

# Lessons learned in a D7 upgrade of origamiusa.org

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# OrigamiUSA



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## Welcome to OrigamiUSA

We are the American national society devoted to origami, the art of paperfolding.

**Origami is for anyone, anywhere, any time!**

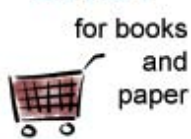
Our website is the place to find [easy diagrams](#) to fold from, shop from our broad selection of [origami books](#), [paper](#), and [downloadable diagrams](#), and find events from our [calendar](#) such as our fantastic [Conventions](#) that bring folders together from all over the world. Find an [origami group](#) near you or read our [online magazine](#) for more diagrams and great articles. Join us and you receive our print magazine. Experience the joy of paperfolding!

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for books  
and  
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**FOLD**



from  
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a local group



2 days, 12 hours, 17 minutes and 27 seconds until Convention 2013!



106 days, 12 hours, 17 minutes and 27 seconds until PCOC 2013!

Preview the current issue of **The Paper**



**Donate** and get a **DVD**

## Our Facebook

Volunteers needed for the convention Please remember that the Source as well as...

Posted: Jun 18 2013 - 6:30pm

Yay - the last expected box of new items arrived today (nothing like calling it...

Posted: Jun 18 2013 - 6:28pm

## Diagram Downloads

|  |                                     |        |
|--|-------------------------------------|--------|
|  | Rhinoceros Beetle [pdf]             | \$2.49 |
|  | The Many Variations on a Star [pdf] | \$2.00 |
|  | Little Rabbit [pdf]                 | \$1.50 |
|  | Cute Mouse [pdf]                    | \$1.50 |

## Current News

- [Convention 2013: June 21-24, 2013, open for registration](#)

# Site structural overview

- Drupal 6
  - Custom theme (derived from Basic)
- CiviCRM
  - membership, donations, event registrations
- Ubercart
  - online store selling books and paper
- Mailman mailing lists
  - User Mailman Register + custom modules



Your OrigamiUSA membership expired 179 days ago. Renew here.

- The FOLD**
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  - Email: thefold@origamiusa.org
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- |       |    |           |    |    |   |   |
|-------|----|-----------|----|----|---|---|
| 2013: | 16 | <b>15</b> | 14 |    |   |   |
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| 2011: | 7  | 6         | 5  | 4  | 3 | 2 |
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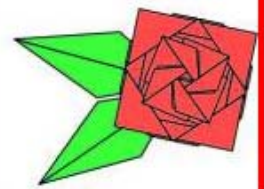
# theFOLD

March–April, 2013

## Issue 15

CiviCRM membership status used to determine display of Drupal blocks and display of individual node and View content.

*The Fold* is the online magazine for members of OrigamiUSA. New articles are posted continuously over the two month period of each issue. To contribute to *The Fold* or for other questions, please see our FAQ.



**Diagrams: Pureland Modular Rose**  
*You must be a current member of OrigamiUSA to access this article. Join or renew.*  
**by Jason Ku**  
Diagrams for a modular pureland rose made from 1:2 rectangles.



**Convention: Impressions from an International First Timer**  
**By Kay (HyunKyung) Lee**  
Impressions of Kay Lee and SeJin Park, first timers from Korea attending the 2012 OrigamiUSA convention in New York City: pre-convention, convention activities, oversized competition, etc.

# Customizations

- 67 assorted contrib modules
- 24 custom-written modules
  - 8 customizations to Ubercart
  - 2 customizations to CiviCRM
  - 14 others implement organization-specific behaviors

# Ubercart Customizations

- Buyer Comments - you can comment on a product if you've bought it
- Seller Downloads - "iTunes for file downloads"
- PDF File Marker - watermark sold file downloads with user credentials
- Product Context - catalog shows if you've previously bought a product
- Tax NJ - State-dependent NJ sales tax
- Tax NY - Locality-dependent NY sales tax
- USPS Packager - automatically packs products and gets cheapest multi-box rates from USPS
- OUSA - miscellaneous (special reports for store manager, minor overrides/alters)

# Usage

- Light traffic: ~1 000 visitors/day
- Store e-commerce: 3–5 orders/day
- CiviCRM transactions: 5–10 memberships, registrations, donations/day

