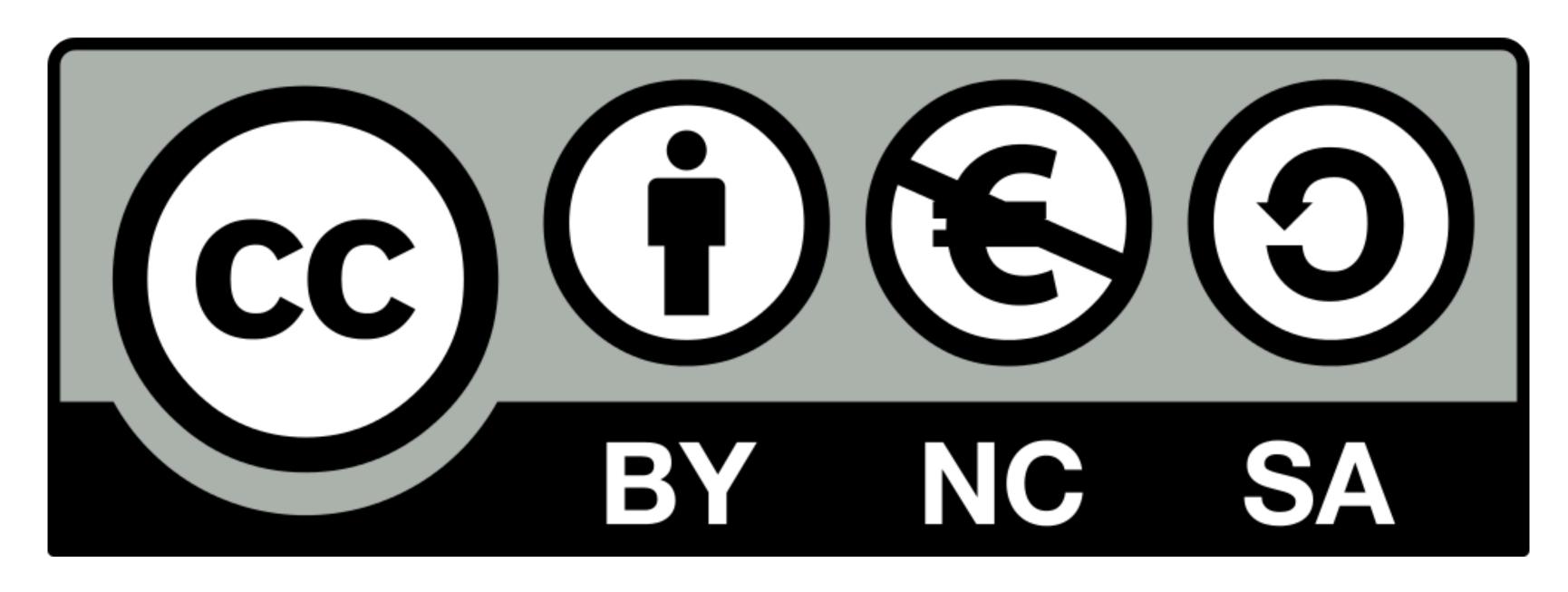
TIPS & TRICKS

SymfonyCon

Paris - December 4, 2015

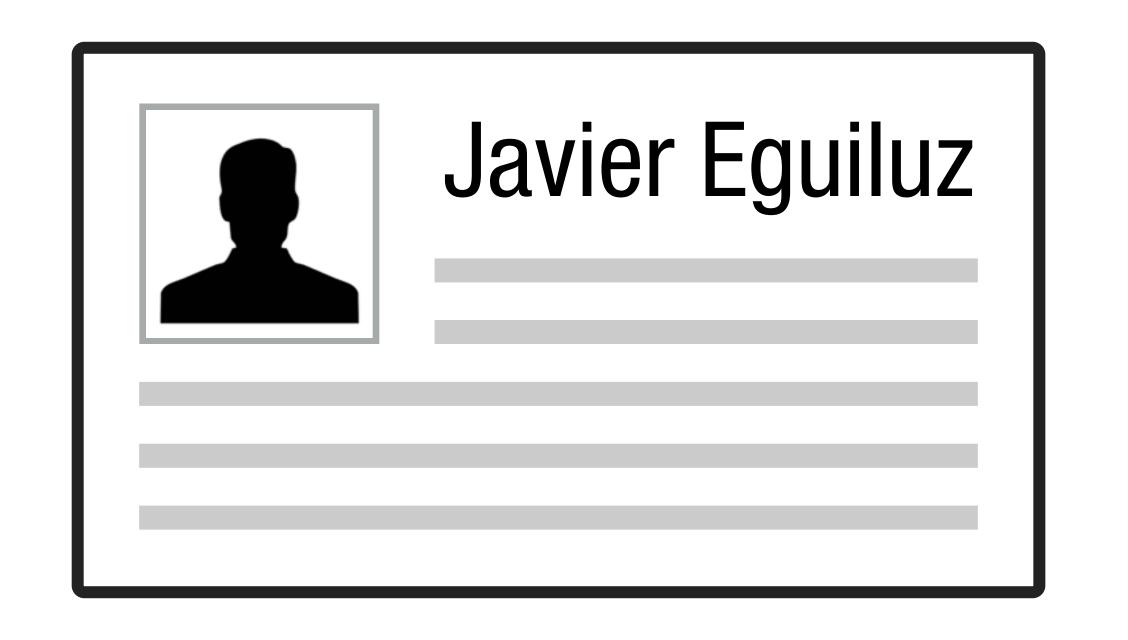
Javier Eguiluz

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About me



evangelist and trainer at

Sensiolabs

Créateur de Symfony



About this talk

What we'll talk about

Tips & tricks

New features

Rarely used options

Symfony

Doctrine

PHPUnit

Symfony

Composer

Twig

Monolog

Before we start

Thanks to my awesome co—workers for sharing their knowledge!



Grégoire



Nicolas



Hugo



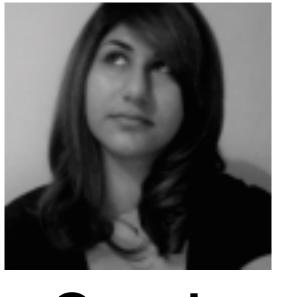
Charles



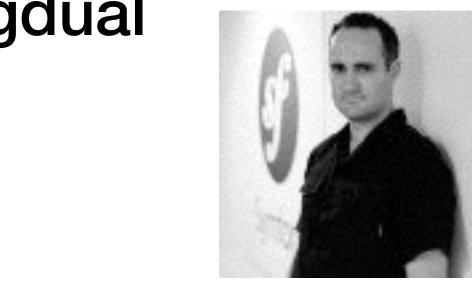
Tugdual



Julien



Sarah



Jérémy



Romain



FX

Jérémy

And thanks to the amazing Symfony Community too



Christophe



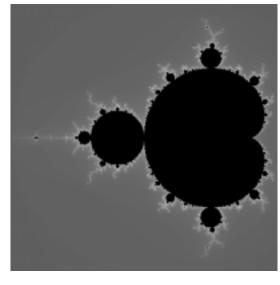
Benjamin



Tobias



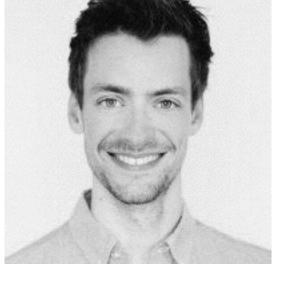
Wouter



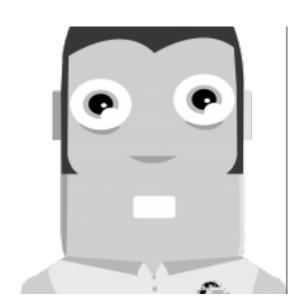
Christian



Ryan



Bernhard



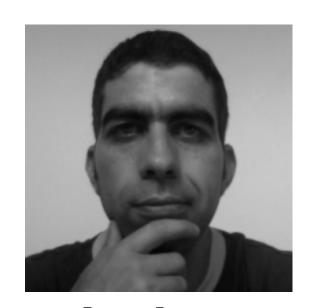
Kevin



Jordi



Jakub



Lukas

Agenda

Doctrine

Composer

Twig

Config

Monolog

Security

Tests

Services

Console

mini-tip

Accessing request parameters

```
use Sensio\Bundle\FrameworkExtraBundle\Configuration\Route;
use Symfony\Bundle\FrameworkBundle\Controller\Controller;
use Symfony\Component\HttpFoundation\Request;
/** @Route("/blog") */
class BlogController extends Controller
   /** @Route("/", name="blog index") */
   public function indexAction()
          $value1 = $request->query->get('parameter1');
          $value2 = $request->request->get('parameter2');
```

Accessing request parameters

```
use Sensio\Bundle\FrameworkExtraBundle\Configuration\Route;
use Symfony\Bundle\FrameworkBundle\Controller\Controller;
use Symfony\Component\HttpFoundation\Request;
/** @Route("/blog") */
class BlogController extends Controller
                                                   everybody uses the get() method, but there are other useful methods
    /** @Route("/", name="blog index") */
    public function indexAction()
          $value1 = $request->query->get('parameter1');
          $value2 = $request->request->get('parameter2');
```

ParameterBag defines some useful methods

```
// very useful methods

$pageNumber = $request->query->getInt('page');

$isPublished = $request->query->getBoolean('published');
```

ParameterBag defines some useful methods

```
// very useful methods
$pageNumber = $request->query->getInt('page');
$isPublished = $request->query->getBoolean('published');
// 'ABC+12.34DEF' -> 'ABCDEF'
$request->query->getAlpha('parameter');
// 'ABC+12.34DEF' -> 'ABC1234DEF'
$request->query->getAlnum('parameter');
// 'ABC+12.34DEF' -> '1234'
$request->query->getDigits('parameter');
```

Doctine

Naming strategies

I learned this from



More information

http://doctrine-orm.readthedocs.org/projects/doctrine-orm/en/latest/reference/namingstrategy.html

Setting custom table/properties names

```
namespace AppBundle\Entity;
use Doctrine\ORM\Mapping as ORM;
/** @ORM\Table(name="api users") */
class ApiUsers
    /** @ORM\Column(type="string", name="api token") */
    private $apiToken;
    /** @ORM\Column(type="datetime", name="created at") */
    private $createdAt;
```

Setting custom table/properties names

```
namespace AppBundle\Entity;
use Doctrine\OMMapping as ORM;
/** @ORM\Table(name="api_users") */
class ApiUsers
    /** @ORM\Column(type="string", name="api token") */
    private $apiToken;
    /** @ORM\Column(type="datetime", name="created at") */
    private $createdAt;
```

Setting custom table/properties names

```
namespace AppBundle\Entity;
                                                        Database
                                      Entity
use Doctrine\ORM\Mapping as ORM;
                                     ApiUsers
                                                         api_users
/** @ORM\Table(name="api_users") */
class ApiUsers
                                     apiToken
                                                        api_token
   /** @ORM\Column(type="string", na
   private $apiToken;
    /** @ORM\Column(type="datetime",
                                    createdAt
                                                        created at
   private $createdAt;
```

Using a built—in Doctrine naming strategy

```
namespace AppBundle
                    # app/config/config.yml
                    doctrine:
use Doctrine\ORM\Ma
                        dbal:
/** @ORM\Table */
                        orm:
                           naming strategy: doctrine.orm.naming strategy.underscore
class ApiUsers
    /** @ORM\Column(type="string") */
                                            this is automatically
    private $apiToken;
                                            translated into api_token
    /** @ORM\Column(type="datetime") */
    private $createdAt;
```

Defining a custom naming strategy

```
namespace Doctrine\ORM\Mapping;
interface NamingStrategy
    function classToTableName($className);
    function propertyToColumnName($propertyName);
    function referenceColumnName();
    function joinColumnName($propertyName);
    function joinTableName($sourceEntity, $targetEntity, $propertyName);
    function joinKeyColumnName($entityName, $referencedColumnName);
```

