

Entity Manager in a controller

<code>\$this->getDoctrine()->getManager();</code>	Get default entity manager
<code>\$this->getDoctrine()->getManagerForClass(MyEntity::class)</code>	Get entity specific manager

Magic repository functions

<code>find(\$id)</code>	Returns one entity
<code>findOneBy(\$criteria, \$orderBy)</code>	Returns one entity
<code>findBy(\$criteria, \$orderBy, \$limit, \$offset)</code>	Returns collection
<code>\$criteria = ['field' => 'value']</code>	Single field / value
<code>\$criteria = ['field' => ['value1', 'value2']]</code>	Single where-in
<code>\$criteria = ['field1' => 'value', 'field2' => 'value2']</code>	multiple fields / values
<code>\$repository = \$this->getDoctrine()->getRepository(Product::class);</code> <code>\$product = \$repository->findOneBy(['name' => 'Keyboard']);</code>	

Doctrine criteria - filtering collections

<code>where(\$Expression)</code>	Replaces previous statement
<code>[and/or]Where(\$Expression)</code>	Adds AND /OR where statement
<code>orderBy(\$array)</code>	Sets OrderBy
<code>setFirstResult(\$firstResult)</code>	Sets first result
<code>setMaxResult(\$max)</code>	Sets Maximum results

```

$userCollection = $group->getUsers();

$criteria = Criteria::create()
->where(Criteria::expr()->eq("birthday", "1982-02-17"))
->orderBy(array("username" => Criteria::ASC))
->setFirstResult(0)
->setMaxResults(20)
;

$birthdayUsers = $userCollection->matching($criteria);

```

Repositories in a controller

```

$this->getDoctrine()->getRepository(MyEntity::class);

```

Doctrine ExpressionBuilder and Expr

<code>andX(\$arg1, \$arg2, ...)</code>	Multiple arguments AND
<code>orX(\$arg1, \$arg2, ...)</code>	Multiple arguments OR
<code>[n]eq(\$field, \$value)</code>	[Not] Equal
<code>gt[e](\$field, \$value)</code>	Greater than [or equal]
<code>lt[e](\$field, \$value)</code>	Less than [or equal]
<code>isNull(\$field)</code>	Is Null
<code>[not]in(\$field, array \$values)</code>	[not] In
<code>memberOf(\$field, \$value)</code>	ExpressionBuilder only Member of
<code>isMemberOf(\$field, \$value)</code>	Expr only Member of
<code>isNotNull(\$field)</code>	Expr only Is not Null
<code>between(\$field, \$x, \$y)</code>	Expr only Between \$x and \$y
<code>trim(\$field)</code>	Expr only Trim
<code>concat(\$x, \$y)</code>	Expr only Concat
<code>literal(\$string)</code>	Expr only Literal
<code>lower(\$field)</code>	Expr only Lower case
<code>upper(\$field)</code>	Expr only Upper case
<code>count(\$field)</code>	Expr only count

```

# Doctrine Expr #
$criteria::expr()->orX(
$criteria::expr()->eq('id', $facilityId),
$criteria::expr()->eq('active', TRUE)
);

# Doctrine ExpressionBuilder #
$qb = $this->createQueryBuilder('f');
$qb->where(
$qb->expr()->eq('id', '?arg1')
)->setParameter('arg1', $facilityId);

```

Doctrine Query Builder

setParameter(\$parameter, \$value)

addCriteria(Criteria \$criteria)

[get/set]**MaxResults**(\$maxResults)

[get/set]**FirstResult** (\$firstResult)

getQuery()

add(\$dqlPartName, \$dqlPart, \$append = false)

\$dqlPartName: select, from, join, set, where, groupBy, having, orderBy

Wrappers for add():

[add]**select**(\$select= null)

delete(\$delete = null, \$alias = null)

update(\$update = null, \$alias = null)

set(\$key, \$value)

from(\$from, \$alias, \$indexBy = null)

[inner/left]**join**(\$join, \$alias, \$conditionType = null, \$condition = null, \$indexBy = null)

[and/or]**where**(\$where)

[add]**groupBy**(\$groupBy)

[and/or]**having**(\$having)

[add]**orderBy**(\$field, \$order = null)

