

INTERIM REPORT
Content Management System Task Force
MU Libraries
24 October 2006

INTRODUCTION

This interim report of the Content Management System Task Force (CMSTF) is intended to serve as the report stipulated in the Task Force's revised charge (see below).

TASK FORCE CHARGE

Revised Charge - 6 June 2006

The Task Force is to lead and complete the Cascade Server pilot project offered by Web Communications and IATS (cf. <http://webcom.missouri.edu/tools/cms/index.php>); to identify areas of the current MU Libraries web sites to include in the pilot; and to evaluate the pilot upon its completion and report its findings to the Director of Libraries. The Task Force will then return to its original charge.

Original Charge - 20 April 2006

The Task Force will identify minimum requirements for a library content management system (CMS), survey available systems, oversee public demonstrations of systems that meet these requirements, and select a CMS to recommend to the Director. Among the CMS packages that must be considered is Cascade Server, the university's preferred platform

CASCADE SERVER CONTENT MANAGEMENT SYSTEM (HANNON HILL) PILOT

Background

The University of Missouri-Columbia acquired the Cascade Server Content Management System software in 2006, based on the following goals (taken from <http://webcom.missouri.edu/tools/cms/cascadeServer.php>):

- Provide a consistent brand for MU throughout all of our official Web sites

- Create a central content bank to serve as a storage repository for multiple types of content, and utilize the opportunity provided by a content management system to share and syndicate this content across multiple Web sites
- Create a structure that will make it easy and accessible for non-technical people to manage content on official Web sites they own
- Use the workflow processes of a content management system to allow editors to manage the editing, approval and publishing functions more efficiently
- Encourage the use of consistent messages that strengthen and clarify MU's identity and purpose
- Provide a solution that serves both PC and Mac Web developers
- Allow campus Web developers access to the tools and functions necessary to produce their own templates, beginning to end

Pilot Project

The CMSTF met with Kevin Bailey (Director of Desktop Technologies, IAT Services), Lori Croy (Manager, Web Communications, University Affairs), and Roy Moore (Software Support Analyst, IAT Services) on 10 May 2006 for a presentation on Cascade Server. During and after the presentation, there was discussion about inviting the MU Libraries to participate in a pilot of Cascade Server. An official invitation to Jim Cogswell was extended and accepted on 15 May 2006.

The pilot project was defined in the Libraries' *Content Management System Department Project Proposal* (submitted to Lori Croy, Web Communications on 16 June 2006; revised 27 June 2006; see attached) as:

Clearly the entire MU Libraries sites are too large to include in a pilot project to evaluate Cascade Server. The task force will instead focus on the following functional areas and their associated pages:

1. subject guides (e.g., <http://mulibraries.missouri.edu/dysartj/botany/index.htm>) which list and describe library resources such as books and electronic database that are relevant to a specific academic discipline or field of study. Ideally these subject guides would be able to share and reuse content. For example, a subject

guide might include a description and link to an electronic database the Libraries subscribe to. That description and link should be able to be incorporated into different subject guides, but only have to be kept current in a single location (i.e., the CMS). Furthermore, the descriptions should be able to be varied slightly to suit the specific subject guide (i.e., one description would highlight certain features of the electronic database over others).

2. database lists (e.g.,
<http://mulibraries.missouri.edu/refservices/db/alpha.asp?alpha=S>;
<http://hslweb01.umh.edu/ftproot/databasemultiaction2.cfm>) which present annotated lists of electronic databases and other electronic resources that are searchable and can be ordered by a variety of categories such as subject, availability, etc.
3. hours, services, and staff/contact directories (e.g.,
<http://mulibraries.missouri.edu/admin/hoursmaps.htm>;
<http://www.muhealth.org/~library/info/libraryhours.html>;
<http://mulibraries.missouri.edu/admin/employdir.htm>). Ideally these pages would be generated from a single, up-to-date source.
4. calendars – while there is currently no unified calendar of events for the MU Libraries, the task force would like to see how such a feature could be implemented through Cascade Server.

Six members of the CMSTF received training for Cascade Server by a representative of Hannon Hill on 20 June 2006.

At the end of June the CMSTF began working on the pilot implementation. As the work progressed, it was decided that the group should modify the focus of the pilot to evaluate how well:

- 1) data can be incorporated into Cascade Server so that it serves as the underlying database on which Items 1 through 3 above are based

- 2) Cascade Server can serve pages that draw on data stored in external databases (as the Ellis Library Database List pages and numerous Cold Fusion pages on the Health Sciences Library's site are currently setup to do).

