

# Summer of Code 2007: Project Quality Metrics System

William White

American University, Washington D.C.

## Abstract

I will create a system to measure the quality of the contributed projects on Drupal.org, so site administrators can rapidly make informed decisions about the health of a contribution. The system will integrate with current infrastructure and use several criteria to assess the quality of each project.

## Project

Using a predetermined series of metrics, the project quality module will assess the health of each project and display a rating on the project's page. Module statistics will be represented graphically. Each metric will have an adjustable weight, allowing administrators to adjust how each individual factor will affect the overall score.

The system will extend with the Project, Project issue tracker, and CVS integration module.

I would begin by identifying the most effective and reliable indicators of project quality. Number of downloads, number of maintainers, activity of maintainers, and issue tracker submissions are just a few of the metrics that have already been suggested. Additional metrics will be added as applicable.

Each project will be ranked based on the number of times it has been downloaded during a given period of time. Projects with more downloads will be given a better rating.

The number of maintainers a project has, and the activity of those maintainers is an effective indication of project health. Active maintainers usually result in healthier projects.

The project issue tracker will provide some of the most influential metrics. The number of unique users who contributed to a project's issue tracker, the number of bug reports, and the number of bugs that were fixed within a given period of time will be some of the most effective metrics.

## Benefits to the Drupal Community

This project will help site administrators and Drupal developers make better decisions about the status of contributed projects. Drupal.org is home to hundreds of contributed modules, themes, and translations in various states of reliability. Many modules work perfectly and many others need a significant amount of attention. An "at-a-glance" rating will allow site administrators to quickly identify quality projects and put them to use without sifting through extensive bug reports or worrying about hidden issues.

The quality rating system will allow Drupal developers to identify contributions that need attention.

## **Success Criteria**

- Completed module that uses the metrics described above.
- Optimized code to use as few server resources as possible.

## **Roadmap**

1. Seek input from the Drupal community regarding metrics and presentation of quality rating. Communicate with the Drupal.org infrastructure team to establish performance requirements and deployment plans.
2. Construct a flexible system framework and implement each metric.
3. Optimize performance to ensure the module does not place an unnecessary burden on the Drupal.org infrastructure.
4. Testing with the help of the community.
5. Deployment with the help of the Drupal.org infrastructure team.

## **Biography**

I am a nineteen year old student from Ridgefield, Connecticut. By summer 2007, I will have completed the first year of a four year program at the American University School of Communication. My professors continue to encourage me to practice effective communication outside of the classroom, and Drupal provides the necessary tools.

I am currently migrating the American University Student Government website ([www.ausg.org](http://www.ausg.org)) from a custom rolled PHP application to Drupal 5. The Student Government staff are already impressed with Drupal's flexibility and are motivated to get involved. I hope that the new site will act as a guide for others who work on university websites.

I edit a Drupal powered weblog called gmrblogs ([www.gmrblogs.com](http://www.gmrblogs.com)). Using Drupal, I designed and developed a website for Inherit the Mirth, a christian greeting card company ([www.inheritthemirth.com](http://www.inheritthemirth.com)).

I have been creating websites for myself and local companies since I was thirteen. I began using PHP and MySQL to enhance my sites during my Freshman year in high school. During my junior year, I received the second place award for web design during the Connecticut Future Business Leaders of America conference. I began using Drupal for my projects shortly afterwards.

I have been involved with the Drupal community through patching and testing.

- Updated print friendly pages module to Drupal 5 (<http://drupal.org/node/88162>)
- Working to updated Register Profile to Drupal 5 (<http://drupal.org/node/111165>)