

Practical Guided Tour of Symfony

SensioLabs



extreme+
Sensio



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SensioLabsConnect

About

Hugo Hamon is a PHP and Symfony fan who works with PHP since 2003. After five years of professional PHP web development in web agencies for famous french customers, he now works as a consultant and trainings manager for SensioLabs. On his free time, Hugo contributes to the Symfony2 project (source code and documentation) and gets involved in the french PHP association as an organization member. Hugo also wrote and contributed to french and english books related to PHP and the Symfony framework and he's currently writing a new french book about the Symfony2 framework.

Hugo Hamon is a member of the community since **December 2007**.

Social: [Blog](#) [Website](#) [Github](#) [Twitter](#) [LinkedIn](#) [Blog feed](#)

Clubs - 5

Hugo Hamon is a member of these clubs:



Afup

A group for the members of AFUP, the french PHP developers association



Paris

Badges - 25



Symfony

Chez Sensio Labs, nous connaissons Symfony comme si nous l'avons créé. D'ailleurs nous l'avons créé. Une excellente raison de faire appel à nous pour vous accompagner sur tous vos projets Symfony.



Services

Formation, conseil, réalisation, assistance... Nos expertises nous permettent d'être présents à vos côtés à n'importe quelle étape de votre projet et quelle que soit son envergure.



Symfony Live

Les 3 et 4 mars derniers, Sensio Labs a organisé l'édition parisienne du Symfony Live 2011. Deux jours de conférences et de rencontres qui ont rassemblé 450 participants de 30 nationalités autour de Symfony et Symfony 2.





Symfony

Standalone Components

DependencyInjection

EventDispatcher

HttpFoundation

DomCrawler

ClassLoader

BrowserKit

CssSelector

Filesystem

HttpKernel

Templating

Translation

Serializer

Validator

Console

Process

Routing

Security

Config

Finder

Locale

Form

Yaml

Full Stack Layer

Application bundles

Third party bundles

The Symfony2 stack

Core Bundles

Third party libraries

Bridges

Standalone Components

Bundles



Watch our [Symfony Tutorial](#) screencast on KnpUniversity!

1112 bundles for Symfony2 Trending ▾

21

NodrewExceptionalBundle

Symfony2 Bundle for working with the Exceptional Service

by [nodrew](#) Last commit 2 days ago



917

FOSUserBundle

Provides user management for your Symfony2 Project. Compatible with Doctrine ORM & ODM, and Propel.

by [FriendsOfSymfony](#) Last commit 6 days ago [+ 47 recommendations](#)



93

SonataNewsBundle

A news/blog system

by [sonata-project](#) Last commit 1 day ago [+ 2 recommendations](#)



91

GenemuFormBundle

Extra Form : Captcha GD, TinyMce, Recaptcha, JQueryDate, JQueryAutocomplete, JQuerySlider, JQueryFile, JQueryImage

by [genemu](#) Last commit 1 day ago [+ 1 recommendation](#)



What makes Symfony2 unique?

- PHP 5.3
- RFC2616
- PHPUnit
- CI Ready
- Jinja Templates
- Design Patterns

Easy Installation

<http://symfony.com/download>

Standard Edition Distribution



Symfony Standard Edition

The Symfony Standard Edition is the best distribution to use when starting a new project. It contains the most common bundles, and comes with a simple configuration system. **Be warned that Symfony 2.0 is not stable yet; use it with caution (current version is *Preview Release 7*).**

Symfony Standard 2.0.0 PR7 (.tgz)

DOWNLOAD NOW

If you have Git installed on your machine,
download the version without the vendors.

Congratulations! You have successfully installed a new Symfony application.



[READ THE QUICK TOUR](#)



[CONFIGURE](#)



[RUN THE DEMO](#)

Documentation

[The book >](#)

[The cookbook >](#)

[Glossary >](#)

[Contributing >](#)

[Trainings >](#)

[Books >](#)

Community

[IRC channel >](#)

[Mailing lists >](#)

[Forum >](#)

[How to be involved >](#)

[Contributing >](#)



STEP 1 > STEP 2

Configure your Database

If your website needs a database connection, please configure it here.

Driver *

MySQL (PDO)

Name *

symfony

Host *

localhost

User *

root

Password

Again

Well done!

YOUR DISTRIBUTION IS CONFIGURED!

