Getty Images Guide to Applying Metadata to images using IPTC/XMP in Photoshop

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Introduction to IPTC and XMP metadata

The IPTC (International Press Telecommuncations Council) 'information interchange model' is an industry standard technology for recording information about the content or characteristics ('metadata') of a document within the file itself.

Using a predefined set of 'tags' or fields (such as caption, credit, keywords etc) this embedded data travels within the file and can be read and edited by compliant applications such as Photoshop, Fotostation etc.

XMP (Extensible Metadata Platform) is a development on this technology based on XML (Extensible Markup Language), which provides a more flexible means of labelling documents by interfacing with pre-defined 'namespaces' such as IPTC, EXIF etc.

XMP also allows for custom, user-defined namespaces.

The Getty Images MetadataXMP panel (or form) allows the user to embed the data we require (which sometimes differs from the 'standard namespaces' or IPTC tags) into the image which can then be read and interpreted by our workflow systems.

Applications which support IPTC and XMP

A growing number of imaging/editing applications support IPTC and/or XMP information, but few currently support custom XMP. Adobe Photoshop is perhaps the most comprehensive of these applications, supporting EXIF, XMP, IPTC and other metadata models (such as 'Dublin Core').

At the time of writing, Photoshop (versions 8, CS and CS2) and other Adobe Creative Suite applications such as Illustrator are the only applications which support custom XMP.

Therefore, to use the Getty Images' MetadataXMP panel, you will need Photoshop 8 or above. However, any application which supports IPTC can be used to embed data according to the requirements laid out in the Submission Guidelines.

Installing the MetadataXMP panel (Photoshop 8, CS/CS2 only)

The MetadataXMP panel is a simple text file written in XML. Once installed, Photoshop will add this panel to its list of File:Info resources for use in your images.

The latest version of the MetadataXMP panel is available from the Getty Images contributors website. The filename will be MetadataXMPvX.txt where 'vX' denotes the version. At the time of writing the latest version of the panel is MetadataXMPv1.1.txt.

Download the panel file from the contributor's website:

PC users:

Right click the link, select 'Save As…' and ensure the filename is 'MetadataXMPvX.txt' and file type is 'All Files'.

Note: Windows has a tendency to assume the XMP panel is XML markup and will save it as the wrong filetype if this procedure is not followed.

Save the panel in either:

`\Program Files\Common Files\Adobe\XMP\Custom File Info Panels`

or

`\Documents and Settings\`*`<user>`*`\Application Data\Adobe\XMP\Custom File Info Panels`

Mac users:

Press 'Ctrl' and click the link with the mouse. Select 'Download linked file as…' and ensure file is 'MetadataXMPvX.txt'.

Save the panel in either:

`[ROOT]/Library/Application Support/Adobe/XMP/Custom File Info Panels`

<u>or</u>

`[HOME]/Library/Application Support/Adobe/XMP/Custom File Info Panels`

No computer or application restart is necessary following installation.

To see the MetadataXMP panel fields, open an image in Photoshop, select File:Info and choose 'Metadata' from the list of available namespaces on the left of the window.

Note: unless you can only use IPTC (ie, custom XMP is not supported, the other namespaces listed can be ignored in favour of the Metadata panel which bears all the fields relevant to our workflow).

The original IPTC panels are 'Description', 'Origin' and 'Advanced'. The new IPTC Content, - Contact, - Image, - Status panels result from a recent development by the IPTC to map original tags to an XMP namespace (called IPTC4XMP). Both the original and new namespaces can be used if you cannot use the Getty Images MetadataXMP panel.
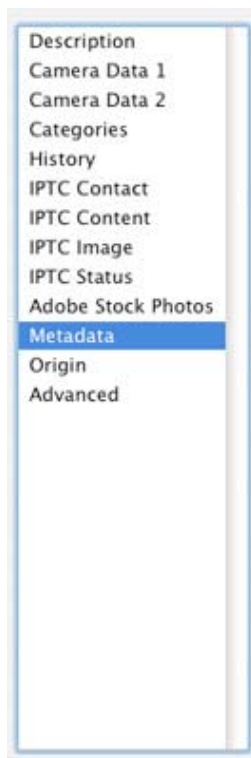

Figure 1: List of Metadata 'panels' in Photoshop CS2. CS and PS 8 may differ.

