## SYMFONY TIPS & TRICKS

SymfonyCon Madrid - 27 November 2014 Javier Eguiluz

### About me

evangelist and trainer at

## Sensiolabs Créateur de Symfony

### 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 Eguiluz** 

This week, Symfony project focused on tweaking and polishing all is 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 in: function
- 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 tl

#### 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

These are the tips and tricks discovered during this year.

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



Grégoire



Nicolas



Hugo



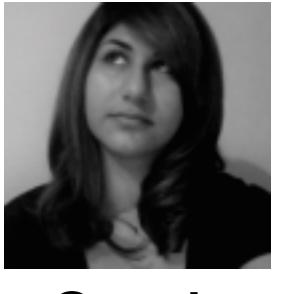
Joseph



Tugdual



Julien



Sarah



Jérémy



Romain



FX



Loïc

Agenda

Assets

Performance

Logging

Legacy

Testing

Config

Parallel

Doctrine

Value Objects

# Asset management

### Named assets

### Typical asset linking

```
{% javascripts
    '@AppBundle/Resources/public/js/jquery.js'
    '@AppBundle/Resources/public/js/jquery.ui.js'
    '@AppBundle/Resources/public/js/bootstrap.js'
    '@AppBundle/Resources/public/js/*' %}
        <script src="{{ asset url }}"></script>
{% endjavascripts %}
```

### 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') }}" />
```

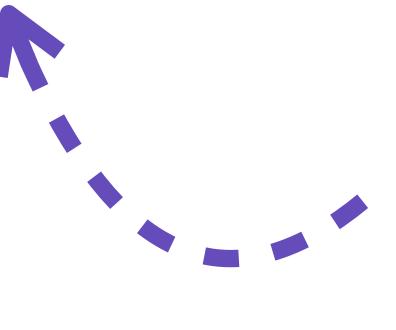
```
<img src="/images/logo.png" />
```

### 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?

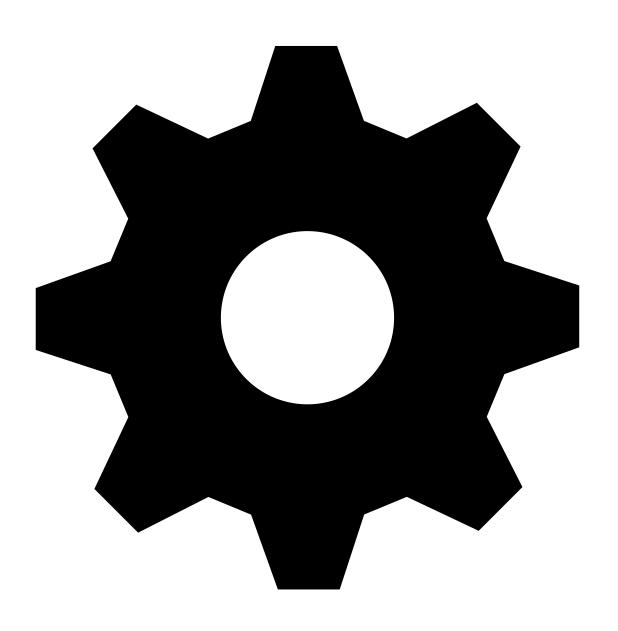
# What if we want to modify the base URL just for a few selected assets?

## 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" />
```

