



InterPARES 2 Project

International Research on Permanent Authentic Records in Electronic Systems

Diplomatic Analysis

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

Tracey Krause, UBC

January 2006

INTRODUCTION

The InterPARES 2 case study 09(3), *Digital Moving Images, Commercial Film Studio* (CommStudio), was conducted to examine digital assets generated in the process of producing theatrical CG animated features. It falls into the InterPARES investigation area of artistic activities that are carried out using experiential, interactive and dynamic computer technology.

This case study only examines the digital image assets are the artwork as they evolved and modified through the production process from pre-visualization to the final cut of the film. Sound, non-moving image material, as well as the editing process was not evaluated by the investigators.

The following text presents the results of the diplomatic analysis on the digital entity identified in the case study report. The purpose of the diplomatic analysis is to assess the status of the identified digital entity as record, and based on the analysis, Domain 3 of InterPARES 2 could propose applicable preservation strategies. The digital entity identified in the case study report is digital assets. This diplomatic analysis therefore centers on the identification of the digital asset as the record.

IDENTIFICATION OF RECORD(S)

A record, as defined by the InterPARES glossary, is a document made or received and set aside in the course of a practical activity. A record must also possess all of the following five components, as established by InterPARES 1 research conclusions: fixed content and form, embedded action, archival bond, persons and contexts. The application of the definition of a record to the creator's digital entities is therefore analyzed according to the following parameters:

1. To be identified as a record, the digital entity must possess fixed content and form,¹ and be affixed to a stable medium (or physical carrier).

- **The content of the digital asset is fixed.**

Digital assets are stored daily on backed up tapes and kept on DHL servers, which reside in the Technology Department of CommStudio.

- **The documentary form² of the digit asset is fixed.**

The content of the digital assets are fixed, as each are prescribed with strict naming conventions for purposes of retrieval and preservation.

2. A record must also participate in an action, defined as the conscious exercise of will by an officer of the creator or by an external person, aimed to create, maintain, modify or extinguish situations. A record results as an unintended by-product or product of the action.

The overall act is the production of a CG animated feature. Each digital asset that is generated contributes and evolves into the animated feature, and therefore is a natural by-product of the overall stated act.

3. A record must possess an archival bond, which is the relationship that links each record to the previous and subsequent record of the same action and, incrementally, to all the records which participate in the same activity. The archival bond is originary (i.e., it comes into existence when a record is made or received and set aside), necessary (i.e., it exists for every record), and determined (i.e., it is characterized by the purpose of the record).

The answer to core research question 4f in the Final Report identifies that digital assets form aggregations through the strict naming conventions used to identify each digital asset. For instance, each asset contains information on the sequence, the scene, the name of the object, and the version number. Furthermore, each digital asset are grouped together functionally relating to its series, i.e., lighting keys, digital X-sheets. Thus, each digital asset forms an intellectual bond with every other digital asset.

4. Record creation must involve at least three persons, whether or not they explicitly appear in the record itself. These persons are the author, addressee and writer; in the electronic environment, one must also take into account two additional necessary persons: the creator and the originator.

¹ The InterPARES1 Authenticity Task Force has defined fixed form as the following: 1) binary content of the record, including indicators of documentary form, must be stored in a manner that ensures it remains complete and unaltered, and 2) technology must be maintained and procedures defined and enforced to ensure that the content is presented or rendered with the same documentary form it had when set aside. (See ATF Research Methodology Statement, available at: http://www.interpares.org/documents/interpares_ResearchMethodologyStatement.pdf).

² Definition of documentary form from the Glossary Definitions, Terminology Database, InterPARES Web site: The rules of representation according to which the content of a record, its administrative and documentary context, and its authority are communicated. Documentary form possesses both extrinsic and intrinsic elements.

- The record's **author** is the physical or juridical person having the authority and capacity to issue the record or in whose name or by whose command the record has been issued.

The author is CommStudio since they own the rights to all digital assets generated in the course of production for each CG animated feature.

- The **addressee** the physical or juridical person(s) to whom the record is directed or for whom the record is intended.

CommStudio is the addressee as they are required to sign off on all artwork generated in the course of the production for each CG animated feature.³

- The **writer** is the physical or juridical person having the authority and capacity to articulate the content of the record.

The writer is any artist employed by CommStudio and assigned a particular task in the creation of the CG animated feature, in which generates the digital asset.

- The **creator** is the person in whose fonds the record exists.

The creator is CommStudio, as indicated in the answer to Domain 1 Q. 1.2(c) in the Final Report, all assets created during the course of the production is owed by CommStudio.

- The **originator** is the person to whom the Internet account issuing or the server holding the record belongs.