Doctrine Query

getResult(\$hydrationMode = self::HYDRATE_OBJECT) Retrieve a collection

getSingleResult(\$hydrationMode = null) Retrieve a single result or exception

getOneOrNullResult(\$hydrationMode = null) Retrieve a result or NULL

getArrayResult() Retrieve an array

getScalarResult() Retrieves a flat/rectangular result set of scalar values

Doctrine Query (cont)

getSingleScalarResult() Retrieves a single scalar value or exception

AbstractQuery::HYDRATE_OBJECT Object graph **default**

AbstractQuery::HYDRATE_ARRAY Array graph

AbstractQuery::HYDRATE_SCALAR Flat rectangular result with scalars

AbstractQuery::HYDRATE_SINGLE_SCALAR Single scalar value

AbstractQuery::HYDRATE_SIMPLEOBJECT Very simple object **fast**

setCacheMode(\$cacheMode)

Cache::MODE_GET may read, not write

Cache::MODE_PUT no read, write all

Cache::MODE_NORMAL read and write

Cache::MODE_REFRESH no read, only refresh

setCacheable(\$trueFalse) Enable/disable result caching

Persisting Entities

```
// get the entity manager that manages this entity
$em = $this->getDoctrine()->
getManagerForClass(MyEntity::class);
// create a new entity
$entity = new MyEntity();
// populate / alter properties
$entity->setName('Default Entity');
// tell Doctrine you want to (eventually) save
$em->persist($entity);
// actually executes the queries
$em->flush();
```



Authorization

IS_AUTHENTICATED_FULLY User has successfully authenticated, not via 'remember me cookie'

IS_AUTHENTICATED_REMEMBERED All logged in users

IS_AUTHENTICATED_ANONYMOUSLY All users, even anonymous ones

All roles you assign to a user must begin with the ROLE_ prefix.

Authorization via security.yaml

```
# config/packages/security.yaml
security:
    # ...
    firewalls:
        # ...
        main:
            # ...
    access_control:
        # require ROLE_SUPER_ADMIN for /admin/users*
        - { path: ^/admin/users, roles:
ROLE_SUPER_ADMIN }
        # require ROLE_ADMIN for /admin*
        - { path: ^/admin, roles: ROLE_ADMIN }
```

No limit on amount of URL patterns. Each is a regular expression. First match will be used.

Prepend the path with ^ to ensure only URLs beginning with the pattern are matched.

Authorization in a controller

```
# Example of using wrapper #
public function hello($name)
{
    // The second parameter is used to specify on what
    object the role is tested.
```

Authorization in a controller (cont)

```
$this->denyAccessUnlessGranted('ROLE_ADMIN', null,
'Unable to access this page!');
// ...
}
# Example of using AuthorizationChecker
use
Symfony\Component\Security\Core\Authorization\Authori
zationCheckerInterface
use
Symfony\Component\Security\Core\Exception\AccessDenie
dException;
public function hello($name,
AuthorizationCheckerInterface $authChecker)
{
    if (false === $authChecker-
>isGranted('ROLE_ADMIN')) {
        throw new AccessDeniedException('Unable to
access this page!');
    }
    // ...
}
# Example of using annotation #
use
Sensio\Bundle\FrameworkExtraBundle\Configuration\Secur
ity;
/**
 * @Security("has_role('ROLE_ADMIN')")
 */
public function hello($name)
{
    // ...
}
```

Authorization in template

```
{% if is_granted('ROLE_ADMIN') %}
    <a href="...">Delete</a>
{% endif %}
```

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Create a new form in a controller

```
# Create a new form with a default name #
$form = $this->createFormBuilder($data)
    ->add('dueDate', null, array(
        'widget' => 'single_text'))
    ->add('save', SubmitType::class)
    ->getForm();

# Create a form with a non-default name #
$form = $this->container->get('form.factory')
    ->createNamedBuilder(
        'form1', FormType::class, $data)
    ->add('dueDate', null, array(
        'widget' => 'single_text'))
    ->add('save', SubmitType::class)
    ->getForm();
```

Create a form from a class in a controller

```
# Create a form from a form class with a default name #
$form = $this->createForm(TaskForm::class, $data,
    array(
        'action' => $this->generateUrl('target_route'),
        'method' => 'GET',
    ));

# Create a form from a form class with a non-default name #
$form = $this->container->get('form.factory')
    ->createNamed('form1', TaskForm::class, $data,
    array(
        'action' => $this->generateUrl('target_route'),
        'method' => 'GET',
    ));
```