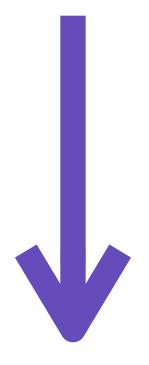
### Packages can define any asset option

```
# 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

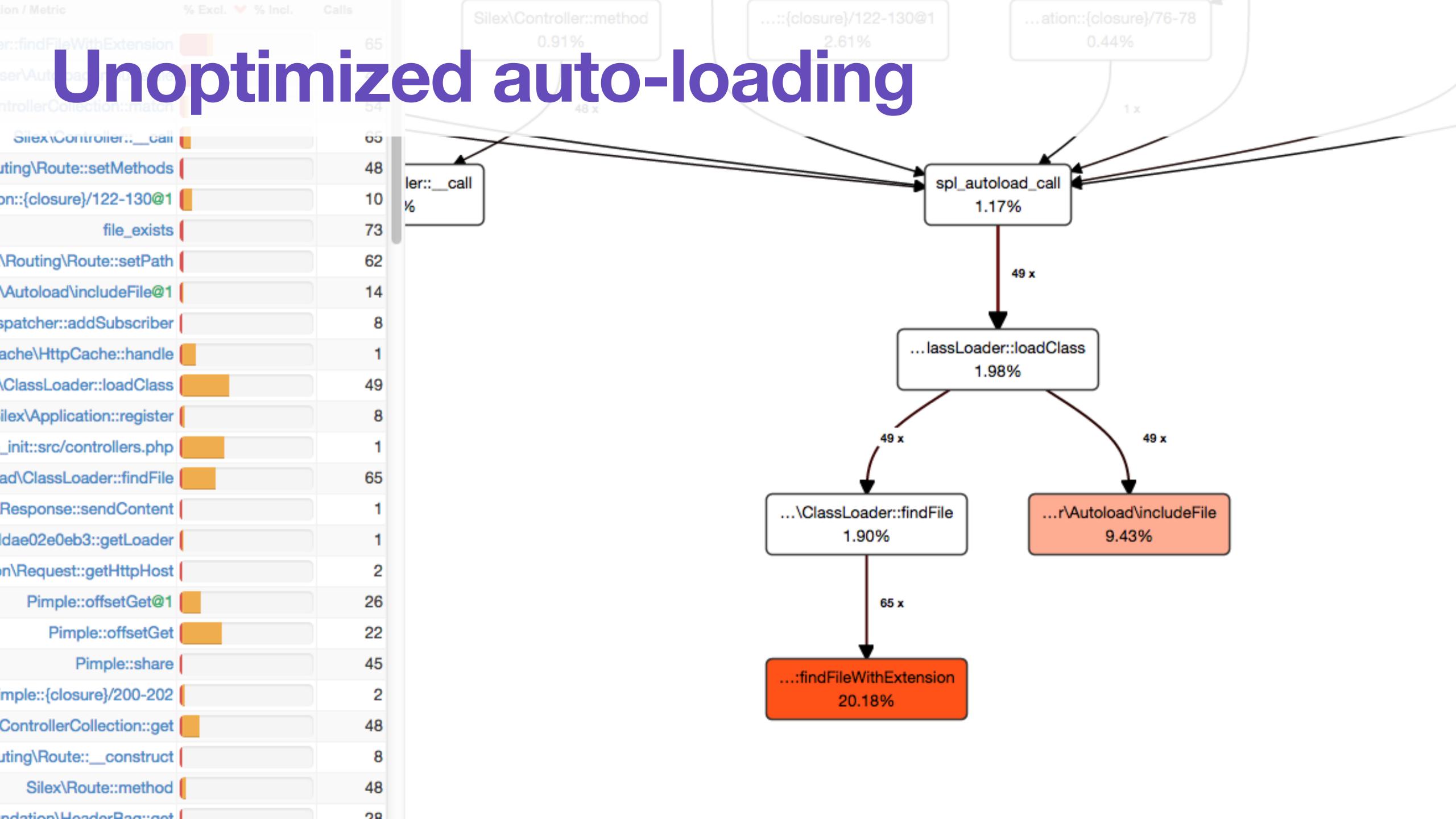
```
$ prod a:d
$ dev r:m /
$ dev cont:d
```

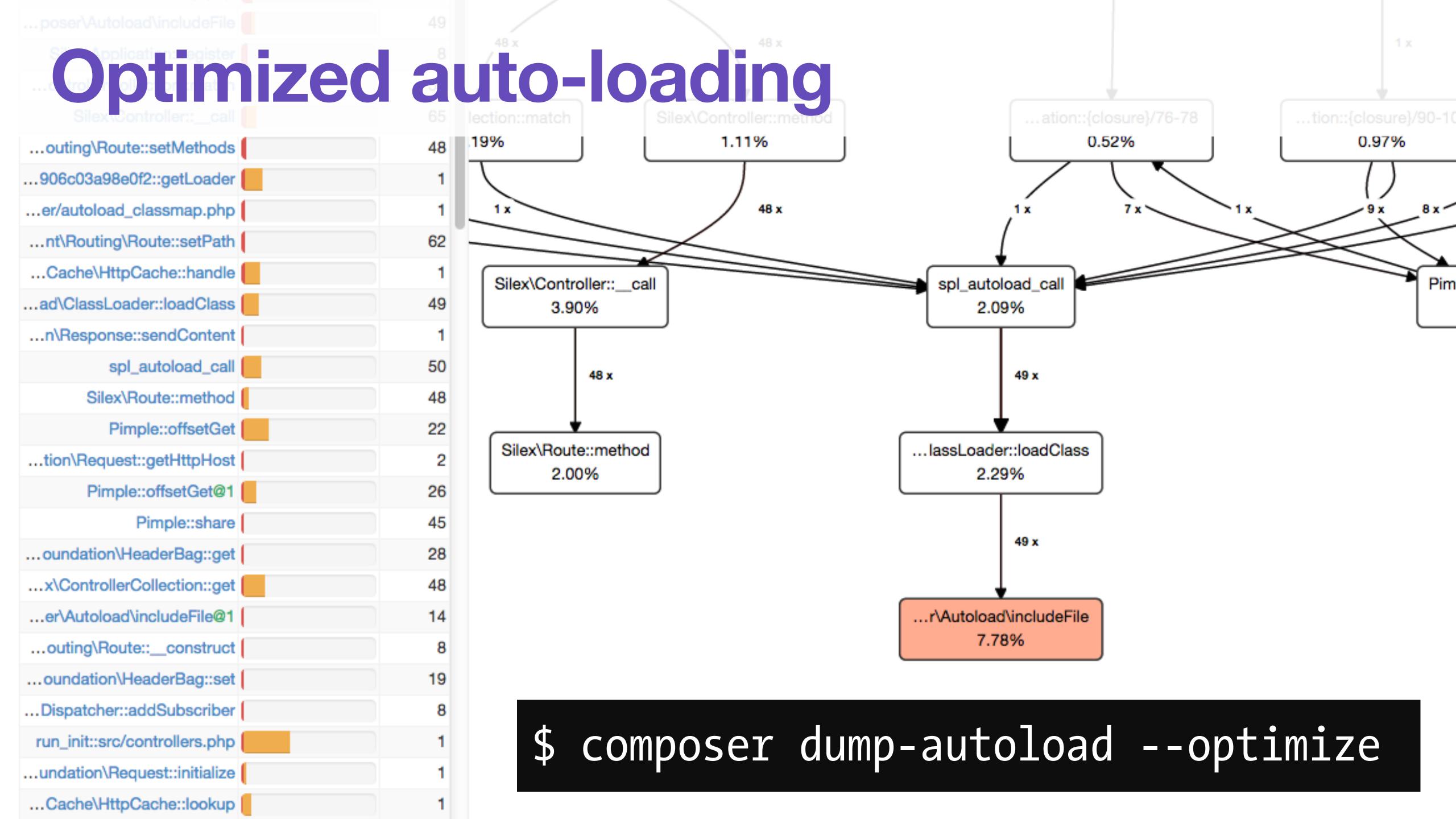
### NEWCOMERS

```
$ 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
       // ...
       $this->addClassesToCompile([
           'AppBundle\\Full\\Namespace\\Class'
```

#### WARNING

It doesn't work if the classes define 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 [] []
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[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Component\Security\Http\RememberMe\ResponseListener::onKernelResponse". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response" to listener "Sensio\Bundle\FrameworkExtraBundle\EventListener\HttpCacheListener::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\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". [] []
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[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 id0, 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 [] []
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[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Component\Security\Http\RememberMe\ResponseListener::onKernelResponse". [] []
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[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Component\HttpKernel\EventListener\ProfilerBudResponse". [] []
[2014-11-24 12:24:22] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Component\HttpKernel\EventListener\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\Response\R
```

```
[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
                          error@example.com
           to email:
           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
            nangler
                             DUTTELEG
        buffered:
                             buffer
            type:
            handler:
                             swift
        swift:
                             swift mailer
            type:
            from email:
                             error@example.com
                             error@example.com
            to email:
            subject:
                             An Error Occurred!
            level:
                             debug
```

#### Email logs related to 4xx errors

```
# app/config/config prod.yml
monolog:
    handlers:
        mail:
                            fingers crossed
            tyne.
            action level: error
            nangier:
                             Duttered
       buffered:
        swift:
```

#### Don't email 404 errors

```
# app/config/config prod.yml
monolog:
    handlers:
       mail:
                           fingers crossed
            type:
           action level: error
           excluded 404:
            handler:
                            buttered
        buffered:
        swift:
```

## Organize your logs

#### Use different log files for each channel

```
# app/config/config prod.yml
monolog:
   handlers:
       main:
           type: stream
           "%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

