

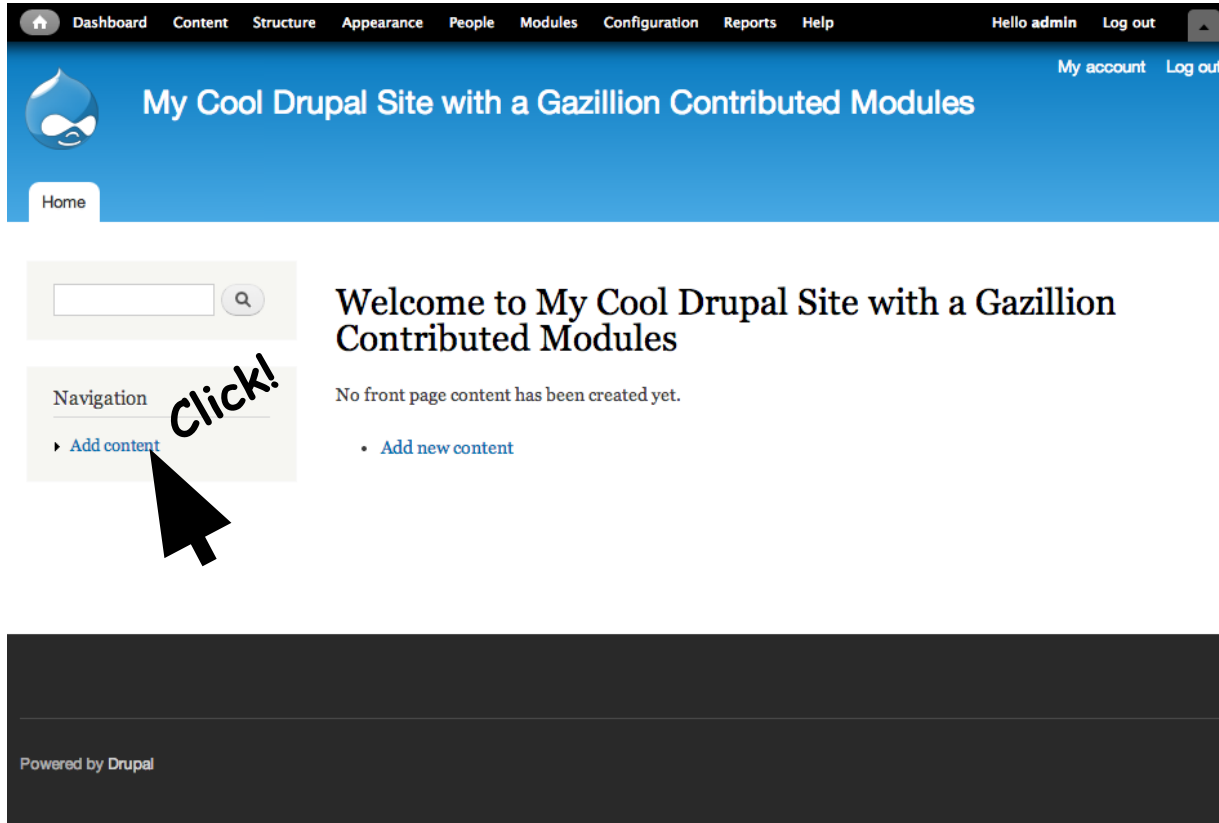
Minimalist Drupal Development

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Drupal is awesome! But...