Abstract relationships

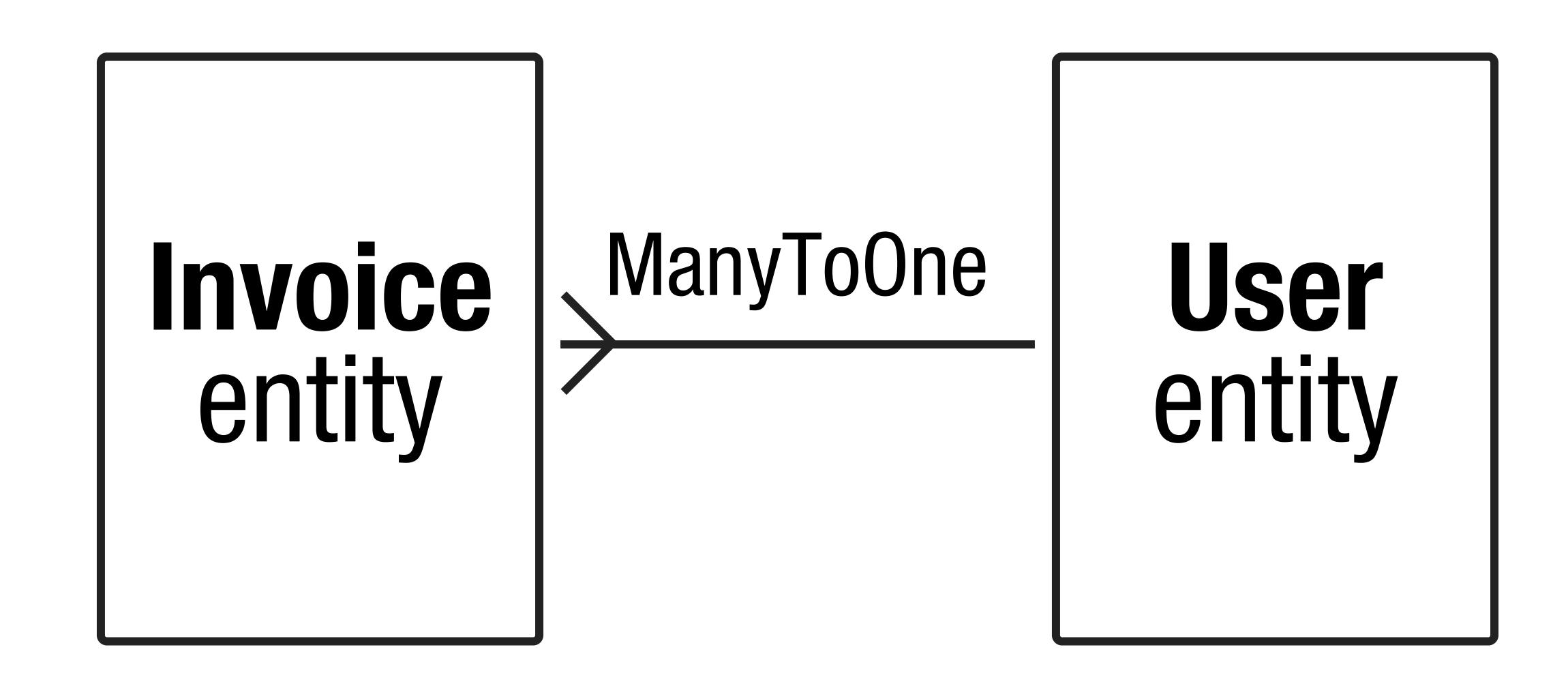
I learned this from



More information

http://symfony.com/doc/current/cookbook/doctrine/resolve_target_entity.html

Most entity relations are well defined



What if the target entity can change?



ManyToOne

User entity

Company entity

Our needs

- Create a generic InvoiceBundle able to work both with User and Company entities.
- No code change or special configuration is needed for the bundle.

1. Define an abstract "subject" interface

```
namespace Acme\InvoiceBundle\Model;
interface InvoiceSubjectInterface
    // Add here your custom methods
```

2. Make entities implement this interface

```
use Doctrine\ORM\Mapping as ORM;
use Acme\InvoiceBundle\Model\InvoiceSubjectInterface;
/** @ORM\Entity */
class User implements InvoiceSubjectInterface
    // ...
                                                               different T
                                                       applications,
/** @ORM\Entity */
class Company implements InvoiceSubjectInterface
```

3. Configure the entity association

```
namespace Acme\InvoiceBundle\Entity;
use Doctrine\ORM\Mapping AS ORM;
use Acme\InvoiceBundle\Model\InvoiceSubjectInterface;
/** @ORM\Entity */
class Invoice
     * @ORM\ManyToOne(
         targetEntity="Acme\InvoiceBundle\Model\InvoiceSubjectInterface")
     */
    protected $subject;
```

3. Configure the entity association

```
namespace Acme\InvoiceBundle\Entity;
use Doctrine\ORM\Mapping AS ORM;
use Acme\InvoiceBundle\Model\InvoiceSubjectInterface;
/** @ORM\Entity */
class Invoice
                                     abstract target entity
     * @ORM\ManyToOne( 🔑
         targetEntity="Acme\InvoiceBundle\Model\InvoiceSubjectInterface")
     */
    protected $subject; <- - '</pre>
```

4. Define the target entity (at each application)

```
# app/config/config.yml
                              this is where magic
doctrine:
                              happens: dynamic entity
    # ...
                              resolution at runtime
    orm:
        resolve target entities:
            Acme\InvoiceBundle\Model\InvoiceSubjectInterface:
            Acme\AppBundle\Entity\Customer
```

Improved WHERE ...

I learned this from



More information

http://doctrine-orm.readthedocs.org/projects/doctrine-orm/en/latest/changelog/migration_2_5.html#query-api-where-in-query-using-a-collection-as-parameter

Common code when using collections

```
$categories = ...
$categoryIds = array();
foreach ($categories as $category) {
    $categoryIds[] = $category->getId();
$queryBuilder = $this
    ->where('model.category IN (:category ids)')
    ->setParameter('category_ids', $categoryIds)
```

Common code when using collections

```
$categories = ...
$categoryIds = array();
foreach ($categories as $category) {
    $categoryIds[] = $category->getId();
$queryBuilder = $this
    ->where('model.category IN (:category ids)')
    ->setParameter('category ids', $categoryIds)
```

transform the ArrayCollection into an array of IDs

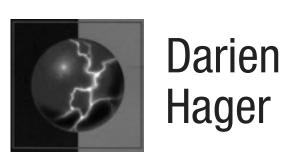
In Doctrine 2.5 this is no longer needed

```
$categories = ...
$categoryIds = array();
foreach ($categories as $category) {
    $categoryIds[] = $category->getId();
                                                   WHERE..IN
$queryBuilder = $this
    ->where('model.category IN (:categories)')
    ->setParameter('categories', $categories)
```

supports the use of ArrayCollection

Default table options

I learned this from



More information

https://github.com/doctrine/DoctrineBundle/pull/420

Define the default table options

```
# app/config/config.yml
doctrine:
    dbal:
        default_table_options:
            charset: utf8mb4
            collate: utf8mb4_unicode_ci
            engine: InnoDB
```

Define the default table options

DoctrineBundle 1.6

```
# app/config/config.yml
doctrine:
    dbal:
                                                 required to
         default_table_options: '
    charset: utf8mb4
                                                support emojis
              collate: utf8mb4 unicode ci
              engine: InnoDB
```

Savepoints

I learned this from



Christopher Davis

More information

https://github.com/doctrine/DoctrineBundle/pull/451 http://doctrine.readthedocs.org/en/latest/en/manual/transactions.html

Normal Doctrine transaction

```
try {
    $conn->beginTransaction();
    // do something ...
    $conn->commit();
} catch(Exception $e) {
    $conn->rollback();
```

Doctrine transaction with save points

```
try {
    $conn->beginTransaction('create user');
    // do something ...
    $conn->commit('create user');
} catch(Exception $e) {
    $conn->rollback('create user');
```

Give a name to a

--- transaction to create
a "save point"

Nesting Doctrine transactions

```
try {
    $conn->beginTransaction();
                                                 Nested transaction
    // do something ...
                                                 with a save point
    $conn->beginTransaction('create user');
    try {
        // do something ...
        $conn->commit('create user');
    } catch(Exception $e) { $conn->rollback('create_user'); }
    $conn->commit();
} catch(Exception $e) { $conn->rollback(); }
```

Adding "save points" automatically

```
# app/config/config.yml
doctrine:
    dbal:
    use_savepoints: true
```



Adding "save points" automatically

```
# app/config/config.yml
doctrine:
    dbal:
    use_savepoints: true
```

```
NEW DoctrineBundle 1.6
```

Doctrine\DBAL\Connection

```
protected function _getNestedTransactionSavePointName()
{
    return 'DOCTRINE2_SAVEPOINT_'.$this->_transactionNestingLevel;
}
```

mini-tip

Optional things

I learned this from



Hugo Hamon



Christophe Coevoet



Grégoire Pineau

The "action" suffix is optional for annotations

```
class DefaultController extends Controller
     * @Route("/", name="homepage")
    public function index(Request $request)
                                  no need to call this method indexAction()
```

The "action" suffix is optional for annotations

```
class DefaultController extends Controller
     * @Route("/", name="homepage")
                                                         this only works when using
    public function index(Request $request)
                                                           routing annotations
                               no need to call this
                               method indexAction()
```

The "action" suffix is optional for annotations

```
class DefaultController extends Controller
     * @Route("/", name="homepage")
                                                            this only works when using
    public function index(Request $request)
                                                               routing annotations
                                 no need to call this
                                 method indexAction()
                                                               best used when the
                                                               controller class only
                                                             contains action methods
```

The "method" param is optional for listeners

```
# app/config/services.yml
services:
   app.exception listener:
       class: AppBundle\EventListener\ExceptionListener
       tags:
                                           no need to define the
                                           method parameter
               name: kernel.event listener,
               event: kernel.exception,
```

The "method" param is optional for listeners

```
# app/config/services.yml
services:
    app.exception listener:
        class: AppBundle\EventListener\ExceptionListener
        tags:
                                                  no need to define the
                                                  method parameter
                 name: kernel.event listener,
                  event: kernel.exception,
                 method: 'onKernelException' ← -
                          on + camelCased event name
```

The is_granted() check in error pages

The is_granted() check in error pages

```
{% if is_granted('ROLE_ADMIN') %}
...
Symfony 2.8 no longer
requires this check
{% endif %}
```

Composer

Improve class loading performance

I learned this from



More information

https://github.com/symfony/symfony/pull/16655

Don't load test classes in production

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

This is what we said during SymfonyCon 2014

New "exclude-from-classmap" option

```
// composer.json
{
    "autoload": {
        "exclude-from-classmap": ["/Tests/", "/test/", "/tests/"]
    }
}
These classes are excluded
    from the optimized autoloader
```