Your parameters.ini has been overwritten with these parameters (in `/Users/Hugo/Sites/Symfony_2_0/Sandbox/app/config/parameters.ini`):

```
[parameters]
database_driver=pdo_mysql
database_host=localhost
database_name=symfony
database_user=root
database_password=
mailer_transport=smtp
mailer_host=localhost
mailer_user=
mailer_password=
locale=en
```

[Go to the Welcome page >](#)

Want to give it a try?

Philosophy

```
class DefaultController extends Controller
{
    /**
     * @Route("/hello/{name}")
     */
    public function indexAction($name)
    {
        // ... do things

        return new Response(sprintf('Hello %s!', $name));
    }
}
```

```
class DefaultController extends Controller
{
    /**
     * @Route("/hello/{name}")
     */
    public function indexAction($name)
    {
        // ... do things

        return $this->render(
            'SensioHelloBundle:Default:index.html.twig',
            array('name' => $name)
        );
    }
}
```

```
class DefaultController extends Controller
{
    /**
     * @Route("/schedule")
     * @Template()
     */
    public function indexAction()
    {
        $title = 'Conferences Schedule';

        return array('title' => $title);
    }
}
```

```
{% extends "SensioConferenceBundle::layout.html.twig" %}

{% block content %}

    <h1> {{ title }} </h1>

    <ul>
        <li>HTTP Caching, by Fabien Potencier</li>
        <li>HipHop for PHP, by Scott Mac Vicar</li>
        <li>XDebug, by Derick Rethans</li>
        <li>...</li>
    </ul>

{% endblock %}
```

Twig is a **modern** template engine for PHP

- Fast
- Concise and rich syntax
- Automatic output escaping
- Modern features
- Extensible
- Flexible



```
{% extends "SensioConferenceBundle::layout.html.twig" %}
```

```
{% block content %}
```

```
<h1> {{ title }} </h1>
```

```
<ul>
```

```
<li>HTTP Caching, by Fabien Potencier</li>
```

```
<li>HipHop for PHP, by Scott Mac Vicar</li>
```

```
<li>XDebug, by Derick Rethans</li>
```

```
<li>...</li>
```

```
</ul>
```

```
{% endblock %}
```

index.html.twig

```
{% extends "::base.html.twig" %}
```

```
{% block body %}
```

```

```

```
{% block content %}{% endblock %}
```

```
{% endblock %}
```

layout.html.twig

```
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type"
      content="text/html; charset=utf-8" />
    <title>
      {% block title %}Welcome!{% endblock %}
    </title>

    <link rel="shortcut icon"
      href="{{ asset('favicon.ico') }}" />
  </head>
  <body>
    {% block body %}{% endblock %}
  </body>
</html>
```

base.html.twig

base.html.twig



layout.html.twig

Confoo 2011 Conferences Schedule

- Caching on the Edge, by Fabien Potencier
- HipHop for PHP, by Scott MacVicar
- XDebug, by Derick Rethans
- ...

index.html.twig

Routing System

```
/**
 * @Route(
 *    ("/{year}/talk/{month}/{day}/{slug}",
 *     requirements={
 *         "year"="\d{4}",
 *         "month"="\d{2}",
 *         "day"="\d{2}"
 *     }
 * )
 * @Template()
 */
public function showAction($slug, $day, $month, $year)
{
    // ...
}
```

```
/**
 * @Route("/talk/{id}")
 * @ParamConverter("talk", class="SensioConfBundle:Talk")
 * @Template()
 */
public function showAction(Talk $talk)
{
    return array('talk' => $talk);
}
```



Easy Debugging

* GameController.php

```
1 <?php
2
3 namespace Game\Bundle\HangmanBundle\Controller;
4
5 use Symfony\Component\HttpFoundation\Request;
6 use Symfony\Bundle\FrameworkBundle\Controller\Controller;
7 use Sensio\Bundle\FrameworkExtraBundle\Configuration\Method;
8 use Sensio\Bundle\FrameworkExtraBundle\Configuration\Route;
9 use Sensio\Bundle\FrameworkExtraBundle\Configuration\Template;
10 use Game\Bundle\HangmanBundle\Word;
11
12 /**
13  * @Route("/hangman")
14  *
15  */
16 class GameController extends Controller
17 {
18     /**
19      * This action handles the homepage of the Hangman game.
20      *
21      * @Route("/", name="hangman_game")
22      * @Template()
23      *
24      * @param Request $request The request object
25      * @return array Template variables
26      */
27     public function indexAction(Request $request)
28     {
29         $context = $this->get('hangman.game_context');
30         $length = $request->query->get('length',
31             $this->container->getParameter('hangman.word_length'));
32
33         if (!$game = $context->loadGame()) {
```

CODING STANDARDS

IDES INTEGRATION

New Symfony Project

Create a Symfony project in the workspace or in an external location.

