Drupal

-Web Applications Made Easy
by Søren Houen
Show of hands

• Who has used Drupal?
Background / Show off

• Working with Drupal for almost a year
  – Completed seven enterprise-strength CMS projects
  – New one in the tubes
• Come from a PHP background with and without Frameworks (Symfony, Zend, CakePHP)
  – Apart, of course, from having a CS bachelor
• Article in IEEE ICSC 2009 last year
  – http://www.computer.org/portal/web/csdl doi/10.1109/ICSC.2009.79
Show off

• 999 Credits: Flash Gamesite (999credits.com)
My Drupal sites

• These Games Rock: Flash Gamesite
My Drupal sites

- Starcraft 2 Observer: Community hub
My Drupal sites

- Houen.net: My Company website
My Drupal sites

• Basico.dk: Company website
My Drupal sites

• Spoing.dk: Company website
My Drupal sites

• Advis.dk: Company website
Quick look

- Open source framework (GPL)
- Started by Dries Buytaert in 2000
- Began as forum board for 8 students
- More than 275,000 current installations
  - [http://drupal.org/project/usage](http://drupal.org/project/usage): 02/09/10
- Is used for high-volume business-critical sites
  - For example large newspapers (pol.dk, berlingske.dk)
Purpose

• More than a framework:
  Complete full-featured point-and-click WYSIWYG CMS
• Fast to build
• Easy to extend
• Robust
• Fast
Features

• Multi-platform (Apache/IIS)
  – Linux, BSD, Solaris, Windows, Mac

• Database-independent
  – MySQL & PostgreSQL standard
  – Can be extended to any relational database

• Multi-language
Services

• “No code needed” basic functionality
  – Point-and-click WYSIWYG administration
  – Full user administration
    • Signup with email validation
    • Customizable role-based permission system
  – Content creation & editing
  – Deep content searching
  – Customizable caching
  – Input sanitization
Services

- SEO & user friendly URL’s
  - www.example.com/this-url-rocks
- Permalinks
  - www.example.com/node/143
- Version control
  - Enable, edit, mess up, roll back (blame somebody)
- Statistics
  - What (content), who (IP/users), from where (referrers), to where (navigation on site)
- Content syndication (RDF/RSS)
Services

• Standard end-product functionality
  – Content types
    • Pages (Page)
    • Blog (Story)
    • Wiki (Book)
Main Concepts

• Model-View-Controller architecture
  – Database
  – Controller logic
  – Theme system
• Cron script
  – Cache, search, tidy up, etc.
• Modules, modules, modules
  – Extension by huge number of enterprise-strength modules = All-purpose web framework
Call stack

• Bottom-up levels of conceptual layers
• Notice low placement of modules = POWERFUL
Node

• Mother of all content
• Very basic information
  – Author
  – Creation date
  – Title
  – Body
• Anything else is up to you (or a module)
Modules

• We’ll save those for later
Blocks

Blocks are boxes of content that may be rendered into certain regions of your web pages, for example, into sidebars. They are usually generated automatically by modules, but administrators can create blocks manually.

Only enabled blocks are shown. You can position blocks by specifying which area of the page they should appear in (e.g., a sidebar). Highlighted labels on this page show the regions into which blocks can be rendered. You can specify where within a region a block will appear by adjusting its weight.

If you want certain blocks to disable themselves temporarily during high server loads, check the "Throttle" box. You can configure the auto-throttle on the throttle configuration page after having enabled the throttle module.

You can configure the behaviour of each block (for example, specifying on which pages and for what users it will appear) by clicking the "configure" link for each block.
Flashback
User permissions

- **Users**
- **Roles**
- **Permission**

**Equals**
- Who can do what
- Access what
- See what

Permissions let you control what users can do on your site. Each user role (defined on the user roles page) has its own set of permissions. For example, you could give users classified as “Administrators” permission to “administer nodes” but deny this power to ordinary, “authenticated” users.

You can use permissions to reveal new features to privileged users (those with subscriptions, for example). Permissions also allow trusted users to share the administrative burden of running a busy site.

<table>
<thead>
<tr>
<th>Permission</th>
<th>anonymous user</th>
<th>authenticated user</th>
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</thead>
<tbody>
<tr>
<td>avchat2 module</td>
<td></td>
<td></td>
</tr>
<tr>
<td>access avchat2 admin interface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>access avchat2 user interface</td>
<td></td>
<td></td>
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<tr>
<td>limit free video time</td>
<td></td>
<td></td>
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<tr>
<td>limit incoming video speed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>block module</td>
<td></td>
<td></td>
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<tr>
<td>administer blocks</td>
<td></td>
<td></td>
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<tr>
<td>use PHP for block visibility</td>
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<tr>
<td>coder module</td>
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<tr>
<td>view code review</td>
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<tr>
<td>view code review all</td>
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<tr>
<td>comment module</td>
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<tr>
<td>access comments</td>
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<tr>
<td>administer comments</td>
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<tr>
<td>post comments</td>
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<tr>
<td>post comments without approval</td>
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<tr>
<td>deadwood module</td>
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<tr>
<td>manage conversions</td>
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</tbody>
</table>
 Templates

• How content appears
  – Same site, different theme
Examples

- 5-minute CMS
  - WITH ONE HAND!
- Views
5-minute CMS - ONE HANDED
Views

Drupal Test

Testpage

Hello from test
The downside

• High maintenance
  – Must be updated regularly to be secure
    • http://drupal.org/node/661600
  – Updates are time-consuming (unlike Wordpress 1-click updates)
    • My fervent prayer: Improved in Drupal 7

• No reselling without GPL’ing
  – Anyone got a business model for selling a good gamesite under the GPL?

• +1 million nodes requires special handling
  – Not really downside as so does most other frameworks, and can be handled
The upside

• EVERYTHING ELSE PRESENTED!
• Skeptical? Take two CMS frameworks and call me in the morning.
### The literature

- Don’t call me – read!
- Good resources to learn drupal (and the sources for these slides)
  - Drupal.org documentation
    - HUGE user base
    - Living, breathing, frothing community
  - Books

<table>
<thead>
<tr>
<th>Using Drupal (O’Reilly)</th>
<th>Drupal 6 Themes</th>
<th>Learning Drupal 6 Module Development</th>
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<td><img src="image1" alt="Using Drupal" /></td>
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Questions?