Adobe XMP for Creative Professionals

Introduction

If you've been using Adobe® applications over the last few years, you may already be familiar with XMP (Extensible Metadata Platform), the labeling technology that allows you to embed information about a file, known as metadata, into the file itself. In Adobe Bridge, the new navigational control center in Adobe Creative Suite 2, XMP is even more powerful and easier to use.

Think of XMP metadata as a digital business card that you can attach to the files you create. As your files travel, so does your information. You can embed critical data such as author, copyright, description, keywords, and other information in your creative assets. In addition, you can use XMP to rate photographs, keep track of alternates and versions, and even help find and retrieve files.

In team settings, XMP can help with file management and workflow. Provide your team members with critical file information by using XMP to keep metadata with your files as they travel across workflows, networks, and even platforms. Any member of the team can read, update, and modify the metadata at any point during the production process.

Access metadata in the File Info dialog box

The File Info dialog box in most Adobe applications includes XMP data. If you've looked at the file information for an image from a digital camera, for example, you've probably noticed the descriptive data embedded in the file. Digital cameras create this metadata automatically, but may also be created by the application in which the file was opened and saved.

Metadata generated by a digital camera is known as EXIF (Exchangeable Image File Format). The Adobe XMP standard can read EXIF data and makes it available to the Adobe Creative Suite applications as a file containing EXIF data travels through the workflow.

When you open a digital photo in Adobe Photoshop®, the File Info dialog reveals a wealth of information about the image. For example, you'll find the make and model of the camera used to take the photo, as well as information about how the photo was taken, including the shutter speed, f-stop, focal length, and other properties.
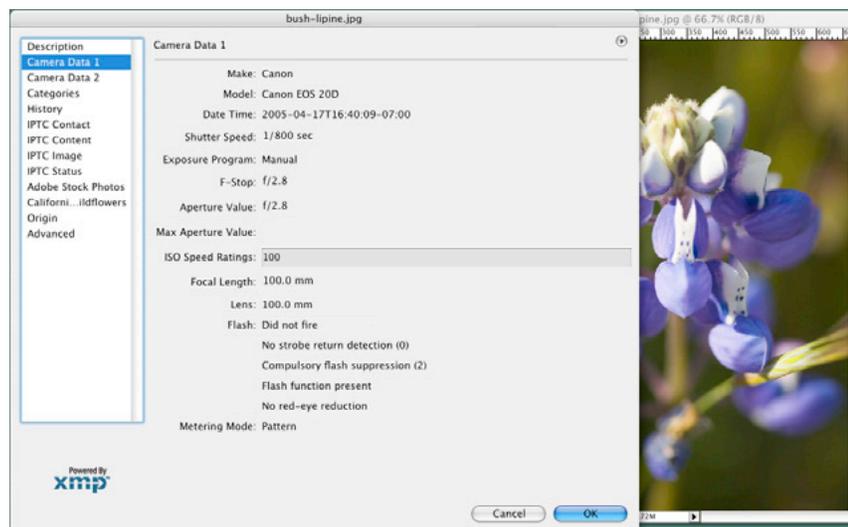
The Camera Data 1 panel in the File Info dialog box in Photoshop showing how the photo was taken.

In addition to information about how the photograph was taken, the File Info dialog includes very basic file information such as creation date, format, pixel dimension, and resolution.

While detailed camera settings, image format, size, and resolution information is important, it tells us nothing about the contents of the image. Who took the picture? Who owns the copyright? Using XMP metadata, you can embed the answers to these questions in your image files. In other words, you can create "intelligent assets," and there's no better place to do this than the new Adobe Bridge.
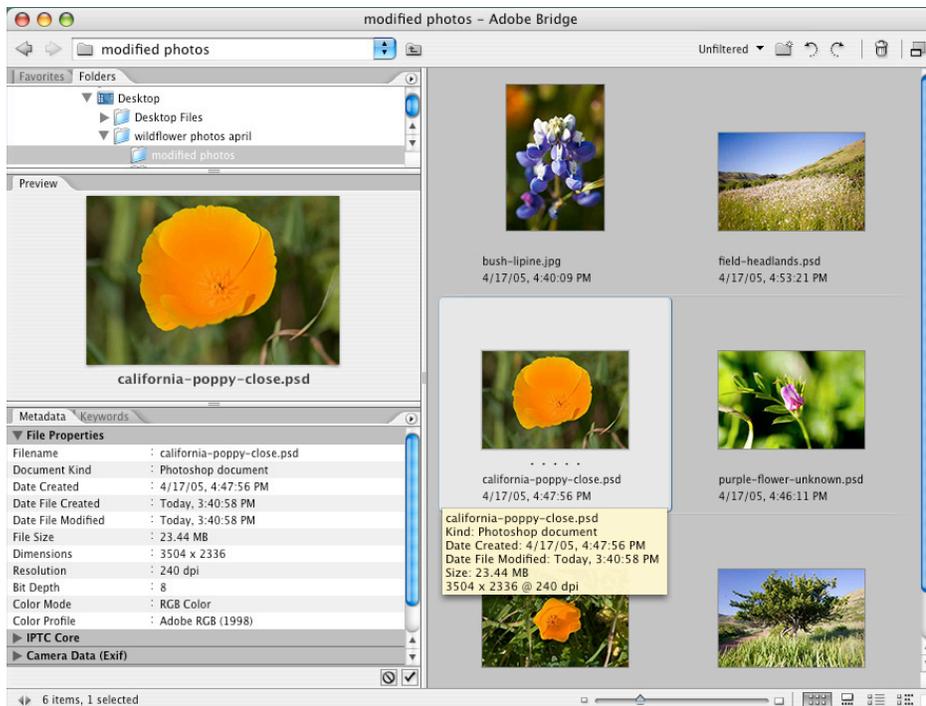
Adobe Bridge

While you can use the File Info dialog box in the Adobe Creative Suite applications to add descriptive metadata to a file, Adobe Bridge makes it easier. And as you'll soon see, Bridge has some other very powerful features.