```
# app/config/config_prod.yml
services:
    monolog_processor:
        class: Monolog\Processor\PsrLogMessageProcessor
        tags:
        - { name: monolog.processor }
```

#### Monolog includes several processors

```
# app/config/config_prod.yml
services:
    monolog_processor:
        class: Monolog\Processor\IntrospectionProcessor
        tags:
        - { name: monolog.processor }
```

#### 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(),
                'user' => $order->get...,
                                                    # app/config/config_prod.yml
                '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







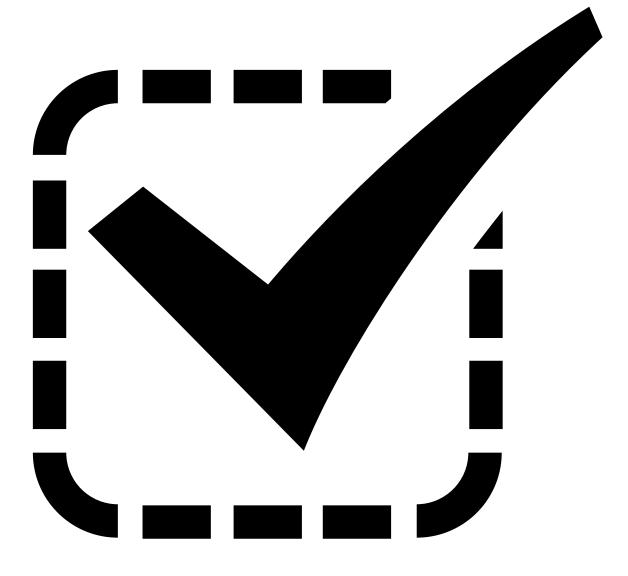
### Medium-sized and Small Applications

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

### App Kernel

Router Listener

LegacyKernel Listener

LegacyKernel



App Kernel Router Listener

LegacyKernel Listener

LegacyKernel



kernel.request

Router Listener

App Kernel

LegacyKernel Listener

LegacyKernel



App Kernel kernel.request
Router
Listener
