



# Aperture 3.5

## User Guide

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# Contents

12	<b>Chapter 1: Aperture basics</b>
12	What is Aperture?
13	Aperture workflow overview
15	Aperture interface overview
19	Basic components of Aperture
19	Basic components overview
20	What are originals?
20	What are versions?
21	What are projects?
21	What are albums?
23	What are folders?
23	What is the library?
24	What are managed images and referenced images?
25	What is the Aperture Trash?
25	What is a vault?
26	Open Aperture for the first time
27	<b>Chapter 2: Import photos</b>
27	Importing photos overview
29	File formats you can import into the library
29	Plan your import strategy
30	Import from a camera, card reader, or device
36	Add import options
36	Import options overview
36	View file information
37	Automatically name imported photos
40	Adjust time zone data at import
40	Add metadata at import
41	Apply effects at import
41	Filter files by type at import
42	Import RAW + JPEG image pairs
43	Use AppleScript actions at import
44	Automatically back up files at import
44	Reset import options
45	Import folders of files from the Finder
46	Import originals for referenced images into folders
47	Capture photos as you work
48	Add audio attachments to image files
49	Where Aperture stores your managed files in the library
49	Reprocess photos from earlier versions of Aperture

## 51 **Chapter 3: Work with projects and the library**

- 51 Organize items in the Library inspector
  - 51 Library inspector overview
  - 53 Create and name items
  - 54 Open and close items in the Library inspector
  - 55 Arrange items in the Library inspector
  - 56 Create and show favorite items
- 56 Work with the Aperture Trash
- 58 Work with library files
  - 58 Create new libraries
  - 58 View other libraries
  - 59 Merge libraries
  - 61 Open your library in iPhoto
- 61 Work with projects
  - 61 View projects
  - 64 Create and delete projects
  - 64 Organize and sort projects in Projects view
  - 66 Import photos into projects
  - 66 Merge projects
  - 67 Duplicate a project structure
- 67 Work with referenced images
- 72 Back up the library
  - 72 Plan your backup system
  - 73 Create and update vaults
  - 75 Disconnect and reconnect vaults
  - 76 Restore your Aperture library
  - 76 Repair and rebuild your Aperture library

## 78 **Chapter 4: Organize and sort photos**

- 78 Browser overview
- 80 Navigate through and select photos
  - 80 Navigate through photos in the Browser
  - 81 Select photos
  - 82 Navigate through photos in Quick Preview mode
- 83 Change the Browser view
  - 83 Work with photos in filmstrip view
  - 84 Work with photos in grid view
  - 85 Work with photos in list view
  - 87 Work with two Browsers open
- 88 Set up and arrange photos
  - 88 Rearrange and sort photos in the Browser
  - 89 Rotate photos
  - 89 Create versions of a photo
  - 90 Delete photos from the Browser
  - 91 Rename original image files
  - 91 Drag photos into different projects and albums
- 92 Stack photos and make picks
  - 92 Stacking photos overview
  - 93 Create stacks
  - 95 Open and close stacks
  - 95 Set a pick photo for a stack

96	Work with stacked photos
97	Compare photos in stacks
98	Work with stacks in list view
98	Rate photos
98	Rating photos overview
100	Rating workflow
101	Rate and compare photos
104	Sort photos by rating
105	Add keywords to photos
105	Keywords overview
108	View a photo's keywords
110	Apply keywords using the Keywords HUD
114	Apply keywords using keyword controls and keyword presets
118	Apply keywords using the Lift & Stamp HUD
121	Apply keywords using the Info inspector
122	Apply keywords to photos in the Light Table
122	Remove keywords from a photo
123	Export and import keyword lists
123	Organize photos by people using Faces
123	Faces overview
125	Add names to faces in your photos
127	View photos in Faces view
130	Search for photos by face
131	Organize photos by location using Places
131	Places overview
133	View photo locations
138	Change the map view
139	Add locations to photos
142	Change photo locations
143	Remove locations
143	Import and work with GPS Track file data
144	Assign location information to projects
146	Work with location information using the Info inspector
150	Search for and display photos
150	Searching overview
151	Perform quick searches using the Search Field pop-up menu
152	Search using a combination of criteria
154	Save your search results
155	Group photos with Smart Albums
155	Smart Albums overview
156	Collect photos in a new Smart Album
159	Search within a Smart Album
159	Revise the contents of a Smart Album
160	Transfer Smart Album photos to an album
160	Delete a Smart Album
160	Work with library albums

162	<b>Chapter 5: View and compare photos</b>
162	View photos in the Viewer
162	Viewer overview
164	Change the number of photos in the Viewer
164	Compare photos
166	View photos at full resolution
167	View original photos
168	Work with audio and video in the Viewer
170	View photos on multiple displays
171	Show hot and cold areas in your photos
172	Set up the Viewer for onscreen proofing
172	View photos in full-screen view
172	Full-screen view overview
174	Enter and exit full-screen view
175	Work in Viewer mode in full-screen view
177	Work in Browser mode in full-screen view
178	Work in Projects mode in full-screen view
179	Use HUDs in full-screen view
180	Change the display of metadata in full-screen view
181	View photos with the Loupe
181	Loupe overview
182	Magnify photos using the Loupe
184	Use the alternate Loupe
185	Arrange photos in the Light Table
185	Light Table overview
186	Create and delete Light Table albums
188	Place and view photos in the Light Table
190	Move, resize, and align photos in the Light Table
193	<b>Chapter 6: Work with metadata</b>
193	Working with metadata overview
196	View and change metadata in the Info inspector or Info HUD
196	Show the Info inspector and modify views
198	Modify metadata in the Info inspector and Inspector HUD
201	Display metadata with your photos
201	Metadata overlays overview
202	Turn the display of metadata on or off
203	Specify the type of metadata to display in the Viewer and Browser
206	Work with the AutoFill Editor
206	Work with metadata views
206	Metadata views overview
208	Create, modify, and manage metadata views
210	Work with metadata presets
210	Create metadata presets
211	Share metadata presets
212	Batch change metadata
213	About IPTC metadata
214	Understanding badge overlays
214	Badge overlays overview
215	Display photos with badge overlays
216	Adjust the photo date and time

217	<b>Chapter 7: Make image adjustments</b>
217	Adjustments in Aperture
219	About making adjustments onscreen
220	Use the adjustment controls
220	Use the Adjustments inspector and Inspector HUD
223	Use sliders
223	Work with adjustment tools in the tool strip
224	Use the brush controls
225	Ways to perform adjustments
225	Apply standard adjustments
228	Apply brushed adjustments
231	Apply Quick Brush adjustments
232	Work with brush strokes
235	Work with brushed adjustment overlays
237	Limit the tonal range of brushed adjustments
238	Remove adjustments
238	Perform adjustments in full-screen view
239	Adjust images from within Aperture editors
239	Use an external editor
240	Apply iPhoto effects to images
241	Apply specific standard adjustments
241	Enhance an image automatically
242	Retouch an image
245	Remove red-eye
250	Spot and patch an image
258	Straighten an image's horizon
259	Crop an image
262	Flip the composition of an image
263	Remove chromatic aberration
264	Remove a vignette
265	Reduce digital noise
266	White balance an image
270	Correct exposure, highlight detail, shadow detail, and brightness
273	Adjust contrast, clarity, and saturation
276	Remove unwanted tints from an image
282	Adjust the tonal curve of an image
292	Preserve highlight and shadow details in an image
295	Adjust the levels of an image
303	Selectively adjust the color values in an image
308	Manually convert an image to black and white
309	Convert a color image to black and white with a color tint
310	Apply a sepia tint
311	Sharpen an image
313	Apply a vignette to an image
315	Apply specific Quick Brush adjustments
315	Brush the Skin Smoothing adjustment on an image
316	Brush the Dodge adjustment on an image
317	Brush the Burn adjustment on an image
318	Brush the Polarize adjustment on an image
319	Brush the Intensify Contrast adjustment on an image

320	Brush the Tint adjustment on an image
321	Brush the Contrast adjustment on an image
322	Brush the Saturation adjustment on an image
323	Brush the Definition adjustment on an image
324	Brush the Vibrancy adjustment on an image
325	Brush the Blur adjustment on an image
326	Brush the Sharpen adjustment on an image
327	Brush the Halo Reduction adjustment on an image
327	Brush the Noise Reduction adjustment on an image
328	Create and apply effects
334	Adjust how Aperture decodes RAW images
334	RAW Fine Tuning controls overview
335	Use the Boost controls
335	Use the Sharpening controls
336	Use the Moire controls
337	Use the De-noise control
338	Work with DNG files
338	Set the camera default
339	Sample color values and display camera information
342	Use modifier keys to identify color clipping
344	Understanding how to read histograms
344	Histograms overview
345	About evaluating exposure
346	About evaluating tonality and contrast
348	<b>Chapter 8: Print photos</b>
348	Printing overview
350	Print individual photos
353	Print contact sheets
354	Print books
355	Print Light Table arrangements
356	Create and modify print presets
357	Proof images and manage color
358	<b>Chapter 9: Export photos</b>
358	Exporting photos overview
358	Export tips
359	Export by dragging
359	Export using the Export command
364	Choose export settings
364	Work with export presets
367	Set image resolution when exporting
369	Adjust images at export
370	Add a watermark at export
370	Apply IPTC metadata and keywords to your photos
371	Rename photos at export
374	Export photos into named or numbered folders



376	<b>Chapter 10: Create slideshows</b>
376	Slideshows overview
376	Create slideshows quickly using presets
376	Slideshow presets overview
377	Play a slideshow using a preset
379	Create and modify slideshow presets
381	Create full-featured slideshows
381	Full-featured slideshow overview
383	Create a slideshow and choose a theme
385	Change slideshow settings
386	Set the slideshow aspect ratio and crop
387	Add a title or text to the slideshow
390	Set the length of time slides play
391	Apply transitions and effects to slides
393	Apply a Ken Burns effect to a slide
395	Adjust the volume of video slides
395	Add music and audio to slideshows
401	Loop the slideshow and the main audio track
402	View your slideshows in Aperture
402	Share your slideshow movies
404	<b>Chapter 11: Create books</b>
404	Creating books overview
405	Plan your book
406	Create a book album
407	View pages
409	Place photos in a book
411	Add and remove pages
411	Add individual pages to a book
413	Automatically create new pages
414	Add a photo index to a book
415	Remove pages from a book
415	Work with pages
417	Work with photos
417	Add photo boxes to a book page
418	Modify photo boxes
419	Copy, paste, cut, and remove photos in photo boxes
420	Stack photo boxes in a specific order
420	Change the look of photos with filters
421	Add map boxes to a book page
425	Work with text
425	Place text on the page
426	Add metadata boxes to a page
427	Hide or show photo plate numbers in books
427	Modify the appearance of text in books
428	Work with the Layout Options inspector
429	Work with master pages
429	Master pages overview
429	Create and modify master pages
430	Unify and split master pages
431	Update book pages with master page changes

- 431 Create and share custom themes
- 432 Copy a book album
- 432 Order books from third-party print vendors using plug-ins
  
- 434 **Chapter 12: Share photos online**
- 434 Sharing photos overview
- 434 Use iCloud to keep photos up to date across your devices
- 434 My Photo Stream overview
- 436 Set up your iCloud account
- 437 Turn on My Photo Stream for an Aperture library
- 438 Automatically transfer photos between Aperture and My Photo Stream
- 439 Manually transfer photos between Aperture and My Photo Stream
- 439 About turning on My Photo Stream on more than one Mac
- 440 About uploading RAW files to My Photo Stream
- 441 Use iCloud to share photos with others
- 441 iCloud Photo Sharing overview
- 441 Turn on iCloud Photo Sharing in Aperture
- 442 Create shared photo streams
- 443 Add, remove, and edit items in a shared photo stream
- 444 Manage subscribers to your shared photo streams in Aperture
- 445 Subscribe to shared photo streams in Aperture
- 448 Email photos
- 449 Publish photos to Flickr, Facebook, and SmugMug
- 449 Sharing photos with Flickr, Facebook, and SmugMug overview
- 450 Set up a Flickr, Facebook, or SmugMug account in Aperture
- 456 Create and delete Flickr, Facebook, and SmugMug albums
- 458 View Flickr, Facebook, and SmugMug albums
- 460 Update your Flickr, Facebook, and SmugMug albums
- 461 Manage your Flickr, Facebook, and SmugMug accounts
- 463 Create webpages
- 463 Creating webpages overview
- 463 Create web galleries and web journals
- 466 View and navigate through webpages
- 467 Choose and modify themes
- 468 Work with web gallery pages
- 468 Work with web journal pages
- 470 Export webpages as HTML files
- 471 Work with web export presets
- 473 Add watermarks to webpage photos
  
- 474 **Chapter 13: Customize the Aperture workspace**
- 474 Change the main window layout
- 476 Set Aperture preferences
- 476 Aperture preferences overview
- 477 Open Aperture preferences
- 478 General preferences
- 479 Appearance preferences
- 480 Import preferences
- 481 Export preferences
- 482 Labels preferences
- 482 Previews preferences

483	iCloud preferences
483	Accounts preferences
484	Advanced preferences
485	Customize the toolbar
487	Use gestures with Aperture
488	Customize keyboard shortcuts
488	Customizing keyboard shortcuts overview
490	Search for commands and keyboard shortcuts
492	Modify keyboard shortcuts and command sets
494	Work with preview images
494	Preview images overview
495	How Aperture displays photos in the Viewer
495	Set preview preferences
495	Automatically manage previews
496	Manually manage previews
496	Reschedule JPEG preview maintenance
497	Render preview images
497	Suppress preview generation
498	Sample workflows for using previews effectively

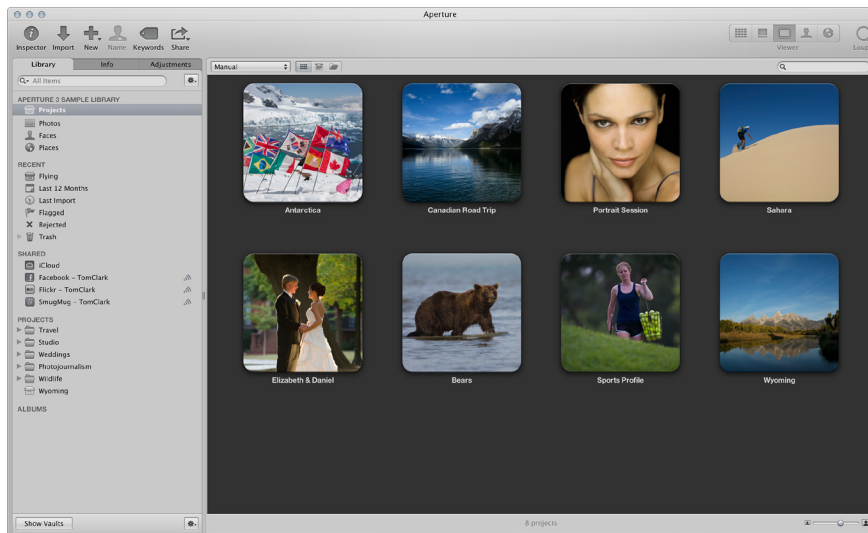
501 [Glossary](#)

# Aperture basics

# 1

## What is Aperture?

Aperture is a powerful, easy-to-use digital photo management system for organizing, adjusting, archiving, and presenting high-quality photographic images.



