

# Visual Regression Testing + Drupal

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# About this session

- Types of testing
- Why Visual testing?
- What to test?
- Manual vs Automated testing
- Drupal module for testing
- Demo
- Best practices / Tips

# Types of Testing

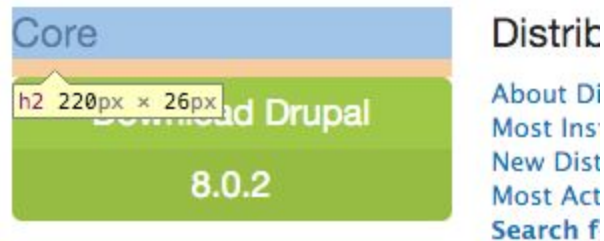
- Unit testing
- Functional testing
- Load testing
- Usability testing
- Security testing
  
- Visual testing

# Why Visual testing?

## Download & Extend

Download & Extend Home **Drupal Core**

Download Drupal core files, and extend your s



Core


Download Drupal

8.0.2

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Other Releases



Elements Console Sources Network Tin

```
<div id="download">  
  <div class="core">  
    <h2>Core</h2>  
    <ul class="flat">...</ul>  
  </div>
```

```
media="all"  
h2, .h2 {  
  font-family: "Helvetica  
    Neue", Helvetica, Arial,  
  font-size: 1.538em;  
  font-weight: normal;  
  line-height: 1.35em;  
  margin: 0.9em 0 0.45em;  
  color: #097bc1;  
}
```

## Download & Extend

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Download Drupal core files, and extend your



Core

Download Drupal

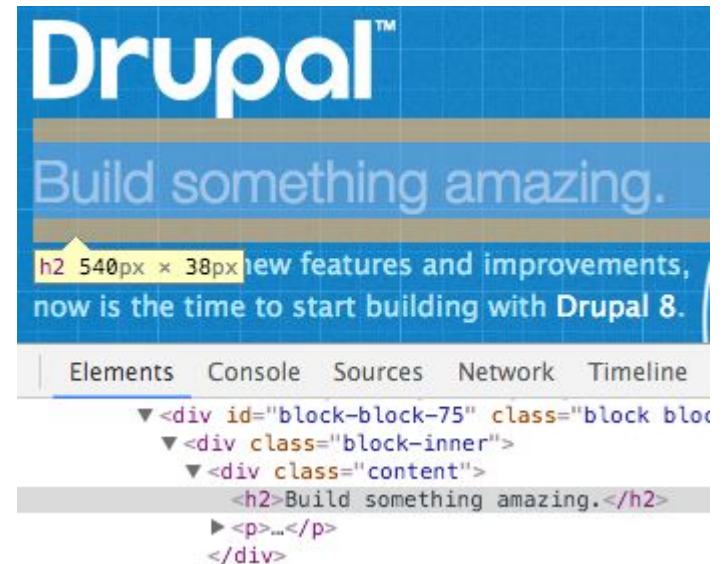
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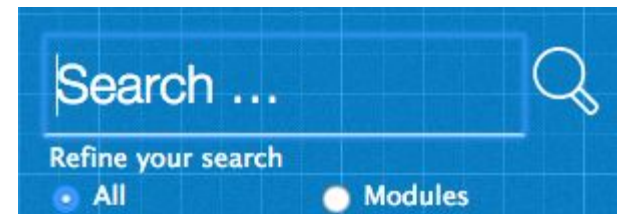
Other Releases

# Why Visual testing? (contd....)



# What to test?

## Drupal.org



## Welcome to Drupal.org


[Create new account](#) [Log in](#) [Request new password](#)

Username or email \*

Password \*

Log in

# What to test? (contd....)

**Drupal™** views   
[Log in](#) / [Register](#)

Found 6569 results containing the words: **views**

- Maintenance status
- Development status
- Module categories
- Core compatibility
- Status
- Sort by

**Did you mean**  
[view](#)

## Views

Posted by [merlinofchaos](#) on *October 28, 2015 at 9:20pm*

You need **Views** if You like the default front page **view**, but you find you want to sort it ... differently. You like the default taxonomy/term **view**, but you find you want to sort it differently; for ... **Views** can do a lot more than that, but those are some of the obvious uses of **Views**.  
[Views for Drupal ...](#)

Module project

## Search again

## or filter by...

- All (435182)
- Forums & Issues (411296)
- Documentation (17085)
- Modules (6569)**
- Themes (193)
- Groups (39)

## or search for...

- [IRC Nicks](#)
- [Users](#)



# Manual/Automated Testing



Courtesy: <http://blog.gfader.com/2010/10/why-are-automated-tests-so-important.html>

# Automated Testing

- Faster feedback
- Saves time
- Safety net for code changes
- Humans make mistakes

Drupal module for testing

Drupal + Selenium

#Drulanium

<https://www.drupal.org/project/drulanium>

# Drulenum Visual Testing Concept

- System takes screenshots of web pages, before you make changes.
- System takes another set of Image screenshots of web pages, after you make changes.
- System calculates the difference of image pixels that changed and generates an animated GIF to look at.