NotFound

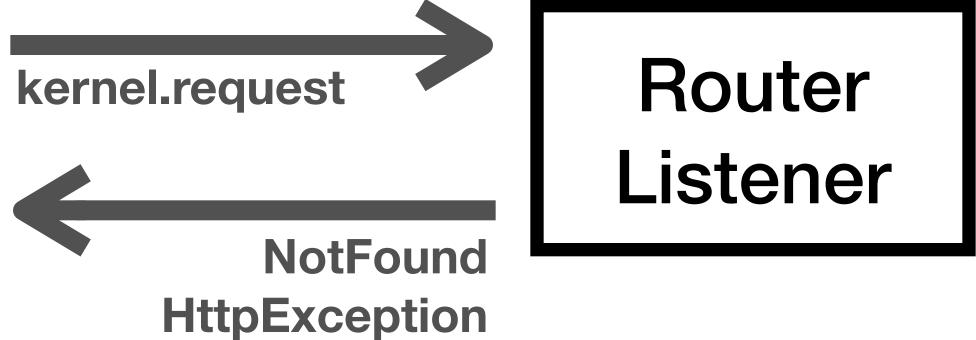
HttpException

LegacyKernel Listener

LegacyKernel



App Kernel

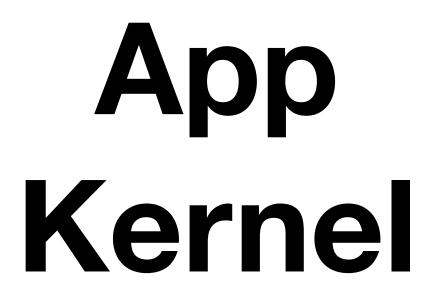


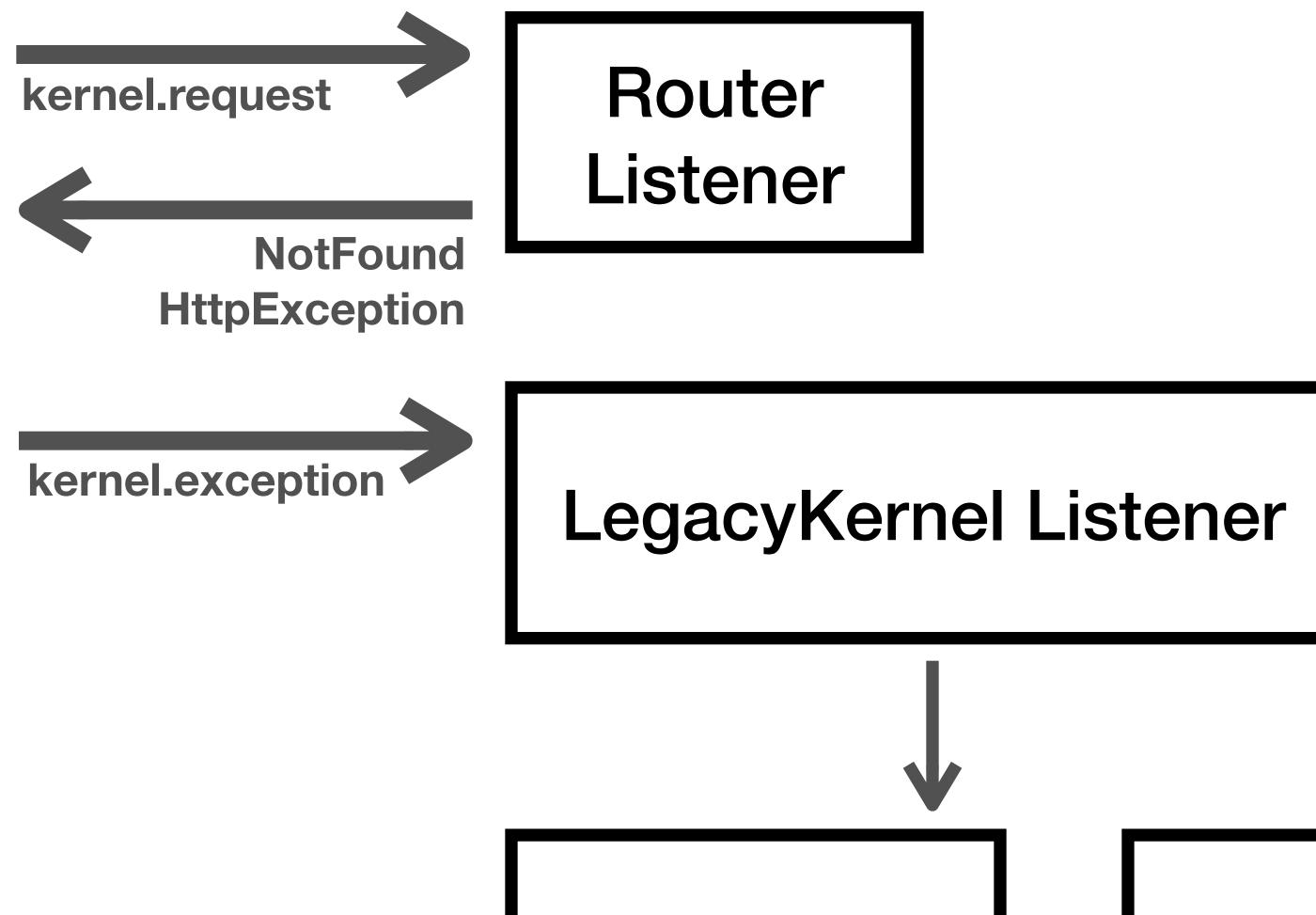
kernel.exception 1

LegacyKernel Listener

LegacyKernel

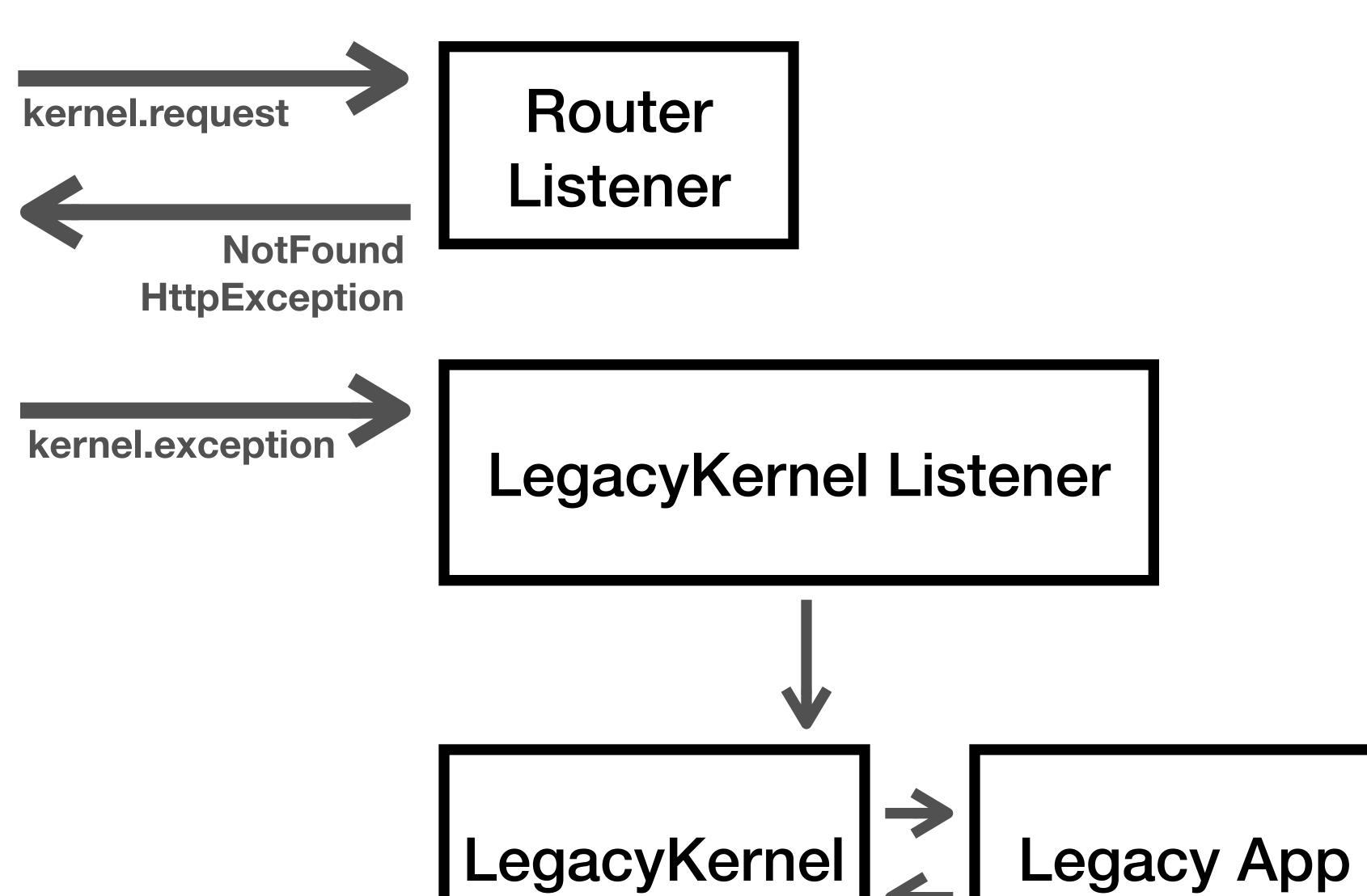




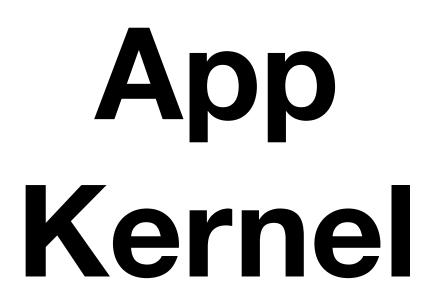


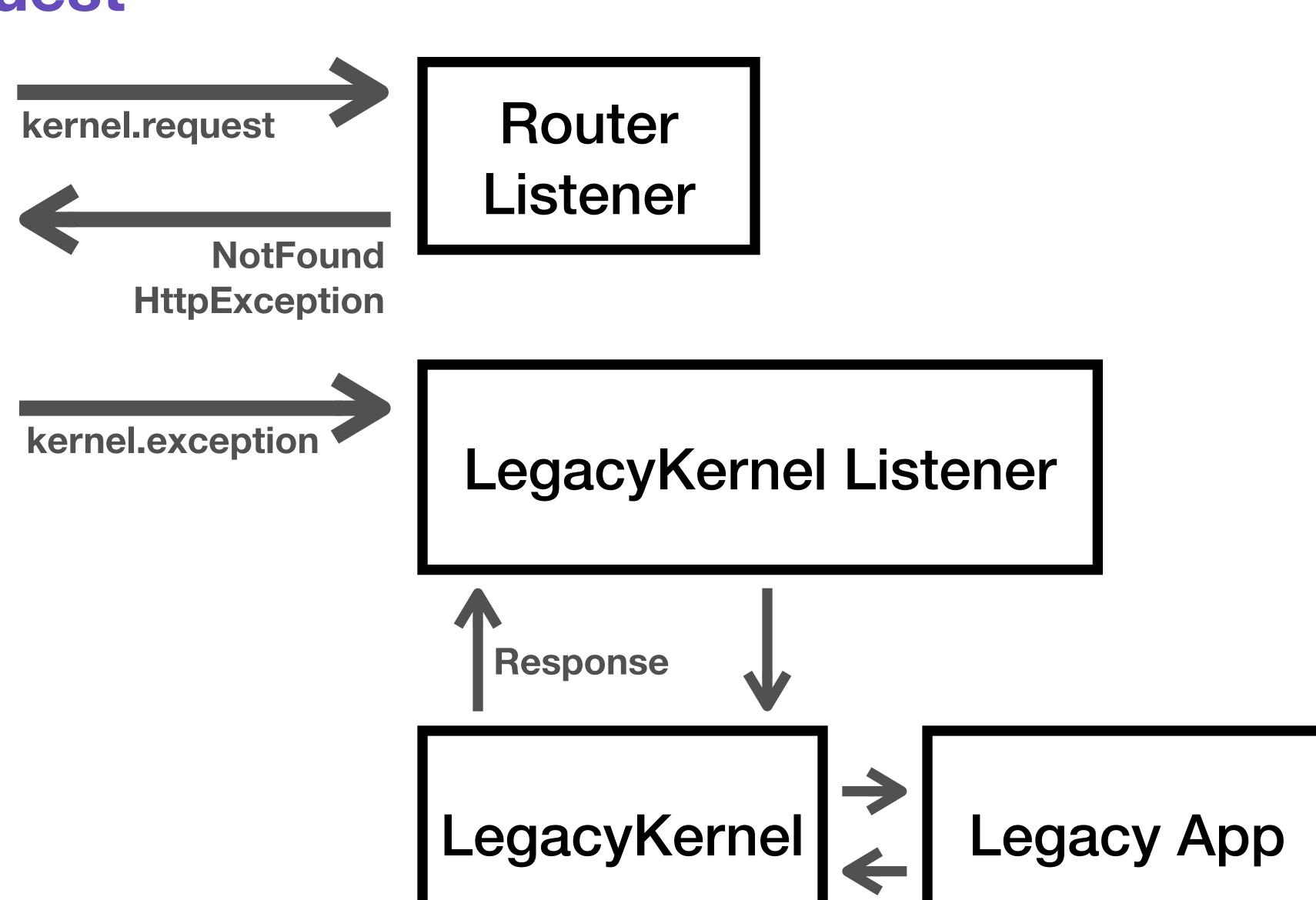




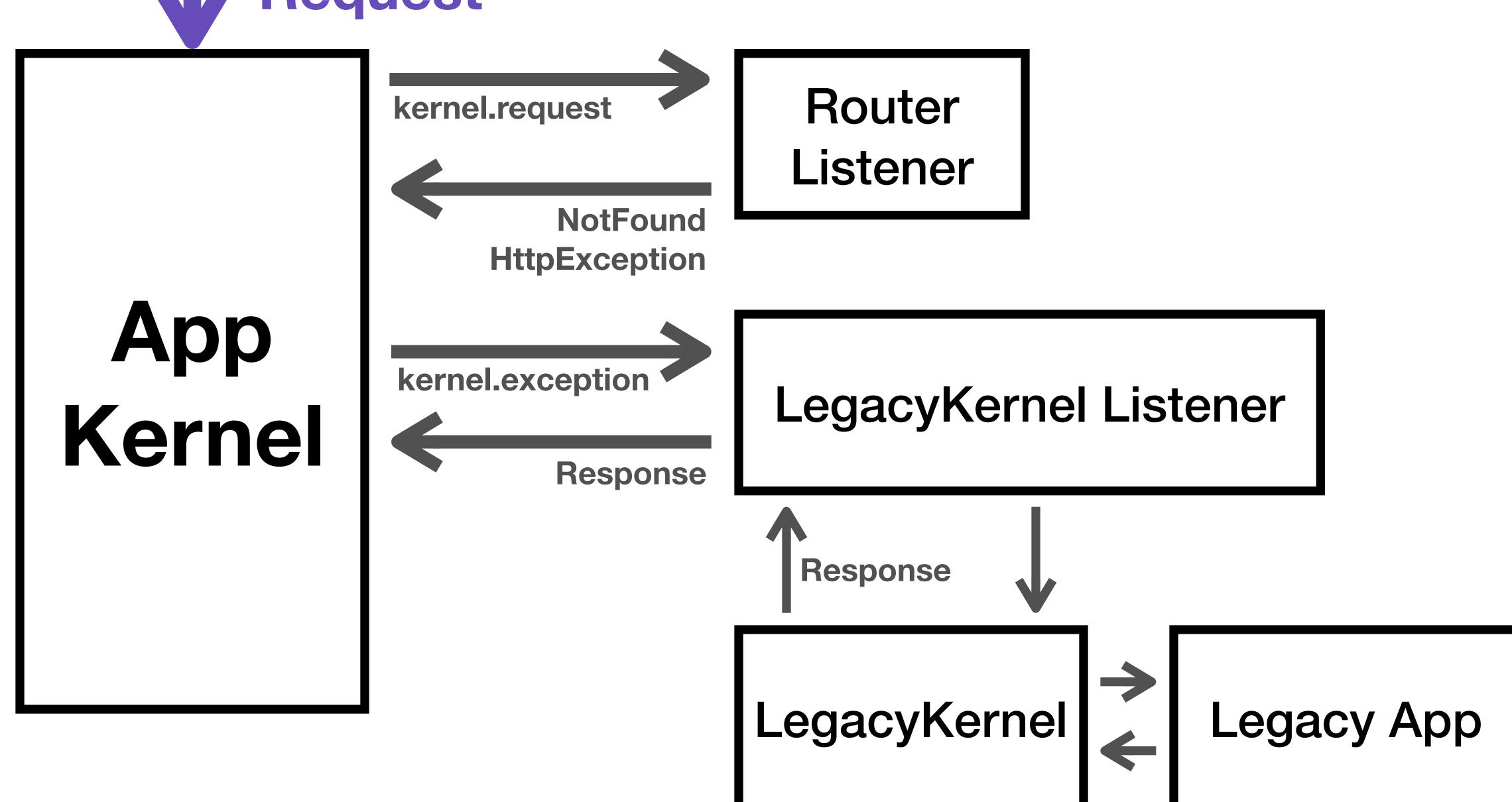




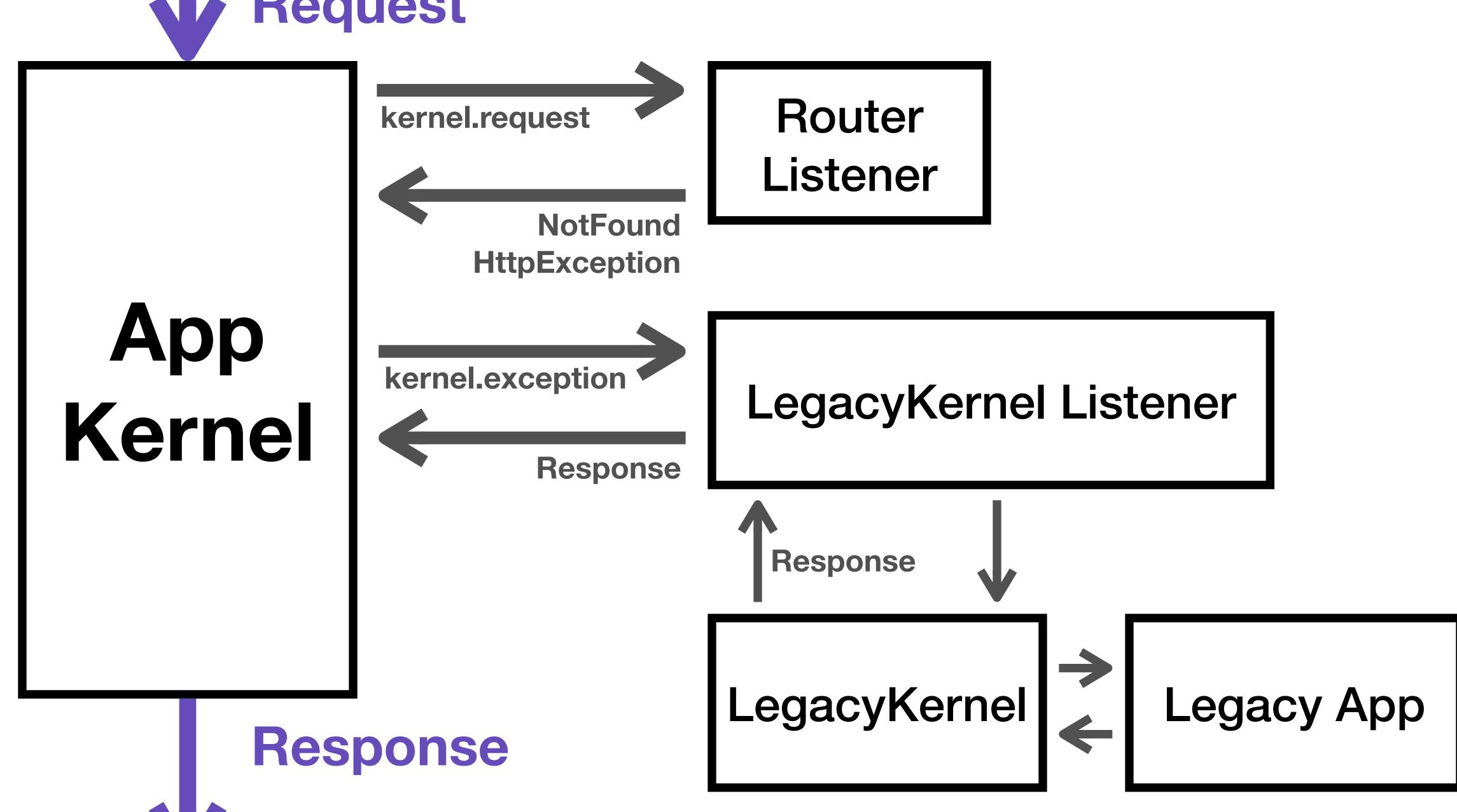












### LegacyKernel to process requests

