

# Designing for Drupal

John Albin Wilkins

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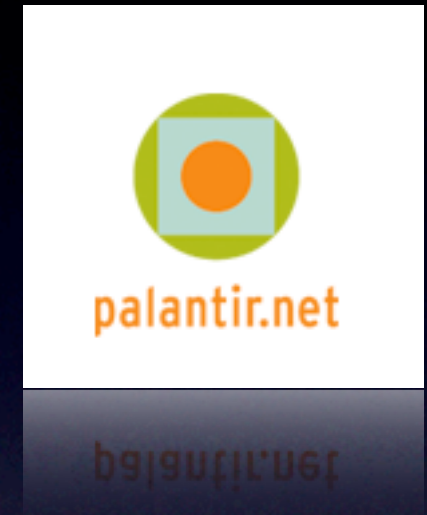
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DECEMBER 10 - 12, 2008





# Who is this guy anyway?

- Real Name: John Albin Wilkins  
Drupal Nick: JohnAlbin
- I've been writing HTML since 1994.
- I've been developing CSS Layouts since 2001  
ALA: A List Apart Issue #99 (February 2001).  
"To Hell with Bad Browsers" By Jeffrey Zeldman
- Building Drupal websites since Sep 2005.
- Contributing to Drupal for 2 years.





# Designing for Drupal

Drupal theming has long been seen as a dark art. There are many *Drupalisms* such as CSS class names, XHTML structure, and PHP knowledge which web designers should be aware of before embarking on a Drupal project. John Wilkins is a CSS master and the maintainer of Drupal's respected Zen theme framework. This session will be a must for designers or anyone who has struggled with CSS.

- ▶ Drupal Theming Layer
- ▶ Templates and preprocessors
- ▶ XHTML and PHP
- ▶ Base Themes ftw
- ▶ CSS and class names
- ▶ Where to go for help



# Taking Control (and giving up)

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# Herron School of Art and Design

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## User login

Username: \*

Password: \*

- [Create new account](#)
- [Request new password](#)

### Local stories

- Local story #1  
Joe Thompson '08, Wooden Crane and Silent  
[more](#)  
Local
- IUPUI Duke Energy Center, Columbus, IN  
Joe Thompson '08, Wooden Crane and Silent  
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[more](#)  
Local

### National stories

- National story #1  
Lifejackets, Eric Nordgulen (sculpture faculty), permanent  
[more](#)  
National
- Piedmont Park, Atlanta  
Lifejackets, Eric Nordgulen (sculpture faculty), permanent  
[more](#)  
National
- Piedmont Park, Atlanta  
Lifejackets, Eric Nordgulen (sculpture faculty), permanent  
[more](#)  
National

# Theming Example



**HERRON SCHOOL of ART and DESIGN**

**International story #1** Clifford the Big Red Dog (children's television series.) Norman Bridwell '64... more

**National story #1** Lifejackets, Eric Nordgulen (sculpture faculty), permanent... more

**Local story #1** Joe Thompson '08, Wooden Crane and Silent... more

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**BBC, London** Clifford the Big Red Dog (children's television series.) Norman Bridwell '64... more

**Piedmont Park, Atlanta** Lifejackets, Eric Nordgulen (sculpture faculty), permanent... more

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# Theming Example



# Drupal Design

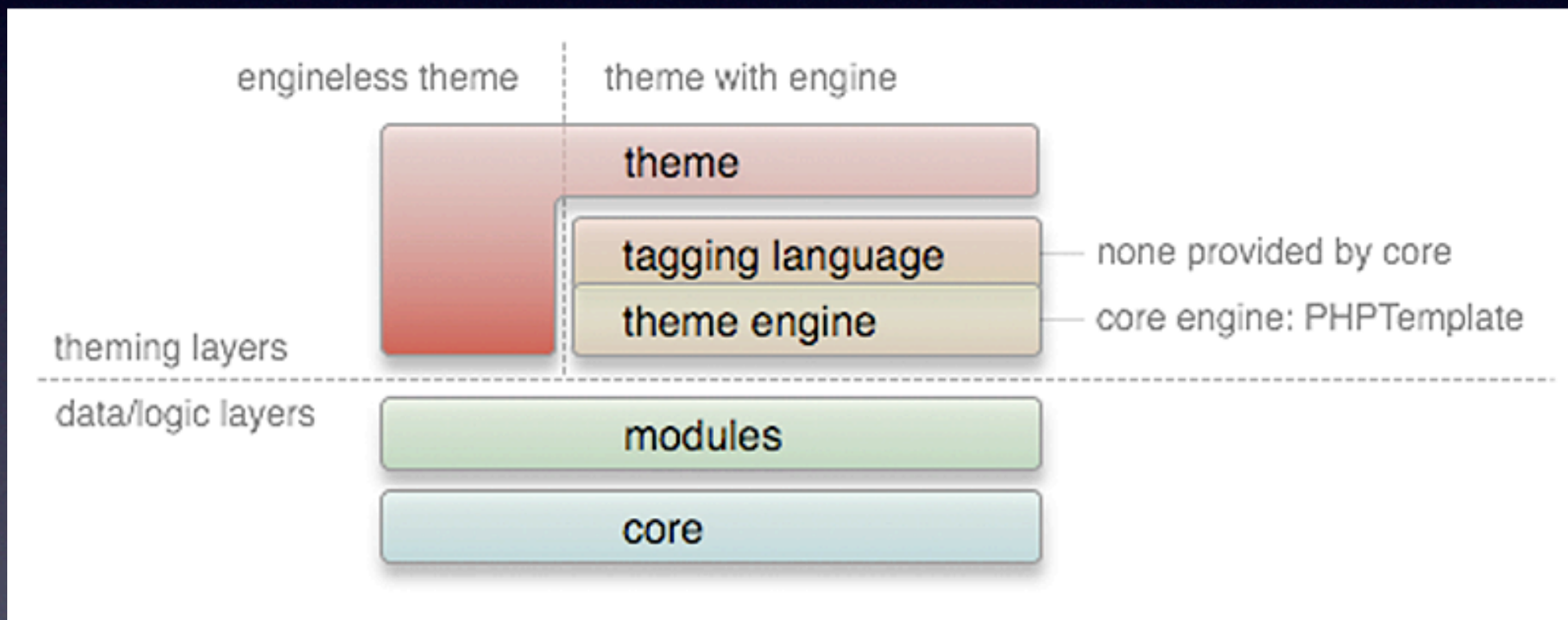






# Drupal's Theme Layer

(the big picture)