Using the Metadata XMP panel (Photoshop 8, CS/CS2 only)

Each of the fields within the panel corresponds to a field title in the Metadata Template (see Submission Guidelines). Some are required fields (marked with an '*', others are optional and some are image dependent). Some, such as Credit Line and Contributor, have character limits which will truncate your entries if exceeded.

Data can be applied to individual images or in bulk by creating templates, using the Bridge (an Adobe CS2 application), or by setting up an action. All of these options will be described.

Please note: carriage returns entered into the fields (to delimit entries in 'Description', for example) will cause errors on ingestion into our workflow. Please avoid using carriage returns anywhere in metadata.

Applying data to individual images

1. Open an image in Photoshop
2. Select File:Info
3. Select Metadata from the list of options in the left pane of the File Info window (see Figure 2).
4. Begin filling out the fields according to the Metadata Requirements within the Submission Guidelines.

Notes:
   a. Required fields are denoted by '*'.
   b. Keywords/Phrases should be separated by commas. These will be automatically translated to semi-colons.
   c. Dates should be entered in DD/MM/YYYY format.
   d. Do not use carriage returns to delimit entries in any of the fields.

Saving/Cancelling your changes

Any information in the File Info window will only be saved when you 'OK' the updates and save the image. Choosing 'OK' and closing the image will clear any data edits you may have made. Similarly, choosing 'Cancel' will clear any edits (the image need not be saved).

To Save the data:
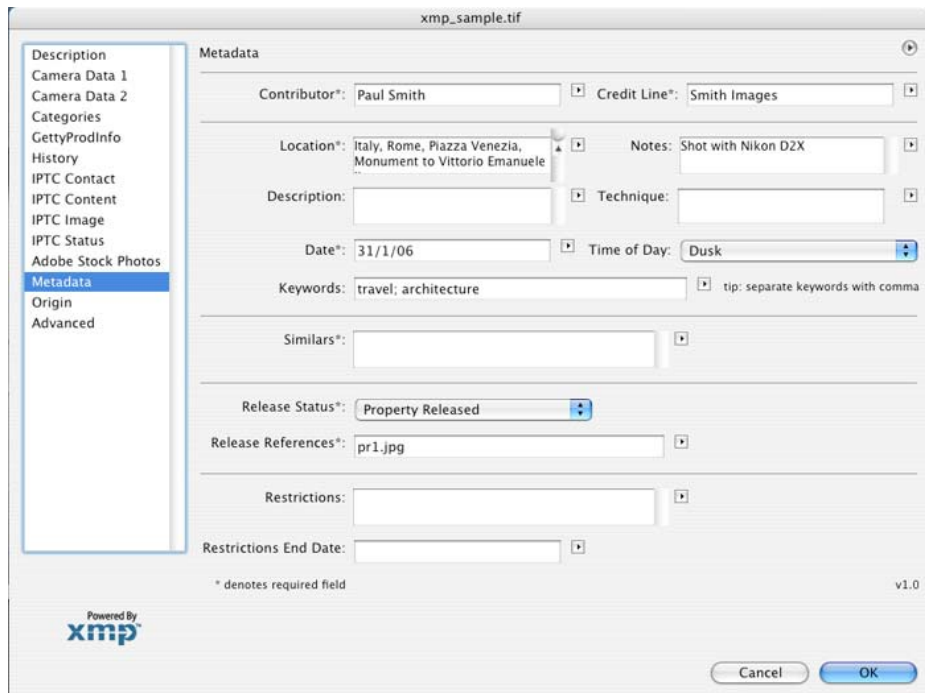1. Choose OK (File Info window closes)
2. Save the image

Figure 1. The Getty Images Metadata XMP panel.