CommStudio is the originator, as it owes the server in which the digital assets are stored.

5. Finally, a record must possess an identifiable context, defined as the framework in which the action in which the record participates takes place. The types of context include juridical-administrative, provenancial, procedural, documentary, and technological.

- The **juridical-administrative context** is the legal and organizational system in which the creating body belongs.

CommStudio must adhere to various legal obligations as seen in contracts, as well as provide proper crediting to each production before it they can be screened. The report does not state specifically which laws fall under the jurisdiction of CommStudio.

- The **provenancial context** refers to the creating body, its mandate, structure and functions.

CommStudio is a large anonymous commercial theatrical film studio aimed at creating theatrically CG animated features from conception to the finished work. This company has a staff of 2000 that includes artists, and support staff to carry out the following functions: marketing, publicity, legal and administrative duties. The creation of an animated feature passes through many departments each responsible for a particular aspect in its production.

³ This procedure relates only to the digital asset's physical counterpart, not the digital asset itself.

- The **procedural context** comprises the business procedure in the course of which the record is created.

Some of the procedures identified in the Report include:

- Animation system
- Animation character integration
- Visual development
- Shot create

See also the Appendix titled “Workflow,” in the report.

Diplomatic analysis of **procedural phases** in the creation of a CG animated feature can be broken down as follows:⁴

- a. **Initiative:** the introductory phase of any procedure is “constituted by those acts, written and/or oral, which start the mechanism of the procedure.”⁵

The initiative phase of the procedure of creating a CG animated feature begins with story panels that present the ideas of each film to the decision-makers to gain their approval (see answer to core research question 7 in the Final Report).

- b. **Inquiry:** this preliminary phase “is constituted by the collection of the elements necessary to evaluate the situation.”⁶

The inquiry phase of the procedure of creating a CG animated feature involves the staff to loosely structure the production around the previous production experience. This is done because there is no procedural manual.

- c. **Consultation:** this phase is “constituted by the collection of opinions and advice after all the relevant data has been assembled.”⁷

The consultation phase of the procedure of creating a CG animated feature is unclear in the report.

- d. **Deliberation:** this phase is “constituted by the final decision-making.”⁸

The deliberation phase of the procedure of creating a CG animated feature is the signing off of all artwork created and generated in the course of production.

⁴ The phases of procedure as dictated by Diplomatic Analysis; see Luciana Duranti, *Diplomatics: New Uses for an Old Science* (Lanham, Maryland and London: The Scarecrow Press in association with the Society of American Archivists and the Association of Canadian Archivists, 1998), 115.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

- e. **Deliberation control:** this phase is “constituted by the control exercised by a physical or juridical person different from the author of the document embodying the transaction, on the substance of the deliberations and/or on its forms.”⁹

There was no information found in the report regarding the phase of deliberation control in the sense of administration control.

- f. **Execution:** “the documents created in this phase are the originals of those embodying the transactions.”¹⁰ In other words, the execution phase results in the issuing of the first record capable of producing the consequences intended by its author.

The execution phase of the procedure of creating a CG animated feature is the final output of the work in TIFF format for screening.

- The **documentary context** is defined as the archival fonds to which a record belongs and its internal structure.

All digital assets created during production are owned by CommStudio. Although no formal procedures document the entire process, the structure for producing a new CG animated feature is based on the experiences from the previous production. Therefore, strict naming conventions are implemented for retrieval and preservation purposes.

- The **technological context** is defined as the characteristics of the technological components of an electronic computing system in which records are created.

CommStudio employs the following software: Maya with extensions .ma, .md and .ms files and then published as .mov files; Render Man; Word; and Adobe Photoshop. Original artwork is scanned in as TIFF files using Avid software. CommStudio uses Hewlett Packard computers with Apache software is used strictly for security.

CONCLUSIONS

The above diplomatic analysis of assessing the digital assets as records demonstrates that this case study does possess all of the elements necessary for being considered a record.

It is difficult to assert whether the digital assets are regarded as authoritative records. The archivist employed by CommStudio decides which digital files (assets) are sent to the archives and saved—these files are regarded as the record. All other elements are considered ephemeral, “and exist solely to advance the work of the production.”¹¹ Furthermore, preservation of digital assets is an activity only “carried out in the course of production, to serve production for re-use and disaster planning. Once the sequence has been rendered to film, preservation is no longer necessary for production.”¹²

⁹ Ibid..

¹⁰ Ibid., 116.

¹¹ Case Study 09(3) Final Report, Question 17, p. 10.

¹² Case Study 09(3) Final Report, Domain 3 Question 3.2, p. 18.