Adobe Bridge is the navigational control center in Adobe Creative Suite 2. It is similar to the File Browser introduced in Photoshop 7.0, but it can do even more. Bridge allows you browse, locate, and organize assets created in any of the Adobe Creative Suite 2 applications. You can access Bridge from any of the CS2 applications, or run it independently.

One of the powerful features in Adobe is scripting, which allows you to batch-process files. It also allows you to rate and label photographs or other files, so that you can easily find the perfect asset for your project. We won't cover all of the features of Bridge here, but if you'd like to learn more, visit the Adobe website at www.adobe.com/products/creativesuite/bridge.html.

Access metadata in Adobe Bridge

To open Adobe Bridge from within an Adobe Creative Suite application, choose File > Browse in Adobe InDesign®, Adobe Illustrator®, Adobe GoLive®, or Photoshop. Or, if you prefer, you can open Adobe Bridge from the Start menu (Windows) or the Finder (Mac OS). To browse for files, click the Favorites or Folders tab in the top left corner. To view metadata for a file, look at the Metadata panel in the lower left corner (to see more metadata information, resize the panels by dragging the panel dividers).


Viewing a photograph and its descriptive metadata in Adobe Bridge.

Add and modify metadata in Adobe Bridge

Under the Metadata tab, you'll find a number of subpanels, such as File Properties, IPTC Core, and Camera Data. In the IPTC Core panel, you can enter your own information about the file. IPTC Core is a metadata specification from the International Press Telecommunications Council, which develops standards for the interchange of news data.

The fields in the IPTC Core panel are editable, as indicated by the pencil icon to the right of each field. Add or modify the photograph's metadata by entering values in the IPTC Core panel, such as a description of the image, or the creator's e-mail address or website.
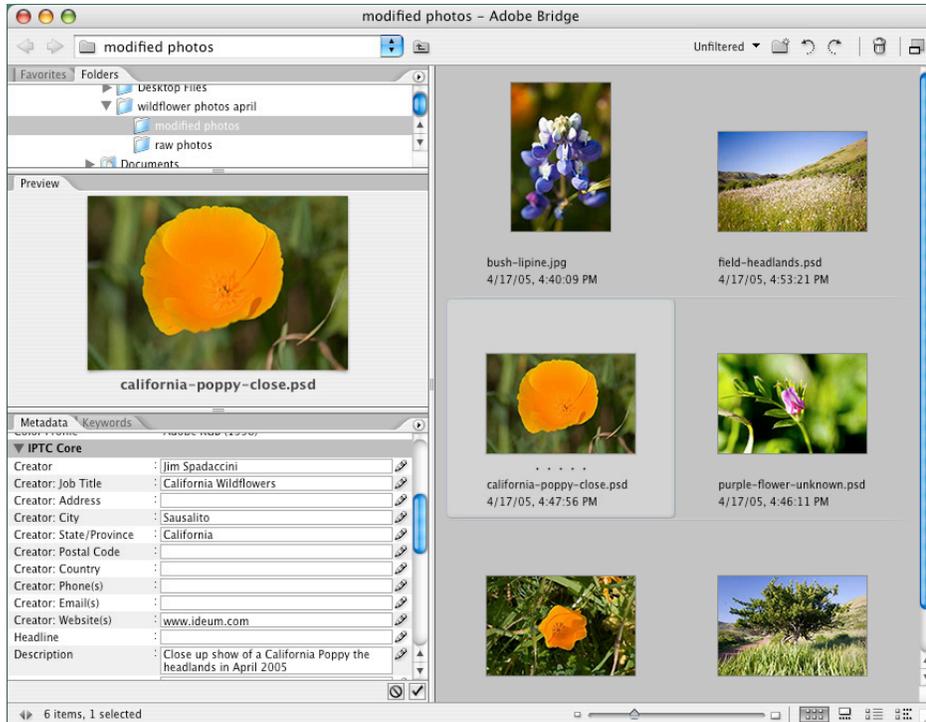
Modifying IPTC Core values in Adobe Bridge.

On the Keywords panel, you can attach keywords to your files. To open the Keywords panel, select the Keywords tab to the right of the Metadata tab. Select keywords from an existing set or create new keywords. You can also delete keywords by selecting them, and then clicking the trashcan icon.

One of the great benefits of adding or modifying metadata with Adobe Bridge is that you can do it simultaneously to multiple files. Just select the files you want to modify and enter the information. Another advantage of using Bridge to modify metadata, is that doing so doesn't require you to resave your files. When dealing with heavily compressed images in "lossy" file formats such as JPEG, resaving would further degrade their image quality.

Use metadata templates

You can save time when adding and modifying metadata by creating a metadata template. You'll find metadata templates are particularly helpful when you're working with sets of images that share metadata values. Also, you could create a template that tags all of your images with your name, company name, copyright information, and so on.