Basic form

```
class TaskForm extends AbstractType
{
    public function buildForm(
        FormBuilderInterface $builder,
        array $options)
    {
        $builder
            ->add('dueDate', DateType::class, array(
                'widget' => 'single_text',
                'label' => 'Due Date',
                'required' => false,
                'attr' => array('maxlength' => 10),
                'constraints' => array(new Length(
                    array('max' => 10)))
            ))
            ->add('save', SubmitType::class);
    }

    public function configureOptions(
        OptionsResolver $resolver)
    {
        $resolver->setDefaults(array(
            'method' => 'GET',
        ));
    }
}
```

Form Options

'action' => "	Where to send the form's data on submission (usually a URI)
'allow_extra_fields' => false	Allow additional fields to be submitted
'error_mapping' => array('matchingCityAndZipCode' => 'city')	Modify the target of a validation error
'extra_fields_message' => 'This form should not contain extra fields.'	Validation error message if additional fields are submitted
'inherit_data' => false	Inherited data from parent form or not
'method' => 'POST'	HTTP method used to submit the form
'post_max_size_message' => 'The uploaded file was too large.'	Validation message for size of post form data
'validation_groups' => false	Disable the Validation of Submitted Data

```
public function configureOptions(OptionsResolver $resolver) {
    $resolver->setDefaults(array(
        # Options go here #
    ));
}
```

TwigBridge - Forms

{{ form(view, variables) }}	Render whole form
{{ form_start(view, variables) }}	Render start tag
{{ form_errors(view) }}	Render global errors
{{ form_row(view, variables) }}	Render all the fields

TwigBridge - Forms (cont)

{{ form_rest(view, variables) }}	Render all other fields
{{ form_end(view, variables) }}	Render end tag + all other fields
{{ form_row(view.field) }}	Render field label, error and widget
{{ form_label(view.field, label, variables) }}	Render field label
{{ form_errors(view.field) }}	Render field error
{{ form_widget(view.field, variables) }}	Render field widget
<pre> # render a label, but display 'Your Name' and add a "foo" class to it # {{ form_label(form.name, 'Your Name', {'label_attr': {'class': 'foo'}}) }} # render a widget, but add a "foo" class to it # {{ form_widget(form.name, {'attr': {'class': 'foo'}}) }} # render a field row, but display a label with text "foo" # {{ form_row(form.name, {'label': 'foo'}) }}</pre>	

Log Levels

emergency()	System is unusable.
alert()	Action must be taken immediately.
critical()	Critical conditions.
error()	Runtime errors that do not require immediate action but should typically be logged and monitored.
warning()	Exceptional occurrences that are not errors.
notice()	Normal but significant events.
info()	Interesting events.



Log Levels (cont)

`debug()` Detailed debug information.

```
use Psr\Log\LoggerInterface;
```

```
public function index(LoggerInterface $logger) {
    $logger->info('I just got the logger');
}
```

Console

`bin/console` List available commands and show the Symfony version

`server:run` Run the built-in web server

`assets:install --symlink` Install bundle assets as a symlink or hardcopy

`debug:autowire` Lists classes/interfaces you can use for autowiring

`debug:config` Dumps the current configuration for an extension

`debug:container` Displays current services for an application

`debug:form` Lists classes/interfaces you can use for autowiring

`debug:route` Displays current routes for an application

Usage:
php bin/console command [options] [arguments]

Options:

- `-h, --help` Display this help message
- `-q, --quiet` Do not output any message
- `-n, --no-interaction` Do not ask any interactive question
- `-e, --env=ENV` The environment name [default: "dev"]
- `--no-debug` Switches off debug mode
- `-v|vv|vvv, --verbose` Increase the verbosity of messages: 1 for normal output, 2 for more verbose output and 3 for debug

Response from a controller

`render($view, $parameters, $response = null)` Render the template and return a Response

`json($data, $status = 200, $headers = array(), $context = array())` Encode data and return a Json response

`file($file, $fileName = null, $disposition = ResponseHeaderBag::DISPOSITION_ATTACHMENT)` Return a file response

`redirectToRoute($route, $parameters = array(), $status = 302)` Redirect to route

`redirect($url, $status = 302)` Redirect to external URL

`forward($controller, $path = array(), $query = array())` Forwards the request to another controller

```
return $this->render('admin/post/show.html.twig', [
    'post' => $post,
    'delete_form' => $deleteForm->createView(),
]);
```

```
return $this->json($data);
```

