



Introduction to CodeIgniter

Ed Finkler

coj@funkatron.com • funkatron.com

20070914

What is CodeIgniter?

- YAPF
(Yet Another PHP Framework)

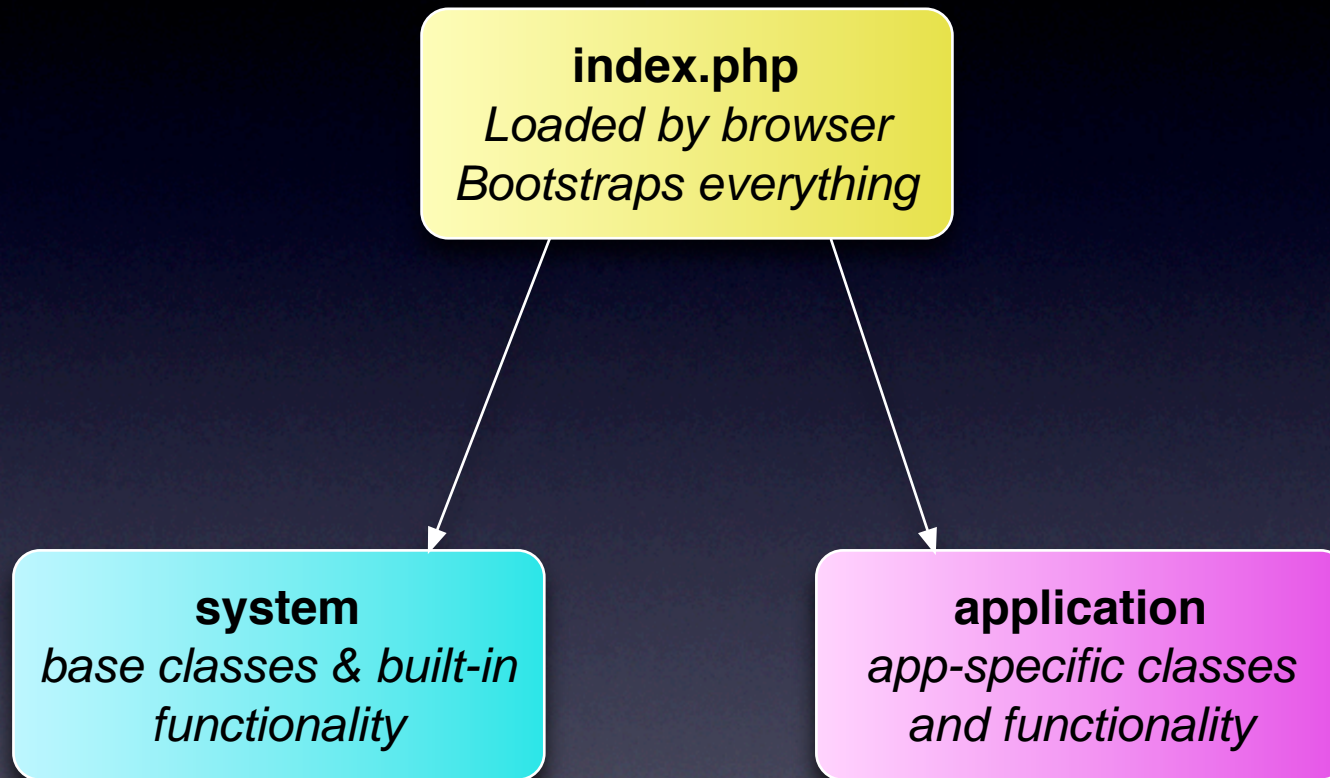
Why care about CI?

- Battle-tested
- Fast
- Adaptable

Notable CI features

- Fast
- Compatible with many environments
- Quick to set-up
- Plays well with others
- Focus on simple solutions
- Good docs & community

