## SYMFONY TIPS & TRICKS

SymfonyCon
Madrid - 27 November 2014

**Javier Eguiluz** 

#### About me

evangelist and trainer at

### SensioLabs



#### My Symfony work

#### **Symfony Documentation Contributors**

Most Active Contributors (last 2 months)

55 people have contributed to the Symfony documentation recently.



1. Ryan Weaver

191 commits 889 changes



2. Wouter De Jong

105 commits 3K changes



3. Christian Flothmann

19 commits 525 changes



4. Javier Eguiluz

17 commits 3K changes



5. Nicolas Grekas

15 commits 1K changes



6. Fabien Potencier

7 commits 14 changes





2013 Best Blogger

Javier Equiluz



#### A week of symfony #412

November 23, 2014



Javier Equiluz

This week, Symfony project focused on tweaking and polishing all in Symfony 2.6 launch of the next week, including its shiny new instal continued for the SymfonyCon conference, which will take place in the biggest event in Symfony's history.

#### Symfony2 development highlights

#### 2.3 changelog:

- 367ed3c: compared version using PHP\_VERSION\_ID constant instruction
- e28f5b8: [FrameworkBundle] be smarter when guessing the doc
  command
- 92c8dfb: [SecurityBundle] authentication entry point is only reg listener, not with authentication listeners
- 76273bf: [FrameworkBundle] cache:clear command fills \*.php.n
- 4162713, 3039935: [HttpFoundation] made Request::get more

#### 2.5 changelog:

• 6e9642a: [WebProfilerBundle] fixed the profiler markup when the

#### 2.6 changelog:

• 8cf3d69: [TwigBundle/DebugBundle] moved dump extension &

#### Why Symfony Tips and Tricks?

I don't work as a developer

But I read and review code every single day

I also read every single blog post published about Symfony

These are the tips and tricks discovered during this year.

#### Thanks to my awesome co-workers for sharing their knowledge!



Grégoire

Loïc



**Nicolas** 



Hugo



Joseph



**Tugdual** 



Julien



Sarah



Jérémy



Romain



FX

Agenda

Assets

Performance

Logging

Legacy

**Testing** 

Config

**Parallel** 

**Doctrine** 

Value Objects

# Asset management

### Named assets

#### Typical asset linking

#### **Defining named assets**

```
# app/config/config.yml
assetic:
    assets:
    # ...
    bootstrap_js:
        inputs:
        - '@AppBundle/Resources/public/js/jquery.js'
        - '@AppBundle/Resources/public/js/jquery.ui.js'
        - '@AppBundle/Resources/public/js/bootstrap.js'
```

#### **Using named assets**

# Asset packages

#### asset() adds a leading slash

```
<img src="{{ asset('images/logo.png') }}" />
```

#### asset() adds a leading slash

```
<img src="{{ asset('images/logo.png') }}" />
```

```
<img src="/images/logo.png" />
```

#### Easiest way to define a base URL

```
# app/config/config.yml
framework:
    templating:
    assets_base_urls:
    http: ['http://static.example.com/images']
    ssl: ['https://static.example.com/images']
```

#### Easiest way to define a base URL

```
# app/config/config.yml
framework:
    templating:
    assets_base_urls:
    http: ['http://static.example.com/images']
    ssl: ['https://static.example.com/images']
```

if you configure several base URLs, Symfony will select one each time to balance asset load

#### Protocol-relative base URL

```
# app/config/config.yml
framework:
    templating:
    assets_base_urls: '//static.example.com/images'
```

## What if we want to modify the base URL just for a few selected assets?

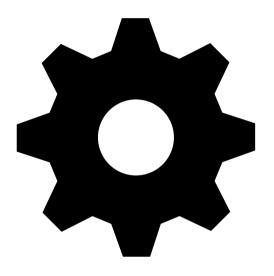
What if we want to modify the base URL just for a few selected assets?

### Asset packages

#### **Asset packages**



Group assets logically.



Define config for each package.

#### Defining asset packages

```
# app/config/config.yml
framework:
    templating:
    packages:
        avatars:
        base_urls: '//static.example.com/avatars/'
```

#### Asset packages in practice

```
<img src="{{ asset('...', 'avatars') }}" />
```

#### Asset packages in practice

```
<img src="{{ asset('...', 'avatars') }}" />
```

```
<img src="//static.example.com/
avatars/logo.png" />
```

#### Packages can define any asset option

```
# app/config/config.yml
framework:
    templating:
        packages:
        avatars:
        version: '20141127'
        base_urls: '//static.example.com/avatars/'
```

## mini-tip

\$ php app/console --env=prod
assetic:dump

```
$ php app/console --env=prod
assetic:dump
```



**WRONG** 

RIGHT

```
$ ./app/console --env=prod
assetic:dump
```



**WRONG** 

**RIGHT** 

```
$ sf --env=prod assetic:dump
alias sf = php app/console
```

**WRONG** 

RIGHT

#### Using good Symfony console shortcuts

```
$ dev ...
$ prod ...
 alias dev = php app/console --env=dev
alias prod = php app/console --env=prod
```

#### **PROS**

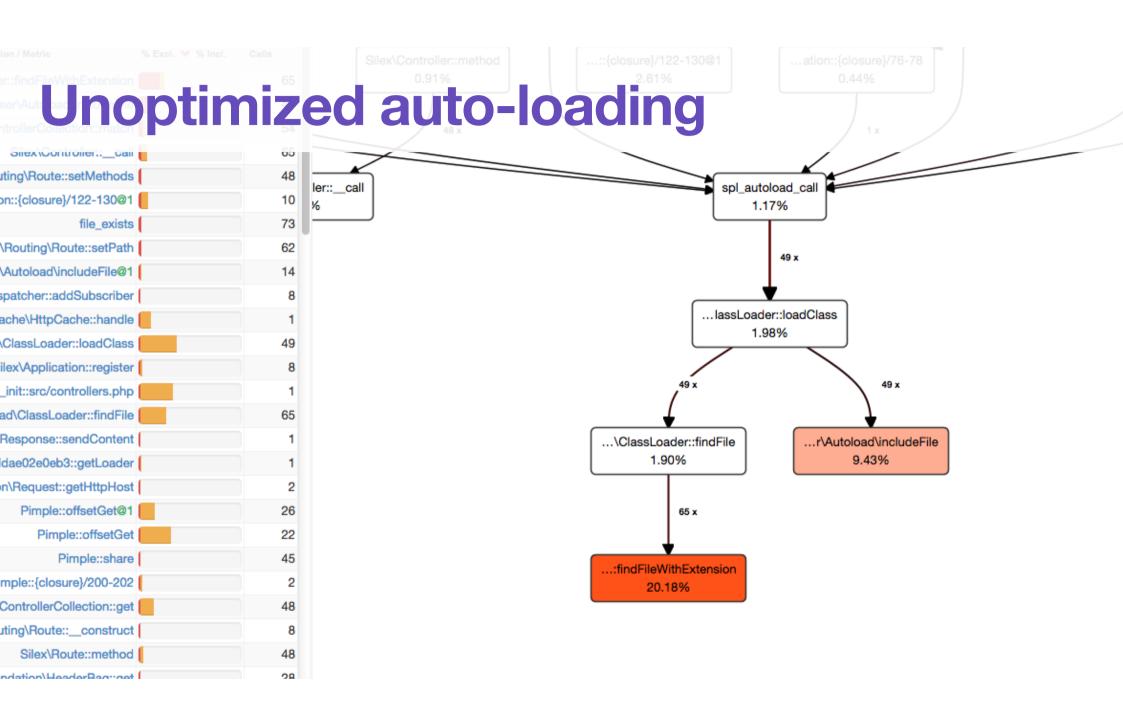
```
$ prod a:d
$ dev r:m /
$ dev cont:d
```

