

Media Asset Discussion – The Proposed Data Models

This document outlines 4 options for dealing with Media Assets (i.e. the location, condition, rights and reproduction) in EMu. The hope is that after considering the 4 models that feedback will allow us to review and refine these models. There are many permutations that could have been chosen, however, it was felt that if a common general structure can be found, then the details can be worked out by refining the model.

SOME TERMS

Collection Item – an object that forms part of a museums collection

Media – an object or action through which something else is conveyed. In our case, this would be images, videos, text etc.

Media Asset – A media asset is a piece of media considered important enough to be catalogued and preserved by the institution. These can be physical objects (i.e. photographs), or digital files (i.e. a jpeg)

Digital Asset – a digital media asset, obviously.

Catalogue Module – the database and associated functionality used to catalogue collection items within EMu

Multimedia Module - the database and associated functionality used to store and process digital media files within EMu

WHAT ASPECTS OF MEDIA ASSETS ARE REQUIRED TO BE MANAGED

Rights – copyrights/licences

Reproduction

Content

Locations

Conservation – mainly for non-digital assets, however as formats become obsolete and digital media (i.e. the actual physical storage) degrade, a conservation strategy for digital assets will be increasingly required.

The models should be considered on their ability to correctly manage media assets.

Things to consider are: Is the appropriate information recorded for each asset, and is this information correctly structured? Is it easy to find a particular asset? Will the model easily allow museum processes to be carried out (eg loans, availability to a Web Site)?

DATA MODELS

Four data models are being considered:

1. All Media Assets in the Catalogue (the current setup)

In this case, each Media Asset (whether Analogue or Digital) is treated as part of the collection in the Catalogue. Each can then take advantage of existing cataloguing functionality.

2. Collapse All Multimedia into the Catalogue

We move all existing multimedia functionality into the catalogue. Each piece of media is then treated as a collection item

3. All Digital Representations in Multimedia Module

We make the distinction that a resource that is digital is catalogued in the multimedia module. Basically, if you can hold it – catalogue, cant – multimedia. Extra functionality is required to create catalogue records for loan/exhibition purposes, or cataloguing functionality added to multimedia module.

4. Separate Digital Asset Module

We create a new module, specifically designed for digital assets. It has all the functionality needed to fully catalogue these assets.

SOME ASSUMPTIONS:

The models assume that each record has it's own copy of a multimedia resource. Whilst records could share the same actual file, each record would still have to contain data about the file, so the models reflect this.

We are looking at the model, so extra functionality to drive the cataloguing process is assumed to exist.

SCENARIOS

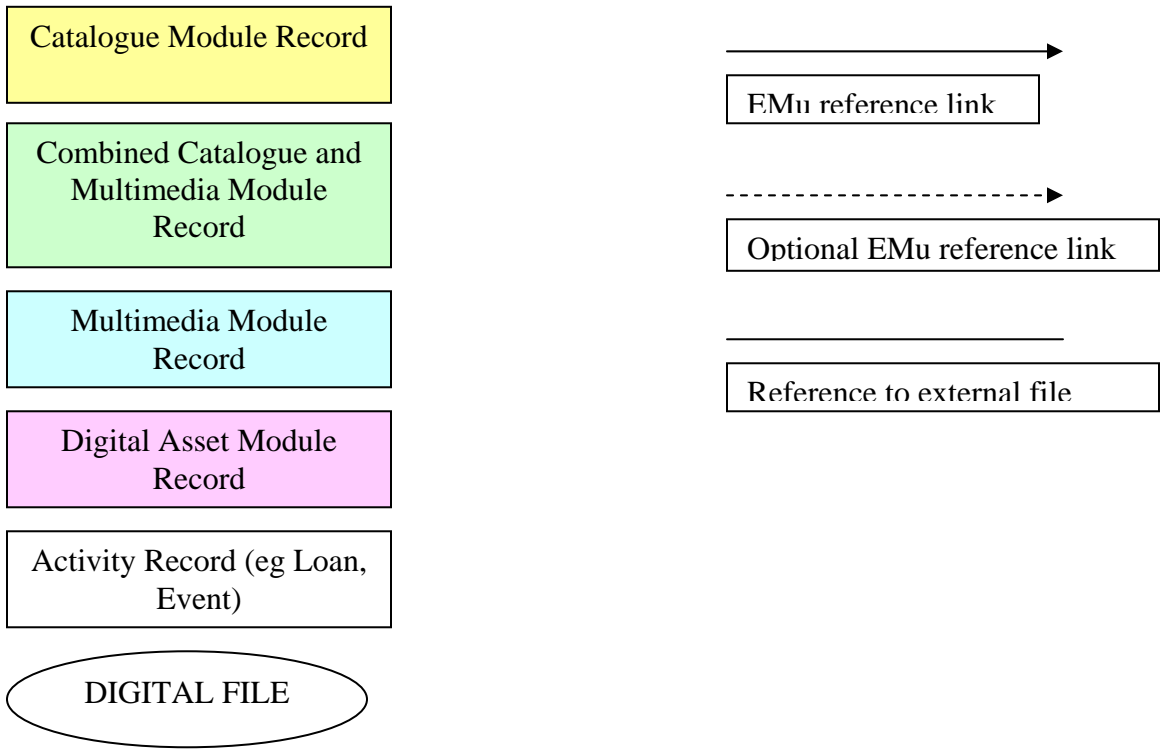
The scenario diagrams show the workflows in each situation.

The model diagrams describe the internal EMu structure that would be produced. They do not represent functionality or workflows required to produce the structure.

