

The image shows the cover of a spiral-bound notebook. The cover is a light beige or tan color with a textured, slightly mottled appearance. On the left side, there is a silver metal spiral binding. In the center of the cover, the word "symfony" is written in a white, lowercase, sans-serif font. The text is contained within a dark brown, rounded rectangular box. Below this box, a thin horizontal line in a dark brown color spans across the width of the cover. Below the line, the text "A PHP5 Open-Source Framework" is written in a dark brown, serif font. Further down and to the right, the text "By Hanchao Wu" is written in a bold, black, sans-serif font.

symfony

A PHP5 Open-Source Framework

By Hanchao Wu

Outline

- Introduction
- Why Symfony
- Architecture
- Configurability
- ORM
- Admin Generator
- Functional Tests
- Debugging tools
- Community Plugins
- Summary

Introduction

- Sensio(Frech), Oct. 2005
- PHP5 Web Framework
- Open-Source
 - MIT license
 - LAMP full Stack
- Make heavy use of open-source php projects
- M-V-C

*Licence
MIT*

Don't reinvent the wheel

- Follow best practices
- MVC Pattern : Model / View / Controller
- Unit and functional test framework
- Environment and deployment support
- Security (XSS protection by default)
- Extensible (plugin system)

Popular PHP frameworks

- **CakePHP**

- Documentation is somewhat lacking
- Apparently difficult for beginners

- **KiwiPHP**

- Powerful, but still unstable

- **Symfony**

- Great documentation and community
- Easy to get started

- **Zend**

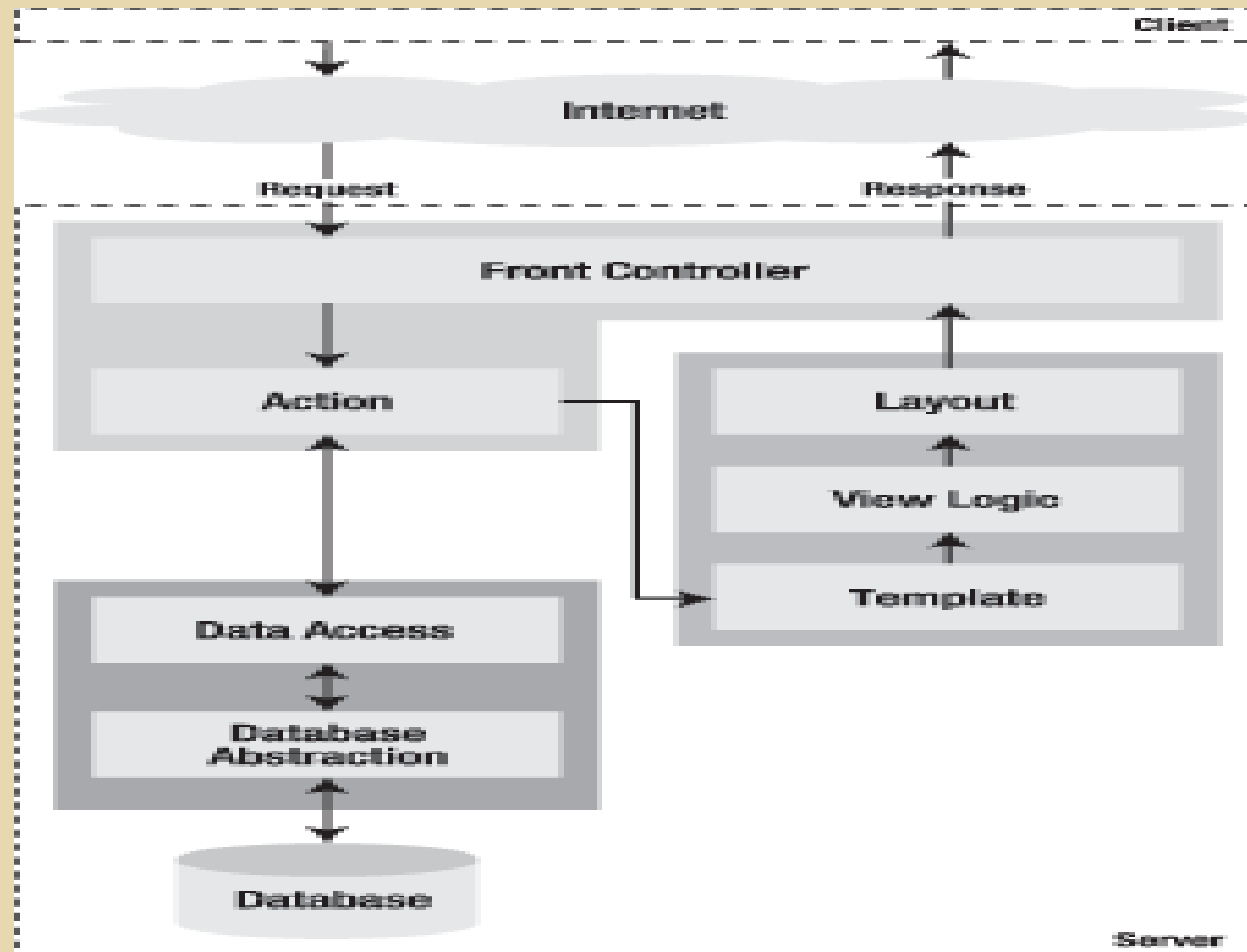
- Supported by Zend (official PHP company)
- More of a library than complete framework