To create a template, create a new blank file in one of the CS2 applications, choose File > File Info, and then enter metadata in the File Info dialog box. Then, click the triangle at the top right of the dialog box, and choose Save Metadata Template from the pop-up menu. To access saved templates, click the triangle at the top of the Metadata panel in Adobe Bridge, and then choose Append Metadata or Replace Metadata. Append adds properties and values without overwriting existing data. Replace overwrites existing properties and values with new data.

If necessary, you can delete properties from metadata sets. So, if you found that you had no need for certain metadata properties, you could easily remove them. To delete a metadata property, open the File Info dialog box in a CS2 application, and click Advanced. Select the property you want to remove, and click Delete (you can also delete metadata properties from any of the other panels in the File Info dialog box).
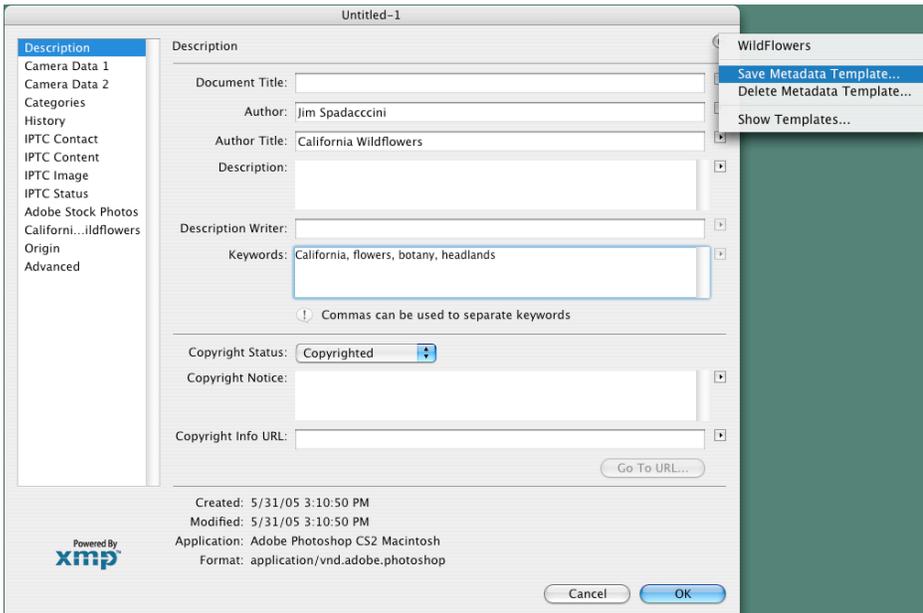

Saving a simple Metadata Template in Photoshop. You can create the template from a blank document.

Customize metadata panels

If you want take things a step further, XMP supports custom metadata panels that provide additional flexibility for industry-specific workflows that require unique metadata values. Additionally, you can create panels to assist with file and project management.
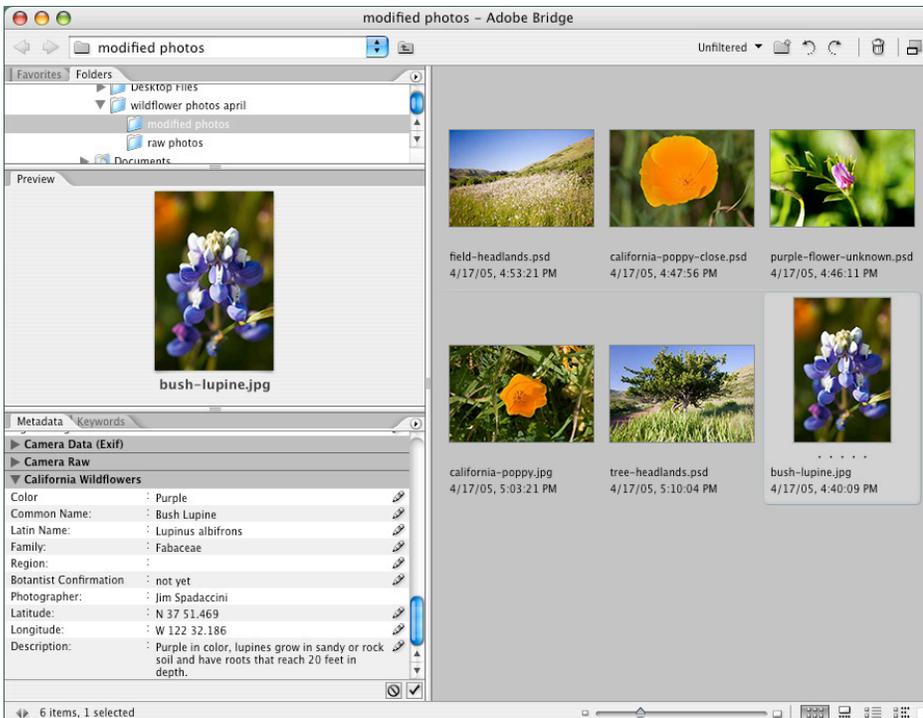
A custom metadata template that includes information to help classify wildflowers, such as Common Name, Latin Name, Family, Region, Latitude, and Longitude.

Rate and label images

In Adobe Bridge, you can apply ratings or labels to your images to help keep track of your favorites. The slideshow mode allows you to see your images full-screen while you apply numeric ratings, 1 through 5, on the fly. These ratings are stored in the XMP data for each file.

