

for Affiliates this month in Center research:

Digital Asset Management: Part I

Data asset management (DAM) is one of the value-added services that many printers provide today. In this, the first of a two-part summary of the Printing Industry Center research report “Digital Asset Management—A Closer Look at the Literature” (PICRM-2004-08) by Franziska Frey et al., we provide a general overview of DAM, including information on different types of systems and the workforce skills needed to make them work.

Definitions

Digital asset management (DAM) is the process by which an organization manages its (and its customers’) digital media. A DAM system is a virtual “filing cabinet,” containing individual files that are stored with detailed information about a digital asset. Metadata (like copyrights, creation data, additional versions, and related files) can be wrapped around information as a sort of digital data container, in addition to the original digital asset.

The objective of any DAM system is to simplify the task of search and retrieval of digital assets from the repository or database. The process is relatively straightforward: The desktop client or Internet browser requests information from the server, and the server finds the associated image or file and delivers it back to the requesting desktop.

Two types of systems have evolved to manage different customer and industry needs:

- DAM systems, built on a one-to-one relationship with a file or database object that is pushed into or pulled from the central repository, and
- content management (CM) systems, addressing a many-to-many relationship with database objects.

CM systems tend to be more robust, and can also address other issues such as file or object relationships, usage, and grouping of digital assets for publication. Although the acronyms DAM and CM are sometimes used interchangeably, the technologies are different. DAM applications are automated systems and associated processes, used by companies to manage digital data and to catalog, search, and retrieve digital assets. CM systems facilitate digital media creation and component management via the use of automated workflows. In DAM, the starting point is the content; in CM it is the finished product.

History of DAM Systems

A trend toward deconsolidation in the printing industry, especially among the largest organizations, slowed the adoption of new and robust DAM systems in the late 1990s and early 2000s. Customers’ preference for storing their own assets also hindered

Center Spotlight

Sloan Foundation Renews Partnership with RIT’s Printing Industry Center

The Alfred P. Sloan Foundation has renewed its partnership with Rochester Institute of Technology’s Printing Industry Center, awarding the center \$250,000 over the next three years.

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DAM adoption. Then *rich media* came along, offering additional capabilities such as audio, video, animation, and graphic content. Cheaper storage and greater availability of high bandwidth connections is now fueling the proliferation of rich media. Analysts are beginning to talk about the next iteration, new media, which will move beyond rich media with action-oriented content. Partnerships and mergers in the printing industry are likely to increase among vendors as users demand enterprise-wide access.

Traditionally, DAM was used mostly as an archival solution for storing and accessing photographic images for use in high-resolution printing applications. Today, corporations are finding new uses outside the printing and publishing industries, for example, for remote access, retinal scanning, and employee photos.

Different Types of DAM Systems

DAM systems can be enterprise systems, pay-as-you-go or "application service provider" (ASP) systems, mid-range systems, or desktop or workgroup systems. Another way to categorize DAM systems is by their market focus, with the major markets being publishing/brand management, broadcast/media /entertainment, and animation.

Features

A DAM system typically includes the following functionality and features:

- archival capabilities
- asset management capabilities, including:
 - repository
 - asset cataloging
 - asset retrieval
 - workflow
- publishing capabilities, including :
 - distribution
 - content rendering for reuse.

Selection criteria for choosing a specific DAM system are outlined in Table 1.

Table 1. Selection Criteria for a DAM System

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About the Center

Dedicated to the study of major business environment influences in the printing industry precipitated by new technologies and societal changes, the Printing Industry Center at RIT addresses the concerns of the printing industry through educational outreach and research initiatives.

Support for the Center comes from:

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A ten-page software vendor matrix, appended to the full research report, compares the software products of 20 different vendors.

Infrastructure

Depending on the types of images and formats utilized, a company can make decisions about infrastructure as well as DAM software. DAM systems may be run by a single user or accessed via a web browser, using a desktop system. A relational database is the underlying technology of the DAM repository. Networks to support DAM systems can be internal, external, or a combination of both. More than one server may be required to support the various functions of the system. Because of the storage-intensive requirements of a DAM system, most companies utilize disk arrays or RAIDS (redundant array of inexpensive or independent disks).

Skills Needed

A successful DAM organization requires many specific job positions, which may have overlapping roles that change as the system matures. All of the major job titles in Table 2 should be filled for the greatest efficiency.

Table 2. DAM Jobs at a Glance

[click to view table full size](#)

Staff Position	DAM Implementation	DAM Production
Managers	Digital asset manager Project manager	Digital asset manager Operations manager
Business analysts	High involvement	Periodic involvement
Information analysts	High involvement	Provide guidance and training
Software developers	Dam administrator Implementation analysts Trainer and technical writer	DAM administrator Trainer and technical writer
Publication staff	Creative staff User interface specialist	Template developer Quality and test engineer
Content staff	Writers and other content creators Editor	Writers and other content creators Editor

Use of DAM in Industry

Two areas related to DAM were selected for more detailed study: the use of DAM in small companies, specifically in small graphic design firms, and the use of technical metadata in the newspaper industry. In Part II of this summary next month, we will present some case studies that describe DAM implementation and use in industry.

2004 Research Monographs:

To read about this research in detail, download the monograph from: <http://print.rit.edu/pubs/picrm200408.pdf>

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