Symfony Main Selling Points

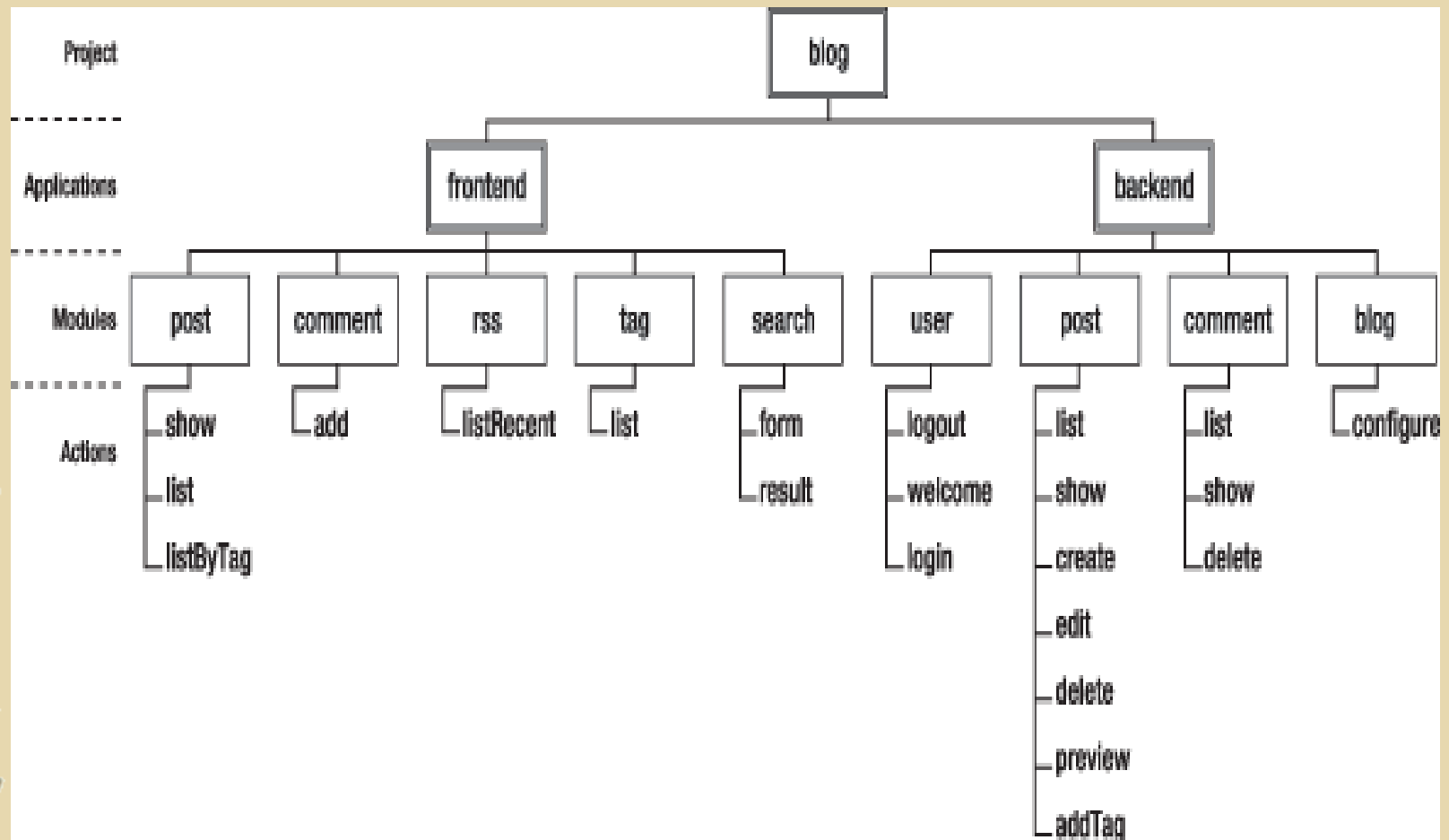
- Configurability
- XSS protection
- Debugging tools
- Functional tests
- Extensibility : Plugins
- Admin Generator
- ORM : Propel or Doctrine
- i18n / l10n

