ElggCamp Santiago 2011

Dev Edition

Brett Profitt

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Who's talking?

Hi, I'm Brett.

Involved with Elgg since 2007.

Lead developer for Elgg since 2009.

From Columbus, Ohio.

#yawn.

Who am I talking to?

Hands up!

Drop your hand if you have:

...contributed code to Elgg core.

...written an Elgg plugin.

...contributed to a PHP framework.

...used a PHP framework.

...written anything in PHP.

...wandered in on accident.

The Plan

Elgg basics

Plugin basics

Tour of 1.8 Bookmarks plugin

Plugin workshop with Emilio

Things to look for if you're a 1.7 dev:

Antipatterns (aka: Things not to do).

New features.

Deprecated features.

ASK QUESTIONS!

Raise your hand.

Speak out.

@brettprofitt, @emdagon

http://elgg.org/elgg-1.8.zip

Elgg Basics

From nothing to newb in no time at all!

Elgg Blitz!

Social engine.

Social features.

Not limited to traditional "social networks."

More than a framework, less than a turnkey solution.

(More than CakePHP, less than Wordpress.)

Tech specs

Runs on LAMP (MySQL >= 5, PHP >= 5.2).

MVC based.

Front controller with two controllers.

Object oriented and procedural.

Convention and configuration.

Modular plugins system.
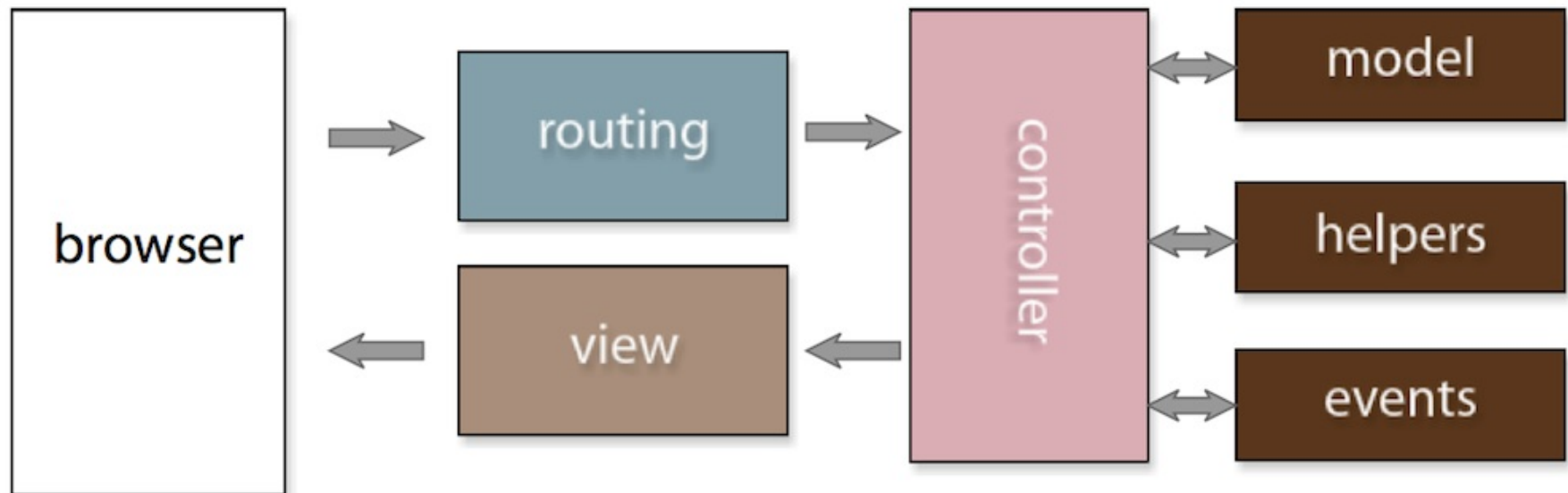
Important concepts

Data model (M).

Views (V).

Actions and page handlers (C).

Events and plugin hooks (extends the core MVC).

Elgg application flow

Thanks for the pic, Cash!

Model

Data model

Entities: Generic storage classes.
    ElggObject, ElggUser, ElggGroup, ElggSite.
    ElggObject <- ElggBlog, ElggPlugin, ElggWidget.

Extenders: Describe entities.
    ElggMetadata, ElggAnnotation.

Relationships - Connects entities.
    ElggUser "is_member" ElggGroup
    ElggUser "friend" ElggUser

Views

Views are easy!

Just PHP scripts.

Output chunks of content.

Overrideable: replace content of original view.

Extensible: prepend or append content to original view.

Elgg Trunk

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Activity

📌 🔲

| All | Mine | Friends |

Show All ↕

Admin *19 hours ago*
published a blog post Test blog post!!
| This is just a test

💬 👍

Admin *2 days ago*
created the page Subpage!
| Test subpage!

💬 👍

Admin *2 days ago*
created the page Test page
| Test!

💬 👍

🦀 Report this

elgg.

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📌🔊

🐾 Report this

ⓔ POWERED BY ELG

Working with views

View scripts are stored in `views/` dirs.

View scripts are mapped to view name strings.

