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# **simple-mvc Documentation**

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Contents:



# CHAPTER 1

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## Getting Started

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The goal is realize a web application in few steps.

See scripts into *example* for a real example. The base is create a public folder where your web server dispatch the *index.php*.

Create out from this folder the *controllers* path or whatever you want (eg. *ctrls*):

```
- controllers
  - IndexController.php
- public
  - .htaccess
  - index.php
```

In practice you are ready. See the *.htaccess*:

```
RewriteEngine On
RewriteCond %{REQUEST_FILENAME} -s [OR]
RewriteCond %{REQUEST_FILENAME} -l [OR]
RewriteCond %{REQUEST_FILENAME} -d
RewriteRule ^.*$ - [NC,L]
RewriteRule ^.*$ index.php [NC,L]
```

The *index.php* is the main app entry point

```
1 <?php
2 set_include_path(realpath('/path/to/src'));
3
4 require_once 'Loader.php';
5 Loader::register();
6
7 $app = new Application();
8 $app->setControllerPath(__DIR__ . '/../controllers');
9 $app->run();
```

The controller *IndexController.php* file should be like this

```
1 <?php
2 class IndexController extends Controller
3 {
4     public function indexAction()
5     {
6         echo "hello";
7     }
8 }
```

See “[view](views.md)” doc for enable views supports.

## Urls with dashes

If you use a dash into an URL the framework creates the camel case representation with different strategies if it is an action or a controller.:

```
/the-controller-name/the-action-name
```

Will be

```
1 // the-controller-name => TheControllerName
2 class TheControllerName extends Controller
3 {
4     public function theActionNameAction()
5     {
6         //the-action-name => theActionName
7     }
8 }
```

## Bootstrap resources

You can bootstrap resources:

```
1 <?php
2 $app = new Application();
3 $app->bootstrap('my-resource', function() {
4     return new MyObject();
5 });
```

The bootstrap do not executes all hooks (lazy-loading of resources) but execute it ones only if your application needs it.

```
1 <?php
2 // Into a controller
3 $resource = $this->getResource("my-resource");
4 $another = $this->getResource("my-resource");
5
6 // IT IS TRUE!
7 var_dump($resource === $another);
```



*simple-mvc* provides two strategies for loading classes for itself and only one strategy for autoloading your classes.

### Classmap

The classmap loads only *simple-mvc* classes. If you have a self-designed autoloader you have to use this strategy for reduce conflicts during the autoloading process.

```
1 <?php
2 require_once '/path/to/simple/Loader.php';
3
4 // Load all simple-mvc classes
5 Loader::classmap();
```

### PSR-0 Autoloader

If you want to use the PSR-0 autoloader you have to register the autoloader.

```
1 <?php
2 require_once '/path/to/simple/Loader.php';
3
4 set_include_path(
5     implode(
6         PATH_SEPARATOR,
7         array(
8             '/path/to/project',
9             get_include_path()
10        )
11    )
12 );
13
```

```
14 // Load all simple-mvc classes
15 Loader::register();
```

The autoloader loads automatically namespaced classes and prefixed.

Prefix example:

```
1 <php
2
3 // Prefix -> ClassName.php
4 class Prefix_ClassName
5 {
6
7 }
```

Namespace example:

```
1 <?php
2 namespace Ns;
3
4 // Ns -> ClassName.php
5 class ClassName
6 {
7
8 }
```

The controller section

## Init hook

Before any action dispatch the framework executes the *init()* method.

```
1 <?php
2 class IndexController extends Controller
3 {
4     public function init()
5     {
6         // The init hook
7     }
8 }
```

Using the object inheritance could be a good choice for this hook.

```
1 <?php
2 abstract class BaseController extends Controller
3 {
4     public function init()
5     {
6         // Reusable code
7     }
8 }
```

## Next action

The *next* action goes forward to the next action appending the next view.

```
1 <?php
2 class IndexController extends Controller
3 {
4     public function indexAction()
5     {
6         $this->view->hello = "hello";
7
8
9         $this->then("/index/next");
10    }
11
12    public function nextAction()
13    {
14        $this->view->cose = "ciao";
15    }
16 }
```

The result is the first view (*index.phtml*) concatenated to the second view (*next.phtml*).

## Redirects

You can handle redirects using the *redirect()* method

```
1 <?php
2 class IndexController extends Controller
3 {
4     public function indexAction()
5     {
6         // Send as moved temporarily
7         $this->redirect("/contr/act", 302);
8     }
9 }
```

## Interact with layout and views

You can disable the layout system at any time using the *disableLayout()* method.

```
1 <?php
2 class IndexController extends Controller
3 {
4     public function indexAction()
5     {
6         // Remove layout
7         $this->disableLayout();
8     }
9 }
```

You can disable the view attached to a controller using the *setNoRender()* method

```
1 <?php
2 class IndexController extends Controller
3 {
4     public function indexAction()
```

```

5     {
6         // No this view
7         $this->setNoRender();
8     }
9 }

```

## Change the layout on the fly

If you want to change your layout during an action or a plugin interaction you can use the resources manager

```

1 <?php
2 class IndexController extends Controller
3 {
4     public function fullWithAction()
5     {
6         $this->getResource("layout")->setScriptName("full-width.phtml");
7     }
8 }

```

Obviously you must use the layout manager.