Standard
PHP 5
MVC
Routing
Cache

Architecture



Packages



Configurability

■ cmd

```
$ php symfony configure:database "mysql:host=localhost;dbname=dbname" root mYsEcret
```

```
$ symfony project:permissions
```

■ YAML

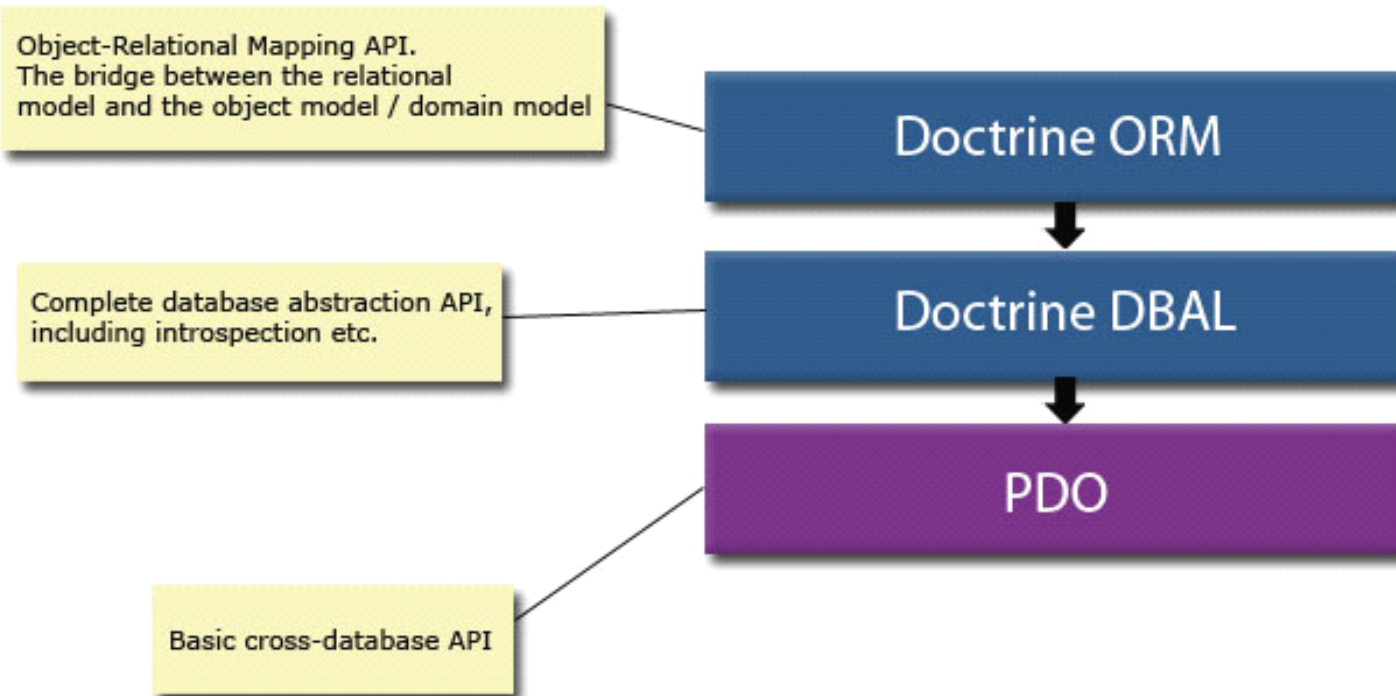
```
# Never use tabs
all:
-> mail:
-> -> webmaster:  webmaster@example.com

# Use blanks instead
all:
  mail:
    webmaster: webmaster@example.com
```

