



Drupal Click Heat Map Integration

What is a heat map?

“ A heat map is a graphical representation of data where the values taken by a variable in a two-dimensional map are represented as colours. — Wikipedia ¹ ”

In the case of web development click heat maps have come to be used to allow developers to see how users “use” their site.

Use

Click heat maps can be used to find trouble areas in websites and allow the developer to make changes. Layouts that are not easy to navigate can be discovered and modified to make them easier to use. Without heat maps a developer may never know that users find his site hard to use.

Available Tools

There are many tools available to collect heat data, but this report will focus on open source tools that can be integrated into Drupal.

- ◆ ClickHeat
- ◆ phpMyVisites
- ◆ The Definitive Heatmap

¹ http://en.wikipedia.org/wiki/Heat_map

ClickHeat

ClickHeat was developed by labsmedia and provides click heat mapping functionality. ClickHeat can be found at: <http://www.labsmedia.com/clickheat/>.

Requirements

- ◆ JavaScript
- ◆ PHP
 - Graphic library GD2
 - PNG support needed

Setup

The library only requires a configuration file to be setup and has an interface to create it.

On each page that will record data a small snippet of Javascript must be placed at the bottom of the HTML.

Pros

- ◆ Minimal Javascript attachment to page.
- ◆ Does not interfere with the user's ability to use the page.
- ◆ Stores data in a text file which does not require as much overhead as a database.
- ◆ Provides an interface for viewing results that could be modified to integrate into Drupal's administration interface.
- ◆ Generates a simple, easy to read PNG file using common PHP library.
- ◆ Code is self standing and does not require any additional, non-PHP standard, libraries.

Cons

- ◆ May require some modification to read log file into Drupal system.
- ◆ Uses PHP class based architecture contrary to Drupal's standard setup.
- ◆ Interface will require a moderate number of changes to make it run in the Drupal system.
- ◆ Does not support multilevel page grouping.
- ◆ Data is stored in a log text file instead of database breaking the normal convention for Drupal storage of dynamic data.

phpMyVisites

phpMyVisites is an open source GNU/GPL licensed website statistics and audience measurement system. The framework provides many web statistic capabilities. The framework can be found at: <http://www.phpmyvisites.us/>.

Requirements

- ◆ JavaScript
- ◆ PHP
 - Graphic library GD2
 - PNG support needed
- ◆ MySQL database

Setup

The library only requires a configuration file to be setup and has a multi step interface to create it.

On each page that will record data a small snippet of Javascript must be placed at the bottom of the HTML.

Pros

- ◆ Minimal Javascript attachment to page.
- ◆ Does not interfere with the user's ability to use the page.
- ◆ Provides an interface for viewing results that could be modified to integrate into Drupal's administration interface.
- ◆ Generates a simple, easy to read PNG file using common PHP library.
- ◆ Code is self standing and does not require any additional, non-PHP standard, libraries.
- ◆ Provides more than just click heat map support.
- ◆ Provides multilevel grouping of pages.

Cons

- ◆ Stores more information than just click heat map data, which requires greater overhead.
- ◆ Uses ClickHeat library instead of their own click heat map library which leads to just using the original.
- ◆ Forces the Drupal site to be using MySQL instead of allowing PgSQL.
- ◆ Framework is being somewhat abandoned with the new encompassing project Piwik.
- ◆ Geared towards being its own, freestanding interface, not being placed inside the Drupal administration system.

The Definitive Heatmap

The Definitive Heatmap provides a simple way to use Apache module to create heat maps. The Definitive Heatmap can be found at: <http://blog.corunet.com/english/the-definitive-heatmap>.

Requirements

- ◆ Javascript
- ◆ Apache
 - mod_imap
- ◆ Ruby

Setup

The library requires the modification the the Apache configuration file in order to function correctly.

Pros

- ◆ The logging runs very fast since it is using a simple module that is designed to do logging.
- ◆ Minimal Javascript attachment to page.
- ◆ Does not interfere with the user's ability to use the page.
- ◆ Stores data in a text file which does not require as much overhead as a database.
- ◆ Code is self standing and does not require any additional libraries. (other than mod_imap)

Cons

- ◆ Requires Apache server which removes the ability for Drupal to run on IIS.
- ◆ Ruby interpretation must be supported.
- ◆ Not as easy integrated since script is not written in PHP and could not easily be place in standard Drupal module framework.
- ◆ May require some modification to read log file into Drupal system.
- ◆ Requires changes be made to the Apache configuration file, this is not always possible depending on the hosting situation.

Conclusion

ClickHeat provides the simplest system with the least amount of overhead. It does not come with extra features beyond the click heat map. The code base is freestanding and fairly simple and could be integrated into Drupal fairly easily.

The data collection method is very simple and doesn't require a database. The log file format stores relevant data in a simple format that is both easy to read and space efficient.

The generated click heat map provides a clean interface and shows the clicks using an easily recognizable gradient format.



Since the script is written in PHP and is well organized it could be integrated into the Drupal module framework without too much hassle.