## Baseline



This is my teaser title

**MICAH GODBOLT**  
OCTOBER 31ST, 2014

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## New



**THIS IS MY TEASER TITLE**

**MICAH GODBOLT**  
OCTOBER 31ST, 2014

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## Diff



**THIS IS MY TEASER TITLE**

**MICAH GODBOLT**  
OCTOBER 31ST, 2014

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# Drulenum

The screenshot shows the 'Content' management page in Drulenum. At the top, there is a navigation bar with 'Back to site', 'Manage', 'Shortcuts', and the user 'techadmin'. Below this, the 'Content' section is highlighted with a star icon. There are three tabs: 'Content', 'Files', and 'Comments'. A breadcrumb trail shows 'Home » Administration'. A blue button labeled '+ Add content' is present. Below it, there are filters for 'Published status' and 'Type', both set to '- Any -', and a 'Title' search field. A 'Filter' button is located below the filters. A table header is visible with columns: 'TITLE', 'CONTENT TYPE', 'STATUS', and 'OPERATIONS'. Below the table, the text 'No content available.' is displayed.



# Drush integration

```
[NDubbaka-mbp:drulenum hhdtemp12$ sudo drush|grep vr-  
[Password:  
  vr-create (vrc)          Create release and generate snapshots.  
  vr-diff (vrd)           Generate comparison report for 2 releases.  
  vr-update (vru)         Generate new snapshots for a release.  
NDubbaka-mbp:drulenum hhdtemp12$ █
```



# Aegir & DevShop integration

[https://www.drupal.org/project/hosting\\_drulenum](https://www.drupal.org/project/hosting_drulenum)

[https://www.drupal.org/project/provision\\_drulenum](https://www.drupal.org/project/provision_drulenum)

The screenshot shows the DevShop interface for a Drupal project. At the top, there's a navigation bar with 'DevShop', 'Log out', 'Servers', and 'Projects'. Below that, the project name 'drupal' is displayed. A navigation menu includes 'Dashboard', 'Settings', and 'Logs'. The repository is identified as 'git@github.com:jonpugh/drupal.git'. The interface shows three environments: 'live', 'dev', and 'test', each with a 'Deploy' button and a commit history entry: '1ae3ba2 Jon Pugh 2 days ago Adding drupal 7.34'. A 'Create New Environment' button is visible at the bottom right of the environment list.



# Other tools

[github.com/BBC-News/wraith](https://github.com/BBC-News/wraith)

[github.com/Huddle/PhantomCSS](https://github.com/Huddle/PhantomCSS)

The screenshot shows the top navigation bar of the BBC News website. It includes the BBC logo, a search icon, and a 'Menu' link. Below the navigation bar is a red 'NEWS' header with a 'Sections' dropdown menu. The main article title is 'Budget 2012 in full: As it happened'. There are two tabs: 'Live text' (selected) and 'Commentary'.

## Key points

- The top income tax rate will be reduced to 45% from April next year
- The stamp duty rate on properties worth more than 22m via companies will be raised to 1.5%
- Labour leader Ed Miliband says millions of people will be paying more, while millions pay less
- 500,000 people will be drawn into the 40% higher rate tax band from 2013-14
- The point at which people start paying income tax will be raised to 28,000 from next April

The screenshot shows a file upload dialog box titled 'Upload'. It has a 'Single file' button and a 'Multiple files and folders' button. Below the buttons is a text area that says 'Add a file to root'. At the bottom, there is a 'Select a file' input field and a 'Browse' button. A note at the bottom left says 'For humongous files (over 1GB) use the multiple files uploader.'

# Best practices / Tips

- Start simple
- Don't aim for 100% test coverage
- Core functionality
  - Top pages
- Anonymous / Authenticated
- Consider the time the tests take to run
- Reduce false positives
  - Threshold - percentage difference
  - Find tests that fail without code changes
  - Selectively ignore dynamic parts of the page
- Monitor periodically

# Questions?



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<https://drupal.org/project/drulenum>

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