SCENARIO LEGEND

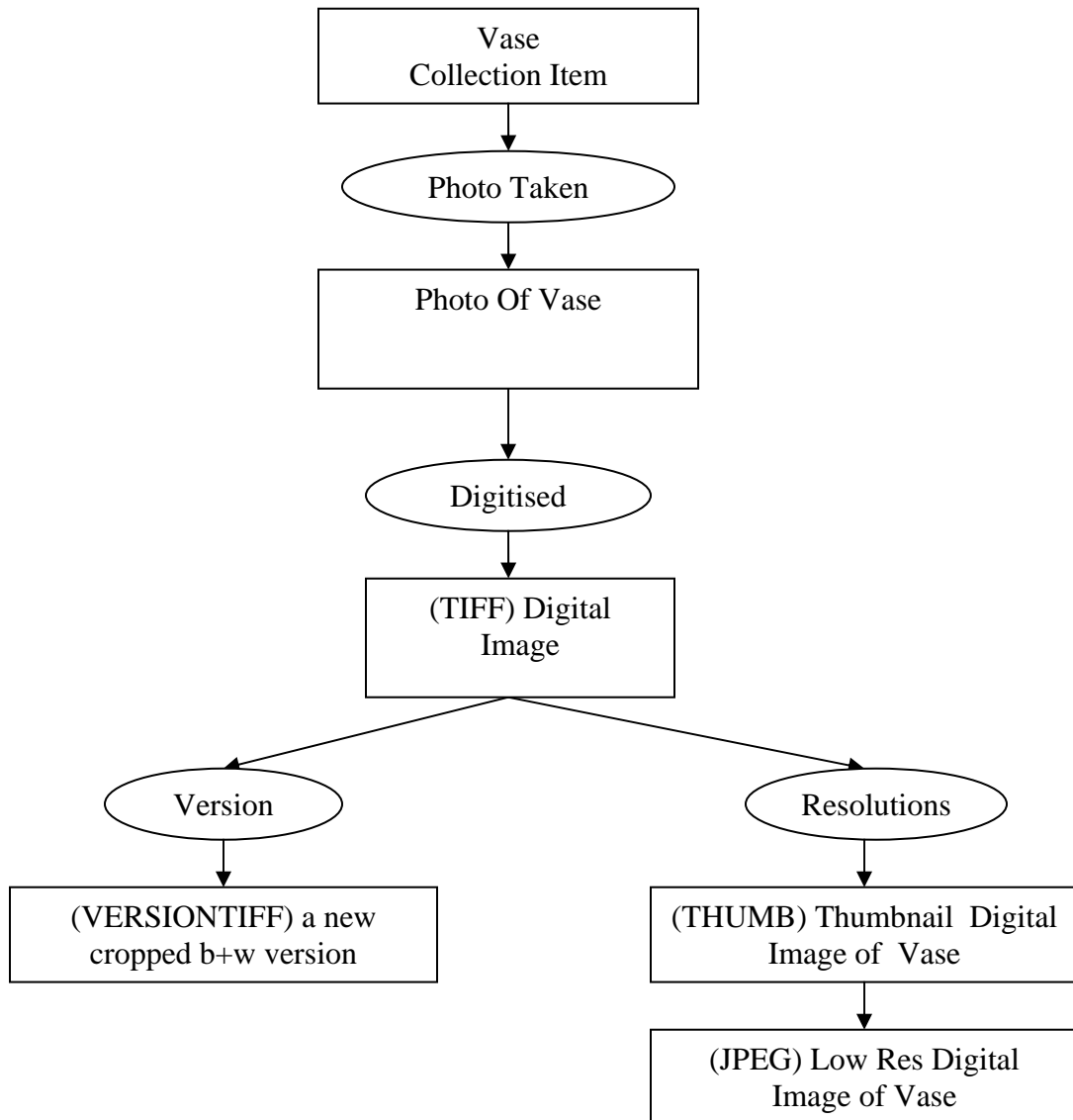


MODEL LEGEND

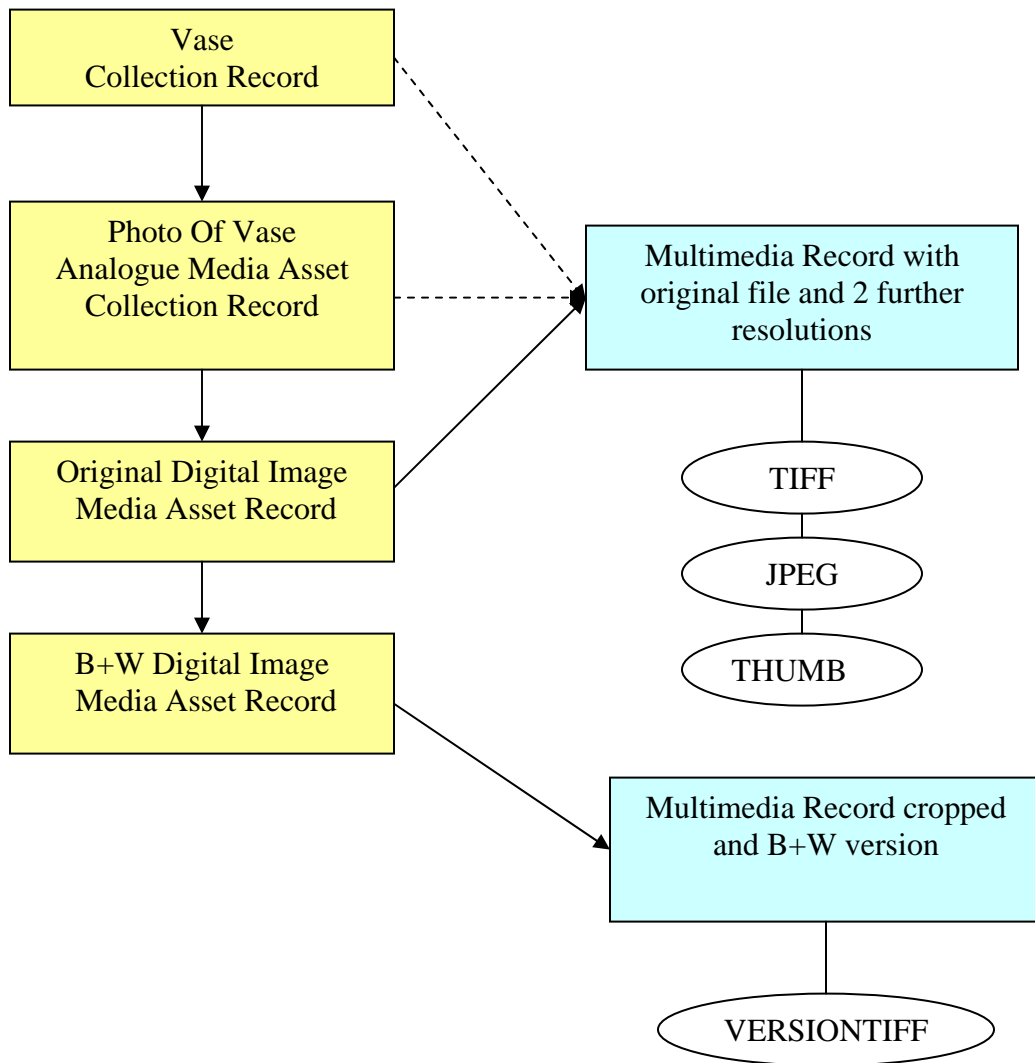


SIMPLE EXAMPLE:

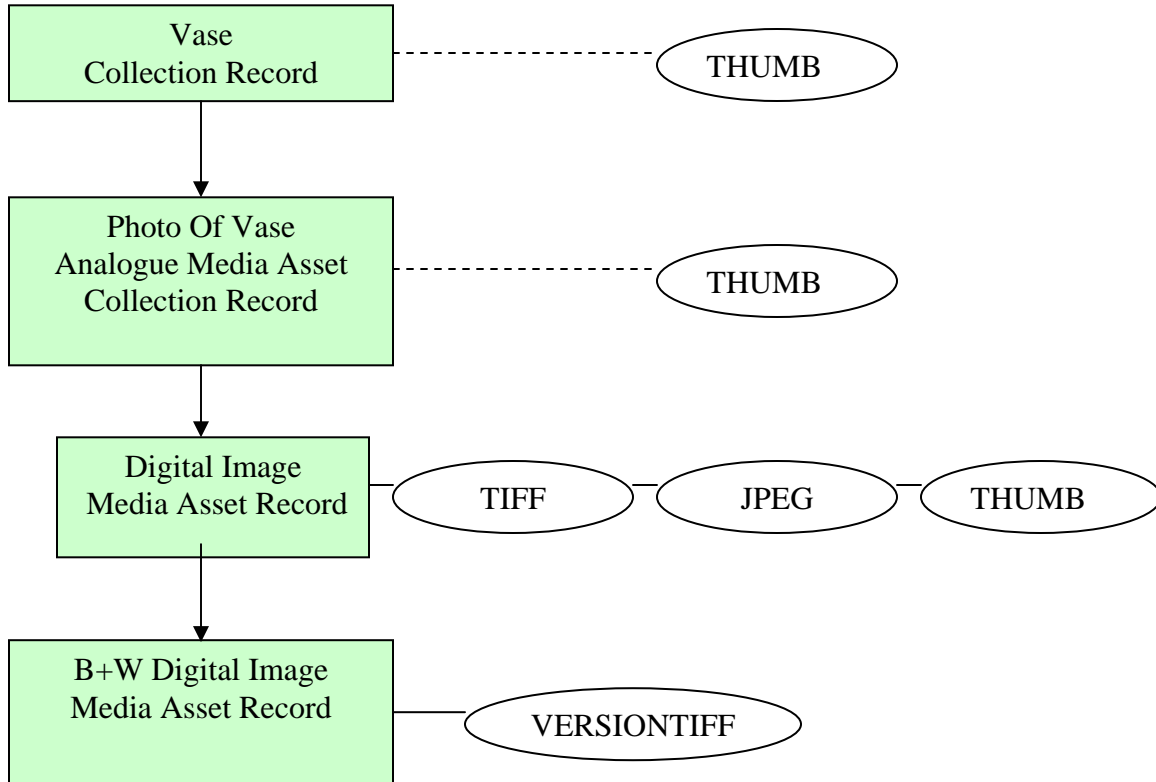
A photo is taken of collection object (Vase). The photo is digitised, 2 further resolutions made. A cropped and b+w version is created from the original digitisation.