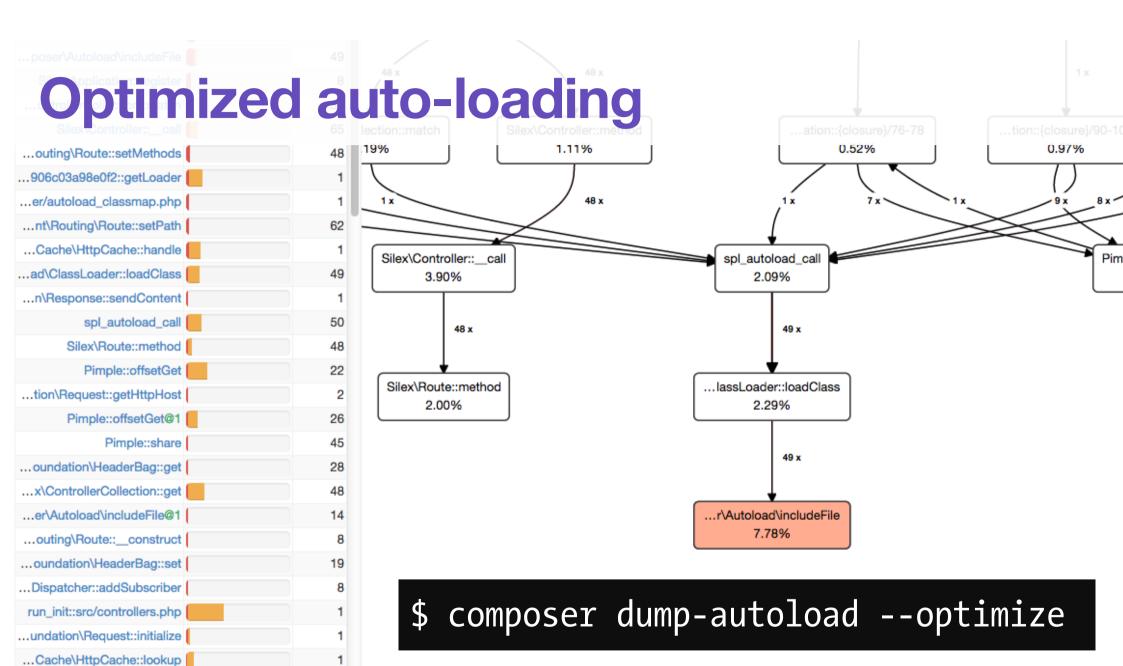
#### **NEWCOMERS**

```
$ php app/console --env=prod assetic:dump
$ php app/console router:match /
$ php app/console container:debug
```

### Performance

# Optimize autoloading





#### Don't load test classes in production

```
"autoload": {
   "psr-4": { "MyLibrary\\": "src/" }
"autoload-dev": {
   "psr-4": { "MyLibrary\\Tests\\": "tests/" }
```

# Add classes to compile

#### **Three important Symfony files**

- app/bootstrap.php.cache
   Internal Symfony classes.
- app/cache/<env>/
  appDevDebugProjectContainer.php
   Compiled container (services and parameters).
- app/cache/<env>/classes.php
   Symfony bundles classes.

#### Adding your own classes for compiling

namespace AppBundle\DependencyInjection;

```
use Symfony\Component\Config\FileLocator;
use Symfony\Component\DependencyInjection\ContainerBuilder;
use Symfony\Component\HttpKernel\DependencyInjection\Extension;
class AppExtension extends Extension
   public function load(array $configs, ContainerBuilder $container)
       // ...
       $this->addClassesToCompile([
           'AppBundle\\Full\\Namespace\\Class'
      ]);
```

#### Adding your own classes for compiling

```
namespace AppBundle\DependencyInjection;
```

```
use Symfony\Component\Config\FileLocator;
use Symfony\Component\DependencyInjection\ContainerBuilder;
use Symfony\Component\HttpKernel\DependencyInjection\Extension;
class AppExtension extends Extension
   public function load(array $configs, ContainerBuilder $container
                                                               WARNING
      // ...
                                                           It doesn't work if
      $this->addClassesToCompile([
                                                          the classes define
          'AppBundle\\Full\\Namespace\\Class'
                                                              annotations
      |);
```

### mini-tip

# How can you enable the profiler on production for some specific users?

#### The easy way: restrict by path

```
# app/config/config.yml
framework:
     # ...
    profiler:
     matcher:
     path: ^/admin/
```

#### The right way: restrict by user (1/2)

```
# app/config/config.yml
framework:
    # ...
    profiler:
        matcher:
            service: app.profiler matcher
services:
    app.profiler matcher:
        class: AppBundle\Profiler\Matcher
        arguments: ["@security.context"]
```

#### The right way: restrict by user (2/2)

```
namespace AppBundle\Profiler;
use Symfony\Component\Security\Core\SecurityContext;
use Symfony\Component\HttpFoundation\Request;
use Symfony\Component\HttpFoundation\RequestMatcherInterface;
class Matcher implements RequestMatcherInterface
    protected $securityContext;
    public function __construct(SecurityContext $securityContext)
        $this->securityContext = $securityContext;
    public function matches(Request $request)
        return $this->securityContext->isGranted('ROLE ADMIN');
```