A photograph in slide show mode in Adobe Bridge. Notice the starred rating below the file name.

Retrieve files

You can use the descriptive metadata in your files to help find those files in Adobe Bridge. To open the Find dialog box, press Control+F (Windows) or Cmnd+F (Mac OS). In the Find dialog box, enter one or more search criteria, such as file name, file size, keywords, or description. Refine your searches by searching multiple criteria, or by selecting All Metadata as the search criterion.
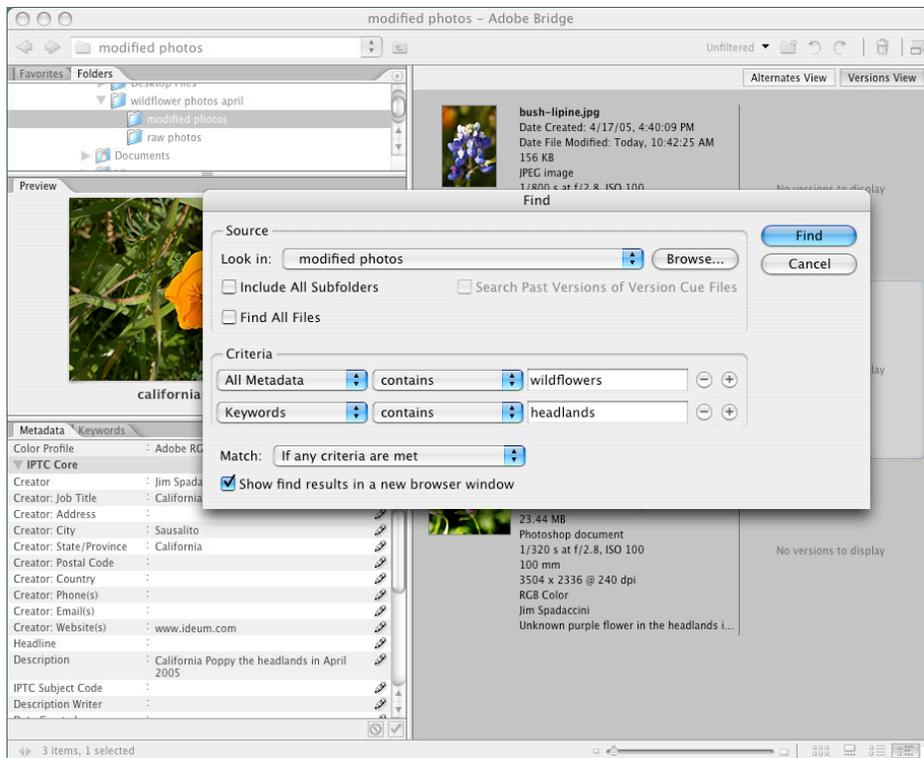
The Find dialog box in Adobe Bridge. Here, the selected search criteria are All Metadata and Keywords.

Change metadata display options in Adobe Bridge

To better match the way you work, you can customize many aspects of Adobe Bridge, including the Metadata panel. For example, to increase the font size in the Metadata panel, click the triangle and then choose Increase Font Size from the pop-up menu. You can also use the Preferences dialog box to customize the way Adobe Bridge displays metadata. To open the Preferences dialog box, choose File > Preferences (Windows), or Bridge > Preferences (Mac OS). Select the properties and values that you would like to appear on the Metadata panel, or deselect those you don't want.

Access Camera Raw data

Camera Raw is an image file format that contains unprocessed data from the image sensor of a digital camera. Having access to this data before it is processed gives you maximum control over the final image. For example, you can adjust color values or white balance instead of leaving these adjustments to your camera's automatic settings. You can view Camera Raw files in Bridge and open and adjust them in Photoshop.

When you save an adjusted image, Photoshop creates an XMP "sidecar file" that includes information about the adjustments you've made. As the name implies, metadata is captured in a separate file that is stored in the same folder (the metadata file has the same name as the original file but has an .xmp extension). Photoshop doesn't embed this data in the file, so the unprocessed camera raw file is preserved.
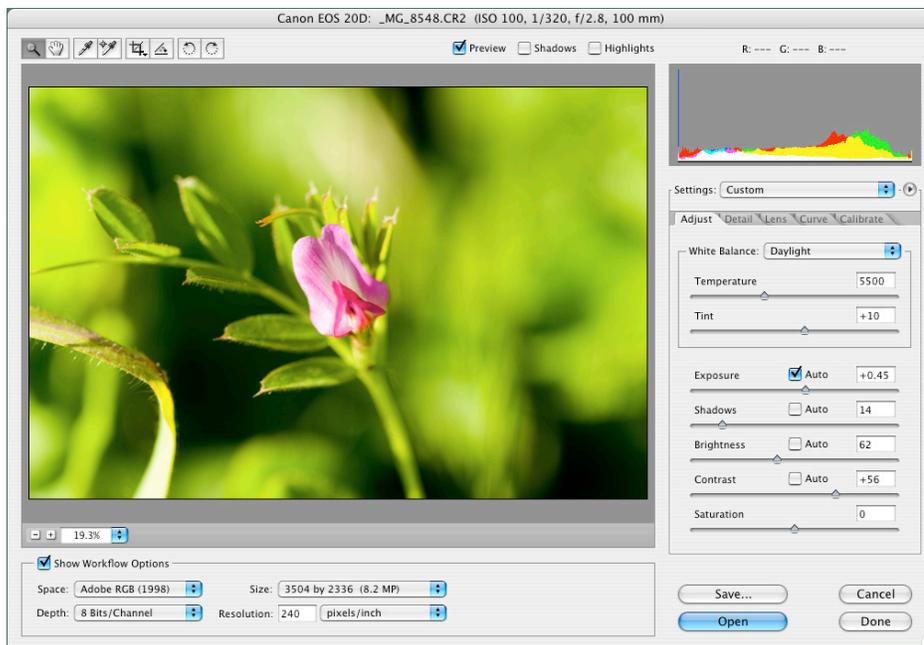
The Camera Raw dialog box in Photoshop.