New "exclude-from-classmap" option

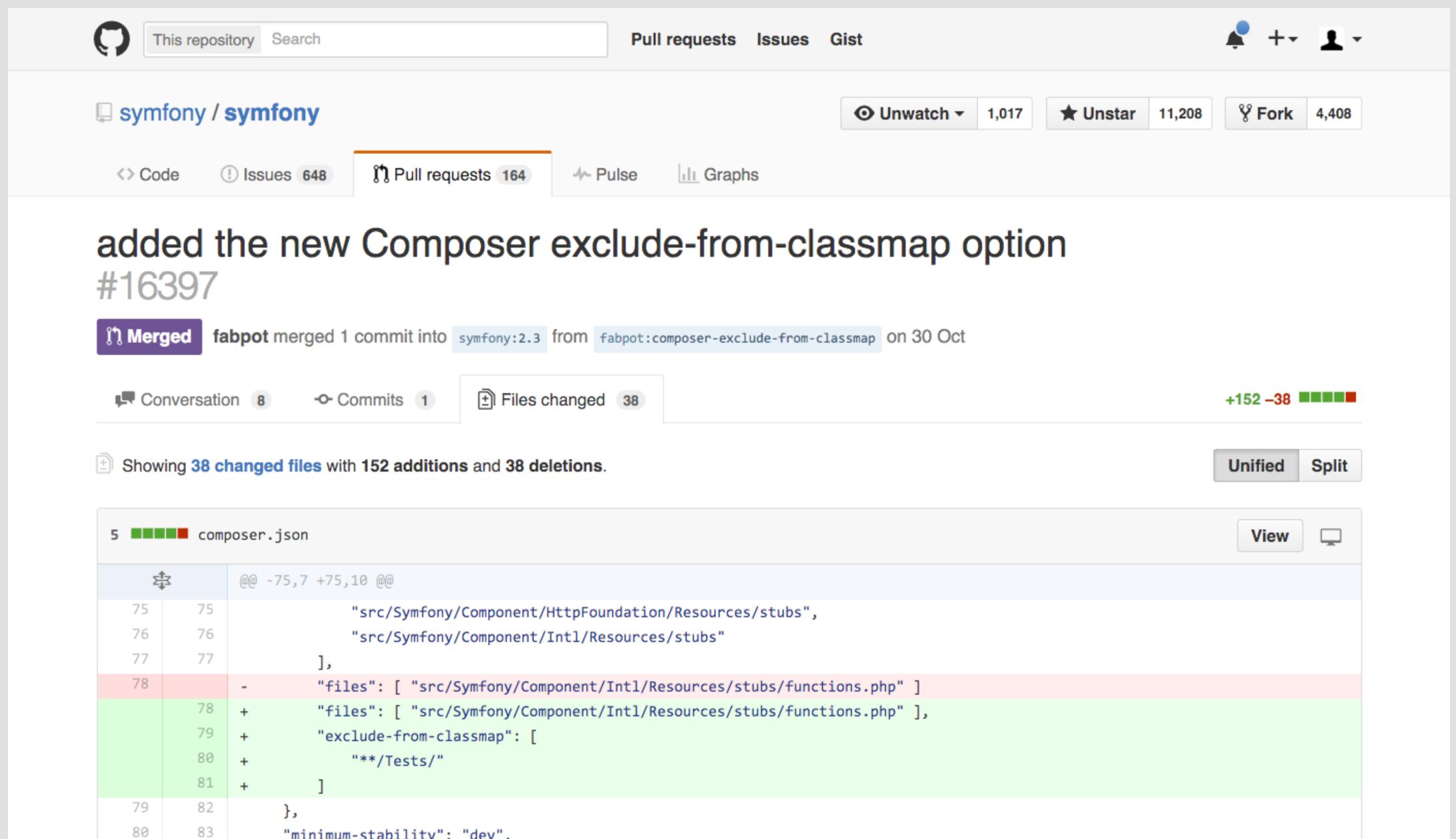
```
// composer.json
{
    "autoload": {
        "exclude-from-classmap": ["/Tests/", "/test/", "/tests/"]
    }
}
These classes are excluded
    from the optimized autoloader
```

\$ composer dump-autoload --optimize

New "exclude-from-classmap" option

```
// composer.json
                                          matches anything
   "autoload": {
      "exclude-from-classmap": ["**/Tests/", "/test//*"]
                               matches anything except /
```

github.com/symfony/symfony/pull/16397



Deprecated filters

I learned this from



More information

http://twig.sensiolabs.org/doc/advanced.html#deprecated-filters

Applications evolve in time...

```
class AppExtension extends \Twig Extension
    public function getFilters()
        return array(
            new \Twig SimpleFilter('old filter', ...),
            new \Twig SimpleFilter('new filter', ...),
```

How can you deprecate "old_filter" without breaking the application?

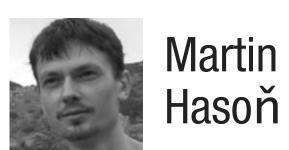
Filters can be deprecated



```
class AppExtension extends \Twig Extension
                                                This is how you deprecate
                                                filters and alert developers
    public function getFilters()
                                                without breaking things
        return array(
            new \Twig SimpleFilter('old filter', ..., array(
                 'deprecated' => true,
'alternative' => 'new_filter',
            new \Twig SimpleFilter('new filter', ...),
```

Check if some block exists

I learned this from



More information

https://github.com/twigphp/Twig/pull/1831

Avoid missing blocks

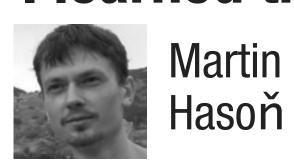
```
{% if 'title' is block %}
      <title>{{ block('title') }}<title>
{% endif %}
```



* not merged yet

Variadic filters

I learned this from



More information

https://github.com/twigphp/Twig/pull/1699

The problem with filter arguments

```
{{ product.photo | image(400, 150, 0.9) }}
```

The problem with filter arguments

```
{{ product.photo image(400, 150, 0.9) }}
```

What if I need to define more arguments?

The problem with filter arguments

```
{{ product.photo | image(400, 150, 0.9) }}
```

What if I need to define more arguments?

```
{{ product.photo | image(
    width = 400, height = 150, opacity = 0.9
}
}
this is a valid solution for Twig, but the
    underlying PHP code is still very complex
```

Defining a filter with lots of arguments

```
<?php
$filter = new Twig SimpleFilter('image', function (
    $path, $width, $height, $opacity
    $path = ...
    $width = ...
    $height = ...
    $opacity = ...
```

Defining a variadic filter

```
$filter = new Twig SimpleFilter('image', function (
    $path, $options = array()
) {
    // . . .
}, array('is variadic' => true));
```

Defining a variadic filter

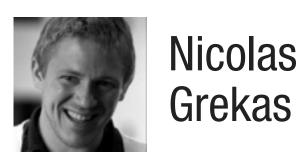
```
$filter = new Twig SimpleFilter('image', function (
    $path, $options = array()
                 a single variadic parameter holds any
                    number of passed parameters (unlimited)
    }, array('is variadic' => true));
```

Getting the values passed

```
$filter = new Twig SimpleFilter('image', function (
    $path, $options = array()
    $path = ...
    $width = $options['width'];
    $height = $options['height'];
    $opacity = $options['opacity'];
}, array('is variadic' => true));
```

Template source code

I learned this from



More information

https://github.com/twigphp/Twig/pull/1813 https://github.com/twigphp/Twig/pull/1807

The Template class added a new method

```
abstract class Twig Template implements Twig_TemplateInterface
   public function getSource()
```



How to display the source code of the template

```
{% set template = _self %}
{{ template.source | e }}
```

How to display the source code of the template

```
{% set template = _self %}
{{ template.source | e }}
```

having the source code allows for example to test if the template is backwards/forwards compatible

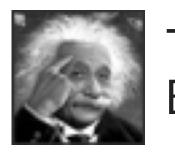
The (dirty) secret of the getSource() method

```
/* default/index.html.twig */
class __TwigTemplate_c917e55e0a4ad9b0ed28003c15c48de756d875a69e121aca97d5a53e84eaef4f extends Twig_Template
   public function construct(Twig Environment $env) { }
    protected function doDisplay(array $context, array $blocks = array()) { // ... }
    public function getTemplateName()
       return "default/index.html.twig";
   // ...
   public function getDebugInfo()
       return array ( 115 \Rightarrow 54, 109 \Rightarrow 53, 93 \Rightarrow 43, 68 \Rightarrow 22, 66 \Rightarrow 21, 57 \Rightarrow 15, 46 \Rightarrow 7, 41 \Rightarrow 4, 35 \Rightarrow 3, 11 \Rightarrow 1,);
     extends 'base.html.twig' %}*/ &---- Compiled Twig templates include
/* */
                                                    its full source code at the bottom
/* {% block body %}*/
      <div id="wrapper">*/
          <div id="container">*/
              <div id="welcome">*/
                  <h1><span>Welcome to</span> Symfony {{ constant('Symfony\\Component\\HttpKernel\\Kernel::VERSION') }}</h1>*/
              </div>*/
                 */
```

mini-tip

Email delivery whitelist

I learned this from



Terje Bråten



More information

https://github.com/symfony/symfony-docs/pull/4924 https://github.com/symfony/symfony-docs/pull/4925

In dev environment, redirect all emails

```
# app/config/config_dev.yml
swiftmailer:
    delivery_address: dev@example.com
```

Whitelist some emails in dev environment

```
# app/config/config dev.yml
swiftmailer:
    delivery address: dev@example.com
    delivery whitelist:
        - "/notifications@example.com$/"
        - "/^admin@*$/"
```

Whitelist some emails in dev environment

```
# app/config/config dev.yml
swiftmailer:
    delivery address: dev@example.com
    delivery whitelist:
         - "/notifications@example.com$/"
         - "/^admin@*$/".
email addresses that match
the regular expression will be
sent (even in dev environment)
```

Configuration

Environmentvariables

I learned this from



More information

http://github.com/symfony/symfony/pull/16403

Setting ENV variables via the web server

```
<VirtualHost *:80>
                    Symfony
    ServerName
                   "/path/to/symfony 2 app/web"
   DocumentRoot
                   index.php index.html
   DirectoryIndex
                    SYMFONY DATABASE USER
    SetEnv
                                               user
                    SYMFONY DATABASE PASSWORD secret
    SetEnv
    <Directory "/path/to/symfony 2 app/web">
        AllowOverride All
        Allow from All
    </Directory>
</VirtualHost>
```

same as setting database_user and database_password in parameters.yml

ENV variables are dumped into the container

```
// app/cache/dev/appDevDebugProjectContainer.xml
<container>
 <parameters>
   <parameter key="database_user">root</parameter>
    <parameter key="database password"> secret </parameter>
   <!-- -->
 </parameters>
</container>
// app/cache/prod/appProdProjectContainer.php
protected function getDefaultParameters()
   return array(
       'database user' => 'root',
          'database password' => secret__,
   );
```