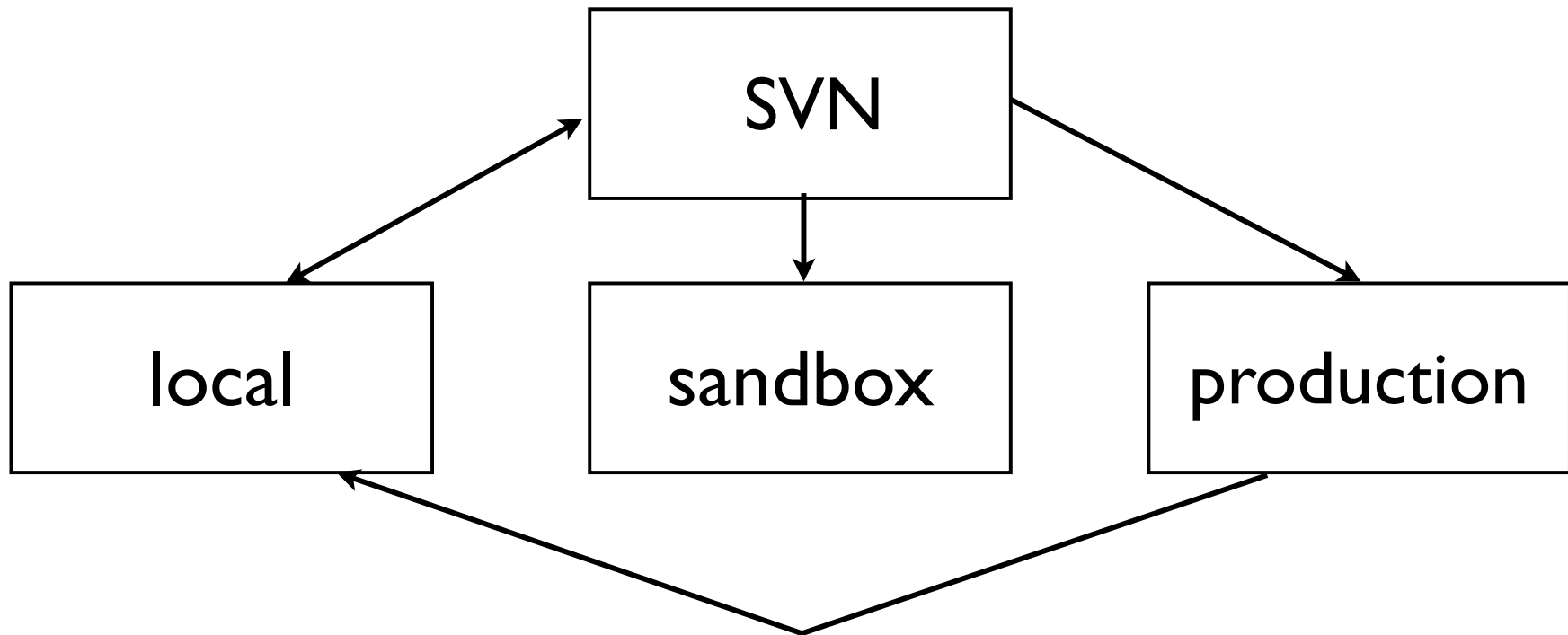
# Downtime tolerance

- No loss of data or transactions permitted
  - Decoherence time could be minutes
- Short outages tolerable with advance notice and explanatory page
  - 1–2 hours max

# Desired upgrade process

- Take site offline
- Do the upgrade
- Bring site back
- All within 1-2 hours
- **AND IT MUST BE FULLY FUNCTIONAL AS SOON AS IT'S BACK.**

# Our system



Develop locally, push to SVN  
Stage to sandbox (via shell script)  
Deploy to production (via shell script)

# Constraints

- Minimize offline time
- High degree of assurance that upgrade will “work”
  - Rehearse, rehearse, rehearse
- ==> run the entire upgrade via script

# Why use a script?

- Surprises happen
- Multiple rehearsals possible
- Guaranteed repeatability of sequence of actions
- Upgrade process can be developed over time
- Upgrade can be broken down into tasks

# Script toolkit

- bash
  - rsync, chmod, chown...
- drush (Drupal Shell, <http://drush.org>)
  - drush commands (predefined)
  - drush scripts (execute PHP)

Last login: Tue Jun 18 16:56:58 on ttys000

You have mail.

Roberts-MBP:~ rjlang\$ cd /Users/rjlang/\ \ Origami/OrigamiUSA/Website/origamiusa7

Roberts-MBP:origamiusa7 rjlang\$ drush help

Execute a drush command. Run `drush help [command]` to view command-specific help. Run `drush topic` to read even more documentation.

Global options (see `drush topic core-global-options` for the full list):

|  |   |
|--|---|
| -d, --debug  | Display even more information, including internal messages.   |
| -h, --help   | This help system.   |
| -ia, --interactive   | Force interactive mode for commands run on multiple targets (e.g. `drush @site1,@site2 cc --ia`).           |
| -n, --no   | Assume 'no' as answer to all prompts.   |
| --php=</path/to/file>  | The absolute path to your PHP interpreter, if not 'php' in the path.  |
| -p, --pipe   | Emit a compact representation of the command for scripting.   |
| -r <path>, --root=<path>   | Drupal root directory to use (default: current directory).  |
| -s, --simulate   | Simulate all relevant actions (don't actually change the system).   |
| -l <http://example.com:8888>,<br>--uri=<http://example.com:8888> | URI of the drupal site to use (only needed in multisite environments or when running on an alternate port). |
| -v, --verbose  | Display extra information about the command.  |
| --version  | Show drush version.   |
| -y, --yes  | Assume 'yes' as answer to all prompts.  |

Core drush commands: (core)

|  |   |
|--|---|
| archive-dump (ard,<br>archive-backup, arb) | Backup your code, files, and database into a single file.                                 |
| archive-restore<br>(arr)                   | Expand a site archive into a Drupal web site.   |
| cache-clear (cc)                           | Clear a specific cache, or all drupal caches.   |
| cache-get (cg)                             | Fetch a cached object and display it.   |
| cache-set (cs)                             | Cache an object expressed in JSON or var_export() format.                                 |
| core-config (conf,<br>config)              | Edit drushrc, site alias, and Drupal settings.php files.                                  |
| core-cron (cron)                           | Run all cron hooks in all active modules for specified site.                              |
| core-execute (exec,<br>execute)            | Execute a shell command. Usually used with a site alias.                                  |
| core-quick-drupal<br>(qd)                  | Download, install, serve and login to Drupal with minimal configuration and dependencies. |
| core-requirements<br>(status-report, rq)   | Provides information about things that may be wrong in your Drupal installation, if any.  |
| core-rsync (rsync)                         | Rsync the Drupal tree to/from another server using ssh.                                   |
| core-status (status,<br>st)                | Provides a birds-eye view of the current Drupal installation, if any.                     |
| core-topic (topic)                         | Read detailed documentation on a given topic.   |
| drupal-directory<br>(dd)                   | Return path to a given module/theme directory.  |
| help                                       | Print this help message. See `drush help help` for more options.                          |
| image-flush                                | Flush all derived images for a given style.   |
| php-eval (eval, ev)                        | Evaluate arbitrary php code after bootstrapping Drupal (if available).                    |
| php-script (scr)                           | Run php script(s).  |
| queue-list                                 | Returns a list of all defined queues  |
| queue-run                                  | Run a specific queue by name  |
| search-index                               | Index the remaining search items without wiping the index.                                |
| search-reindex                             | Force the search index to be rebuilt.   |

# What can you do with drush?

- Darn near anything:
  - Enable/disable modules
  - Set configuration variables
  - Move blocks around, turn on/off
  - Override content types, Views, other settings
  - Call any Drupal API function
  - Make direct changes to the db

# Why not just bash?

- drush bootstraps Drupal for you
- drush exposes a hierarchy of access
  - high-level: drush commands (e.g., enable a module)
  - medium level: Drupal APIs (e.g., delete field instance)
  - low-level: direct PHP and MySQL queries
- Use the highest-level command that does the job
  - minimizes unintended side effects/broken dependencies

# Philosophy

- Everything you might do from the UI should be accomplished in code and captured in the script.