Access Adobe Stock Photos

Adobe Stock Photos is a new service included in Adobe Creative Suite 2. You can access Adobe Stock Photos from Adobe Bridge. To search for an image, select Adobe Stock Photos on the Favorites tab and then type in a search term or phrase. Adobe Stock Photos searches multiple stock libraries and returns images that match your search terms. Once you've found what you're looking for, you can purchase the image or click Download Comp to download a placeholder image for your project. If you decide to purchase the image, you can conduct the transaction directly through Bridge. Bridge even keeps track of the sale for you.
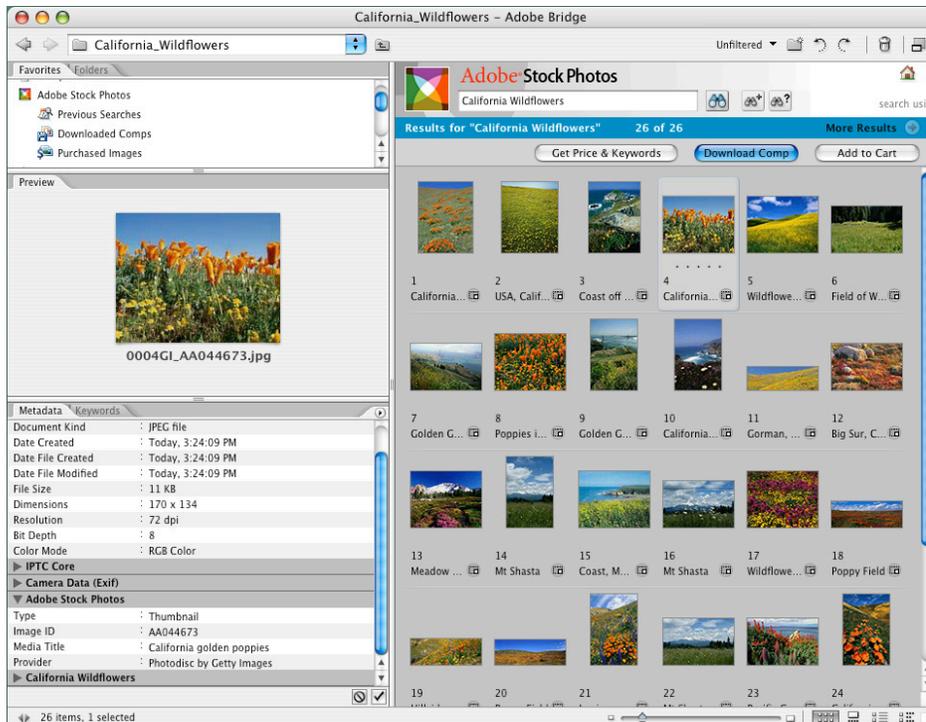
The search phrase "California Wildflowers" finds 26 photographs from the Getty Images and Digital Vision libraries.

Take advantage of XMP in Version Cue

Built on the foundation of XMP, Version Cue helps individuals and creative teams manage versions of files, organize and access files simply, and share files and projects easily. Search for files using criteria such as keywords, description, author, and copyright, among others. You can even search using the version comments created as the files evolve.

Version Cue manages changes to a file, so you don't need to come up with complex naming schemes. Version Cue makes it easy to locate all versions of a file, too, as it tracks each in the Versions and Alternates view in Bridge. You can revert or save back to a previous version within any of the CS2 applications. Or, if you want to start over or need to recover from some destructive edits, you can promote any previous version to Current status. In team settings, Version Cue provides multi-user controls, providing an efficient and productive workflow, and ensuring that files are not accidentally overwritten.

Version Cue is closely integrated with Bridge, making it simple to use. You can easily view versions and alternates—helping you choose the right one for your project.