# Better logs with Monolog

## De-clutter your logs

#### Symfony logs a lot of information

```
[2014-11-24 12:24:22] request.INFO: Matched route "homepage" (parameters: "controller": "AppBundle\Controller\DefaultController::indexAction", "route": "homepage") [] []
[2014-11-24 12:24:22] security.INFO: Populated SecurityContext with an anonymous Token [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.request" to listener "Symfony\Component\HttpKernel\EventListener\DebugHandlersListener::configure". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.request" to listener "Symfony\Component\HttpKernel\EventListener\ProfilerListener::onKernelRequest". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.request" to listener "Symfony\Bundle\FrameworkBundle\EventListener\SessionListener::onKernelRequest". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.request" to listener "Symfony\Component\HttpKernel\EventListener\FragmentListener::onKernelRequest". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.request" to listener "Symfony\Component\HttpKernel\EventListener\RouterListener::onKernelRequest". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.request" to listener "Symfony\Component\HttpKernel\EventListener\LocaleListener::onKernelRequest". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.request" to listener "Symfony\Component\Security\Http\Firewall::onKernelRequest". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.request" to listener "Symfony\Bundle\AsseticBundle\EventListener\RequestListener::onKernelRequest". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.controller" to listener "Symfony\Bundle\FrameworkBundle\DataCollector\RouterDataCollector::onKernelController".[][]
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[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventListener\ControllerListener::onKernelController". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventListener\ParamConverterListener::onKernelController".[][]
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventListener\HttpCacheListener::onKernelController". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventListener\SecurityListener::onKernelController". [] []
.
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventListener\TemplateListener::onKernelController". [] []
[2014-11-24 12:24:22] doctrine.DEBUG: SELECT po .id AS ido, po .title AS title1, po .slug AS slug2, po .summary AS summary3, po .content AS content4, po .authorEmail AS authorEmail5,
pO .publishedAt AS publishedAt6 FROM Post pO WHERE pO .publishedAt <= ? ORDER BY pO .publishedAt DESC LIMIT 10 ["2014-11-24 12:24:22"] []
[2014-11-24 12:24:22] security.DEBUG: Write SecurityContext in the session [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Component\Security\Http\Firewall\ContextListener::onKernelResponse".[][]
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[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Bundle\WebProfilerBundle\EventListener\WebDebugToolbarListener::onKernelResponse".[][]
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Component\HttpKernel\EventListener\StreamedResponseListener::onKernelResponse". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.finish request" to listener "Symfony\Component\HttpKernel\EventListener\LocaleListener::onKernelFinishRequest".[][]
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.finish request" to listener "Symfony\Component\HttpKernel\EventListener\RouterListener::onKernelFinishRequest".[][]
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.finish request" to listener "Symfony\Component\Security\Http\Firewall::onKernelFinishRequest". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.terminate" to listener "Symfony\Bundle\SwiftmailerBundle\EventListener\EmailSenderListener::onTerminate".[][]
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.terminate" to listener "Symfony\Component\HttpKernel\EventListener\ProfilerListener::onKernelTerminate". [] []
```

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[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventListener\HttpCacheListener::onKernelController". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventListener\SecurityListener::onKernelController". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventListener\TemplateListener::onKernelController". [] []
[2014-11-24 12:24:22] doctrine.DEBUG: SELECT po .id AS ido, po .title AS title1, po .slug AS slug2, po .summary AS summary3, po .content AS content4, po .authorEmail AS authorEmail5,
pO .publishedAt AS publishedAt6 FROM Post pO WHERE pO .publishedAt <= ? ORDER BY pO .publishedAt DESC LIMIT 10 ["2014-11-24 12:24:22"] []
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[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.finish request" to listener "Symfony\Component\HttpKernel\EventListener\LocaleListener::onKernelFinishRequest". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.finish request" to listener "Symfony\Component\HttpKernel\EventListener\RouterListener::onKernelFinishRequest".[][]
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.finish request" to listener "Symfony\Component\Security\Http\Firewall::onKernelFinishRequest". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.terminate" to listener "Symfony\Bundle\SwiftmailerBundle\EventListener\EmailSenderListener::onTerminate".[][]
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.terminate" to listener "Symfony\Component\HttpKernel\EventListener\ProfilerListener::onKernelTerminate". [] []
```

```
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.request" to listener "Symfony \Bundle\FrameworkBundle\EventListener \SessionListener::onKernelRequest". [] []
```

```
[2014-11-24 12:24:22] doctrine.DEBUG: SELECT po_.id AS idO, po_.title AS title1, po_.slug AS slug2, po_.summary AS summary3, po_.content AS content4, po_.authorEmail AS authorEmail5, po_.publishedAt AS publishedAt 6 FROM Post po_ WHERE po_.publishedAt <=? ORDER BY po_.publishedAt DESC LIMIT 10 ["2014-11-24 12:24:22"] []
[2014-11-24 12:24:22] event.DEBUG: Write SecurityContext in the session [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Component\HttpKernel\EventListener\Response\Listener\:onKernelResponse\. [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Component\Security\Http\RememberMe\Response\Listener\:onKernelResponse\. [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response\. to listener "Symfony\Component\Security\Http\RememberMe\Response\Listener\:onKernelResponse\. [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response\. to listener "Symfony\Component\Security\Http\RememberMe\Response\Listener\:onKernelResponse\. [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response\. to listener\. "Symfony\Component\HttpKernel\EventListener\ProfilerListener\:onKernelResponse\. [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response\. to listener\. "Symfony\Component\HttpKernel\EventListener\Response\. [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response\. to listener\. "Symfony\Component\HttpKernel\EventListener\StreamedResponse\. [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.finish_request\. to listener\. "Symfony\Component\HttpKernel\EventListener\StreamedResponse\. [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.finish_request\. to listener\. "Symfony\Component\HttpKernel\EventListener\Response\. [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.finish_request\. to listener\. "Symfony\Component\HttpKernel\EventListener\Response\. [] []
[2014-11-24 12:24:22] event.DEBUG: Notified even
```

```
[2014-11-24 12:24:22] request.INFO: Matched route "homepage" (parameters: ...
[2014-11-24 12:24:22] security.INFO: Populated SecurityContext with an anonymous ...
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.request" to listener ...
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.request" to listener ...
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.request" to listener ...
```

```
[2014-11-24 12:24:22] request.INFO: Matched route "homepage" (parameters: ...

[2014-11-24 12:24:22] security.INFO: Populated SecurityContext with an anonymous ...

[2014-11-24 12:24:22] event DEBUG: Notified event "kernel.request" to listener ...

[2014-11-24 12:24:22] event DEBUG: Notified event "kernel.request" to listener ...

[2014-11-24 12:24:22] event DEBUG: Notified event "kernel.request" to listener ...
```

log channel

#### Hide event logs (if you don't need them)

```
# app/config/dev.yml
monolog:
    handlers:
        main:
        type: stream
        path: "%kernel.logs_dir%/%kernel.environment%.log"
        level: debug
        channels: "!event"
```

#### **De-cluttered log files**

```
[2014-11-24 12:24:22] request.INFO: Matched route "homepage" (parameters: "_controller": "AppBundle\Controller\DefaultController::indexAction", "_route": "homepage")

[2014-11-24 12:24:22] security.INFO: Populated SecurityContext with an anonymous Token

[2014-11-24 12:24:22] doctrine.DEBUG: SELECT p0_.id AS id0, p0_.title AS title1, p0_.slug AS slug2, p0_.summary AS summary3, p0_.content AS content4, p0_.authorEmail AS authorEmail5, p0_.publishedAt AS publishedAt6 FROM Post p0_ WHERE p0_.publishedAt <= ?