Using the 'Most Recently Used' (MRU) popups

Wherever possible, we have added 'MRU's, or 'Most Recently Used' popups to fields to enable rapid application of data which may have been applied to previous images. If, for example, you have applied the keyword 'Business' to a previous image, this is stored in a data container within the application. When you need to apply the same keyword to the next image, you can select from the 'MRU' popup rather than re-typing the word.

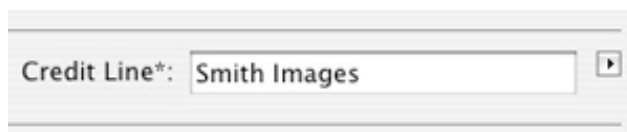Fields which have MRUs are marked with a small pointer (Figure 2):

Figure 2. the MRU 'pointer' at top right.

Selecting the pointer will open a list containing your most recently-used terms. Certain fields, such as Contributor can only contain one value, which will be overwritten if an MRU is selected. Others, such as Keywords can contain multiple values which, if selected from the MRU, will append the value to the current contents (Figure 3):

Figure 3. A resulting list of options from the MRU popup.

Saving data as a template

To enable bulk application of data to a series of images, the data you have applied to one image can be saved as a template and re-used on other images. This is particularly useful when applying 'standard' entries such as 'Contributor' or 'Credit Line' etc across a large series of images.

1. Create data for an image as described above.
2. Select the circled pointer in the top right-hand corner of the panel
3. Select 'Save Metadata Template' and provide a template name in the resulting dialogue box
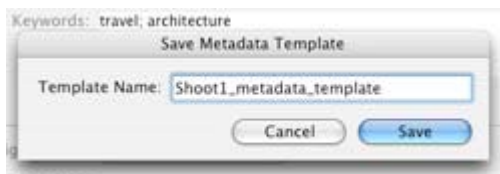4. Select 'Save'

Figure 4. Saving the template

The template is saved to a data container within the application whether you save the image or not.

5. Open a new image to which you need to apply the same data.
6. Select File:Info as usual
7. Select the circled pointer in the top right-hand corner of the window
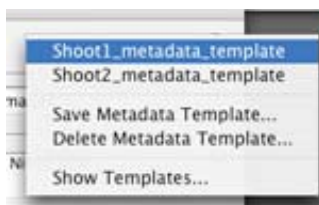8. Choose from the resulting list of templates

Figure 5. Template management dialog, showing list of available templates

9. The fields can be further edited as required.

Note: The same dialogue box allows you to manage your templates by further saving/deleting them as necessary.

Applying Metadata to images in bulk

Many images, particularly those in a long series, from a specific location or depicting the same action can be grouped together and, through a Photoshop action or by a single edit in Bridge, have metadata applied in Bulk. The following information applies to any metadata edited using the IPTC fields or the Metadata XMP panel.

Actions:
To set up an action, it is preferable to first create a template which contains most (if not all) of the data you need to apply to the series (see Saving Data as a Template, above). As with any bulk update, it is advisable to first back up your series in case of disaster!

1. Compile your image series into a single folder
2. Open an image
3. Select Window:Actions (see Figure 6).
4. In the Actions window, select 'Create a new action'
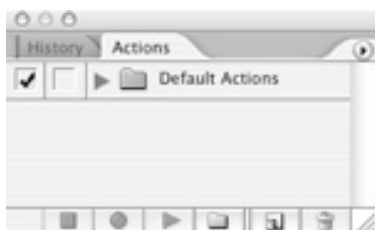5. Name the action and place it in an appropriate 'set'
6. Select 'record'

Figure 6. The Actions window

All of your actions in Photoshop are now being recorded, so take care!

7. Select File:Info
8. Select the circled pointer in the top right-hand corner of the window to access the templates list.
9. Select the required template to apply to all the images.
10. Select 'OK' to close the File:Info window
11. In the Actions window, select 'Stop playing/recording' to end the record process.

You do not need to save the open image.

You should end up with a single action under the action name.