Each Version Cue project can easily be accessed by selecting the Version Cue icon located on the Favorites or Folders tab.
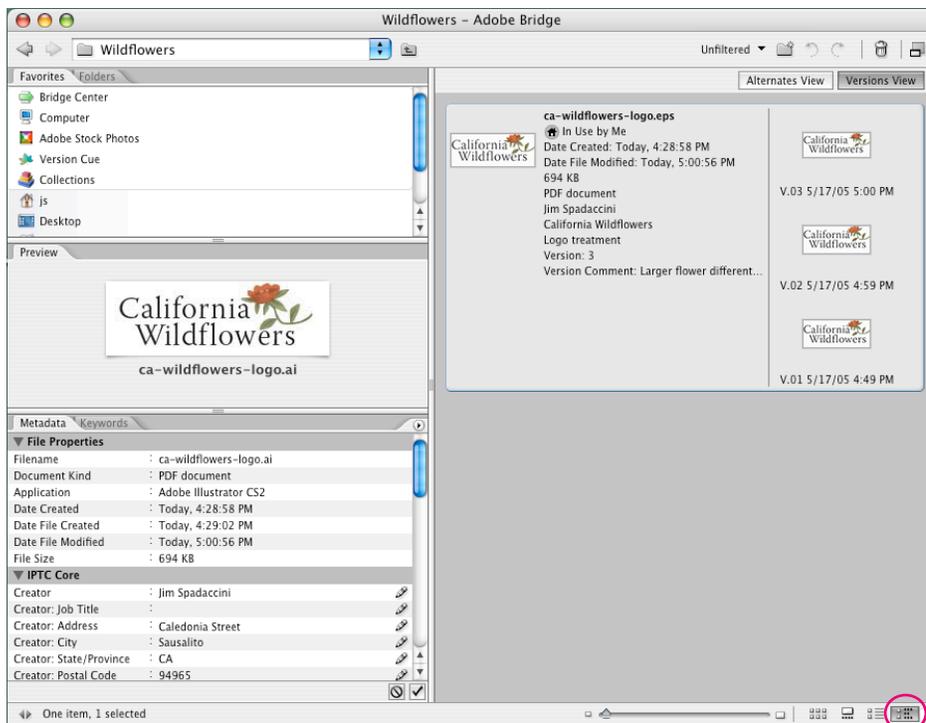
A view of multiple versions of a logo using Version Cue in Adobe Bridge. Notice on the bottom right of the screen the "Versions and alternates view" is selected.

## Use XMP across the Adobe Creative Suite

We've already seen how XMP works within Adobe Bridge and Adobe Photoshop. Let's take a look at an example of how XMP metadata travels through multiple applications. After all, it's not uncommon for creative professionals to work in multiple applications: creating files in one, modifying them in another, and perhaps authoring and distributing them in a third application.

Common workflow example

A common workflow using the Adobe Creative Suite applications includes creating original artwork in Illustrator, rasterizing or modifying it with Photoshop, and then finally placing it in a print document in Adobe InDesign or on a web page with Adobe GoLive. Adobe Bridge and Version Cue can also play a role helping creative professionals select the right file for the project. XMP plays an important role in this creative workflow. Thanks to XMP, metadata is not only retained, but team members can modify it as they work on the files.

By taking advantage of XMP to create "smart assets" that will retain context throughout the publication process, your team will enjoy improved workflow and efficiency. Following is a typical workflow using Illustrator, Photoshop, InDesign, and GoLive:

1. After creating several versions of a logo in Illustrator, you use Version Cue in Adobe Bridge to select just the right version for your final project, a newsletter that you'll print and publish on your company's website.
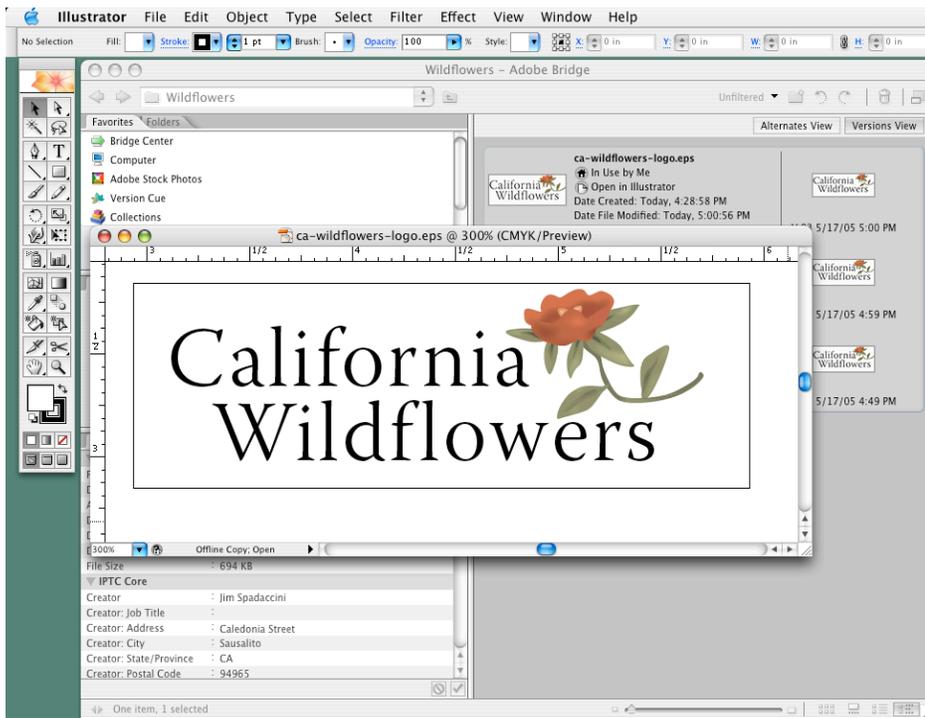
A version of the logo file selected in Bridge using Version Cue.

2. While you're in Adobe Bridge, you add descriptive metadata to the image, giving your team members information they may need in their portion of the workflow. You then save the image as an Adobe EPS from Illustrator.