DEV environment

PROD environment

ENV variables are dumped into the container

PROD environment

ENV variables are dumped into the container

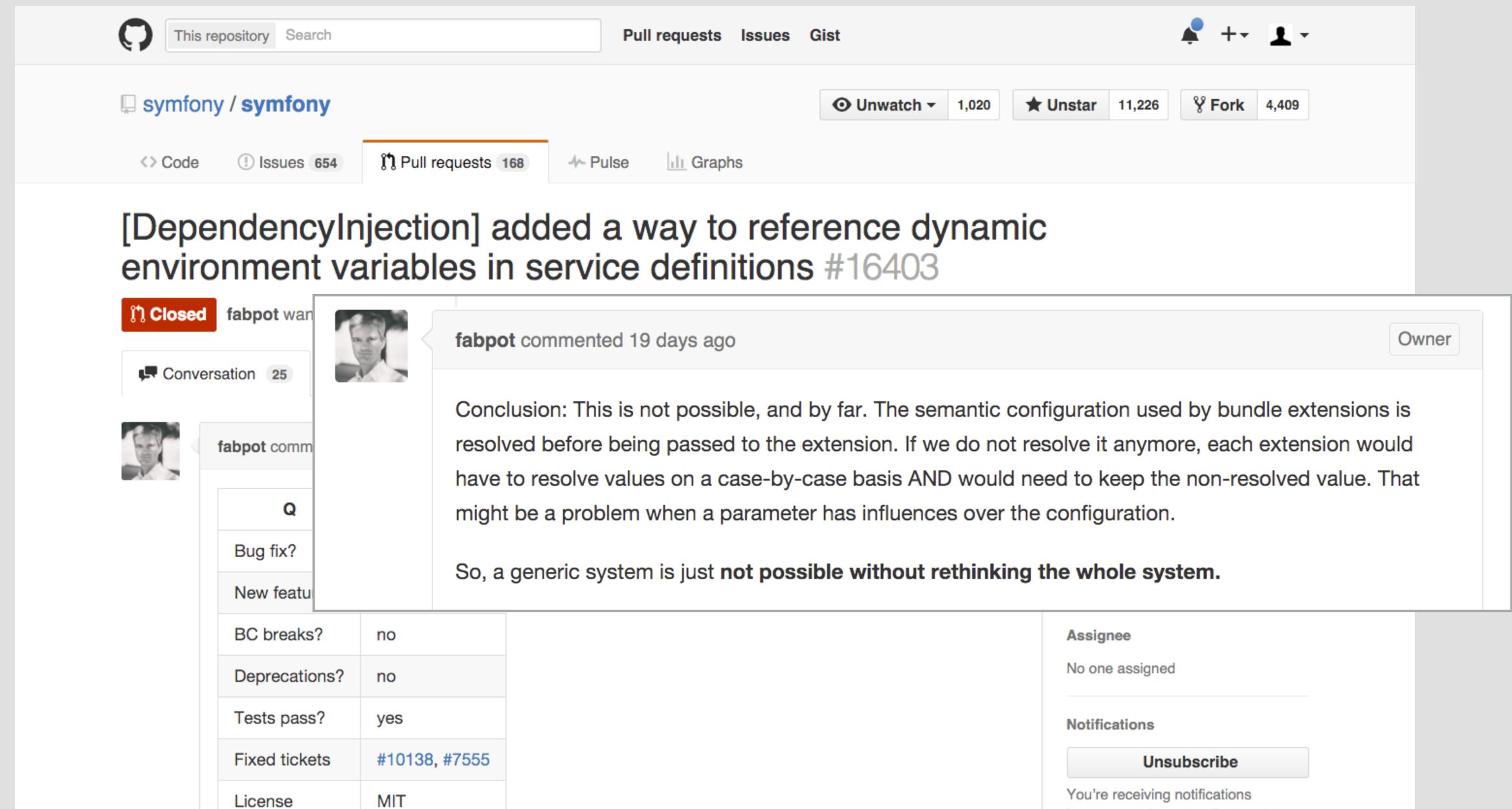
PROD environment

This is what you want...

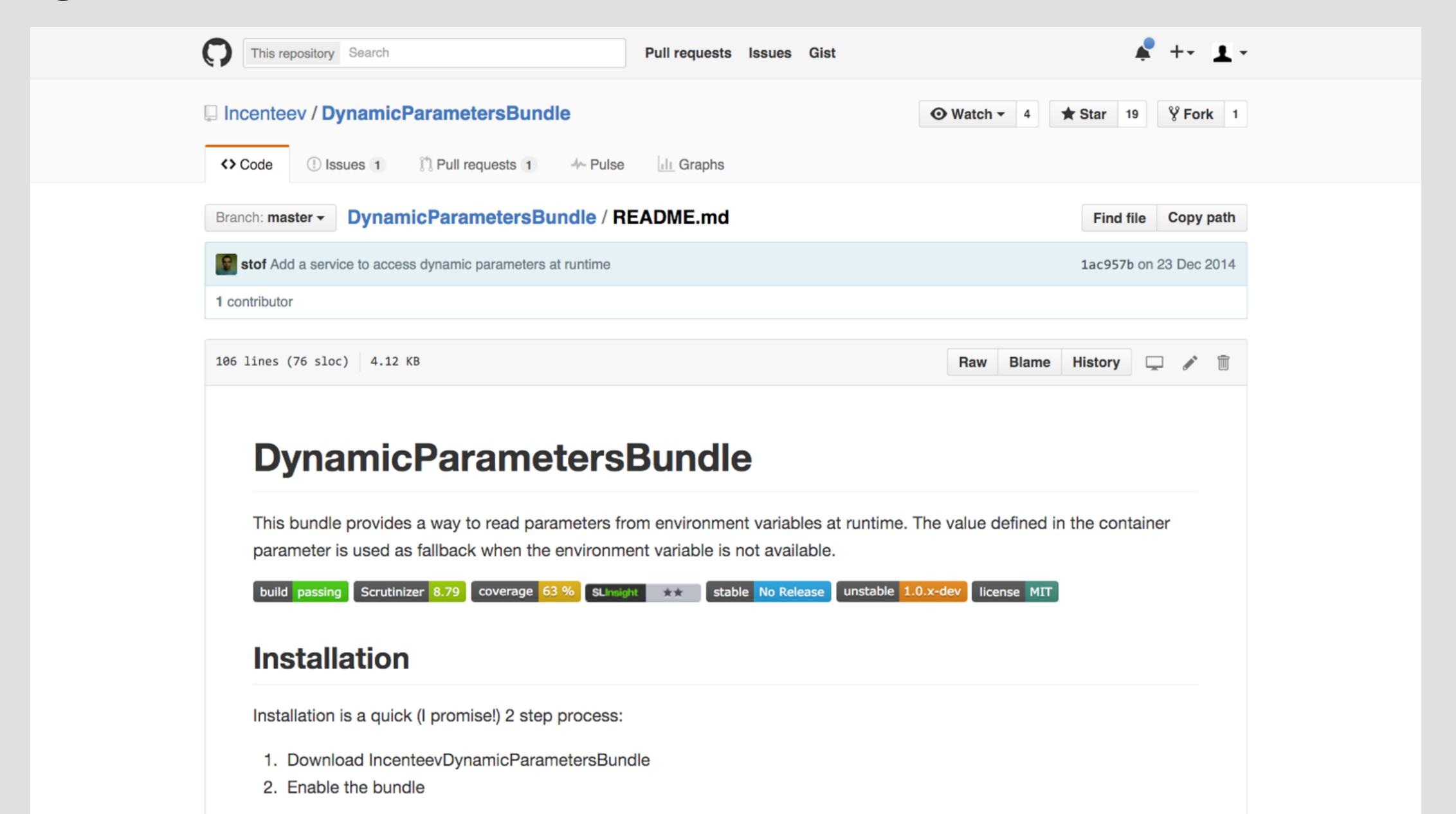
This is what you want...

... but we failed at implementing this feature.

github.com/symfony/symfony/pull/16403



github.com/Incenteev/DynamicParametersBundle



Alternative to environment variables

1. Create a "credentials" file in the prod server

```
# /etc/credentials/example.com.yml
parameters:
   database user:
   database password:
   mailer user:
   mailer password:
   secret:
   github client id:
   github client_secret: ...
```

2. Load the credentials file in the application

```
# app/config/config.yml
imports:
    - { resource: parameters.yml }
    - { resource: services.yml }
    - { resource: security.yml }
    - { resource: admin.yml }
    - { resource: '/etc/credentials/example.com.yml', ignore_errors: true }
```

...

3. In "dev" machine

- Credentials file doesn't exist but no error is triggered (because of ignore_errors).
- App uses the regular parameters.yml file.

4. In "prod" machine

- Credentials file overrides parameters.yml
- The right parameters are available anywhere (e.g. console commands)
- Developers can't see the production configuration options.
- Requires discipline to add/remove options.

Monolog

Custom channels

```
# app/config/config.yml
monolog:
    channels: ["marketing"]
```

```
# app/config/config.yml
monolog:
    channels: ["marketing"]
```

```
$this->get('monolog.logger.marketing')->info('....');
```

```
# app/config/config.yml
monolog:
    channels: ["marketing"]
$this->get('monolog.logger.marketing')->info('....');
# app/logs/dev.log
[2015-11-30 17:44:19] marketing.INFO: ..... [] []
```

```
now you can process these
# app/config/config.yml
                                          messages apart from the
monolog:
                                          rest of logs (e.g. save them
     channels: ["marketing"]
                                          in a different file) - .
$this->get('monolog.logger.marketing')->info('....'); `
# app/logs/dev.log [2015-11-30 17:44:19] marketing.INFO: ..... [] [] 📂
```

The channel name can be a parameter

```
# app/config/config.yml
                                                  MonologBundle 2.8
parameters:
    app channel: 'marketing'
monolog:
    channels: [%app channel%]
services:
    app logger:
        class: ...
        tags: [{ name: monolog.logger, channel: %app_channel% }]
```

Custom formatters

I learned this from



Grégoire Pineau

More information

http://symfony.com/doc/current/cookbook/logging/monolog.html#changing—the—formatter

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 }
```

This is what we said during SymfonyCon 2014

```
# app/config/config.yml
services:
    app.log.formatter:
        class: 'Monolog\Formatter\LineFormatter'
        public: false
        arguments:
            - "%%level name%% [%%datetime%%] [%%channel%%] %%message%%\n
              %%context%%\n\n"
            - 'H:i:s'
            - false
```

```
# app/config/config.yml
services:
    app.log.formatter:
        class: 'Monolog\Formatter\LineFormatter'
                                                       the format of
        public: false
                                                       each log line
        arguments:
            - "%%level name%% [%%datetime%%] [%%channel%%] %%message%%\n
              %%context%%\n\n"
            - 'H:i:s'
            - false
```

```
# app/config/config.yml
services:
   app.log.formatter:
       class: 'Monolog\Formatter\LineFormatter'
                                                    the format of
        public: false
                                                    each log line
       arguments:
           - "%%level_name%% [%%datetime%%] [%%channel%%] %%message%%\n
             %%context%%\n\n"
           - 'H:i:s' The format of
            false
                             %datetime% placeholder
```

```
# app/config/config.yml
services:
    app.log.formatter:
        class: 'Monolog\Formatter\LineFormatter'
                                                     the format of
        public: false
                                                     each log line
        arguments:
            - "%level_name% [%%datetime%%] [%%channel%%] %%message%
              %%context%%
            - 'H:i:s'
                             the format of
            - false
                             %datetime% placeholder
```

```
# app/config/config.yml
services:
    app.log.formatter:
        class: 'Monolog\Formatter\LineFormatter'
                                                     the format of
        public: false
                                                     each log line
        arguments:
            - "%level_name% [%%datetime%%] [%%channel%%] %%message%
              %%context%%
            - 'H:i:s'
                             the format of
                             %datetime% placeholder
  ignore \n inside the
  log messages?
```

Enable the custom log formatter

```
# app/config/config dev.yml
monolog:
   handlers:
       main:
                stream
           type:
           path: "%kernel.logs dir%/%kernel.environment%.log"
           level:
                     debug
           formatter: app.log.formatter
                 --- add the formatter option
```

Custom log format

Default log format

```
INFO [18:38:21] [php] The Symfony\Component
\DependencyInjection\Reference::isStrict method is
deprecated since version 2.8 and will be removed in 3.0.
{"type":16384, "file": "myproject/vendor/symfony/symfony/
src/Symfony/Component/DependencyInjection/
Reference.php","line":73,"level":28928}
INFO [18:38:21] [request] Matched route "homepage".
{"route parameters":{" controller":"AppBundle\
\Controller\
\DefaultController::indexAction", route": homepage"}, "r
equest uri":"http://127.0.0.1:8000/"}
INFO [18:38:21] [security] Populated the TokenStorage
with an anonymous Token.
DEBUG [18:38:21] [event] Notified event "kernel.request"
to listener "Symfony\Component\HttpKernel\EventListener
\DebugHandlersListener::configure".
DEBUG [18:38:21] [event] Notified event "kernel.request"
to listener "Symfony\Component\HttpKernel\EventListener
\ProfilerListener::onKernelRequest".
```