```
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);
```

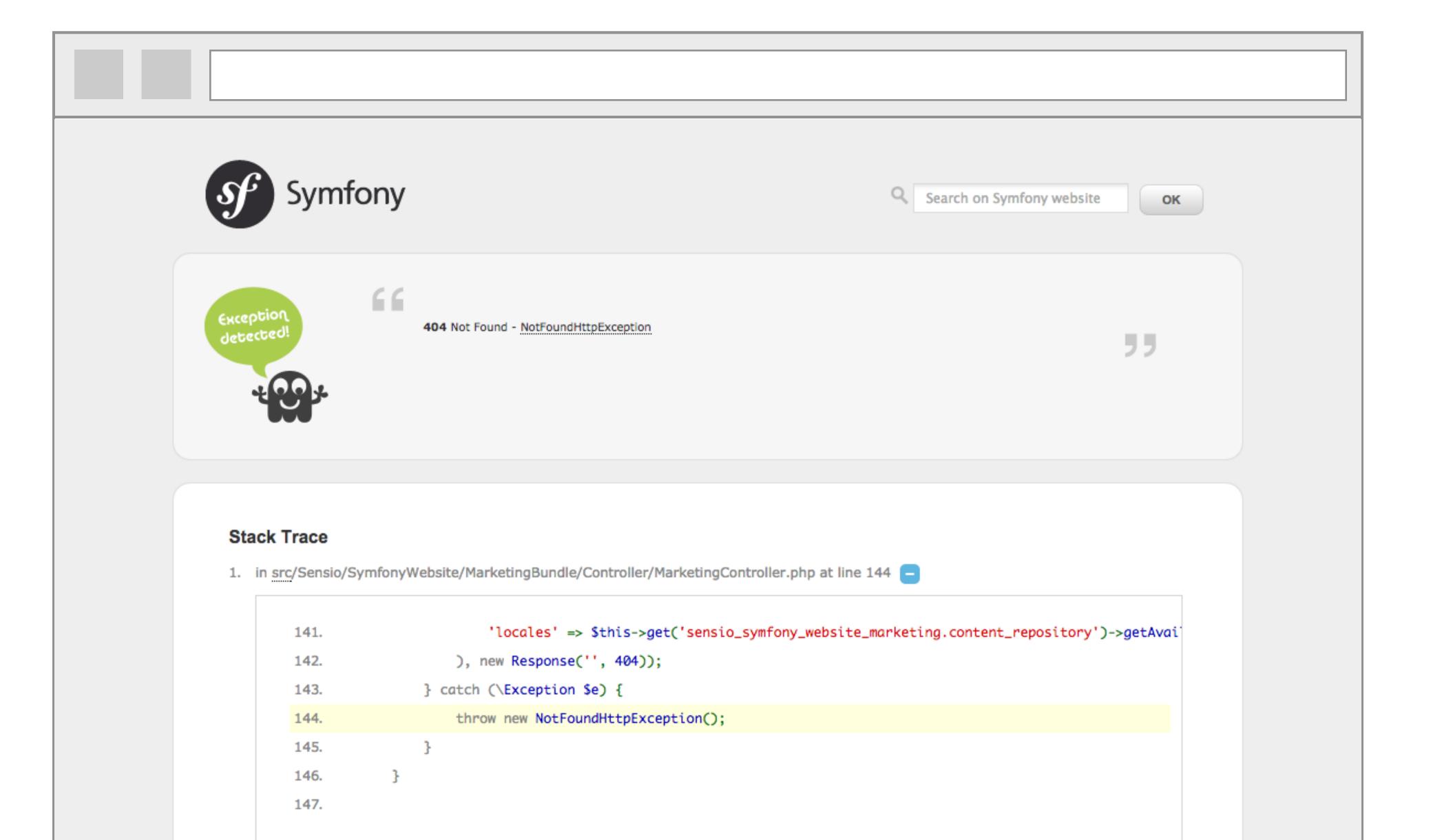
Source: http://cvuorinen.net/slides/symfony-legacy-integration/

### 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);
```

