### Introduction

Digital photographers are often faced with the challenge of missing, corrupted or disappearing meta data in their workflow.

As a photo moves down the workflow, meta data can disappear or be corrupted. This missing or corrupted meta data may not be detected for weeks, months or years after the fact, often leading to disastrous consequences, especially for practicing professional shooters.

The only way to know, with certainty, what is happening to your photos' meta data in your workflow, using your tools, is to do a step by step, tool by tool, audit of the meta data across your workflow.

The audit takes from 10 minutes to an hour, depending on the workflows complexity and the tools used.

## Meta Data Audit

There are two parts to the meta data audit process:

- A. Move a test photo or photos across your workflow while saving a version of the photo after each step.
- B. Audit the meta data of the saved photos by viewing the meta data from each file.

## A. Processing the Test Photo(s)

1. Create a folder on your computer named "meta data audit." Put all subsequent folders from the test inside this one.

2. Inside the "meta data audit folder" create a folder named "00 - originals."

3. Inside the "meta data audit folder" create a series of folders for each step in your workflow, such as "01 – DLP," "02 - BBP," "03 - PSP," "04- Noise Ninja," etc. It will help you later if you name the folders with leading numbers. That ensures the folders will sort and display in the order of your workflow.

4. Using Windows Explorer, copy a fresh, untouched, unprocessed test photo created by every camera you use and place it into the folder named "00 - originals." Note that in this step you are NOT using your normal photo file downloader tool, you are directly copying the camera's photo file from the memory card to the computer, with no processing, no added meta data, etc.

5. Process your test photo(s) through each one of the tools in your workflow. Be sure to save them into the folder for that tool AFTER that tool's step.

6. If your first step is to download the photos in Breeze Downloader Pro (DLP), then download the images from your memory card(s) using DLP and configure DLP to put them into your "01 - DLP" folder. If you use a manual process or another tool for downloading, use that process or tool to download the photos into your "01 – post download" folder.

7. Next, perform the subsequent steps in your workflow and save the test photo(s) into that tool's folder. For instance, if your next step is to use Breeze Browser Pro to perform the "Ins and Outs" culling and initial IPTC meta data population, then using Windows Explorer or BBP, copy the photo from "01 - DLP" into "02 - BBP" and then do a sample IPTC meta data addition. Note that in this step you MUST copy the photo into the "02 – BBP" folder BEFORE you do anything with the photo's meta data in BBP.

#### Digital Photography Meta Data Audit

8. The next step may be some cropping in PSP. If so, select the test photo in BBP and using CTRL D or Edit:Edit Image, open the file in PSP (this assumes you have PSP assigned as your photo editor in BBP, if you do not, then open the photo directly in PSP). Using PSP, add some additional meta data and, using the "File:Save As" command, save the photo in the "03 - PSP" folder. (Tip: It can help later if you add the step or tool information to the photo filename after you perform each step of the workflow. For example, after the PSP step you would save the test photo file as TESTPHOTO-step-03-psp.jpg.)

9. Repeat this process with all tools used in your workflow.

# B. Auditing the Meta Data.

1. Create a spreadsheet or a document with a grid listing all the meta data fields you are interested in down the left, vertical axis and all the tools you use in your workflow across the top, horizontal axis. If you use MS Word, use the Table:Insert Table menu option.

Meta Data	Worflow Tools				
	Original	DLP	BBP	PSP	NN
Document title	N				
Description	Ν				
Description writer	Ν				
Author	Ν				
Author title	Ν				
Intellectual genre	Ν				
Keywords:	Ν				
IPTC subject					
codes	Ν				
IPTC scene	Ν				

2. Using your meta data audit tool(s), check for the existence and accuracy of the meta data fields you are auditing in each of the photos all the test folders. For this audit, at a minimum, include your primary workflow tool, such as BBP.

Note, however, that even BBP has some quirks regarding meta data. It too, may not display all the meta data accurately or clearly label the source of the meta data (description/caption information). For this reason, it is best to use a few different tools to audit the meta data you are interested in.

There are a variety of photo editing and meta data editing/viewing tools available that will display your test file's meta data, including:

- ExifToolGUI
- ExifTool by Phil Harvey
- Opanda IEXIF
- Exifer
- Adobe Lightroom
- Adobe Photoshop
- Adobe Bridge
- Paint Shop Pro

You will need to understand some of the basics about meta data to properly interpret their results.

For instance, older tools such as Exifer and Paint Shop Pro 9, were developed prior to XMP, so they have no understanding of it or ability to read or display it. On the other hand, Exifer can read and display legacy IPTC/IIM meta data, so it is a great way to see if a tool such as BBP is actually writing the meta data to the IPTC/IIM area.

Different tools use different label names for the same piece of meta data. And, different tools display different meta data stored in different places, even if they call it the same thing, such as "description" or "caption."

In order to best understand how different tools store and display meta data you should populate the meta data with descriptive text, such as "Image description text," "artist name text," "copyright statement text," etc. Using descriptive text is often the only way to understand that different tools are using different labels for the same piece of meta data.

## Conclusion

The results of your meta data audit will show you if all of the meta data you are interested in is surviving your work flow. If not, it will show you exactly where the meta data is being lost or corrupted so you can modify your workflow accordingly to restore or correct it.

## ExifTool note:

The only method I am aware of to achieve a full, complete and accurate dump of a photo's meta data is using the windows command line ExifTool by Phil Harvey method. It's a little bit technical but it will give you all the meta data in its actual and complete form. Note that the ExifToolGUI utility is much easier to use but it does not display the full set of meta data. However, it may be adequate for your uses.

Details on the use of the tool and utility batch files to display a photo's full set of meta data can be found in this document:

http://www.hackneys.com/travel/docs/bbp-exif-iptc-desc-bug-workaround.pdf

## Adobe note:

Even if, like me, you have spent many years avoiding the photo tools sold by Adobe, you should probably use one of their current version tools to take a look at your meta data. It is important to know what those tools are displaying, especially when sharing your photos with others. Running a test with the Adobe tools will show you what other people using Adobe tools will see when they look at your photos' meta data. Please keep in mind that there are differences in meta data display, labeling, sourcing, etc. across the Adobe product range.