In Aperture, you can:

- Work directly with your iPhoto library without having to import your iPhoto photos.  
**Important:** To ensure library compatibility, make sure you upgrade both iPhoto and Aperture to the latest versions.
- Import digital photos, audio files, and HD video files from cameras, card readers, and hard disk drives in high-quality formats such as JPEG, TIFF, and RAW.
- Edit and adjust digital photos using intuitive image-processing tools for retouching, skin smoothing, red-eye removal, color balance, exposure correction, and more.
- Work with your photos in RAW format, from capture through adjustment to final output, preserving the highest-quality images throughout your workflow.
- Store photos, audio files, and video files wherever you want—in the Aperture library, on multiple hard disks, or on other storage media.
- Work with multiple Aperture libraries, with the ability to switch from library to library without closing Aperture.
- Catalog and manage thousands of photos and video files using flexible organizational tools, comprehensive metadata support, and powerful search tools that let you find files instantly in multiple locations, including hard disks, offline volumes, CDs, and DVDs.
- Export any part of your library, make changes to it on a second system running Aperture, and then merge it back into the library of your primary Aperture system.

- Process your photos nondestructively. Aperture protects your original image files and uses built-in safeguards to help ensure that you don't accidentally overwrite or modify originals.
- Automatically back up copies of your image files to designated storage areas, called *vaults*, located on external hard disks.
- Print or publish your photos and albums in any of numerous formats and to multiple locations. Working directly with RAW photos, you can create color-accurate prints, custom contact sheets, and unique bound books.
- Share your photos electronically, publishing them to Facebook, Flickr, and SmugMug. If you have an iCloud account, you can make your new photos available on all your Mac and iOS devices using My Photo Stream, and you can share photos with friends using iCloud Photo Sharing. You can also create slideshow presentations for clients and friends, attach photos to email, and create webpages to display your photos.

## Aperture workflow overview

The basic process of managing photos in Aperture is described below. You don't have to do every step, and you might do other tasks that aren't listed here.

### Use your iPhoto library with Aperture

The first time you open Aperture, the Welcome to Aperture screen invites you to open your iPhoto library. You can also switch to your iPhoto library by choosing File > Switch to Library.

**Important:** To ensure library compatibility, make sure you upgrade both iPhoto and Aperture to the latest versions.

For more information about switching libraries in Aperture, see [View other libraries](#) on page 58.

### Import photos into Aperture

To use Aperture, you first import your photos. You can import digital photos directly from your camera or a card reader and from hard disks or other storage devices where you've archived digital files.

Aperture automatically imports any audio attachments associated with your image files, provided that the image files and their audio attachments have the same filename. In addition to importing photos into Aperture, you can also import QuickTime-compatible audio and video files.

### Create projects

As you work with Aperture, you create projects to hold your photos. Projects are similar to events in iPhoto. A project can hold dozens, hundreds, or even thousands of photos. When you need to further subdivide and organize photos in a project, you can create albums. As your portfolio increases and you create more and more projects, you can organize your work into hierarchies of folders, projects, and albums.

### View and organize your photos

To work with your photos, you select a project in the Library inspector, and the project's photos appear in the Browser. You use the Browser to review, organize, and select photos. When you select a thumbnail image in the Browser, the photo appears in the Viewer. If you want to work with your photos in detail, you can view them in full-screen view.

Aperture also provides several tools to help you organize a large portfolio of photos. You can compare high-resolution photos side by side, group similar photos in stacks, rate photos, identify people in your photos using Faces, and apply location information to your photos using Places. You can also apply keywords and other metadata to your photos to make them easier to find.

### **Adjust your images**

You can enhance your photos using a set of powerful, nondestructive adjustments such as Crop, Straighten, Exposure, White Balance, Levels, Curves, Highlights & Shadows, Vignette, and more. In addition, you can use brushes to apply or remove adjustments selectively, affecting only certain parts of an image.

To streamline your workflow, you can save adjustment settings as presets (collections of saved settings) and apply a combination of image adjustments to one or more photos in a single step.

### **Share your photos**

When it's time to show your work to others, Aperture provides many options for distributing and sharing your photos:

- Send your photos to Flickr and Facebook.
- Present your photos in multimedia slideshows.
- Create premium-quality photo books.
- Print high-resolution photos.
- Export your photos in a variety of file formats.
- Email your photos directly from Aperture.
- Publish your photos in web galleries and web journals as HTML that you can upload to a web server.
- Use My Photo Stream to make your photos available on all your devices—including iOS devices, Mac computers, PCs, and Apple TV—and use iCloud Photo Sharing to share photos with friends and family members who have iCloud accounts.

### **Back up your work**

After you import photos from your camera and erase memory cards in preparation for the next shoot, Aperture stores a single copy of each photo on your hard disk. It's important to make backup copies of these photos to safeguard your portfolio. You can set Aperture to back up your managed images (images that are stored in the Aperture library) and all information associated with them, such as keywords and image adjustment settings, on vaults located on hard disk drives. You can also set Aperture to automatically back up your photos during import.

## Aperture interface overview

Here are the main areas of the Aperture window:

**Toolbar:** Perform common tasks and select a workspace view.



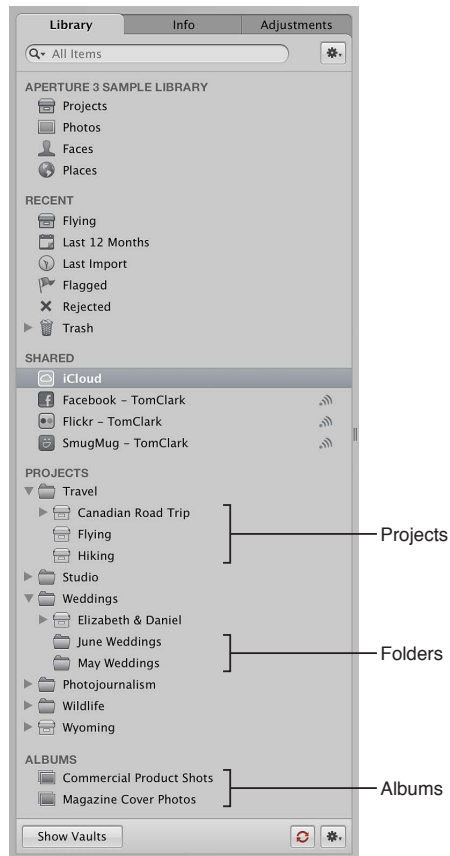
**Inspectors:** Access the library, view photo information, and adjust photos.

**Browser:** View thumbnails of photos in the item selected in the Library inspector.

**Viewer:** View the photo or photos selected in the Browser.

## Organize photos using the Library inspector

All your imported photos are available in the Library inspector, one of three inspectors in the Inspector pane on the left side of the Aperture main window. The Library inspector holds containers—projects, folders, and albums—you can use to organize your photos.



The Library inspector also provides a number of ways to view items in the library. For example, you can select Projects at the top of the Library inspector to view your photos organized by project, or Places to view the locations of all the photos in the library. For more information, see [Library inspector overview](#) on page 51.

When you select a folder, a project, or an album in the Library inspector, the images appear in the Browser and Viewer to the right.

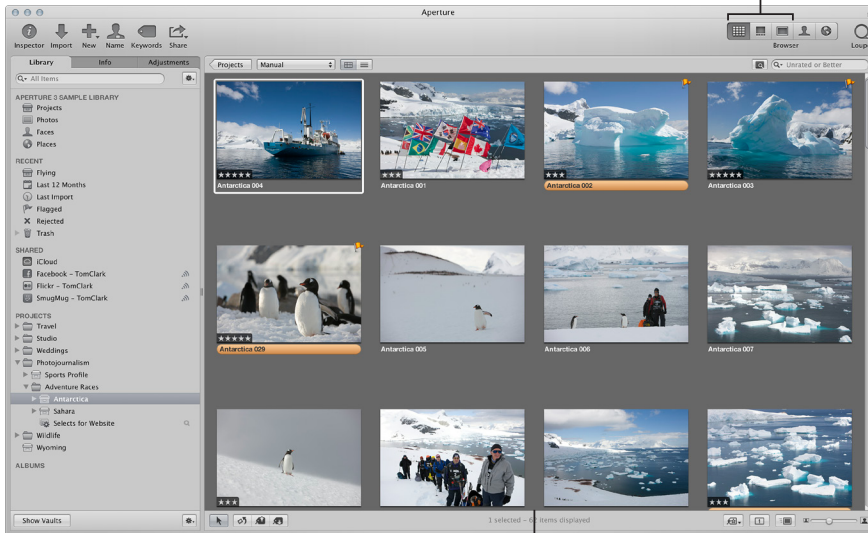
## Display photos in the Browser and Viewer

You can arrange the Browser and Viewer to suit your work style, showing either one by itself or both at once. To change the main window layout, click a layout button at the right side of the toolbar.



The Browser layout displays a grid of thumbnail images.

**Layout buttons:** Click a button to select a main window layout.



**Browser layout:** The Browser fills the workspace and displays a grid of thumbnail images.

When you double-click a thumbnail image in the Browser (or click the Viewer button in the toolbar), Aperture switches to the Viewer layout, displaying the selected photo in a larger format. You can use the Viewer to examine a photo at full size or compare multiple photos side by side.

**Viewer layout:** The Viewer fills the workspace and displays your photo selection.



**Tool strip:** Use these tools to adjust and work with your photos.

You can use the tools in the tool strip below the Viewer to adjust and manipulate your photos. For more information, see [Work with adjustment tools in the tool strip](#) on page 223.

To display the Viewer and Browser at the same time, click the Split View button at the right side of the toolbar.



Split View layout: The Viewer and Browser appear together.

For more information about changing the configuration of Aperture windows, see [Change the main window layout](#) on page 474.

### Display photos in full-screen view

You can also view your photos in full-screen view, dramatically projecting them onto a solid background for detailed adjustments and comparisons. Full-screen view offers different display layouts that let you view large-format versions of selected photos, view thumbnails, or view photos by project. For more information, see [Full-screen view overview](#) on page 172.



### Display metadata associated with photos

To help identify your photos as you work with them, you can set Aperture to display the metadata associated with photos in the Viewer. You can display keywords, ratings, EXIF information, IPTC information, and more. You can specify whether the information appears below the photos or over the lower portion of the photo.

You can also specify up to two views of information to be displayed with photos in the Viewer—basic or expanded. For example, one view might be configured to show ratings only, and another view to show all the IPTC information associated with a photo. You can then switch between views to change the information that appears with your photos.



The caption and keywords are displayed here.

For more information about working with metadata views in the Viewer, see [Metadata overlays overview](#) on page 201.

## Basic components of Aperture

### Basic components overview

Aperture uses the following basic components in your photo management system:

- *Originals*: The original image, video, and audio files imported from your digital camera, memory card, computer, or external storage media.
- *Versions*: Files derived from the originals and used to display your photos with any changes you've made, including image adjustments or changes to metadata.
- *Projects*: The basic containers used in Aperture to organize photos. Projects can hold versions, folders, and albums.
- *Albums*: Containers that hold versions. You can create albums to organize photos within projects or outside of them.
- *Folders*: Containers used to organize projects and albums.
- *Library*: The Aperture database that records and tracks your original image, video, and audio files and all of their corresponding versions. You can also create multiple Aperture library files in different locations. The library tracks all the information about the projects, folders, and albums you create to organize your media.
- *Managed and referenced images*: Originals stored in the Aperture library are called *managed images* because Aperture manages the location of the image files in its database. Managed image files are physically located in the Aperture Library file. You can also import photos into Aperture without storing the original image files in the library. Image files that are not stored in the library are called *referenced images*. Aperture links to referenced image files in their current locations on your hard disk, without placing them in the Aperture Library file.
- *Aperture Trash*: Container that holds items you delete in Aperture. You can retrieve items from the Aperture Trash until it is emptied.
- *Vaults*: Containers that each hold a backup of the library and all its photos and information.

The next sections describe each of these elements and how you work with them in Aperture.

## What are originals?

*Originals* are the original digital RAW, GIF, JPEG, TIFF, DNG, PNG, audio, or video files that are imported into Aperture from digital cameras, memory cards, computers, CDs, DVDs, or storage devices such as external hard disk drives. Aperture never changes the original, so you always have originals to work from.