ORDER BY p0_.publishedAt DESC LIMIT 10 ["2014-11-24 12:24:22"]

[2014-11-24 12:24:22] security.DEBUG: Write SecurityContext in the session
```

### Better log emails

#### **Email logs related to 5xx errors**

```
# app/config/config prod.yml
monolog:
   handlers:
      mail:
          type: fingers crossed
          action level: critical
          handler:
                  buffered
      buffered:
                       buffer
          type:
          handler: swift
      swift:
                swift mailer
          type:
          from_email: error@example.com
          to_email: error@example.com
          subject: An Error Occurred!
          level:
                        debug
```

#### **Email logs related to 5xx errors**

```
# app/config/config prod.yml
monolog:
    handlers:
       mail:
                            fingers crossed
           action level: critical
       buffered:
                            buffer
            type:
            handler:
                            swift
       swift:
                            swift mailer
            type:
            from email:
                            error@example.com
            to email:
                            error@example.com
            subject:
                            An Error Occurred!
            level:
                            debug
```

#### **Email logs related to 4xx errors**

#### Don't email 404 errors

### Organize your logs

#### Use different log files for each channel

```
# app/config/config prod.yml
monolog:
   handlers:
       main:
           type: stream
           path: "%kernel.logs dir%/%kernel.environment%.log"
           level: debug
           channels: ["!event"]
       security:
           type: stream
           path: "%kernel.logs dir%/security-%kernel.environment%.log"
           level: debug
           channels: "security"
```

# Format your log messages

#### Don't do this

```
$logger->info(sprintf(
    "Order number %s processed for %s user",
    $number, $user
));
```

#### Do this instead

```
$logger->info(
    "Order number {num} processed for {name} user",
    ['num' => $number, 'name' => $user]
);
```

#### Do this instead

```
$logger->info(
    "Order number {num} processed for {name} user",
    ['num' => $number, 'name' => $user]
):
```

#### **WARNING**

It doesn't work unless the PSR log processor is enabled.

#### Enable the PsrLogMessageProcessor

#### Monolog includes several processors

#### Create your own processor

```
$logger->info(
   "Order processed successfully.", $order
);
```

#### Create your own processor

```
$logger->info(
   "Order processed successfully.", $order
);
```

```
[2014-11-24 15:15:58] app.INFO: Order processed
successfully. { "order": { "number": "023924382982",
"user":"John Smith", "total":"34.99","status":"PAID" }}
```

#### **Custom monolog processor**

```
namespace AppBundle\Logger\OrderProcessor;
use AppBundle\Entity\Order;
class OrderProcessor
    public function invoke(array $record)
        if (isset($record['context']['order']) && $record['context']['order'] instanceof Order) {
            $order = $record['context']['order'];
            $record['context']['order'] = [
                'number' => $order->getNumber(),
                                                    # app/config/config_prod.yml
                'user' => $order->get...,
                'total' => $order->get...,
                                                    services:
                'status' => $order->get...,
                                                        monolog processor:
            ];
                                                             class: AppBundle\Logger\OrderProcessor
                                                             tags:
       return $record;
                                                                 - { name: monolog.processor }
```

### mini-tip

### Medium-sized and Large Applications







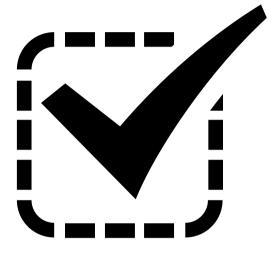
### Medium-sized and Small Applications

Using your own mailer is OK.

### Not all emails should be treated equally



Sign Ups Lost password



Notifications
Newsletters
Spam

### Instant and delayed mailers

```
# app/config/config.yml
swiftmailer:
    default mailer: delayed
    mailers:
        instant:
            # ...
            spool: ~
        delayed:
            # ...
            spool:
                type: file
                path: "%kernel.cache dir%/swiftmailer/spool"
```

### **Using prioritized mailers**

```
// high-priority emails
$container->get('swiftmailer.mailer.instant')->...
// regular emails
$container->get('swiftmailer.mailer')->...
$container->get('swiftmailer.mailer.delayed')->...
```

### Legacy applications

# Pokemon<sup>TM</sup> strategy (catch'em all)

### Controller that captures legacy URLs