To run the action,

1. Select File:Automate
2. Select Batch
3. In the Batch window (see Figure 7).
   a. In the 'Play' group, select the 'set' and 'action' you require
   b. In the Source group:

i. select the folder containing the series
ii. Check Override Action 'Open' Commands
iii. Check 'Suppress File Open Options Dialogs'
iv. Check 'Suppress Color Profile Warnings'

Selecting these will allow the batch to run unsupervised.

c. In the Destination group:
i. Select the same folder (you will be saving the changes back directly)
ii. Check 'Override Action 'Save As' Commands

d. In the File Naming group:
i. Ensure File Naming shows 'Document Name + Extension'
ii. Ensure 'Starting serial' is at #1 (ie the first file)
iii. Ensure Compatibility is suitable for your OS (ie, Mac, Windows).

e. In the Errors group,
i. Ensure 'Stop for errors' is selected.

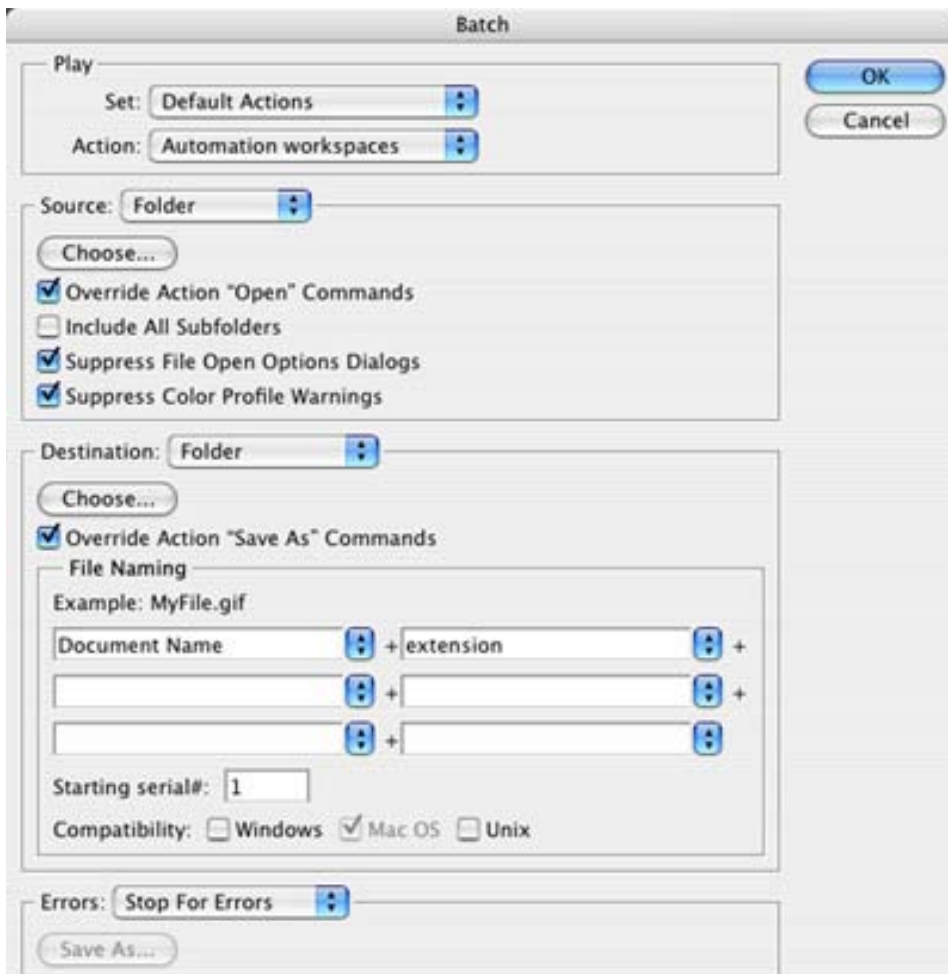4. Select 'OK' to run the action, or 'Cancel' to back out.

Figure 7. Batch automation dialog window showing recommended options.

The batch action will now open up each image in turn, apply the selected template, save the image and close it.

When complete, check one or more of the images to make sure the information has been applied. As before, any of the images can now be further edited if specific data needs to be applied.

