Beans, Beans – They're Good For Your... Editors

BADcamp 2011
October 22nd, 2011
Neil Hastings

TREEHOUSE
AGENCY

Neil Hastings

- ▶ Senior Engineering

- ▶ Treehouse Agency

- ▶ Drupal.org member for 3 years and 34 weeks

- ▶ @indytechcook

Saturday, October 22, 11

What is a BEAN?

Saturday, October 22, 11

What is a BEAN?

▸ Block Entity

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What is a BEAN?

- ▶ **Block Entity**

- ▶ **BEAN Entities Aren't Nodes**

  - ▶ BEAN Entities Aren't Nodes

    - ▶ BEAN Entities Aren't Nodes

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        ▸ BEAN Entities Aren't Nodes

▸ A Healthy Way for users to Create Blocks

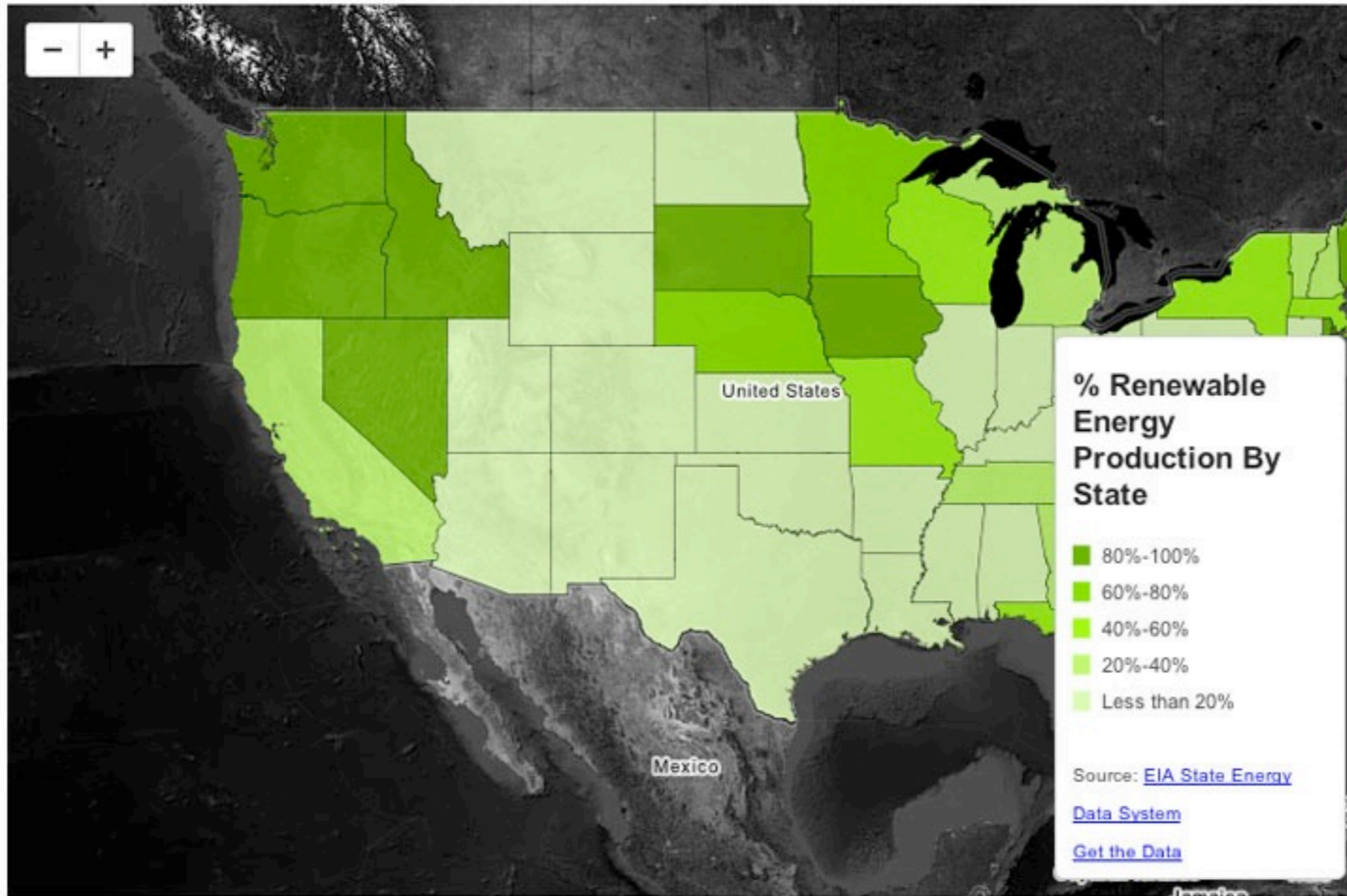Saturday, October 22, 11

Blocks on Energy.gov

Block Creator
!=
Administrator

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User generated Blocks

▶ Node-like blocks

  ▶ Fields

  ▶ Templates

▶ Listing blocks

  ▶ User-defined filters

  ▶ Pre-defined styles

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Home » Science & Innovation » Energy Sources

