A Gentle Introduction

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Systems, Frameworks and APIs, Oh My!
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- *Content Management System* built on the
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• *Content Management System* built on the
• *Framework*, which uses the
Systems, Frameworks and APIs, Oh My!

- *Content Management System* built on the
- *Framework*, which uses the
- *APIs* (Application Programming Interface)
What is where?

- includes
- misc
- modules
- profiles
- scripts
- sites
- themes
  - cron.php
  - index.php
  - install.php
  - robots.txt
  - update.php
  - xmlrpc.php
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- actions.inc
- bootstrap.inc
- common.inc
- database.inc
- form.inc
- menu.inc
- theme.inc
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- bootstrap.inc
- common.inc
- database.inc
- form.inc
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- theme.inc

misc
modules
profiles
scripts
sites
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cron.php
index.php
install.php
robots.txt
update.php
xmlrpc.php

base_path()
format_date()
l()
t()
url()
Hooks

- Naming convention
  - hook_* where hook is replaced by your module name
- Lets modules add their own stuff to Drupal’s workflow
A hook example

Hey modules! I’m gonna display the permissions page, you have anything you want me to add?
hook_perm

I do!  I don’t

blog  block  blogapi

me too
I do!

I don’t

me too
block_perm

I do!

me too

I don’t

blog

block

blogapi
hook_perm

I do!

I don’t

me too

blog

blogapi

block
Voila!

<table>
<thead>
<tr>
<th>Permission</th>
<th>anonymous user</th>
<th>authenticated user</th>
</tr>
</thead>
<tbody>
<tr>
<td>block module</td>
<td></td>
<td></td>
</tr>
<tr>
<td>administer blocks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>use PHP for block visibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>blog module</td>
<td></td>
<td></td>
</tr>
<tr>
<td>create blog entries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>delete any blog entry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>delete own blog entries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>edit own blog entries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>edit any blog entry</td>
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<td></td>
</tr>
</tbody>
</table>
The Train Analogy
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• It goes to the hook_nodeapi stop
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• Gets to the Theme depot
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• The Node Train leaves the station with node/12 hitched
• It goes to the hook_nodeapi stop
  • Attaches the taxonomy and comment cars
• Gets to the Theme depot
• Goes on to the Browser Terminal
Some major players

• Menu
• Form
• Database
• Theme
Menu

- menu.inc, not menu.module

- maps URLs to functions

- functions can display output and initiate actions
FAPI

- form.inc
- handles the form, validation and submission
Database

- database.inc (and database*.inc)
- schema creation
- abstracted to work with multiple databases
Theme layer

- theme.inc

- system module has default block, box, page tpls

- other tpls are in the respective module folder
Themes rule

- Modules put all output in theme functions or tpl files
- All theme functions pass through the core theme() function
- Order of priority:
  - theme_function_name()
  - phptemplate_function_name()
  - mytheme_function_name()
Resources

• Developer/Theme handbooks
• Drupal source code/api.drupal.org
• Dev/Theme mailing lists (drupal.com/mailing-lists)
• IRC: #drupal (#drupal-dev) #drupal-themes
• Issue queues
• Paper books
  • PDD, Learning Drupal 6 Module
  Development, Drupal 5 Themes