Using Bridge to apply data in bulk

The Bridge is a standalone Creative Suite application which allows the user to view, update and otherwise manage many files at once. It is linked to Photoshop, but data templates can not be shared between the two. When using Bridge, a template has to be created within the application, just as in Photoshop above.

Bridge has quite extensive metadata options, available via a window at the lower left of the main application window, and also through the main menu. The fields available are generally limited to IPTC, EXIF and other tags. Please note that Custom XMP is not currently supported in the Bridge metadata features. It is supported in the usual File:Info method, however.

As before, it is advisable to back up your images before applying data in bulk via the Bridge, and to organise your series in a single folder.

1. Open The Bridge application
2. Navigate to your series folder
3. Select a single image and choose File:Info. Navigate to the Metadata panel and create your data. Once the data is complete, select the circled pointer at the top right of the window to open the templates dialog, then save the data as the template you will apply to the remaining series.
4. With the template prepared, choose Edit:Select All to select all images.
5. Select File:Info from the main menu, then select the circled pointer at the top right of the window to open the tamplates dialog box again. Select the required template.
6. The data template will load, accompanied by a selection of checked/unchecked boxes. See Figure 8. Where the images already contain data which is not being updated, the value (multiple values) will appear to reflect disparate data contents. Items with ticked check boxes beside them will overwrite any of the contents already present in the images. Remove the ticks to prevent overwriting.
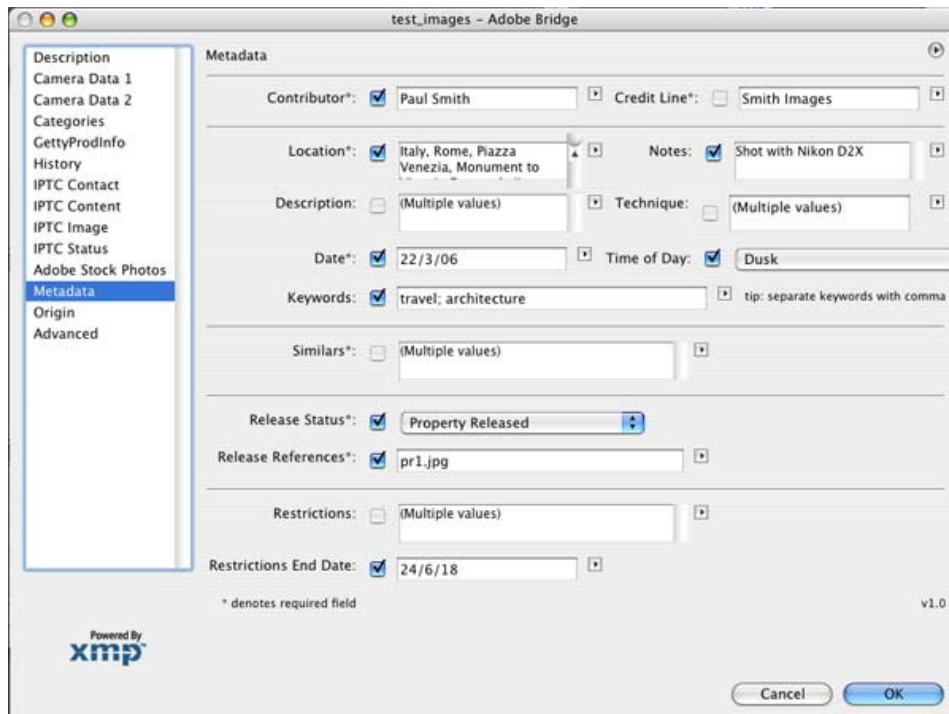
Figure 8. Applying selected template fields from the Metadata panel in Bridge. Note the ticked check boxes.

7. Select 'OK' to begin applying the data to the selected images. Progress is shown in the lower left-hand status bar in the main application window.

Once the application has finished applying the data, a quick check on one or two images is advisable.

As before, if any individual images require update with more specific data, select the required image and select File:Info.

Further Reading and Information

Metadata:
www.controlledvocabulary.com

IPTC:
www.iptc.org

XMP:
http://www.adobe.com/products/xmp