RENEWABLE ENERGY

% Renewable Energy Production By State

- 80%-100%
- 60%-80%
- 40%-60%
- 20%-40%
- Less than 20%

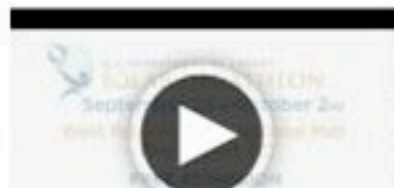Source: EIA State Energy Data System

Get the Data

SOLAR

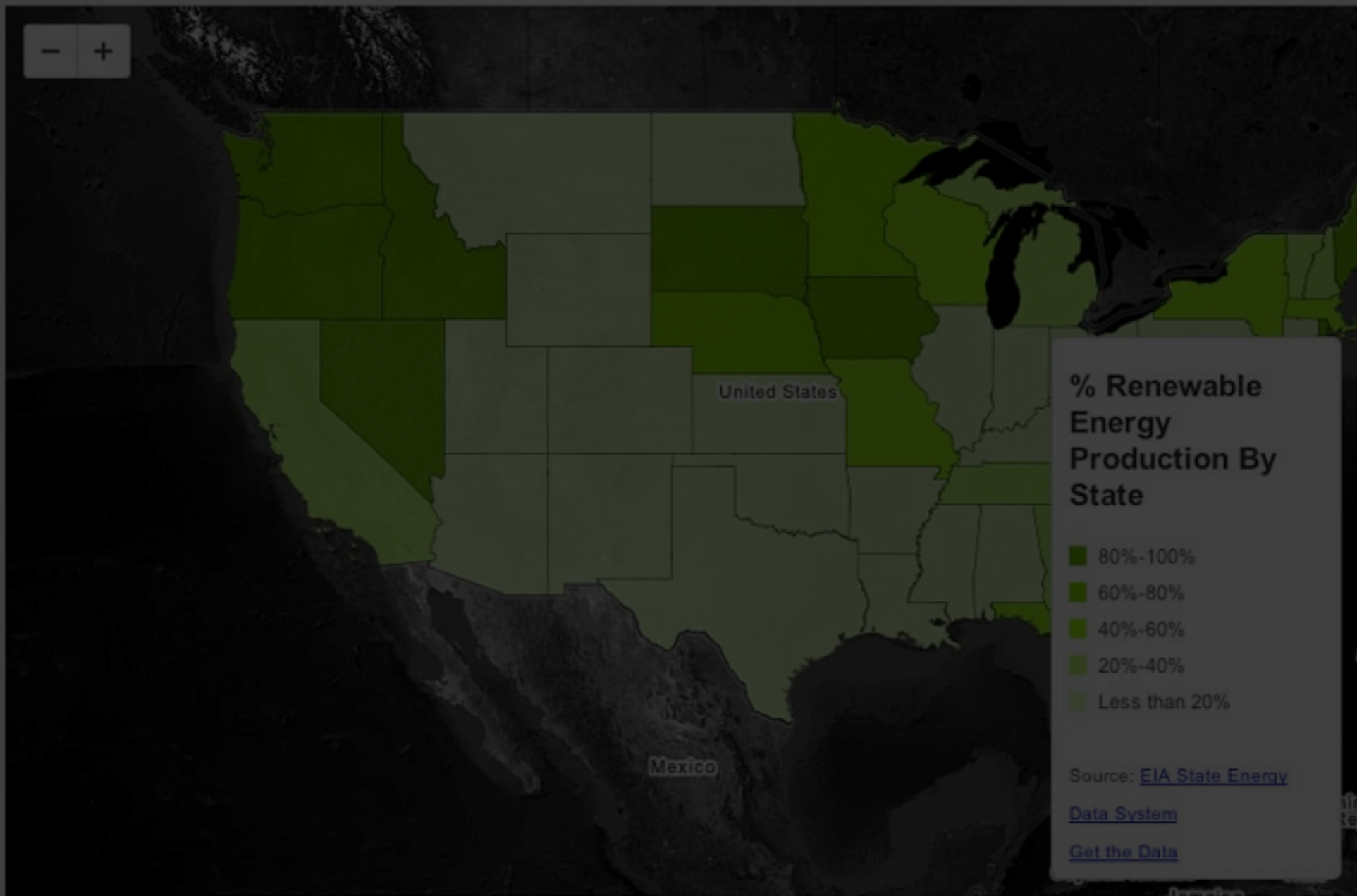

Learn more

BIOMASS

Learn more

WIND

Here Comes the Sun: Solar Decathlon Opens To Public Today

At the National Mall's West Potomac Park in Washington, D.C., a new type of neighborhood has taken shape. The solar village is on full display with highly-efficient, solar-powered homes on every

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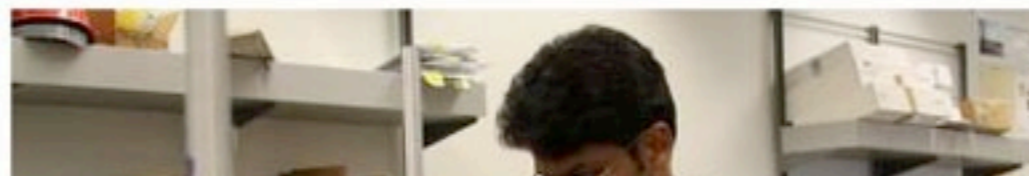Blog Archive