New views use convention: put in `views/` and it Just Works™.

Extending views use configuration: `elgg_extend_view($view_name, $view_extension_name)`

View locations

View names are just parts of the file path!

View:
  page/elements/header_logo

Core view script:
  elgg/views/default/page/elements/header_logo.php

Overriding view locations

Duplicate the view script directory path structure in a plugin

View:
    page/elements/header_logo

Core view script:
    elgg/**views/default/page/elements/header_logo**.php

Plugin override:
    elgg/mod/my_theme/**views/default/page/elements/header_logo**.php

Core vs Plugins

Core:

```
elgg/
└── views/
    └── default/
        └── page/
            └── elements/
                └── header_logo.php
```

Plugin:

```
elgg/
└── mod/
    └── my_theme/
        └── views/
            └── default/
                └── page/
                    └── elements/
                        └── header_logo.php
```

Overriding view locations

Overriding views from other plugins.

View:
    page/elements/header_logo

Core view script:
    elgg/**views/default/page/elements/header_logo**.php

Plugin override:
    elgg/mod/my_theme/**views/default/page/elements/header_logo**.php

Another plugin override:
    elgg/mod/special_theme/**views/default/page/elements/header_logo**.php

Override priority is determined by plugin load priority in Advanced Plugin section.

Default?

elgg/views/**default**/page/elements/header_logo.php

Views can output anything! HTML, RSS, JSON, serialized PHP.

The `default` dir name is the view type.

View types can be changed on any URL by appending:
`?view=<viewtype>`

RSS view type scripts live in:
elgg/views/**rss**/page/elements/header_logo.php

RSS view type URLs look like:
http://www.elggsite.org/activity?**view=rss**

Questions?

Controllers

Controllers are easy.

Two controllers:
    Actions: action/<action>
    Pages: <handler>/<action>

Both use configuration:
    Actions: `elgg_register_action($action_name, $action_script)`
    Pages: `elgg_register_page_handler($handler_name, $function)`

Overrideable - Just register again!

Controller locations

Actions are in `actions` dirs.

Pages are in `pages` dirs.

.htaccess + mod_write used to route to engine.
 http://elggsite.org/**action/login**
 -> http://elggsite.org/**engine/handlers/action_handler.php?**
 action=login

 http://elggsite.org/**bookmarks/add**
 -> http://elggsite.org/**engine/handlers/page_handler.php?**
 handler=bookmarks/add

Questions?

Elgg plugins

They don't have to be so ugly!

Helpful links

Code standards - http://el.gg/codestandards

Code standards checker - http://sniff.elgg.org

Plugin guidelines -
http://el.gg/pluginguidelines

A well-formed plugin is a happy plugin.

```
mod/example_plugin/
           actions/
           classes/
           languages/
           lib/
           pages/
           views/
           activate.php
           deactivate.php
           manifest.xml
           start.php
```

A well-formed plugin is a happy plugin.

```
mod/example_plugin/              <-- Dir name is the Plugin ID.
        actions/
        classes/
        languages/
        lib/
        pages/
        views/
        activate.php
        deactivate.php
        manifest.xml        <-- Describes plugin. Required.
        start.php           <-- Inits the plugin. Required.
```

```xml
<?xml version="1.0" encoding="UTF-8"?>
<plugin_manifest xmlns="http://www.elgg.org/plugin_manifest/1.8">
    <name>Plugin Skeleton</name>
    <author>Any Person</author>
    <version>0.1</version>
    <blurb>A concise description.</blurb>
    <description>A longer, more interesting description.</description>
    <website>http://www.nowhere.org/</website>
    <copyright>(C) No one 2011</copyright>
    <license>GNU Public License version 2</license>

    <requires>
        <type>elgg_version</type>
        <version>2009030802</version>
        <comparison>gt</comparison>
    </requires>
</plugin_manifest>
```

```php
elgg_register_event_handler('init', 'system', 'bookmarks_init');

function bookmarks_init() {
    elgg_register_action('bookmarks/save', "$action_path/save.php");

    [snip]

    // menus
    elgg_register_menu_item('site', $menu_options);

    elgg_register_page_handler('bookmarks', 'bookmarks_page_handler');

    elgg_extend_view('css/elgg', 'bookmarks/css');
    elgg_extend_view('js/elgg', 'bookmarks/js');

    // Register entity type for search
    elgg_register_entity_type('object', 'bookmarks');
}

function bookmarks_page_handler($page) {
    elgg_push_breadcrumb(elgg_echo('bookmarks'), 'bookmarks/all');
    elgg_push_context('bookmarks');

    $pages = dirname(__FILE__) . '/pages/bookmarks';

    switch ($page[0]) {
        case "all":
            include "$pages/all.php";
            break;

        [snip]

        default:
            return false;
    }

    elgg_pop_context();
    return true;
}
```

Tour of Bookmarks 1.8

Speak up!

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Code standards - http://el.gg/codestandards
Code standards checker - http://sniff.elgg.org
Plugin guidelines - http://el.gg/pluginguidelines
Live coding sample plugin - https://github.com/brettp/elgg-the-wire-attachment