Drupal: Open Source Content Management
Or is it a web framework?

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What is Drupal?

- Drupal is a PHP-based "Content Management System"
  - Easy publication of web content
  - Extensible
  - Themable
  - 10 year history
  - Also considered a "Web Framework" by some

About This Presentation

- Target Audience

  - Technologists looking to learn about a new web platform

- What it is not

  - Step-by-step instruction manual

It will cover

- Drupal 7

- Getting Started

- Themes

- Contributed Modules

- Overview of Advanced Development

Why Drupal?

* Migrate Legacy Sites and Custom "CMS" to Drupal
  * KSU News Site
* Used by Many Large Organizations
  * Federal Government
  * 5 Largest USG Institutions
* 1.5% of websites worldwide
* Large Community

Why Drupal?

- Extensible (Modules, Themes, etc.)

  - Powerful API

- Structured Content

  - User-defined Fields

- Scalable (caching and Boost module)

- Tools are easy enough to give to non-technical users

  - Editing, etc.

Development

- 10 years old

- Sponsored by Acquia

- Dedicated Security, Usability, and Core Teams

- 97 Core Maintainers

  - Drupal Project Lead – Dries Buytaert

  - D7 Branch Maintainer – Angie Byron (webchick)

- GPLv2 License

Drupal vs. Wordpress vs. Joomla! (Big 3 PHP)

- Drupal is a full Content Management System

- 10,000+ Modules

- Steeper Learning Curve

- Powerful API

- Clean Code

- Wordpress is a blog with some CMS features

- 15,000+ Plugins

- Shallower Learning Curve

- Less Powerful API

- Clean Code

- Joomla! Is a full Content Management System

- 7,000 Extensions

- Medium Learning Curve

- Less Powerful API

- Some Messy Code

Drupal Requirements

- PHP >= 5.2.5 (5.3 Recommended)

- Database Server

  - MySQL >= 5.0.15 (Recommended)

  - PostgreSQL, SQLite

- Web Server

  - Apache (Recommended)

  - IIS

  - nginx

Installation

* Extract Drupal into document root (or subdirectory)

* Copy default.settings.php to settings.php, make writable

* Create database & database user

* Visit your Drupal installation in a browser

* Click through install, answering questions

  -OR-

* Acquia Dev Desktop

Getting Started

* Theme

  * http://drupal.org/project/themes or create your own

* Add content

  * Publish pages & stories

Content Types

- Content types
    - A collection of related values
    - Basic content types are Page, Story, etc.
    - Title & Body
    - Flexible, thanks to Fields API
- One instance = a "node"

Content Type Examples

- Server
  - Hostname
  - IP Address
  - OS
  - Hardware
  - Serial #
  - Support Contract

Invoice

- Customer
- Line item(s)
  - Item
  - Quantity
  - Price
- Total

Also Included

- Taxonomies -- tag and classify content

- RDFa -- make your site more search-engine friendly

- Blogs -- multi-user blogs included

- Comments -- can be turned on/off per node

- Forums -- basic forums

- Search -- site-wide search

"Contrib"

- "Contrib" is a term applied to community-contributed modules, generally those listed on drupal.org

- Thousands of modules (10,000 + in June 2011)

- Some very common

- Some edge case

- GPLv2

Must-have Modules

- Views
- CTools
- Token
- Pathauto
- WYSIWYG/CKEditor
- Media

- Webform
- Panels
- CAPTCHA
- Devel
- Rules
- Nice Menus

Modules for Specific Needs

- Ubercart

  - Shopping cart w/PayPal integration

- Print

  - Convert pages to printer-friendly or PDF versions

- Fivestar

  - Allow ratings on nodes (could be products, movie reviews, etc.)

Development Challenges

* Maintaining Dev -> Test -> Prod Lifecycle

  * Drupal does a poor job of separating content & presentation

  * Features can help

  * No golden bullet

* URL updates (Especially Multisite)

Multisite

- Run many sites from one codebase (symlinks, virtual hosts)

- sites/<sitename>/

  - example.org

  - intranet.example.org

  - example.org.news

  - intranet.example.org.development

For our command line jockeys and scripters

* drush

    * DRUpal SHell

    * Powerful

    * Scriptable

    * Install modules

    * Run arbitrary php

    * Launch sql shell

    * Perform maintenance

Rolling Your Own

* Module & Theme Development
  * Installation Profiles
* Know PHP, SQL
* Drupal "hooks" (similar to callbacks)
  * Specially named functions MODULE_HOOK()
* api.drupal.org

Rolling Your Own - Themes

- Subtheming
  - Themes can be extended, modified, customized
  - Zen, Fusion, Omega, others
- Regions
  - Page must contain certain regions
- Template System

Rolling Your Own - Modules

- Stick to Drupal DB API
- Looks for specific hooks when possible
- Make good use of dpm() from devel.module
- Always output with theme()
- Look for other modules -- don't reinvent the wheel

Installation Profiles

- Special case of module

- Most often used for repeated deployments

- Defines actions during the installation

- Can modify standard installation steps

Demo!

- Company Directory
  - Photo
  - Name
  - E-Mail
  - Title
- View of Directory
- Panel Page