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Read The Full Story ⊙

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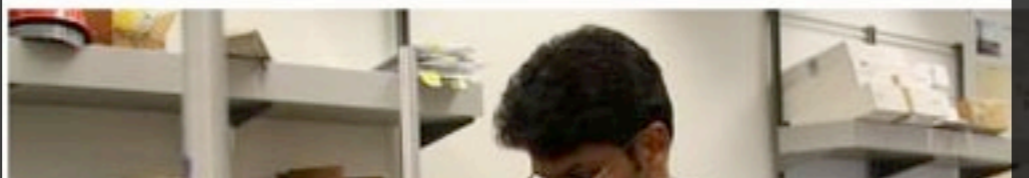
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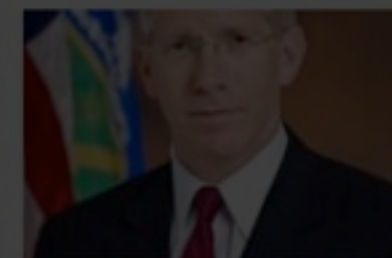
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Block Entities

- ▸ Block types

- ▸ Fieldable

- ▸ Entity API

- ▸ Non-admin permissions

- ▸ Data entry is familiar to users

- ▸ Build is familiar to Site Builders

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Block Types   ＋ Add block type