By early September two subject guide pages – the main page for an individual subject guide and its associated database page, aka Articles and E-Journals – had been more or less completed in Cascade Server using Extensible Markup Language (XML) blocks, XML pages and Extensible Stylesheet Language for Transformations (XSLT) stylesheets. These pages also incorporated portions of an employee directory that could be used for a stand-alone directory page if so desired. In addition a page was developed based on the Cold Fusion server used by the Health Sciences Library using a Cascade Server template as a container for Cold Fusion code. This approach effectively allows for access to whatever database is connected to the Cold Fusion server. The following evaluation of Cascade Server is based on the experience of creating these pages and the anticipated implications for webpage development in the MU Libraries.

Implementation

- Cascade Server has a steep learning curve, especially for those without a strong background in server and software administration and in XML.
- It will require at least one individual on the Library Technology Services staff or elsewhere within the Libraries to administer and stay current with the CMS.
- It will require knowledge of XML and XSLT for anyone working at all in depth with Cascade Server, including content creators to some extent (see below)

Functionality

- Cascade does the basic aspects of a CMS (e.g., content reuse, template control, workflow) very well and by our estimation would satisfy the requirements of upwards of eighty-five percent of the web development needs of the MU Libraries.
- Cascade pushes files onto a server. It does not receive HTTP requests for pages and can therefore not provide direct dynamic web pages. **This is a key to understanding the**

capabilities of the system. Dynamic searches cannot be accomplished by Cascade Server without connecting to an external database via a scripting language.

- Data/content can be stored in Cascade in XML (either imported into the system or marked-up by the system). This data cannot, however, be accessed as directly or conveniently as in a standalone database where it can be manipulated via queries. This means that the data needed for the Libraries' database lists, for example, should best be maintained in a database external to Cascade and uploaded into Cascade for inclusion in pages, through the variety of methods available in Cascade (e.g., blocks, data-definition pages), and presented via XSLT.

Content creation

- Content creators using Cascade Server would need to be familiar with the system's web interface in order to update and/or create pages. Working on a page requires, more often than not, clicking through various menus and/or screens.
- Content creators who want to reuse data contained in the CMS would most likely have to become familiar with XSLT in order to extract and present specific data in a specific layout. An example of this is the list of databases transferred during the pilot into Cascade Server from an Access database maintained by the Electronic Resources Librarian in Ellis Library. Since a subject guide would draw on one or more XML files stored as pages or data blocks within Cascade Server, the content creator responsible for the guide would have to learn to extract the relevant information subset from the larger data contained in the XML file(s). This could only be accomplished via XSLT. Therefore, either the content creator or someone else on the library staff would have to be able to write and update XSLT.

Administration

- With the maintenance of Cascade Server resting with a unit external to the MU Libraries, there were a number of instances during the pilot when the general administrative policy for Cascade Server conflicted with the technical needs of our implementation. While these conflicts never ultimately impeded the progress of the pilot and IAT Services often made allowances in their established policies, the fact that control of administrative and technical implementation (e.g., version upgrades) is ultimately out of the control of the MU Libraries

must be taken into consideration in the decision-making process of choosing a CMS for the Libraries.

- General administration of Cascade Server for the Libraries would rest with one or two individuals—most likely in the Computer or Technology Services units—who had established and could maintain a high level of familiarity with the software to support the content creators (both by general training and specific problem solving) as well as by managing software updates and version changes.
- Cascade Server has extensive workflow features integrated into the content creation and updating process. While the pilot did not include establishing workflow order(s), it is clear that doing so requires an underlying organizational administration on which to determine whose input is required to create, modify, publish, etc. content to the Libraries web servers. Determining workflow has not been considered by the Task Force as a component of its charge. Decisions on responsibility and accountability for the Libraries web pages neither are nor should be the purview of this group.

TASK FORCE RECOMMENDATIONS

Based on the familiarity the Task Force has attained with Cascade Server, it is our recommendation that:

- 1) the CMSTF revert to its original charge, and examine and identify other potential Content Management systems that may
 - a. offer solutions to the issues of integration of data into the system more tailored to library resources; and
 - b. require less familiarity with scripting or mark-up languages for certain aspects of content creation.
- 2) the Cascade Server pilot be kept in an ‘open’ status so as to allow the Task Force continued access to the CMS. This would be especially beneficial if the ultimate recommendation of the Task Force includes the use of Cascade Server to some extent.