```
class LegacyController extends Controller
    /**
     * @Route("/{filename}.php", name="_legacy")
    public function legacyAction($filename)
        $legacyPath = $this->container->getParameter('legacy.path');
        ob start();
        chdir($legacyAppPath);
        require_once $legacyAppPath.$filename.'.php';
        $content = ob_get_clean();
        return new Response($content);
```

Source: http://cvuorinen.net/slides/symfony-legacy-integration/

# Embbedding legacy apps

Router Listener

LegacyKernel Listener

LegacyKernel



Router Listener

LegacyKernel Listener

LegacyKernel



kernel.request

Router Listener

App Kernel

LegacyKernel Listener

LegacyKernel



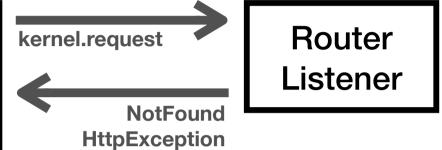
Router Listener

**HttpException** 

LegacyKernel Listener

LegacyKernel



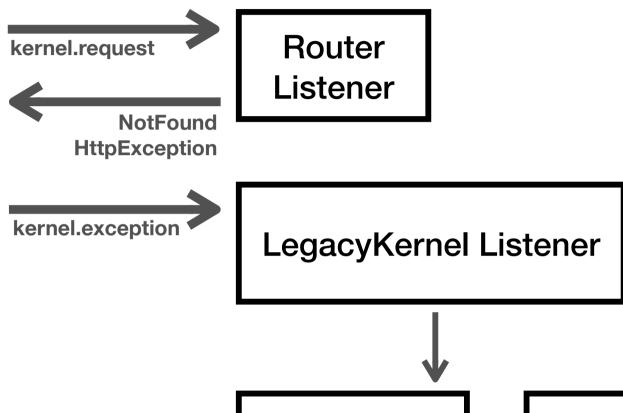


kernel.exception

LegacyKernel Listener

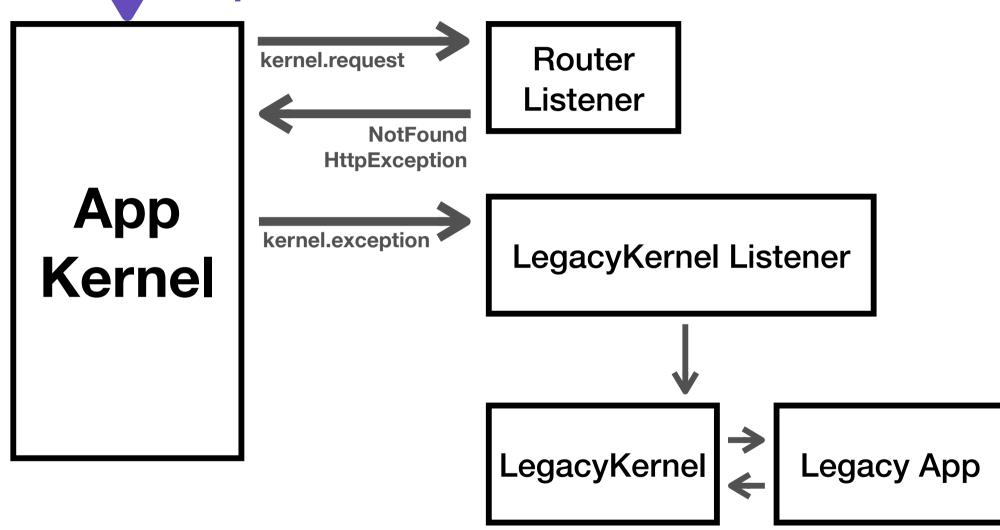
LegacyKernel



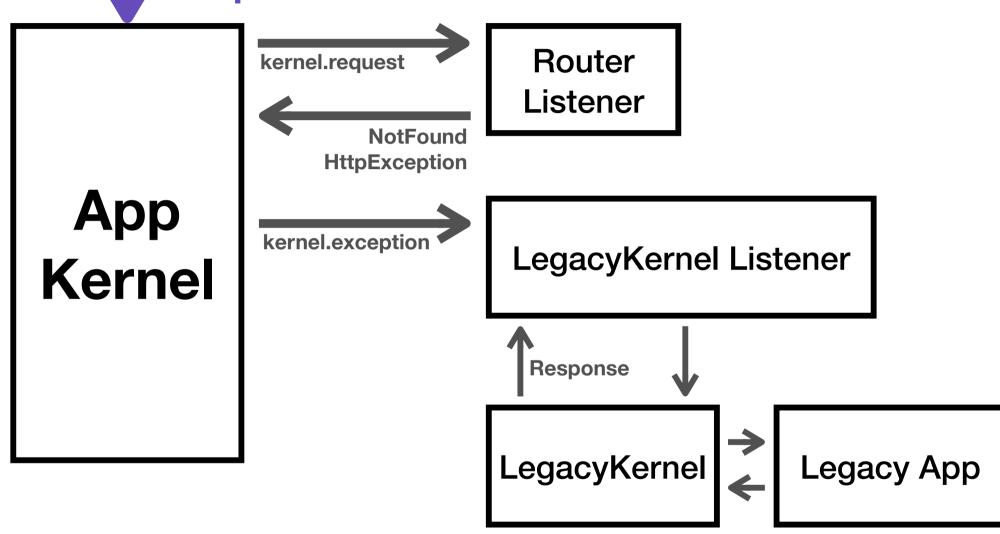


LegacyKernel

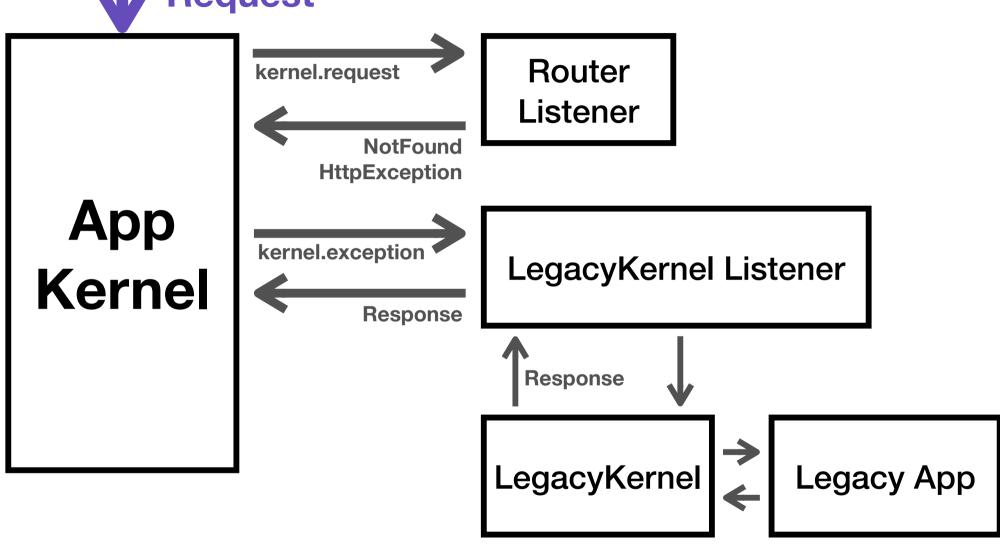


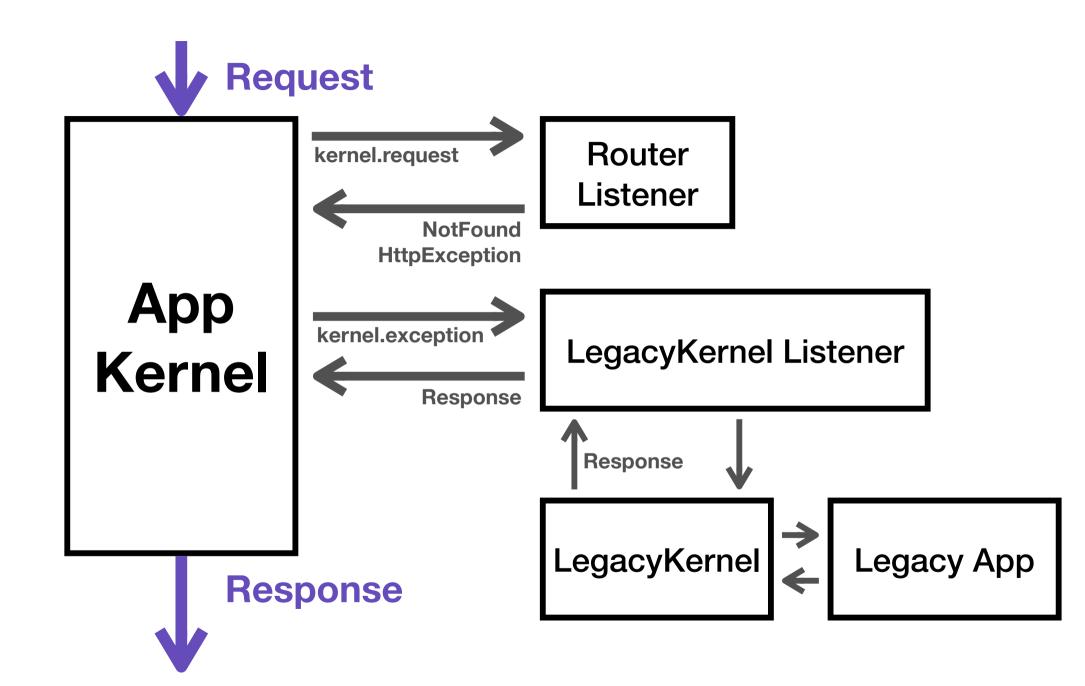












### LegacyKernel to process requests