Project name:

Contents

☐ Create new project in workspace

☐ Create project at existing location (from existing source)

Directory:

☒ Create project on a local server

Directory:

Project Layout

Select layout:

JavaScript Support

☒ Enable JavaScript support for this project

Symfony

☒ Enable Twig support

☒ Enable Doctrine support



http://www.hangman.local/app_dev.php/game/hangman/hanged

by 127.0.0.1 at Sun, 05 Feb 2012 14:33:55 +0100



CONFIG



REQUEST



EXCEPTION

1



EVENTS



LOGS

1



E-MAILS

0

Called Listeners

Event name
kernel.request
kernel.request
kernel.request
kernel.request
kernel.request
kernel.controller
kernel.controller

THE PROFILER

DEBUGGING TOOLS



Unable to load the previous game context.

404 Not Found - [NotFoundHttpException](#)

Stack Trace

1. in [/Users/Hugo/Sites/Hangman/vendor/symfony/src/Symfony/Bundle/FrameworkBundle/Controller/Controller.php](#)
2. at **[Controller](#) ->createNotFoundException** ('Unable to load the previous game context')
in [/Users/Hugo/Sites/Hangman/src/Game/Bundle/HangmanBundle/Controller/GameController.php](#)
3. at **[GameController](#) ->hangedAction** ()
4. at **[call_user_func_array](#)** ([array\(object\(GameController\), 'hangedAction'\)](#), [array\(\)](#))
in [kernel.root_dir/cache/dev/classes.php](#) at line 3901 +
5. at **[HttpKernel](#) ->handleRaw** ([object\(Request\)](#), '1')
in [kernel.root_dir/cache/dev/classes.php](#) at line 3871 +
6. at **[HttpKernel](#) ->handle** ([object\(Request\)](#), '1', true)
in [kernel.root_dir/cache/dev/classes.php](#) at line 4847 +
7. at **[HttpKernel](#) ->handle** ([object\(Request\)](#), '1', true)
in [kernel.root_dir/bootstrap.php.cache](#) at line 547 +
8. at **[Kernel](#) ->handle** ([object\(Request\)](#))
in [/Users/Hugo/Sites/Hangman/web/app_dev.php](#) at line 24 +

Logs

3 errors

1. DEBUG Notified event "core.request" to listener "request_listener:handle" (notifyUntil)
2. **ERR** No route found for /foo
3. **ERR** Unable to look for the controller as the "_controller" parameter is missing
4. DEBUG Notified event "core.exception" to listener "profiler_listener:handleException" (notifyUntil)
5. DEBUG Notified event "core.exception" to listener "exception_listener:handle" (notifyUntil)
6. **ERR** Symfony\Component\HttpKernel\Exception\NotFoundHttpException: Unable to find the controller for path "/foo". Maybe you forgot to add the matching route in your routing configuration? (uncaught exception)
7. DEBUG Notified event "core.request" to listener "request_listener:handle" (notifyUntil)
8. INFO Using controller "Symfony\Bundle\FrameworkBundle\Controller\ExceptionController::showAction"
9. DEBUG Notified event "core.controller" to listener "annotations.controller_parser:filter" (filter)
10. DEBUG Notified event "core.controller" to listener "converter.listener:filter" (filter)
11. DEBUG Notified event "core.controller" to listener "view.template_annotation:filterController" (filter)
12. DEBUG Notified event "core.controller" to listener "acme.demo.listener:getController" (filter)



Doctrine2 Support

- Database Abstraction Layer on top of PDO
- Object Relational Mapper
- Migrations support
- Object Document Mapper (MongoDB)
- Object XML Mapper (XML databases)



```
/**
 * @ORM\Entity()
 */
class Talk
{
    /**
     * @ORM\Id()
     * @ORM\GeneratedValue()
     * @ORM\Column(type="integer")
     */
    private $id;

    /** @ORM\Column(length=80) */
    private $title;

    /** @ORM\Column(type="text") */
    private $synopsis;

    /** @ORM\Column(type="datetime") */
    private $schedule;

    /** @ORM\ManyToMany(targetEntity="Speaker", mappedBy="talks") */
    private $speakers;
}
```