## Using headers

You can send different headers using *addHeader()* method

```

1 <?php
2 class IndexController extends Controller
3 {
4     public function indexAction()
5     {
6         $this->addHeader("Content-Type", "text/plain");
7     }
8 }

```

## Change View Renderer

You can change the view renderer at runtime during an action execution.

```

1 <?php
2 class IndexController extends Controller
3 {
4     public function indexAction()
5     {
6         $this->setRenderer("/use/me");
7     }
8 }

```

The framework will use the *use/me.phtml*

The end.



The framework starts without view system. For add view support you have to add *view* at bootstrap.

```
1 <?php
2
3 $app = new Application();
4 $app->bootstrap('view', function(){
5     $view = new View();
6     $view->addViewPath(__DIR__ . '/../views');
7
8     return $view;
9 });
10
11 $app->run();
```

The framework append automatically to a controller the right view using controller and action name. Typically you have to create a folder tree like this:

```
site
+ public
+ controllers
- views
  - index
    - index.phtml
```

In this way the system load correctly the controller path and the view script.

## Layout support

The layout is handled as a simple view that wrap the controller view.

You need to bootstrap it. The normal layout name is “layout.phtml”

```
1 <?php
2
3 $app->bootstrap('layout', function() {
4     $layout = new Layout();
5     $layout->addViewPath(__DIR__ . '/../layouts');
6
7     return $layout;
8 });
```

You can change the layout script name using the setter.

```
1 <?php
2 $layout->setScriptName("base.phtml");
```

## View Helpers

If you want to create view helpers during your view bootstrap add an helper closure.

```
1 <?php
2 $app->bootstrap('view', function() {
3     $view = new View();
4     $view->addViewPath(__DIR__ . '/../views');
5
6     $view->addHelper("now", function() {
7         return date("d-m-Y");
8     });
9
10    return $view;
11 });
```

You can use it into you view as:

```
1 <?php echo $this->now() ?>
```

You can create helpers with many variables

```
1 <?php
2 $view->addHelper("sayHello", function($name) {
3     return "Hello {$name}";
4 });
```

View system is based using the prototype pattern all of your helpers attached at bootstrap time existing into all of your real views.

## Share view helpers

View helpers are automatically shared with layout. In this way you can creates global helpers during the bootstrap and interact with those helpers at action time.

Pay attention that those helpers are copied. Use *static* scope for share variables.

```
1 <?php
2 $app->bootstrap("layout", function() {
3     $layout = new Layout();
```



```

4     $layout->addViewPath(__DIR__ . '/../layouts');
5
6
7     return $layout;
8 });
9
10 $app->bootstrap("view", function() {
11     $view = new View();
12     $view->addViewPath(__DIR__ . '/../views');
13
14     $view->addHelper("title", function($part = false) {
15         static $parts = array();
16         static $delimiter = ' :: ';
17
18         return ($part === false) ? "<title>".implode($delimiter, $parts)."</title>" :
19 ↪ $parts[] = $part;
20     });
21
22     return $view;
23 });

```

From a view you can call the *title()* helper and it appends parts of you page title.

## Escapes

Escape is a default view helper. You can escape variables using the *escape()* view helper.

```

1 <?php
2 $this->escape("Ciao -->"); // Ciao --&gt;

```

## Partials view

Partials view are useful for render section of your view separately. In *simple-mvc* partials are view helpers.

```

1 <!-- ctr/act.phtml -->
2 <div>
3     <div>
4         <?php echo $this->partial("/path/to/view.phtml", array('title' => $this->
5 ↪ title));?>
6     </div>
7 </div>

```

The partial view */path/to/view.phtml* are located at *view* path.

```

1 <!-- /path/to/view.phtml -->
2 <p><?php echo $this->title; ?></p>

```

## Multiple view scripts paths

*simple-mvc* support multiple views scripts paths. In other words you can specify a single mount point */path/to/views* after that you can add another views script path, this mean that the *simple-mvc* search for a view previously into the

second views path and if it is missing looks for that into the first paths. View paths are treated as a stack, the latest pushed is the first used.

During your bootstrap add more view paths

```
1 $app->bootstrap('view', function(){
2     $view = new View();
3     $view->addViewPath(__DIR__ . '/../views');
4     $view->addViewPath(__DIR__ . '/../views-rewrite');
5
6     return $view;
7 });
```

If you have a view named *name.phtml* into *views* folder and now you create the view named *name.phtml* into *views-rewrite* this one is used instead the original file in *views* folder.