ORM

- Doctrine & Propel
 - PHP Open-Source Project
 - Object Relation Model Layer
 - One of Doctrine's key features is the option to write database queries in a proprietary object oriented SQL dialect called Doctrine Query Language (DQL) inspired by Hibernate's HQL.
 - YAML --> Database tables

Doctrine



ORM Example(Doctrine)

- Examples:
- `$user = new User();`
- `$user->name = "john";`
- `$user->password = "doe";`
- `$user->save();`
- `echo "The user with id $user->id has been saved.";`

Admin Generator

- Code Generation Based on the Model(CRUD)
 - Creation of a record
 - Retrieval of records
 - Update of a record (and modification of its columns)
 - Deletion of a record

Admin Generator Cont.

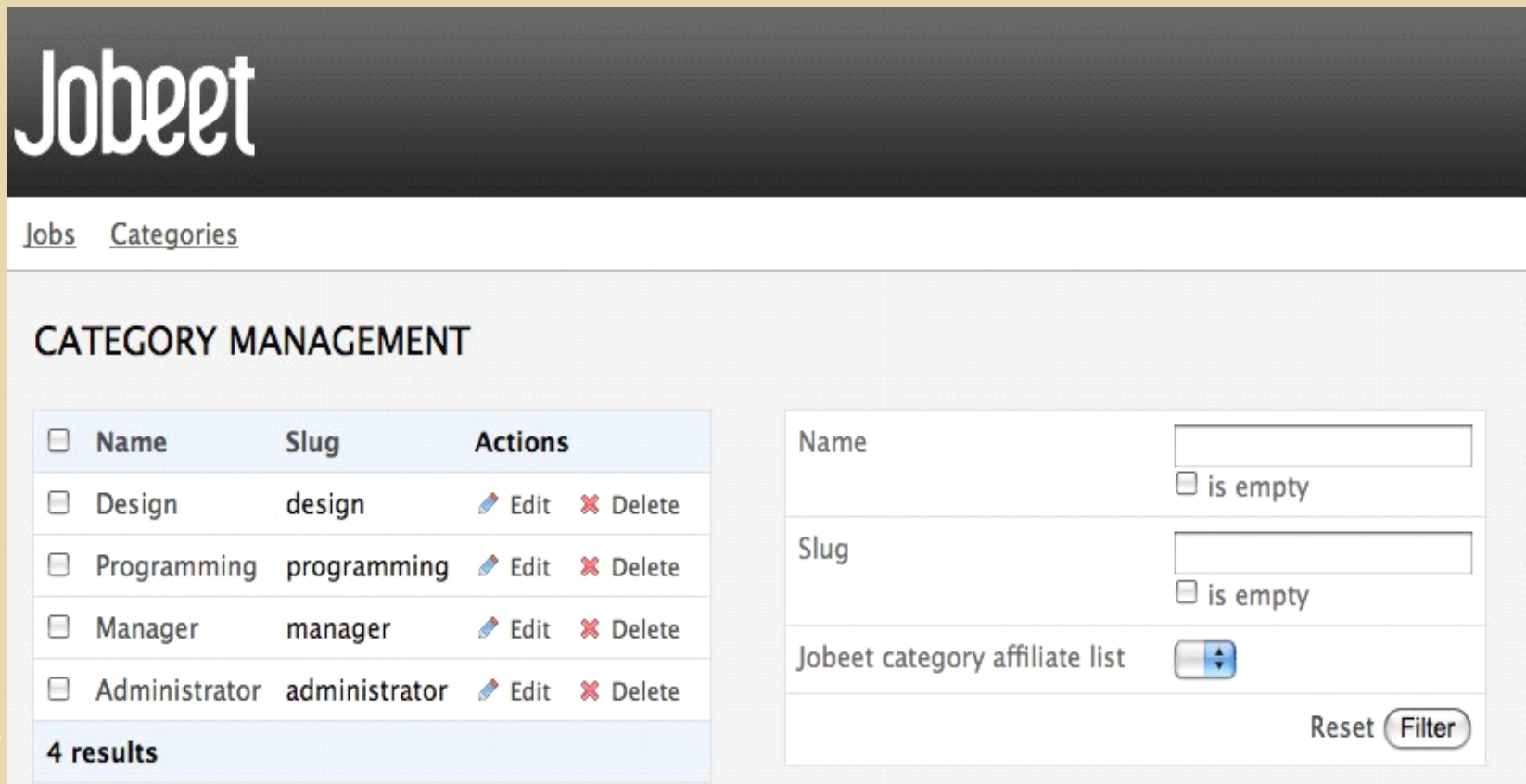
- **Automatic** creation of an Administration Backend, ready for production
 - Lists
 - Filters
 - Pagination
 - Validation
 - Sorting
 - CRUD

```
$ php symfony doctrine:generate-admin backend JobeetJob --module=job
```

```
$ php symfony doctrine:generate-admin backend JobeetCategory --module=category
```

Admin Generator Cont.

■ Example:



The screenshot displays the Jobeet admin interface. At the top, the Jobeet logo is visible. Below it, there are navigation links for 'Jobs' and 'Categories'. The main section is titled 'CATEGORY MANAGEMENT'. On the left, there is a table listing categories with columns for Name, Slug, and Actions. On the right, there are form fields for Name and Slug, a dropdown for 'Jobeet category affiliate list', and buttons for 'Reset' and 'Filter'.

Jobeet

[Jobs](#) [Categories](#)

CATEGORY MANAGEMENT

<input type="checkbox"/>	Name	Slug	Actions
<input type="checkbox"/>	Design	design	Edit Delete
<input type="checkbox"/>	Programming	programming	Edit Delete
<input type="checkbox"/>	Manager	manager	Edit Delete
<input type="checkbox"/>	Administrator	administrator	Edit Delete

4 results

Name
 is empty

Slug
 is empty

Jobeet category affiliate list


Reset

Admin Generator Cont.

■ Pagination & CRUD

<input type="checkbox"/>	looking for a Web Developer (Paris, France)	 Delete
<input type="checkbox"/>	 Programming - Company 105 (<i>job@example.com</i>) is looking for a Web Developer (Paris, France)	 Edit  Delete
<input type="checkbox"/>	 Programming - Company 106 (<i>job@example.com</i>) is looking for a Web Developer (Paris, France)	 Edit  Delete

36 results (page 1/4) 

Choose an action   New

- Choose an action
- Delete
- Extend

Functional Tests

- Functional tests are a great tool to test your application from end to end: from the request made by a browser to the response sent by the server. They test all the layers of an application: the routing, the model, the actions, and the templates.