```
class LegacyKernel implements HttpKernelInterface
    public function handle(Request $request, ...)
        ob start();
        $legacyDir = dirname($this->legacyAppPath);
        chdir($legacyDir);
        require once $this->legacyAppPath;
        $content = ob get clean();
        return new Response($content);
```

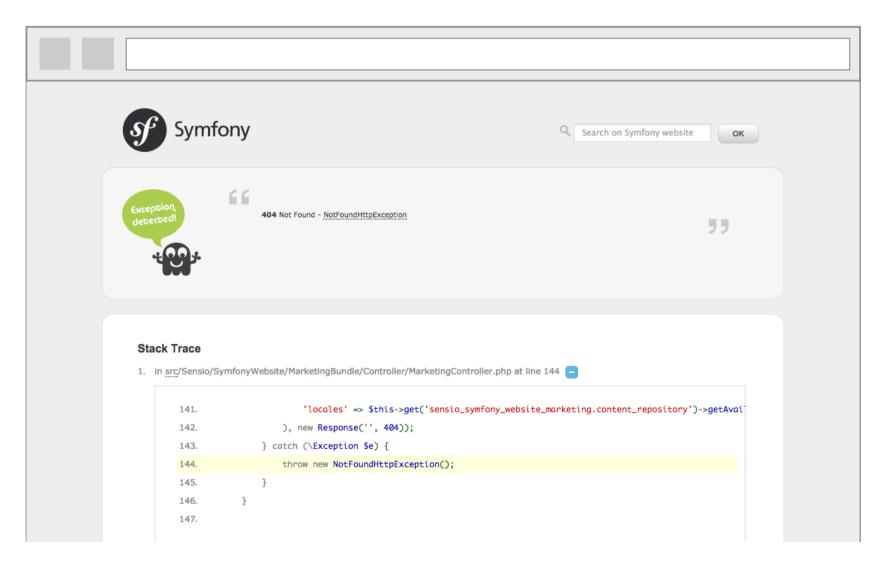
Source: http://cvuorinen.net/slides/symfony-legacy-integration/

### Listener to treat 404 as legacy requests

```
class LegacyKernelListener implements EventSubscriberInterface
   public function onKernelException($event)
        $exception = $event->getException();
        if ($exception instanceof NotFoundHttpException) {
            $request = $event->getRequest();
            $response = $this->legacyKernel->handle($request);
            $response->headers->set('X-Status-Code', 200);
            $event->setResponse($response);
                                  Source: http://cvuorinen.net/slides/symfony-legacy-integration/
```

# mini-tip

### Click-to-file in Symfony Exceptions











### PHPStorm is now supported natively

# app/config/config.yml

framework:

ide: "phpstorm://open?file=%%f&line=%%l"



## Testing tips

### Prophecy

Prophecy is a highly opinionated yet very powerful and flexible PHP object mocking framework.

# PHPUnit has built-in Prophecy mocks support since 4.5 version.

### A complete Prophecy mock

```
class SubjectTest extends PHPUnit_Framework_TestCase
    public function testObserversAreUpdated()
        $subject = new Subject('My subject');
        $observer = $this->prophesize('Observer');
        $observer->update('something')->shouldBeCalled();
        $subject->attach($observer->reveal());
        $subject->doSomething();
```

### Prophecy vs traditional mocks (1/2)

### Prophecy vs traditional mocks (2/2)

#### **Prophecy**

```
$observer->update('something')->shouldBeCalled();
```

#### **PHPUnit**

```
$observer->expects($this->once())
    ->method('update')
    ->with($this->equalTo('something'));
```

# Faster smoke testing

Smoke testing is preliminary testing to reveal simple failures severe enough to reject a prospective software release.

### **Unnecessarily slow tests**

```
namespace AppBundle\Tests\Controller;
use Symfony\Bundle\FrameworkBundle\Test\WebTestCase;
class DefaultControllerTest extends WebTestCase
   /** @dataProvider provideUrls */
   public function testPageIsSuccessful($url)
       $client = self::createClient();
       $client->request('GET', $url);
       $this->assertTrue($client->getResponse()->isSuccessful());
   public function provideUrls()
```

#### Functional tests without WebTestCase

```
class SmokeTest extends \PHPUnit Framework TestCase
    private $app;
    protected function setUp()
        $this->app = new \AppKernel('test', false);
        $this->app->boot();
    /** @dataProvider provideUrls */
    public function testUrl($url)
        $request = new Request::create($url, 'GET');
        $response = $this->app->handle($request);
        $this->assertTrue($response->isSuccessful());
```

Source: http://gnugat.github.io/2014/11/15/sf2-quick-functional-tests.html

# mini-tip

### Impersonating users

```
http://example.com/path?_switch_user=fabien
```

### WARNING

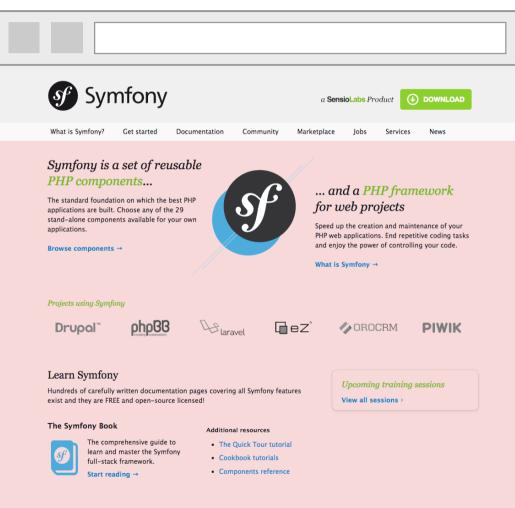
Impersonating is very dangerous and it can lead to severe errors.

### Visual hints when impersonating users

```
<body class="</pre>
{% if app.user and is granted('ROLE PREVIOUS ADMIN') %}
    impersonating
{% endif %}
.impersonating {
    background: rgba(204, 0, 0, 0.15);
```

### Be careful when impersonating users





### Configuration

### Yaml casting

### Implicit YAML casting

#### key:

value1: 5

value2: 2.7

value3: 2014-11-27

### Implicit YAML casting

### **Explicit YAML casting**

#### key:

value1: !str 5

value2: ! 2.7

value3: !str 2014-11-27

### **Explicit YAML casting**

### **Explicit YAML casting**

```
! = int !str = string
!!php/object: = serialized object
```

### Custom Expressions

### **Expression Language in action**

```
/**
 * @Route("/post/{id}")
 * @Cache(smaxage="15", lastModified="post.getUpdatedAt()")
 */
public function showAction(Post $post) { ... }

/**
 * @Assert\Expression("this.getFoo() == 'fo'", message="Not good!")
 */
class Obj { ... }
```

### Custom md5() function

```
use Symfony\Component\ExpressionLanguage\ExpressionFunction;
use Symfony\Component\ExpressionLanguage\ExpressionFunctionProviderInterface;
class AppExpressionLanguageProvider implements ExpressionFunctionProviderInterface
   return array(
        new ExpressionFunction(
            'md5',
            function ($str) {
                return sprintf('(is string(%1$s) ? md5(%1$s) : %1$s)', $str);
            function ($arguments, $str) {
                return is string($str) ? md5($str) : $str;
```

### Custom md5() function

```
use Symfony\Component\ExpressionLanguage\ExpressionFunction;
use Symfony\Component\ExpressionLanguage\ExpressionFunctionProviderInterface;
class AppExpressionLanguageProvider implements ExpressionFunctionProviderInterface
   return array(
       new ExpressionFunction(
                                                    compiled expression
           !function ($str) {
               return sprintf('(is_string(%1$s) ? md5(%1$s) : %1$s)', $str);
           function ($arguments, $str) {
               return is string($str) ? md5($str) : $str;
```

### Custom md5() function

```
use Symfony\Component\ExpressionLanguage\ExpressionFunction;
use Symfony\Component\ExpressionLanguage\ExpressionFunctionProviderInterface;
class AppExpressionLanguageProvider implements ExpressionFunctionProviderInterface
   return array(
       new ExpressionFunction(
                                                  compiled expression
          !function ($str) {
               return sprintf('(is_string(%1$s) ? md5(%1$s) : %1$s)', $str);
          function ($arguments, $str) {
               return is string($str) ? md5($str) : $str;
                                                   executed expression
```

### Using custom functions in expressions