# Upgrade in 5 easy steps

- According to Drupal upgrade docs:
  - Take D6 site offline
  - Disable non-core modules
  - Deploy D7 code
  - drush updatedb (= update.php)
  - Bring D7 site back online. Done!

# Things break!

- CCK fields no longer supported, replaced by Fields
- Content types don't display the same
- Many existing Views break
- Our custom modules don't have D7 versions (yet)
- Neither does our custom theme
- Contrib modules may not exist in D7

# Divide and conquer

# Things break!

- CCK fields no longer supported
- Content types don't display the same
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# CCK Fields

- CCK goes away in D7; replaced by Field API in Drupal Core.
- The Content Migration (`content_migrate`) module migrates all your old CCK fields to new Field API fields for you.
- And it supports drush:
  - `drush content-migrate-fields`

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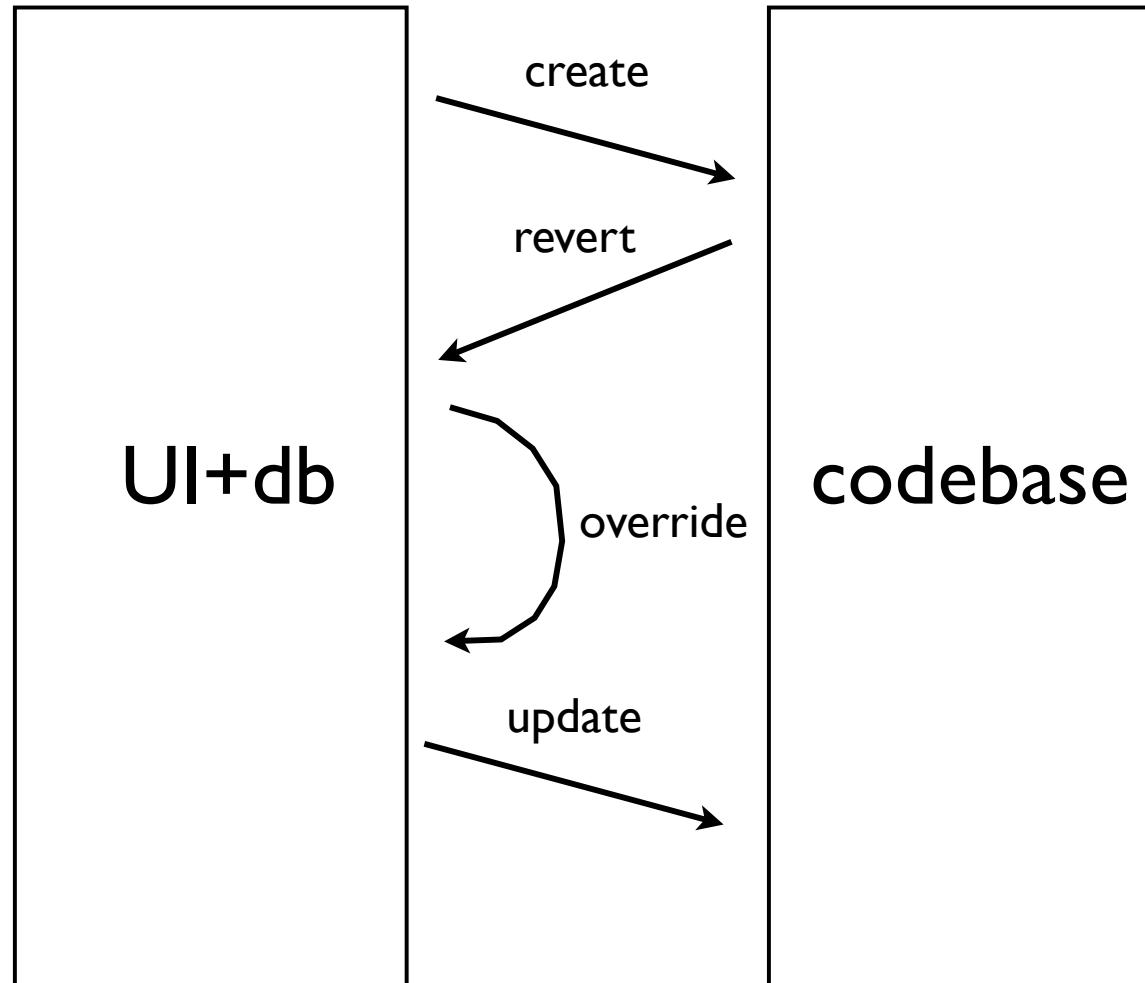
# Content type display

- Content migration of fields loses display settings on CCK fields
- From UI, “edit content types”; restore field order, display settings, formatters
- But how to capture in a script?