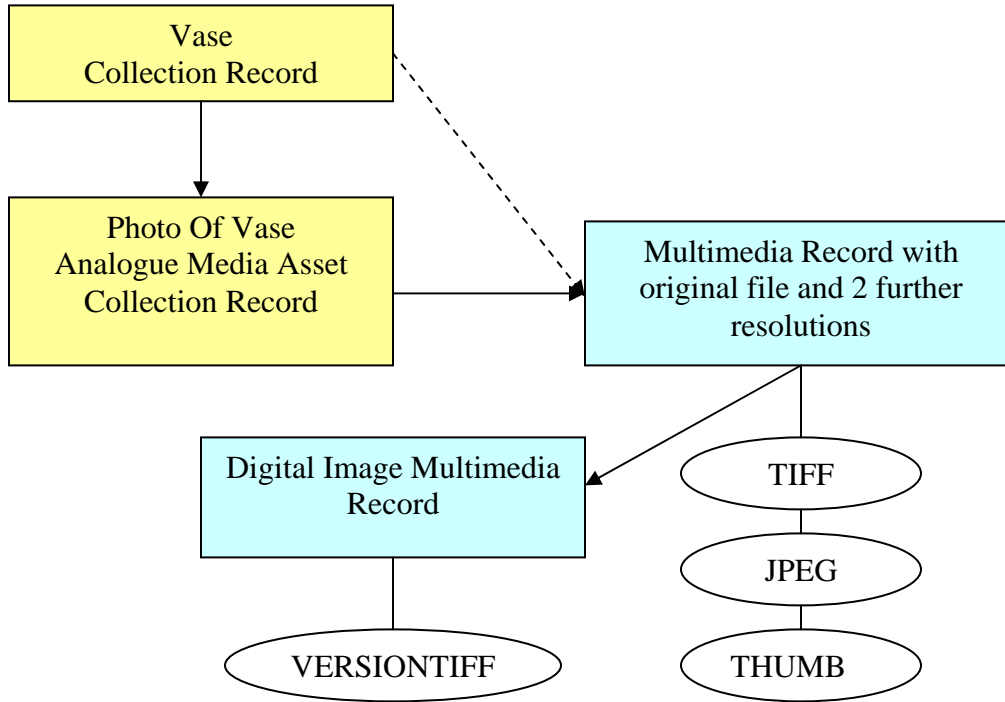
1. All Media Assets in the Catalogue (the current setup)



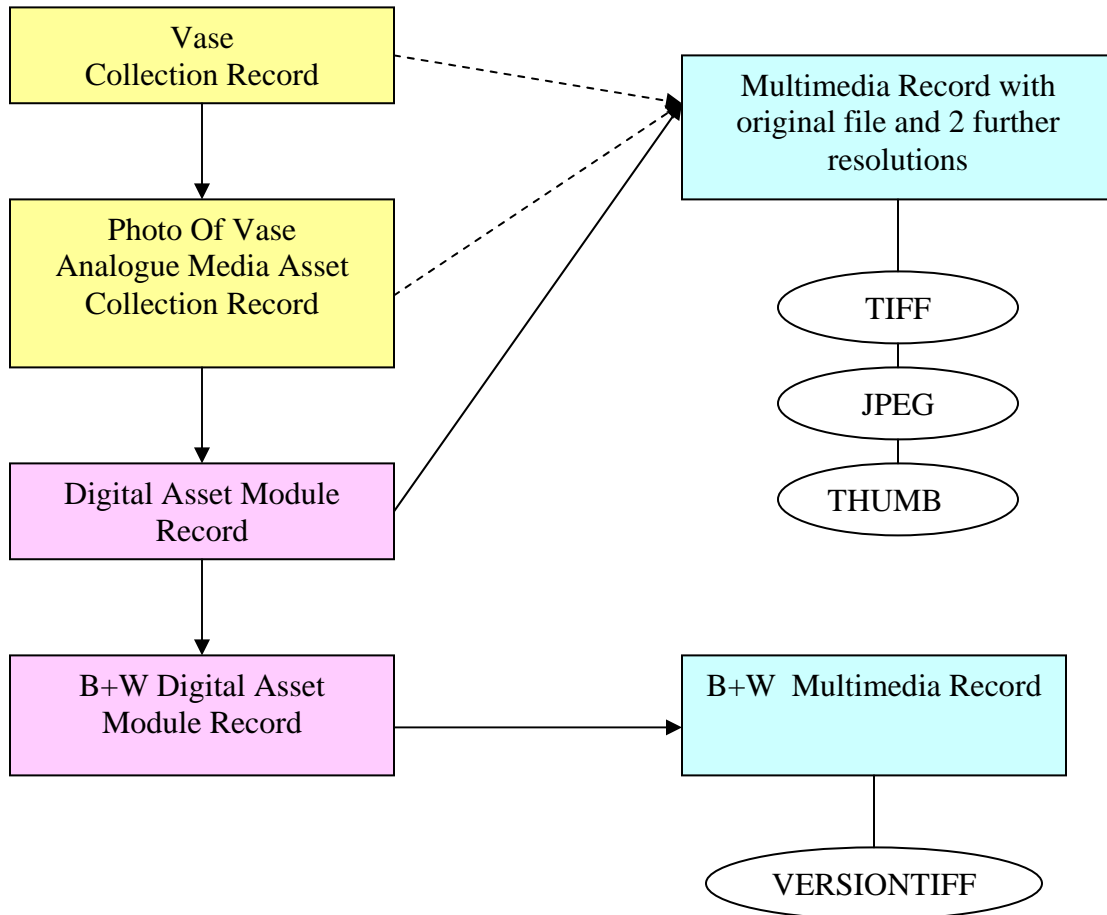
2. Collapse All Multimedia into the Catalogue



3. All Digital Assets in Multimedia Module



4. Separate Digital Asset Module



COMPLEX EXAMPLE:

Your institution wants to catalogue a digital video showing a moving steam train. It does not have the actual steam train in its collection. The video cassette is catalogued as a piece of analogue media (a **Physical Master**). The tape is digitised into an mpeg file (**Master**) and stored on CD. A copy of the file is sent to off-site backup (**Archive Master**), whilst a further copy is sent to the Multimedia Department (**Working Master**).

This file is edited in the Multimedia Dept to produce a short video (a **Version**) to be used in an exhibition (**Usage**). At the same time, a request has been made to borrow the short video by a television studio for a documentary (**Usage**). The loan is at the same time as the exhibition. 6 months later both the exhibition and loan are due to end and the loan copy will be returned to your institution, but the exhibition copy will not. A Quicktime Version (**Derivative**) is also produced for use on the Web (**Usage**).