```
[2015-11-30 18:38:21] php.INFO: The Symfony\Component
\DependencyInjection\Reference::isStrict method is
deprecated since version 2.8 and will be removed in 3.0.
{"type":16384, "file": "myproject/vendor/symfony/symfony/
src/Symfony/Component/DependencyInjection/
Reference.php","line":73,"level":28928} []
[2015-11-30 18:38:21] request.INFO: Matched route
"homepage". {"route_parameters":
{"_controller": "AppBundle \ \ Controller \
\DefaultController::indexAction","_route":"homepage"},"r
equest uri":"http://127.0.0.1:8000/"} []
[2015-11-30 18:38:21] security.INFO: Populated the
TokenStorage with an anonymous Token. [] []
[2015-11-30 18:38:21] event.DEBUG: Notified event
"kernel.request" to listener "Symfony\Component
\HttpKernel\EventListener
\DebugHandlersListener::configure". [] []
[2015-11-30 18:38:21] event.DEBUG: Notified event
"kernel.request" to listener "Symfony\Component
\HttpKernel\EventListener
\ProfilerListener::onKernelRequest". [] []
[2015-11-30 18:38:21] event.DEBUG: Notified event
"kernel.request" to listener "Symfony\Component
\HttpKernel\EventListener\DumpListener::configure". []
```

Monolog "plugins"

I learned this from

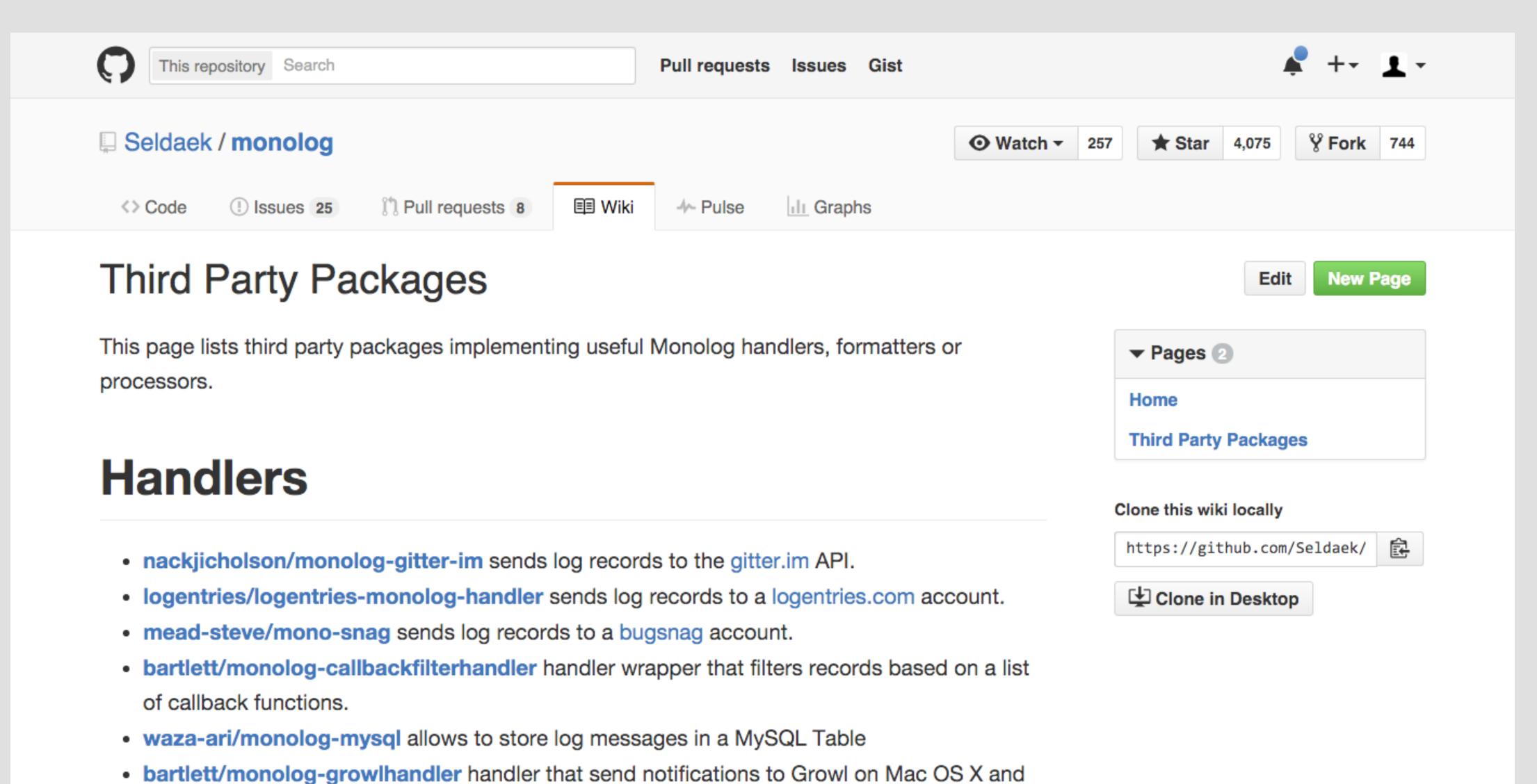


Jordi Boggiano

More information

http://github.com/Seldaek/monolog/wiki/Third-Party-Packages

github.com/Seldaek/monolog/wiki/Third-Party-Packages



• do3meli/monolog-cassandra Cassandra database handler based on the DataStay PHP-

yegortokmakov/monolog-fluentd handler that send notifications to Fluentd / td-agent

Windows

bramus/monolog-colored-line-formatter

- Shows log messages in color according to their level.
- It uses ANSI Escape Sequences.

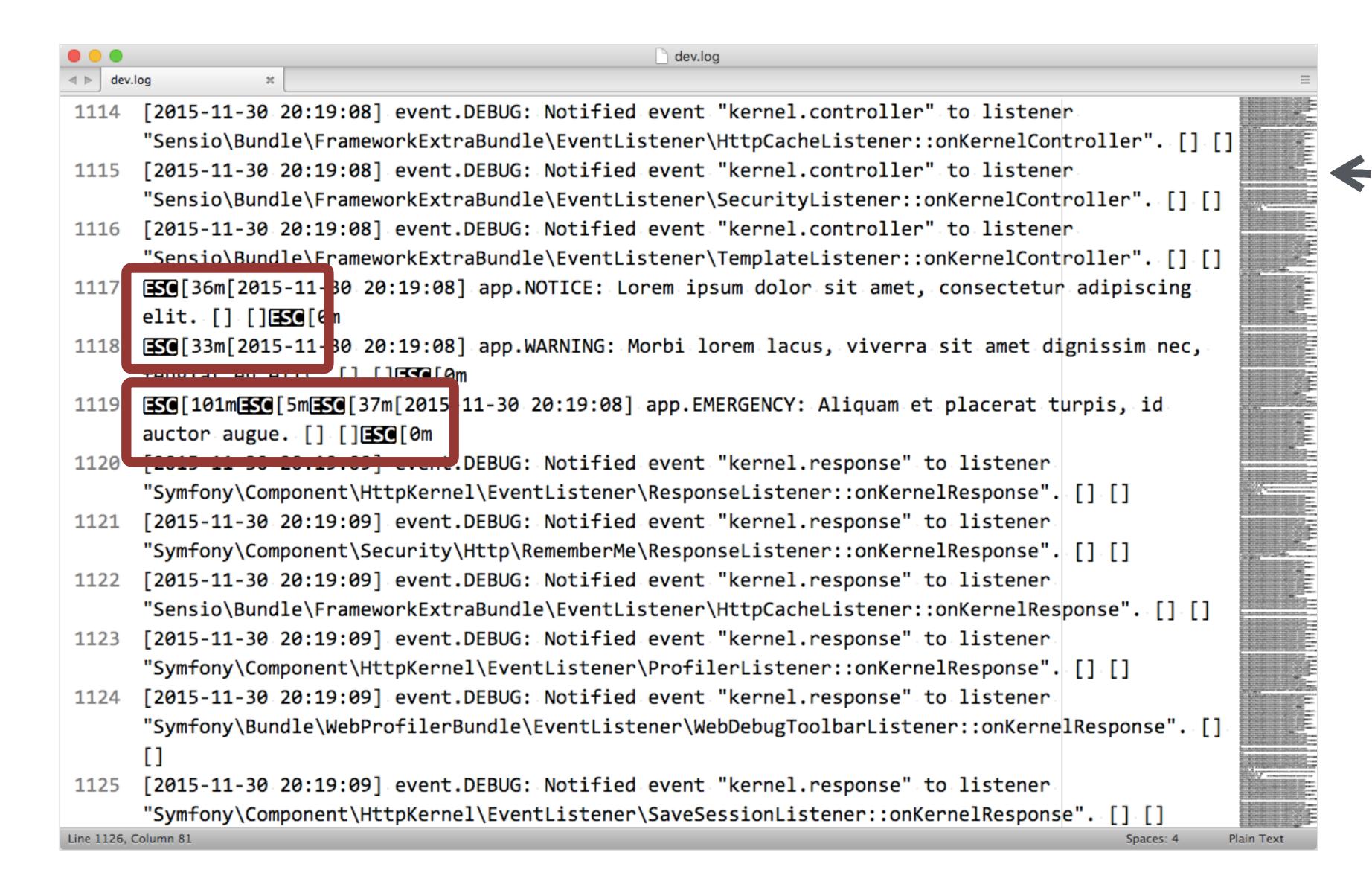
```
[2015-01-05 00:00:04] DEMO.DEBUG: Lorem ipsum dolor sit amet, consectetur adipiscing elit. [] [] [2015-01-05 00:00:04] DEMO.INFO: Lorem ipsum dolor sit amet, consectetur adipiscing elit. [] [] [2015-01-05 00:00:04] DEMO.NOTICE: Lorem ipsum dolor sit amet, consectetur adipiscing elit. [] [] [2015-01-05 00:00:04] DEMO.WARNING: Lorem ipsum dolor sit amet, consectetur adipiscing elit. [] [] [2015-01-05 00:00:04] DEMO.ERROR: Lorem ipsum dolor sit amet, consectetur adipiscing elit. [] [] [2015-01-05 00:00:04] DEMO.CRITICAL: Lorem ipsum dolor sit amet, consectetur adipiscing elit. [] [] [2015-01-05 00:00:04] DEMO.ALERT: Lorem ipsum dolor sit amet, consectetur adipiscing elit. [] [] [2015-01-05 00:00:04] DEMO.EMERGENCY: Lorem ipsum dolor sit amet, consectetur adipiscing elit. [] []
```

Colored logs in action