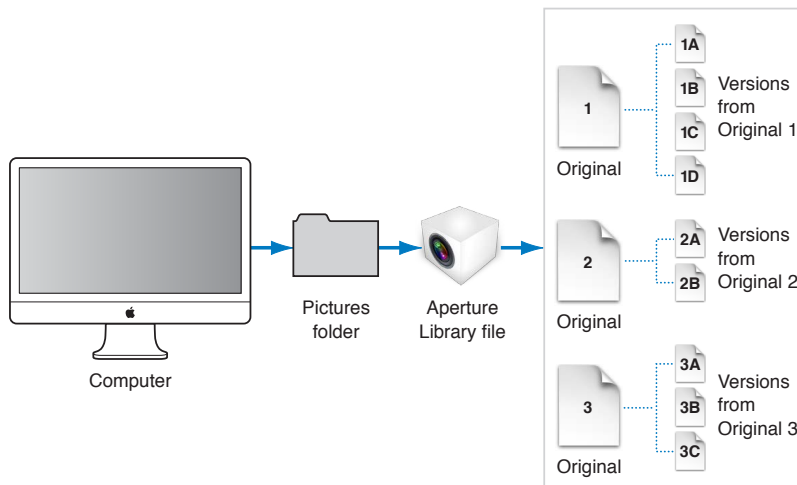
**Important:** Originals—especially RAW files—tend to be quite large. Projects consisting of several thousand originals require high-capacity hard disks.

For information about importing originals, see [Importing photos overview](#) on page 27.

## What are versions?

After you import originals to your hard disk, you can review and make adjustments to your images. For example, you can change the exposure, contrast, or saturation, or add information to an image, such as the photographer's name, the project, and the location. To work with photos, Aperture creates a *version* of each original that includes your adjustments and embedded information, leaving the original unchanged. A version is linked to the original on your hard disk, but it is not the original itself. Versions store only the thumbnail image, adjustments, and embedded information. A full image file is not created until you are ready to print or export, saving valuable hard disk storage.

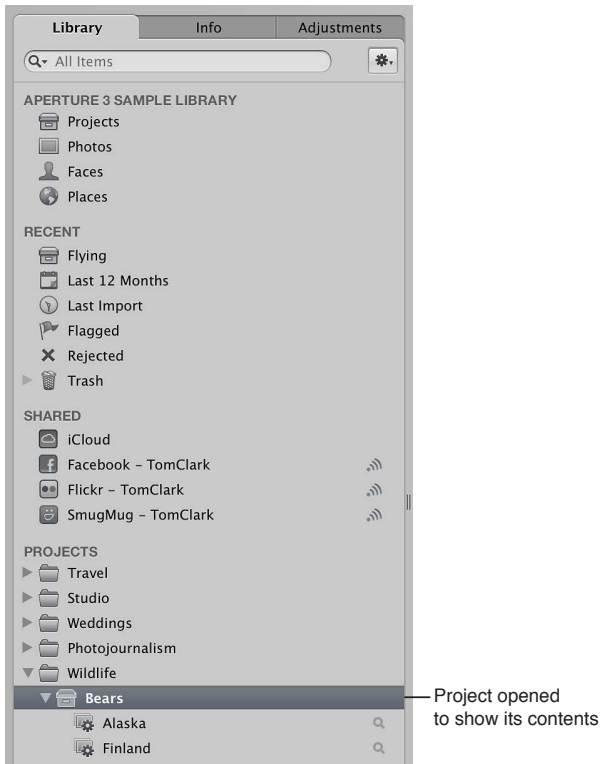
In many cases, your workflow may call for different renderings of the same photo. For example, a client may request a color as well as a black-and-white version of the same head shot. You can create multiple versions of the same photo in Aperture.



When you create a version, Aperture reads the original image file on disk and displays it on the screen. As you make adjustments or add information to the image, Aperture displays the version with your changes, but the original image file is never changed.

## What are projects?

You organize your originals and versions using *projects*, which are similar to events in iPhoto. When you import photos into Aperture, you assign them to a project. You can create as many projects as you like, up to the limitations of your disk space. For example, you can create a new project for each of your shoots. Or, if you do several shoots of the same subject, you can create a project that encompasses all of the shoots.



You can have multiple projects open at the same time, each represented by its own icon in the Library inspector.

## What are albums?

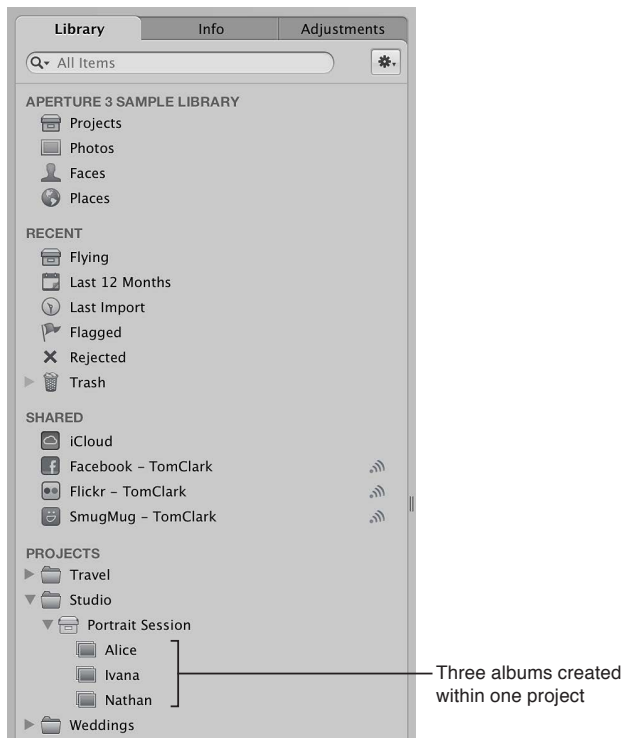
An album is a container in the Aperture library used to group photo versions. You can create albums at the library level or within a project.

You use albums created at the library level to organize versions from multiple projects. For example, you can create an album to consolidate your favorite photos, or *selects*, from multiple projects. You can then publish this collection of selects on your website or export the album's contents for review by a prospective client.

You can also create albums within projects to help you organize your photos into relevant groups. For example, you can organize photos in a project by:

- *Occasion*: Break a project into a series of albums according to specific occasions. For example, a wedding project can be divided into albums for the preparation, ceremony, and reception, or a soccer project can be divided up in albums for each game.
- *Day*: Break a project that spans multiple days into albums for individual days. For example, a project consisting of a two-week trip to Japan can be divided into 14 individual albums corresponding to each day.

- *Subject*: Break a project consisting of multiple photographed subjects into individual albums dedicated to each subject. For example, a studio photographer may shoot three models for a single project. The photographer can create an album for each model. Or you might create albums to hold specific photo types, such as candid shots or close-ups.

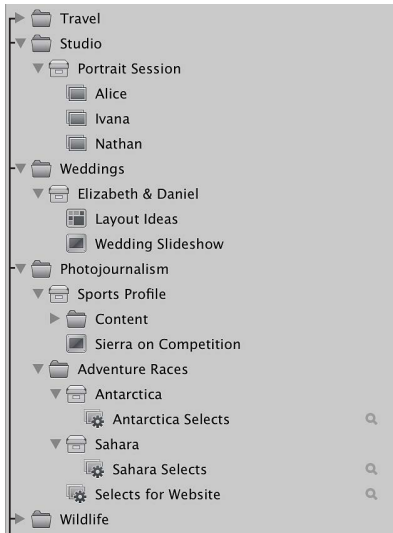


You can also place versions from other projects into an album that resides within a project.

In addition to a standard album that you drag photos into, you can create Smart Albums whose contents are controlled by criteria you specify. When you change a Smart Album's search criteria, the contents of the Smart Album change automatically. For more information, see [Group photos with Smart Albums](#) on page 155.

## What are folders?

In Aperture, you use folders to organize projects and albums. For example, you can import photos into projects and then place the projects in folders based on photo type or location. If you shoot multiple projects for the same client, you can create a folder that holds the client's projects.



These folders organize projects based on type.

Folders contain only albums, projects, and other folders. They don't contain originals or versions.

## What is the library?

The Aperture library tracks every project, album, folder, original, and version, no matter whether the photos, video files, and audio files are stored in the Aperture Library file or in other hard disk locations. Aperture automatically creates a library file in the Pictures folder the first time you open Aperture. You can import media into the library or have Aperture access the files in other locations. When you back up your originals to vaults on external hard disks, those actions are tracked by the Aperture library as well. For more information about backing up your library, see [Plan your backup system](#) on page 72.

In Aperture you can:

- *Work with multiple libraries:* You can work with as many libraries as necessary—including iPhoto libraries—and switch between them without having to quit and reopen Aperture. If your workflow calls for several unique libraries, you can switch between them on the fly. You can also check the contents of a library prior to importing it into the library that's currently open. For more information, see [Create new libraries](#) on page 58 and [View other libraries](#) on page 58.
- *Merge libraries:* You can also transfer libraries from other systems running Aperture and merge them with the library on your local Aperture system. All links between versions and their original photos are maintained when projects are transferred. This is particularly useful if you use a portable computer when on location or away from your studio, and a workstation at your studio. For more information, see [Merge libraries](#) on page 59.

- *Move a library to another location:* When the library file becomes large and requires more disk space than is available in its current location, you can move it to a hard disk with greater storage capacity. To change the location of the library, you move the library file to a new location and then double-click it to open it in Aperture. You specify where the library is located using the Preferences window. For information about working with multiple library files in Aperture, see [General preferences](#) on page 478 and [View other libraries](#) on page 58.

**Tip:** To maximize performance, place the library file on an internal hard disk.

## What are managed images and referenced images?

Aperture lets you choose how you organize your photos on disk. You can store your photos in the Aperture library, or you can import photos by simply linking to the image files in their current locations, without placing them in the library.

Images whose originals are stored in the Aperture library are called *managed images*. Managed images are always accessible and are easily backed up to vaults, to name just two benefits.

Imported photos whose originals haven't been placed in the library are called *referenced images*. Using referenced images provides a number of substantial benefits to your photography workflow. For example, you can incorporate your existing portfolio of photos into Aperture without changing the current location of the files. Importing images by reference does not result in a duplication of your image files in the Aperture library, thus saving hard disk space. You can also connect and disconnect hard disks holding your referenced images' originals as you need them. This allows you to keep originals for less-used photos offline or to make specific types of photos available for editing or adjustments as needed. Using referenced images lets you build a flexible image management system customized to your work style.

You specify whether a photo will be a managed image or a referenced image when you import it. When importing photos, you can:

- Specify that originals be stored in the Aperture library.
- Import photos as referenced images, so that their originals remain in their current locations.
- Move or copy image files to a new location. For example, you might decide to have a certain group of referenced image files, such as photos from 2011, placed in one hard disk location, and another group, such as photos from 2012, placed in a different hard disk location.

You can work with referenced images—creating versions, making adjustments, cropping, and adding metadata—just as you can with managed images. Versions that you create from a referenced image are stored in the library. To make adjustments to a version from a referenced image, the referenced image's original must be available on your hard disk or other storage device. For example, if you delete a referenced image's original in the Finder, Aperture no longer has access to the original and so no longer allows you to change your versions or create new ones.

To help you identify referenced images, Aperture marks them with a badge overlay that you can display or hide. When a referenced image's original is missing or offline, its badge changes to show that the image is not accessible. For example, if you disconnect a hard disk that holds originals for many referenced images, Aperture automatically marks the referenced images in the Browser and Viewer as offline. If you reconnect the hard disk or other storage device later, Aperture accesses the originals automatically and you can work with and change their versions again.

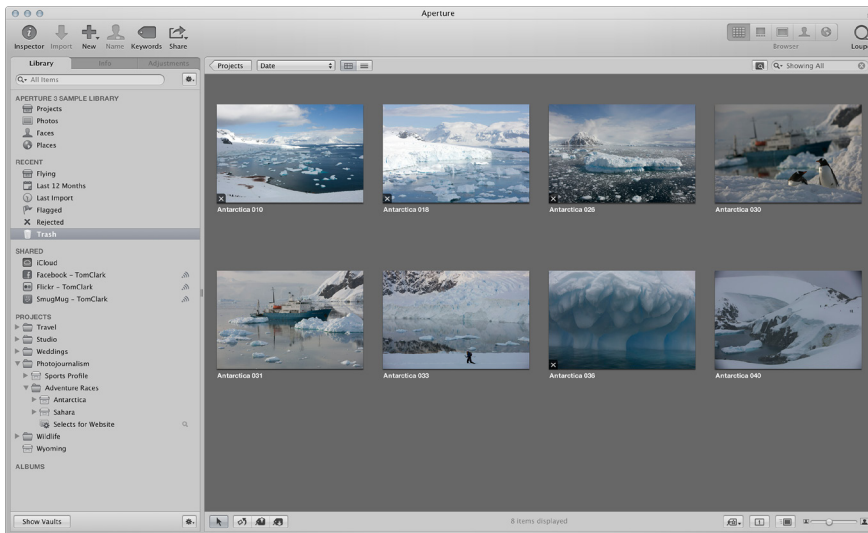


You can also relocate originals, moving them out of the library or moving referenced originals to different hard disk locations. If needed, you can also move referenced originals into the Aperture library by choosing the Consolidate Originals command in the File menu.

You can search for photos based on whether they are managed images, referenced images, or online or offline images. Aperture also provides robust file management tools that let you quickly determine which images are offline and easily reconnect images that have been moved to different volumes.

## What is the Aperture Trash?

All items deleted in Aperture, including projects, albums, folders, versions, and originals, are placed in the Aperture Trash in the Library inspector. You can retrieve any item from the Aperture Trash until you empty it. For more information, see [Work with the Aperture Trash](#) on page 56.



## What is a vault?

To ensure that you have backup copies of your photos, you create a *vault* to hold the backup files. A vault is a container that holds an exact copy of the library. This includes projects, originals, and any versions you've created. You can easily create and update a vault to back up the library. It's a good idea to create multiple vaults on multiple external hard disk drives to safeguard copies of the library.

You can have as many vaults as you deem necessary. Creating more than one vault is useful if you work at different locations; you can always keep one vault on an external drive onsite and another one offsite. All vaults and backup files are tracked by the library so that even if you disconnect the external hard drive that contains a vault, Aperture can access it the next time you reconnect the drive and update the vault.

All the originals and versions for managed images are backed up, as well as all metadata, previews, and adjustment information associated with managed images. The versions, previews, metadata, and adjustment information associated with referenced originals are also backed up in the vault. Referenced originals are not backed up in the vault with the library.

**Important:** Because the originals for referenced images are stored outside of the library, you must manage the backup and archiving of them yourself.