3. Next, you open the EPS file in Photoshop to rasterize it. (If necessary, you can modify the metadata.)
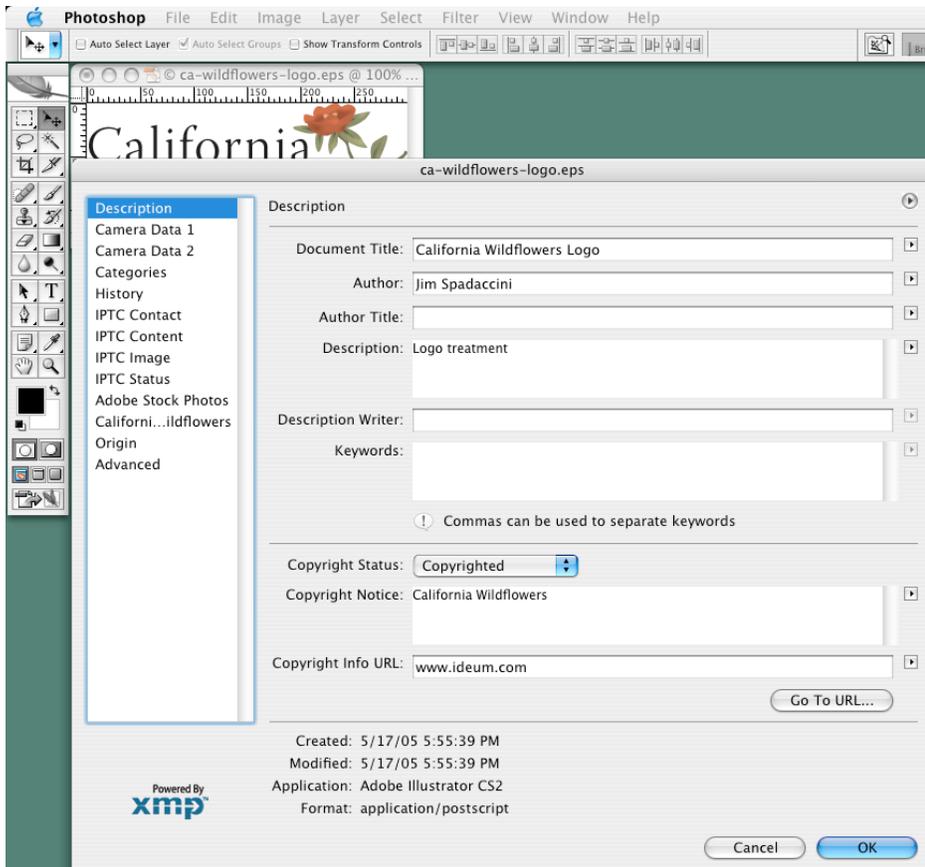

The logo file open in Adobe Photoshop. Metadata entered in Illustrator is retained.

4. In Photoshop, you save the image as a TIFF file for use in a newsletter a team member will create in InDesign, and as a JPEG for use on a web page that another team member will create in GoLive. Photoshop includes the XMP data with both the TIFF and JPEG files. Thanks to XMP, you've supplied each of your team members the information they need when working with your logo. To access the metadata in InDesign, open the Link File Info dialog box on the Links palette. To access the metadata in GoLive, select the image in the Site window, and then open the File Info dialog box.
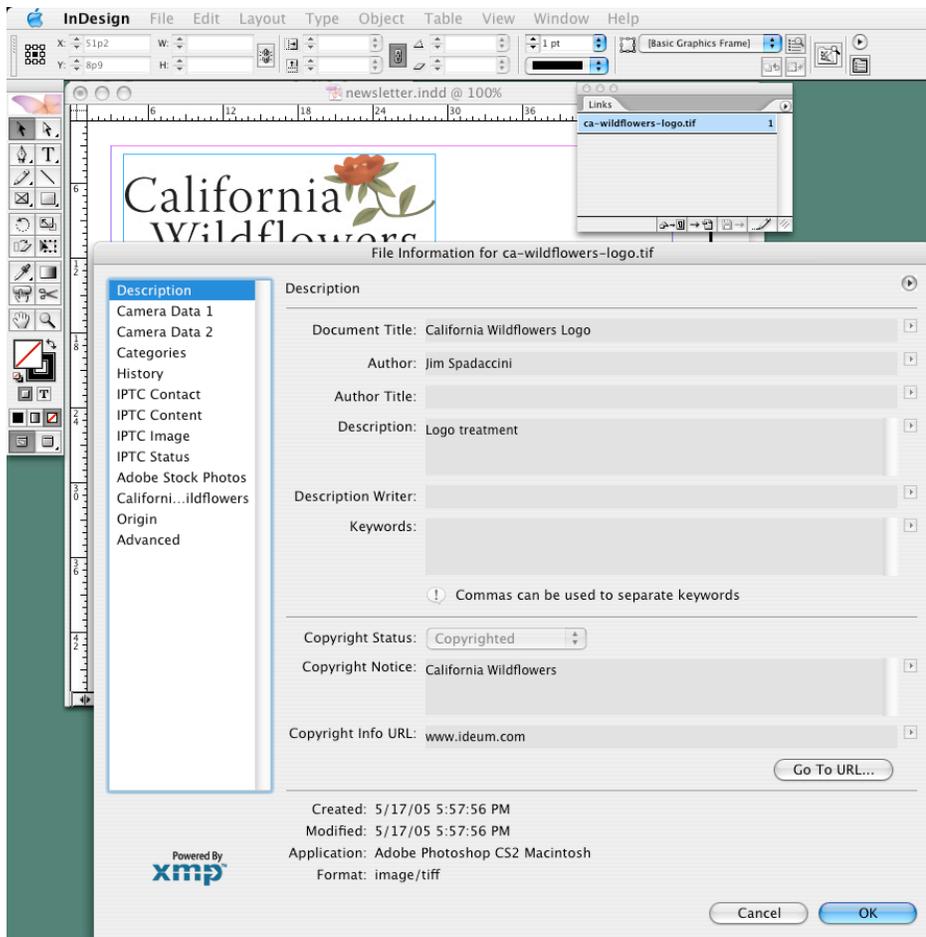
XMP data is retained when the logo is placed into an InDesign document…
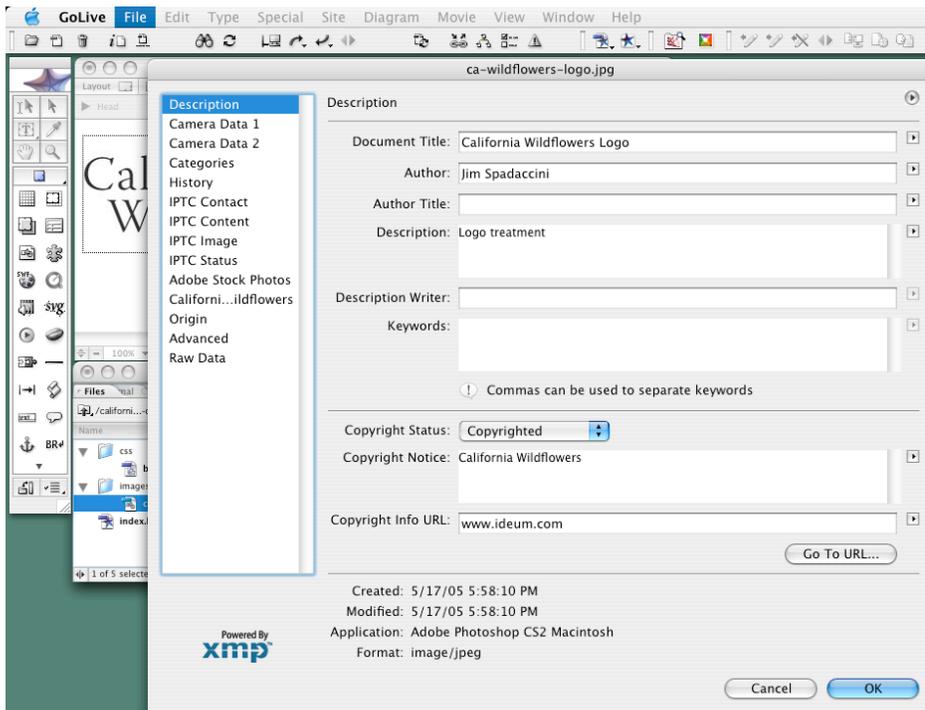
…and into an HTML page created in GoLive.