```
[2015-11-30 20:19:08] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventLis
tener\ControllerListener::onKernelController". [] []
[2015-11-30 20:19:08] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventLis
tener\ParamConverterListener::onKernelController". [] []
[2015-11-30 20:19:08] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventLis
tener\HttpCacheListener::onKernelController". [] []
[2015-11-30 20:19:08] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventLis
tener\SecurityListener::onKernelController". [] []
[2015-11-30 20:19:08] event.DEBUG: Notified event "kernel.controller" to listener "Sensio\Bundle\FrameworkExtraBundle\EventLis
tener\TemplateListener::onKernelController". [] []
[2015-11-30 20:19:08] app.NOTICE: Lorem ipsum dolor sit amet, consectetur adipiscing elit. [] []
 [2015-11-30 20:19:08] app.WARNING: Morbi lorem lacus, viverra sit amet dignissim nec, feugiat eu elit. [] []
 [2015-11-30 20:19:09] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Component\HttpKernel\EventListener\Re
sponseListener::onKernelResponse". [] []
 [2015-11-30 20:19:09] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Component\Security\Http\RememberMe\Re
sponseListener::onKernelResponse". [] []
[2015-11-30 20:19:09] event.DEBUG: Notified event "kernel.response" to listener "Sensio\Bundle\FrameworkExtraBundle\EventListe
ner\HttpCacheListener::onKernelResponse". [] []
[2015-11-30 20:19:09] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Component\HttpKernel\EventListener\Pr
ofilerListener::onKernelResponse". [] []
[2015-11-30 20:19:09] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Bundle\WebProfilerBundle\EventListene
r\WebDebugToolbarListener::onKernelResponse". [] []
[2015-11-30 20:19:09] event.DEBUG: Notified event "kernel.response" to listener "Symfony\Component\HttpKernel\EventListener\Sa
veSessionListener::onKernelResponse". [] []
```



Colored logs in action



if your editor or console doesn't support ANSI escape sequences

mini-tip

Tweaking the web debug toolbar

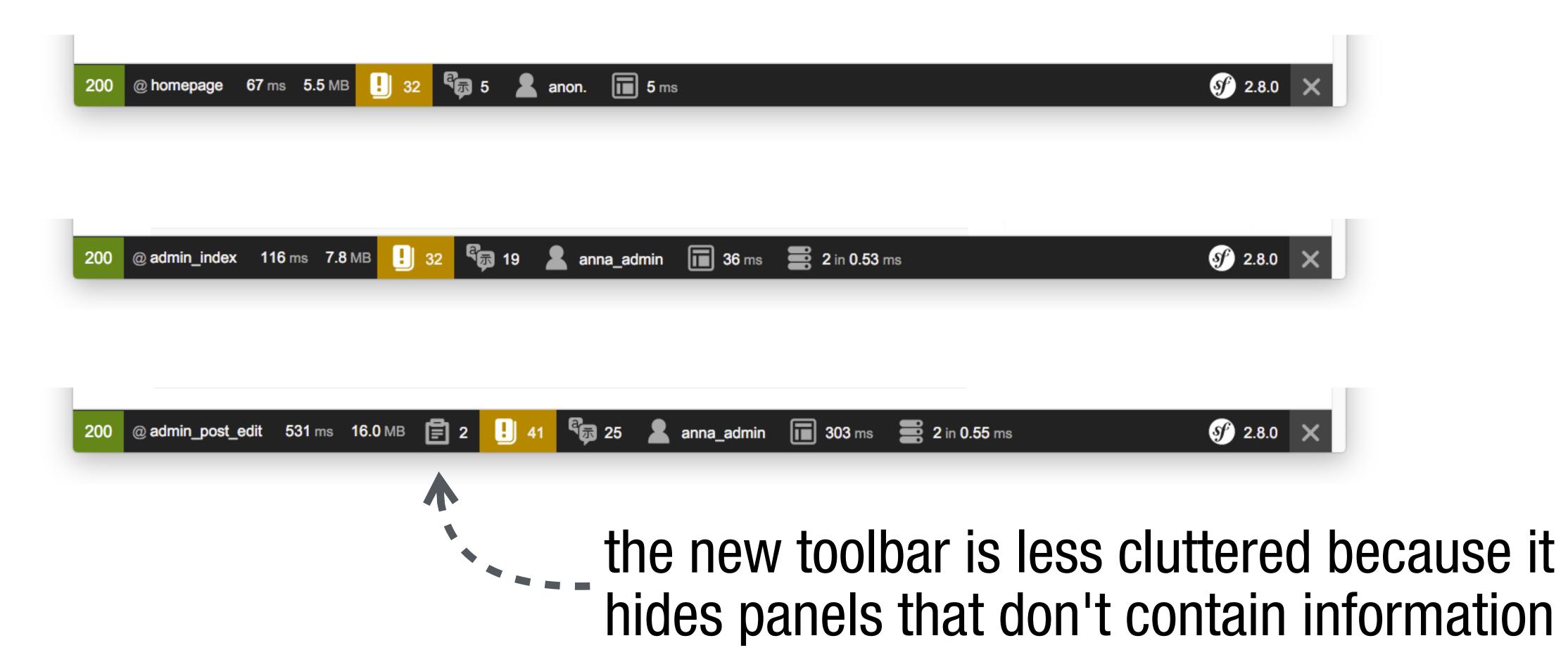
I learned this from



More information

http://symfony.com/doc/current/cookbook/profiler/data_collector.html

The new web debug toolbar



Reordering toolbar panels

```
# app/config/services.yml
services:
     data collector.request:
       class: Symfony\Component\HttpKernel\DataCollector\RequestDataCollector
       tags:
           - { name: "data_collector", template: "@WebProfiler/Collector/request.html.twig",
              id: "request", priority: "-512" }
   data collector.security:
       class: 'Symfony\Bundle\SecurityBundle\DataCollector\SecurityDataCollector'
       arguments: ['@security.token storage', '@security.role hierarchy', '@security.logout url generator']
       tags:
           - { name: "data_collector", template: "@Security/Collector/security.html.twig",
              id: "security", priority: "512" }
```

Reordering toolbar panels

```
# app/config/services.yml
services:
     data collector.request:
       class: Symfony\Component\HttpKernel\DataCollector\RequestDataCollector
       tags:
           - { name: "data_collector", template: "@WebProfiler/Collector/request.html.twig",
               id: "request", priority: "-512" }
   data collector.security:
       class: 'Symfony\Bundle\SecurityBundle\DataCollector\SecurityDataCollector'
       arguments: ['@security.token_storage', '@security.role_hierarchy', '@security.logout_url_generator']
       tags:
           - { name: "data_collector", template: "@Security/Collector/security.html.twig",
               id: "security", priority: "512" }
   anna_admin 741 ms 15.8 MB 🗐 2 🔋 9 👣 25 🔳 21 ms 🚍 2 in 0.54 ms 200 @ admin_post_edit
```

Built—in panels priorities

Panel	Priority
request	335
time	330
memory	325
ajax	315
form	310
exception	305
logger	300
events	290

Panel	Priority
router	285
translation	275
security	270
twig	257
swiftmailer	245
dump	240
config	-255

Adding your panels between the built—in panels

Adding your panels between the built—in panels

```
services:
    app.data_collector:
        # ...
        tags:
             - { name: "data collector", template: "...", id: "..." } (NO EXPLICIT PRIORITY)
 200 @ easyadmin 1087 ms 12.8 MB !! 31 👣 10 🙎 n/a 🖫 77 ms 🚍 27 in 12.44 ms 🎢 5
                                                                           € 2.8.0-DEV
        tags:
             - { name: "data_collector", template: "...", id: "...", priority: "273" }
                                                                           @ easyadmin 807 ms 12.5 MB ! 31 👣 10 🎢 5 🙎 n/a 🔳 78 ms 🚍 27 in 12.92 ms
```

Adding your panels between the built—in panels

```
services:
    app.data_collector:
        # ...
        tags:
             - { name: "data collector", template: "...", id: "..." } (NO EXPLICIT PRIORITY)
                                                                         1087 ms 12.8 MB ! 31 👣 10 🙎 n/a 🔚 77 ms 🚍 27 in 12.44 ms 🎾 5
        tags:
             - { name: "data_collector", template: "...", id: "...", priority: "273" }
                                                                         € 2.8.0-DEV
           807 ms 12.5 MB ! 31 👣 10 🎢 5 🙎 n/a 🖫 78 ms 🚍 27 in 12.92 ms
        tags:
             - { name: "data_collector", template: "...", id: "...", priority: "320" }
  200 @ easyadmin 797 ms 12.5 MB 🎢 5 ! 31 👣 10 🙎 n/a 🔳 76 ms 🚍 27 in 12.46 ms
```

Remove panels

```
services:
   data collector.translation:
        class: Symfony\Component\Translation\DataCollector\TranslationDataCollector
        arguments: ['@translator.data collector']
        tags:
            - { name: "data collector" }
   data collector.request:
        class: Symfony\Component\HttpKernel\DataCollector\RequestDataCollector
        tags:
            - { name: "data collector" }
```

to remove a panel, define its service without any argument in its data_collector tag

Remove panels

```
services:
                                                - - remove the Request panel
    data collector.translation:
       class: Symfony\Component\Translation\DataCollector\TranslationDataCollector
       arguments: ['@translator.data collector']
       tags:
           - { name: "data collector" }
                                                  - remove the Translation panel
    data collector.request:
       class: Symfony\Component\HttpKernel\DataCollector\RequestDataCollector
       tags:
            - { name: "data collector" }
                                 to remove a panel, define its service without
                                 any argument in its data_collector tag
```

Security

Success and failure handlers

I learned this from



More information

https://github.com/symfony/symfony-docs/issues/4258

Success/failure handlers are available since Symfony 2.0 (2011) ...

Success/failure handlers are available since Symfony 2.0 (2011) ...

... but lots of developers don't use them because they are not documented.

The security.interactive_login event

```
services:
   login listener:
       class: AppBundle\Listener\LoginListener
       arguments: ['@security.token storage', '@doctrine']
       tags:
           - { name: 'kernel.event listener', event: 'security.interactive login' }
                                    the most common event to "do things"
```

after the user successfully logs in

Defining a success handler

```
namespace AppBundle\Security;
use Symfony\Component\Security\Http\Authentication\AuthenticationSuccessHandlerInterface;
class LoginHandler implements AuthenticationSuccessHandlerInterface
   public function onAuthenticationSuccess(Request $request, TokenInterface $token)
       // do something ...
       return $this->redirect('...');
       return new Response('...');
```

Defining a success handler

namespace AppBundle\Security;

you just need to implement this interface...

```
use Symfony\Component\Security\Http\Authentication\AuthenticationSuccessHandlerInterface;
class LoginHandler implements AuthenticationSuccessHandlerInterface 🗢 🕻
   public function onAuthenticationSuccess(Request $request, TokenInterface $token)
       // do something ...
       return $this->redirect('...');
       return new Response('...');
```

Defining a success handler

```
namespace AppBundle\Security;
```

you just need to implement this interface...

```
use Symfony\Component\Security\Http\Authentication\AuthenticationSuccessHandlerInterface;
class LoginHandler implements AuthenticationSuccessHandlerInterface 🗲 🕻
   public function onAuthenticationSuccess(Request $request, TokenInterface $token)
       // do something ...
                                           ...and return a Response
                                           instance
       return $this->redirect('...');
       return new Response('...');
```

Enabling the success handler

```
# app/config/services.yml
services:
    app.login handler:
        class: AppBundle\Security\LoginHandler
        arguments: ...
# app/config/security.yml
firewalls:
    main:
        pattern: ^/
        form_login:
            success handler: app.login handler
```

Enabling the success handler

```
# app/config/services.yml
services:
    app.login handler:
        class: AppBundle\Security\LoginHandler
        arguments: ...
                                             the LoginHandler class is
# app/config/security.yml
                                             executed when the user logs
firewalls:
                                             in successfully and after the
    main:
                                             event.interactive_login
        pattern: ^/
        form_login:
            success handler: app.login handler
```


Meaningful data providers

I learned this from



More information

http://www.thisprogrammingthing.com/2015/making-dataproviders-more-maintainable

Common data providers

```
public function getUserData()
   return array(
        array(true, false, false),
        array(true, true, false),
        array(true, true, true),
/** @dataProvider getUserData */
public function testRegistration($register, $enable, $notify)
```

When an error happens...

```
phpunit -c app
Time: 137 ms, Memory: 12.50Mb
There was 1 failure:
1) AppBundle\Tests\Controller\DefaultControllerTest::testRegistration
  with data set #0 (true, false, false)
                             very hard to understand
                             the exact error
```

Meaningful data providers

```
array keys are the
public function getUserData()
                                          labels of each data set
    return array(
        'register user only'
                                      => array(true, false, false),
        'register and enable'
                                      => array(true, true, false),
        'register, enable and notify' => array(true, true, true),
/** @dataProvider getUserData */
public function testRegistration($register, $enable, $notify)
```

When an error happens...