Notes:

Physical Master:- An original tape or photo.

Master:- A hi-res/large asset file, probably containing the original content

Archive Master:- Back up of a Master.

Working Master:- An asset that will be used to produce something.

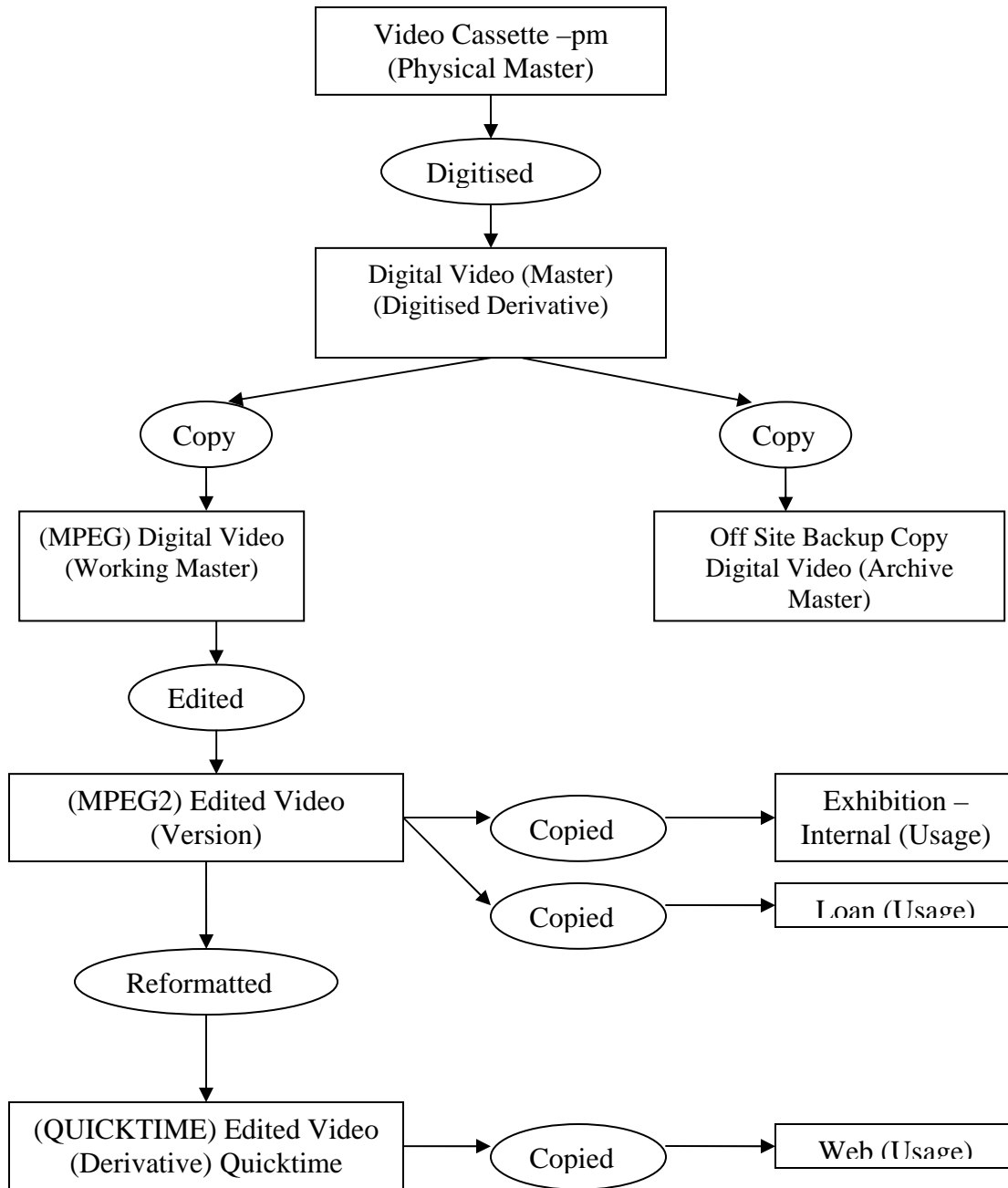
Version:- By changing the content of an asset (editing the video, manipulating the picture), you create a version of it.

Derivative:- By changing the format of the asset (but not the content) you create a Derivative.

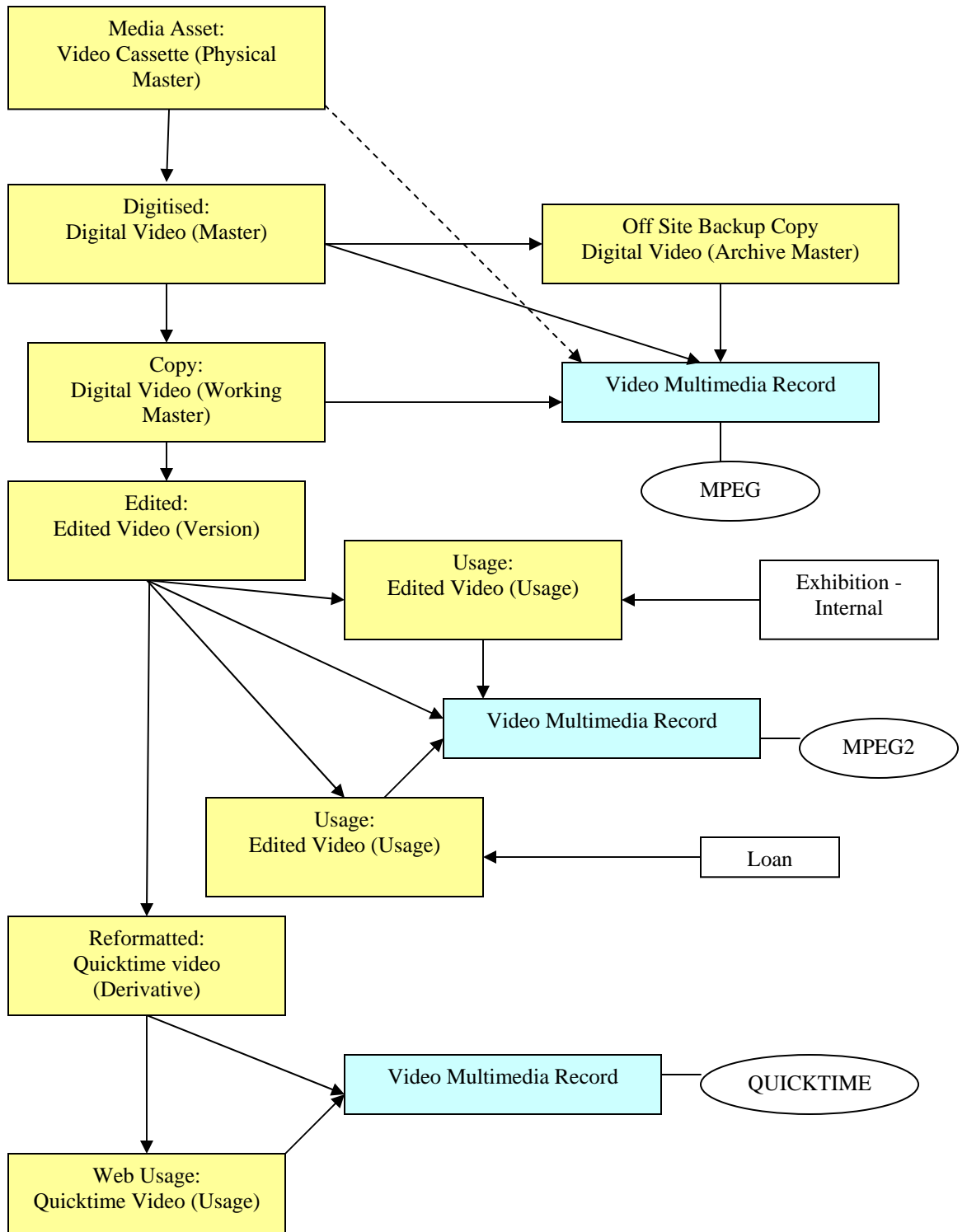
Usage:- When you make a copy of a file for use (i.e. on your website), then this is a usage.