```
namespace AppBundle\Controller;
use Symfony\Bundle\FrameworkBundle\Controller\Controller;
use Sensio\Bundle\FrameworkExtraBundle\Configuration\Security;
class BlogController extends Controller
    /**
     * @Security("md5(user.email) == post.author id")
     */
    public function editAction(...)
                                         # app/config/services.yml
                                          services:
                                             app.expressions:
                                                 class: AppBundle\ExpressionLanguage\Provider
                                                 tags:
                                                     - { name: security.expression language provider }
```

### **Expression Language service tags**

```
services:
    app.expressions:
        class: ...
        tags:
            - { name: security.expression language provider }
services:
    app.expressions:
        class: ...
        tags:
            - { name: routing.expression language provider }
```

# mini-tip

# Have you ever used the {% do %} Twig tag?

## Using the {% do %} Twig tag {% do form.field.setRendered %}

```
{{ form_start(form) }}
     {{ form_errors(form) }}

     {{ form_row(...) }}

{{ form_end(form) }}
```

Source: http://stackoverflow.com/q/10570002

## Using the {% do %} Twig tag {% do form.field.setRendered %}

```
{{ form_start(form) }}
     {{ form_errors(form) }}

     {{ form_row(...) }}

{{ form end(form) }}
```

Source: http://stackoverflow.com/q/10570002

Makes form\_rest() and form\_end() not display the given field.

# Parallel everything

## How many cores/threads has your CPU?

# How many of them are used while developing the application?

### Parallel tests

### « TDD test suites should run in 10 seconds or less »

#### Parallel test execution with Fastest

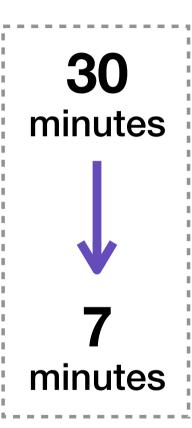
```
# Install
$ composer require --dev 'liuggio/fastest' 'dev-master'
# Execute tests in 4 parallel threads
 find src/ -name "*Test.php" | ./vendor/bin/fastest
  "phpunit -c app {};"
```

### Database isolation for parallel tests

```
getenv('ENV_TEST_CHANNEL');
getenv('ENV_TEST_CHANNEL_READABLE');
getenv('ENV_TEST_CHANNELS_NUMBER');
getenv('ENV_TEST_ARGUMENT');
getenv('ENV_TEST_INC_NUMBER');
getenv('ENV_TEST_IS_FIRST_ON_CHANNEL');
```

### Database isolation for parallel tests

```
getenv('ENV_TEST_CHANNEL');
getenv('ENV_TEST_CHANNEL_READABLE');
getenv('ENV_TEST_CHANNELS_NUMBER');
getenv('ENV_TEST_ARGUMENT');
getenv('ENV_TEST_INC_NUMBER');
getenv('ENV_TEST_IS_FIRST_ON_CHANNEL');
```



#### **Alternatives to Fastest**

- Paratest (Official PHPUnit plugin)
   github.com/brianium/paratest
- Parallel PHPUnit
  github.com/socialpoint-labs/parallel-phpunit
- Docker + PHPUnit
   marmelab.com/blog/2013/11/04/how-to-use-docker-to-run-phpunit-tests-in-parallel.html

### Parallel assets

### Dumping assets ... slowly

```
$ php app/console --env=prod
assetic:dump
```

### Parallel asset dumping

```
$ php app/console --env=prod
assetic:dump
--forks=4
```

### Parallel asset dumping

```
$ prod a:d --forks=4
```

### Parallel asset dumping

```
$ prod a:d --forks=4
```

```
# it requires to install the Spork library
$ composer require kriswallsmith/spork
```

# Parallel HTTP requests

### Parallel HTTP requests with Guzzle

```
use GuzzleHttp\Pool;
use GuzzleHttp\Client;
$client = new Client();
$requests = [
    $client->createRequest('GET', 'http://example.org'),
    $client->createRequest('DELETE', 'http://example.org/delete'),
    $client->createRequest('PUT', 'http://example.org/put', ['body' => 'test'])
];
(new Pool($client, $requests))->wait();
```

## Rarely used Doctrine features

# Ordering with expressions

#### This does not work

```
SELECT t
FROM Talks t
ORDER BY t.comments + t.likes_count
```

#### This does work

```
SELECT t,
    (t.comments + t.likes_count) AS HIDDEN score
FROM Talks t
ORDER BY score
```

## Partial queries

#### Selecting specific properties

```
public function findPost()
    return $this
        ->createQueryBuilder('p')
        ->select('p.id, p.title')
        ->where('p.id = :id')->setParameter('id', 1)
        ->getQuery()
        ->getResult()
```

#### The executed SQL query

doctrine.DEBUG:

```
SELECT p0_.id AS id_0,

p0_.title AS title_1

FROM Post p0_

WHERE p0_.id = ?
```

#### The resulting "object"

```
array(1) {
    [0]=> array(2) {
        ["id"] => int(1)
        ["title"] => string(7) "Post #1"
    }
}
```

#### **Using Doctrine partials**

```
public function findPost()
   return $this
       ->createQueryBuilder('p')
       ->select('partial p.{id, title}')
       ->where('p.id = :id')->setParameter('id', 1)
       ->getQuery()
       ->getResult()
```

#### The executed SQL query

doctrine.DEBUG:

```
SELECT p0_.id AS id_0,

p0_.title AS title_1

FROM Post p0_

WHERE p0_.id = ?
```

#### The resulting object

```
array(1) {
 [0]=>
   object(stdClass)#676 (9) {
     [" CLASS "] => string(21) "AppBundle\Entity\Post"
     ["id"] => int(1)
     ["title"] => string(7) "Post #1"
     ["slug"] => NULL
     ["summary"] => NULL
     ["content"] => NULL
     ["authorEmail"] => NULL
     ["publishedAt"] => NULL
     ["comments"] => string(8) "Array(5)"
```

#### The resulting object

```
array(1) {
 [0]=>
   object(stdClass)#676 (9) {
                          g(21) "AppBundle\Entity\Post"
     ["title"]
                  ["slug"]
                      NULL
                   => NULL
     ["summary"]
     ["content"]
                   => NULL
     ["authorEmail"
                     NULL
     ["published > NULL
     ["comments"]
```

### WARNING

Doctrine Partials make your code very fragile. Use them with caution.

#### Legitimate use cases for Partials

- Specific (and limited) parts of the application where performance is the top priority.
- Never when developing the application (wrong premature optimization).

## schema\_filter option

#### Configuring schema\_filter option

#### Filtering tables managed by other apps

Source: http://javaguirre.net/2013/10/16/symfony-migrations-and-django-admin/

#### Using schema\_filter to migrate gradually

```
# app/config/config.yml
doctrine:
    dbal:
        default connection: default
        connections:
            default:
                dbname:
                             "%database name%"
                # ...
            legacy:
                # ...
                schema filter: ~^(?!(prefix) )~
```

Source: http://espend.de/artikel/doctrine-und-symfony2-orm-entities-aus-datenbank-erzeugen.html

### Doctrine Filters

## How do you deal with global SQL clauses?

#### **Examples of global SQL clauses**

**CMS** applications

Display only published contents.

WHERE status = :published

#### **Examples of global SQL clauses**

#### **CMS** applications

Display only published contents.

WHERE status = :published

Never display (soft) deleted items.

WHERE status = :not\_deleted

#### **Examples of global SQL clauses**

#### **CMS** applications

Display only published contents.

WHERE status = :published

Never display (soft) deleted items.

WHERE status = :not deleted

#### **Commerce applications**

Display only invoices/ orders for the given user.

