 3.35.0 main 21 hours ago
 * e495a2267022 meilisearch: Update to version 1.32.0 main 21 hours ago
 * 9c6d807c5b34 kimi-cli: Update to version 0.76 main 21 hours ago
 * 890e3517caf7 air: Update to version 1.63.9 main 21 hours ago
 * d45eef9473df updatecli: Update to version 0.113.0 main 25 hours ago
 * 9125cf012b80 terraform-provider-ibm: Update to version 1.87.0 main 25 hours ago
 * 56a4f8a11676 rust-analyzer: Update to version 2026-01-12 main 25 hours ago
 * d7348d9a0848 oxlint: Update to version 1.39.0 main 25 hours ago
 * 279c8acab032 lefthook: Update to version 2.0.14 main 25 hours ago
 * e029d28f672f jdtls: Update to version 1.56.0-202601121112 main 25 hours ago
 * 271c8e680723 tombi: Add version 0.7.18 (#7333) main 26 hours ago
 * e570f90daa58 sqrruff: Update to version 0.33.0 main 29 hours ago
 * f47b4c5fa4a5 openshift-okd-client: Update to version 4.21.0-okd-sco.. main 29 hours ago
 * 23da27629b5b git-istage: Update to version 0.3.155 main 33 hours ago
 * fa44a366e39b fastfetch: Update to version 2.57.0 main 33 hours ago
 * 13d92005363c dbmate: Update to version 2.29.2 main 33 hours ago
 * ef2548b43926 deno-lint.json - Fixed homepage (#7522) main 33 hours ago

 * d0f6d2dd9707 firebase: Update to version 15.2.1 main 5 days ago
 * 9c3275a6e978 dotnet-core-uninstall: Update to version 1.7.661902 main 5 days ago
 * cb3bf79b2b39 csvlens: Update to version 0.15.1 main 5 days ago
 * 82654a6e3f33 b3sum: Update to version 1.8.3 main 5 days ago
 * ea8a8adf426c b2: Update to version 4.5.0 main 5 days ago
 * bb002da3a75c syft: Update to version 1.40.0 main 5 days ago
 * e19f03b42818 surrealdb: Update to version 2.4.1 main 5 days ago
 * 55e13dc674cd sqldef: Update to version 3.9.4 main 5 days ago
 * 3e4d4c5239dc sentry-cli: Update to version 3.0.3 main 5 days ago
 * 4ce5a87e44be okteto: Update to version 3.15.0 main 5 days ago
 * 6e47ef11b8ec mise: Update to version 2026.1.1 main 5 days ago
 * 4794f003c9f8 jfrog: Update to version 2.88.0 main 5 days ago
 * 95d412e1ca98 hledger: Update to version 1.51.2 main 5 days ago
 * 95ae1e21b70d grype: Update to version 0.104.4 main 5 days ago
Scoop was updated successfully!
WARN 'symfony-cli' (5.16.1) is already installed.
Use 'scoop update symfony-cli' to install a new version.
PS C:\Users\alexi\slam>

```

## 7. Vérification Symfony

symfony

## Capture – Symfony CLI version

```
PS C:\Users\alexi\slam> symfony -v
Symfony CLI version 5.16.1 (c) 2021-2026 Fabien Potencier (2025-11-25T07:30:20Z - stable)
Symfony CLI helps developers manage projects, from local code to remote infrastructure

These are common commands used in various situations:

Work on a project locally

local:new                Create a new Symfony project
local:server:start      Run a local web server
local:server:stop       Stop the local web server
local:check:security    Check security issues in project dependencies
composer                Runs Composer without memory limit
console                 Runs the Symfony Console (bin/console) for current project
php, pecl, pear, php-fpm, php-cgi, php-config, phpdbg, phelize, pie Runs the named binary using the configured PHP version

Manage a project on Cloud

project:init            Initialize a new project using templates
cloud:domain:list      Get a list of all domains
cloud:environment:branch Branch an environment
cloud:environment:list Get a list of environments
cloud:environment:push Push code to an environment
cloud:environments:ssh SSH to the current environment
cloud:project:list     Get a list of all active projects
cloud:tunnel:open      Open SSH tunnels to an app's relationships
cloud:user:add         Add a user to the project
cloud:variable:list    List variables

