



# InterPARES 2 Project

International Research on Permanent Authentic Records in Electronic Systems

## Overview

### Case Study 09(3): Digital Moving Images – Commercial Film Studio

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#### **The Creator Context / Activity**

Creator: Anonymous commercial film studio in Hollywood, California. (a.k.a. “Comstudio”)

Creator type: Artistic focus / private sphere (large private corporation)

Juridical context: Ownership and copyright issues are the most important to the creator. The date and author of a work are recorded for legal purposes related to the primary use of the digital entities after the animated film is released. Also, security contracts are made with outside companies that use material from the studio to create trailers for films. “If material is used for any purpose other than stipulated in a contract, the outside contractor will never be hired again” (D1Q-4)

Activity: Creation of computer graphic animated feature films for release in theaters or on DVD. Specific activities include the production of artwork, marketing materials, publicity, legal work and administrative duties.

#### **Nature of the partnership**

There is very little information in the available documentation<sup>1</sup> regarding this aspect of the case study, most likely due to the fact that the creator wishes to remain anonymous. However, as noted above, reference is made to “outside companies that use material from the studio to create trailers for films.” The studio also enters into “tight contracts with outside parties to ensure that responsibilities and rights are clear.” (D1Q-4) Some of these contracts may come about when artwork is occasionally outsourced to another studio or a subsidiary.

There also are several departments or divisions of the creator that collaborate with or support the film production. Answers to the 23 Questions mention the Publicity, Consumer Products and Technology departments, as well as an office called Animation Product Support. “This office is internal to the company, but external to the production.” (23Q-11)

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<sup>1</sup> Documents available (and their citation abbreviations): Areas That Should be Covered, Characterization, 23 Questions, Appendix to 23 Questions (23Q-#), Domain 1 Questions (D1Q-#) and Diplomatic Analysis.

### **Bureaucratic/Organizational Structure**

The studio employs 2,000 artists and staff, including marketing, publicity, legal, administrative and other support staff.

With regards to the individual structure of each production, “When a new production begins, the new staff creates a structure loosely based on previous production experience they have had, rather than from any sort of procedure manual.” (23Q-9)

### **Digital Entities Studied**

The digital entities being studied are the works of art (assets) that are created and modified throughout the film creation process and which eventually become the final film product. These entities are generally graphics in the form of TIFF, MOV and JPEG files.

The production process also creates many “traditional” types of digital records such as memos, spreadsheets and so on, but these are excluded from this case study.

### **Documentary Practices Observed**

There is no records management system for the studio at large. A FileMaker Pro database tracks physical pieces of artwork.

### Records Creation and Maintenance

There are no formal, written manuals or **guidelines**. “A training department exists; however, staff work from handouts. Procedures are constantly in flux. No central procedures manual exists.” (23Q-9) The handouts and word of mouth are used to explain and make staff aware of the importance of the use of naming conventions as a means of identifying, retrieving and accessing digital entities. “The use of word of mouth techniques is the documentation, which can be considered a kind of oral tradition.” (23Q-9)

As mentioned above, strict **naming conventions** are used to identify digital entities at the production level. “It has taken the studio many years to come to understand the importance of these conventions. Only now is the use of them understood.” (23Q-9) The naming sequence is always the same (/studio/title/sequence/scene/object name/version#.extension), although the terms used are not consistent from production to production. Specific terms to describe each object in development are selected in the brainstorming stage by the production team. Thus, there is agreement by committee on the naming conventions to be used for each production. There has been some attempt to develop a consistent taxonomy.

Along with the final artwork, **metadata** is stored in the system. This includes the sequence, scene, frame, as well as the title of the production and the division that delivered the assets to the archive. This information closely resembles the naming convention, with which it may be confused by the creator. “There is no plan for rich metadata such as subject indexing because in the context of the company and for the purposes for which the information system is managed, this is not necessary because *all assets are current*.” (23Q-12, emphasis added) The studio’s archives uses the Dublin Core, Categories for the Description of Works of Art Thesaurus for Graphic Materials I: Subject Terms and the Thesaurus for Graphic Materials II: Genre and Physical Characteristics Terms as metadata standards and “the archivist has created a set of rules

about how certain fields of the database need to be populated using these [standards]. However, much explaining and persuasion need to take place for users to adopt these practices, since the archivist does not have the authority to enforce these desirable practices.” (23Q-12). Transactions that modify a record’s metadata are not documented.

The question of **changes** made to the digital assets is an interesting one. As a standard practice, animation artwork is “modified and merged throughout the production process” (D1Q-1) until it eventually becomes the product that is distributed in theaters or on DVD format. “As new artwork is created (a manipulation of an existing piece) in the digital context, it becomes an additional layer on top of the previous iteration and the two **versions** are merged to form a new single file,” (D1Q-3) which is composited and flattened to reduce file size. As a result, “there are not a great number of digital entities created, but rather digital entities that evolve.” (23Q-5) Previous versions of digital objects are saved for a time, in case there is a need to return to a previous version, but eventually older versions are overwritten. When final approval on an artwork is received, versions are eliminated, unless a special provision is made to archive them.