These definitions are not intended to be set in stone. Each institution has its own terminology, and this should be catered for.

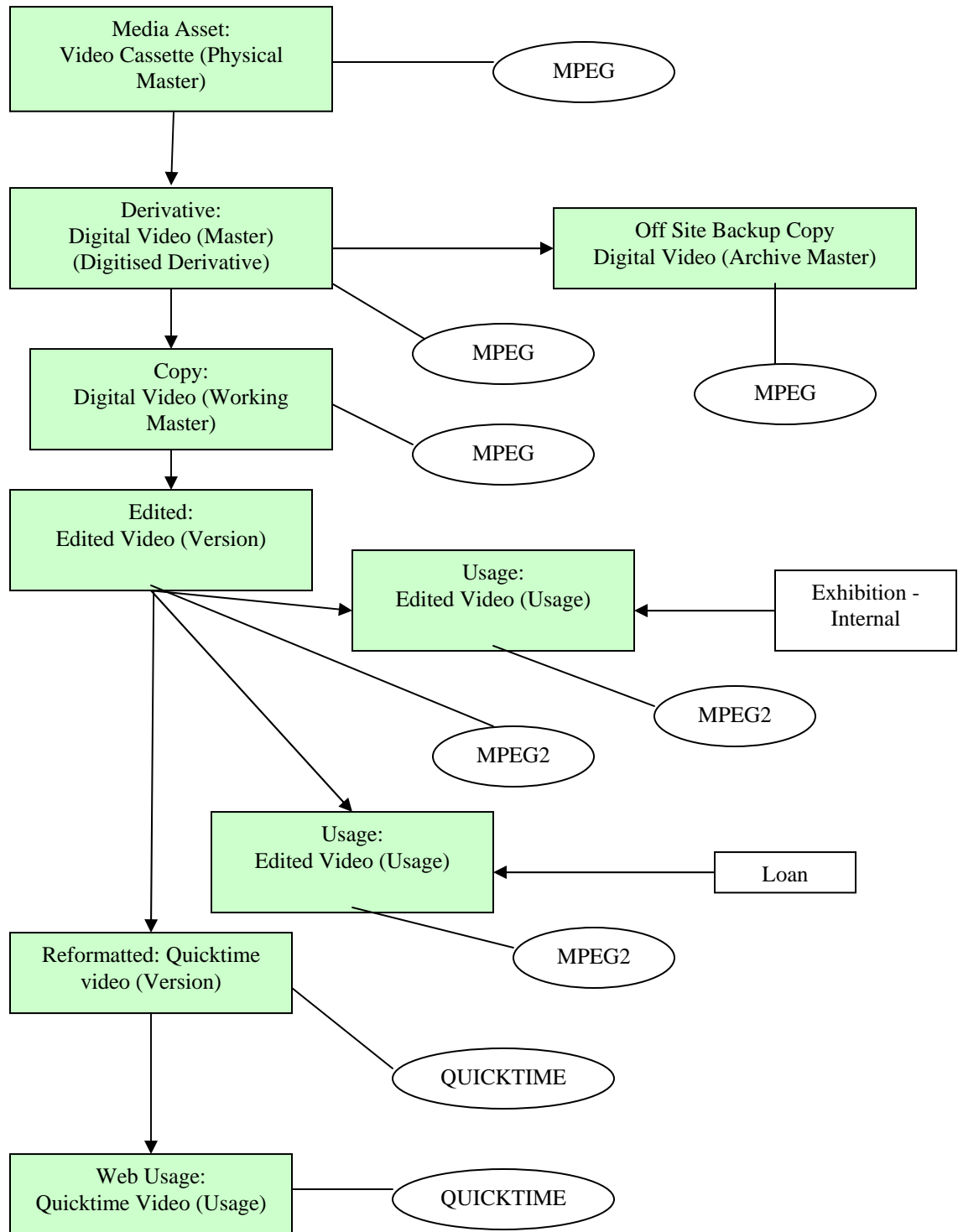
In addition, some institutions may find it unnecessary to record all the levels of the hierarchy as outlined here (for example, you might just give the 'Master' a permanent location, instead of recording an 'Archive Master' record). It is the structure of the models we are trying to get right.



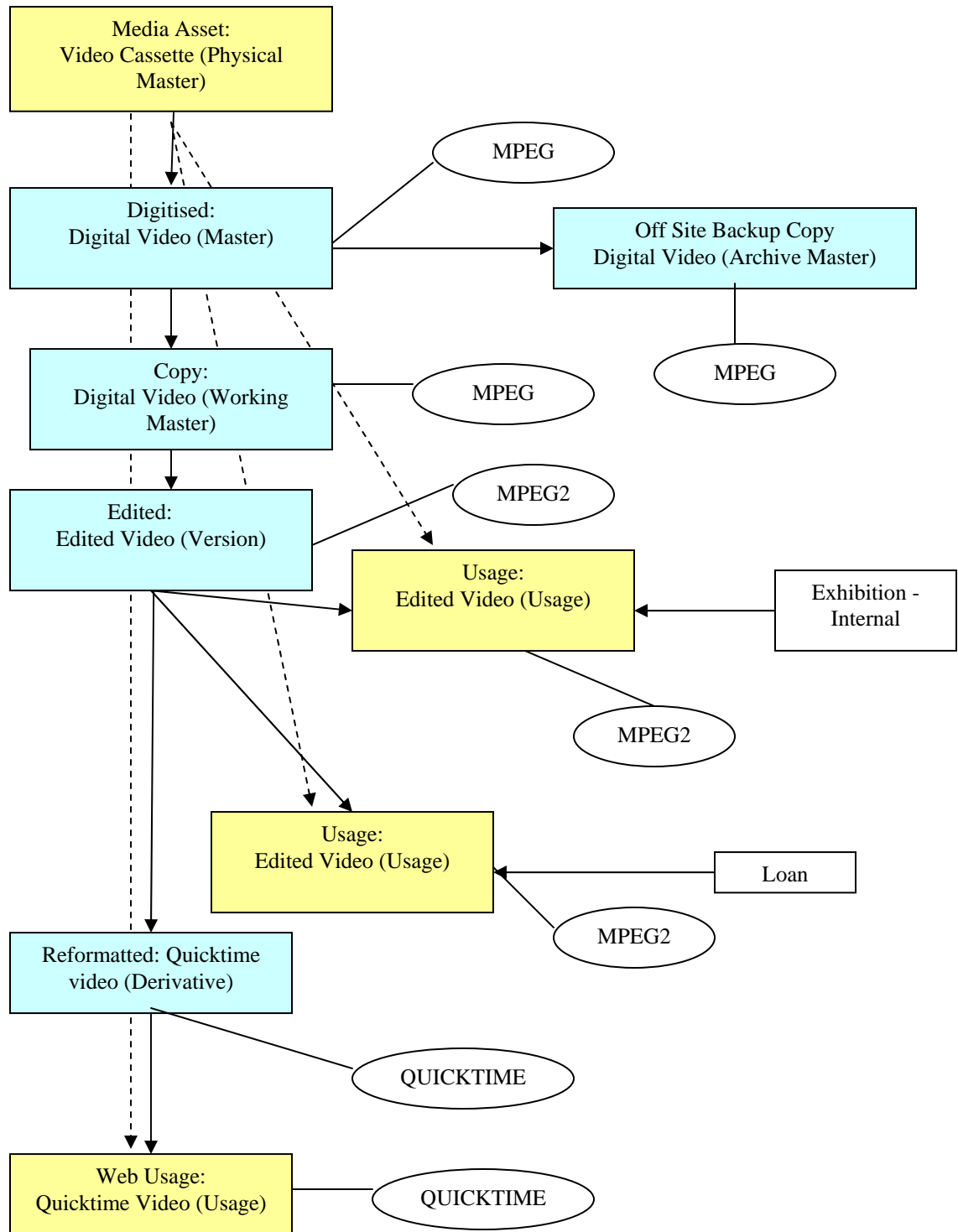
1. All Media Assets in the Catalogue (the current setup)