Functional Tests Cont.

```
$browser = new sfBrowser();  
  
$browser->  
  get('/')->  
  click('Design')->  
  get('/category/programming?page=2')->  
  get('/category/programming', array('page' => 2))->  
  post('search', array('keywords' => 'php'))  
;
```

Functional Tests Cont.

```
~/work/jobeeet $ ./symfony test:functional frontend categoryActions
# get /category/index
ok 1 - request parameter module is category
not ok 2 - request parameter action is index
#     Failed test (/Users/fabien/work/symfony/dev/1.2/lib/test/sfTesterRequest.class.php at line 48)
#         got: 'show'
#         expected: 'index'
not ok 3 - status code is 200
#     Failed test (/Users/fabien/work/symfony/dev/1.2/lib/test/sfTesterResponse.class.php at line 257)
#         got: 404
#         expected: 200
ok 4 - response selector body does not match regex /This is a temporary page/
1..4
Looks like you failed 2 tests of 4.
~/work/jobeeet $
```

Debugging Tools

The screenshot displays a web browser interface with several debugging tools open. The browser tabs include 'about', 'download', 'documentation', 'community', 'weblog', and 'tickets'. The main content area shows a 'Log and debug messages' window with a list of events, a 'Timers' window with a table of execution times, and an 'SQL queries' window with a query.

Log and debug messages

#	Event	Description
1	Controller	initialization
2	Controller	initialization
3	Routing	match route [homepage] '/'
4	Request	request parameters array ('module' => 'main', 'action' => 'index')
5	Controller	dispatch request
6	Filter	executing filter "sfRenderingFilter"
7	Filter	executing filter "sfWebDebugFilter"
8	Filter	executing filter "sfCacheControlFilter"
9	Filter	executing filter "sfCharsetFilter"
10	Filter	executing filter "sfLocaleFilter"
11	Filter	executing filter "sfExecutionFilter"
12	Action	call "main/actions-renderedIndex()"
13	Other	Big problem here!
14	Debug	['module'] => 'main', ['action'] => 'index', ['request'] => 'index', ['response'] => 'index', ['status'] => '200', ['headers'] => 'text/html; charset=utf-8', ['cookies'] => 'sf_session_id=*****', ['referrer'] => '*****', ['http_accept'] => 'text/html', ['user_agent'] => 'Mozilla/5.0 (Macintosh; Intel Mac OS X 10_7_0; rv:3.6) AppleWebKit/535.113 (KHTML, like Gecko) Chrome/30.0.1599.101 Safari/535.113', ['ip'] => '127.0.0.1', ['remote_addr'] => '127.0.0.1', ['remote_host'] => 'localhost', ['remote_ip'] => '127.0.0.1', ['remote_port'] => '80', ['remote_user'] => ''

Timers

Type	calls	time (ms)
Configuration	12	8.15
Action "main/index"	1	27.52
Database	1	5.00
View "sfSuccess" for "main/index"	1	31.25
Partial "donate/_paypal"	1	0.37

SQL queries

```
1 [5.04 ms] SELECT sf_weblog_post.ID sf_weblog_post.TITLE sf_weblog_post.AUTHOR_ID sf_weblog_post.BODY sf_weblog_post.HTML_BODY sf_weblog_post.EXCERPT sf_weblog_post.KEYWORDS sf_weblog_post.ON_HOMEPAGE sf_weblog_post.ALLOW_COMMENTS sf_weblog_post.PUBLISHED sf_weblog_post.CREATED_AT sf_weblog_post.UPDATED_AT sf_weblog_post.AUTHOR_ID sf_weblog_post.FIRST_NAME sf_weblog_post.LAST_NAME sf_weblog_post.EMAIL sf_weblog_post.PASSWORD FROM sf_weblog_post sf_weblog_post WHERE sf_weblog_post.PUBLISHED=1 AND sf_weblog_post.ON_HOMEPAGE=1 AND sf_weblog_post.AUTHOR_ID=sf_weblog_post.AUTHOR_ID ORDER BY sf_weblog_post.CREATED_AT DESC LIMIT 5
```

Debugging Tool Cont.