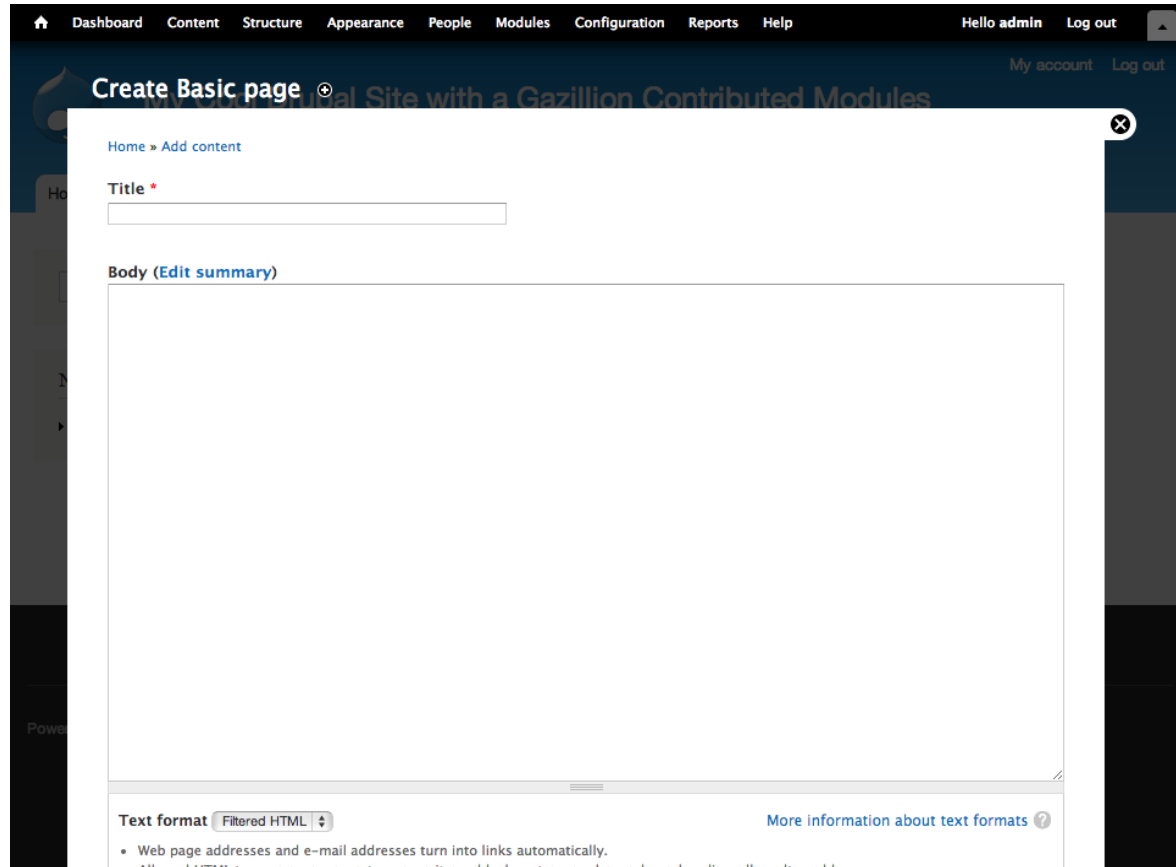


The screenshot displays the Drupal 7 administrator interface. At the top, a black navigation bar contains links for Dashboard, Content, Structure, Appearance, People, Modules, Configuration, Reports, and Help. On the right side of this bar, it says "Hello admin" and "Log out". Below this is a blue header area with the Drupal logo on the left, the text "My Cool Drupal Site with a Gazillion Contributed Modules" in the center, and "My account" and "Log out" on the right. A "Home" button is located below the logo. The main content area features a search box on the left, a "Navigation" menu with a sub-item "Add content", and a central message: "Welcome to My Cool Drupal Site with a Gazillion Contributed Modules" followed by "No front page content has been created yet." and a link "Add new content". A large black mouse cursor arrow points to the "Add content" link in the navigation menu, with the word "Click!" written in a bold, italicized font above it. At the bottom of the page, a dark grey footer contains the text "Powered by Drupal".

Drupal is awesome! But.....









Drupal is awesome! But.....



But...