## Open Aperture for the first time

The first time you open Aperture, a Welcome to Aperture screen presents you with two options, provided you have an iPhoto library:

- Update and begin using your existing iPhoto library.
- Start with a new, empty Aperture library and begin importing photos.

**Important:** Aperture can only open iPhoto libraries upgraded to iPhoto 9.3 or later. To upgrade your iPhoto library, open it in iPhoto 9.3 or later.

### Open Aperture for the first time

- 1 In the Applications folder in the Finder, double-click the Aperture icon.

The Welcome to Aperture screen appears.

- 2 Do one of the following:

- *To update your iPhoto library and begin working with it in Aperture:* Click the Update iPhoto button.

After iPhoto is updated to the latest version, open your iPhoto library so that it is upgraded to the latest version as well. When the upgrade is complete, close iPhoto and open Aperture. The contents of your iPhoto library appear in the Library inspector in Aperture. For more information, see [Library inspector overview](#) on page 51.

- *To open a new, empty Aperture library:* Click the Create New button.

Aperture opens a new, empty Aperture library, and you can begin importing photos immediately. For more information, see [Importing photos overview](#) on page 27.

**Tip:** To set Aperture to use the keyboard shortcuts you're familiar with using in iPhoto, choose Aperture > Commands > iPhoto, and choose your language. For more information, see [Customizing keyboard shortcuts overview](#) on page 488.

# Import photos

# 2

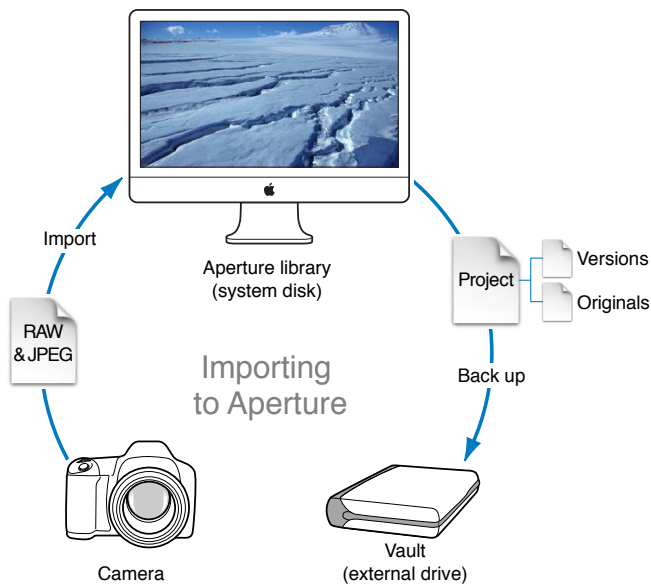
## Importing photos overview

Aperture provides tools and workflow options that make it easy to import your photos. You can import photos directly from your digital camera or card reader, and import photos stored on your computer hard disk or other storage devices. You can also import audio and video files.

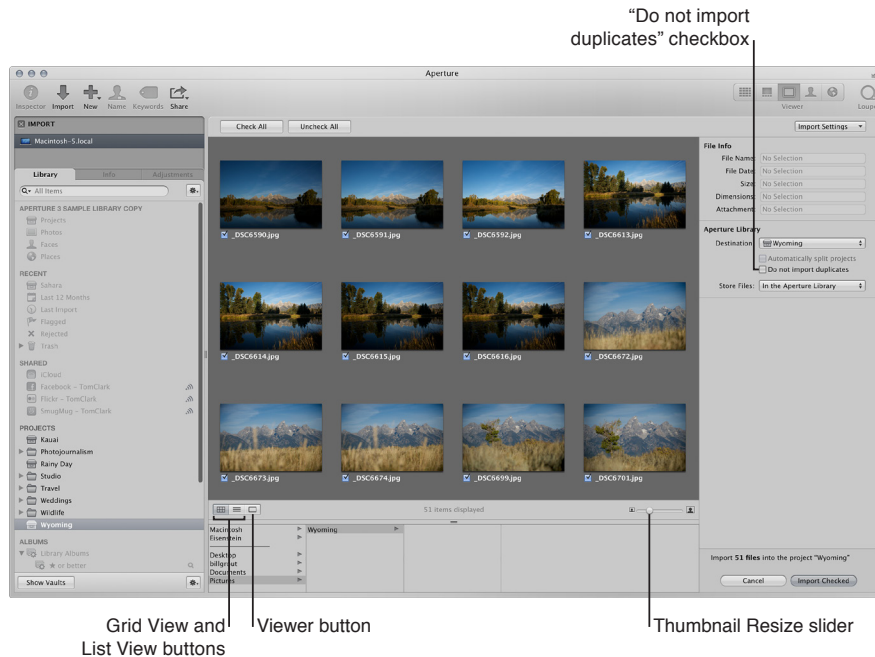
In Aperture you can open, view, and work with iPhoto libraries the same way you work with multiple Aperture library files. For more information about opening your iPhoto library in Aperture, see [View other libraries](#) on page 58.

When you import from a digital camera or card reader, Aperture places the photos in a project. If you don't select an existing project, a new one is created automatically.

As Aperture imports photos, video files, and audio files, it generates a version file, preview, and thumbnail corresponding to each original.



You can import originals directly from a digital camera or card reader and from your hard disk drives.



When you connect a digital camera or select an item in the Import pane, the Import browser appears.

You use the options in the Import browser to specify how and where photos are imported. The Import browser shows thumbnails of your photos that you can enlarge or reduce in size using the Thumbnail Resize slider. You can select individual photos to import or import all the photos at once. You can also set the Import browser to display photos in a list by clicking the List View button. In list view, you can click a column heading to sort photos by category. If you are unsure whether a specific photo should be imported, you can click the Viewer button to inspect a high-resolution version of the photo.

When you import photos, Aperture automatically checks to see if any of the photos are duplicates of previously imported photos. Aperture checks the filename of the original to determine if a photo is a duplicate of one in the library. Select the "Do not import duplicates" checkbox to prevent Aperture from importing duplicates. If this checkbox is unselected, Aperture imports all photos, even if they are duplicates, and creates a new original with a different name for each duplicate. Aperture never overwrites or replaces an original that has already been imported.

As you import photos, you can set Aperture to automatically name and record information about them. Aperture can assign filenames using custom naming conventions; record metadata such as captions, keywords, dates, copyright and credit information, and IPTC information; and adjust the time when the photo was shot to the correct time zone. If the photo has an XMP sidecar file, Aperture imports it as well and adds the metadata to the image version. You can even set Aperture to automatically back up your photos as they are imported. For more information, see [Plan your backup system](#) on page 72.

When you import photos, you can choose whether to have the originals stored in the Aperture library or on a hard disk outside of the library, where they can be accessed as referenced images. For more information about referenced images, see [What are managed images and referenced images?](#) on page 24.

**Important:** Audio files, audio attachments, and PDFs imported into your Aperture library are not visible when you open your Aperture library in iPhoto. To view and work with these items, open your Aperture library in Aperture.

## File formats you can import into the library

Aperture supports most image, audio, and video file formats captured by digital cameras. File types and formats that can be imported into your Aperture library include:

- GIF
- JPEG
- JPEG2000
- PDF
- PNG
- PSD (8- and 16-bit)
- TIFF (8- and 16-bit)
- BMP
- DNG
- RAW files from a variety of supported digital cameras
- AIF
- WAV
- MOV
- AVCHD

**Important:** Aperture does not support 1080p AVCHD footage recorded at 60 frames per second (fps) or 50 fps.

**Note:** For a list of supported digital cameras, go to <http://www.apple.com/aperture/specs>.

## Plan your import strategy

Before you import photos into Aperture, plan the organization of your photos. Eventually your photo library may contain thousands of photos that you'll want organized in a flexible and easy-to-manage system.

You may already have a large digital portfolio that you eventually want to import into the Aperture library. As an import strategy, it's best to try out importing photos in a series of steps:

- If you have an iPhoto library, you can open your iPhoto library and work with its contents directly in Aperture. For more information about opening iPhoto libraries in Aperture, see [View other libraries](#) on page 58.
- Make trial imports of a small group of photos directly from your digital camera or card reader. Learn about import features, such as automatic filenaming and the application of metadata presets. For information about importing from your digital camera or card reader, see [Import from a camera, card reader, or device](#) on page 30.

- Plan how you want to import your legacy digital photos. Because you may have thousands of image files already stored on disk, you need to decide whether you'll store newly imported photos in the Aperture library or store them as referenced images, leaving them in their current hard disk locations. You can also copy or move image files to a different hard disk location when importing them. Also, plan the project organization you'll need to hold the photos. For general information about importing files, see [Importing photos overview](#) on page 27.
- Try out the different methods for importing individual files into your system. You can import individual files, import files stored in folders, and drag files or folders from the Finder into Aperture.

## Import from a camera, card reader, or device

Using the Import browser, you can import photos from a digital camera, card reader, or other device. You can import all photos on the camera or storage device or you can import a selection of photos.

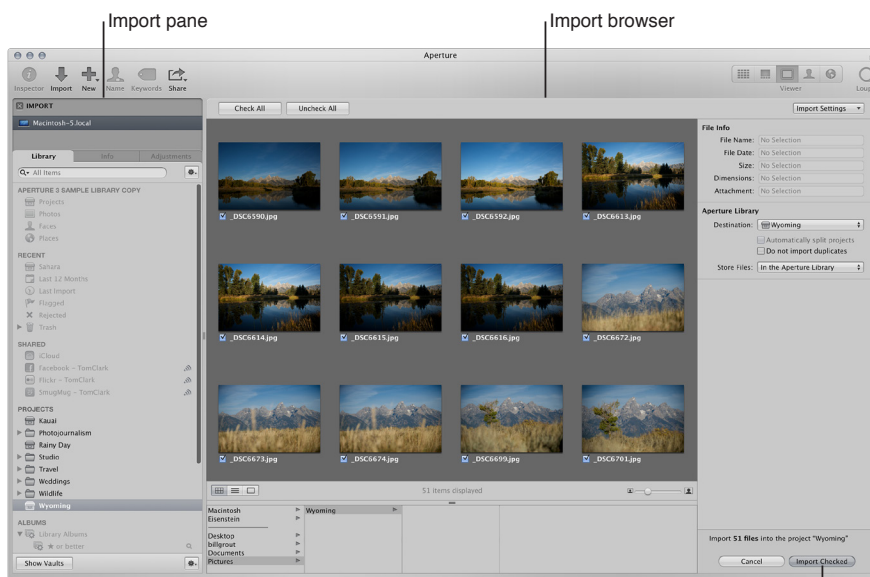
**Note:** When connecting your camera directly to the computer, make sure that you turn the camera on and set it to the mode for transferring photos (PC, PTP, Normal, or another mode, depending on the type of camera). Some cameras automatically select the correct transfer mode when connected to a computer. See your camera's manual for specific instructions. If you have a card reader, it's preferable to transfer photos using the card reader rather than the camera. Using a card reader saves you time and doesn't require the use of your camera's battery.

### Import photos from a camera or card reader

- 1 Connect your camera or card reader to your computer.

The Import browser appears, showing the photos on the camera or card.

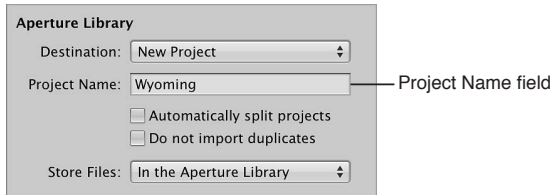
**Note:** If iPhoto opens when you connect your camera or card reader, quit iPhoto. Then, in Aperture, choose Aperture > Preferences and click Import. Choose Aperture from the "When a camera is connected, open" pop-up menu. Disconnect and reconnect your camera to have Aperture open the Import browser.



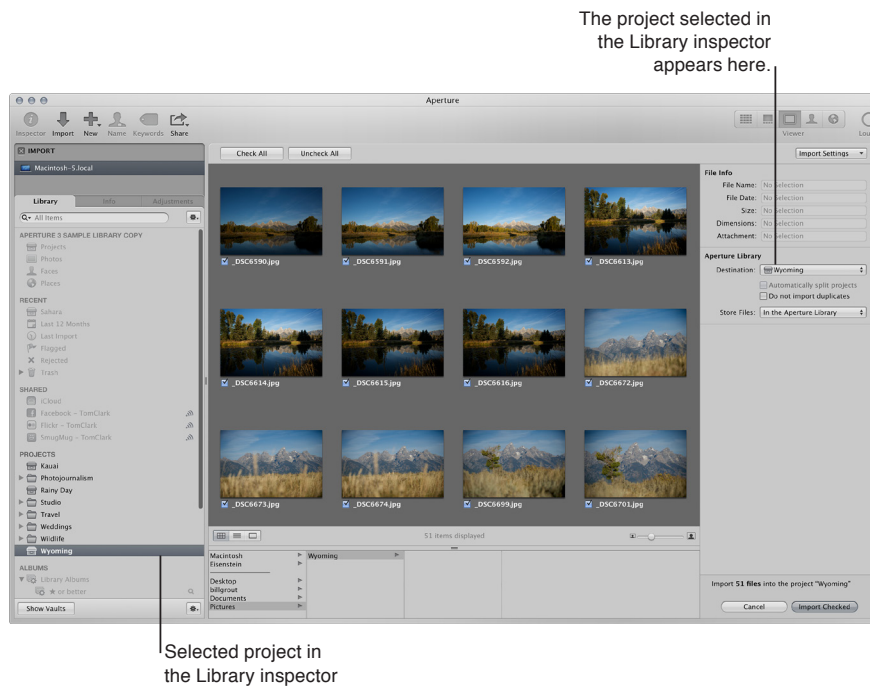
Import Checked button

2 Do one of the following:

- *If you want to import the photos into a new, empty project:* Choose New Project from the Destination pop-up menu to create a new project, and enter a name for the project in the Project Name field.



- *If you want to import the photos into an existing project:* Select the project in the Library inspector.



The selected project appears in the Destination pop-up menu.