- Web Debugging tool



The screenshot displays a web debugging tool interface. At the top, there is a dark header with the text "dev environment" in white. Below the header, a yellow warning icon is visible. The main content area shows a message: "[sfError404Exception] Action 'notfound/index' does not exist." Below this message, a "stack trace" section lists four frames of the error. The first frame is highlighted in red and shows the error being thrown in the file `SF_SYMFONY_LIB_DIR/controller/sfController.class.php` at line 207. The stack trace also includes information about the request, response, user, and global variables. At the bottom, the Symfony version and a link to the project website are provided.

```
dev environment

[sfError404Exception] 
Action "notfound/index" does not exist.

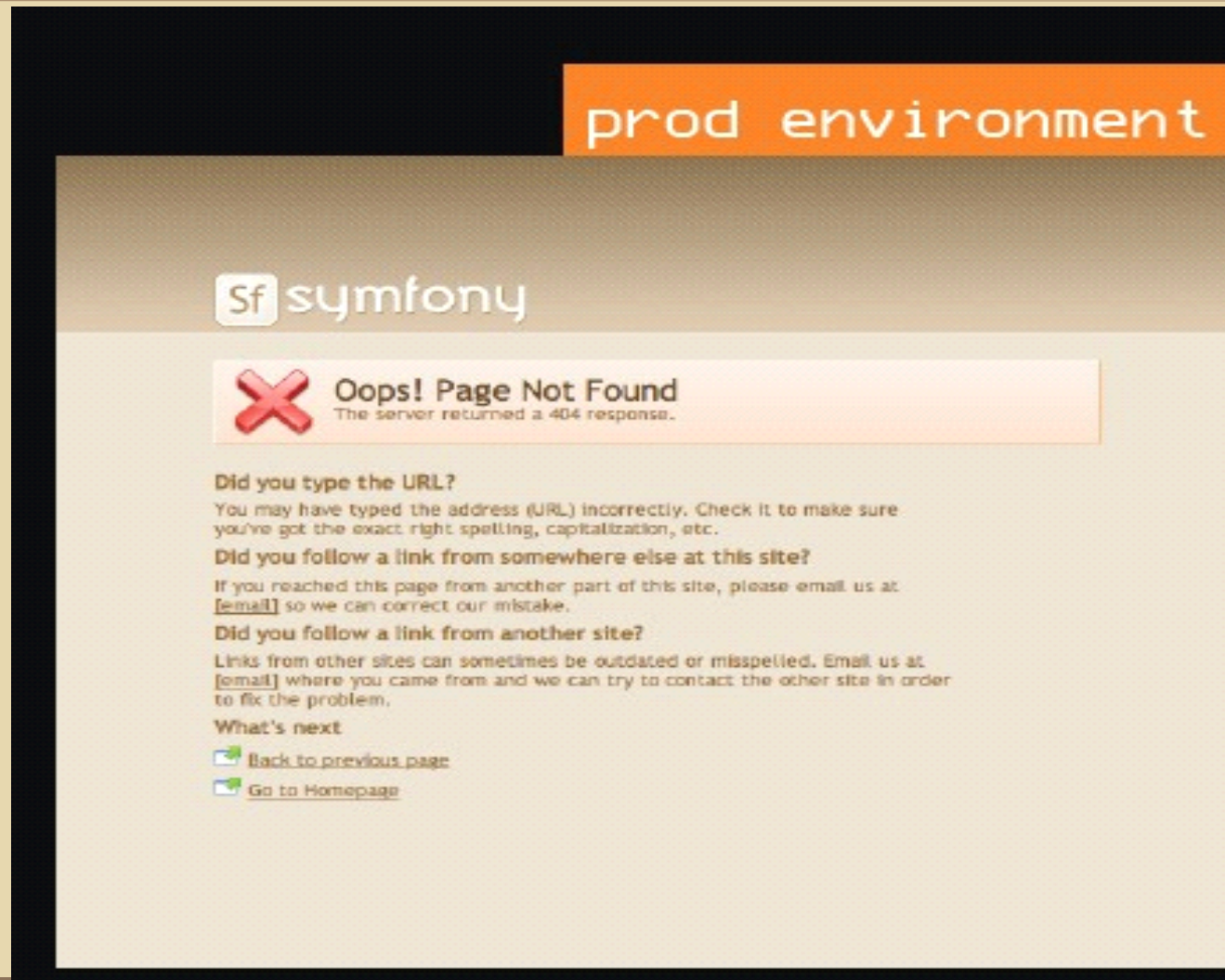
stack trace
1. at {}
   in SF_SYMFONY_LIB_DIR/controller/sfController.class.php line 207 ...
   204.         $this->dispatcher->notify(new sfEvent($this, 'application.log', array(
   205.             )
   206.         )
   207.         throw new sfError404Exception(sprintf('Action "%s/%s" does not exist.',
   208.             )
   209.         // create an instance of the action
   210.

2. at sfController->forward('notfound', 'index')
   in SF_SYMFONY_LIB_DIR/controller/sfFrontWebController.class.php line 53 ...
3. at sfFrontWebController->dispatch()
   in SF_SYMFONY_LIB_DIR/web/sfContext.class.php line 164 ...
4. at sfContext->dispatch()
   in SF_ROOT_DIR/web/frontend_dev.php line 6 ...

symfony settings ...
request ...
response ...
user ...
global vars ...


symfony v.1.1.0-DEV - php 5.2.5
for help resolving this issue, please visit http://www.symfony-project.org/.
```