# Features Module

- Features module moves configuration data from UI+db into code (and vice-versa)
- An individual “Feature” is a Drupal module
  - Similar to, e.g., `hook_views_default.inc` in D7

# Features actions



# Features supports drush

All commands in features: (features)

```
features-add (fa)      Add a component to a feature module. (DEPRECATED: use features-export)
features-components   List features components.
(fc)
features-diff (fd)    Show the difference between the default and overridden state of a feature.
features-export (fe)  Export a feature from your site into a module.
features-list (fl,    List all the available features for your site.
features)
features-revert (fr)  Revert a feature module on your site.
features-revert-all  Revert all enabled feature module on your site.
(fr-all, fra)
features-update (fu)  Update a feature module on your site.
features-update-all  Update all feature modules on your site.
(fu-all, fua)
```

# Features

[Manage](#)
[Create feature](#)

| Features                      | Feature   | Signature              | State   | Actions  |
|-------------------------------|---|------------------------|---------|----------|
| <b>Features Content Types</b> | <input checked="" type="checkbox"/> <b>Feature Content Type Board Notes</b><br><i>Content type for Board Notes</i>  | Unavailable<br>7.x-1.0 | Default | Recreate |
| <b>Features Feeds Tamper</b>  | <input checked="" type="checkbox"/> <b>Feature Content Type Calendar Event</b><br><i>Feature for Calendar Event content type</i>  | Unavailable<br>7.x-1.0 | Default | Recreate |
| <b>Features Image Styles</b>  | <input checked="" type="checkbox"/> <b>Feature Content Type Diagrams PDF</b><br><i>Feature for the Diagrams PDF content type</i>  | Unavailable<br>7.x-1.0 | Default | Recreate |
| <b>Features Rules</b>         | <input checked="" type="checkbox"/> <b>Feature Content Type Download Submission</b><br><i>Feature for the download_submission content type</i>  | Unavailable<br>7.x-1.0 | Default | Recreate |
| <b>Features Text</b>          | <input checked="" type="checkbox"/> <b>Feature Content Type Gallery Photo</b><br><i>Feature for the Gallery Photo content type</i><br><i>Required by: Feature Content Type Special Sessions</i> | Unavailable<br>7.x-1.0 | Default | Recreate |
| <b>Features Views</b>         | <input checked="" type="checkbox"/> <b>Feature Content Type Magazine Article</b><br><i>Feature for the Magazine Article content type</i>  | Unavailable<br>7.x-1.0 | Default | Recreate |
| <b>Feeds</b>                  | <input checked="" type="checkbox"/> <b>Feature Content Type Magazine Issue</b><br><i>Feature for Magazine Issue content type</i>  | Unavailable<br>7.x-1.0 | Default | Recreate |
|                               | <input checked="" type="checkbox"/> <b>Feature Content Type News Story</b><br><i>Feature for News Story content type</i>  | Unavailable<br>7.x-1.0 | Default | Recreate |
|                               | <input checked="" type="checkbox"/> <b>Feature Content Type Origami Group</b><br><i>Feature for the Origami Group content type</i>  | Unavailable<br>7.x-1.0 | Default | Recreate |
|                               | <input checked="" type="checkbox"/> <b>Feature Content Type OrigamiUSA Publication</b><br><i>Feature for the OrigamiUSA Publication content type</i>  | Unavailable<br>7.x-1.1 | Default | Recreate |
|                               | <input checked="" type="checkbox"/> <b>Feature Content Type Page</b><br><i>Feature for the Page content type</i>  | Unavailable<br>7.x-1.0 | Default | Recreate |
|                               | <input checked="" type="checkbox"/> <b>Feature Content Type Publication Submission</b><br><i>Feature for Publication Submission content type</i>  | Unavailable<br>7.x-1.0 | Default | Recreate |
|                               | <input checked="" type="checkbox"/> <b>Feature Content Type Special Sessions</b><br><i>Feature for the special_sessions content type</i>  | Unavailable<br>7.x-1.0 | Default | Recreate |
|                               | <input checked="" type="checkbox"/> <b>Feature Content Type The Paper Issue</b><br><i>Feature for The Paper Issue content type</i>  | Unavailable<br>7.x-1.0 | Default | Recreate |

# Features in upgrade strategy

- Perform the “vanilla” upgrade
- Tweak the db via UI to fix breakages
- Capture in Feature
- Add Feature to codebase
- Add enabling to upgrade script:
  - `drush pm-enable feature_my_feature`

Manage

Create feature

**Name**

Example: Image gallery (Do not b

**Description**

Provide a short description of wh

**Package**

Organize your features in groups.

**Version**

Examples: 7.x-1.0, 7.x-1.0-beta1

**URL of update XML**

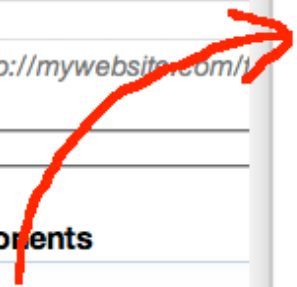
Example: <http://mywebsite.com/>

**Edit components**

 -----

- Content types: node
- Dependencies: dependencies
- Feeds: feeds\_importer
- Feeds Tamper: feeds\_tamper
- Fields: field
- Image styles: image
- Languages: language
- Menu links: menu\_links
- Menus: menu\_custom
- Metatag: metatag
- Page manager: page\_manager\_pages
- Panels: panels\_renderer\_pipeline
- Permissions: user\_permission

- 
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- Dependencies: dependencies
- Feeds: feeds\_importer
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- Fields: field
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- Menus: menu\_custom
- Metatag: metatag
- Page manager: page\_manager\_pages
- Panels: panels\_renderer\_pipeline
- Permissions: user\_permission
- Roles: user\_role
- Rules configuration: rules\_config
- Taxonomy: taxonomy
- Text formats: filter
- Ubercart product classes: uc\_product\_classes
- Views: views\_view
- Wysiwyg profiles: wysiwyg



# De-featurizing

- Features model: “once in code, forever in code”
- Development in progress: “features-import” to put everything back into the db
- This works, too:
  - <https://drupal.org/node/663136#comment-7861781>
- D8's Configuration Management is a lot like this

# Things break!

- CCK fields no longer supported
- Content types don't display the same
- Many existing Views break
- Our custom modules don't have D7 versions (yet)
- Neither does our custom theme
- Contrib modules may not exist in D7

# Features again

- You can build a feature for any view.
- Almost...

# Features limitations

- Features moves config data from the db into code
- But what happens if it's **ALREADY** in code?
  - (e.g., `hook_views_defaults.inc`)

# Badness

- Blank feature (nothing saved), or
- PHP errors.