### Partials and multiple view scripts paths

**\*Partial views follow the rewrite path strategy\***. If you add the partial view into a rewrite view folder, this view script is chosen instead the original partial script.

```
1 <?php echo $this->partial("my-helper.phtml", array('ciao' => 'hello')) ?>
```

If *my-helper.phtml* is found in a rewrite point this view is used instead the original view script.

The end.

## Events

- *loop.startup*
- *loop.shutdown*
- *pre.dispatch*
- *post.dispatch*

## Hooks

The *loop.startup* and *loop.shutdown* is called once at the start and at the end of the simple-mvc workflow.

The *pre.dispatch* and *post.dispatch* is called for every controlled pushed onto the stack (use the *then()* method).

## Hooks params

The *loop.startup* and the *loop.shutdown* have the *Application* object as first parameter.

The *pre.dispatch* hook has the *Route* object as first parameter and the *Application* object as second.

The *post.dispatch* hook has the *Controller* object as first parameter.

- The router object is useful for modify the application flow.

```
1 <?php
2 $app->getEventManager()->subscribe("pre.dispatch", function($router, $app) {
3     // Use a real and better auth system
4     if ($_SESSION["auth"] !== true) {
5         $router->setControllerName("admin");
6         $router->setActionName("login");
7
8         $app->getBootstrap("layout")->setScriptName("admin.phtml");
```

```
9     }  
10  });
```

## Create new events

```
1  <?php  
2  // Call the hook named "my.hook" and pass the app as first arg.  
3  $app->getEventManager()->publish("my.hook", array($app));
```

You can use the self-created hook using

```
1  <?php  
2  $app->getEventManager()->subscribe("my.hook", function($app) { /*The body*/ });
```

---

## Pull Driven Requests

---

Typically MVC frameworks are “push” based. In otherwords use mechanisms to “push” data to a view and not vice-versa. A “pull” framework instead request (“pull”) data from a view.

Pull strategy is useful for example during a *for* statement (not only for that [obviously]...). Look for an example:

```
1 <?php foreach ($this->users as $user) : ?>
2 <?php
3     // Pull data from a controller.
4     $userDetail = $this->pull("/detail/user/id/{$user->id}");
5 ?>
6 <div class="element">
7     <div class="name"><?php echo $userDetail->name;?> <?php echo $userDetail->surname;
8     ↪ ?></div>
9     <!-- other -->
10 </div>
<?php endforeach; ?>
```

### *simple-mvc* implementation

*simple-mvc* has **\*push\*** and **\*pull\*** mechanisms. The *push* is quite simple and a typical operation. See an example

```
1 <?php
2 class EgController extends Controller
3 {
4     public function actAction()
5     {
6         // PUSH to view a variable named <code>var</code>
7         $this->view->var = "hello";
8     }
9 }
```

The view show the pushed variable

```
1 <?php echo $this->var; ?>
```

The *pull* strategy is quite similar but use the return statement of a controller to retrieve all the information. Consider in advance that *simple-mvc* doesn't require a valid controller for retrieve a view, that view is mapped directly. See an example

```
1 <!-- this view is test/miss.phtml (/test/miss GET) -->
2 <div>
3     <h1>Missing controller and action</h1>
4
5     <?php $data = $this->pull("/ctr/act"); ?>
6
7     <!-- example -->
8     <?php echo $data->title; ?>
9 </div>
```

The view require a *pull* operation from a controller named *ctr* and action *act*. See it:

```
1 <?php
2 class CtrController extends Controller
3 {
4     public function actAction()
5     {
6         $data = new stdClass();
7
8         $data->title = "The title";
9
10        // The return type doesn't care...
11        return $data;
12    }
13 }
```

You can use a “pull” controller as a normal controller with the attached view, but remember that when you request for a “pull” operation the view is never considered and the framework remove it without consider the output, only the *return* statement will be used.

---

## Examples of usage

---

### A simple base app execution

```
1 <?php
2 $app = new Application();
3
4 $app->run();
```

### Execute with bootstrap

```
1 <?php
2 $app = new Application();
3
4 $app->bootstrap("say-hello", function(){
5     return array('example' => 'ciao');
6 });
7
8 $app->run();
```

### Into a controller

```
1 <?php
2 class IndexController extends Controller
3 {
4     public function indexAction()
5     {
6         $element = $this->getResource('example');
7
8         echo $element["example"];
9     }
10 }
```

## Controller Forward

You can pass to another controller using *then()*

```
1 <?php
2 class IndexController extends Controller
3 {
4     public function indexAction()
5     {
6         // Add forward action
7         $this->then("/index/forward");
8     }
9
10    public function forwardAction()
11    {
12        // append to index or use it directly
13    }
14 }
```

See *example* folder for a complete working example.



## CHAPTER 8

---

### Indices and tables

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- `genindex`
- `modindex`
- `search`