Validation



```
class Task
{
    private $name;
    private $dueDate;

    public function getName() {
        return $this->name;
    }

    public function setName($name) {
        $this->name = $name;
    }

    public function getDueDate() {
        return $this->dueDate;
    }

    public function setDueDate(\DateTime $dueDate = null) {
        $this->dueDate = $dueDate;
    }
}
```

```
class Task
{
    /**
     * @Assert\NotBlank()
     * @Assert\MinLength(5)
     * @Assert\MaxLength(30)
     */
    private $name;

    /**
     * @Assert\NotBlank()
     * @Assert\Type()
     * @Assert\MaxLength(30)
     */
    private $dueDate;

    // ...
}
```

Forms Management

GOVERNMENT OF BERMUDA
Ministry of Finance
Customs Department

Customs Traveller Declaration

Each arriving traveller or the responsible household member must complete this declaration form. Only one declaration form per household is required.

I. Family Name _____ First _____

Middle _____ Birth Date _____ Day _____

(We are) ordinarily resident in Bermuda. Yes ☐ No ☐

Mo or Vessel Name _____

Number/Hotel Name _____

```
namespace Sensio\Bundle\TodoBundle\Form;

use Symfony\Component\Form\AbstractType;
use Symfony\Component\Form\FormBuilder;

class TaskType extends AbstractType
{
    public function buildForm(FormBuilder $builder, array $options)
    {
        $builder->add('name');
        $builder->add('dueDate', 'date');
    }

    public function getName()
    {
        return 'task';
    }
}
```

```
public function newAction()
{
    $task = new Task();
    $task->setName('Write a blog post');
    $task->setDueDate(new \DateTime('tomorrow'));

    $request = $this->getRequest();
    $form = $this->createForm(new TaskType(), $task);

    if ($request->getMethod() == 'POST') {
        $form->bindRequest($request);

        if ($form->isValid()) {
            // save the task to the database...

            return $this->redirect($this->generateUrl('success'));
        }
    }
}
```

```
{% extends 'SensioTodoBundle::layout.html.twig' %}
```

```
{% block content %}
```

```
<form action="#" method="post">
```

```
    {{ form_widget(form) }}
```

```
    <input type="submit" value="Send!" />
```

```
</form>
```

```
{% endblock %}
```