# Views in code

- Ubercart 3 (D7) provides standard displays as Views defined in code
- Ubercart defines its product content types in code
- How do we tweak them if Features don't work for stuff already in code?

# Features-like “clobber”

- drush script to override content type or View
- Use CTools Export to get code description of config data, then paste into script

# Views override script

```
1 <?php
2 // This script overrides the uc_catalog_terms View. Implemented via script rather than Feature-
3 // because the View is in code.-
4 //-
5 // Purpose of this override is to child term links to the catalog grid page.-
6 //-
7 // drush scr /scripts/drush/d7/override_view_uc_catalog_terms.php-
8 -
9 // Modify the view in the UI, export it, then paste in the exported definition here.-
10 -
11 $view = new view();-
12 $view->name = 'uc_catalog_terms';-
13 $view->description = 'Catalog categories. Provides grid view on main catalog page.';-
14 ...-
15 snip-
16 ...-
17 -
18 // To wrap up, we give new newly created view the vid of the one we're replacing, then save it.-
19 // See sites/all/modules/views/include/admin.inc, function views_ui_import_validate()-
20 -
21 $test = views_get_view($view->name);-
22 if (!$test) {-
23     exit('there is no view with name ' . $view->name . "\n");-
24 }-
25 $view->vid = $test->vid;-
26 views_save_view($view);-
27 ?>-
28
```

# Content types

- Content types have no UI “export” function
- So, we write our own

# Content type override

- Tweak content type in the UI
- Run a script, execute `write_field_info()` to spew content type as JSON output
- Copy output
- Paste into script as argument of `read_field_info()`
- Add to master upgrade script:
  - `drush scr my_override_script.php`

# Content type override script

```
/**  
 * Write a JSON string of the field information and bundle settings for the given  
 * entity type and bundle. This is how we capture a group of settings.  
 */  
function write_field_info($entity_type, $bundle_name) {  
  $instances = field_info_instances($entity_type, $bundle_name);  
  $settings = field_bundle_settings($entity_type, $bundle_name, NULL);  
  $data = array(  
    'entity_type' => $entity_type,  
    'bundle_name' => $bundle_name,  
    'instances' => $instances,  
    'settings' => $settings,  
  );  
  print("\n\n");  
  print(drupal_json_encode($data));  
  print("\n\n");  
}  
  
/**  
 * Read in a JSON string of the field information and bundle settings for the given  
 * entity type and bundle and overwrite the existing settings.  
 */  
function read_field_info($data) {  
  if (!$data) {  
    return;  
  }  
  $data = drupal_json_decode($data);  
  $entity_type = $data['entity_type'];  
  $bundle_name = $data['bundle_name'];  
  if (!$entity_type || !$bundle_name) {  
    print("Bad data in read_field_info()\n");  
    return;  
  }  
  
  // Update each of the field instances  
  foreach ($data['instances'] as $instance) {  
    field_update_instance($instance);  
  }  
  
  // Update the bundle settings  
  field_bundle_settings($entity_type, $bundle_name, $data['settings']);  
  print("Updated entity " . $entity_type . ", bundle " . $bundle_name . "\n");  
  
  // Wipe out the residual file attachment field, if present  
  $instance = field_read_instance($entity_type, 'upload', $bundle_name);  
  if ($instance) {  
    field_delete_instance($instance);  
  }  
}
```

# Minor content type tweaks can be done directly in code

```
<?php-  
// This script overrides the display format for the FAQ to suppress listing of-  
// category terms. Need to do it in a script instead of a content type Feature-  
// because the content type is already in code so Features can't touch it.-  
//-  
// drush scr /scripts/drush/d7/override_faq_display.php-  
-  
$instance = field_info_instance('node', 'taxonomy_vocabulary_7', 'faq');-  
//print_r($instance);-  
$instance['display']['default']['type'] = 'hidden';-  
$instance['display']['teaser']['type'] = 'hidden';-  
field_update_instance($instance);-  
?>-
```

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- Neither does our custom theme
- Contrib modules may not exist in D7

# Custom modules

- Written over several years; due for a cleanup anyhow
- Good practice for D7 porting, because I already know what they're supposed to do

# Useful tools for porting

- Drupal 7 APIs (of course)
- “Converting 6.x to 7.x modules” <https://drupal.org/update/modules/6/7>
- Browse existing Core and Contrib D7 modules
- Biggest changes I found:
  - New database API
  - hook splitting (hook\_node --> hook\_node\_save, etc.)
  - Return render arrays, not HTML
- Devel module and Coder are your friend

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# Origami theme

- custom theme, based on Basic (D6)
- Basic (D7) exists, but many things change from D6, e.g.:
  - structure of page.tpl.php
  - names of blocks (“left” --> “sidebar\_first”)
- In D6, most site-specific CSS is dumped into theme style.css & template.php

# Theme porting

- Started with Basic (D7)
- Copied CSS from origami theme with modifications as needed
- Moved CSS into custom modules where possible to pare down style.css in theme

# D6 & D7

OrigamiUSA (localhost:8888)

Welcome **robert.lang** (OrigamiUSA Member) | LOGOUT

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Welcome to OrigamiUSA  
We are the American national society devoted to origami, the art of paperfolding.

Origami is for anyone, anywhere, any time!

Our website is the place to find easy diagrams to fold from, shop from our broad selection of origami books, paper, and downloadable diagrams, and find events from our calendar such as our fantastic Conventions that bring folders together from all over the world. Find an origami group near you or read our online magazine for more diagrams and great articles. Join us and you receive our print magazine. Experience the joy of paperfolding!

