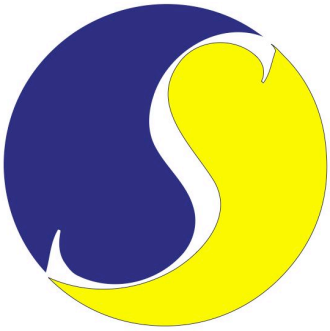
# Content Management Systems (CMS)




## Product Reviews

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# Executive Summary

Starting in January 2005 I began investigating the creation of a Sites documentation system, primarily to be used for documenting the technical aspects of the Sites environment. The project involved gathering information from Sites staff through interviews and observations. This was done to develop an understanding of the current information sources, tools, and methods used by staff in managing the Sites environment, as well as gain and understanding of needs and requirements for a future information system. The information collected led to a scope change from investigating a documentation management system to an information management system and informed a product search in the Content Management System (CMS) space.

**In general an extensible Content Management Framework that can be enhanced with additional functionality will provide Sites with the flexibility it needs to better manage its technical documentation and tools. An effective CMS can be relatively inexpensive and easy to deploy and maintain. The right system can facilitate the maintenance of internal Sites resources while providing a robust yet simple mechanism for maintaining Sites information. By employing an open source CMS, deployment and enhancement costs can be reduced through the use of the support and development communities surrounding the product further allowing for inexpensive scalability.**

## Current State

The types of information to which the staff need access are highly varied – from procedural to descriptive documents, from static rarely changing to dynamic frequently changing documents, from email to conversation chains, tools like *HindSite*, *ForeSite*, *Intermapper*, & *I.Scheduler*. There are currently a number of information sources of which Sites staff makes use to access this information. These repositories include the Sites Intranet (https://cgi.www.umich.edu/~sites/), the TSG Intranet (https://cgi.www.umich.edu/~sites/tsg/), the Sites public web presence (http://www.umich.edu/~sites/), as well various files, documents, and notes that are stored in people's heads, scripts/code, whiteboards, Excel files, sticky notes, and email in addition to more formal documents. While the intranets (and Internet in general) contain information, tools, and resources used by staff to perform their duties, there is no single central repository for Sites' documentation within any Sites' area.

## Requirements

The requirements extracted from the staff conversations for any system to be implemented included:

- On-line, open source, preferably using a platform like PHP & mySQL
- Database driven (relational & web interface)
- Customizable
- Content management
  - Accommodate both text & highly formatted documents

- Video and rich media support for the future
- Easy to edit/update
- Version control & rollback
- Change log
- In-place editing
- Produce printed version without need to convert or reformat documents

- Searchable, with zone searching potential
- Blog-like capability to capture ongoing thoughts about problems
- Wiki capabilities
- Other
  - Dedicated staff to ensure it gets done
  - Accommodate multiple audiences (Sites internal & customers)
  - Access control
  - Secure

**It should be noted that not all of these requirements could be easily quantified and translated into specific product features, and that some are outside of the scope of what can be accomplished through this project.**

## Product Research

*What is a CMS?* A CMS is a set of processes, applications, and databases that help an organization create, store, coordinate, and publish information in a useful format, a timely fashion, and with a consistent method.

A web search was conducted to find background information and resources about CMSs. This was followed by a search to identify potential open source PHP based CMS products. Resources such as SourceForge, CMS Matrix, Step Two Designs, CMS Directory, CMS Review, CMS Watch, OpenSourceCMS, and individual product/project web sites were used in the gathering information regarding CMS products.

In total 36 CMS and 11 Wiki products were investigated, with the Wiki products given lesser attention. The recommendations that follow are based primarily on information gathered via these web sources. The dimensions used to narrow down the product list include product popularity, positive ratings or feedback provided by users, size of the development community, project activity, and availability of help resources. In addition, OpenSourceCMS provides a sandbox environment to try out many different CMS products using a basic product install. This was used to further narrow the field of potential products. Where possible, products were given an aggregate rating based on user ratings from those found on OpenSourceCMS & CMS Matrix.

One additional tidbit to bear in mind is that all of these products have modules contributed by 3rd party sources. To this end, it should be possible to integrate additional products into the framework to better meet specific needs. For example, rather than using the existing search products it may be better to integrated a Google search appliance into the mix to provide enhanced search capabilities, or replacing the wiki module with a more specific wiki engine like MediaWiki.

## Recommendation

In order to effectively select the right product for Sites, a more intensive hands-on evaluation should occur. With the installation and trial of a few of the products an informed decision can be made as to which one will ultimately best serve Sites' needs.

The following list provides the CMS products should be looked at in more detail:

- **Drupal (http://www.drupal.org/)**: **[Rating=6.60, count=1241]*** Drupal received the highest aggregate rating, and even though it is an open source GNU GPL licensed product, it is not available on SourceForge. It provides a nice clean interface and look by default. The School of Information Community Information Corps (CIC) is using Drupal to manage their web site, which can be seen at http://projects.si.umich.edu/cic/. It appears that there are at least 15 registered developers associated with this project.
- **phpWebSite (http://phpwebsite.appstate.edu/): [Rating=6.43, count=1279]** php WebSite is a product maintained by Appalachian State University. With only 10 registered developers, this product has the nicest administrative interface I found, and also provides a very crisp and clean look in general.
- **TikiPro (http://www.tikipro.org/wiki/index.php): [Rating=6.28, count=46]** TikiPro is a derivative of TikiWiki, though it has diverged considerably since it branched off. It has 41 registered developers and was not among the products that could be found on OpenSourceCMS, hence the low count
- **Mambo (http://www.mamboserver.com/): [Rating=6.22, count=5421]** Mambo appears to be a very widely used and popular product, with a large install base and what appears to be a relatively large development community. Even though it is an open source GNU GPL licensed product, it is not available on SourceForge.
- **TikiWiki (http://tikiwiki.org/): [Rating=6.10, count=720]** TikiWiki has a rather sizeable developer base with 300 developers registered. It is the most feature packed CMS from download that I found. While the initial installed style appears rather cluttered it appears to have a lot of potential to create a crisp look as can be seen from a sample site - http://www.codegeneration.net/.
- **XOOPS (http://www.exoops.info/modules/news/): [Rating=5.96, count=1071]** XOOPS is an additional product that I included because of it relatively high user ratings and a large number of registered developers – 90. I am somewhat undecided about the product and was not overly impressed with the test site available on OpenSourceCMS.
- **Zope (http://www.zope.org/): [Rating=unavailable]** Zope is currently being used by the College of Engineering, and has been in use for about 5 years. Given the staffing resources the College has put forward this product may be outside of the scope of what should be considered for Sites.

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* Ratings are based on a 10-point scale. It should also be noted that no product was rated close to a 10. Count refers to the number of users that rated the product or features of the product.