

Drupal Coding Patterns

Drupal Camp NJ - Princeton University
February 2, 2013

About Me

Frank Lakatos

Chief Technical Officer | the Aardvark Brigade

www.fakingfantastic.com

@fakingfantastic



www.aardvarkbrigade.com





Interested?

Let's talk after the session.

Today's Topics

- + Entity API
- + Node patterns for template.php
- + Display modes
- + Views ~~theming~~ custom handlers



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

*Warning: We're talking code, today.



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

****Warning: We're gonna move fast.**



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

***Warning: I tend to talk fast.



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

*****Warning: ...and at great length.



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Entity API



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Entity API

Entities:

- We're introduced in D7
- Are the base of all field-able objects
- Are built on a core entity API

Entities API (<http://drupal.org/project/entity>):

- Is *not* referring to the core entity API



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Entity API

Main features

- + Interact with existing entities
- + Query entities
- + Define new entities



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Entity API

Main features

- + Interact with existing entities
- + Query entities
- ~~+ Define new entities~~



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Entity API

```
$node->body['und'][0]['value'];
```



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Entity API

~~`$node->body['und'][0]['value'];`~~



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Entity API

Interacting with existing entities

```
$wrapper = entity_metadata_wrapper($entity_type, $eid);
```

Accessing properties

```
$wrapper->property->value() // return property
```



Entity API

CODE!



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Entity API

Querying Content

`EntityFieldQuery();`

Example

Get all article nodes that have the tag “demo.”



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Entity API

CODE!



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Node Patterns for `template.php`



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Node patterns for template.php

This scares me on an almost daily basis:

```
▼ themes
  ▼ seodirect
    ► _css
    ► _images
    seodirect.info
    node--blog.tpl.php
    node--brainwave.tpl.php
    node--cart.tpl.php
    node--checkout.tpl.php
    node--comment.tpl.php
    node--donate.tpl.php
    node--donation1.tpl.php
    node--educationdiseasearticle.tpl.php
    node--event.tpl.php
    node--news.tpl.php
    node--product.tpl.php
    node--research.tpl.php
    node--search.tpl.php
    node--sitemap.tpl.php
    node--subpage.tpl.php
    node--user.tpl.php
    node--video.tpl.php
    node.tpl.php
    page.tpl.php
    template.php
    .gitignore
    settings.php
```



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Node patterns for template.php

Why node--{node-type}.tpl.php is ~~horrible~~ inefficient:

- + Duplication is the devil.

See also: “DRY”

- + Code == Documentation

Multiple tpl's convey a false sense of complexity

- + Promotes putting logic in your views

The leading cause of dead kittens.

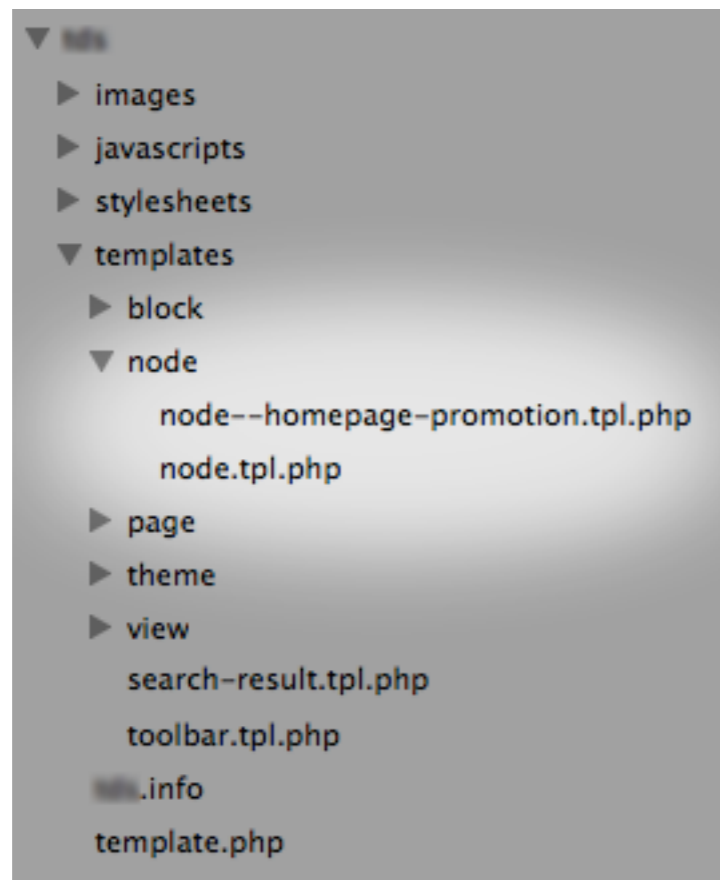


Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Node patterns for template.php

What your theme should look like:



node.tpl.php renders about 10 different node types, all with different output requirements.



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Node patterns for template.php

`template_preprocess_node()` is your friend.



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Node patterns for template.php

Some MVC design theory.

- + The controller implements your business logic and integrates your data with the appropriate output.

template.php is your controller

- + The view just prints stuff.



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Node patterns for template.php

CODE!



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

View Modes



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

View Modes

(Enough with the Views fields, already.)



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013


View Modes

Display modes allow you to display an entity in different ways.

- + Only two modes in D6: teaser & full.