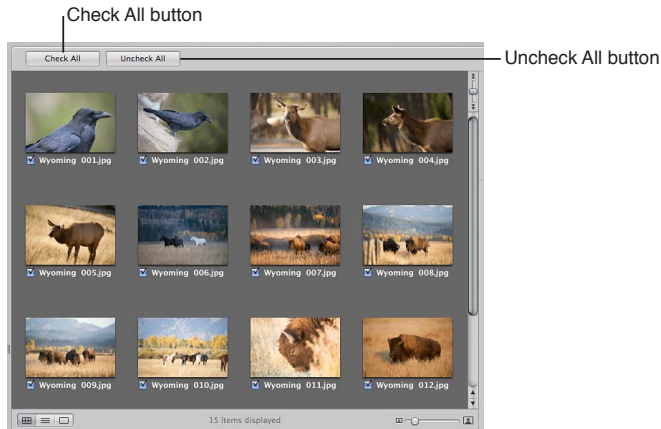
3 Choose a location to store the original image files by doing one of the following:

- *To store imported originals in the Aperture library:* Choose “In the Aperture Library” from the Store Files pop-up menu.
- *To store imported originals as referenced images in the Pictures folder on your hard disk:* Choose Pictures from the Store Files pop-up menu, then choose whether you want the image files moved or copied to the Pictures folder by clicking the “Move files” or “Copy files” button.
- *To store imported originals as referenced images in a location other than the Pictures folder:* Choose “Choose” from the Store Files pop-up menu and select a folder. In the dialog that appears, choose a location to store the imported originals, then click Open. Choose Project Name from the Subfolders pop-up menu to specify that the files be stored in a folder with the same name as the project. Choose whether you want the image files moved or copied to the new location by clicking the “Move files” or “Copy files” button.

4 To add controls for additional import settings, choose an option from the Import Settings pop-up menu.

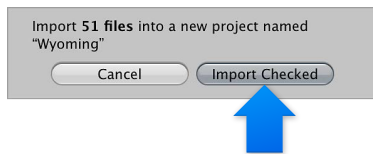
For more information about Import Settings, see [Import options overview](#) on page 36.

5 Do one of the following:



- *To import all photos from the camera or card reader:* Click the Check All button. The checkboxes for all the photos in the Import browser are selected.
- *To import a subset of photos from the camera or card reader:* Click the Uncheck All button to clear the checkboxes for all photos, then select the checkboxes for the photos you want to import.  
You can also Shift-click adjacent photos and Command-click nonadjacent photos, and then select the checkbox for one of the photos. Selecting a single checkbox selects the checkboxes for all of the selected photos.  
**Note:** Depending on your camera type, you may be able to double-click a thumbnail image to see a larger version of the photo, if you want to verify its contents before importing it. Double-click the photo again to return to the thumbnail image view.

6 Click the Import Checked button.



The import process begins and an indicator appears next to the project's name, showing the progress of the import. When the photos are imported, a dialog appears.

7 Click Eject Card, Erase Imported Items and Eject Card, or Done.

**Note:** The options offered in this dialog depend on the way your camera is made available when it is connected. Some cameras connect as mass storage devices. When you import from these cameras, the Erase and Eject options appear. Other cameras simply connect as cameras, and you will not see either Erase or Eject after the import is completed. In that case, you can erase the photos directly in the camera.

As the photos appear in the Browser, you can begin working with them. Photos may temporarily appear as gray boxes until the loading process is complete.



## Import files from a storage device

You can import image, audio, and video files stored on your computer and other storage devices. You have a choice of storing the imported files in the Aperture library, or importing the files as referenced image, audio, and video files and then moving or copying them to a different location.

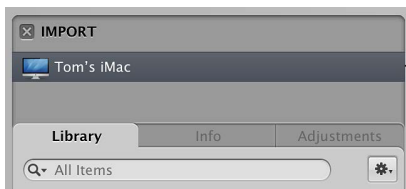
**Note:** If you have folders of photos to import, you can import them using the Import Folders as Projects command in the File menu. For more information, see [Import folders of files from the Finder](#) on page 45.

You can import image files in many common image formats, including images scanned from nondigital sources such as film and photographic prints. You can also import any QuickTime-compatible audio or video file. Adding these files to your Aperture database is as simple as navigating to the folder where they reside on your hard disk using the Import browser.

- 1 Click the Import button in the toolbar (or press Command-I).

The Import browser appears.

- 2 Select your computer.

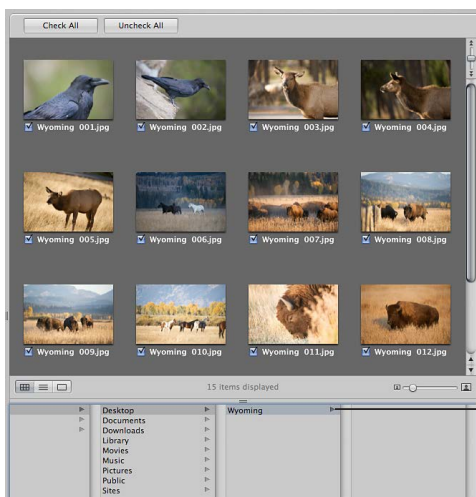


Select the source where the photos you want to import are located.

- 3 At the bottom of the browser, navigate to the folder containing the files you want to import.

Your computer, connected servers, and connected storage devices are listed in the column on the left.

**Tip:** To quickly select the desktop, press Command-D.

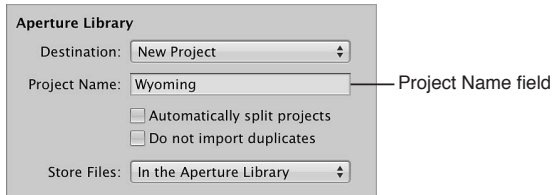


Select the folder of photos you want to import.

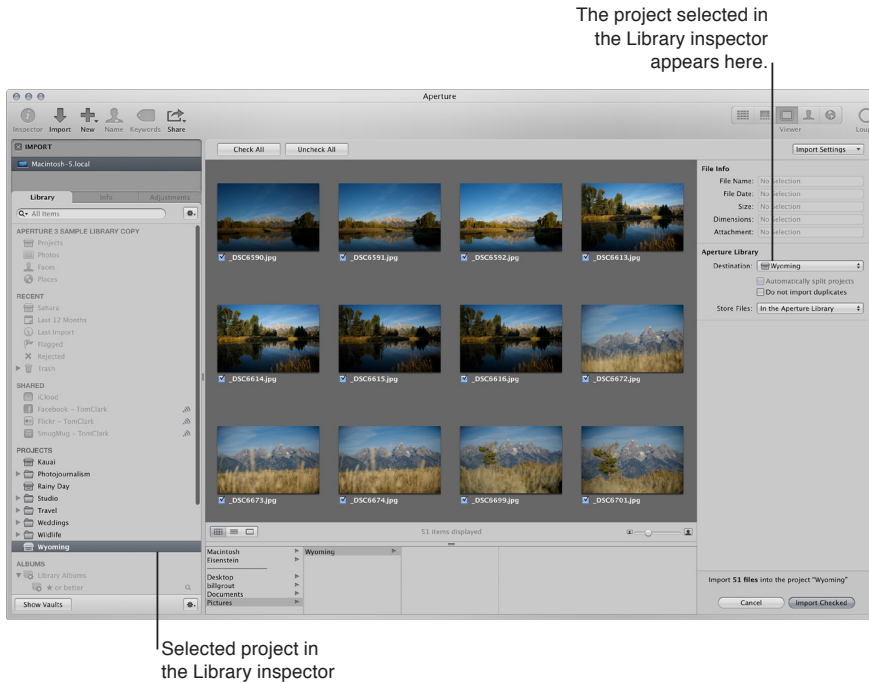
When you select the folder containing the files you want to import, thumbnail images appear in the Import browser representing the image, audio, and video files within the folder.

4 Do one of the following:

- If you want to import the files into a new, empty project: Choose New Project from the Destination pop-up menu to create a new project, then enter a name for the project in the Project Name field.

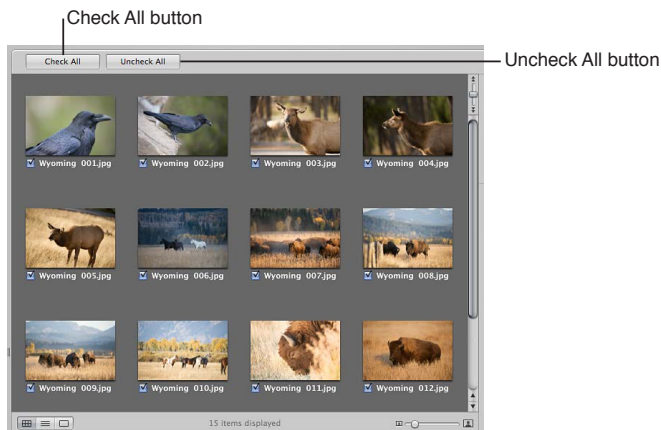


- If you want to import files into an existing project: Select the project in the Library inspector.



The selected project appears in the Destination pop-up menu.

5 Do one of the following:



- To import all the files in the selected folder: Click the Check All button. The checkboxes for all the files in the Import browser are selected.

- *To import a subset of files from the selected folder:* Click the Uncheck All button to clear the checkboxes for all photos, then select the checkboxes for the photos you want to import.

**Note:** Depending on your camera type, you may be able to double-click a thumbnail image to see a larger version of the photo if you want to verify its contents before importing it. Double-click the photo again to return to the thumbnail image view.

**6** Choose a location for the imported files by doing one of the following:

- *To store imported originals in the Aperture library:* Choose “In the Aperture Library” from the Store Files pop-up menu.
- *To store imported originals as referenced image files, audio files, or video files in their current location:* Choose “In their current location” from the Store Files pop-up menu.
- *To store imported originals as referenced image files, audio files, or video files in the Pictures folder on your hard disk:* Choose Pictures from the Store Files pop-up menu, then choose whether you want the files moved or copied to the Pictures folder by clicking the “Move files” or “Copy files” button.
- *To store imported originals as referenced image files, audio files, or video files in a location other than the Pictures folder:* Choose “Choose” from the Store Files pop-up menu and select a folder. In the dialog that appears, choose a location to store the imported originals, then click Open. Choose Project Name from the Subfolders pop-up menu to specify that the files be stored in a folder with the same name as the project. Choose whether you want the image files moved or copied to the new location by clicking the “Move files” or “Copy files” button.

**7** To add controls for additional import settings, choose an option from the Import Settings pop-up menu.

For more information about Import Settings, see [Import options overview](#) on page 36.

**8** Click the Import Checked button in the lower-right corner of the Import browser.

The import process begins and an indicator appears next to the project’s name, showing the progress of the import. When the import process is complete, a dialog appears.

**Tip:** If you want to immediately import additional image, audio, or video files, Option-click the Import Checked button. The Import browser remains open, and you can immediately start importing additional items.

As the files appear in the Browser, you can begin working with them.

**Important:** You can import and export XMP sidecar files in Aperture. However, Aperture displays only metadata that adheres to the XMP 1.0 specification. Ratings, label values, and custom metadata created by third-party applications are not supported.

### Import files from the Finder quickly

You can drag image, video, and audio files from the Finder or desktop directly into the Library inspector, Viewer, and Browser. This is useful if you receive image files from a source other than your camera and you want to use them in Aperture. You can also use this technique if you have image, audio, and video files scattered on your desktop or throughout folders on your computer and you want to consolidate them in one place in the library.

- 1** Select an item in the Library inspector, such as a project or an album, in which to import the photos.
- 2** Locate the image, audio, or video files in the Finder.
- 3** Drag the files to either the selected item in the Library inspector or anywhere in the Browser or Viewer.

The import process begins and an indicator appears next to the project’s name, showing the progress of the import.

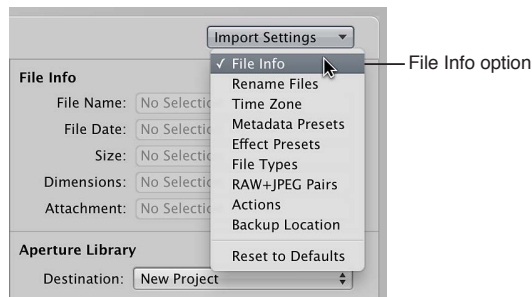
## Add import options

### Import options overview

You can use import options to:

- Store imported photos in the Aperture library or select a different location on your hard disk and import the photos as referenced images
- Have Aperture automatically delete the image files on your memory card after the photos are imported
- Have Aperture automatically split the photos into multiple projects based on the length of time between shots
- Have Aperture automatically back up photos as they are imported
- Display photos in the Import browser as a grid of thumbnails or as a list that you can sort
- Apply a naming convention to standardize the names of the image files in the library
- Apply metadata to the image files, such as keywords, captions, copyright information, and the photographer's name. You can also keep or replace existing metadata associated with a photo when you import the image.
- Adjust the shoot time of photos that were shot in a different time zone

In the Import browser, you add import options to refine how files are brought into Aperture. You add controls for additional import settings by choosing an option from the Import Settings pop-up menu. After you modify the import settings, you can remove them from view by deselecting the option in the Import Settings pop-up menu.



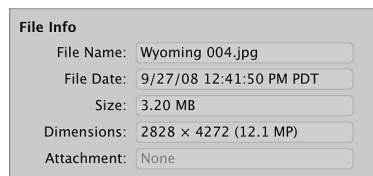
### View file information

By default, basic file information about the photos you are about to import into Aperture is not shown in the Import browser. However, you can set Aperture to show this information.

#### Show basic file information about the files displayed in the Import browser

- In the Import browser, choose File Info from the Import Settings pop-up menu.

Basic metadata about the file selection appears above the Aperture Library controls in the Import browser.



**Note:** If the selection is a movie or audio file, the duration is shown as well. When a photo with an attachment (such as an audio annotation) is selected, the duration of that attachment is displayed.

## Automatically name imported photos

The filenames given to photos by the camera are often difficult to distinguish. When you import photos, you can have Aperture use the original name assigned by the camera or use a filename convention that you choose or create. For example, you can use a name format that includes a name that you specify, plus the date, the time, and an index number. Aperture provides a number of preset name formats, and you can also create your own naming conventions to suit the different types of shoots you do.