## Drupal Architecture



# Drupal's Theme Layer

(the big picture)

The screenshot shows the Drupal website interface. At the top, there is a blue header with the Drupal logo and the word 'Drupal' in large white text. To the right of the logo are navigation links: 'Documentation', 'Download', 'Support', 'Forum', 'Contribute', and 'Contact'. Below the header is a search bar with the text 'Search' and a search button. The main content area is divided into three columns. The left column is a 'Theming guide' sidebar with a list of links: 'About theming', 'Drupal 6 theme guide', 'Specifying theme components and settings', 'Working with CSS', 'Overriding themable output', 'About overriding themable output', 'Preprocess functions', 'Default baseline variables', and 'The theme registry'. The middle column is the main content area, titled 'Architectural view of theming'. It has three tabs: 'View', 'Edit', and 'Revisions'. Below the tabs, it says 'Last modified: December 2, 2008 - 09:44' and 'Drupal 6.x'. The main text starts with 'This page provides background information on the underlying architecture of theming. It will be of interest to people who need a deeper understanding of how overrides work.' followed by a paragraph: 'A common software practice is to compartmentalize the programming layer from the presentation layer. There are numerous reasons for this, the most obvious being that the skill set required for programming the back-end business logic is very different from creating a visually appealing and effective user interface. As a theme developer, you can control certain aspects of the available data, but it is limited to the output and presentation. Only Drupal core and modules should work with input. For example, a module can implement a form with a default look and feel and handle user input, saving it to the database. The theme's role is only to override the look and feel.' The right column contains a user profile for 'JohnAlbin' with a list of links: 'Drupalcon DC Mar 4-7', 'Create content', 'Issues', 'My projects', 'My account', 'Recent posts', 'News aggregator', and 'Log out'. Below the profile is a 'Search downloads' section with a search bar and the text 'Search modules, themes and other Drupal downloads.' and a search button. At the bottom right, there is a 'Contributor links' section.

Drupal

Documentation Download Support Forum Contribute Contact

Home » Theming guide » Drupal 6 theme guide » Overriding themable output

Search

**Theming guide**

- ▶ About theming
- ▼ **Drupal 6 theme guide**
  - ▶ Specifying theme components and settings
  - ▶ Working with CSS
  - ▼ **Overriding themable output**
    - About overriding themable output
    - Preprocess functions
    - Default baseline variables
    - The theme registry

**Architectural view of theming**

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

Last modified: December 2, 2008 - 09:44 Drupal 6.x

This page provides background information on the underlying architecture of theming. It will be of interest to people who need a deeper understanding of how overrides work.

A common software practice is to compartmentalize the programming layer from the presentation layer. There are **numerous reasons** for this, the most obvious being that the skill set required for programming the back-end **business logic** is very different from creating a visually appealing and effective user interface. As a theme developer, you can control certain aspects of the available data, but it is limited to the output and presentation. Only Drupal core and modules should work with input. For example, a module can implement a form with a default look and feel and handle user input, saving it to the database. The theme's role is only to override the look and feel.

This abstraction in Drupal is achieved through the **theme** function. It is a conduit to the theming subsystem. It allows

**JohnAlbin**

- Drupalcon DC Mar 4-7
- ▶ Create content
- ▶ Issues
- My projects
- My account
- Recent posts
- ▶ News aggregator
- Log out

**Search downloads**

Search modules, themes and other Drupal downloads.

Search

**Contributor links**



# Drupal's Theme Layer

(the big picture)

**Theming guide**

- ▶ About theming
- ▼ **Drupal 6 theme guide**
  - ▶ Specifying theme components and settings
  - ▶ Working with CSS
  - ▼ **Overriding themable output**
    - About overriding themable output
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## Architectural view of theming

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### JohnAlbin

- Drupalcon DC Mar 4-7
- ▶ Create content
- ▶ Issues
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### Search downloads

Search modules, themes and other Drupal downloads.

### Contributor links



# Drupal's Theme Layer

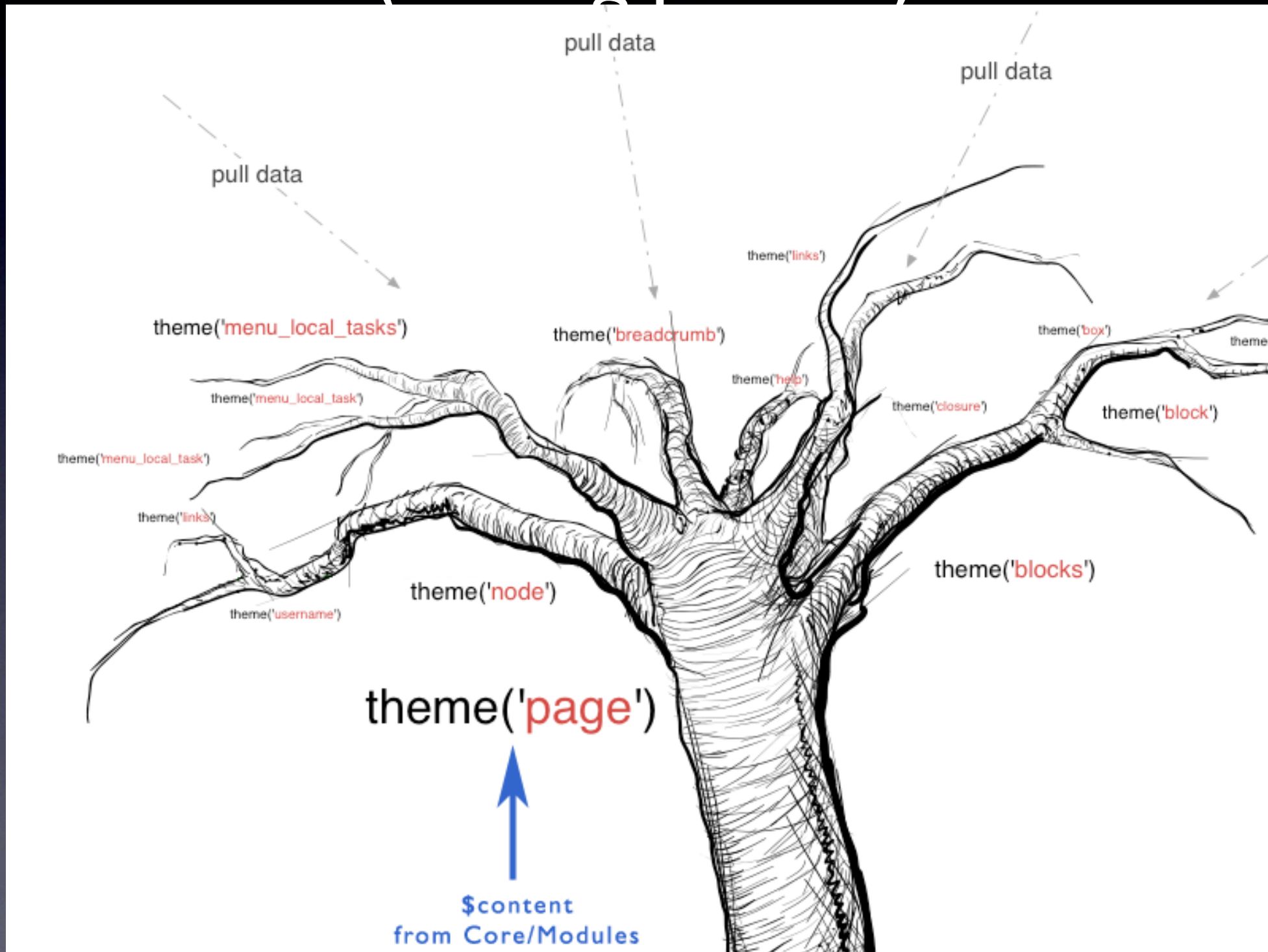
(the big picture)