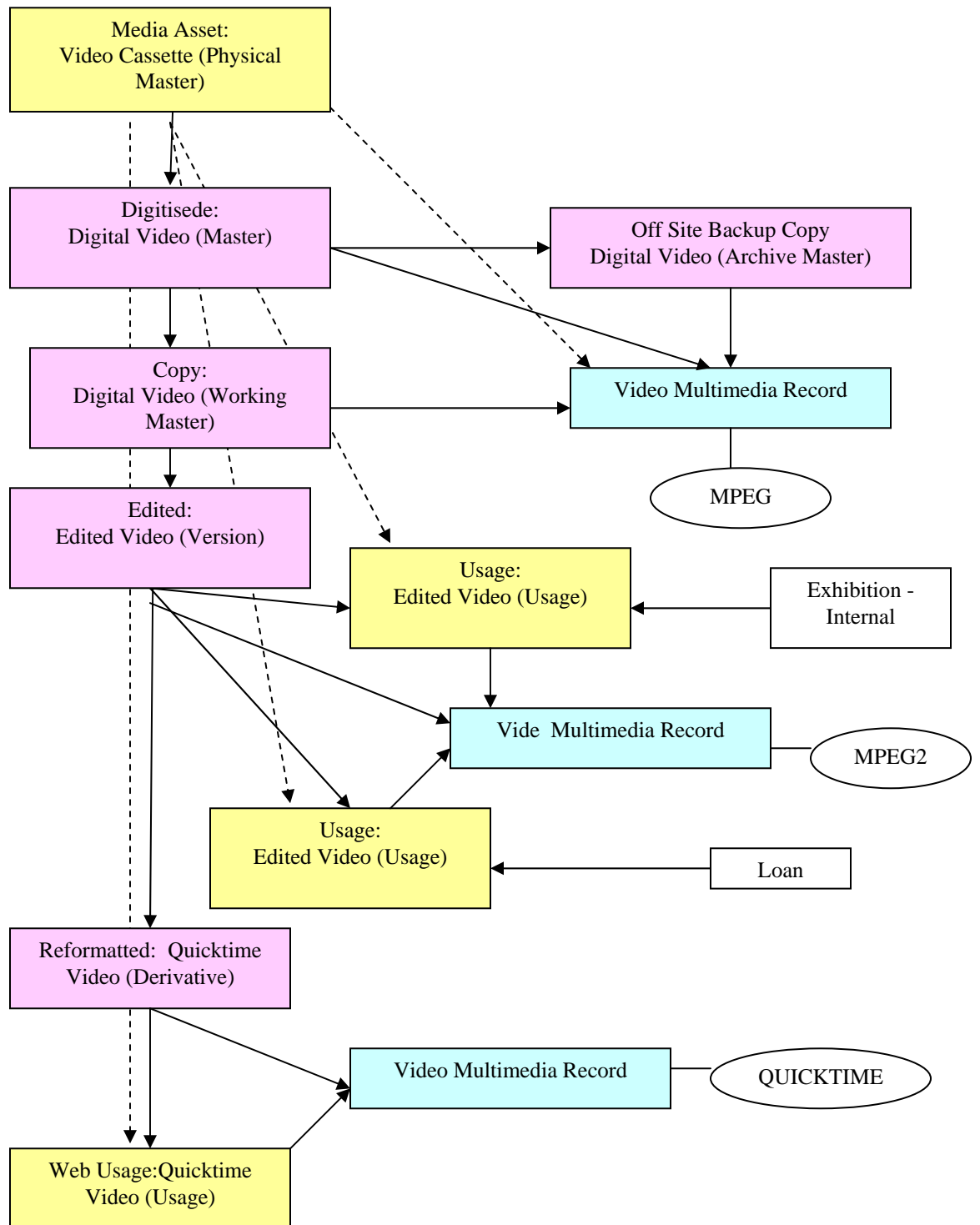
2. Collapse all Multimedia into the Catalogue