```
$ phpunit -c app
Time: 137 ms, Memory: 12.50Mb
There was 1 failure:
1) AppBundle\Tests\Controller\DefaultControllerTest::testRegistration
  with data set "register user only" (true, false, false)
                                  meaningful error
                                  messages
```

Generating data providers

I learned this from



More information

http://php.net/manual/en/language.generators.overview.php

Common data providers

```
public function dataProvider()
  public function providerBasicDrivers()
    return array(
                                                  array('type' => 'apc')),
      array('doctrine.orm.cache.apc.class',
      array('doctrine.orm.cache.array.class',
                                                  array('type' => 'array')),
      array('doctrine.orm.cache.xcache.class',
                                                  array('type' => 'xcache')),
                                                  array('type' => 'wincache')),
      array('doctrine.orm.cache.wincache.class',
      array('doctrine.orm.cache.zenddata.class',
                                                  array('type' => 'zenddata')),
```

Data providers using PHP generators

```
public function dataProvider()
                                                          NEW PHP 5.5
   public function providerBasicDrivers()
       yield ['doctrine.orm.cache.apc.class',
                                                   ['type' => 'apc']];
       yield ['doctrine.orm.cache.array.class',
                                                   ['type' => 'array']];
       yield ['doctrine.orm.cache.xcache.class', ['type' => 'xcache']];
       yield ['doctrine.orm.cache.wincache.class',
                                                   ['type' => 'wincache']];
       yield ['doctrine.orm.cache.zenddata.class',
                                                   ['type' => 'zenddata']];
```

Data providers using PHP generators

```
public function dataProvider()
                                                          NEW PHP 5.5
   public function providerBasicDrivers()
       yield ['doctrine.orm.cache.apc.class',
                                                   ['type' => 'apc']];
       yield ['doctrine.orm.cache.array.class', ['type' => 'array']];
       yield ['doctrine.orm.cache.xcache.class', ['type' => 'xcache']];
       yield ['doctrine.orm.cache.wincache.class',
                                                   ['type' => 'wincache']];
       yield ['doctrine.orm.cache.zenddata.class', ['type' => 'zenddata']];
                   it reduces memory
                   consumption
```

Better setUp and tearDown

I learned this from



Sebastian Bergmann

More information

https://phpunit.de/manual/current/en/appendixes.annotations.html #appendixes.annotations.before

Common use of setUp() method in tests

```
class IntegrationTest extends \PHPUnit Framework TestCase
    private $rootDir;
    private $fs;
    public function setUp()
       $this->rootDir = realpath( DIR .'/../../:);
       $this->fs = new Filesystem();
       if (!$this->fs->exists($this->rootDir.'/symfony.phar')) {
           throw new \RuntimeException("...");
```

Common use of setUp() method in tests

```
class IntegrationTest extends
                              public function setUp()
                              public function tearDown()
   private $rootDir;
   private $fs;
                              public static function setUpBeforeClass()
                              public static function tearDownAfterClass()
   public function setUp()
       $this->rootDir = realpath( DIR .'/../../:);
       $this->fs = new Filesystem();
       if (!$this->fs->exists($this->rootDir.'/symfony.phar')) {
           throw new \RuntimeException("...");
```

Better alternative: @before annotation

```
class IntegrationTest extends \PHPUnit Framework TestCase
    private $rootDir;
    private $fs;
    /** @before */
    public function initialize()
       $this->rootDir = realpath(__DIR__.'/../../');
       $this->fs = new Filesystem();
    /** @before */
    public function checkPharFile() {
       if (!$this->fs->exists($this->rootDir.'/symfony.phar')) {
           throw new \RuntimeException("...");
```

Better alternative: @before annotation

```
class IntegrationTest extends \PHPUnit Framework_TestCase
   private $rootDir;
                      _ - - you can define any number
   private $fs;
                            of @before methods
   /** @before */
   public function initialize()
       $this->rootDir = realpath(__DIR__.'/../../');
       $this->fs = new Filesystem();
    /** @before */
   public function checkPharFile() {
       if (!$this->fs->exists($this->rootDir.'/symfony.phar')) {
           throw new \RuntimeException("...");
```

Better alternative: @before annotation

```
class IntegrationTest extends \PHPUnit Framework TestCase
   private $rootDir;
                       _ - you can define any number
   private $fs;
                            of @before methods
   /** @before */
   public function initialize()
       $this->rootDir = realpath(__DIR__.'/../../');
       $this->fs = new Filesystem();
                                                          order matters (first
                                                          method is executed first)
   /** @before */
   public function checkPharFile() {
       if (!$this->fs->exists($this->rootDir.'/symfony.phar')) {
          throw new \RuntimeException("...");
```

Alternatives to setUp and tearDown

```
class IntegrationTest extends \PHPUnit Framework TestCase
   /** @before */
   public function initialize() { }
   /** @after */
   public function clean() { }
   /** @beforeClass */
   public static function initialize() { }
   /** @afterClass */
   public static function initialize() { }
```

Avoid risky tests

I learned this from



More information

https://phpunit.de/manual/current/en/risky-tests.html

Common PHPUnit configuration

```
<?xml version="1.0" encoding="UTF-8"?>
<phpunit xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</pre>
         xsi:noNamespaceSchemaLocation="http://schema.phpunit.de/4.1/phpunit.xsd"
         backupGlobals="false"
         colors="true"
         bootstrap="vendor/autoload.php"
</phpunit>
```

Common PHPUnit configuration

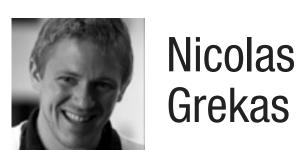
```
<?xml version="1.0" encoding="UTF-8"?>
<phpunit xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</pre>
        xsi:noNamespaceSchemaLocation="http://schema.phpunit.de/4.1/phpunit.xsd"
         backupGlobals="false"
         colors="true"
         bootstrap="vendor/autoload.php"
         beStrictAboutTestsThatDoNotTestAnything="true"
         checkForUnintentionallyCoveredCode="true"
                                                          this strict configuration
         beStrictAboutOutputDuringTests="true"
                                                    will force you to create
         beStrictAboutTestSize="true"
         beStrictAboutChangesToGlobalState="true"
                                                          better tests
```

</phpunit>

mini-tip

Deprecation stack traces

I learned this from



More information

https://github.com/symfony/symfony/pull/16709

Use the PHPUnit Bridge to detect deprecations

```
composer require --dev symfony/phpunit-bridge
  phpunit -c app
PHPUnit by Sebastian Bergmann and contributors.
 . . . . . . . . . . . . . . .
Time: 3.7 seconds, Memory: 75.00Mb
OK (17 tests, 21 assertions)
```

Remaining deprecation notices (368)

When a deprecation occurs...

```
2. /Users/javier? (bash)
$ phpunit -c app
PHPUnit 4.6.6 by Sebastian Bergmann and contributors.
Configuration read from /Users/javier/sf/symfony-demo/app/phpunit.xml.dist
Time: 3.7 seconds, Memory: 75.00Mb
OK (17 tests, 21 assertions)
Remaining deprecation notices (368)
The class "Symfony\Bundle\AsseticBundle\Config\AsseticResource" is performing resource checking through
ResourceInterface::isFresh(), which is deprecated since 2.8 and will be removed in 3.0: 368x
    128x in DefaultControllerTest::testPublicUrls from AppBundle\Tests\Controller
    128x in DefaultControllerTest::testSecureUrls from AppBundle\Tests\Controller
    32x in BlogControllerTest::testIndex from AppBundle\Tests\Controller
    32x in BlogControllerTest::testIndex from AppBundle\Tests\Controller\Admin
    32x in BlogControllerTest::testAdministratorUsersCanAccessToTheBackend from AppBundle\Tests\Controll
er\Admin
    16x in BlogControllerTest::testRegularUsersCannotAccessToTheBackend from AppBundle\Tests\Controller\
Admin
```

This information is useful, but incomplete. Often you need the stack trace of the code that triggered the deprecation.

On-demand deprecation stack traces

```
BEFORE
                                    A regular expression that
phpunit -c app
                                 - is matched against
                                   className::methodName
AFTER
SYMFONY DEPRECATIONS HELPER=/Blog::index/ \
phpunit -c app
```

On-demand deprecation stack traces

\$ SYMFONY DEPRECATIONS HELPER=/.*/ phpunit -c app The class "Symfony\Bundle\AsseticBundle\Config\AsseticResource" is performing resource It stops at the first checking through ResourceInterface::isFresh(), which is deprecated since 2.8 and will be removed in 3.0 - deprecation and shows Stack trace: #0 vendor/symfony/symfony/src/Symfony/Component/Config/Resource/BCResourceInterfaceChecker.php(32): trigger error() #1 app/bootstrap.php.cache(3061): Symfony\Component\Config\Resource\BCResourceInterfaceChecker->isFresh() its stack trace the config to the co #2 vendor/symfony/symfony/src/Symfony/Component/Config/ResourceCheckerConfigCacheFactory.php(45): Symfony\Component\Config\ResourceCheckerConfigCache->isFresh() #3 vendor/symfony/symfony/src/Symfony/Component/Routing/Router.php(302): Symfony\Component\Config\ResourceCheckerConfigCacheFactory->cache() #4 vendor/symfony/symfony/src/Symfony/Component/Routing/Router.php(250): Symfony\Component\Routing\Router->getMatcher() #5 vendor/symfony/symfony/src/Symfony/Component/HttpKernel/EventListener/RouterListener.php(154): Symfony\Component\Routing\Router->matchRequest() #6 [internal function]: Symfony\Component\HttpKernel\EventListener\RouterListener->onKernelRequest() #7 vendor/symfony/symfony/src/Symfony/Component/EventDispatcher/Debug/WrappedListener.php(61): call user func() #8 [internal function]: Symfony\Component\EventDispatcher\Debug\WrappedListener->_invoke() #9 vendor/symfony/symfony/src/Symfony/Component/EventDispatcher/EventDispatcher.php(181): call user func() #10 vendor/symfony/symfony/src/Symfony/Component/EventDispatcher/EventDispatcher.php(46): Symfony\Component\EventDispatcher\EventDispatcher->doDispatch() #11 vendor/symfony/symfony/src/Symfony/Component/EventDispatcher/Debug/TraceableEventDispatcher.php(132): Symfony\Component\EventDispatcher\EventDispatcher->dispatch() #12 app/bootstrap.php.cache(3178): Symfony\Component\EventDispatcher\Debug\TraceableEventDispatcher->dispatch() #13 app/bootstrap.php.cache(3151): Symfony\Component\HttpKernel\HttpKernel->handleRaw() #14 app/bootstrap.php.cache(3302): Sýmfoný\Component\HttpKernel\HttpKernel->handle() #15 app/bootstrap.php.cache(2498): Symfony\Component\HttpKernel\DependencyInjection\ContainerAwareHttpKernel->handle() #16 vendor/symfony/symfony/src/Symfony/Component/HttpKernel/Client.php(79): Symfony\Component\HttpKernel\Kernel->handle() #17 vendor/symfony/symfony/src/Symfony/Bundle/FrameworkBundle/Client.php(131): Symfony\Component\HttpKernel\Client->doRequest() #18 vendor/symfony/symfony/src/Symfony/Component/BrowserKit/Client.php(317): Symfony\Bundle\FrameworkBundle\Client->doRequest() #19 src/AppBundle/Tests/Controller/Admin/BlogControllerTest.php(42): Symfony\Component\BrowserKit\Client->request() #20 [internal function]: AppBundle\Tests\Controller\Admin\BlogControllerTest->testRegularUsersCannotAccessToTheBackend() #21 {main}

Services

Smoke testing for services

I learned this from



More information

http://www.whitewashing.de/2015/06/12/the_containertest.html

«Smoke Tests are an early warning for when things go wrong»

```
public function testContainerServices()
   $client = static::createClient();
   foreach ($client->getContainer()->getServiceIds() as $serviceId) {
        $service = $client->getContainer()->get($serviceId);
        $this->assertNotNull($service);
```

```
public function testContainerServices()
                                                get all services defined
                                                by the container
    $client = static::createClient();
   foreach ($client->getContainer()->getServiceIds() as $serviceId) {
       $service = $client->getContainer()->get($serviceId);
       $this->assertNotNull($service);
```