RENEW your membership | SHOP for books and paper | FOLD from free diagrams | READ our online magazine | FIND a local group

Preview the current issue of **The Paper**

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### Our Facebook

A late addition to our convention activities, as follows:-  
When: Sunday, June...  
Posted: Jun 15 2013 - 10:53am  
Origami Butterflies Mini Kit. Contains additional models not found in the Origam...  
Posted: Jun 15 2013 - 10:40am  
Who's attending the origami convention in NYC, raise your hands! http://origamiu...  
Posted: Jun 14 2013 - 2:29pm  
The enveloper is a great hand-held paper cutter. Find it here: http://origami...  
Posted: Jun 12 2013 - 1:51pm  
Shizuoka Cicada by Robert Lang This design was composed after a visit to the Or...  
Posted: Jun 11 2013 - 2:51pm  
Early Bird Designed and folded by ALFREDO GIUNTA (Italy)  
Posted: Jun 11 2013 - 2:28pm

### Diagram Downloads

|  |        |
|--|--------|
| The Many Variations on a Star [pdf]                | \$2.00 |
| Little Rabbit [pdf]                                | \$1.50 |
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| Clover Leaf [pdf]                            | \$1.89        | \$1.70       |
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# Things break!

- CCK fields no longer supported
- Content types don't display the same
- Many existing Views break
- Our custom modules don't have D7 versions (yet)
- Neither does our custom theme
- Contrib modules may not exist in D7

# Contrib Modules

- Aye, there's the rub.

# Many contribs support D7

- ...and provide a migration path via drush updatedb (update.php)
- CiviCRM
- Ubercart
- ...and many others.

# Problematic contribs

- Taxonomy Super Select
  - turned large hierarchical taxonomies into tractable nested boxed lists
- Private Upload
  - Access-controlled file attachments
  - private file storage is in core in D7, but no migration path exists for this module
- Mailman Manager, User Mailman Register
  - provides Drupal interface to Mailman mailing lists

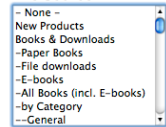
# Taxonomy Super Select

- Used for the Ubercart catalog

# (D6) Taxonomy Super Select

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 12" (30 cm)    A4 (210x297mm)

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**Miscellaneous**

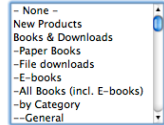
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# (D7) Term Reference Tree

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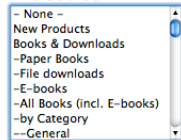
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# But with some CSS...

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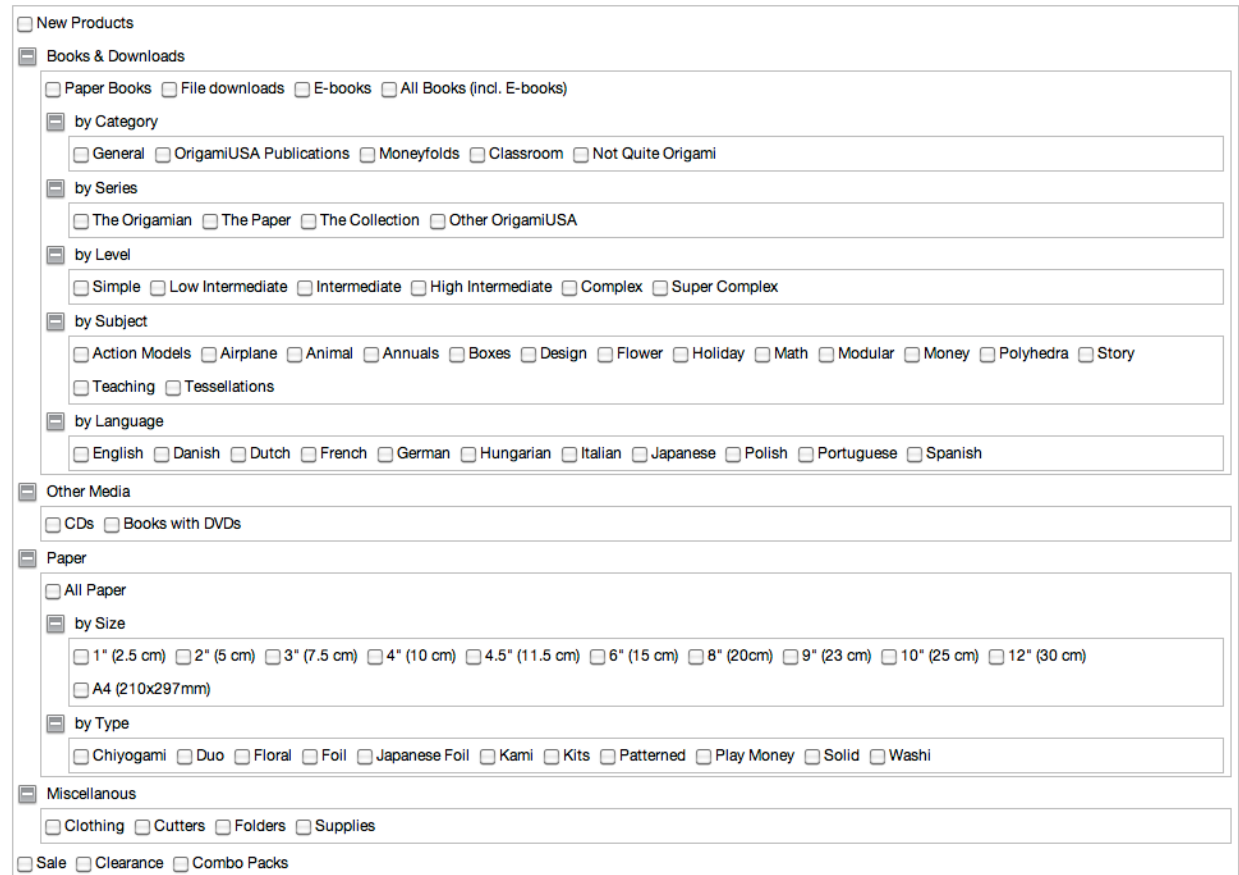


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Miscellaneous

Clothing  Cutters  Folders  Supplies

Sale  Clearance  Combo Packs

Select all categories that apply to this product.