Name	Status	Operations	
News listing	Normal	manage fields	manage display
Blog listing	Normal	manage fields	manage display
Linked Titles Only Listing	Normal	manage fields	manage display
Internal Link List	Normal	manage fields	manage display
Link List	Normal	manage fields	manage display
Contributor Listing	Normal	manage fields	manage display
Latest Article listing	Normal	manage fields	manage display
Two-Column Energy	Normal	manage fields	manage display
What We Do	Normal	manage fields	manage display
Custom Infographics	Normal	manage fields	manage display
Freetext	Normal	manage fields	manage display
Content Promotion	Normal	manage fields	manage display
Topic listing	Normal	manage fields	manage display

Blocks

Edit   **Manage fields**   Manage display

Fields can be dragged into groups with unlimited nesting. Each fieldgroup format comes with a configuration form, specific for that format type. Note that some formats come in pair. These types have a html wrapper to nest its fieldgroup children. E.g. Place accordion items into the accordion, vertical tabs in vertical tab group and horizontal tabs in the horizontal tab group. There is one exception to this rule, you can use a vertical tab without a wrapper when the additional settings tabs are available. E.g. node forms.

Label	Name	Field	Widget	Operations
⊕ Articles	field_listing_articles	Node reference	Autocomplete text field	edit delete
⊕ More link	field_listing_more	Link	Link	edit delete
⊕ group_audience	group_audience	Group audience	Group audience	edit delete
⊕ URL redirects	redirect	Redirect module form elements		

⊕
Add new field

[   ]
Label

field_ [   ]
Field name (a–z, 0–9, _)

[– Select a field type – ⬍]
Type of data to store.

[– Select a widget – ⬍]
Form element to edit the data.

⊕
Add existing field

[   ]
Label

[– Select an existing field – ⬍]
Field to share

[– Select a widget – ⬍]
Form element to edit the data.

⊕
Add new group

[   ]
Label

group_ [   ]
Group name (a–z, 0–9, _)

[Fieldset ⬍]

✓ Save

Coding Concepts

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Coding Concepts

▸ API First

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Coding Concepts

▸ API First

▸ Every Type is a Plugin

   ▸ Even the UI types

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Coding Concepts

▸ API First

▸ Every Type is a Plugin

   ▸ Even the UI types

▸ Two levels of configuration storage

   ▸ "Config" – BEAN Type/Bundle

   ▸ "Content" – BEAN/Entity

   ▸ Block Placement – BOTH!

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SHOW ME SOME CODE ALREADY

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Code For All

▸ META

```
/**
 * Implements hook_bean_types_api_info().
 */
function energy_content_bean_types_api_info() {
  return array('api' => 1);
}


/**
 * Implements hook_ctools_plugin_directory()
 */
function energy_content_ctools_plugin_directory($module, $type) {
  if ($module == 'bean') {
    return 'plugins/bean';
  }
}
```

Show me the Plugin

```php
/**
 * Implements hook_bean_types().
 */
function energy_content_bean_types() {
  $plugins = array();
  $plugin_path = drupal_get_path('module', 'energy_content') . '/plugins/bean';
  $bean_plugin_path = drupal_get_path('module', 'bean') . '/plugins';

  $plugins['blog_listing'] = array(
    'label' => t('Blog listing'),
    'handler' => array(
      'class' => 'blog_listing_bean',
      'parent' => 'bean',
    ),
    'path' => $plugin_path,
    'file' => 'blog_listing.inc',
  );

  return $plugins;
}
```

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We all love Classes

‣ Extend the base class.

- ‣ bean_plugin

- ‣ bean_custom – If bean type will be editable in the UI

‣ Implement Methods

- ‣ Values – Define settings to be saved against the Bean.

- ‣ Form – Define Form for bean add/edit

- ‣ View – Render the bean.