Dashboard Content Structure Appearance People Modules Configuration Reports Help Hello admin Log out

Modules

Administration menu 7.x-3.0-rc2	Update available 
Recommended version: 7.x-3.0-rc4 (2013-Jan-31)	Download Release notes
Includes: <i>Administration menu</i>	
Chaos tool suite (ctools) 7.x-1.2	Security update required! 
Security update: 7.x-1.3 (2013-Apr-03)	Download Release notes
Includes: <i>Chaos tools</i>	
Context 7.x-3.0	Update available 
Recommended version: 7.x-3.1 (2013-Oct-16)	Download Release notes
Includes: <i>Context</i>	
Date 7.x-2.3	Update available 
Recommended version: 7.x-2.6 (2012-Aug-13)	Download Release notes
Includes: <i>Date, Date API</i>	
Entity API 7.x-1.1	Security update required! 
Security update: 7.x-1.2 (2013-Aug-14)	Download Release notes
Includes: <i>Entity API</i>	
Entity reference 7.x-1.0	Security update required! 
Recommended version: 7.x-1.1 (2013-Nov-20)	Download Release notes
Security update: 7.x-1.1 (2013-Nov-20)	Download Release notes
Security update: 7.x-1.0-beta3 (2011-Dec-24)	Download Release notes

Free but at a Cost

Functionality comes for free, but the cost is performance, security, and integration time.

The open buffet:

<http://2bits.com/articles/server-indigestion-the-drupal-contributed-modules-open-buffet-binge-syndrome.html>

A Solution: Minimalism

- Be smart about your site build
- Choose third party code wisely
- Write some code yourself
- Don't be a click monkey! (or be less of one)

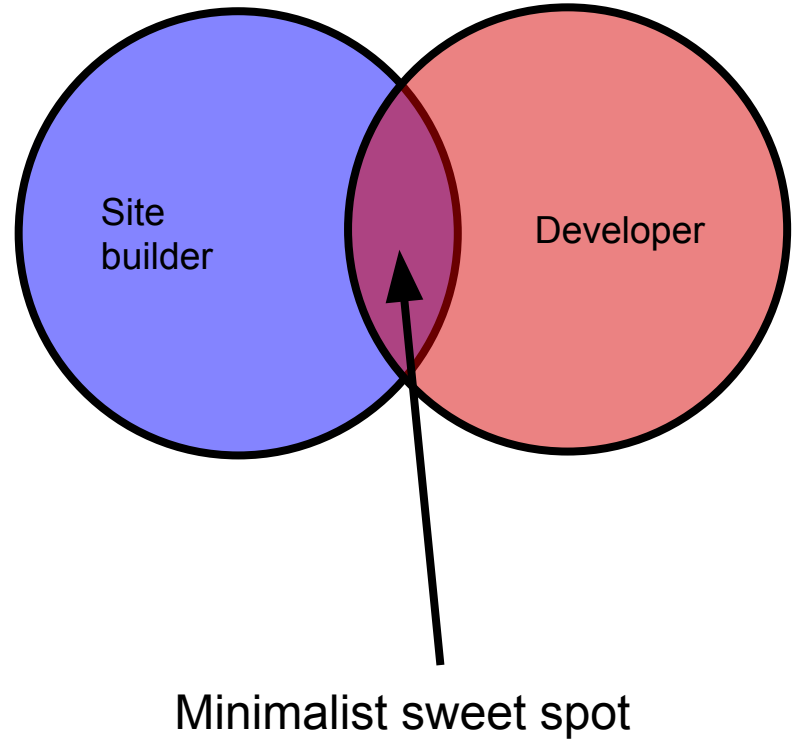
Is this for every Drupal site builder? Not really.

Being a Developer Helps

But it's not a requirement!

Site builders and developers: Be selective about the code you add to your site

Developers: Write some of that code yourself (or borrow it!)



Module selection

- Number of sites (more is better!)
- Size (smaller is better!)
- Actively developed?
- Developer (recognise the name?)
- Number of bugs (fewer is better!)
- Focused use case or kitchen sink?
- Anything in it for your end users?

(Admin menu: great for site builders and admins, useless for visitors; over 800 LOC in the .module file alone, loaded for all users, but useful to only a few)

Project Information

Maintenance status: [Actively maintained](#)

Development status: [Under active development](#)

Reported installs: **680,978** sites currently report using this module.