Debugging Tools Cont.



prod environment

Sf symfony



 **Oops! Page Not Found**
The server returned a 404 response.

Did you type the URL?
You may have typed the address (URL) incorrectly. Check it to make sure you've got the exact right spelling, capitalization, etc.

Did you follow a link from somewhere else at this site?
If you reached this page from another part of this site, please email us at [\[email\]](#) so we can correct our mistake.

Did you follow a link from another site?
Links from other sites can sometimes be outdated or misspelled. Email us at [\[email\]](#) where you came from and we can try to contact the other site in order to fix the problem.

What's next

-  [Back to previous page](#)
-  [Go to Homepage](#)

Community Plugin(Recomended)

- SfDoctrinGuardPlugin.
 - Identity management plugin
- SfJequeryReloadedPlugin.
 - Easy integration of jQuery
- sfAdminThemejRollerPlugin
 - Admin generator theme based on jQuery UI ThemeRoller

Community Plugins Cont.

- CMS

- apostrophePlugin

- Apostrophe is a Symfony and Doctrine-based CMS that emphasizes in-context editing. All slot types are implemented as Symfony modules, with all the flexibility that implies. Version control is implemented, permitting easy rollback of all edits. jQuery is used to implement AJAX features.

- sfSympalPlugin

- Sympal is an extension of symfony that provides a content management framework layer on top of all the greatness you get with symfony. It is a nice plug n' play architecture so other Sympal plugins can interact with the core and manipulate things with events.

Community Plugins Cont.

- Web Service:

- sfDoctrineRestGeneratorPlugin

- This plugin permits to generate REST modules bound to Doctrine models. It allows to easily create REST webservice, and provides an extensible framework for data exchange. Here are some key features : REST module generation "à la admin-generator" easy-to-customize generator.yml configuration file validation of the parameters passed to the service using symfony validators serialization as XML or JSON feeds possibility to embed related models possibility to embed extra fields ability to limit the number of results, with ou without pagination support for constraints unions (ie., http://api.example.org/city?city_id=12,13,14) hookable through events and filters abstract and replaceable objects serialization full HTTP support (GET, POST, PUT, DELETE)

Summary

- A framework, not a toolbox
- Highly configurable, only functionality for developing a web app
- Should be used together with plugins

Q&A?

- Thanks.