- + D7 allows you to define `display_modes` in `hook_entity_info_alter()`.

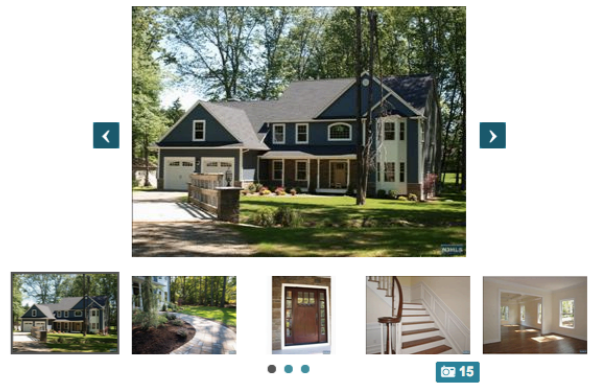
- + Ex. Real estate listings: View modes could be full, teaser, quick view.



\$829,900 in PEQUANNOCK TOWNSHIP
MLS # 1217940
152 WEST PKWY
PEQUANNOCK TOWNSHIP, NJ 07444
4 Bedroom, 2 Full Bath
1 Half Bath, Residential
COLLEEN MCMAHON, Sales Associate
PATRICIA WOJTYSZYN, Sales Associate
CENTURY 21 CREST

\$829,900 - 152 WEST PKWY, PEQUANNOCK TOWNSHIP NJ

[Back to Results](#) [Request a Showing](#) [Request More Information](#) [Save](#)



Property Highlights


MLS#: 1217940	Style: COL	List Date: 05/15/2012
Town: PEQUANNOCK TOWNSHIP	Rooms: 9	Category: Residential
Address: 152 WEST PKWY	Bedrooms: 4	
	Full Baths: 2	
Current Price: \$829,900	Half Baths: 1	
Previous Price: \$849,000	Basement: CRAWLSPACE	
Original Price: \$869,900	Garage: ATTACHED, O/SEE REMK, TWO CAR	

[Estimate Monthly Payment](#) [Print](#) [Email Listing](#) [Text Listing](#)

Presented By

Listing Agent:	COLLEEN MCMAHON , Sales Associate, (973) 214-5250
Co-Listing Agent:	PATRICIA WOJTYSZYN , Sales Associate
Listing Office:	CENTURY 21 CREST , (973) 686-1500

\$829,900 in PEQUANNOCK TOWNSHIP



MLS # 1217940
152 WEST PKWY, PEQUANNOCK TOWNSHIP, NJ 07444
4 Bedroom, 2 Full Bath,
1 Half Bath, COL
COLLEEN MCMAHON, Sales Associate
PATRICIA WOJTYSZYN, Sales Associate
CENTURY 21 CREST

[Map & Directions](#) [Save](#)



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

View Modes

Step 1: Add the view mode

+ Using `hook_entity_info_alter()`

Step 2: Define a template for view mode

+ Using `template_node_preprocess()`

Step 3: Tell your view to use it

+ Format: Show Content | [Display Mode]

Step 4: Theme your view template



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

View Modes

CODE!



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

View Modes

BONUS!

+ Manually render any node with any view mode:

```
print render(node_view($node, "quick_view"));
```



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Views Custom Handlers



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Views Custom Handlers

What is a view handler?

“In Views, a handler is an object that is part of the view and is part of the query building flow.”

http://api.drupal.org/api/views/views.api.php/group/views_handlers/7



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Views Custom Handlers

What parts of the query can they handle?

- + Fields
- + Sorting
- + Filtering
- + Arguments
- + Relationships
- + Areas



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Views Custom Handlers

How they are implemented?

Class Inheritance (http://api.drupal.org/api/views/handlers%21views_handler_filter.inc/class/views_handler_filter/7)

Hierarchy

```
views_object
  views_handler
    views_handler_area
    views_handler_argument
    views_handler_field
    views_handler_filter
      views_handler_filter_boolean_operator
      views_handler_filter_broken
      views_handler_filter_equality
      views_handler_filter_history_user_timestamp
      views_handler_filter_in_operator
      views_handler_filter_node_access
      views_handler_filter_node_status
      views_handler_filter_node_tnid
      views_handler_filter_node_tnid_child
      views_handler_filter_numeric
      views_handler_filter_search
      views_handler_filter_string
    views_handler_relationship
    views_handler_sort
```

Start with the closest base class that meets your functionality, then override what you need.



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Views Custom Handlers

What parts of the query can they handle?

- + Fields
- + Sorting
- + Filtering
- + Arguments
- + Relationships
- + Areas



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Views Custom Handlers

What parts of the query can they handle?

- + Fields
- + Sorting
- + Filtering
- + Arguments
- + Relationships
- + Areas



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Views Custom Handlers

CODE!



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Lighting Round

- + Questions (...about anything...)
- + Comments
- + Talk shop



Drupal Coding Patterns

Drupal Camp NJ - Princeton University | February 2, 2013

Thank you!

Drupal Coding Patterns

Drupal Camp NJ - Princeton University
February 2, 2013



www.aardvarkbrigade.com

Frank Lakatos
Chief Technical Officer | the Aardvark Brigade
www.fakingfantastic.com
[@fakingfantastic](https://twitter.com/fakingfantastic)