Downloads: 4,546,489

Downloads

Recommended releases

Version	Download	Date	Links
7.x-3.7	gz (1.56 MB) zip (1.79 MB)	2013-Apr-09	Notes
6.x-2.16	gz (1.21 MB) zip (1.35 MB)	2011-Nov-14	Notes

Posted by [merlinofchaos](#) on *November 25, 2005 at 8:34pm*

[All issues](#)
[2952 open, 19083 total](#)

[Bug report](#)
[1217 open, 7323 total](#)
[Subscribe via e-mail](#)

Drupal is a framework

Third party developers aren't the only ones who can add functionality to your site.

YOU can!

Use what Drupal gives you

- Entities (and helpful querying methods)
- View modes
- Theme regions
- Hooks everywhere
- APIs galore

Using APIs

Drupal core examples:

- `hook_entity_info_alter()`
- `EntityFieldQuery`

Contrib examples:

- `Bean API`

API: View Modes

Dashboard Content Structure Appearance People Modules Configuration Reports Help Hello admin Log out

Home > Administration > Structure > Content types > Basic page

Basic page

EDIT MANAGE FIELDS MANAGE DISPLAY COMMENT FIELDS COMMENT DISPLAY

Default Teaser Listing

- over 400 lines of code for Entity View Modes
- over 1200 lines of code for DS core module

FIELD	LABEL	FORMAT
+ Body	<Hidden>	Default

Hidden

No field is hidden.

+ Add new group

Label group_ Fieldset

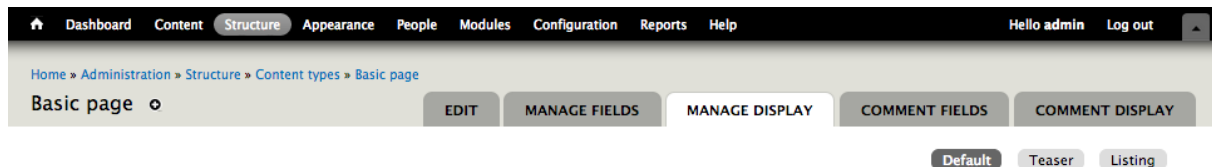
Group name (a-z, 0-9, _)

▼ CUSTOM DISPLAY SETTINGS

Use custom display settings for the following view modes

- Full content
- Teaser
- RSS
- Search index
- Search result
- Listing
- Tokens

API: View Modes



- over 400 lines of code for Entity View Modes
- over 1200 lines of code for DS core module
- 6 lines of code:

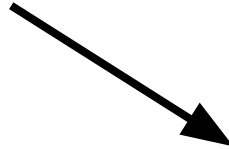
FIELD	LABEL	FORMAT
+ Body	<Hidden>	Default
Hidden		

```
/**
 * Implements hook_entity_info_alter().
 */
function CUSTOM_entity_info_alter(&$entity_info) {
  $entity_info['node']['view modes']['listing'] = array(
    'label' => t('Listing'),
    'custom settings' => FALSE,
  );
}
```

API: EntityFieldQuery vs. Views

Views Requires:

- Views module (1.5MB of code)
- Use of this interface by site editors



Displays

Block* [+ Add](#) edit view name/description ▾

▼ Block details

Display name: Block clone Block ▾

Title
Title: News Listing

Format
Format: Unformatted list | [Settings](#)
Show: Content | [Teaser](#)

Fields
The selected style or row format does not utilize fields.

Filter criteria [Add ▾](#)
Content: Published (Yes)
Content: Type (= News Callout)
Content: Has taxonomy term (= test) | [Settings](#)

Sort criteria [Add ▾](#)
Content: Post date (desc)

Block settings
Block name: None
Access: [Permission](#) | [View published content](#)

Header [Add](#)

Footer [Add](#)

Pager
Use pager: [Display a specified number of items](#) | 5 items
More link: No

▶ **Advanced**

API: EntityFieldQuery vs. Views

Create News Listing (tags) block

Label *

Name that displays in the admin interface

Title

The Title of the block.

Records shown *

Tag

More link title

The link title is limited to 128 characters maximum.