The example shown here is just one of many possible workflows. With XMP metadata you or your team can view, update, and retrieve descriptive information across a variety of points within your creative workflow.

XMP is platform independent

XMP is supported in both Mac OS and Windows. There's no need to worry about metadata being lost as files move between the different platforms.

XMP is open and extensible

XMP is an open technology based on standards created by the World Wide Web Consortium (W3C), the organization that helps develop recommendations for universal technologies such as HTML, CSS (Cascading Style Sheets), and XML, to name a few.

Adobe developed XMP to establish an industry-wide standard for sharing metadata across applications, file formats, and devices. XMP is open source and it is freely available to developers and system integrators all over the world. XMP benefits from the innovations contributed by the developer community.

XMP is extensible, which means that it can be customized to meet the specific needs of an organization or work within a particular content management system. XMP can also accommodate existing metadata specifications, so systems don't need to be rebuilt from scratch. XMP is universal, international, and has multilingual support. It is not limited to a particular file format or database.

Conclusion

We've seen how XMP metadata can help creative professionals keep track of their important files. Relevant information such as author, description, keywords, copyright, caption, and many others can be embedded directly into the file—turning files into "intelligent assets." XMP data can't be lost or separated from the file, even if the file is moved to a new system or platform.

The examples in this paper demonstrate just how versatile XMP metadata can be. Custom templates allow you to add relevant terms for even the most specialized projects. XMP is flexible and extensible, so it can be used to help manage and organize files, simplify permissions and copyright notices, or even to view camera settings for digital photographs. It is a powerful tool for content management.

With the new Adobe Bridge, XMP is more important and more powerful than ever. Viewing, modifying, and updating metadata values is simpler. A dynamic set of new features in Bridge such as Adobe Stock Photos, ratings, and others help busy creative professionals speed up workflow. Finally, the improved Version Cue, available in Bridge, makes keeping track of versions and alternates easier.

Adobe Creative Suite 2 with XMP technology is another bold step forward. Thanks to XMP, you'll enjoy better file management and a streamlined workflow, allowing you to focus more fully on the creative aspects of your job.

FOR MORE INFORMATION
Visit Adobe's XMP Website
www.adobe.com/xmp

Get the Full IPTC Core package (specifications, technical documentation and the Photoshop CS panels)
www.iptc.org/IPTC4XMP/

Learn "How to use the IPTC Core CS panels" video tutorials by David Riecks and the Stock Artist Alliance
www.stockartistsalliance.org

Discuss the "IPTC Core" Schema for XMP Support at Yahoo! Groups
http://groups.yahoo.com/group/iptc4xmp/