## 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
$observer = $this->prophesize('Observer');
```

### 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
```

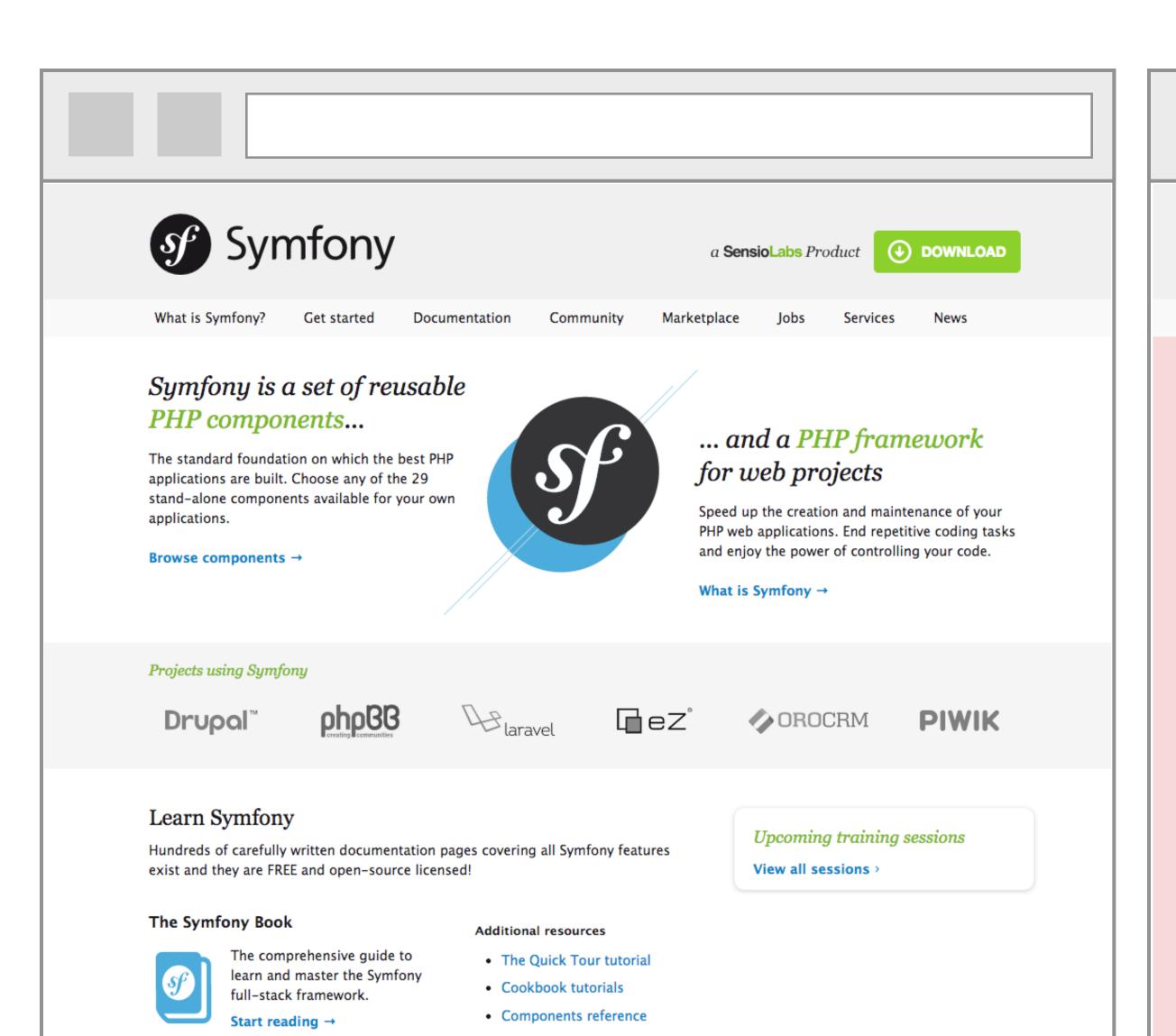
### MARNING

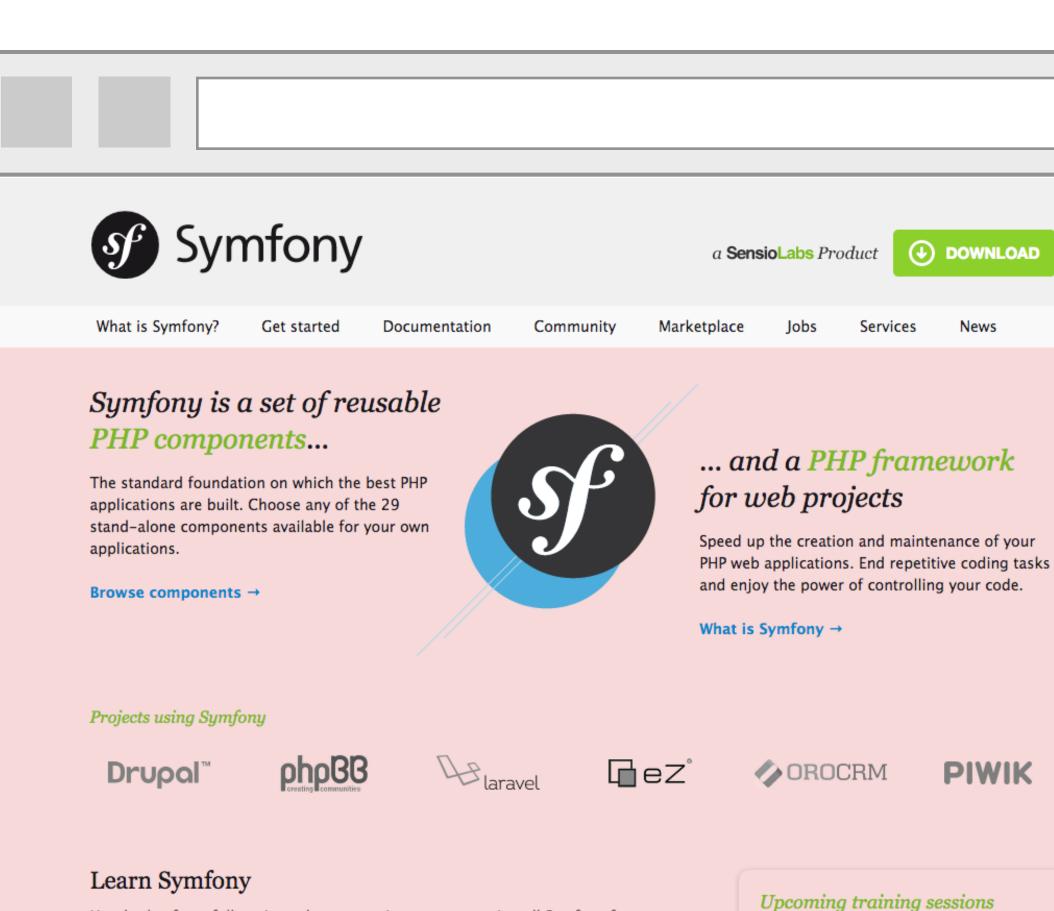
Impersonating is very dangerous and it can lead to severe errors.

### 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





Additional resources

The Quick Tour tutorial

Components reference

Cookbook tutorials

View all sessions >

Hundreds of carefully written documentation pages covering all Symfony features

exist and they are FREE and open-source licensed!

The comprehensive guide to

full-stack framework.

Start reading →

learn and master the Symfony

The Symfony Book

### Configuration

### Yaml casting

### Implicit YAML casting

#### key:

value1: 5

value2: 2.7

value3: 2014-11-27

### Implicit YAML casting

```
key:
    value1: 5
    value2: 2.7
    value3: 2014-11-27
```

```
array(1) {
    ["key"]=> array(3) {
        ["value1"] => int(5)
        ["value2"] => float(2.7)
        ["value3"] => int(1417042800)
    }
}
```

### Explicit YAML casting

#### key:

```
value1: !str 5
```

value2: ! 2.7

value3: !str 2014-11-27

### Explicit YAML casting

### Explicit YAML casting

```
array(1) {
key:
                                   ["key"]=> array(3) {
    value1: !str 5
                                     ["value1"] => string(1) "5"
    value2: ! 2.7
                                     ["value2"] => int(2)
    value3: !str 2014-11-27
                                     ["value3"] => string(10) "2014-11-27"
```

```
! = 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
           '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
           '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;
                                                   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:
                                                 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 %}