More link URL

Save

```
$query = new EntityFieldQuery();
```

```
$query
```

```
->entityCondition('entity_type', 'node')  
->entityCondition('bundle', 'news')  
->propertyCondition('status', 1)  
->fieldCondition('field_tags', 'tid', $bean->tags)  
->fieldOrderBy('field_published_date', 'value', 'DESC')  
->range(0, $bean->records_shown);
```

```
$result = $query->execute();
```


API: BEAN

```
/**
 * Implements hook Bean types api info().
 */
function CUSTOM Bean types api info() {
  return array('api' => 4);
}

/**
 * Implements hook Bean types().
 */
function CUSTOM Bean types() {
  $plugins = array();
  $plugins['news_tags'] = array(
    'label' => t('News Listing (tags)'),
    'description' => t('Provides a listing of news items based on callout tags.'),
    'handler' => array(
      'class' => 'NewsTagsBean',
      'parent' => 'bean',
      'path' => drupal_get_path('module', CUSTOM) . '/plugins/bean',
      'file' => 'news_tags.inc',
    ),
  );
  return $plugins;
}
```

API: BEAN

```
class NewsTagsBean extends BeanPlugin {
  /**
   * Declares default block settings.
   */
  public function values() {
    $values = array(
      'records_shown' => FALSE,
      'tags' => FALSE,
    );

    return array_merge(parent::values(), $values);
  }

  /**
   * Builds extra settings for the block edit form.
   */
  public function form($bean, $form, &$form_state) {
    $form = array();

    // Set default number of records shown
    if (!$records_shown = $bean->records_shown) {
      $records_shown = 5;
    }

    // Set default list of tags
    if (!$tags = $bean->tags) {
      $tags = false;
    }
  }
}
```

Code borrowing

Modules have admin interfaces and support multiple use cases. Sometimes you only need a portion of a module.

Downside: now it's your code!

Examples from a recent project:

- Image link formatter
- Node Menu Required
- Taxonomy Dupecheck

Code borrowing: Image link formatter

Contrib module to apply link field URL to an image field image. Module has an admin page, requires adjustments to the image formatter, and then addition to a Feature module. But here's the meat of what it does:

```
/**
 * Implements hook_node_view_alter()
 *
 * Alters the render array of the image field on a news node (if displayed) to
 * make it a link to the URL from field_url.
 *
 * Inspired by the image_link_formatter module. See:
 * http://drupalcode.org/project/image_link_formatter.git/blob/refs/heads/7.x-1.x:/image_link_formatter.module#l120
 */
function CUSTOM_node_view_alter(&$build) {
  if ($build['#node']->type == 'news' && !empty($build['field_image'])) {
    $language = field_language('node', $build['#node'], 'field_url');
    if (!empty($build['#node']->field_url[$language][0]['url'])) {
      $build['field_image'][0]['#path'] = array(
        'path' => $build['#node']->field_url[$language][0]['url'],
        'options' => array('attributes' => $build['#node']->field_url[$language][0]['attributes']),
      );
    }
  }
}
```

Code borrowing: Node Menu Required

Contrib module to force nodes into menus. It's already small, but this is all it does:

```
/**
 * Implements hook_FORM_ID_form_alter().
 *
 * Override form attributes for Hide Menu Item and Summary
 */
function CUSTOM_form_page_node_form_alter(&$form, &$form_state, $form_id) {
  // Require the menu link title and parent fields.
  $form['menu']['enabled']['#value'] = TRUE;
  $form['menu']['enabled']['#disabled'] = TRUE;
  $form['menu']['link']['link_title']['#required'] = TRUE;
  $form['menu']['link']['parent']['#required'] = TRUE;
}
```

Use Drupal's regions

- Not Panels or Display Suite
 - Page editing experience is fractured and complex
- Blocks aren't the only thing that can be placed in regions
- It's nice to be able to version block placement

How to use regions?

BEAN! Block types just like content types +
Blockreference field

Region View Modes: put any field in a region

Field Group for better layout options (bonus:
improved node add/edit forms)

Region View Modes

For this example: there's a blockreference field on the page content type.