The screenshot shows the Drupal website interface. At the top is the Drupal logo and navigation links: Documentation, Download, Support, Forum, Contribute, and Contact. Below the navigation is a search bar and a breadcrumb trail: Home » Theming guide » Drupal 6 theme guide » Overriding themable output. The main content area is titled 'Architectural view of theming' and includes buttons for View, Edit, and Revisions. The text explains that this page provides background information on the underlying architecture of theming, noting that it is of interest to people who need a deeper understanding of how overrides work. It discusses the common software practice of compartmentalizing the programming layer from the presentation layer, highlighting that numerous reasons exist for this, with the most obvious being that the skill set required for programming the back-end business logic is very different from creating a visually appealing and effective user interface. As a theme developer, you can control certain aspects of the available data, but it is limited to the output and presentation. Only Drupal core and modules should work with input. For example, a module can implement a form with a default look and feel and handle user input, saving it to the database. The theme's role is only to override the look and feel. This abstraction in Drupal is achieved through the theme function. It is a conduit to the theming subsystem. It allows

On the left, there is a 'Theming guide' sidebar with a tree view showing the current page's location. On the right, there is a user profile for 'JohnAlbin' with links to 'Drupalcon DC Mar 4-7', 'Create content', 'Issues', 'My projects', 'My account', 'Recent posts', 'News aggregator', and 'Log out'. Below that is a 'Search downloads' section with a search input and a 'Search' button. At the bottom right, there is a 'Contributor links' section.



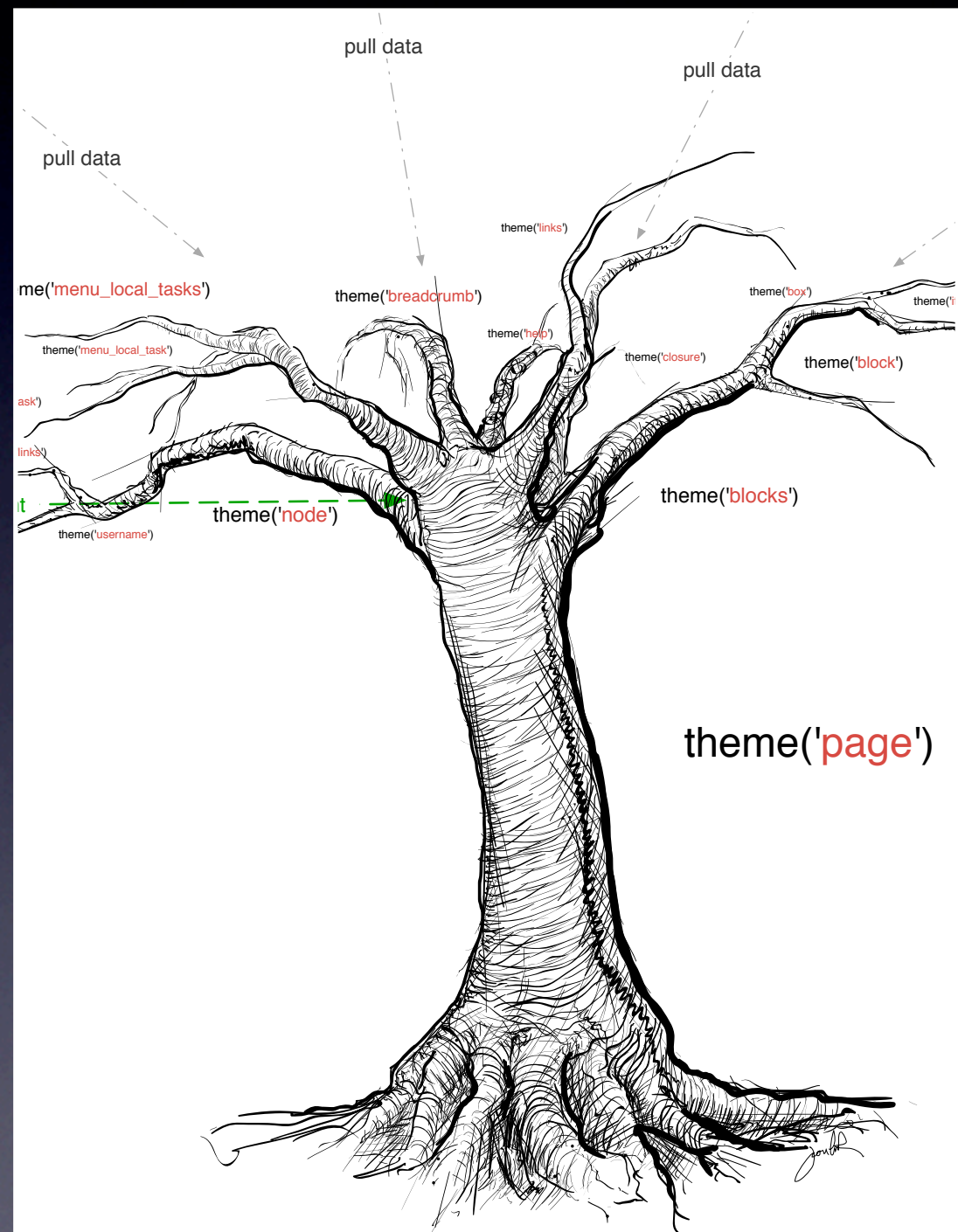
# Drupal's Theme Layer (the big picture)