```
public function testContainerServices()
                                                       get all services defined
by the container
    $client = static::createClient();
    foreach ($client->getContainer()->getServiceIds() as $serviceId) {
         $service = $client->getContainer()->get($serviceId);
         $this->assertNotNull($service);
                                                 try to instantiate all of them to look for errors
```

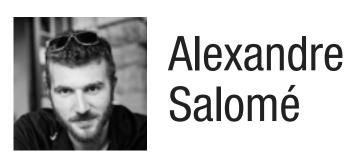
```
public function testContainerServices()
    $client = static::createClient();
   foreach ($client->getContainer()->getServiceIds() as $serviceId) {
        try {
            $service = $client->getContainer()->get($serviceId);
            $this->assertNotNull($service);
        } catch(InactiveScopeException $e) { }
             you may need this try ... catch to avoid
                issues with request related services
```

Manual "smoke testing" for important services

```
public static function dataServices()
   return [
      ['app.datetimepicker', 'AppBundle\Form\Type\DateTimePickerType'],
      ['app.redirect listener', 'AppBundle\EventListener\RedirectToPreferredLocaleListener'],
                                      check that the service
                                                      is instantiable and that
/** @dataProvider dataServices */
public function testImportantServices($id, $class) the returned class is
                                                      the right one
    $client = static::createClient();
    $service = $client->getContainer()->get($id);
    $this->assertInstanceOf($class, $service); ← - - ⁻
```

Services benchmark

I learned this from



More information

https://speakerdeck.com/alexandresalome/french-symfony2-et-performances

Service instantiation should not take too long

```
public function testContainerServices()
   $client = static::createClient();
   foreach ($client->getContainer()->getServiceIds() as $serviceId) {
      $startedAt = microtime(true);
           $service = $client->getContainer()->get($serviceId);
           $elapsed = (microtime(true) - $startedAt) * 1000;
           $this->assertLessThan(50, $elapsed);
        } catch(InactiveScopeException $e) {
```

Service instantiation should not take too long

```
public function testContainerServices()
   $client = static::createClient();
   foreach ($client->getContainer()->getServiceIds() as $serviceId) {
      $startedAt = microtime(true);
           $service = $client->getContainer()->get($serviceId);
           $elapsed = (microtime(true) - $startedAt) * 1000;
           $this->assertLessThan(50, $elapsed);

        } catch(InactiveScopeException $e) {
                                              services should be
                                              created in 50ms or less
```

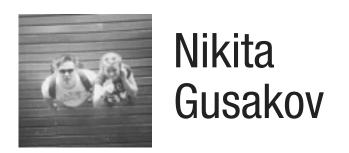
Most expensive services in Symfony Standard

Service	Time (ms)
cache_warmer	42.95
doctrine.orm.default_entity_manager	14.05
web_profiler.controller.router	11.88
swiftmailer.mailer.default	6.65
profiler	5.45
annotation_reader	4.53
doctrine.dbal.default_connection	4.22
form.type_extension.form.validator	4.13
routing.loader	4.02
form.type.choice	3.10

mini-tip

Simpler command interactions

I learned this from



More information

https://github.com/symfony/swiftmailer—bundle/blob/master/Command/NewEmailCommand.php

Common lifecycle of a command

```
class MyCustomCommand extends ContainerAwareCommand
   protected function Configure()
   protected function execute(InputInterface $input, OutputInterface $output)
```

Full lifecycle of a command

```
class MyCustomCommand extends ContainerAwareCommand
                                               here you can ask the user for any missing option or argument
   protected function Configure()
   protected function initialize (InputInterface $input, OutputInterface $output)
   protected function interact (InputInterface $input, OutputInterface $output)
   protected function execute(InputInterface $input, OutputInterface $output)
```

Ask for any missing command argument

```
the interact() method is usually
class MyCommand extends ContainerAwareCommand
                                               very verbose. This is the minimal
                                               useful interact() method.
    protected function interact(InputInterface $input, OutputInterface $output)
        $dialog = $this->getHelper('dialog');
        foreach ($input->getArguments() as $argument => $value) {
           if ($value === null) {
                $input->setArgument($argument, $dialog->ask($output,
                    sprintf('<question>%s</question>: ', ucfirst($argument))
                ));
```

Console

Console Style Guide

Most commands are a mess

\$this->writeText(\$description, \$options);

Most commands are a mess

\$this->writeText(\$description, \$options);

you are mixing **content** with **presentation**, like in the good old days of HTML+CSS

The new "Style Guide" makes built-in commands visually consistent.

You can use it in your own commands too

use Symfony\Component\Console\Style\SymfonyStyle;

```
class MyCustomCommand
   protected function execute(InputInterface $input, OutputInterface $output)
      $io = new SymfonyStyle($input, $output);
      $io->...
```

Displaying a title (BEFORE)

```
// alternative 1
$formatter = $this->getHelperSet()->get('formatter');
$formattedBlock = $formatter->formatBlock($title, '', true);
$output->writeln($formattedBlock);
// alternative 2
$title = 'Lorem Ipsum Dolor Sit Amet';
$output->writeln('<info>'.$title.'</info>');
$output->writeln(str repeat('=', strlen($title)));
// alternative 3
$output->writeln('');
$output->writeln('Add User Command Interactive Wizard');
$output->writeln('-----');
```

Displaying a title (AFTER)

use Symfony\Component\Console\Style\SymfonyStyle;

```
$io = new SymfonyStyle($input, $output);
$io->title('Lorem Ipsum Dolor Sit Amet');
```

Displaying a title (AFTER)

use Symfony\Component\Console\Style\SymfonyStyle;

```
$io = new SymfonyStyle($input, $output);
$io->title('Lorem Ipsum_Dolor Sit Amet');
                                                 $ php app/console app:my-command
                                                Lorem Ipsum Dolor Sit Amet
                                                 Lorem ipsum dolor sit amet, consectetur adipiscing elit. I
                                                 turpis. Mauris dictum, leo et bibendum tempus, mi diam fac
```

eget interdum nisi risus a massa. Suspendisse non sapien s

consectetur convallis nec quis odio. Nulla facilisis sapie

suscipit varius. Vivamus at tincidunt tellus. Suspendisse

Suspendisse non odio justo. Fusce imperdiet augue id hibe

Displaying a table (BEFORE)

```
$table = new Table($this->getOutput());
$table->setStyle('compact');
$table->setHeaders(['Parameter', 'Value']);
$table->addRow(['...', '...']);
$table->addRow(['...', '...']);
$table->addRow(['...', '...']);
$table->render();
```

Displaying a table (AFTER)

use Symfony\Component\Console\Style\SymfonyStyle;

```
$headers = ['Parameter', 'Value'];
$rows = [ ... ];

$io = new SymfonyStyle($input, $output);
$io->table($headers, $rows);
```

Displaying a table (AFTER)

use Symfony\Component\Console\Style\SymfonyStyle;

```
php app/console app:my-command
Lorem Ipsum Dolor Sit Amet
               • • •
Lorem insum dolor sit amet consect
```

All the common features are covered

```
$io = new SymfonyStyle($input, $output);
                    $io->success();
$io->title();
                    $io->error();
$io->section();
                    $io->warning();
$io->text();
                    $io->ask();
$io->listing();
                    $io->askHidden();
$io->table();
$io->choice();
                    $io->confirm();
```

Create consistent commands effortlessly

```
Lorem Ipsum Dolor Sit Amet
// Duis aute irure dolor in reprehenderit in voluptate velit esse
// cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat
                  Method Scheme Host Path
                                 ANY /admin/post/new
admin post new
admin post show GET
                        ANY ANY /admin/post/{id}
                         ANY ANY /admin/post/{id}/edit
admin post edit ANY
admin post delete DELETE ANY
                                      /admin/post/{id}
  [CAUTION] Lorem ipsum dolor sit amet, consectetur adipisicing elit,
 sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
 Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris.
Consectetur Adipisicing Elit Sed Do Eiusmod
* Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod
  tempor incididunt ut labore et dolore magna aliqua.
* Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut
  aliquip ex ea commodo.
  Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt
  mollit anim id est laborum.
```

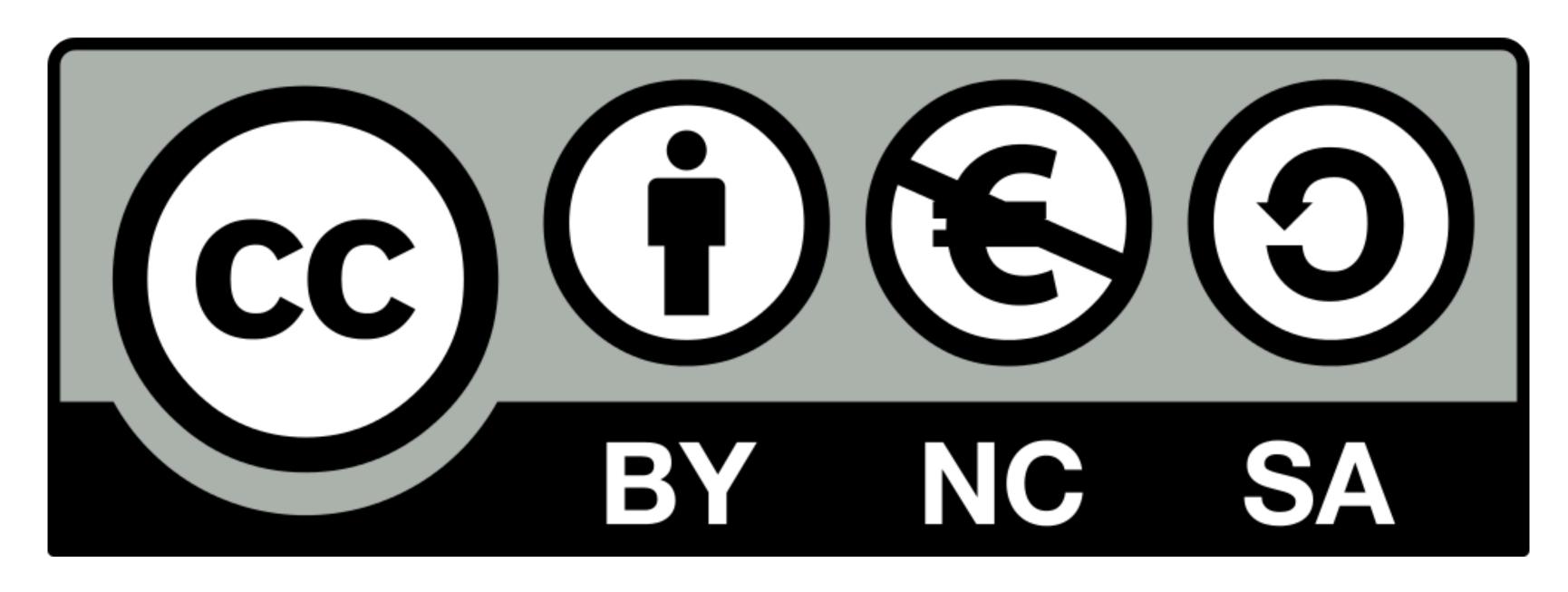
```
Bundle namespace:
> AppBundle <Enter>
Bundle name [AcmeAppBundle]:
> <Enter>
Configuration format (yml, xml, php, annotation) [annotation]:
> <Enter>
Do you want to enable the bundle? (yes/no) [yes]:
> <Enter>
Configuration format (select one) [annotation]:
> yml
> xml
> php
> annotation
! [NOTE] Duis aute irure dolor in reprehenderit in voluptate velit esse
! cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat.
 [OK] Lorem ipsum dolor sit amet, consectetur adipisicing elit
 [ERROR] Duis aute irure dolor in reprehenderit in voluptate velit esse.
[WARNING] Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi.
```

Contact information

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