```
WHERE user_id = :user_id
```

Doctrine filters allow to add SQL to the conditional clauses of queries, regardless the place where the SQL is generated.

#### Creating a global Locale filter

```
namespace AppBundle\Filter\LocaleFilter;
                                               WHERE locale = 'es'
use Doctrine\ORM\Mapping\ClassMetaData;
use Doctrine\ORM\Ouery\Filter\SOLFilter;
class LocaleFilter extends SQLFilter
   public function addFilterConstraint(ClassMetadata $targetEntity, $targetTableAlias)
       return sprintf(
           '%s.%s = %s',
           $targetTableAlias, 'locale', $this->getParameter('locale')
```

#### **Enabling the filter globally**

#### Using the filter and setting its values

What's the point of using global filters if you have to set up values manually for each query?

#### Setting filter values automatically (1/2)

```
services:
    app.locale filter:
        class: AppBundle\Filter\LocaleFilter
        arguments: [@session]
        tags:
                name: kernel.event listener,
                event: kernel.request,
                method: onKernelRequest
```

Source: http://stackoverflow.com/a/15792119

#### Setting filter values automatically (2/2)

```
public function construct(SessionInterface $session)
    $this->session = $session;
// ...
public function onKernelRequest()
    $this->em->getConfiguration()
         ->addFilter('locale filter', 'AppBundle\\Filter\\LocaleFilter');
    $filter = $this->em->getFilters()->enable('locale filter');
    $filter->setParameter('locale', $this->session->get('user locale'));
Source: http://stackoverflow.com/a/15792119
```

#### Constraining the scope of the filters

```
class LocaleFilter extends SQLFilter
{
    public function addFilterConstraint(ClassMetadata $targetEntity, $targetTableAlias)
    {
        if (!$targetEntity->reflClass->implementsInterface('LocaleAware')) {
            return '';
        }
        // ...
}
```

#### Constraining the scope of the filters

```
class LocaleFilter extends SQLFilter
   public function addFilterConstraint(ClassMetadata $targetEntity, $targetTableAlias)
       if (!$targetEntity->reflClass->implementsInterface('LocaleAware')) {
           return '';
                          /** @ORM\Entity */
                          class Content implements LocalAware
```

#### **Combining filters with annotations**

```
namespace AppBundle\Entity;
use AppBundle\Annotation\UserAware;

/**
   * @UserAware(userFieldName="user_id")
   */
class Order { ... }
```

#### **Combining filters with annotations**

```
/**
  * @UserAware(userFieldName="user_id")
  */
class Order { ... }
```

#### **Combining filters with annotations**

```
namespace AppBundle\Entity;
```

```
WHERE user_id = :id
```

use AppBundle\Annotation\UserAware;

```
/**
  * @UserAware(userFieldName="user_id")
  */
class Order { ... }
```

Learn how to do this at: http://blog.michaelperrin.fr/2014/07/25/doctrine-filters/

## Value Objects

# Value Objects in theory

A value object is a small object that represents a simple entity whose equality is not based on identity.

Two value objects are equal when they have the same value, not necessarily being the same object.

#### Identity is irrelevant for value objects

## Value Objects in Doctrine

#### A typical Doctrine entity

```
namespace AppBundle\Entity;
/** @Entity */
class Customer
    /** @Id @GeneratedValue @Column(type="integer") */
    protected $id;
    /** @Column(type="string") */
    protected $name;
    /** @Column(type="string", length=120) **/
    protected $email address;
    protected $address line 1;
    protected $address line 2;
    protected $city;
    protected $state;
    protected $postalCode;
    protected $country;
```

#### A typical Doctrine entity

```
namespace AppBundle\Entity;
/** @Entity */
class Customer
   /** @Id @GeneratedValue @Column(type="integer") */
   protected $id;
   /** @Column(type="string") */
   protected $name;
   /** @Column(type="string", length=120) **/
   protected $email address;
   protected $address line 1;
                               Address
   protected $address line 2;
   protected $city;
   protected $state;
                                Value Object
   protected $postalCode;
   protected $country;
```

#### Defining a Value Object in Doctrine

```
namespace AppBundle\ValueObject;
use Doctrine\ORM\Mapping as ORM;
/** @ORM\Embeddable */
class Address
    /** @ORM\Column(type = "string") */
                                              /** @ORM\Column(type = "string") */
    protected $line 1;
                                               protected $line 2;
   /** @ORM\Column(type = "string") */
                                              /** @ORM\Column(type = "string") */
    protected $city;
                                               protected $state;
    /** @ORM\Column(type = "string") */
                                              /** @ORM\Column(type = "string") */
    protected $postalCode;
                                               protected $country;
```

#### Using a Value Object in Doctrine

```
namespace AppBundle\Entity;
use Doctrine\ORM\Mapping as ORM;
/** @ORM\Entity */
class Customer
   /** @ORM\Id @ORM\GeneratedValue @ORM\Column(type="integer") */
   protected $id;
   /** @ORM\Column(type="string") */
   protected $name = '';
   /** @ORM\Column(type="string", length=120) **/
   protected $email address = '';
   /** @ORM\Embedded(class="\AppBundle\ValueObject\Address") */
   protected $address;
```

#### Value Objects at SQL level

```
CREATE TABLE Post (
  id INTEGER NOT NULL,
  title VARCHAR(255) NOT NULL,
  slug VARCHAR(255) NOT NULL,
  summary VARCHAR(255) NOT NULL,
  content CLOB NOT NULL,
  authorEmail VARCHAR(255) NOT NULL,
  publishedAt DATETIME NOT NULL,
  address line 1 VARCHAR(255) NOT NULL,
  address line 2 VARCHAR(255) NOT NULL,
  address city VARCHAR(255) NOT NULL,
  address state VARCHAR(255) NOT NULL,
  address postalCode VARCHAR(255) NOT NULL,
  address country VARCHAR(255) NOT NULL,
PRIMARY KEY(id))
```

#### Value Objects at query level

```
SELECT c
FROM Customer c
WHERE c.address.city = :city
```

Embeddables are classes which are not entities themself, but are embedded in entities and can also be queried in DQL.

Agenda

**Assets** 

Performance

Logging

Legacy

**Testing** 

Config

**Parallel** 

**Doctrine** 

Value Objects

## Thank you.

### Questions?

http://joind.in/talk/view/12944

#### **Contact info**

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