# Drupal Templates

- ▶ `page.tpl.php`
- ▶ `node.tpl.php`
- ▶ `block.tpl.php`
- ▶ `comment.tpl.php`
- ▶ `node-story.tpl.php`  
`node-[type].tpl.php`
- ▶ `page-node-37.tpl.php`





# Template Variables

```
<div id="node-<?php print $node->nid; ?>" class="<?php print $classes;
?>"><div class="node-inner">

<?php print $picture; ?>

<?php if (!$page): ?> ← Conditional
  <h2 class="title">
    <a href="<?php print $node_url; ?>" title="<?php print $title
    ?>"><?php print $title; ?></a>
  </h2>
<?php endif; ?> ← Title

<?php if ($unpublished): ?>
  <div class="unpublished"><?php print t('Unpublished'); ?></div>
<?php endif; ?>

<?php if ($submitted or $terms): ?>
  <div class="meta">
    <?php if ($submitted): ?>
      <div class="submitted">
        <?php print $submitted; ?> ← Author
      </div>
    <?php endif; ?>

    <?php if ($terms): ?>
      <div class="terms terms-inline"><?php print t(' in ') . $terms;
      ?></div>
    <?php endif; ?>
  </div>
<?php endif; ?>

<div class="content">
  <?php print $content; ?> ← content
</div>

<?php print $links; ?> ← "Read More", etc.

</div></div> <!-- /node-inner, /node -->
```

← Title

← NODE  
Template

node.tpl.php



# Preprocess Functions

```
/**
 * Override or insert PHPTemplate variables into the page templates.
 *
 * @param $vars
 *   A sequential array of variables to pass to the theme template.
 * @param $hook
 *   The name of the theme function being called ("page" in this case.)
 */
function STARTERKIT_preprocess_page(&$vars, $hook) {
  $vars['title'] .= ', eh?'; // Canadian translation.
}

/**
 * Override or insert PHPTemplate variables into the node templates.
 *
 * @param $vars
 *   A sequential array of variables to pass to the theme template.
 * @param $hook
 *   The name of the theme function being called ("node" in this case.)
 */
function STARTERKIT_preprocess_node(&$vars, $hook) {
  $vars['new_variable'] = t('Lorem ipsum.');
```

← Page Variable modifications

← Node Variable Additions

template.php is found in your theme directory



# What was the part in the middle?

<http://drupal.org/theme-guide>



# Base Themes

Powerful Frameworks for

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# Benefits of Base Themes

## Sub-theme of a Base Theme

- **You don't have to build everything yourself.** Copy, override, and modify only what you need to.
- **Bug fixes.**  
Others can fix any bugs in the base theme.
- **New features.**  
For contrib Themes, there will occasionally be new features.
- **Support.**  
If you have modified an existing theme, sometimes the only answer you will get to your support question is “Well, it works fine in the original theme.”

## DIY Theme

- **You get to build everything by yourself!**
- **Bugs!**
- **You get to build everything yourself!**
- **pphft.**



# 禪 zen

extend and design



<http://drupal.org/project/zen>



# Why use Zen?

- Designed for beginners and Theming ninjas.
- Extensive on-line documentation.
- Step-by-step instructions on building your own sub-theme.
- Extensive in-line comments in its PHP and CSS files.



# Why use Zen?

- Designe
- Extensi
- Step-by
- Extensi

```
.block h2.title /* Block title */
{
}

.block .content /* Block's content wrapper */
{
}

#block-aggregator-category-1 /* Block for the latest news items in the
first category */
{
}

#block-aggregator-feed-1 /* Block for the latest news items in the first
feed */
{
}

#block-block-1 /* First administrator-defined block */
{
}

#block-blog-0 /* "Recent blog posts" block */
{
}

#block-book-0 /* "Book navigation" block for the current book's table of
contents */
{
}

#block-comments-0 /* "Recent comments" block */
{
}
```

me.

```
}
}
#block-comments-0 /* "Recent comments" block */
```



# Why use Zen?

- Designed for beginners and Theming ninjas.
- Extensive on-line documentation.
- Step-by-step instructions on building your own sub-theme.
- Extensive in-line comments in its PHP and CSS files.
- It's also got a laundry list of features. (which are exciting to use, but boring to list.)
- A fantastically flexible CSS Layout method (that even works with IE5.5.)



# Drupal CSS

Class Names, CSS Tips, Zen Tricks

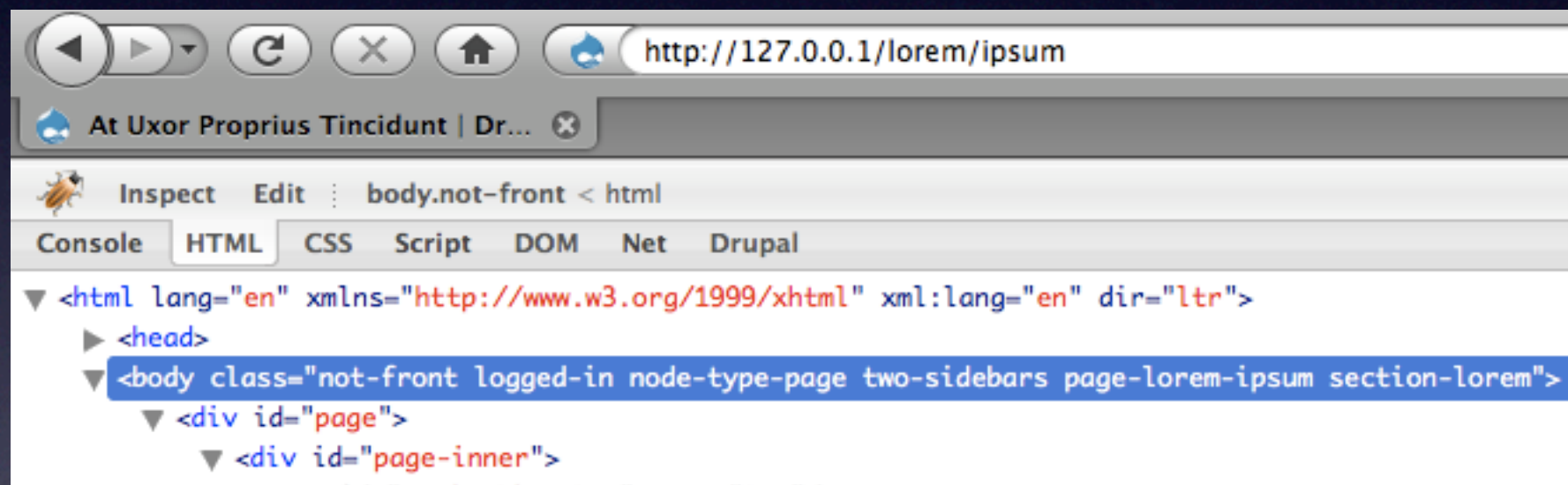
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# Body Classes



