Thirdwave CMS Overview

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AIGA and the History/Role of the CMS

Thirdwave, LLC has been the technology partner for the AIGA for 5 years. In that time, the Thirdwave Content Management System (CMS) has been integrated and updated for three iterations of the AIGA.org website. The current AIGA CMS supports multiple sites within a single interface and allows an unlimited number of editors to manage the content simultaneously. These sites include: AIGA.org, Design for Democracy, Design Forum, Loop, Gain Design Conference, and Future History. Today, AIGA.org supports more than 300,000 visitors per month and over 1 million page views per month.

Content Management Systems Overview

What is a Content Management System? A CMS is software, and is often a web-based tool, that allows authorized users of different roles to manage a website and web content at any given time. A feature that is common to CMSes is the separation of design, structure and the content. In other words, the CMS will allow for the visual “skin” to be updated without affecting the existing content. This provides long term cost value, not to mention time saving value, to the lifecycle of a website.

Features of a CMS could include the following:

- Content Authoring
- WYSIWYG Editor
- Workflow/Change Approval Process
- User Manager
- Indexing/Searching
- Display Templates
- Object Storage
- Image Management
- Meta Tag Management
- URL Management

CMS Types

Today, there are many types of Content Management Systems available. Solutions include many open source and proprietary options. Open source denotes that anyone can have access to the source code and can create a new version of the software if desired.

Notable open source options are as follows:

- Apache Lenya
- Mambo
- OpenCMS
- Plone
- typo3

There are many types of proprietary CMS options that could include blogs, desktop software, n-tier, and document management. Blogs allow for users to post comments in a forum for public viewing. N-tier (translating to “any number of tiers”) refers to a program that is distributed between 3 or more computers on a network.

Examples of proprietary blog software include:

- Moveable Type
- Live Journal

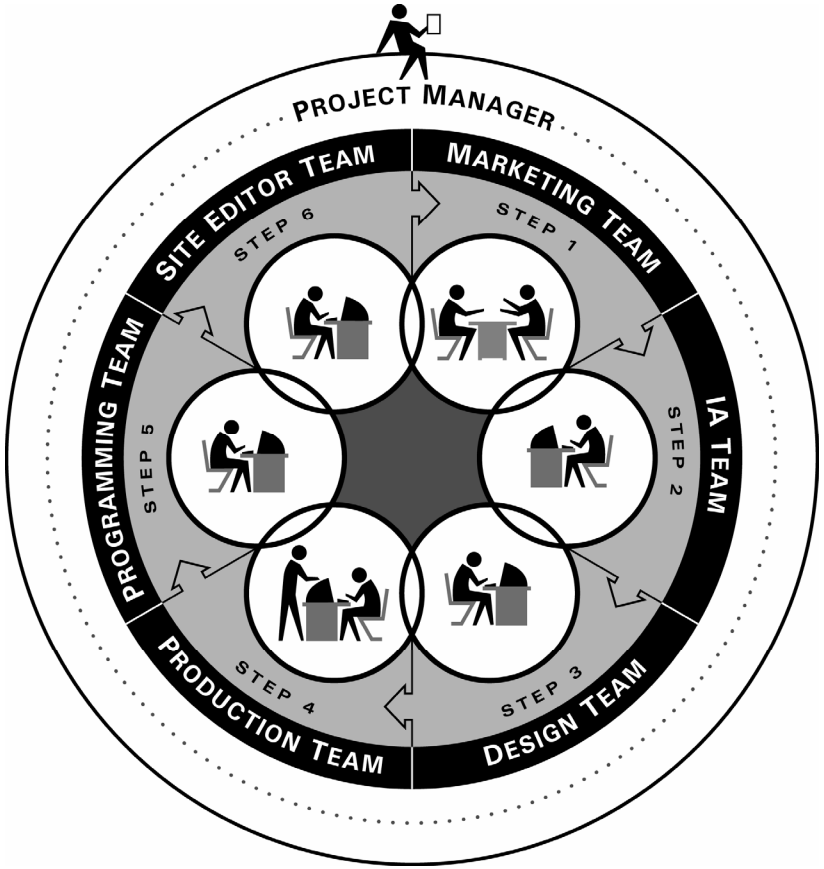
Desktop software that can perform content management are:

- NetObjects Fusion
- Dreamweaver

Popular n-tier CMS options that are primarily web-based include:

- Vignette
- SilverStream
- Interwoven
- Oracle Portal Server
- Thirdwave CMS

figure 1:
CMS roles and team interaction



CMS Roles

Content Management Systems can be better understood by isolating the roles of the people involved when using the system (see figure 1). The three main roles are:

- **Site Managers/Editors**: These users interactively work with the CMS to author the content of the site. Site managers can be broken down further into logical groups that manage specific sections of the site.
- **Site Designers**: These users interactively work with the CMS to author layouts and manage more of the graphical content. These users also work in close conjunction with the site programmers to implement display templates and navigation methods.
- **Site Programmers**: These users typically install and maintain the technical infrastructure of the CMS and ensure its stability and performance. These users interactively work with the CMS to setup content that involves programmatic functions like a product database or event calendar. These users also work with site designers to implement display templates and navigation methods.

Other possible roles are as following:

- **Marketing Team**: These individuals are essentially the steering committee that determines the goals of the website.
- **Production Team**: The production team is responsible for such tasks as image optimization and modification of design elements.
- **Project Manager**: The project manager is the individual that has the ultimate responsibility of planning, organization, and ultimately executing the project successfully.
- **Information Architect**: The information architect provides structure and organization to the content and information on the website.

Systems Involved

To better understand content management systems, it is beneficial to understand the hardware and software systems involved. Typical n-tier type solutions could consist of the following hardware: web servers, application servers, and database servers. Software includes: programming languages, database management, flat files, relationship database management software (RDBMS) such as SQL Server and Access, webservices, and support software such as WYSIWYG editors, mail blast software, web analytics software, and streaming video software.

Typical Tasks

Typical tasks performed when updating a website can be itemized in chronological order as follows:

1. Identify and gather needed raw content
2. Identify and gather needed images and support resources
3. Approve raw content: This not only includes spelling/grammar reviews it also includes evaluations to determine appropriateness of the content. Note that there is a distinction between content that is not updatable and instead dictated by the design.
4. Code content in to web compatible format/HTML: This task consists of formatting and pre-flighting.
5. Approve final formatted content
6. Post live: This includes FTP of files and upload of images
7. Testing
8. Assessment: The final task involves assessing whether the content/information on the site is effective. Studying web traffic statistics with web reporting applications such as WebTrends would provide this information.

CMS Benefits and Disadvantages

A side-by-side comparison of the benefits and disadvantages of a Content Management System is as follows:

BENEFITS	DISADVANTAGES
Ability to enforce design standards	Less flexibility of design and layout
User does not need to be HTML or technically savvy	Requires server software which costs money and training
For web-based systems, only an internet connection needed	Must be connected to system/software
Multi-platform/platform independent	Moving to a system not easily accomplished
Available 24/7	Learning curve
No role "contamination" (ie: designers design and programmers program)	
Order brought to process	
Regular backups	
Versioning	
Multilingual/Internationalization	
Extensible	
Knowledge does not leave with exiting staff members	
Supports redesign (take 1-2 months)	

Key Decision Factors

When deciding to use a content management system, the following questions can help to determine the feasibility of this decision for your chapter:

1. Will your chapter site undergo redesigns at a regular pace?
    a. If the website design is CMS friendly, then a redesign is easier in the long run.
    b. If the site contains an extensive amount of content, then a redesign would be exponentially difficult.
2. Is the feature set defined by AIGA sufficient for your chapter?
    a. Chapters using the AIGA CMS would be tied to the upgrade path and timeline as dictated by AIGA.
    b. The feature set is tied to the technology that AIGA prescribes.
    c. If chapters are not tied to a platform then it is possible to experiment at will.
3. How often does content change on your site? Who initiates changes?