#### Recordkeeping and Preservation

The studio has an **archive**. Although there is not a recordkeeping system in the company at large, there is one in the archives. The system can transform, e-mail or FTP assets securely and **aggregate** sets of assets. It was purchased as a turnkey Digital Asset Management system, tailored to the studio’s needs and re-branded. It is not necessarily used as an archiving system, but rather is used “as a research tool by the studio.” (23Q-12) In addition, records keeping is unstructured and unprofessional. “The studio does not intentionally hire trained information professionals such as librarians and archivists to manage the system, so the personnel that are hired fend for themselves and invent the information management processes, often rather clumsily.” (23Q-12)

There is no system for **digitally archiving** materials. Traditional (paper) records are given more importance than digital records. For example, it is the physical assets (e.g., paper drawings) that receive an approval signature from the director. “The fact that the physical manifestation bears the signature makes this version the document of record which is archived.” (23Q-4) The creation of digital entities seems to be an expedient – a means to an end. They have an operational, but not an archival value to the creator. “Digital technology is used in the process of film production for convenience (can be sent to various players and easily manipulated), but a physical entity is what becomes the record and is archived.” (D1Q-1)

The preference given to **physical assets** over digital assets is also largely motivated by their utility as commercial objects. “Analogue material is kept largely because of its commercial value. Individual animation cels or other artwork can be sold in galleries or at auction, but digital files have no value or only ephemeral value for such purposes.” (23Q-6)

It seems that the creator is more interested in **publications** (the final products) than in records (the byproducts of its activities). “Although final artwork is created at different stages of the production process...these pieces are not the final film product and are regarded simply as steps in the larger process” (D1Q-3) In other words, “since that artwork is not the final product for the film, it is considered merely a stepping stone.” (23Q-10) Also, in the view of the creator, “the

digital files created within the production process support the final output of TIFF files; however, these digital files are not considered especially valuable by the creator.” (D1Q-2) Only those “files saved and sent to the archives are considered to be records.” (D1Q-4) “All other materials are considered ephemeral and exist solely to advance the work of the production.” (23Q-12)

“There are no **preservation strategies** or methods because it is felt that none are needed. The studio is only ten years old and the culture of the organization is such that there is no thought of preservation or migration.” (23Q-13) Long-term preservation of assets is just not a concern for the creator. “Retention decisions are made based on legal and marketing reasons. No specific retention schedule is in place; files are retained when there is a specific reason for it.” (D1Q-4)

File **saves** are carried out in the following way: files that are modified are overwritten. As a result, “not every file is saved every day, only the ones that have been modified are overwritten. There is a cyclic arrangement. Eventually, inactive files are sent to off-line **storage**.” (23Q-5) Since production usually has a 4-year timeline, material produced in the first year may be stored off-site for lack of space on-site. Once the production is completed, digital entities are stored on backup tapes “in some kind of order.” (23Q-10) Since there is no system for digitally archiving production materials and the order of storage is unspecified, “nothing can be retrieved from storage unless the file name and path are known, as well as an approximate date of production. The process is somewhat akin to detective work.” (23Q-10)

There is no automatic transfer of records to the archives. **Capture** to the digital asset management system is done manually, in that the archivist must seek out the material to be archived, gather the material and ingest it into the system. Since there is no records management program, “selecting material to save is like choosing material floating by on a moving river.” (23Q-10) The archivist makes daily tape **backups** of selected digital entities. However, “The backup system is based on catastrophe scenarios, not on records management, so that the system just happens to have material from the previous days.” (23Q-11)

The question of technological **obsolescence** may be an important one for the creator, since hardware in the computing studio is frequently changed. However, it is not a pressing concern and the creator believes that current practices avoid the need to address this question, despite the fact that “users trying to access materials from even recent productions have been unsuccessful because of hardware and software changes that occurred in the meantime.” (23Q-14) It is probable that the creator regards these incidents as minor annoyances not affecting its ability to produce films, since “the culture of the studio is such that until a situation arises that creates an actual problem, the question will not be addressed.” (23Q-13)

There is no process of **migration** or upgrading. This seems to be based on the fact that artwork is rarely re-used. “It is deemed more economical to re-create artwork if it is to be reused than to engage in a process of migrating or otherwise **upgrading** it in case it will be reused. This approach limits the amount of time, energy and money spent on long-term preservation of digital entities and avoids the need to implement preservation strategies that respond to problems of hardware and software obsolescence.” (23Q-5) In addition, many in-house tools have been created, including software to open any digital image file format, which may reduce the

perceived need to address the question of obsolescence. “The policies and procedures need to be modified, but there is no institutional motivation for carrying this out.” (23Q-14)

### **Accuracy, Authenticity and Reliability**

#### Accuracy

The question of accuracy is not addressed in the available documentation, apart from the issue of “quality” as mentioned in the Reliability section, below.

#### Authenticity

Usability seems to be the test of authenticity for the creator. “The creator is certain the authenticity of the digital entities is assured, because if they are not authentic they will not register correctly on top of previous artwork, nor will the compositing operation be successful.” (23Q-10)

The creator believes that “the version number gives authenticity to the digital entities and assigning this correctly is assured through training in the use of the naming conventions.” (23Q-9)

Access to digital entities in the digital asset management system varies according to the competencies of each individual user. Specific permissions are granted to each user and access security is set up at the directory or folder level.

#### Reliability

Usability also seems to be the test of reliability for the creator. “The quality and reliability of digital entities are assured if the digital entity is usable in conducting the next stage of work. If the document responds to the software first by opening then by responding to the software’s commands, it is considered reliable and of appropriate quality.” (23Q-9)

As with other case studies in InterPARES2, trust forms a large part of the question of reliability. In the case of this creator, “the primary trust is in the security of the system. At the system level, the backups made daily constitute the assurance of reliability.” (23Q-9)