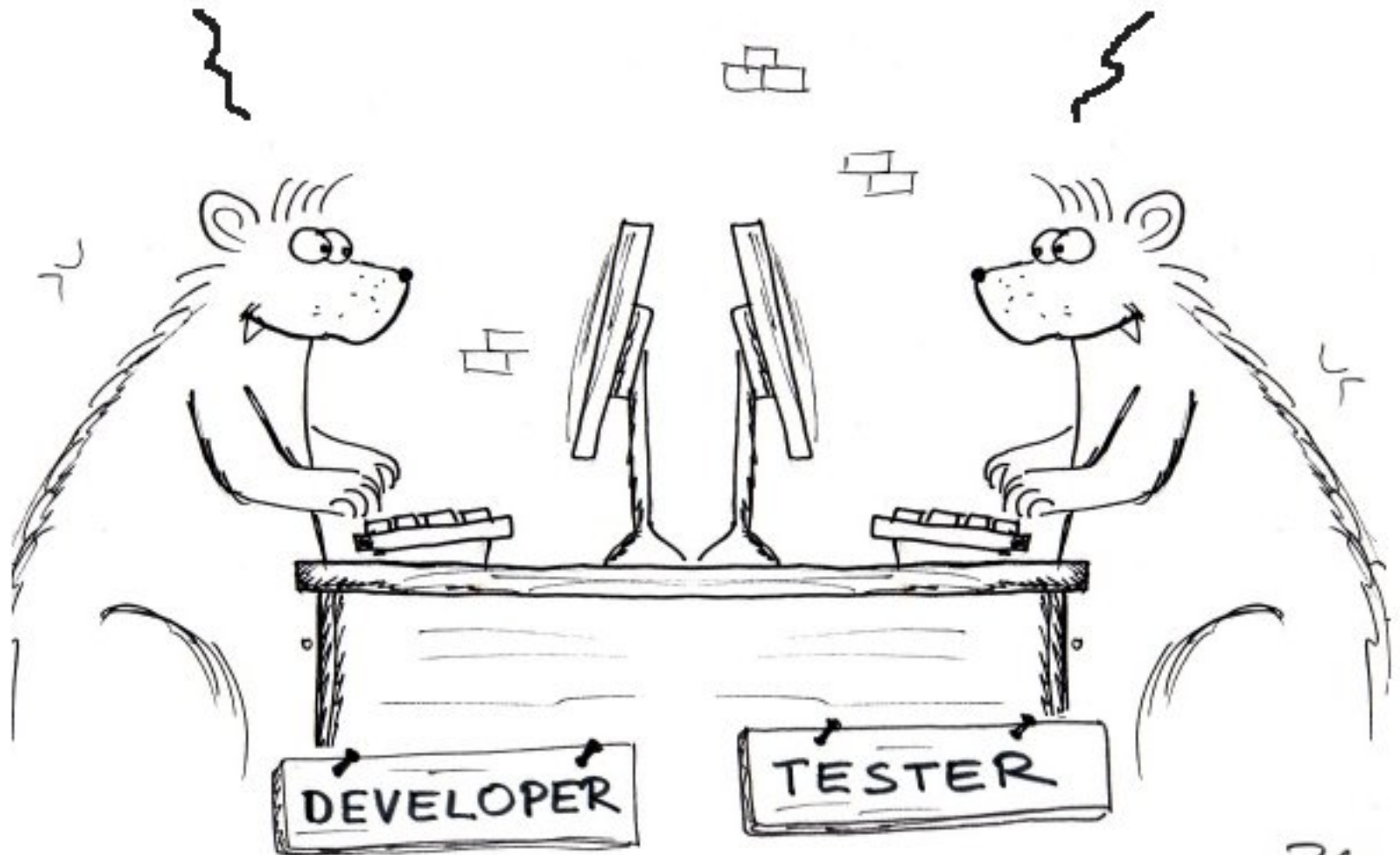


Automated Testing

"HOW CAN I
MAKE IT?"



"HOW CAN I
BREAK IT?"



Zelger

```
1 <?php
2
3 namespace Game\Bundle\HangmanBundle\Tests;
4
5 use Game\Bundle\HangmanBundle\Game;
6 use Game\Bundle\HangmanBundle\Word;
7
8 class GameTest extends \PHPUnit_Framework_TestCase
9 {
10     public function testIsWonWithLettersTrial()
11     {
12         $game = new Game(new Word('php'));
13         $this->assertFalse($game->isWon());
14
15         $game->tryLetter('h');
16         $this->assertFalse($game->isWon());
17
18         $game->tryLetter('p');
19         $this->assertTrue($game->isWon());
20     }
21 }
22
```

UNIT TESTING

```
11 -  
12 public function testGuessTheWord() -  
13 { -  
14     $crawler = $this->client->request('GET', '/game/hangman/?length=3'); -  
15 -  
16     // Click letter P -  
17     $letter = $crawler->selectLink('P')->link(); -  
18     $this->client->click($letter); -  
19     $crawler = $this->client->followRedirect(); -  
20     $this->assertCount(2, $crawler->filter('.word_letters .guessed')); -  
21     $this->assertCount(1, $crawler->filter('.word_letters .hidden')); -  
22 -  
23     // Click letter H -  
24     $letter = $crawler->selectLink('H')->link(); -  
25     $this->client->click($letter); -  
26 -  
27     // Check the game is won -  
28     $crawler = $this->client->followRedirect(); -  
29     $response = $this->client->getResponse(); -  
30     $this->assertRegExp('#Congratulations#', $response->getContent()); -  
31 }
```

FUNCTIONAL TESTING

```
pc-aap121:Hangman Hugo$ phpunit -c app/  
PHPUnit 3.6.10 by Sebastian Bergmann.
```

```
Configuration read from /Users/Hugo/Sit
```

```
.....
```

```
Time: 2 seconds, Memory: 41.75Mb
```

```
OK (22 tests, 63 assertions)
```

```
pc-aap121:Hangman Hugo$ |
```

HTTP Compliance (RFC2616)

Expiration vs Validation

```
class DefaultController extends Controller
{
    /**
     * @Route("/schedule")
     * @Template
     * @Cache(expires="tomorrow")
     */
    public function indexAction()
    {
        $title = 'Conferences Schedule';

        return array('title' => $title);
    }
}
```

```
class DefaultController extends Controller
{
    /**
     * @Route("/schedule")
     * @Template
     * @Cache(maxage="20")
     */
    public function indexAction()
    {
        $title = 'Conferences Schedule';

        return array('title' => $title);
    }
}
```

PHP Reverse Proxy

Varnish

Squid

<http://varnish-cache.org>



Varnish Cache is an open source, state of the art web application accelerator. You install it on your web server and it makes your website fly.