Thirdwave Content Management System

Thirdwave has extensive experience architecting and implementing custom content management systems that allow one person or a team of editors to manage a Web site's content without any knowledge of HTML. Thirdwave's content management systems make it easy for anyone with basic desktop publishing skills to include images, graphics, tables, lists and hyperlinks in Web site content.

CMS Terminology

Page: A page is simply one viewable screen of the site. Pages are hierarchical in nature in that a page may have one or more sub-pages. The arrangement and structure of pages in this manner comprise the sitemap.

Page Type: A new page in the CMS must be delineated by its type. Typical page types are as follows: content, MT (Moveable Type) blog, system, and gallery.

Content: Content is the logical grouping of subject matter on a page. A page will usually have one or more content elements. Typically, content is text but can take the form of a movie, a contact form, a list of files, etc.

Content Element Type: When creating a content element in the CMS, the type of content that it is must be delineated. Sample content element types are: HTML, Flash, RSS feed, and event calendar.

Alias: Each page in the site is given a unique alias that identifies that page. This alias is used in site URLs: chapter.aiga.org/content.cfm/about. In this case, "about" is the alias.

Display Template: The layout of how a page within a site is governed is by the display template. These display templates govern areas of the page where site content should be displayed and what areas should be standard elements. An example of a standard element is a logo at the top of the page which links back to the site's homepage. The arrangement of this logo is locked down and cannot be modified by site managers since it is a permanent part of the display template. The display template is custom programmed by the site programmers based on the direction and instruction of the site designers during the initial implementation. Typically, once these display templates are set, they change little over the life of the site. A site can optionally have a set of display templates that can accommodate different layouts (i.e. a two-column layout vs a three column layout). Site

managers can choose which display template is used per page but generally the display template is set to “default”.

Site: A site or website consists of multiple interconnected pages containing content. In the CMS, all sections of the site are managed through the same interface and pages and content can be freely moved and shared.

Master vs Chapter Record: Each page and each content element has a set of properties that correspond to its master record and to its chapter record. The master record corresponds to that entity’s meta-information whereas the chapter record corresponds to that entity’s chapter-specific information. An entity will have one master record and one or more chapter records. These chapter records will correspond to that entity’s representation within the chapter-specific version of the site. Generally, any information that will be publicly visible is part of the chapter record. An exception to this rule is that entity’s name in which there is both a master and chapter record. The name of the master record is a required field and is the default name of that entity unless a chapter-specific name is set. For example, the “About [Chapter Name]” page’s master name is “About” and if there are no chapter names set, then that is what is displayed in the site.

Page vs Content Element: A page is comprised of one or more content elements arranged in a columnar fashion.

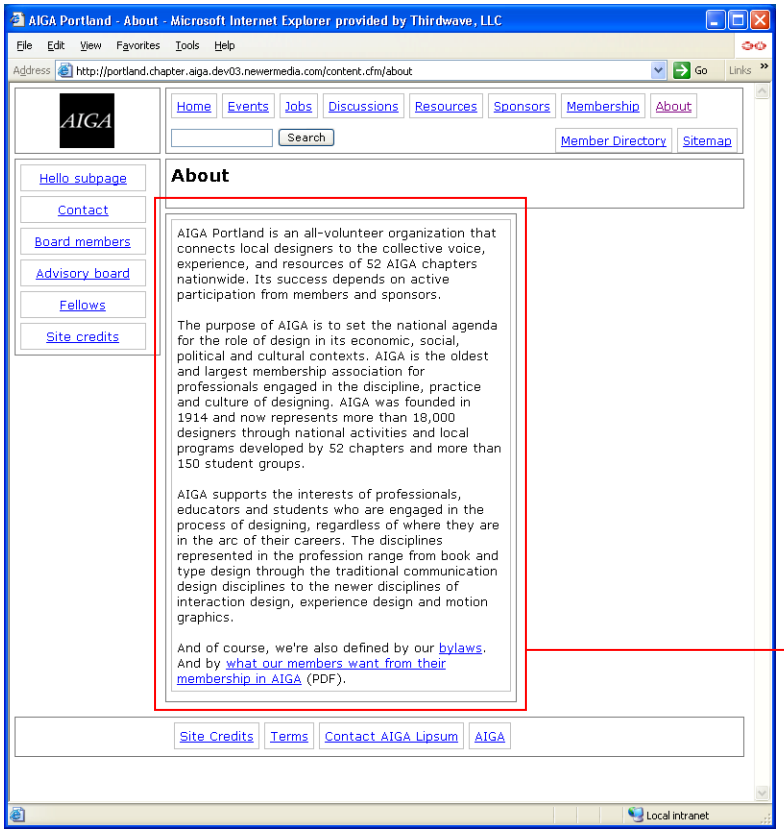
Page vs Other Page Relationship: A page can have one or more subpages. Taken as a whole, multiple pages comprise the sitemap.

