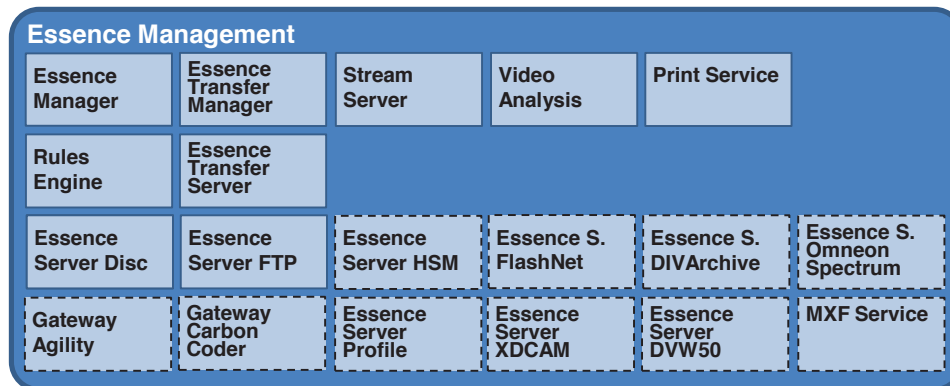




Purpose

Interplay® Essence Management keeps track of all media files (essence) and their respective locations. It triggers the automatic movement between primary and secondary storage levels, and processes essence files (video analysis, format conversion). Essence Management makes managing and streaming multiple proxy formats, multiple storage levels and storage locations easy. Its analysis, indexing and conversion options facilitate the re-use and re-purposing of content.

Functionality



Essence Manager

The Essence Manager is the central component of Essence Management. Essence Management manages high-resolution video files as well as the browse proxies, and keyframes. For access to the essence, Essence Management gets the request of an application from the browser and gives the access path (a URL) to the appropriate subsystems that provide stream access to essences.

All essences are organized in so-called “Essence Packages”, which group several essences semantically, e.g. to the essence of a movie trailer. Essence Management stores technical metadata and file location information persistently in a relational database. The essence files are managed in locations, carriers and pools. These pools can be “physical” groups of essence files located in separate locations on separate storage systems, or “logical” groups of essence files determined by their essence types. The system handles disks or tapes which can be fixed in the drive or in a tape library as well as external media.

Essence Server

In Interplay, Essence Servers are the preferred modules to store, retrieve, process and deliver essence in production quality, including high resolution video essence such as DVCPRO and IMX50. In many cases, Essence Servers are external or third party devices. Where applicable, they provide inventory information, file transfers (including partial restore, if supported by the third party system for the stored formats), essence processing, and device control.

Essence Servers fall in to two major classes, (1) Essence Servers for Video Servers and (2) Essence Servers for IT Storage and for Archive Management Systems. Essence Servers for Video Servers connect Interplay to third party VTRs and digital video servers. They provide record and playback control, deliver a directory view upon the server’s content, enable creation, renaming and deletion of clips, and provide transfer capabilities to other devices and storage facilities. Interplay currently supports the following Essence Servers:

- GVG Profile
- Sony XD-CAM Decks and XDCAM CART libraries
- Omneon Spectrum and MediaDeck
- Quantel sQServer
- Nexio (Leitch) NX
- DVW-500 compliant VTRs
- Generic Disk (UNC) and Generic FTP (including site commands)

Essence Management

Interplay Media Asset Manager

Transcoding and Format Conversion

Transcoding and format conversions are also part of Interplay Essence Management. These tasks are performed by third party components such as Anystream Agility for video essences or the D.A.V.I.D audio library for audio essences. Transcodings and format conversions are initiated directly by the Workflow Engine and can be performed during the ingest, import, transfer or export of essences. High-resolution or production audio and video files can be converted into other production formats as well as into browse formats such as DV25 video into WM9 browse format or WAV audio into mp3 audio browse format. Special transcodings can also be initiated during transfers upon FPD1's DiVArchive or to AVID editing systems.

Capacity and Performance

File handling of the Essence Management scales:

- From single pool configuration to a virtually unlimited number of pools
- Up to several hundred thousand files per pool

Streaming using the Stream Server provides:

- Up to 120 parallel video streams in MPEG1 (1.5 Mbit/s) quality per Stream Server MBA providing a maximum bandwidth of 25 Mbyte/s per Windows 2000 Server
- Total bandwidth can be increased running multiple Stream Servers on separate Windows servers in parallel

Provided adequate CPU power is available, Video Analysis MBA performs up to four times faster than in real-time,. Therefore, up to four concurrent video analysis processes can be run concurrently. The performance of transcoding services depends on the source and target format. In all cases, the overall number of concurrent processes can be scaled by the number of servers employed. Performance of Archive Management solely depends on the hardware infrastructure and the number of actors deployed. The number of objects in the archive is not limited.

Configuration Options

Essence Management allows the configuration of:

- **Near-online migration rules:** A rule set determining when essence files are to be transferred from an online to a near-online pool. Rules can include migration periods or times, maximum number of files per migration, and essence types to be migrated.
- **Cache management rules:** A rule set to control the deletion of files from the online storage. Rules can include watermarks, periods or times to clear the cache, online times, and essence types.
- **Near-online pools:** Rules for populating and synchronizing pools, including maximum files per pool, pool usage order (order in which pools are to be filled), and pools synchronization.
- **Transfer resources:** Specification of minimum and maximum number of resources to be used for transfers to and from near-online storage, as well as maximum bandwidth.
- **External stream servers:** Protocol and access paths for external streaming servers.

Supported Platforms

Interplay Essence Management runs on Microsoft Windows 2003 and 2008 Server. Essence Management stores data in file systems and the metadata in a relational database. Preferred databases are Microsoft SQL Server 2005 and 2008.

For more information visit www.avid.com/interplay

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