Digital asset management

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Digital asset management (**DAM**) consists of management tasks and decisions surrounding the ingestion, annotation, cataloguing, storage, retrieval and distribution of digital assets.[1]

Digital photographs, animations, videos and music exemplify the target areas of **media asset management** (a sub-category of DAM). Digital asset management systems (DAMS) include computer software and hardware systems that aid in the process of digital asset management.

The term "digital asset management" (DAM) also refers to the protocol for downloading, renaming, backing up, rating, grouping, archiving, optimizing, maintaining, thinning, and exporting files.

The "media asset management" (MAM) sub-category of digital asset management mainly addresses audio, video and other media content. The more recent concept of enterprise content management (ECM) often deals with solutions which address similar features but in a wider range of industries or applications.[2]

Smaller DAM systems are easier to categorize as to content and usage since they normally operate in a particular operational context. This would hold true for systems attached to audio or video production systems. The key differentiators here are the type of decoders and I/O (input/output) used for the asset ingest, use and outgest. Since metadata describes the essence (and proxy copies), the metadata can serve as a guide to the playout decoders, transcoders, and channels as well as an input to access control rules. This means that the essence can be treated as a non-described storage object except when being accessed for viewing or editing. There is relevance to this when considering the overall design and use of larger implementations. The closer the asset is to the ingest/edit/playout tool, the greater the technical architecture needs to accommodate delivery requirements such as bandwidth, latency, capacity, access control, availability of resources, etc. The further the asset moves into a general storage architecture (e.g. hierarchical storage management [HSM]) the more it can be treated as a general blob (binary large object) that is typically held in the filesystem, not the database. The impact of this set of needs means that it is possible and reasonable to design larger systems using smaller, more expensive performance-systems at the edge of the network where the essence is being used in its intended form and less expensive systems further back for storage and archival. This type of design exemplifies Infrastructure Convergence Architecture, where the line-of-business operations technology and IT technologies depend on one another for functional and performance (non-functional) requirements.

Contents

Assets

Generally the "asset" being managed is collected and stored in a digital format. There is usually a target version - referred to as "essence" - generally the highest-resolution and highest-fidelity representation. The asset is detailed by its metadata. Metadata is the description of the asset and the description depth can vary depending on the needs of the system, designer, or user. Metadata can describe, but is not limited to, the description of: asset content (what is in the package?); the means of encoding/decoding (e.g. JPEG, tar, MPEG 2); provenance (history to point of capture); ownership; rights of access; as well as many others. There exist some pre-defined standards and template for metadata such as Dublin Core and PBCore. In cases of systems that contain large-size asset essences, such as MPEG 2 and JPEG2000 for the cases of images and video, there are usually related "proxy" copies of the essence. A proxy copy is a lower-resolution representation of the essence that can be used as a reference in order to reduce the overall bandwidth requirements of the DAM system infrastructure. It can be generated and retained at the time of ingestion of the asset simultaneous or subsequent to the essence, or it can be generated on the fly using transcoders.

Types of digital asset management systems

The following broad categories of digital asset management systems may be distinguished as:

- Brand asset management systems, with a focus on facilitation of content re-use within large organizations. Here the content is largely marketing- or sales-related, for example, product imagery, logos, marketing collateral or fonts, to give a few examples.
- Library asset management systems, with a focus on storage and retrieval of large amounts of infrequently changing media assets, for example in video or photo archiving.
- Production asset management systems focus on managing assets as they are being created for a digital media production (video game, 3D feature film, animation, visual-effects shots, etc.) They usually include work-flow and project-management features coupled with the storage, organization and revision control of frequently changing digital assets.
- Cloud-based Digital Asset Management systems have recently begun to emerge to compliment on-premise systems.

DAM software may be open source or proprietary.

See also

- Collaborative software
- Content management
- Data proliferation
- Desktop publishing
- Digital artifactual value
- Digital library

- Digital preservation
- Extensible Metadata Platform
- Image organizer
- Image retrieval
- Information lifecycle management
- Institutional repository
- Hierarchical storage management
- Non-functional requirements - definition of performance requirements
- Preservation metadata
- Repository OSID
- Web content management system
- Z39.87

References

1. ^ van Niekerk, A.J. (2006). *The Strategic Management of Media Assets; A Methodological Approach*. Allied Academies, New Orleans Congress.
2. ^ Magan Arthur (30 April 2005), *Intro to Digital Asset Management: Just what is a DAM?* (https://web.archive.org/web/20120722105717/http://www.realstorygroup.com/Feature/124-DAM-vs.-DM), archived from the original (http://cmswatch.com/Feature/124-DAM-vs.-DM) on 22 July 2012.

Further reading

- Jacobsen, Jens; Schlenker, Tilman; Edwards, Lisa (2005). *Implementing a Digital Asset Management System: For Animation, Computer Games, and Web Development*. Focal Press. ISBN 0-240-80665-4.
- Krogh, Peter (2009). *The DAM Book, Second Edition*. O'Reilly Media. ISBN 0-596-52357-2.
- Krogh, Peter (2005). *The DAM Book: Digital Asset Management for Photographers*. O'Reilly Media. ISBN 0-596-10018-3.
- Austerberry, David (2006). *Digital Asset Management, Second Edition*. Focal Press. ISBN 0-240-80868-1.
- Mauthe, Andreas and Thomas, Peter (2004). *Professional Content Management Systems: Handling Digital Media Assets*. Wiley. ISBN 0-470-85542-8.

External links

- Digital Asset Management and Museums (http://www.rcip-chin.gc.ca/contenu_numerique-digital_content/fiches_techniques-tip_sheets/gestion_contenus_numeriques-digital_assets_management-eng.jsp) - Digital Asset Management and Museums - An Introduction.

- Open Source Digital Asset Management (http://www.opensourcedigitalassetmanagement.org/) - Overview of open source DAM systems available.
- List of Digital Asset Management Vendors (http://digitalassetmanagementnews.org/dam-vendors/) - Comprehensive list of DAM vendors.
- DAM Directory (http://damdirectory.libguides.com/corporatedam) - Actively maintained and wide-ranging directory of DAM-related resources.

Categories: Information technology management | Digital asset management systems | Media asset management systems | Content management systems | Document management systems

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