PhotoShoot color image metadata

Ken Boydston <boulderhaven@yahoo.com>   Mon, Jul 8, 2013 at 8:47 PM
Reply-To: Ken Boydston <boulderhaven@yahoo.com>
To: Doug Emery <doug@emeryit.com>
Cc: Susan Marshall <susanmarshall.emel@gmail.com>

> Hi Doug,
> See below answers.
> Let me know more questions are begotten therefrom.
> Ken

From: Doug Emery <doug@emeryit.com>
To: Ken Boydston <boulderhaven@yahoo.com>
Cc: Susan Marshall <susanmarshall.emel@gmail.com>
Sent: Monday, July 8, 2013 12:49 PM
Subject: PhotoShoot color image metadata

Ken,
I hope you're doing well. Susan and I working on pulling together metadata for color images delivered with capture data, and I have some questions about the color metadata. If you could get this information back to me soon, it would be very helpful.

Some of these are repeat questions and I repeat the answers you gave previously. Below I list the metadata field names followed by your previous answers. Please look at these values and provide the correct ones.

AP DAT File Processing

Each color image is created using registered, 16-bit flattened TIFF images captured under five visible illuminant bands, 640 nm (red), 590 nm (amber), 535 nm (green), 505 nm (cyan), and 450 nm (royal blue). A set of linear formulae is used to calculate calibrated color values from the five bands at each pixel position, and each image is output using a CIE L*a*b color space.

>> Question: Is it still five bands? Or is it six now. It looks to me like the visible wavelengths are: 455, 470, 505, 535, 570, 625. Which of these is employed?
It is 6 bands. There are 6 visible bands, all of which are used to create the color file. I can't vouch for the exact wavelengths, but these look about right.

\# AP DAT Processing Program
\# AP DAT Software Version

I assume that the program name for this ColorDev. What's the version?
PhotoShoot is the application which creates the color. If GUI function names are of interest, then the name is "Develop Multispectral Color". If library routines called by PhotoShoot are of interest, let me know I can get additional information.

\# AP DAT Type of Contrast Adjustment

None?
No user controlled contrast adjustment is performed

\# AP DAT Type of Image Processing

Enhancement?
No user controlled enhancement is performed

\# AP ID Parent File

This can be determined from the wavelengths used.

HEADER METADATA REQUEST

It would be nice to pull some of these values from file header.
Namely, the names of the input files, and the name of version of the
software used to produce the images would be very helpful. Both of
these would be better than relying on emails to match parent images
and software versions to images via email and other communication. I'm
especially concerned about the ColorDev version numbers. Has ColorDev
been updated since we began shooting in 12/2011?

I am unaware of any standard fields, (such as in EXIF or IPTC) which could be used to record such data.)
We could do something ad hoc, but it might be nice to get some direction. If anyone is aware of existing or nascent standards, let us know.
The color calculation routines have not changed, nor are they likely to change in the next couple years.
That said, there are 2 parameters which critically control the image data of the color image and which are subject to selection by the user.
There is a "color calibration" file which is selected by the user, and there is a "White Setting" file which is selected by the user and whose contents may be and usually are determined by user input. I think recording these into the color file metadata should be something of a priority.

Many thanks.
Doug

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Doug Emery
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