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Define Class

```
class blog_listing_bean extends bean_plugin {

 .

 .

 }
```

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Define Values

```
public function values() {
  return array(
    'filters' => array(
      'term' => FALSE,
      'topic' => FALSE,
      'audience' => FALSE,
    ),
    'items_per_page' => array(
      'large_image' => 0,
      'small_image' => 0,
      'listing' => 0,
    ),
    'more_link' => array(
      'text' => '',
      'path' => '',
    ),
  );
}
```

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    ),
  );
}
```

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Form for All

```
public function form($bean) {
    $form['more_link']['text'] = array(
      '#type' => 'textfield',
      '#title' => t('Link text'),
      '#default_value' => $bean->more_link['text'],
    );


    $form['more_link']['path'] = array(
      '#type' => 'textfield',
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}
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A Bean with a View

```
public function view($bean, $content, $view_mode =
'full', $langcode = NULL) {

}
```

▸ Return a Render Array
▸ Currently $view_mode is ignored in the block rendering

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A Bean with a View

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public function view($bean, $content, $view_mode =
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▸ Return a Render Array

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```php
    $count = $bean->items_per_page['large_image'] + $bean-
>items_per_page['small_image'] + $bean->items_per_page['listing'];


    $query = new EnergyEntityFieldQuery();
    $query
      ->entityCondition('bundle', 'article')
      ->clearAudienceConditions()
      ->setOtherAudienceCondition()
      ->range(0, $count);


    if (!empty($bean->filters['term'])) {
      $query->setTermCondition('field_article_type', $bean->filters['term']);
    }


    if (!empty($bean->filters['topic'])) {
      $query->setTopicCondition($bean->filters['topic']);
    }


    if (!empty($bean->filters['audience'])) {
      $query->setTermCondition('field_audience_term', $bean->filters['audience']);
    }


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

```
    if (empty($result)) {
      $content['nodes'] = array();
    }
    else {
      $content['nodes'] =
node_load_multiple(array_keys($result['node']));
    }


    $content['#theme'] = 'energy_blog_list';
    $content['more_link'] = array(
      'text' => $bean->more_link['text'],
      'path' => $bean->more_link['path'],
    );
    $content['items_per_page'] = array(
      'large_image' => $bean->items_per_page['large_image'],
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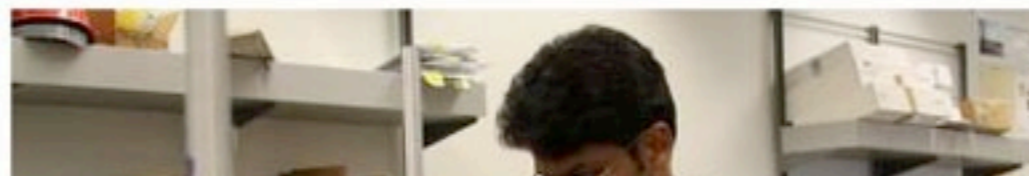
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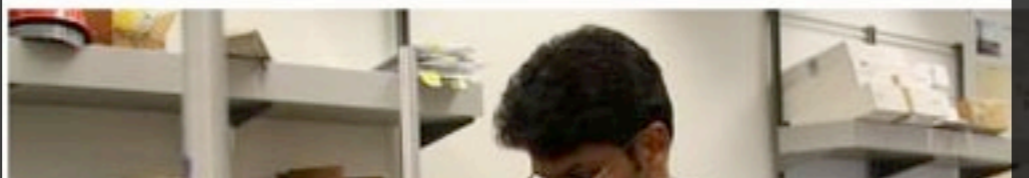Blog Archive

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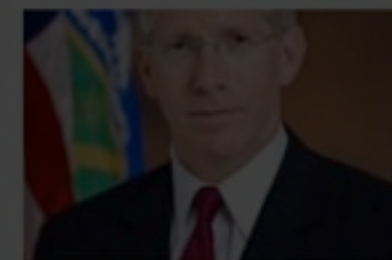
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Editorial listings

▸ Hand-selected listings of nodes

▸ Multiple Node Reference field

▸ View mode set in the Node Reference field settings

▸ Additional fields

▸ More link, Header text, etc.

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More Fun!

▸ BOF in Dwinelle 183 – now

▸ http://treehouseagency.com/blog/neil-hastings/2011/09/21/building-custom-block-entities-beans

▸ http://treehouseagency.com/blog/neil-hastings/2011/09/06/building-energygov-without-views

▸ http://drupal.org/project/bean

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