Content.cfm: This is the “glue” that connects a user request for a page and the CMS and renders it in HTML.

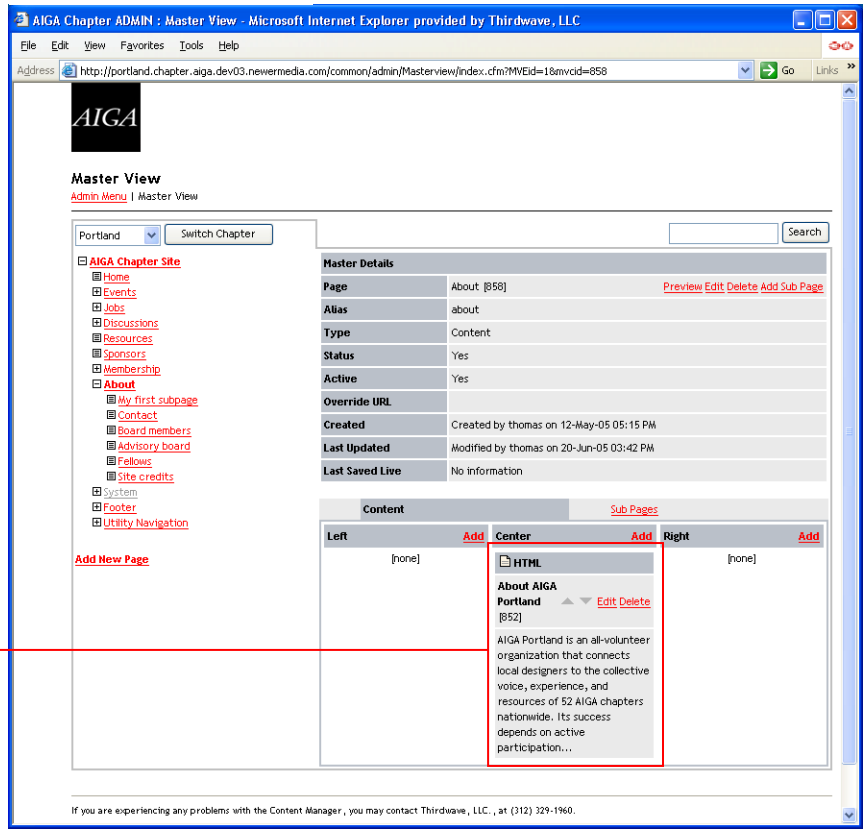
Chapter CMS: Page Composition

The following interface elements (screen 1 through 4) map the user side display to its CMS admin tool counterpart. Screens 1 and 2 focus on content elements whereas screens 3 and 4 isolate dynamic elements:

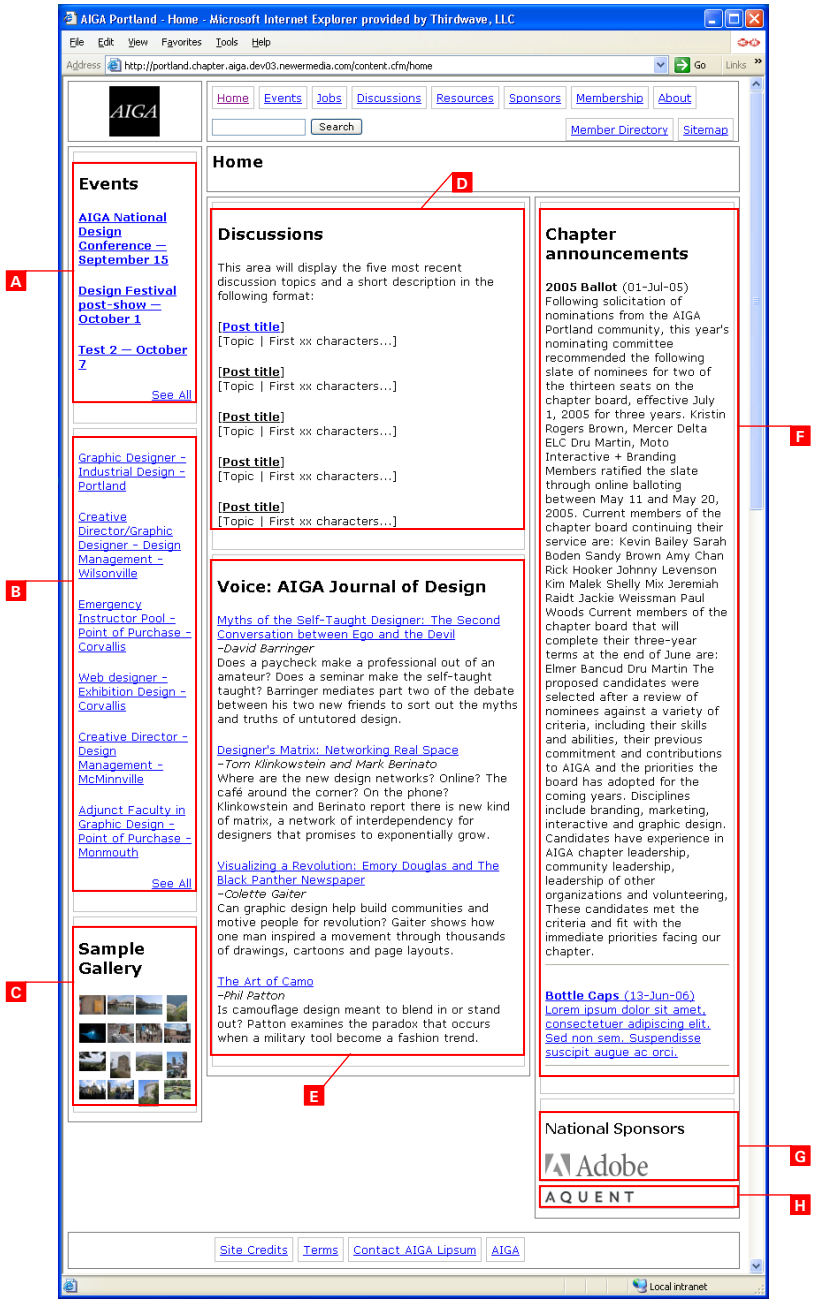
screen 1:
"About" page—user side



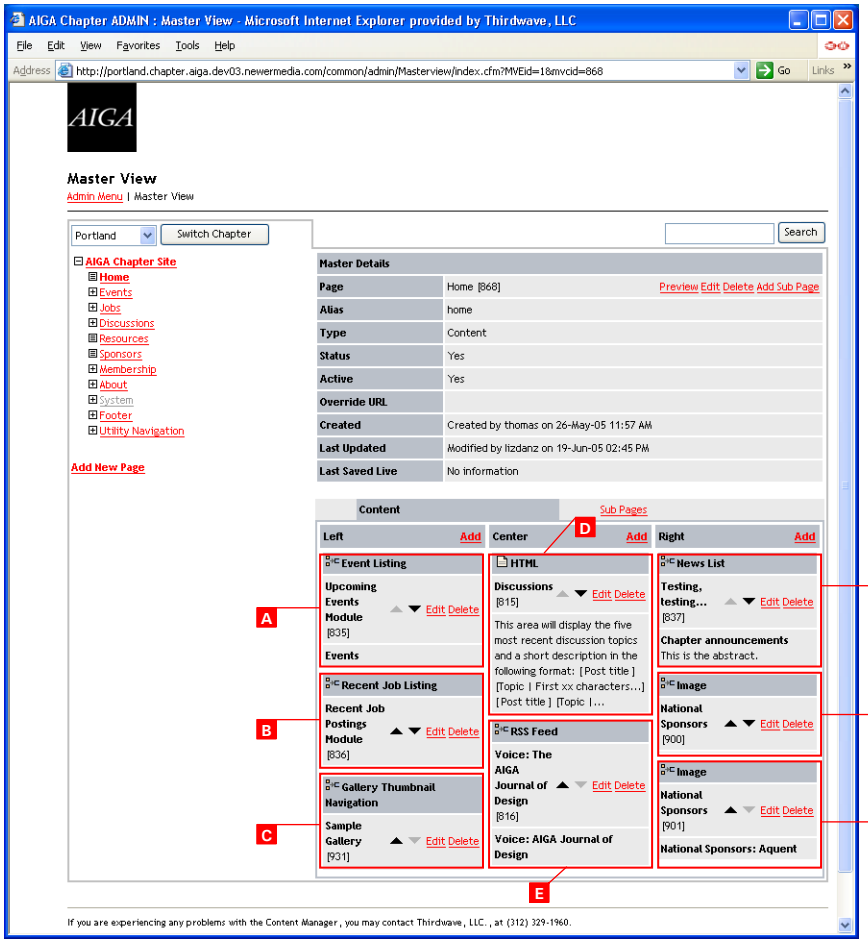
screen 2:
"About" page—admin side



screen 3:
"Home" page—user side



screen 4:
"Home" page—admin side



Feature Descriptions and Involved Tasks

Events: The Events section allows special events pertaining to that chapter to be displayed. When an event is entered in the CMS, the event will not only display on that specific chapter site, it will also appear in the AIGA.org calendar as well as the Chapter Workroom. Quick start steps for adding an event to the CMS are as follows:

1. Log in to the CMS
2. Go to the Masterview area of the CMS and navigate to the system events page
3. Add a new content element type: "event"
4. Specify all parameters of the event in the CMS (ie: event name, event date)
5. Submit
   Note: events are connected to the live database so events will be promoted live immediately upon submit. The event will be added to the chapter site, AIGA.org calendar, and the Chapter Workroom.

Event Registration: Functionality to allow chapter members to register for events on the chapter site will be included. Quick start steps to initiate registration for an event on the chapter site are as follows:

1. If online payments are expected, then confirm that Verisign registration is in order and verified in the system (if no online payment is necessary, then skip to step 2)
2. Log in to the CMS
3. Go to the CMS Masterview and navigate to the chapter events page
4. Create a subpage of type: "content"
5. Add content element type: "event registration" to the newly created subpage
   Note: During this step, it is necessary to associate the specific event.
6. Submit
7. Save to production

Blogs: A forum for discussions/blogs will also be included in the ISK feature set. The blog software used for ISK is Moveable Type. To participate in the blog, follow these steps:

1. Log in to Moveable Type: chapter.aiga.org/MT/mt.cgi
2. Author blog entry and assign a category for the entry
3. Submit

Slideshows: Chapters will have the ability to include an image slideshow or gallery on the website. To create a slide show, follow these quick steps:

1. FTP images to the chapter site
2. Log in to the CMS
3. Navigate to the chapter image gallery page
4. Create a new subpage of type: “gallery”; associate the uploaded images with this gallery; assign caption and names for each image
5. Submit
6. Save to production

Search: A simple keyword search that will search the specific chapter content, events and the Design Archive content will be available.

Contact

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