You can apply names to your image files when you import them and when you export them. You can specify names to apply to the versions and to the originals. For example, when you import photos from your camera, you can specify that a name format be applied to each image version that Aperture creates. You can also specify that Aperture apply names to the originals as they are stored in the library or on a hard disk.

When you import originals as referenced images, you can't rename the originals if you leave them in their original locations. However, when you import originals as referenced images and move them to a new hard disk location, you can rename them at that time.

**Note:** If you back up your files on import, the copied files are also renamed. For more information, see [Automatically back up files at import](#) on page 44.

Proper filenameing is one of the most critical aspects of media and project management. When you capture your originals, consider how and where your files may be used in the future. Naming your files simply and consistently makes it easier to share media among multiple photographers, transfer projects to other Aperture systems, move files across a network, and properly restore archived projects.

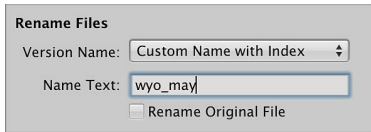
The most conservative filenameing conventions provide the most cross-platform compatibility. This means that your filenames will work in different operating systems, such as OS X and other UNIX-based operating systems, and Windows. You also need to consider filenameing when you transfer files over the Internet, where you can never be certain what computer platform your files may be stored on, even if temporarily.

Avoid	Example characters	Reasons
File separators	/ (slash) \ (backslash)	Some applications may not allow filenames with slashes, which are directory separators for OS X and DOS (Windows), respectively.
Special characters not included in your native alphabet	ç™	These characters may not be supported or may be difficult to work with when exported to other applications.
Punctuation marks, parentheses, quotation marks, brackets, and operators	.,[]{}()!;"`*? < >	These characters are often used in scripting and programming languages.
White space characters such as spaces, tabs, new lines, and carriage returns (the last two are uncommon)		White space is handled differently in different programming languages and operating systems. The most conservative filenames avoid all use of white space characters and use the underscore ( ) character instead.

## Name files during import automatically

- 1 In the Import browser, choose Rename Files from the Import Settings pop-up menu.

The Rename Files controls appear in the Import browser.



- 2 Do one of the following:
  - *To apply a preset name format to your files as they are imported:* Choose a preset name format from the Version Name pop-up menu.
  - *To use the existing filenames:* Choose None from the Version Name pop-up menu.
  - *To create a new name format:* Choose Edit from the Version Name pop-up menu, and create a custom name format in the File Naming dialog.
- 3 If you choose a name format with a custom name, the Name Text field appears below the Version Name pop-up menu. Enter a name for the photos in the Name Text field.
- 4 Select the Rename Original File checkbox if you want to change the filenames of the originals on disk to match the version names.

Aperture provides the following preset name formats in the Version Name pop-up menu by default.

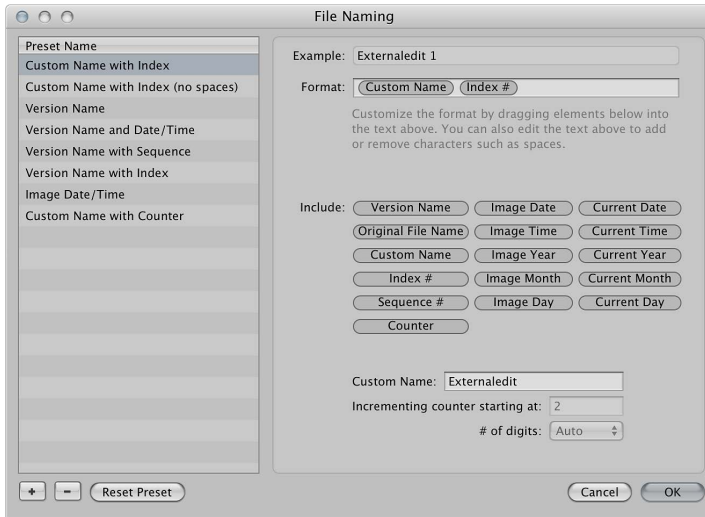
Preset name format	Example
Custom Name with Index	Thailand 1, Thailand 2, and so on
Custom Name with Index (no spaces)	Thailand1, Thailand2, and so on
Version Name	IMG001
Version Name and Date/Time	IMG001 - 2008-10-14 09.03.25 PM
Version Name with Sequence	IMG001 (1 of 2), IMG002 (2 of 2), and so on
Version Name with Index	IMG001 1, IMG002 2, and so on
Image Date/Time	2008-10-14 09.03.25 PM
Custom Name with Counter	Thailand 001, Thailand 002, and so on

### Create a custom name format

In addition to the preset name formats, you can create custom name formats. To create a name format, you select the name elements you want in the File Naming dialog.

- 1 In the Import browser, choose Rename Files from the Import Settings pop-up menu, then choose Edit from the Version Name pop-up menu.

The File Naming dialog appears.



- 2 Click the Add button (+) to create a new name format, or select the preset name format you want to change.
- 3 Drag the name elements you want into the Format field in the order you want them. You can also add valid characters or spaces between the name elements.
- 4 Enter a custom name in the Custom Name field, if you like.
- 5 Click OK.

Your new name format now appears in the Version Name pop-up menu.

### Reset the starting number of a counter in a name format

When using a counter in your name format, you can specify the starting number and the number of digits, from one to six, that appear in the counter. When you use a preset name format with a counter, make sure to reset the initial starting number, if necessary. Otherwise, on the next import, Aperture will continue numbering the imported files starting from the last number of the previous import.

Do one of the following:

- In the File Naming dialog, type “0” (zero) in the “Incrementing counter starting at” field.
- In the File Naming dialog, select the preset whose counter you want to reset to zero, then click the Reset Preset button.

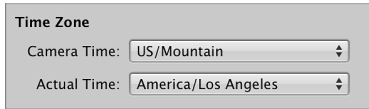
## Adjust time zone data at import

On a trip, it's easy to forget to update your camera's clock to match the local time zone. If you didn't synchronize your camera time to the new location, Aperture lets you correct the time assigned to the image file by whole hours when importing.

### Adjust time zone data during import

- 1 In the Import browser, choose Time Zone from the Import Settings pop-up menu.

The Time Zone controls appear in the Import browser.



- 2 Choose the time zone that matches the camera's time setting from the Camera Time pop-up menu.
- 3 Choose the time zone of the shoot location from the Actual Time pop-up menu.

Aperture updates the capture time of your image files according to the Time Zone settings.

After you've imported photos, you can adjust the date and time of any versions you've created by choosing Metadata > Adjust Date and Time. For more information, see [Adjust the photo date and time](#) on page 216.

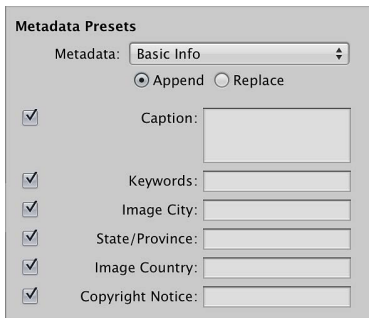
## Add metadata at import

You can add metadata to your photos as they are imported into Aperture. Adding metadata during the import process helps you keep track of your photos and quickly locate them using the Smart Settings HUD and Filter HUD. For example, you can add IPTC keywords and other metadata to the photos.

### Add metadata to photos during import

- 1 In the Import browser, choose Metadata Presets from the Import Settings pop-up menu.

The Metadata Presets controls appear in the Import browser.



- 2 Do one of the following:
  - *To show the metadata fields for a metadata preset:* Choose a metadata preset from the Metadata pop-up menu.
  - *If you don't want to modify the metadata of the files during import:* Choose None from the Metadata pop-up menu.
  - *To create a new metadata preset:* Choose Edit from the Metadata pop-up menu, then create a new metadata preset using the Metadata dialog.



### 3 Do one of the following:

- *To add metadata to the photo while maintaining any associated metadata:* Click Append.
- *To add metadata and overwrite any associated metadata:* Click Replace.

When you choose a metadata preset, Aperture displays the list of metadata fields and metadata for that preset. You can edit the metadata preset to store any metadata that you want to apply frequently to your photos using the Info inspector. For more information, see [Create metadata presets](#) on page 210.

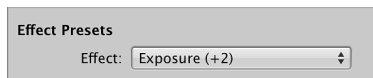
## Apply effects at import

You can apply image effects and basic image adjustments, such as an exposure adjustment, to your photos as they are imported. You apply effects and image adjustments by choosing an effect preset from the Effects pop-up menu. The effect preset is applied uniformly to every imported photo until it is turned off.

You can edit effect presets that you want to apply frequently to your photos. For more information, see [Create and apply effects](#) on page 328.

### Apply effects to photos during import

- 1 In the Import browser, choose Effect Presets from the Import Settings pop-up menu.  
The Effect Presets control appears in the Import browser.
- 2 Choose an effect preset option to apply to the imported photos from the Effect Presets pop-up menu.



### Turn off effects during import

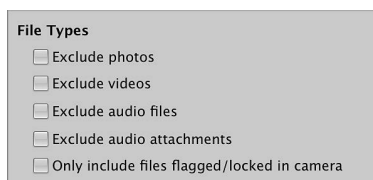
- In the Effect Presets control area, choose None from the Effect pop-up menu.

## Filter files by type at import

Some digital cameras allow you to add audio attachments to your photos. For example, some cameras allow you to record audio annotations for a photo after you shoot it. The camera attaches the audio file to the image file so that you can review the audio when you download the photo. When you connect a digital camera or card reader or point to a folder with photos on your computer, Aperture recognizes any photo that has an audio attachment. You can also import standalone QuickTime-compatible audio and video files.

### Filter files by type during import

- 1 In the Import browser, choose File Types from the Import Settings pop-up menu.  
The File Types controls appear in the Import browser.



## 2 Do any of the following:

- *To exclude image files, leaving only audio and video files available for import:* Select the “Exclude photos” checkbox.
- *To exclude video files during import:* Select the “Exclude videos” checkbox.
- *To exclude audio files during import:* Select the “Exclude audio files” checkbox.
- *To exclude all audio files attached to the photos:* Select the “Exclude audio attachments” checkbox.
- *To include only files that were flagged or locked using the camera:* Select the “Only include files flagged/locked in camera” checkbox.

All photos matching the selected criteria appear in the Import browser. To make all the photos reappear, deselect the checkboxes above.

**Important:** An audio file is imported into Aperture as an attachment when the audio file’s name matches the image file’s name. For example, when you import “file.nef” and “file.wav,” Aperture imports the .wav file attached to the .nef raw image file. Audio files are automatically attached during all types of import: from a connected camera or card reader, from internal and external hard disk drives, as well as by dragging. If the audio filename is not the same as the image filename, it will not be attached to the photo even if imported directly from a camera or a card reader. However, there is one exception: some Canon cameras, including the G9 and G10, prefix the audio filename with “SND” and the image filename with “IMG”; these audio files are imported as attachments.

## Import RAW + JPEG image pairs

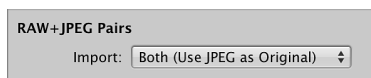
Many digital cameras have a setting for creating a RAW file plus a JPEG file for each photo as you shoot. Many photographers use the RAW + JPEG workflow for the convenience of publishing the JPEG images quickly while saving the RAW files for high-resolution prints. Aperture provides several options for importing the RAW + JPEG image pairs.

**Note:** The RAW + JPEG Pairs import setting remains in effect from one import session to the next.

### Filter RAW + JPEG pairs during import

## 1 In the Import browser, choose RAW + JPEG Pairs from the Import Settings pop-up menu.

The RAW + JPEG Pairs control appears in the Import browser.



## 2 Choose an option from the Import pop-up menu:

- *To import both the RAW and the JPEG image files and set the JPEG file in each pair as the original:* Choose “Both (JPEG as Original).”
- *To import both the RAW and the JPEG image files and set the RAW file in each pair as the original:* Choose “Both (RAW as Original).”
- *To import the RAW and JPEG image files as separate originals:* Choose “Both (Separate Originals).”
- *To import the JPEG files only:* Choose “JPEG files only.”
- *To import the RAW files only:* Choose “RAW files only.”

### Import the RAW files that match the JPEG files already in your Aperture library

If you imported the JPEG image files only, you can go back and import the corresponding RAW files later.

- 1 Choose “Matching RAW files” from the Import pop-up menu.

The Include pop-up menu appears below the Import pop-up menu.

- 2 Choose an option from the Include pop-up menu:

- *To import all matching RAW files regardless of rating:* Choose “All matching files.”
- *To import all RAW files matching JPEG files that are unrated or better:* Choose “Unrated or better.”
- *To import all RAW files that match the current rating:* Choose “Current filter.”

For information about rating photos, see [Rating photos overview](#) on page 98.

### Use AppleScript actions at import

The Aperture community provides many AppleScript actions online to automate repetitive tasks in Aperture. Additionally, you can create your own AppleScript actions to help automate your workflow. You can use AppleScript actions from within Aperture immediately after an import operation is complete.

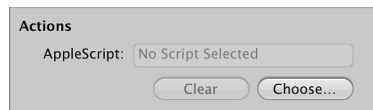
For more information about AppleScript actions for use with Aperture, go to <http://www.apple.com/aperture/resources>.

**Important:** All scripts must use the import event handler: `on importActionForVersions (input)`.

### Use AppleScript actions after import

- 1 Choose Actions from the Import Settings pop-up menu.

The Actions controls appear in the Import browser.



- 2 If no AppleScript action is selected, click the Choose button and locate a script from the dialog that appears.

The selected AppleScript action appears in the AppleScript field and is set to begin as soon as the import operation is complete.

**Note:** The AppleScript action is applied only to the current import operation.

### Stop AppleScript actions from automatically starting after import

- Click the Clear button.

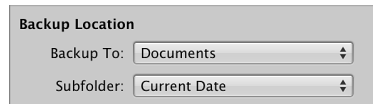
## Automatically back up files at import

Creating copies of your photos from the moment you take them is essential to the preservation of your work. In Aperture, you can back up your original files as they are imported, using the Back Up Files import option. Backing up your image, video, and audio files at import ensures that if something catastrophic happens to your computer system, copies of your original files are stored somewhere safe. If you back up your files during import, Aperture makes a copy of each file and places the copied files in the location you specify.