A screenshot of a web browser's developer tools interface. The address bar shows the URL `http://127.0.0.1/lorem/ipsu...`. The browser tab is titled "At Uxor Proprius Tincidunt | Dr...". The developer tools are open to the "HTML" tab, showing the DOM tree. The `<body>` tag is selected and highlighted in blue. The `class` attribute of the `<body>` tag is visible, containing the following classes: `not-front logged-in node-type-page two-sidebars page-lorem-ipsu... section-lorem`. The DOM tree also shows nested `<div id="page">` and `<div id="page-inner">` elements.

```
<html lang="en" xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" dir="ltr">
  <head>
  <body class="not-front logged-in node-type-page two-sidebars page-lorem-ipsu... section-lorem">
    <div id="page">
      <div id="page-inner">
```



# Body Classes

## Core provides:

- ▶ `.front`, `.not-front`
- ▶ `.logged-in`, `.not-logged-in`
- ▶ `.page-PATH`  
(internal path, first part only)  
*example: `.page-admin`, `.page-node`*
- ▶ `.node-type-TYPE`  
*example: `.node-type-event`*

## Zen provides:

- ▶ `.two-sidebars`,  
`.one-sidebar.sidebar-left`,  
`.one-sidebar.sidebar-right`,  
`.no-sidebars`
- ▶ `.page-PATH-ALIAS` (full path)  
*example: `.page-about-staff`*
- ▶ `.section-PATH`  
(url path, first part only)  
*example: `.section-about`*
- ▶ `.section-node-add`,  
`.section-node-edit`,



# Body Classes

## Core provides:

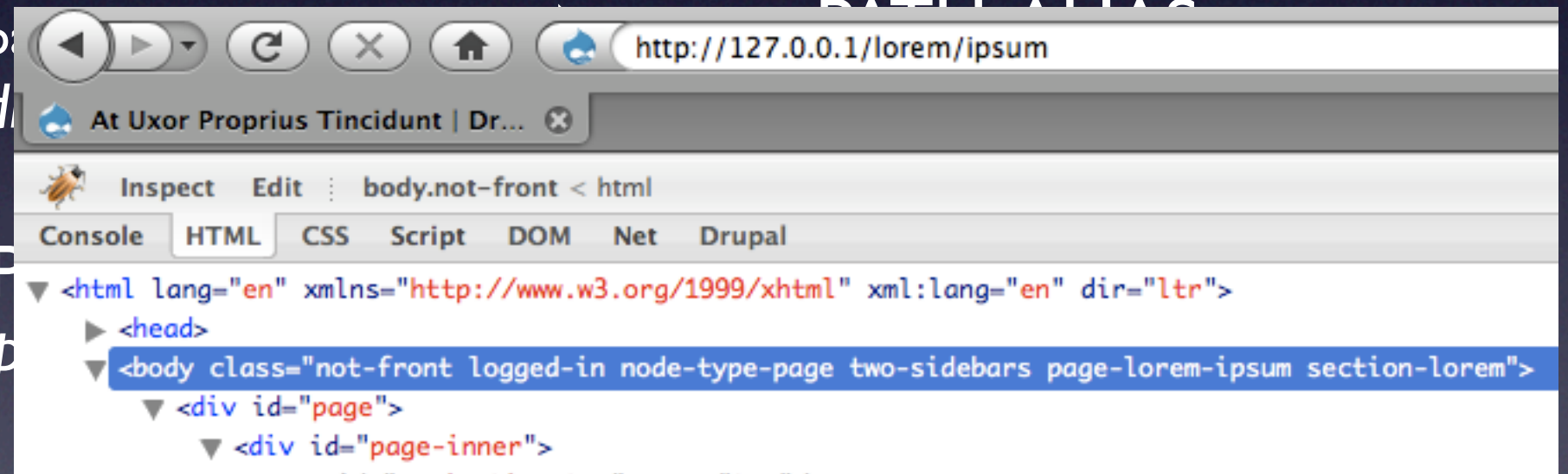
- ▶ `.front`, `.not-front`
- ▶ `.logged-in`, `.not-logged-in`
- ▶ `.page-PATH`

(internal path, first part of URL)  
example: `.page-admin`

- ▶ `.node-type-TYPE`  
example: `.node-type-page`

## Zen provides:

- ▶ `.two-sidebars`,  
`.one-sidebar.sidebar-left`,  
`.one-sidebar.sidebar-right`,  
`.no-sidebars`



- ▶ `.section-node-add`,  
`.section-node-edit`,



# Node and Comment Classes

(if you use Zen)

- .sticky
- .node-unpublished
- .node-mine
- .node-teaser
- .node-type-TYPE
- .comment-new
- .first
- .last
- .comment-by-anon
- .comment-by-author
- .comment-mine



# Brief overview of Zen's Layout method

- Source-ordered HTML: The importance of the pieces of content determines the order in HTML, and not the graphic design.
- Flexible layout options:
  - Fluid (100% width) or fixed-width layout
  - Optional horizontal navbar
  - 1-3 columns built-in. More columns are possible without mind-bending contortions.
- Zen's default Layout Method is completely pluggable. If you don't like it, just replace the layout.css file with your own layout



# Brief overview of Zen's Layout method

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- li

```
#page (container)
  #header
  #main (container)
    #content
    #navbar
    #sidebar-left
    #sidebar-right
  #footer
```

es of content  
c design.