# Private Upload

- Private Upload module allows user to choose “public” or “private” (access-controlled) storage for file attachments
- D7 changes file storage model to offer both public and private file storage in Core, BUT
- All D6 files get assigned to “public” storage by default during upgrade
- The URLs for private files are different in D7 than they were in D6 with Private Upload module
  - this breaks pages with embedded `<img/>` files.

# Private file use cases

- We have members-only content
  - images in members-only articles
  - publication submissions from users
- members-only organizational documents (elections, financials)

# Strategy

- Give content types a new private file field if needed (capture in Feature)
- Go through all nodes and move formerly private files to new private file field
- Go through all node bodies in db, find 'src="old\_url"' and replace with 'src="new\_url"', etc.
- drush script for each content type (~200 LOC)

# User Mailman Register

- Mailman Manager and User Mailman Register work together to provide a Drupal interface for Mailman mailing lists
- No visible activity toward a D7 version
- No other D7 modules do anything with Mailman
- Our organization is heavily tied to Mailman mailing lists

# If all else fails...

- By this time:
- I'd spent six months porting our theme and my own modules to D7

# So I ported it.

- I'm now an author and co-maintainer of the D7 User Mailman Register project: [http://drupal.org/project/user\\_mailman\\_register](http://drupal.org/project/user_mailman_register).

# Put it all together!

- Here's our master script.
- Each sub-script leaves the site in a (relatively) stable state.

```
#!/bin/sh
#
# This script does a full run of the upgrade process on sandbox or production
#
# /scripts/d7_all.sh
#
# Stop the script if any error happens.
set -e
#
# Prepare the D6 version for the upgrade
/scripts/d7_prepare.sh
#
# Switch the codebase to D7 and run upgradedb
/scripts/d7_svn_deploy.sh
#
# Run all the update functions to update the db
/scripts/d7_updatedb.sh
#
# Enable core and contrib modules and migrate the data.
/scripts/d7_migrate.sh
#
# Enable CiviCRM, Ubercart, OrigamiUSA modules, and Features
/scripts/d7_enable_more.sh
#
# Tweaking, configuration, and overrides
/scripts/d7_tweak.sh
#
# Uninstall unused modules and drop obsolete db tables
/scripts/d7_uninstall.sh
#
# LOCAL INSTALLATION ONLY - configure for local development
/scripts/d7_devel.sh
#
echo "Done with d7_all.sh\n"
```

# Prepare

```
# Take site offline-
echo "Taking site offline..."-
sudo drush vset --exact maintenance_mode 1-
-
# Special steps to convert CCK Content Permissions to Field Permissions-
sudo drush pm-enable field_permissions --yes-
sudo drush pm-disable content_permissions --yes-
sudo drush pm-uninstall content_permissions --yes-
-
# Enable Garland, make it the default and admin theme-
sudo drush pm-enable --yes garland-
sudo drush vset theme_default garland-
sudo drush vset admin_theme garland-
-
# Disable non-"Core - required", non-"Core - optional" modules-
sudo drush pm-disable --yes `drush pm-list --type=module --package="Access control,Administration,CCK,Chaos tool
suite,CiviCRM,Custom Breadcrumbs,Database,Date/Time,Development,Features,Feeds,File management,ImageCache,Input
filters,Javascript timer,MailmanManager,Meta tags,OrigamiUSA - other,Other,Panels,Rules,Spam control,Testing,Ubercart -
core,Ubercart - core (optional),Ubercart - extra,Ubercart - fulfillment,Ubercart - payment,Ubercart - views,User
interface,Util,Views,Webform" --status=enabled --pipe`-
-
# Also disable the core PHP module, because it causes conflicts later.-
sudo drush pm-disable php --yes-
-
# Uninstall D6 modules we won't need. Note, order matters.-
sudo drush pm-uninstall taxonomy_super_select --yes-
sudo drush pm-uninstall uc_views --yes-
-
# Tweaks to restore taxonomy information so that Taxonomy updating goes well for FAQ and Ubercart taxonomy-
sudo drush sql-query "INSERT INTO vocabulary_node_types VALUES (7, 'faq')"-
sudo drush sql-query "INSERT INTO vocabulary_node_types VALUES (24, 'product')"-
sudo drush sql-query "INSERT INTO vocabulary_node_types VALUES (24, 'nontax')"-
sudo drush sql-query "INSERT INTO vocabulary_node_types VALUES (24, 'product_download')"-
sudo drush sql-query "INSERT INTO vocabulary_node_types VALUES (24, 'product_kit')"-
-
# At this point, we still have a minimally functional D6 site (in maintenance mode)-
# and we're ready to install the D7 files (d7_svn_switch.sh) and then start-
# enabling D7 modules (d7_config.sh).-
-
echo "Remaining enabled modules:"-
sudo drush pm-list --status=enabled-
```

# Deploy from SVN

- ...

# Run updatedb

```
# Run update.php -- need to do this before anything else will function (even drush cc).  
sudo drush updatedb --yes  
-  
# This directory is created as debris during upgrade; we can remove it.  
sudo rm -dfr sites/default/files  
-  
# Clear drush's own cache since we've changed the codebase so drush commands have changed  
sudo drush cache-clear drush  
-  
# Bring site back online  
echo "Bringing site back online..."  
sudo drush vdel -y --exact maintenance_mode
```

# Enable and migrate

```
# Re-enable core modules.~
sudo drush pm-enable php --yes~
~
# Enable D7 contrib modules. Some of these will already have been enabled due to dependencies,~
# but there's no harm in trying and this gives a complete listing.~
echo "Enabling D7 contrib modules..."~
sudo drush pm-enable views --yes~
sudo drush pm-enable views_content --yes~
sudo drush pm-enable admin_menu --yes~
sudo drush pm-enable advanced_help --yes~
sudo drush pm-enable captcha --yes~
sudo drush pm-enable image_captcha --yes~
sudo drush pm-enable content_access --yes~
sudo drush pm-enable ctools --yes~
~
...~
snip~
...~
~
sudo drush pm-enable views_rss --yes~
sudo drush pm-enable webform --yes~
sudo drush pm-enable wysiwyg --yes~
sudo drush pm-enable link --yes~
sudo drush pm-enable views_ui --yes~
sudo drush pm-enable features --yes~
sudo drush pm-enable term_reference_tree --yes~
sudo drush pm-enable menu_breadcrumb --yes~
sudo drush pm-enable contextual --yes~
~
# Run update.php again. backup_migrate will do some further updating.~
sudo drush updatedb --yes~
~
# clear cache to make content-migrate-fields available~
sudo drush cc all~
~
# Migrate content fields using the default settings.~
echo "Starting field migration..."~
sudo drush content-migrate-fields --yes~
~
```