Show all commands with symfony.exe help,
Get help for a specific command with symfony.exe help COMMAND.
PS C:\Users\alexi\slam>
```

## 8. Vérification des prérequis

```
symfony check:requirements
```

### Capture – Symfony Requirements Checker (page 3)

```
PS C:\Users\alexi\slam> symfony check:requirements

Symfony Requirements Checker
~~~~~

> PHP is using the following php.ini file:
C:\xampp\php\php.ini

> Checking Symfony requirements:
.....WW.....W..

[OK]
Your system is ready to run Symfony projects

Optional recommendations to improve your setup
~~~~~

* intl extension should be available
  > Install and enable the intl extension (used for validators).

* a PHP accelerator should be installed
  > Install and/or enable a PHP accelerator (highly recommended).

* realpath_cache_size should be at least 5M in php.ini
  > Setting "realpath_cache_size" to e.g. "5242880" or "5M" in
  > php.ini* may improve performance on Windows significantly in some
  > cases.

* "post_max_size" should be greater than "upload_max_filesize".
  > Set "post_max_size" to be greater than "upload_max_filesize".

Note The command console can use a different php.ini file
~~~~~
than the one used by your web server.
Please check that both the console and the web server
are using the same PHP version and configuration.

PS C:\Users\alexi\slam>
```

Résultat attendu :

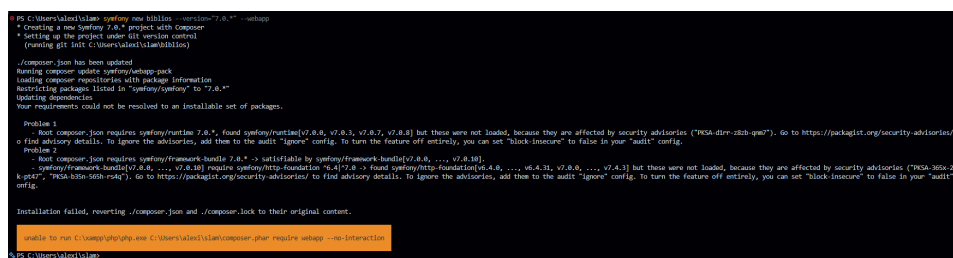
```
[OK] Your system is ready to run Symfony projects
```

## Partie II – Création du projet

### 9. Création du projet Symfony 7

```
symfony new biblios --version="7.0.*" --webapp --no-git
```

Capture – Création projet



```
PS C:\Users\valentin> symfony new biblios --version="7.0.*" --webapp
* Creating a new Symfony 7.0.* project with Composer
* Setting up the project under Git version control
(running git init C:\Users\valentin\biblios)

./composer.json has been updated
Running composer update symfony/webapp-pack
Loading composer repositories with package information
Restricting packages listed in "symfony/symfony" to "7.0.*"
Updating dependencies
Your requirements could not be resolved to an installable set of packages.

  Problem 1
    - Root composer.json requires symfony/runtime 7.0.* found symfony/runtime[v7.0.0, v7.0.3, v7.0.7, v7.0.8] but these were not loaded, because they are affected by security advisories ("NSA-dirr-slib-0907"). Go to https://packagist.org/security-advisories/1
    to find advisory details. To ignore the advisories, add them to the audit "ignore" config. To turn the feature off entirely, you can set "block-insecure" to false in your "audit" config.
  Problem 2
    - Root composer.json requires symfony/framework-bundle 7.0.* -> satisfiable by symfony/framework-bundle[v7.0.0, ..., v7.0.10].
    - symfony/framework-bundle[v7.0.0, ..., v7.0.10] requires symfony/http-foundation <=4.4.17.0 -> found symfony/http-foundation[oc4.0.0, ..., v4.3.3, v2.8.0, ..., v4.3.3] but these were not loaded, because they are affected by security advisories ("NSA-365a-21
    k-p427", "NSA-b55f-565b-r547"). Go to https://packagist.org/security-advisories/ to find advisory details. To ignore the advisories, add them to the audit "ignore" config. To turn the feature off entirely, you can set "block-insecure" to false in your "audit" c
    onfig.

Installation failed, reverting ./composer.json and ./composer.lock to their original content.

Unable to run C:\xampp\php\php.exe C:\Users\valentin\composer.phar require webapp --no-interaction
PS C:\Users\valentin>
```