e without

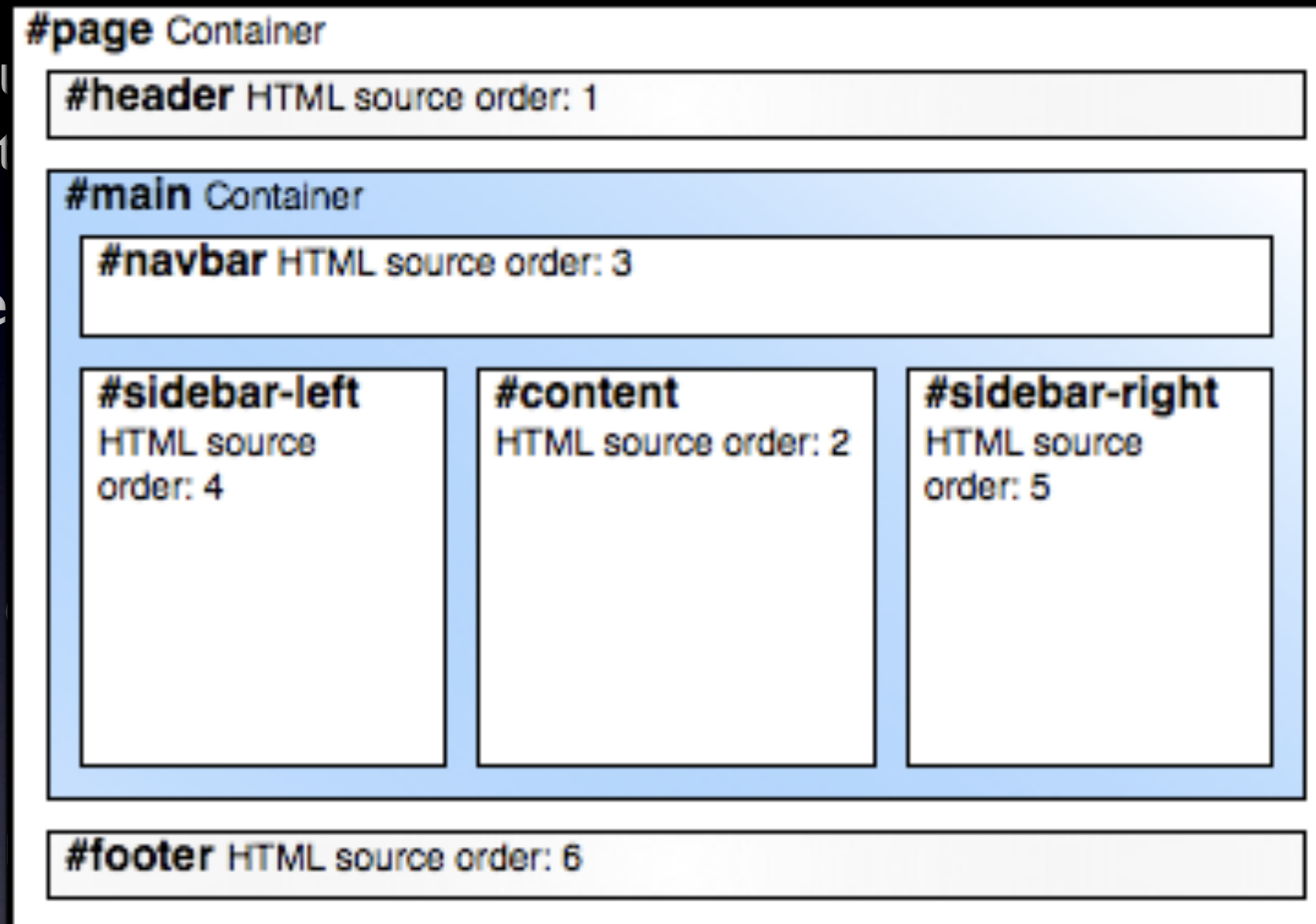
e. If you don't  
layout



# Brief overview of Zen's Layout method

- Source
- details

- Flex



s of content design.

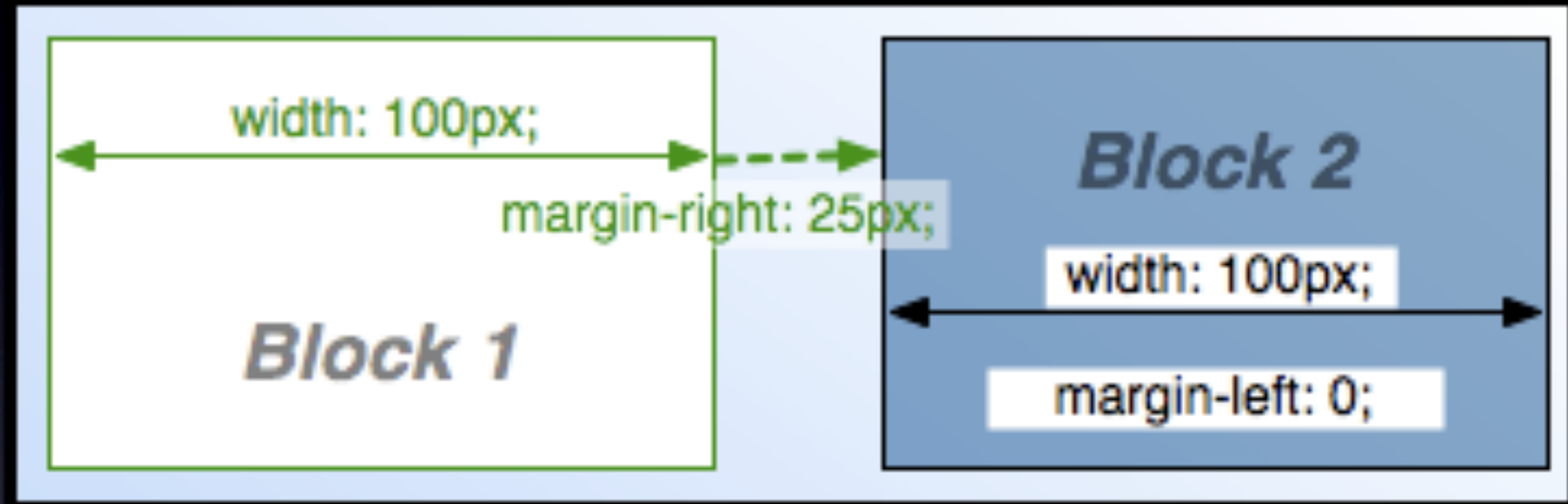
without

- Zen's default Layout Method is completely pluggable. If you don't like it, just replace the layout.css file with your own layout