3. All Digital Representation Stored in the Multimedia Module.

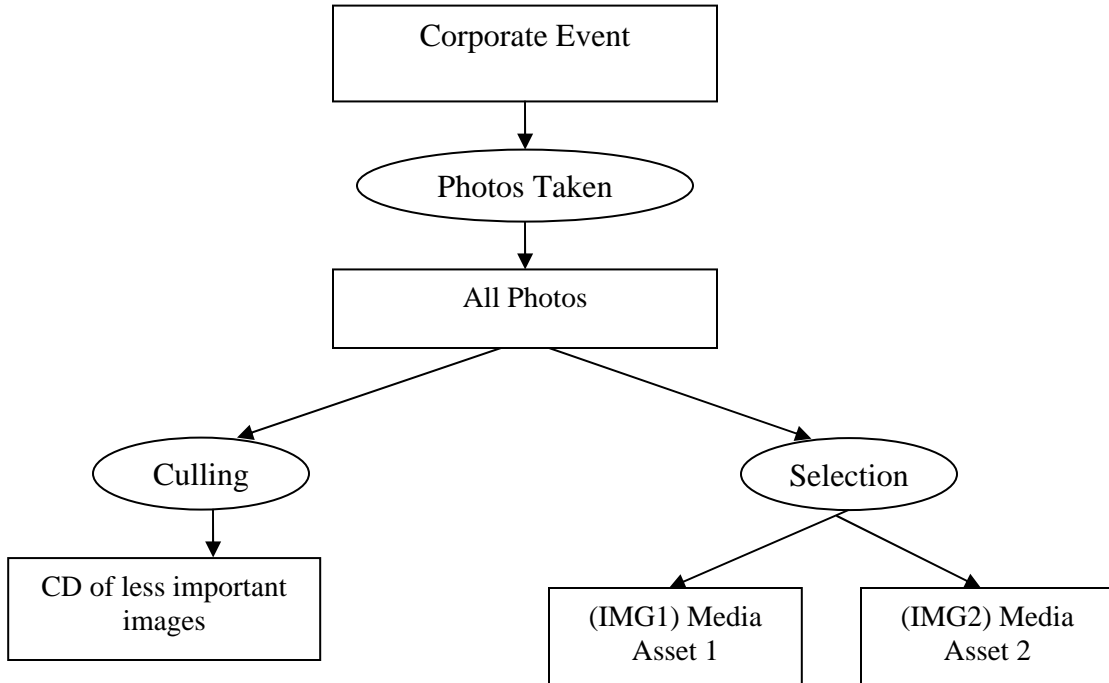


4. Separate Digital Asset Module

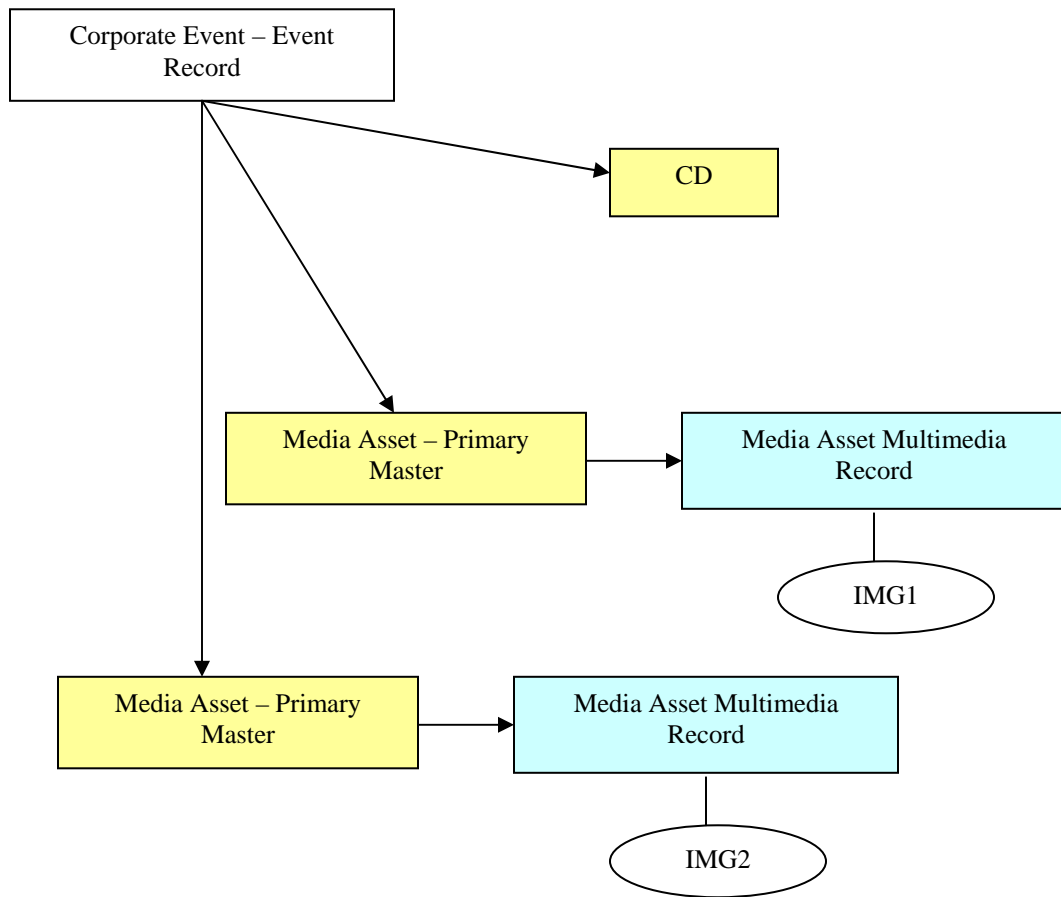


CORPORATE PHOTO OP EXAMPLE:

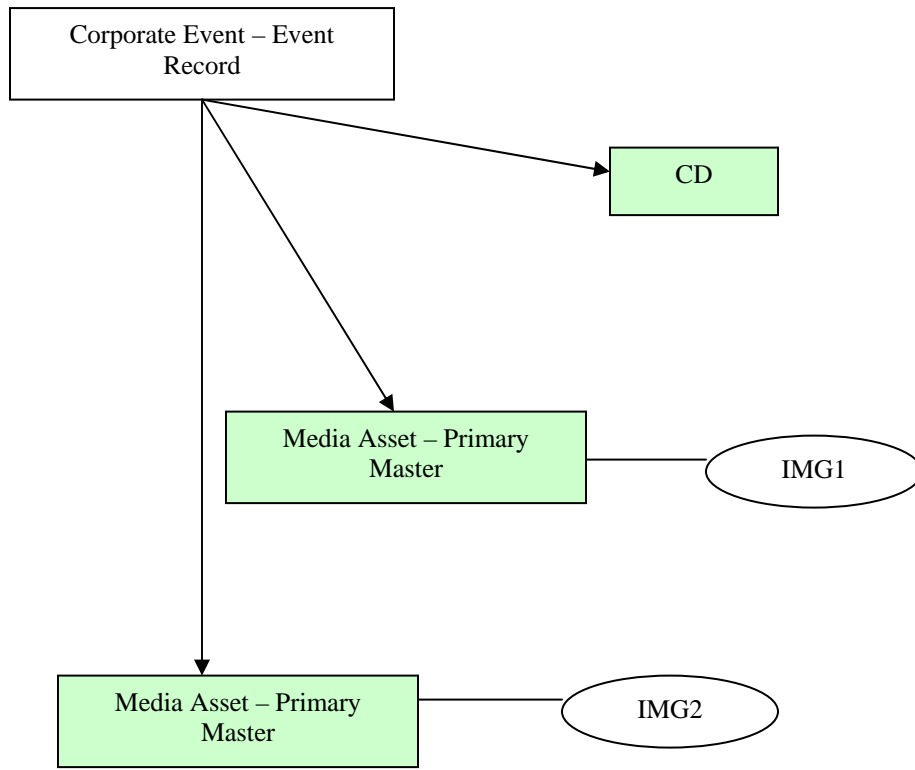
In this example, an event such as a fundraiser is held at your institution. A member of staff takes photos of this event. Some of these digital photos are considered important enough to merit cataloguing as they may well be used in an upcoming exhibition. Others are burnt to CD for posterity. The rest are deleted.



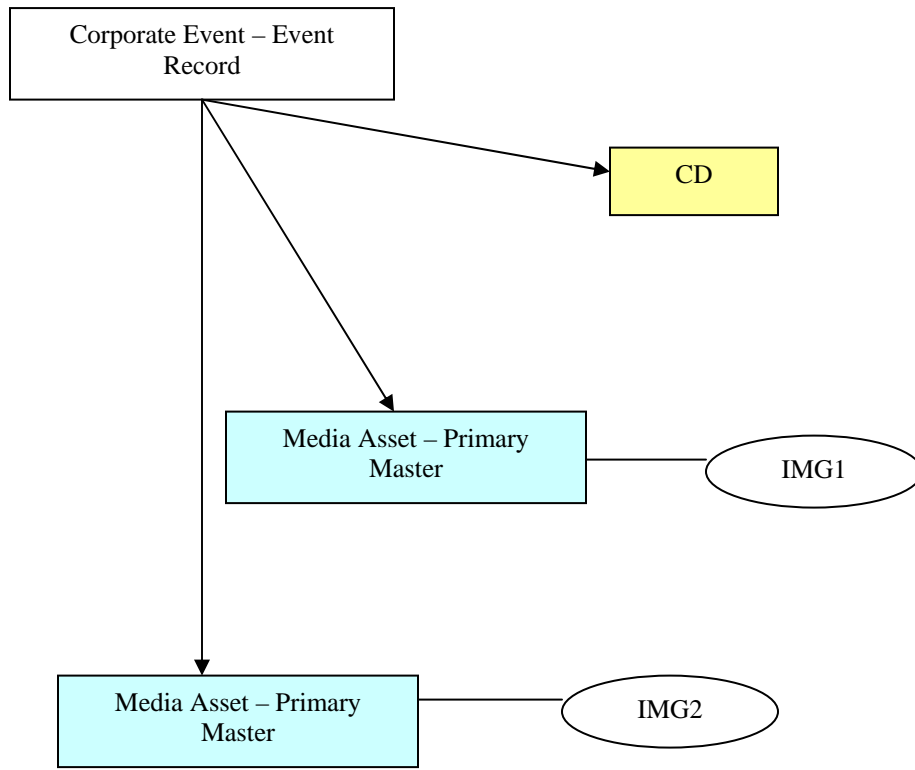
1. All Media Assets in the Catalogue (the current setup)