[Show row weights](#)

LABEL	MACHINE NAME	FIELD TYPE	WIDGET	OPERATIONS	
+ Title	title	Node module element			
+ Body	body	Long text and summary	Text area with a summary	edit	delete
+ Sidebar Blocks	field_sidebar_blocks	Block reference	Select list	edit	delete

Region View Modes


▼ **CUSTOM DISPLAY SETTINGS**

Use custom display settings for the following view modes

- Full content
- Teaser
- RSS
- Search index
- Search result
- Listing
- Bartik: Sidebar first
- Bartik: Sidebar second
- Bartik: Dashboard (sidebar)
- Seven: First sidebar
- Seven: Dashboard (sidebar)
- Tokens

Region View Modes

[Home](#) » [Administration](#) » [Structure](#) » [Content types](#) » [Basic page](#)

Basic page 

EDIT

MANAGE FIELDS

MANAGE DISPLAY

COMMENT FIELDS

COMMENT DISPLAY

Default


Teaser

Bartik: Sidebar second

[Show row weights](#)

FIELD	LABEL	FORMAT
 Body	<input type="text" value="<Hidden>"/>	<input type="text" value="Default"/>
Hidden		
 Sidebar Blocks	<input type="text" value="Above"/>	<input type="text" value="<Hidden>"/>

[Home](#) » [Administration](#) » [Structure](#) » [Content types](#) » [Basic page](#) » [Manage display](#)

Basic page 

EDIT

MANAGE FIELDS

MANAGE DISPLAY

COMMENT FIELDS

COMMENT DISPLAY

Default

Teaser


Bartik: Sidebar second

[Show row weights](#)

FIELD	LABEL	FORMAT
 Sidebar Blocks	<input type="text" value="<Hidden>"/>	<input type="text" value="Default (title and content)"/>
Hidden		
 Body	<input type="text" value="<Hidden>"/>	<input type="text" value="<Hidden>"/>

Region View Modes

[Home](#) » [Test Page](#)

Edit Basic page Test Page 

VIEW

EDIT

Title *


Body ([Edit summary](#))

Donec id elit non mi porta gravida at eget metus. Aenean eu leo quam. Pellentesque ornare sem lacinia quam venenatis vestibulum. Duis mollis, est non commodo luctus, nisi erat porttitor ligula, eget lacinia odio sem nec elit. Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor. Maecenas sed diam eget risus varius blandit sit amet non magna. Integer posuere erat a ante venenatis dapibus posuere velit aliquet.

Maecenas sed diam eget risus varius blandit sit amet non magna. Nullam id dolor id nibh ultricies vehicula ut id elit. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Maecenas faucibus mollis interdum.

Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Maecenas faucibus mollis interdum. Maecenas sed diam eget risus varius blandit sit amet non magna. Cras mattis consectetur purus sit amet fermentum. Integer posuere erat a ante venenatis dapibus posuere velit aliquet. Sed posuere consectetur est at lobortis.

Sidebar Blocks

Powered by Drupal 

Region View Modes



The screenshot shows a Drupal website with a blue header. On the left is the Drupal logo, and on the right is the text "My Cool Drupal Site with a Gazillion Contributed Modules". Below the header is a "Home" button. The main content area has a "Home" link, a search bar, and a "Test Page" section. The "Test Page" section has "View" and "Edit" buttons, followed by two paragraphs of placeholder text. On the right is a "Powered by Drupal" badge. A vertical scrollbar is visible on the right edge of the page.

My Cool Drupal Site with a Gazillion Contributed Modules

Home

Home

🔍

Test Page

[View](#) [Edit](#)

Donec id elit non mi porta gravida at eget metus. Aenean eu leo quam. Pellentesque ornare sem lacinia quam venenatis vestibulum. Duis mollis, est non commodo luctus, nisi erat porttitor ligula, eget lacinia odio sem nec elit. Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor. Maecenas sed diam eget risus varius blandit sit amet non magna. Integer posuere erat a ante venenatis dapibus posuere velit aliquet.

Maecenas sed diam eget risus varius blandit sit amet non magna. Nullam id dolor id nibh ultricies vehicula ut id elit. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Maecenas faucibus mollis interdum.

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In Conclusion

- Do more with what you get
- Choose contributed code wisely
- Have fun!

Thanks!

- Singlebrook Technology
- Inspiration from energy.gov

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