# Negative Margins

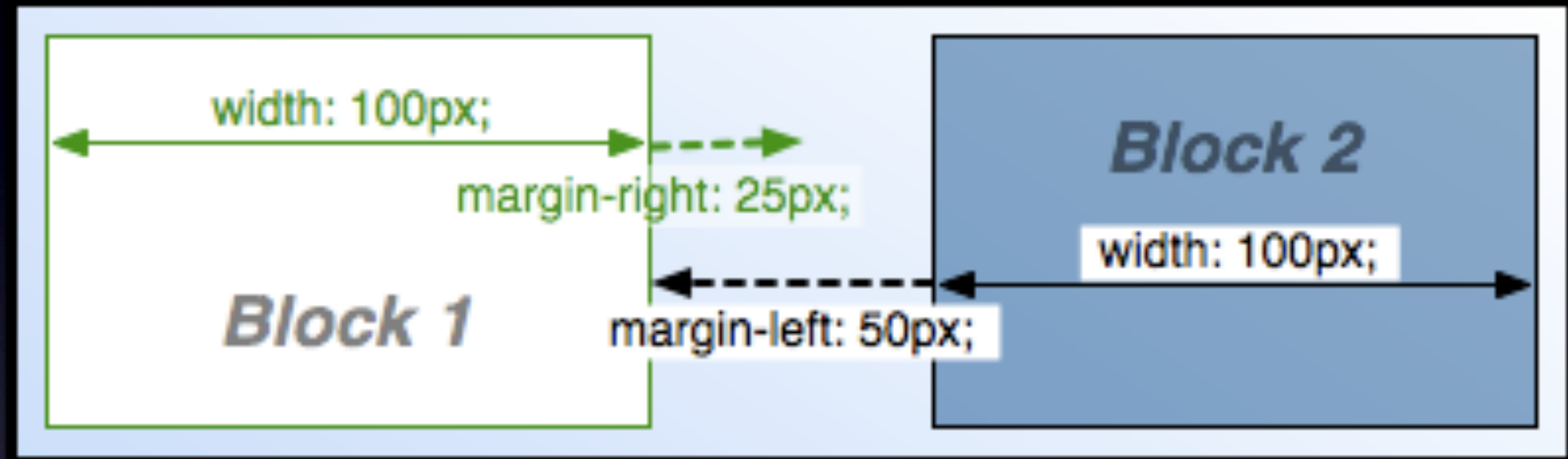
(and positive results)



(These blocks have `float: left;` )



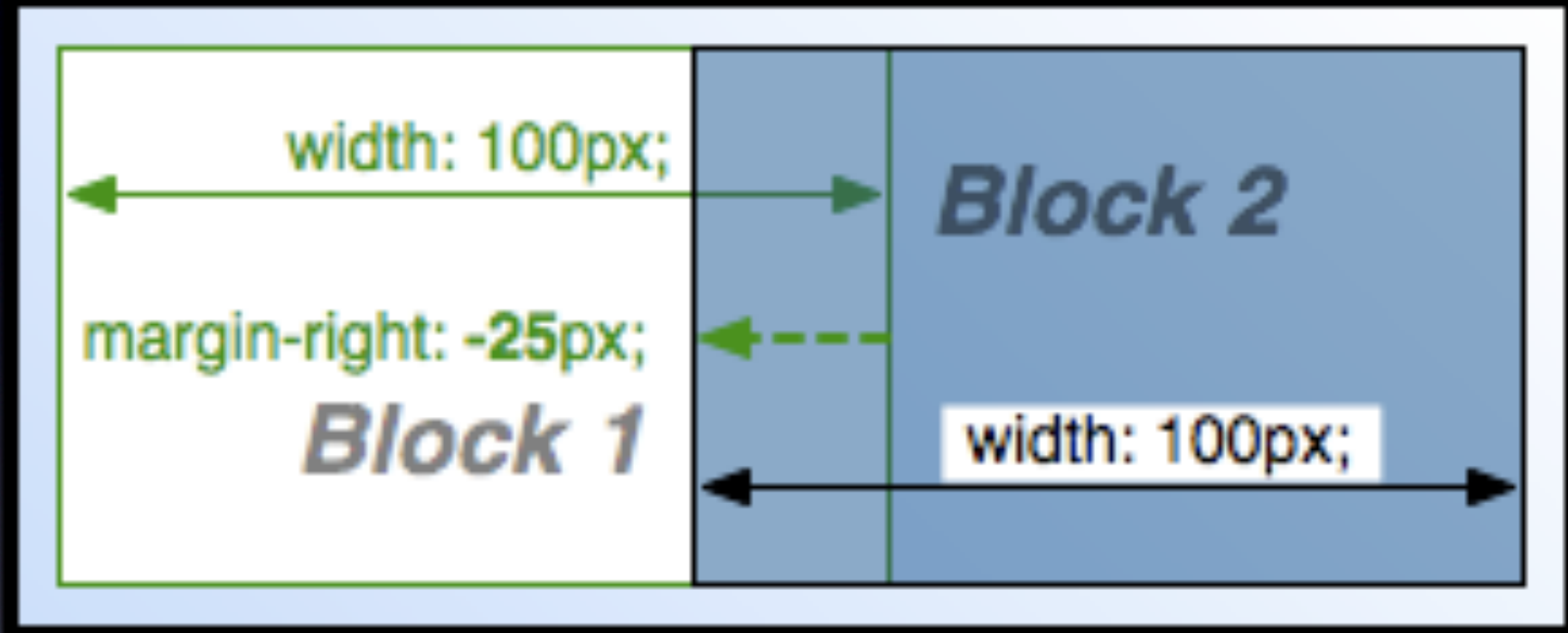
# Negative Margins (and positive results)



(These blocks have `float: left;` )



