

## Symfony Framework

### Overview

Symfony is a full-stack web application framework, developed by Sensio Labs. It is an open source, cross-platform PHP web framework used for executing PHP projects and follows the model-view-controller archetype (MVC). Consisting of a library of interrelated classes written in PHP, Symfony provides most components, tools and architecture for faster creation of complex web applications.

Symfony is designed to augment and accelerate the building and maintenance of web applications by replacing the recurring coding tasks. Symfony derives inspiration from other Web Application Frameworks such as Ruby on Rails, Django, Spring and utilizes general and implicit project design patterns like MVC that detaches the business logic from the presentation layer.

### Features

Although the features of Symfony grow with every version release, some of the common advantages are:

- Database engine-independent PHP framework
- Easy to install and configure
- Cross-platform application
- Generates readable code with phpDocumentor comments
- Expansible MVC framework with Propel plugins and allows integration with other vendor libraries.
- Inbuilt internationalization layer for data and interface translation and content localization
- Allows integration with other vendor libraries
- Encapsulates large shares of code in simple function calls
- Inbuilt form generator for automated validation and repopulation of the forms
- Search-engine friendly routing, smart URLs, built-in e-mail and API management features
- Easily executable Ajax interactions
- One-line helpers summarizing cross-browser-compatible JavaScript effects

- Excellent tools for automating software engineering tasks
- Code-generation tools for prototyping and one-click back-end administration
- Integrated unit and functional testing framework enabling test-driven development
- Debug panel to accelerate debugging
- Command-line interface to automate the application deployment between two servers
- Logging features giving administrator complete information about an application's activities

#### Performance

Symfony enables complete customization of directory structures and even foreign libraries and aims at creating large enterprise applications with ancillary tools for testing, debugging and documentation of projects. PHP developers can deploy complex development principles like KISS, DRY or XP philosophy, even without writing the XML configurations files again and again.

It offers nominal performance overheads in environment supporting a PHP accelerator, whereas if PHP accelerator is unavailable like in shared hosting environments, Symfony utilize its own caching engine to accelerate code implementation.

#### Technical Details

Symfony requires Unix, Linux, Mac OS or Windows with a web server and PHP 5 installed. It is compatible with all database systems, object-relational mappings like Propel and Doctrine and most Relational Database Management System (RDBMS). Providing low functional overheads, the current version 1.2 of Symfony runs on only PHP 5.2 and above, while older versions supports PHP 5.0 and 5.1 systems, but does not support PHP 4.

#### PHP open source projects used by Symfony

- Object Relational Mapping: Propel or Doctrine
- Tester: PHPUnit
- Database Abstraction Layer: Creole (v 1.0 and 1.1) Propel)
- MVC Framework : Mojavi
- Database Abstraction Layer: PDO 1.1 with Doctrine and Propel 1.3

- Mail Library: Swift Mailer
- Internationalization Support: PRADO, an event-driven PHP web application framework
- Zend Framework, Zend\_Logger and the Zend\_Cache are for logging and caching likewise
- Command-Line Helper: Pake (v 1.0)

Symfony's Components for various projects:

- Symfony YAML, a yaml parser based upon Spyc
- Symfony Request Handler, a flexible micro-kernel
- Symfony Dependency Injector, a Dependency Injector
- Symfony Event Dispatcher
- Symfony Templating, a templating engine

Javascript frameworks and PHP projects supported by Symfony:

- Prototype or jQuery, as javascript framework
- PHP Less, a CSS parser based upon Less
- TCPDF, PHP library for generating PDF documents
- TinyMCE or FCKeditor, for Rich Text Editing
- For visual effects, script.aculo.us

Current Stable Versions

- The present stable release for new projects is Symfony 1.4 and is the current LTS release (Long Term Support, maintained until 2012).
- Symfony 1.3 is the current stable release, maintained until 2010, and is recommended for legacy projects. Although being similar to 1.4, it contains additional compatibility layer for easy transition from older versions.
- Symfony 2.0 is the next major release of Symfony framework.