CI structure



CI structure

Name	Date Modified	Size	Kind
index.php	Today, 1:32 PM	4 KB	PHP source
license.txt	4/15/07, 10:41 AM	4 KB	Plain ...ment
system	8/5/07, 12:26 PM	--	Folder
application	8/5/07, 12:26 PM	--	Folder
config	7/15/07, 3:49 PM	--	Folder
controllers	7/15/07, 3:49 PM	--	Folder
errors	7/15/07, 3:49 PM	--	Folder
hooks	7/15/07, 3:49 PM	--	Folder
index.html	10/31/06, 10:10 AM	4 KB	HTML...ment
libraries	8/5/07, 12:26 PM	--	Folder
models	7/15/07, 3:49 PM	--	Folder
views	7/15/07, 3:49 PM	--	Folder
cache	7/15/07, 3:49 PM	--	Folder
codeigniter	8/5/07, 12:26 PM	--	Folder
database	7/15/07, 3:49 PM	--	Folder
fonts	7/15/07, 3:49 PM	--	Folder
helpers	8/5/07, 12:26 PM	--	Folder
language	7/15/07, 3:49 PM	--	Folder
libraries	8/5/07, 12:26 PM	--	Folder
logs	7/15/07, 3:49 PM	--	Folder
plugins	7/15/07, 3:49 PM	--	Folder
scaffolding	7/15/07, 3:49 PM	--	Folder
user_guide	7/15/07, 3:49 PM	--	Folder

URL structure

domain.com/controller_class/method/data

```
<?php  
  
class Search extends Controller {  
    [...]  
  
    function retrieve($id)  
    {  
        $this->load->database();  
  
        [...]  
    }  
  
}  
?>
```

MVC pattern

- Controller Classes
 - private methods prefixed with “_”

```
function paypal_return_cancel() {
    $this->_showPage('Checkout: Paypal Order Cancelled', "<h3>Your order was cancelled at Paypal</h3>");
}

function _mailUnconfirmedOrder($data) {
    $this->load->library('email');

    $config['mailto'] = 'html';
    $config['protocol'] = 'sendmail';
}
```


MVC pattern

- Views
 - Plain PHP as templating lang

```
<h1>Your quote</h1>

<? if (isset($user_data)): ?>
    <p class="error">Sorry, we could not find a quote associated with your key.</p>
<? else: ?>
    [...]
<? endif; ?>
```

MVC pattern

- Views
 - Optional template markup

```
<html>
<head>
  <title>{blog_title}</title>
</head>
<body>
  <h3>{blog_heading}</h3>

  {blog_entries}
    <h5>{title}</h5>
    <p>{body}</p>
  {/blog_entries}

</body>
</html>
```


MVC pattern

- Models
 - *Optional*
- ActiveRecord pattern available, not required
- Query binding

```
$sql = "SELECT * FROM some_table WHERE id = ? AND status = ? AND author = ?";  
$this->db->query($sql, array(3, 'live', 'Rick'));
```

Helpers

- Procedural funcs, grouped by file
- Mostly for views; available in controllers

```
/**
 * Plural
 *
 * Takes a singular word and makes it plural
 *
 * @access public
 * @param string
 * @param bool
 * @return str
 */
function plural($str, $force = FALSE)
{
    [...]
}
```


Plugins

- Single procedural function
- More extensive functionality than helper

```
$vals = array(  
    'word'           => 'Random word',  
    'img_path'       => './captcha/',  
    'img_url'        => 'http://www.your-site.com/captcha/',  
    'font_path'      => './system/textb.ttf',  
    'img_width'      => '150',  
    'img_height'     => 30,  
    'expiration'    => 7200  
);  
  
$cap = create_captcha($vals);  
echo $cap['image'];
```

Loading on-demand

- `$this->load->library|view|helper|plugin|...('name');`

```
<?php
$this->load->library('email');           // libraries/Email.php
$this->load->helper('cookie');           // helpers/cookie_helper.php
$this->load->view('page', $data_array);  // views/page.php
$this->load->plugin('captcha');          // plugins/captcha_pi.php
$this->load->config('appstuff');          // config/appstuff.php
$this->load->model('shoppingcart');      // models/shoppingcart.php
$this->load->database();                  // the CI database libs as configured
?>
```

- Auto-loading set in `config/autoload.php`

CI security

- **Not Foolproof** (nothing is!)
- Limits allowed chars in URI
- `register_globals` “forced off”

CI security

- Data only passed via POST or COOKIE
 - GET query destroyed
 - Array keys filtered
- Auto XSS Filtering (must enable)
- Query binding - **use it!**

Extending CI

- The CI Way
 - Creating your own libs
 - Extend native libs (MY_Email)
 - As-is, can't extend/replace controller or database classes
 - Replacing native libs
 - Hooks

Extending CI

- The “however the hell you want to do it” way
 - Just require your libs
 - Collisions unlikely (not impossible)

Example App

- CI + Simplepie + Zend_Json == Web2.0 profit

Danke

- **codeigniter.com**
- Slides will be up at funkatron.com shortly