

Google Summer of Code 2009 Project Proposal

Boost Drupal Media Module Development

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Abstract

There are dozens of modules that handle multimedia in the Drupal ecosystem. This complexity has hindered module maintainers from coordinating more closely, creating duplicate work and maintenance overhead. The media module framework is an effort to unify the many existing projects. To help speed development, I will focus on critical and high priority items from the Media module roadmap to bring the project closer to a beta release.

Project Proposal

At the present time, there are dozens of modules that handle multimedia in the Drupal ecosystem. This has led to an enormous amount of duplicate code and conflicting implementations. This complexity has hindered module maintainers from coordinating more closely, creating duplicate work and maintenance overhead¹.

The media module framework is an effort to unify the many existing projects. By removing low-level file handling implementation details and providing a single access point for all media assets, developers will be able to focus on other things. For example, a new revolutionary file management interface, or a new back-end to leverage the decreasing prices of content delivery networks will be possible.

A module such as this is only truly successful if it receives mass adoption from developers. Otherwise, it is just another multimedia module in the ecosystem—adding overhead and confusing end users. To this end, my proposal is not for an entirely new project, but rather to complete defined goals of a project already-in-progress. I believe this approach is much more valuable to the community as a whole.

To help accelerate development, I will focus on critical and high priority items from the Media module roadmap². These elements are necessary to move to the

¹ <http://groups.drupal.org/node/19746#why-media>

² <http://groups.drupal.org/node/19799>

next step. Aaron Winborn, Media Project lead, has provided me with the following priorities in order of dependencies and priority.

Item	Priority	Notes
Integration with upload	Critical	Everything else dependent on this as a test-case
Meta-data table	Critical	must be completed before alpha
Documentation	Critical	Ongoing
Views integration	Critical	Devs can easily build custom formatters
Integration with filefield	High	Required before most sites can adopt
YouTube & Brightcove integration	High	
Integration with token	Normal	Depends on meta-data
Integration with emfield	Normal	Depends on new development track with emfield
Tutorials	Normal	Depends on meta-data
Thumbnail formatter	Low	Critical for end users

Schedule of Deliverables

Development on this project is a moving target, and as such, setting specific deliverables is extremely difficult. Rather than specifying a list of deliverables and running the risk of under estimating the time required (resulting in an unfinished project), I propose the following. Deliverables will be the result of a minimum of 30 hours of work per week. A timeline of anticipated work throughout the summer is provided in the next section.

Code will be a tangible deliverable. I will track my own time and progress on a publicly accessible blog. If required, time can be monitored by an independent staff or faculty member of the college, or through any alternative means seen as necessary. I will humorously point out that daily CVS commits would probably be a good indication of progress.

Timeline

Aaron Winborn, Media project lead, shared his preliminary plans for the project:

The rough guide is the first two items (upload/metadata) are required for an alpha release, and as each item is complete, I plan an ALPHA-# release, with the first BETA release when they're all complete (plus a few other items on the road map) . . . Once we have an alpha and a few people helping with testing, I believe things will really take off. Basically, once we have an alpha that includes up to filefield integration, we can revisit your project specs and adjust them accordingly, particularly as we learn new dependencies and contingencies we hadn't counted on.

I have compiled the following preliminary timeline of my summer work based on communication with Aaron and the priority list.

Community Bonding period	Get to know mentor(s), get up to speed on Drupal API, etc.
5/25-5/29	- Integration with upload (critical) *
6/1-6/5	- Meta-data table (critical) *
6/8-6/12	- Views, Filefield (critical, high)
6/15-6/19	- Views, Filefield (critical, high)
6/22-6/26	- Views, Filefield (critical, high)
6/29-7/3	- Views, Filefield, Documentation (critical, high, critical)
7/1-7/3; 7/6-7/8	- Specs review (mid-term review), and remaining critical
7/13-7/17	- TBD * (high, normal)
7/20-7/24	- TBD * (high, normal)
7/27-7/31; 8/3-8/7	- TBD * (high, normal)
8/5-8/7; 8/10-8/14	- TBD * (high, normal, low) - (pencils down)

* To be determined after specs review with Aaron and reevaluation of dependencies and priorities. Possibilities could include normal priority items.

Open Source Development Experience

I have made a few patches to the Wordpress project as a result of tweaking my personal blog. I have also contributed to the iPod Linux project. My most recent open source development experience has been with Drupal (see *Work/Internship Experience*).

Work/Internship Experience

Last summer (2008) I was hired by the Union College (Lincoln, Neb.) Marketing Communications department as part of an internship to relaunch the Web site using an open source platform, Drupal. I spent the summer wading through Drupal code and community modules to tailor the CMS to the needs of the college. My responsibilities for the transition included writing conversion scripts to move data from the outdated, in-house system to Drupal, as well as finding, modifying, and writing modules to provide the functionality that the college's Web committee had decided on.

Since then, I have continued to work on the college's Web site, providing support, fixing bugs (and submitting fixes back to the community), keeping up with security updates, and continuing to tailor the system to the needs and expectations of the more than 30 area content managers on campus.

Here is a small sampling of patches contributed back to the community:

[Drupal: tablesort_get_order\(\)](#)

[Calendar Block: Drupal 5 port](#)

[Header Image: Organic Group Conditions](#)

[Token: Token malfunction with Auto NodeTitle...](#)

Academic Experience

I am currently wrapping up my third year of classes, working towards a degree in Computer Information Systems. I have participated in numerous projects, both individual and team based, involving a variety of technologies. Some notable classes that are pertinent to this project include Enterprise Web Development, SQL with MySQL, and Systems Analysis and Design.

Why Drupal?

Having worked on customizing Drupal for the past year, I am very familiar with the core concepts and the community. There is a positive feeling that I get after submitting a patch that I find useful, and that others in the community benefit from.

I have come to know the ups and downs of Drupal. I believe that one of the greatest roadblocks to usability and increased acceptance of Drupal is media management, and I want to help do something about that.

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See Also

This proposal can be downloaded in PDF from the following URL.

<http://jonsview.com/projects/google-summer-of-code-2009>

The results of my 2008 internship with Union College are visible at

<http://www.ucollege.edu>

There are several related resources to this proposal on the Drupal Web site:

Proposal discussion: <http://groups.drupal.org/node/20742>

Media module: <http://drupal.org/project/media>

Media group: <http://groups.drupal.org/media>

This application format is based on the Wordpress GSoC 2009 application template.

http://codex.wordpress.org/GSoC_2009_Application_Template.