### 10. Installation des dépendances

Composer installe automatiquement :

- Doctrine
- Twig
- PHPUnit
- Symfony Core bundles

### 11. Lancement du serveur local

```
cd biblios
symfony server:start
```

Capture – Symfony Welcome Page



```
PS C:\Users\alexi\slam\biblios> symfony console list make
Symfony 7.0.10 (env: dev, debug: true)

Usage:
  command [options] [arguments]

Options:
  -h, --help                Display help for the given command. When no command is given display help for the list command
  -q, --quiet               Do not output any message
  -V, --version             Display this application version
  --ansi|--no-ansi         Force (or disable --no-ansi) ANSI output
  -n, --no-interaction     Do not ask any interactive question
  -e, --env=ENV            The Environment name. [default: "dev"]
  --no-debug               Switch off debug mode.
  --profile                Enables profiling (requires debug).
  -v|vv|vvv, --verbose    Increase the verbosity of messages: 1 for normal output, 2 for more verbose output and 3 for debug

Available commands for the "make" namespace:
  make:auth                Create a Guard authenticator of different flavors
  make:command             Create a new console command class
  make:controller          Create a new controller class
  make:crud                Create CRUD for Doctrine entity class
  make:docker:database     Add a database container to your compose.yaml file
  make:entity              Create or update a Doctrine entity class, and optionally an API Platform resource
  make:fixtures            Create a new class to load Doctrine fixtures
  make:form                Create a new form class
  make:functional-test     Create a new test class
  make:listener            [make:subscriber] Creates a new event subscriber class or a new event listener class
  make:message             Create a new message and handler
  make:messenger-middleware Create a new messenger middleware
  make:migration           Create a new migration based on database changes
  make:registration-form   Create a new registration form system
  make:reset-password      Create controller, entity, and repositories for use with symfonycasts/reset-password-bundle
  make:schedule            Create a scheduler component
  make:security:custom     Create a custom security authenticator.
  make:security:form-login Generate the code needed for the form_login authenticator
  make:serializer:encoder Create a new serializer encoder class
  make:serializer:normalizer Create a new serializer normalizer class
  make:stimulus-controller Create a new Stimulus controller
  make:subscriber          Creates a new event subscriber class or a new event listener class
  make:test                [make:unit-test|make:functional-test] Create a new test class
  make:twig-component     Create a Twig (or Live) component
  make:twig-extension      Create a new Twig extension with its runtime class
  make:unit-test           Create a new test class
  make:user                Create a new security user class
  make:validator           Create a new validator and constraint class
  make:voter               Create a new security voter class
  make:webhook             Create a new Webhook
```

## 13. Création d'un contrôleur

```
symfony console make:controller
```

Exemple :

```
AwesomeController
```

**Capture – Création contrôleur**

```
● PS C:\Users\alexi\slam\biblios> symfony console make:controller

Choose a name for your controller class (e.g. DeliciousGnomeController):
> MainController

Do you want to generate PHPUnit tests? [Experimental] (yes/no) [no]:
> no

created: src/Controller/MainController.php
created: templates/main/index.html.twig

Success!

Next: Open your new controller class and add some pages!
● PS C:\Users\alexi\slam\biblios> symfony console make:controller

Choose a name for your controller class (e.g. OrangeElephantController):
> DefaultController

Do you want to generate PHPUnit tests? [Experimental] (yes/no) [no]:
> no

created: src/Controller/DefaultController.php
created: templates/default/index.html.twig

Success!

Next: Open your new controller class and add some pages!
○ PS C:\Users\alexi\slam\biblios> |
```

Fichiers générés :

