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# Embedded Metadata—A Tool for Digital Excavation

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## 1. Introduction

In June of 2012, I commenced the weighty task of searching the far reaches of Phoenix Art Museum's digital storage spaces to import images into a recently acquired collection management system, The Museum System (TMS). Before my newly created position as Visual Resource Coordinator began, each department generated and stored assets with their own organizational system in digital silos. I excavated long forgotten folders on various servers and desktops, hunting for visual documentation of the art collection and past installations. Embedded metadata was used as a tool to identify subject matter of images and indicate which folders had been searched. These assets were then reorganized with a new file name convention and folder structure. This poster will discuss my method for using embedded metadata to track information about digital assets as well as challenges and opportunities for further development. This method could be implemented by other cultural organizations as a low cost approach to tracking basic metadata, content creators and copyright restrictions.

## 2. Implementation

The VRA XMP Info Panel, developed by the Visual Resource Association Embedded Metadata Working Group (VRA EMWG), was installed to view in Adobe Bridge and provides metadata fields that specifically pertain to cataloging art objects that the standard IPTC panel does not provide. The VRA Panel also adheres to controlled vocabularies such as Dublin Core and VRA Core. Thus, rules for cataloging were largely pre-established. The goal was to include only the most pertinent information for identifying the art object and how the file was created. The fields in Table 1 were identified to be the most useful.

TABLE. Metadata Fields.

| Artwork | Image | Administration | Summary |
|---|---|---|---|
| Creator | Creator | Collection[1] | Description[2] |
| Title | Date | Cataloger | |
| Date | Source | | |
| Medium | Copyright Restrictions | | |
| Dimensions | Copyright Notice | | |
| Repository | Custom Field: Image Type | | |
| Description[3] | Custom Field: Document Type | | |
| | Custom Field: Object Number | | |

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[1] This field is used to assign curatorial area (controlled vocabulary).

[2] Caption information is concatenated from work fields.

[3] This field is used for additional notes about the artwork. For example, if multiple objects are included in the same image.

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Only two custom fields were independently developed that were not included in the VRA Panel: Object Number (institutional object tracking number) and Image Type (controlled vocabulary: scanned transparency, reference image and professional collection photography).

## 3. Workflow

As digital silos were reviewed, labels in Adobe Bridge were utilized to mark which files and folders had been reviewed, which images were copied and cataloged according to the new file taxonomy and which images required subject identification. Where appropriate, object numbers were added as embedded metadata to assist with future identification. Once the files were copied to the new structure, the VRA Panel Export-Import Tool was used to transfer object metadata from TMS to Adobe Bridge via an Excel spreadsheet. Metadata was also embedded regarding how the image was created, suitability for publication and any copyright restrictions. As images were imported into TMS, this additional metadata was ingested into corresponding fields in the media record. Adobe Bridge provides several tools and features that allow the user to add embedded metadata to large batches of images as well as automated file renaming tools, which greatly improved the workflow.

## 4. Results

The hunt for these digital assets is ongoing, however after the initial survey spanning five months, I was able to import about 10,000 files into TMS, which is a 280% increase from the files imported into the previous collection management system, Argus. I also established procedures for cataloging and importing new assets. Today there are 16,708 media records in TMS. Overall, I have copied and cataloged approximately 74,000 files with embedded metadata into the digital archive. This number is growing daily.

## 5. Challenges and Opportunities

Using this method presented a few clear challenges and opportunities for development.

- Open source tools provided by the VRA EMWG make tracking digital assets through embedded metadata a low-cost, fast solution for digital asset management. For small to mid-size cultural organizations this method can effectively organize institutional history. However, in order to read every field in the VRA Panel, a staff member would need to download the panel and install it in the Adobe Creative Suite. If an organization does not already use Adobe products, there could be a cost barrier in acquiring this software and investing in staff training.

- The concatenated artwork caption appears in the description field in the standard IPTC panel, which can be read by a staff member using any tool that reads embedded metadata, such as Finder or Windows Explorer. This facilitates the ease of object identification; however, caption information is not static. For example, if the Registrar completes a vault inventory, is it worthwhile to correct all the updated measurements? Similarly, if the work of an artist moves into the public domain, is it worthwhile to update every image by this artist in the copyright restrictions field? Using this method for variable information could prove time consuming and requires constant attention and editing.

- The main benefit of using embedded metadata to track digital assets is that it is a tool to recognize images that have previously been ingested into a digital asset management system. For example, a staff member may create a copy of an image and rename the file to store in their digital silo. The embedded metadata is copied as well, thus providing a provenance for the file.

- Phoenix Art Museum does not currently use digital asset management software. If we were to move in this direction, the embedded metadata could easily be exported into an Excel spreadsheet and imported into a DAMS.

Despite these challenges, utilizing embedded metadata to track and describe digital assets is a low cost digital asset management solution for galleries libraries archives or museums. Embedded metadata is not only a useful tool for digital excavation, but can also provide opportunities as a starting point for a more nuanced digital asset management system.