Documentation

Get up to speed

See documentation

Trac

Latest changes & updates

Go to Trac

Community support

Need help?

Get support

Edge Side Includes

```
<esi:include src="http://..." />
```

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Marketplace

Under construction...

No ESI

NEWS FROM THE BLOG

A week of symfony #241 (8->14 August 2011)

August 15, 2011

A week of symfony #240 (1->7 August 2011)

August 09, 2011

symfony 1.4.13 released

August 05, 2011

[Visit Symfony's blog >](#)

IN THE NEWS



Symfony 2 trainings

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UPCOMING TRAINING SESSIONS

Getting Started with Symfony2
Köln - 2011-08-25

Getting Started with Symfony2
New York City - 2011-09-12

Mastering Symfony2
New York City - 2011-09-14

[View all sessions >](#)

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Marketplace

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With ESI

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August 05, 2011

[Visit Symfony's blog >](#)

IN THE NEWS



Symfony 2
trainings

Be the first
to be trained

REGISTER TODAY

```
<esi:include ... />
```

Code Generation

```
Hugo-2:Sandbox Hugo$ php app/console generate:bundle
```

```
Welcome to the Symfony2 bundle generator
```

Your application code must be written in **bundles**. This command helps you generate them easily.

Each bundle is hosted under a namespace (like **Acme/Bundle/BlogBundle**). The namespace should begin with a "vendor" name like your company name, your project name, or your client name, followed by one or more optional category sub-namespaces, and it should end with the bundle name itself (which must have **Bundle** as a suffix).

Use **/** instead of **** for the namespace delimiter to avoid any problem.

Bundle namespace: Sensio/Bundle/BlogBundle|

```
$ php app/console generate:bundle
```

Bundle generation

```
Generating the bundle code: OK
Checking that the bundle is autoloaded: OK
Confirm automatic update of your Kernel [yes]?
Enabling the bundle inside the Kernel: OK
Confirm automatic update of the Routing [yes]?
Importing the bundle routing resource: OK
```

You can now start using the generated code!

```
Hugo-2:Sandbox Hugo$ |
```

Welcome to the Doctrine2 CRUD generator

This command helps you generate CRUD controllers and templates.

First, you need to give the entity for which you want to generate a CRUD. You can give an entity that does not exist yet and the wizard will help you defining it.

You must use the shortcut notation like **AcmeBlogBundle:Post**.

The Entity shortcut name: SensioBlogBundle:Post|

```
$ php app/console generate:doctrine:crud
```

**YOU ARE LEAVING
THE AMERICAN SECTOR
ВЫ ВЫЕЗЖАЕТЕ ИЗ
АМЕРИКАНСКОГО СЕКТОРА**

**VOUS SORTEZ
DU SECTEUR AMÉRICAIN**

SIE VERLASSEN DEN AMERIKANISCHEN SEKTOR

US ARMY

```
<?xml version="1.0"?>
<xliff version="1.2"
  xmlns="urn:oasis:names:tc:xliff:document:1.2">
  <file source-language="en"
    datatype="plaintext"
    original="file.ext">
    <body>
      <trans-unit id="1">
        <source>Symfony2 is great</source>
        <target>J'aime Symfony2</target>
      </trans-unit>
    </body>
  </file>
</xliff>
```

```
{% set message = 'Symfony2 is great' %}
```

```
{{ message|trans }}
```

```
{% set message = 'My name is %name%!' %}
```

```
{{ message|trans({'%name%': 'Hugo'}, "hello") }}
```



A photograph of a desert landscape. In the foreground, a paved road with white and yellow markings leads towards the horizon. The road is flanked by dry, yellowish-brown grass and shrubs. In the background, a range of rugged, brown mountains stretches across the horizon under a bright blue sky with scattered white clouds.

Roadmap for 2.1?

Thank You!