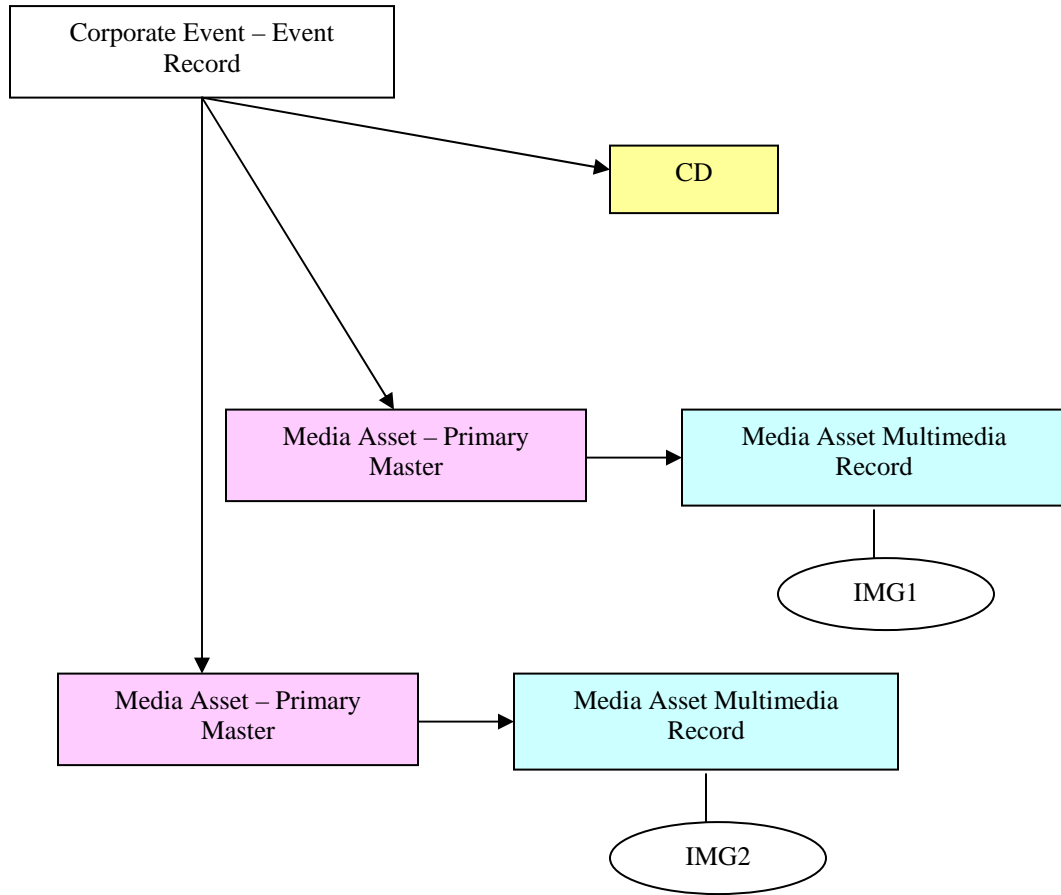
2. Collapsing Multimedia into Catalogue



3. All Digital Representations in Multimedia Module



4. Separate Digital Assets Module



ANALYSIS:

A brief analysis shows that all 4 models have some pros and cons:

1. All Media Assets in the Catalogue (the current setup)

- Full catalogue functionality available for all media assets
- Keeps Multimedia Module as the technical data repository
- Allows the creation of multimedia objects where a Media Asset would not be appropriate (i.e. internal Conservation documentation).
- The current setup has querying problems. In our simple example, a query for the vase would return 4 records. The vase, the photo and 2 digital media assets. Workarounds can be used (i.e. Query Defaults) but are not ideal. Record Level Security should help this problem.

2. Collapsing Multimedia into Catalogue

- Full Catalogue functionality available for all media assets
- Makes each asset distinct. You cant reuse the same file for many digital asset records
- Problems with creation of non-Media Asset multimedia. Puts the Conservation snapshot on a level with the vase.
- Potential for hundreds of sparse/one off/duff catalogue records
- Still has querying problem.

3. All Digital Assets in Multimedia Module

- Logical Separation of digital and non-digital.
- Easy control of versions vs resolutions
- Requires duplication of cataloguing process functionality and/or the ability to create catalogue records from the multimedia
- Difficulty moving between analogue and digital versions
- Complicate link of original collection item and any multimedia-created catalogue records. I.e. if there are several levels in a multimedia hierarchy, how should these be reflected in the catalogue. Should they?
- Solves Query Problem

4. Separate Digital Asset Module

- Tailored Module specific to the needs of the institution
- Logical separation of the digital and non-digital
- Requires duplication of cataloguing process functionality and/or the ability to create catalogue records from the multimedia
- Difficulty moving between analogue and digital versions

- Complicate link of original collection item and any digital asset-created catalogue records. I.e. if there are several levels in a digital asset hierarchy, how should these be reflected in the catalogue. Should they?
- Solves Querying problem

SOME POTENTIAL PROBLEMS/QUESTIONS:

Unlike physical objects, DAs can be reproduced many times at little cost. Each is an exact copy of itself.

DAs can also be transformed into other formats. So the media can change, but the thing being conveyed might not. Or it might.

Are the problems in managing these assets restricted to digital ones, if they are can we separate the two types. If not what are the overlapping points that EMu currently doesn't handle?

If you have a CD with many digital files on it, is that CD a (multi)media asset, or a holder location. And similarly, is a tape a holder if it contains more than 1 digital video? What if it contains more than one analogue video?

If copies are made of a digital file, are these copies Media Assets in their own right?

In the current functionality, multiple resolutions are generated from each original asset. Should these be considered digital assets in their own right? If they are not what is their relationship to a cropped version?

USAGES:

At the moment usages are being created in the catalogue. This leads to a number of catalogue records that are created for just one purpose. Depending on the exact nature of the data to be captured and the manner in which it is to be queried, it may be beneficial to collapse these records into a table in their parent catalogue record, or to put them into a new module (some institutions already do this). In all our models it has been assumed that usages exist in the catalogue. The sort of intermediary module that could be used would link a catalogue record and the corresponding activity (loan, event, etc) and record details of that use (Authorisation, Rights/Licenses Required, etc).

SUMMARY:

The model chosen should be the one that the majority of institutions would find the easiest to use. Option one is closest to existing functionality, whilst, collapsing the Multimedia Module into the catalogue (2) removes flexibility whilst creating potentially dud records. The other 2 options suffer from fragmentation of the media asset hierarchy.

That is not to say the model 1 is perfect. All models could be seen as a starting point from which to develop a comprehensive model. Consideration should be given to the place of usages and the difference between a version and a resolution. One possible

change would be to consider whether content or context of an asset is important. It might be possible to split the files into 2 lots. Those that contain the same content might reside together in the multimedia module. This would include resolutions, greyscale and cropped versions where there was no change in context. Whereas those that have changed (for example a radical retouching of a digital image by a local artist) would be considered media assets.