### Back up your original files during import

- 1 In the Import browser, choose Backup Location from the Import Settings pop-up menu.

The Backup Location controls appear in the Import browser.



- 2 Do one of the following:
  - *To back up your files to the Documents folder:* Choose Documents from the Backup To pop-up menu.
  - *To back up your files to a new location:* Choose "Choose" from the Backup To pop-up menu, then select a location from the dialog that appears.

**Note:** It's a good idea to back up your original files to a location other than your computer. This is the only way to ensure that your original files are safe if something catastrophic happens to your computer.

### Turn off automatic backup during import

- Choose None from the Backup To pop-up menu.

## Reset import options

The import settings you set in the Import browser remain in effect from import session to import session, regardless of whether they are shown. However, you can quickly reset the import settings to their defaults.

### Reset all import settings to their defaults

- In the Import browser, choose Reset to Defaults from the Import Settings pop-up menu.

### Remove an import option from view

- 1 In the Import browser, click the background of the import option you want to remove from view. The import option becomes highlighted, indicating it is selected.
- 2 Press Delete.

## Import folders of files from the Finder

If you've spent time organizing your image, video, and audio files into a meaningful hierarchy on your computer and you want to keep that organization, you can import a folder of files as a project or drag it directly into the Library inspector. When you import a folder of files or drag it into the Library inspector, the top folder becomes a folder in the Library inspector and any subfolders become projects within the folder.

### Import a folder of files from the Finder using the Import command

- 1 Choose File > Import > Folders as Projects.
- 2 Select the folder of photos that you want to import.  
You can select multiple folders to import by Shift-clicking them.
- 3 Do one of the following:
  - *To import the top-level folder as a folder in the Aperture library and all of its subfolders as individual projects:* Choose Folders and Projects from the Import Folders As pop-up menu.
  - *To import the top-level folder as a project and all its subfolders as albums:* Choose Projects and Albums from the Import Folders As pop-up menu.
- 4 Choose a location for the imported photos by doing one of the following:
  - *To store imported originals in the Aperture library:* Choose "In the Aperture Library" from the Store Files pop-up menu.
  - *To import the files as referenced images stored in their current location on your hard disk:* Choose "In their current location" from the Store Files pop-up menu.
  - *To store imported originals as referenced images in the Pictures folder on your hard disk:* Choose Pictures from the Store Files pop-up menu, then choose whether you want the files moved or copied to the Pictures folder by clicking the "Move files" or "Copy files" button.
  - *To store imported originals as referenced images in a location other than the Pictures folder:* Choose "Choose" from the Store Files pop-up menu and select a folder. Choose "None" from the Subfolders pop-up menu to specify that the files be stored as separate, individual files in the selected folder. You can also specify that Aperture create a hierarchy of subfolders with specific folder names to hold your files. For more information about creating folders to hold your imported photos, see [Import originals for referenced images into folders](#) on page 46. Choose whether you want the image files moved or copied to the new location by clicking the "Move files" or "Copy files" button.
- 5 Choose a naming convention from the Version Name pop-up menu to specify how you want the photos named.

For example, choose Original File Name from the Version Name pop-up menu to have your files stored using the original filenames from your camera or card. Choose a name format from the Version Name pop-up menu to have your photos stored using a specified name. If you choose a custom name format, enter a name in the Name Text field. Choose Edit from the Version Name pop-up menu to define a new naming scheme. For more information about naming files, see [Automatically name imported photos](#) on page 37.

Click the "Apply to Original filenames" checkbox to rename the original files as well.

- 6 Choose how you want Aperture to import RAW + JPEG pairs from the RAW + JPEG pop-up menu.  
For more information about importing RAW + JPEG pairs, see [Import RAW + JPEG image pairs](#) on page 42.
- 7 Click Import.

The top-level folder in the selection either appears as a folder or is converted to a project based on the option you chose from the Import Folders As pop-up menu. If the folder you imported contains a hierarchy of subfolders and photos, the subfolders appear as albums.

## Drag folders into Aperture

When you drag folders into the Library inspector, Aperture uses the last import settings you specified to determine how the folders are imported and where they are stored.

- 1 In the Finder, locate the folder containing the folders, video files, and audio files you want to import.
- 2 Drag the folder to the Library inspector.

## Import originals for referenced images into folders

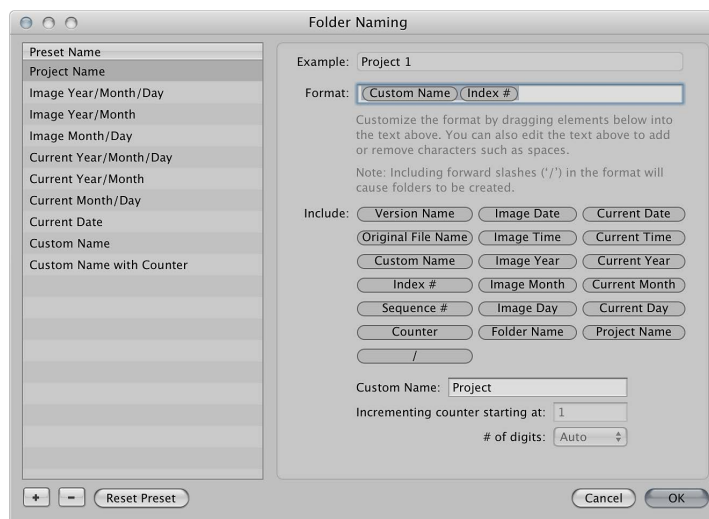
When you import photos as referenced images, you can have Aperture place their originals individually into a selected folder or create subfolders to hold the files. For example, you might have the imported image files placed in subfolders identified by date. You can create folder name format presets that you can quickly choose to select the folder name format you prefer.

To create a folder name format, you select the name elements in the Folder Naming Presets dialog. You can specify a combination of name elements to create custom folder names.

### Create a custom folder name format

- 1 In the Import browser, choose Pictures or another folder from the Store Files pop-up menu, then choose Edit from the Subfolder pop-up menu that appears.

The Folder Naming dialog appears.



- 2 Click the Add button (+) to create a new name format, or select the preset name format you want to change.
- 3 Drag name elements into the Format field in the order you want them to appear.  
You can also create a hierarchy of folders within folders. For example, you can specify that Aperture place your referenced images in a subfolder named Date, and within that folder you can create subfolders identified by the time the photo was taken.
- 4 Drag a slash between the elements where you want subfolders created.
- 5 Enter a custom name in the Custom Name field, if you like.
- 6 Click OK.

Your new folder name format now appears in the Subfolders pop-up menu.

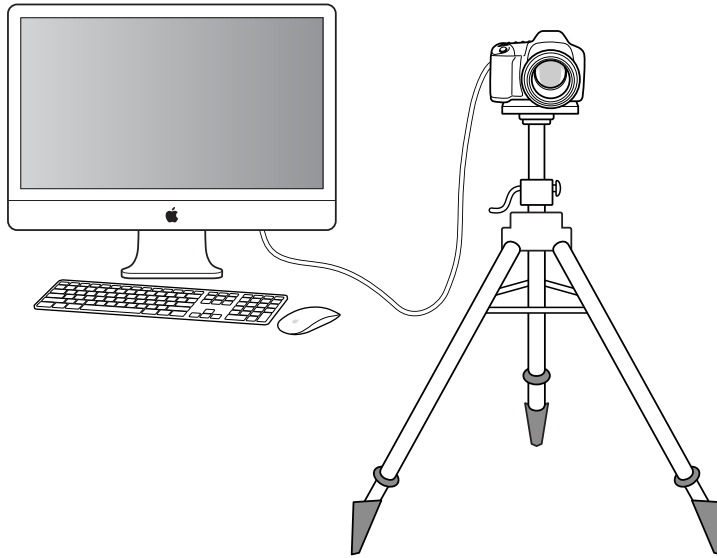
### Reset the starting number of a counter in a folder name format

When using a counter in your folder name format, you can specify the starting number and the number of digits, from one to six, that appear in the counter. When you use a folder name format with a counter, reset the initial starting number. Otherwise, on the next import, Aperture will continue numbering the image folders starting from the last number of the previous import.

- In the Folder Naming Presets dialog, type “0” (zero) in the “Incrementing counter starting at” field.

## Capture photos as you work

For certain kinds of shoots, such as product shoots done within your office studio, you may want to immediately see test shots on your computer to check on lighting and other production factors. You can connect your camera directly to your computer and have each shot immediately appear in an Aperture project as you shoot. You can review a photo in detail, make production changes, and then shoot and immediately see the results again. This process is called *tethered shooting*, and it’s ideal for checking the details of a shot while setting up the final shot.



**Note:** For a list of cameras that Aperture supports for tethered shooting, go to <http://support.apple.com/kb/HT4176>. See your camera’s manual for information about setting up your camera for tethered shooting.

After starting a session, you can use Aperture to view and capture photos. You use the Aperture Tether HUD to control your camera and take photos as you work.

### Set up Aperture for tethered shooting


- 1 Connect your camera to your computer using a USB or FireWire cable.
- 2 In the Library Inspector, select the project you want the photos captured to.
- 3 Choose File > Tether > Start Session.
- 4 Specify import settings in the Tether Settings dialog.  
For information, see [Import from a camera, card reader, or device](#) on page 30.
- 5 Click Start Session.  
The Tether HUD appears.
- 6 Do one of the following:
  - *To begin the capture session:* Click Capture.
  - *To stop the capture session:* Click Stop Session.

## Add audio attachments to image files

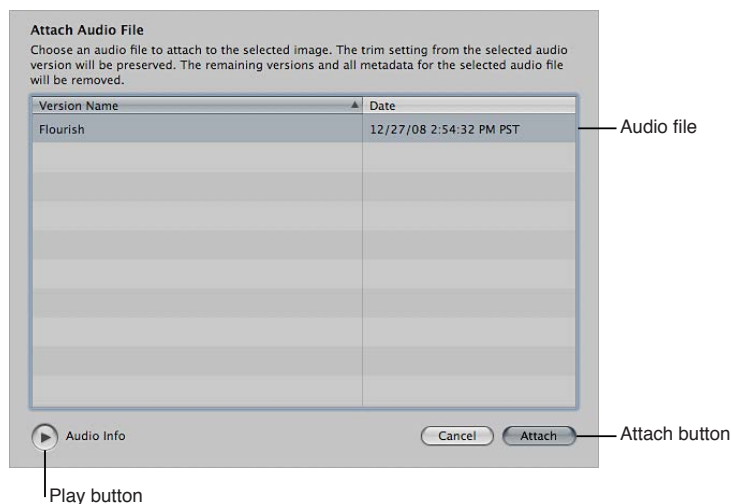
Although the audio files of photos with audio attachments are automatically imported into Aperture when the filenames match, you can also manually attach an audio file to a photo after it has been imported into Aperture. There are two ways to attach an audio file to a photo. If the project selected in the Library inspector contains an original audio file, you can attach the audio file to a photo in the project using the Info inspector. If the audio file is outside of the Aperture library, you can drag the audio file from the Finder to the photo in the Viewer.

**Note:** For a list of file formats that can be used for audio attachments in Aperture, go to <http://www.apple.com/aperture/specs>.

### Add an audio attachment using the Info inspector

- 1 In the Library inspector, select a project containing the audio file you want to attach.
- 2 In the Browser, select the photo you want to attach the audio file to.
- 3 In the Info inspector, choose Attach Audio File from the Metadata Action pop-up menu .
- 4 In the dialog that appears, select the audio file you want to attach, then click Attach.

You can preview the selected audio file by clicking the Play button.



The audio attachment is added to the photo, and the audio file's thumbnail disappears from the Browser. A badge appears on the lower-right portion of the photo, indicating that an audio file is attached. For more information about playing audio attachments, see [Modify metadata in the Info inspector and Inspector HUD](#) on page 198.

### Add an audio attachment to a photo by dragging

- 1 If necessary, click the Split View button in the toolbar, and then select the photo you want to attach the audio file to in the Browser.
- 2 In the Finder, select the audio file you want to attach.
- 3 Drag the audio file to the photo you want to attach it to in the Viewer.

The photo is surrounded with a green outline, indicating that the file is about to be attached.

The audio attachment is added to the photo in Aperture. A badge appears on the lower-right portion of the photo, indicating that an audio file is attached. For more information about playing audio attachments, see [Modify metadata in the Info inspector and Inspector HUD](#) on page 198.



### Remove an attachment from a photo

- 1 In the Browser, select the photo whose attachment you want to remove.
- 2 In the Info inspector, choose Detach Audio File from the Metadata Action pop-up menu.

The audio file is detached and placed in the same project as the photo it was attached to.

## Where Aperture stores your managed files in the library

You can always view and work with your photos within the Aperture application. However, you may wonder where your managed image files physically reside in the Aperture library on the computer's hard disk. By default, your photos are stored in the Aperture Library file within the Pictures folder. For more information about managed image files, see [What are managed images and referenced images?](#) on page 24.

You can open and see the contents of the Aperture Library file in the Finder by Control-clicking the file and choosing Show Package Contents from the shortcut menu. However, it's not recommended that you access or work with your originals in this way because you risk interfering with the Aperture library.

**WARNING:** You should always back up and work with your managed images and projects from within the Aperture application. If you move or accidentally change the files stored in the Aperture Library file, Aperture may not be able to locate your projects and the media they contain. Making a change to a managed file in the Finder, such as renaming it, creates changes that Aperture cannot track.

## Reprocess photos from earlier versions of Aperture

Aperture provides image processing algorithms that deliver improved image quality. With improved default rendering of RAW images from supported cameras, Aperture 3.5 provides significantly enhanced image quality with improvements in noise reduction, sharpening, and highlights recovery.

To maintain the image integrity of the existing photos in your Aperture library, Aperture allows you to retain the original processing of your photos from previous versions, selectively process images using the most current RAW image processing, or create duplicate versions of each original image file with the most current RAW image processing applied. However, some adjustments and brushed adjustments are not available unless the selected photo uses the most current RAW image processing.