# Enable modules & Features

```
# Enable Features that provide configuration of content types, views, formatters, rules-  
echo "Enabling Features..."  
sudo drush pm-enable feature_image_styles_custom --yes  
└─  
sudo drush pm-enable feature_text_formats --yes  
└─  
sudo drush pm-enable feature_feeds_tamper_origamiusa_facebook --yes  
└─  
sudo drush pm-enable feature_content_type_board_notes --yes  
sudo drush pm-enable feature_content_type_calendar_event --yes  
sudo drush pm-enable feature_content_type_diagrams_pdf --yes  
sudo drush pm-enable feature_content_type_download_submission --yes  
sudo drush pm-enable feature_content_type_gallery_photo --yes  
sudo drush pm-enable feature_content_type_magazine_article --yes  
sudo drush pm-enable feature_content_type_magazine_issue --yes  
sudo drush pm-enable feature_content_type_news_story --yes  
sudo drush pm-enable feature_content_type_origami_group --yes  
sudo drush pm-enable feature_content_type_origamiusa_publication --yes  
sudo drush pm-enable feature_content_type_page --yes  
sudo drush pm-enable feature_content_type_publication_submission --yes  
sudo drush pm-enable feature_content_type_special_sessions --yes  
sudo drush pm-enable feature_content_type_the_paper_issue --yes  
└─  
sudo drush pm-enable feature_rules_comments --yes  
└─  
sudo drush pm-enable feature_views_art_gallery --yes  
sudo drush pm-enable feature_views_board_notes --yes  
sudo drush pm-enable feature_views_calendar_events --yes  
sudo drush pm-enable feature_views_civicrm_recurring --yes  
sudo drush pm-enable feature_views_convention_classes --yes  
sudo drush pm-enable feature_views_diagrams --yes  
sudo drush pm-enable feature_views_facebook_feed --yes  
sudo drush pm-enable feature_views_gallery --yes  
sudo drush pm-enable feature_views_header_banner --yes  
sudo drush pm-enable feature_views_holiday_tree --yes  
sudo drush pm-enable feature_views_hot_news --yes  
sudo drush pm-enable feature_views_lending_library --yes  
sudo drush pm-enable feature_views_local_groups --yes  
sudo drush pm-enable feature_views_magazine --yes  
sudo drush pm-enable feature_views_ousapubs --yes  
sudo drush pm-enable feature_views_pubsub --yes  
sudo drush pm-enable feature_views_specialsessions --yes  
sudo drush pm-enable feature_views_the_paper --yes  
sudo drush pm-enable feature_views_uc_catalog_header --yes  
sudo drush pm-enable feature_views_uc_downloads_newest --yes  
sudo drush pm-enable feature_views_uc_orders_details --yes  
sudo drush pm-enable feature_views_uc_products_clearance --yes  
sudo drush pm-enable feature_views_uc_products_details --yes  
sudo drush pm-enable feature_views_uc_products_labels --yes  
sudo drush pm-enable feature_views_uc_products_pages --yes  
sudo drush pm-enable feature_views_uc_products_unpub --yes  
sudo drush pm-enable feature_views_users_by_role --yes  
sudo drush pm-enable feature_views_users_special --yes  
sudo drush pm-enable feature_views_users_all --yes  
sudo drush pm-enable feature_views_webform_results --yes  
└─  
sudo drush features-revert-all --yes
```

# Tweak

- Run drush scripts to override non-Featureable views and content types
- Move blocks around
- Set lots of configuration parameters
- Move private files around and make associated changes
- ...and more (230 LOC in shell script + 18 separate drush scripts)

# Uninstall

- Schema module reveals unused db tables (e.g., leftovers from Views I, obsolete CCK tables)
- drush sql-query “DROP TABLE ...” to clear them out

# Putting it together

- Many partial runs on local system while developing scripts and process
- Rehearsal run on our sandbox
  - live server similar to production
  - under httpd password protection
- ~2 weeks of user testing on sandbox
  - Users find “wallpaper”

# Pull the trigger

- Upgrade performed on live system on 07/21/2013
- Script ran for ~90 minutes
- Back online and running in <2 hours



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105 days, 14 hours, 10 minutes and 17 seconds until PCOC 2013!

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Posted: June 19, 2013 - 11:31am

Volunteers needed for the convention Please remember that the Source as well as...

Posted: June 18, 2013 - 6:30pm

Yay - the last expected box of new items arrived today (nothing like calling it...

Posted: June 18, 2013 - 6:28pm

\*\*International Teachers at OUSA Convention\*\*

We&#039;re trying something brand new a...

Posted: June 16, 2013 - 2:22pm

A late addition to our convention activities, as follows:

&#x2022; When: Sunday, June...

Posted: June 15, 2013 - 1:53pm









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- PCOC 2013 in Albuquerque, NM: October 3-7, 2013
- Free Annual Collections for Schools, Libraries, and Local Origami Groups

# The result

- Numerous small glitches showed up once the public started pounding on the site
- Nothing major, all easily/quickly fixable
- Closely monitor dblog for the first week

# Team credits

- Me (managing editor, Drupal programming)
- Anne LaVin, Jim Weir (sysadmins)
- Trevor James (original site design, Drupal consultant)

# Final thoughts

- Script-based upgrade is **ABSOLUTELY** the way to go
- Upgrading a site is a great way to get to know Drupal innards