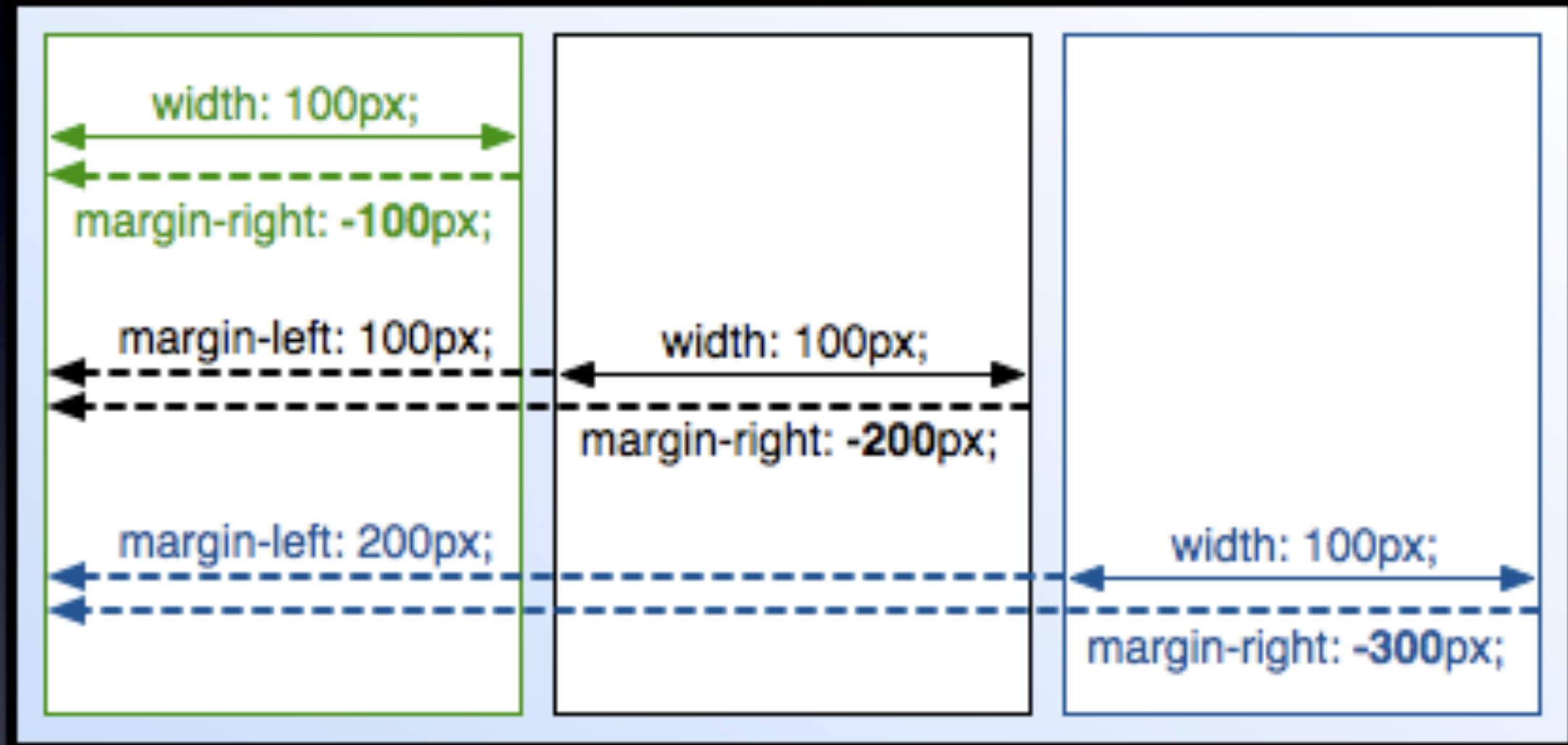
# Negative Margins (and positive results)



(These blocks have `float: left;` )



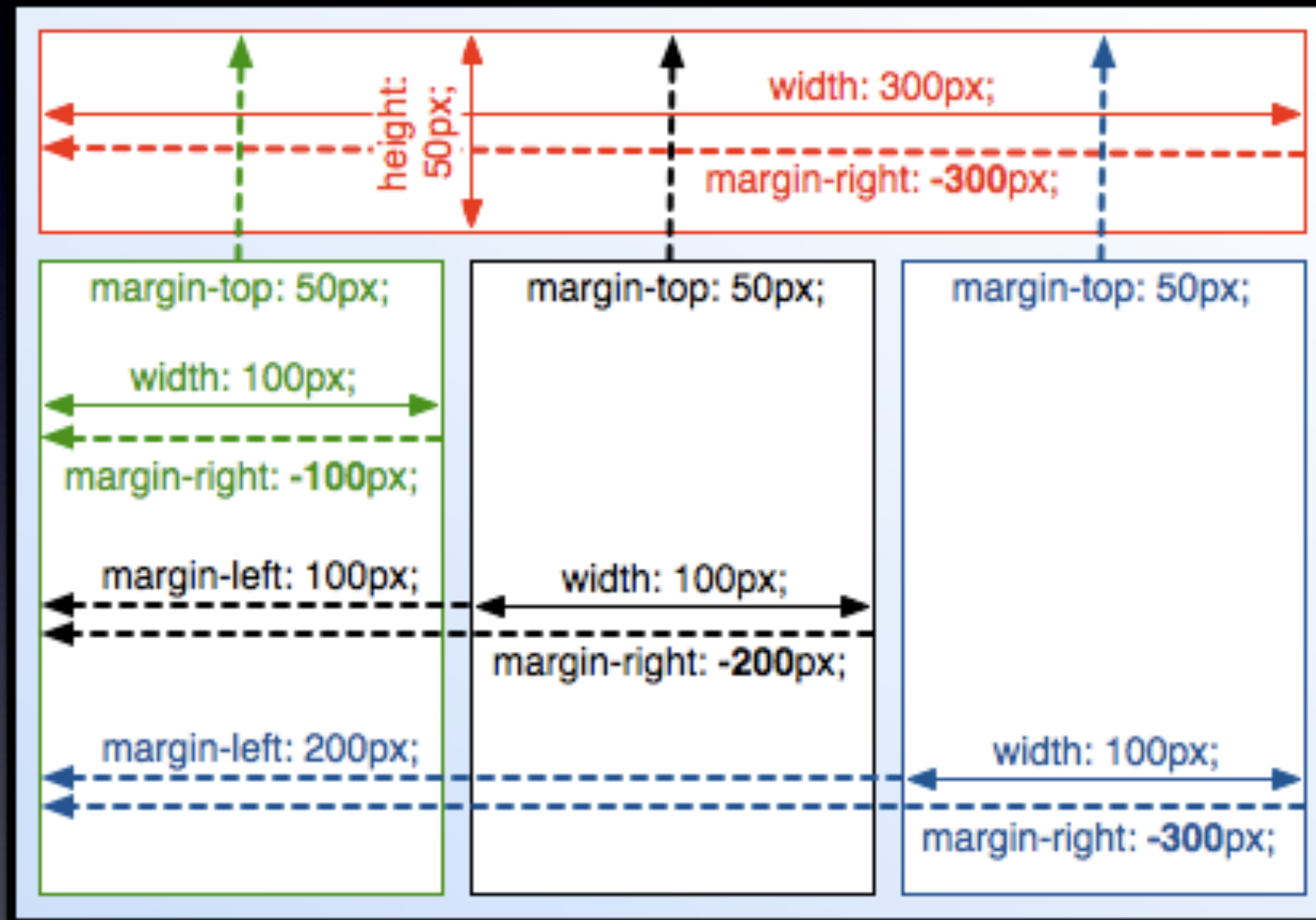
# Negative Margins (and positive results)



( These blocks have `float: left;` )



# Negative Margins (and positive results)





# Getting Help

-  <http://drupal.org/theme-guide>
-  <http://drupal.org/project/zen>
-  <http://drupal.org/irc>
  -  #drupal-themes
  -  #drupal-support
  -  #drupal