- src/Controller/AwesomeController.php
- templates/awesome/index.html.twig

---

## 14. Création d'autres contrôleurs

Exemples :

- MainController
- DefaultController

**Capture – Création multiples contrôleurs**

```
PS C:\Users\alexi\slam\biblios> symfony console make:controller

Choose a name for your controller class (e.g. DeliciousGnomeController):
> MainController

Do you want to generate PHPUnit tests? [Experimental] (yes/no) [no]:
> no

created: src/Controller/MainController.php
created: templates/main/index.html.twig

Success!

Next: Open your new controller class and add some pages!
PS C:\Users\alexi\slam\biblios> symfony console make:controller

Choose a name for your controller class (e.g. OrangeElephantController):
> DefaultController

Do you want to generate PHPUnit tests? [Experimental] (yes/no) [no]:
> no

created: src/Controller/DefaultController.php
created: templates/default/index.html.twig

Success!

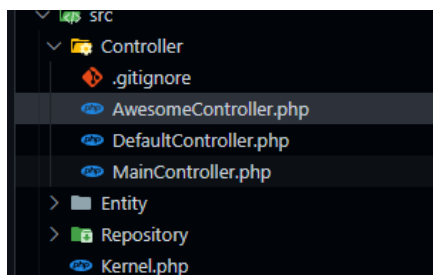
Next: Open your new controller class and add some pages!
PS C:\Users\alexi\slam\biblios>
```

## 15. Structure du projet

Arborescence principale :

```
src/
├─ Controller/
├─ Entity/
├─ Repository/
├─ Kernel.php
templates/
```

### Capture – Structure projet

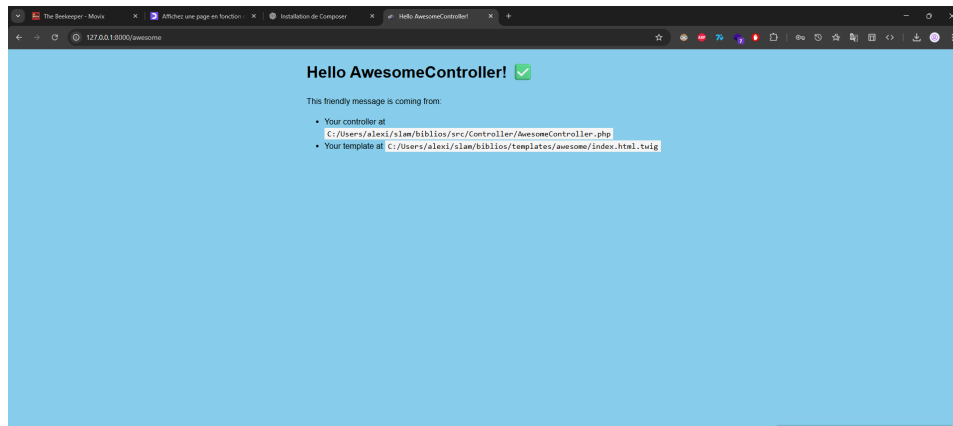


## 16. Test final

Accéder à :

http://127.0.0.1:8000/awesome

## Capture – Hello AwesomeController



## 17. Tests et validation

- Symfony CLI fonctionnel
- Composer opérationnel
- Projet Symfony 7 créé
- Serveur local actif
- Contrôleurs générés
- Routes fonctionnelles

## 18. Difficultés rencontrées

Problème	Solution
PHP non reconnu	Vérifier variable PATH
Composer non installé	Réinstaller proprement
Scoop bloqué	Modifier ExecutionPolicy
Erreur dépendances	Vérifier version PHP

## 19. Résultats

- Environnement Symfony 7 opérationnel
- Projet WebApp fonctionnel
- Architecture MVC prête
- Base solide pour développement futur

## 20. Conclusion

Ce TP a permis de mettre en place un environnement complet de développement Symfony 7 sous Windows.

Il a permis de maîtriser :

- Installation CLI
- Gestion des dépendances avec Composer
- Architecture MVC
- Génération automatique de composants

Ce projet constitue une base solide pour le développement d'applications web modernes avec Symfony .

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