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) }}
```

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

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

# 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

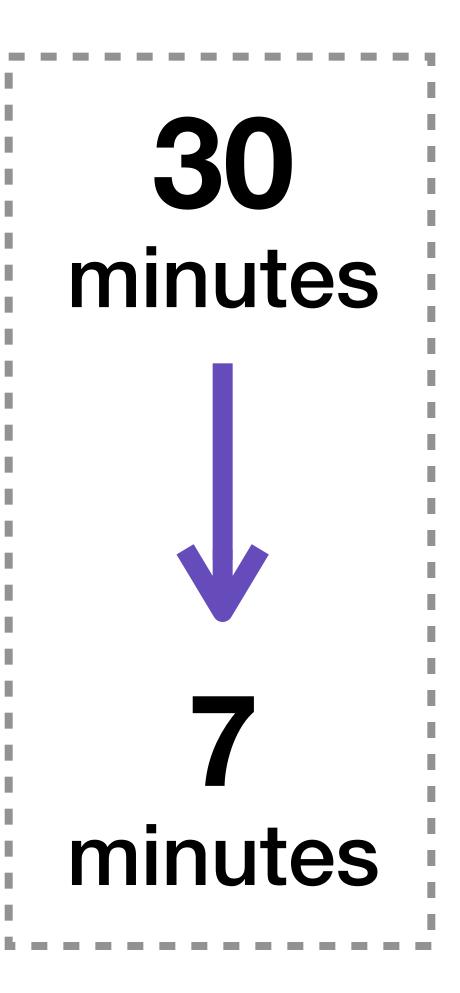
```
# Install
$ composer require --dev 'liuggio/fastest' 'dev-master'
# Execute tests in 4 parallel threads
"phpunit -c app {};"
```

#### 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:

#### The resulting "object"

```
array(1) {
    [0] \Rightarrow 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:

#### The resulting object

```
array(1) {
 \lceil 0 \rceil = >
   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) {
  \begin{bmatrix} 0 \end{bmatrix} = >
    object(stdClass)#676 (9) {
                         => str g(21) "AppBundle\Entity\Post"
       ["id"]
                                         "Post #1"
       ["title"]
                          \Rightarrow stizing(7)
       ["slug"]
                              NULL
       ["summary"] => NULL
       ["content"]
                          => NULL
       ["authorEmail"
                              NULL
       ["published => NULL
```

### MARNING

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

#### 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\Query\Filter\SQLFilter;
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

```
namespace AppBundle\Entity;
                                 WHERE user_id = :id
use AppBundle\Annotation\UserAware;
/**
 * @UserAware(userFieldName="user id")
 */
class Order { ... }
```

#### Combining filters with annotations

```
/**
  * @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

```
object(AppBundle\Entity\Money)#25 (3) {
   ["id"] => int(25)
   ["amount"] => int(10)
   ["currency"] => string(3) "EUR"
object(AppBundle\Entity\Money)#267 (3) {
   ["id"] => int(267)
   ["amount"] => int(10)
   ["currency"] => string(3) "EUR"
```

10 EUR

10 EUR

## 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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