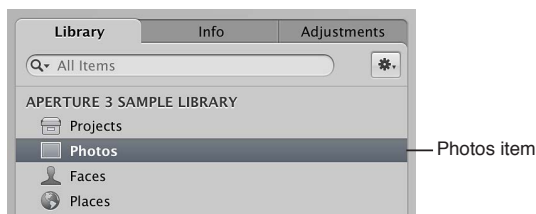
When you start using Aperture 3.5, all of your existing photos continue to use the previous version's image processing, in order to preserve their appearance. Any of these photos can be individually reprocessed to use the most current image processing. You can also use the Reprocess Originals command in the Photos menu to reprocess selected photos, projects, books, slideshows, webpages, web journals, Light Table albums, albums, and Smart Albums. If you want to reprocess photos while retaining versions with the original processing, you can create duplicate versions of each original image file with the most current RAW image processing applied.

Because reprocessing a large number of photos can be a time-consuming process, you may find it easier to reprocess photos on an as-needed basis. For example, if you have five-star selects, you may decide to initially reprocess only those photos. Photos are not affected by being reprocessed more than once; if a photo already uses the most current image processing, reprocessing it has no effect.

**Note:** Some adjustments and brushed adjustments are not available unless the selected photo uses the most current RAW image processing.

### Reprocess a photo selection

- 1 Do one of the following:
  - *To reprocess selected photos:* Select a photo or group of photos.
  - *To reprocess a project or an album:* Select a project, a book, a slideshow, an album, a webpage album, a web journal album, a Light Table album, or a Smart Album.
  - *To reprocess all photos in the library:* Select the Photos item in the Library inspector.



**Important:** Reprocessing thousands of image files can be a lengthy operation. Make sure to set aside a significant amount of time for Aperture to process the image files—preferably when you don't need to use your Aperture system.

- 2 Choose Photos > Reprocess Originals.
- 3 In the dialog that appears, select reprocessing options, and click Reprocess Photos.

You can choose whether to reprocess all photos in the selection or just those with or without adjustments. You can also choose whether to reprocess the existing image versions or a duplicate set.



### Reprocess an individual photo

- 1 Select a photo.
- 2 In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose RAW Fine Tuning from the Add Adjustment pop-up menu.
- 3 In the RAW Fine Tuning controls, click the Reprocess button.

**Note:** If the Reprocess button does not appear in the Adjustments inspector or the Adjustments pane of the Inspector HUD, the photo has already been reprocessed using Aperture 3.5 image processing.

# Work with projects and the library

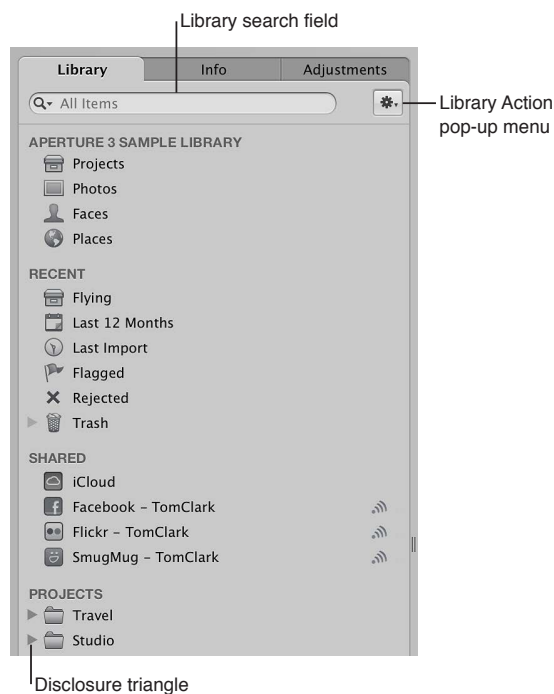
# 3

## Organize items in the Library inspector

### Library inspector overview

The Library inspector provides access to items tracked by the Aperture library, such as projects and albums, and different views of the contents of the library. For example, you can select Faces in the Library inspector to view your photos grouped by the people in them, or Places to view your photos grouped by where they were taken.

There are several controls you use to work with items in the Library inspector.

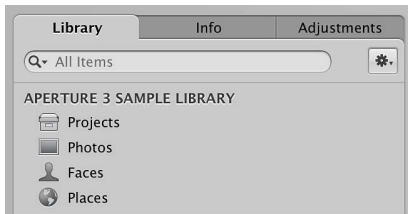


- *Library search field*: Enter text to search for items located in the Library inspector.
- *Disclosure triangle*: Click to see all items within a project, a folder, or the Trash.
- *Library Action pop-up menu*: Add the selected item to a list of favorites or remove it from the favorites list. You can also choose to export items selected in the Library inspector or maintain previews. For more information about previews, see [Preview images overview](#) on page 494.

The main space of the Library inspector displays several categories that let you view your photos organized in different ways.


## Library category

The Library category contains icons that, when selected, display your photos organized in any of four different ways:



- **Projects:** Select the Projects icon to have all the projects in the library appear in Projects view in place of the Browser and Viewer. Each project is represented by a single thumbnail. You can position the pointer over a project thumbnail and drag to quickly skim the photos in the project. When you hold down the Control key and click a project's thumbnail, a shortcut menu appears that allows you to create a new project, display information about the project, delete the project, import files into the project, export the project as a library, set the currently displayed image as the key photo that represents the project, empty the Aperture Trash, or play each photo in the project in a slideshow. Double-click the project's thumbnail to see the photos in the Browser.

For more information, see [View projects](#) on page 61.

- **Photos:** Select this item to see all photos, video clips, and audio clips in the library. All media in the library is displayed in the Browser as thumbnails. Select a thumbnail in the Browser to view it or listen to it in the Viewer.
- **Faces:** Select this item to view people identified in photos and tracked by Aperture in the library. Click the Info button  on a snapshot to show the Info HUD. The Info HUD provides the name of the person, how many photos in the library contain the person, when the photos were shot, and the person's full name and email address (if you entered them). Click the View Photos button in the HUD to view all the photos the person appears in and any photos the person might appear in.

For more information, see [Faces overview](#) on page 123 and [Add names to faces in your photos](#) on page 125.

- **Places:** Select this item to view a map that shows the locations where photos in the library were shot.

For more information, see [Places overview](#) on page 131 and [View photo locations](#) on page 133.

## Recent category

You can select icons in the Recent area of the Library inspector to view photos you've imported recently, flagged photos, rejected photos, or photos you've placed in the Aperture Trash.



- **Last 12 Months:** Select this item to see all photos, video clips, and audio clips imported into Aperture during the last 12 months. Select a thumbnail in the Browser to view it or listen to it in the Viewer.

- *Last Import*: Select this item to see all photos, video clips, and audio clips imported into Aperture during the last import session. Select a thumbnail in the Browser to view it or listen to it in the Viewer.
- *Flagged*: Select this item to see all the photos, video clips, and audio clips in the library that have been flagged. The thumbnails for all flagged media appear in the Browser. Select a thumbnail in the Browser to view it or listen to it in the Viewer.
- *Trash*: Select this item to see all the photos, video clips, and audio clips in the library that have been deleted. The thumbnails for all deleted media appear in the Browser. Select a thumbnail in the Browser to view it or listen to it in the Viewer. Click the disclosure triangle next to the Trash to view any items that have been deleted in the Library inspector. Select an item in the Trash to view its contents.

**Note:** If there is no disclosure triangle next to the Aperture Trash, no items in the Library inspector have been deleted since the last time the Trash was emptied.

For more information, see [Work with the Aperture Trash](#) on page 56.

### Projects and album categories

Below the Library and Recent categories, other categories appear when specific types of content are present in your library. The Projects category (not to be confused with the Projects icon in the Library category) lists each project in your library. When you add albums to your library (book albums, Light Table albums, slideshow albums, and so on), those categories appear in the Library inspector (unless you add an album to a specific project, in which case the album appears below that project in the Projects category).

### Create and name items

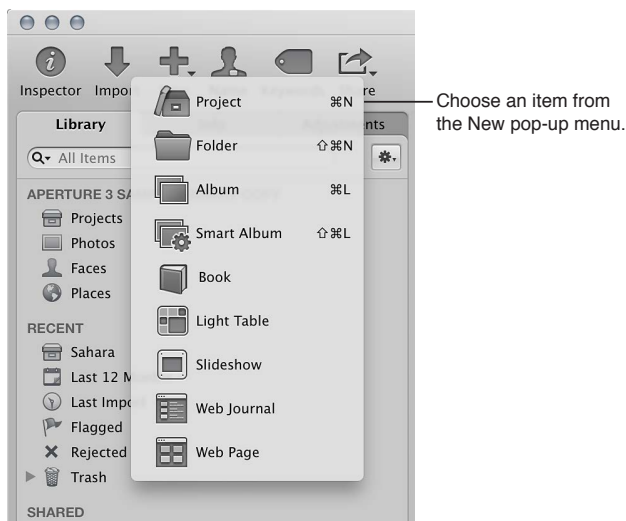
You can create new items in the Library inspector to organize your photos. When you create a new item, such as an album, the item is empty. You add photos to the new item by dragging photos to it. Newly created Smart Albums and Smart Web Page Albums do not contain photos. You add photos to them by setting the Smart Album's search criteria.

**Note:** You cannot put photos in folders. Folders are designed to help you organize projects, albums, and other folders in the Library inspector.

### Create a new item in the Library inspector

Do one of the following:

- Choose File > New, and choose an item from the submenu.
- Choose an item from the New pop-up menu in the toolbar.



Aperture prompts you to name new projects, albums, and Light Table albums before adding them to the Library inspector. Aperture immediately adds new folders, Smart Albums, and Smart Web Page Albums to the Library inspector with the item's "Untitled" name highlighted so that you can rename them as you create them. When you create a new book, slideshow, web journal, or webpage, Aperture prompts you to choose a theme in addition to a name before adding the item to the Library inspector.

For more information about creating projects and certain types of albums, see the following topics:

- [Create and delete projects](#) on page 64
- [What are albums?](#) on page 21
- [Light Table overview](#) on page 185
- [Collect photos in a new Smart Album](#) on page 156
- [Creating books overview](#) on page 404
- [Slideshows overview](#) on page 376
- [Creating webpages overview](#) on page 463

## Open and close items in the Library inspector

To work with photos in Aperture, you first select an item in the Library inspector to open it in the Browser. You can open and work on more than one item at a time. When you open multiple items from the Library inspector, you can have each item appear in the Browser with its own tab or have the contents of all items appear in a single Browser. You can click an item's Browser tab to bring it to the front. You can also open an item in its own pane to view the contents of two items in the Browser side by side. When you quit and reopen Aperture, all items that were open at the end of your last session open automatically.

### Open an item in the Library inspector

- Select the item in the Library inspector.



Select a project to view its photos in the Browser.

All photos in the project appear in the Browser.

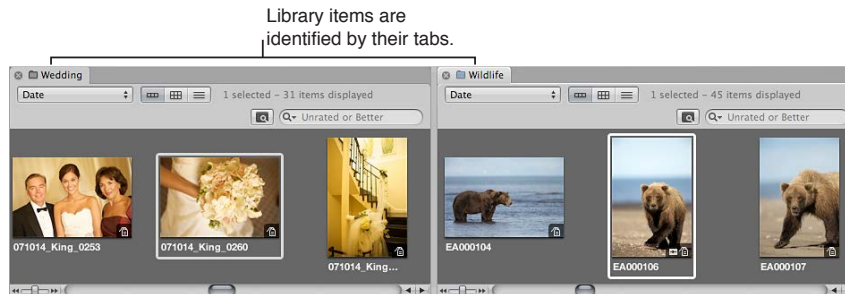
### Open additional items in the Browser, each with its own tab

- Option-Command-click an item in the Library inspector.

The newly opened item appears in the Browser with its own tab, in front of any other open items.

### Open another item in its own pane

- Option-click an item in the Library inspector.



The newly opened item appears in the Browser with its own tab and in its own pane.

### Switch among several open items

- In the Browser, click a project's tab.

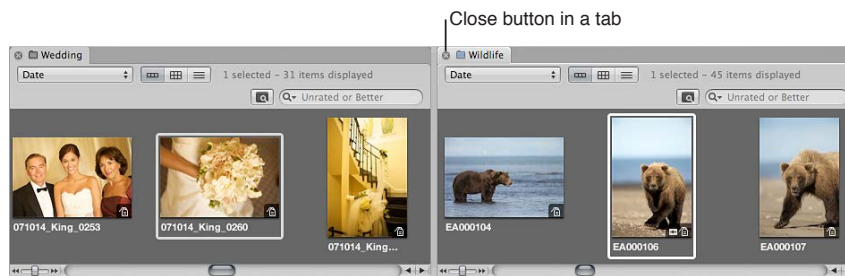
### Open multiple items in the same Browser

- Command-click multiple items in the Library inspector.

The contents of each item selected in the Library inspector appear in the same Browser.

### Close an item in the Browser

- 1 Click the item's tab to bring it to the front.
- 2 Click the tab's close button.



## Arrange items in the Library inspector

Typically, you create a new Aperture project for each photography project or job that you work on, regardless of its duration. For example, if you're working on a documentary in Thailand, you would create a project for it. If you're also shooting the temples in the interior of the country, that could be a second, separate project. Both projects could conceivably refer to some of the same photos, but they are completely independent structures, each with its own versions and albums.

Very large photography projects, such as documentaries and sporting events, often consist of large numbers of photos. You can always break one project into several should the need arise.

As your library grows, you may need to reorganize your library's structure to fit your workflow. You can rearrange projects, folders, albums, and other items in the Library inspector.

### Move an item in the Library inspector

- Select an item in the Library inspector, and drag it to a new location.



A black bar indicates where the item will be placed.

### Move multiple items in the Library inspector

Do one of the following:

- Shift-click adjacent items, and drag them to a new location.
- Command-click nonadjacent items, and drag them to a new location.


### Automatically arrange items in the Library inspector

- *To group similar items together:* Control-click in the Library inspector, and choose Keep Arranged By > Kind from the shortcut menu.
- *To sort items alphabetically:* Control-click in the Library inspector, and choose Keep Arranged By > Name from the shortcut menu.

## Create and show favorite items

If you have certain projects, folders, or albums that you work on most often or that you work on at the same time, you can make them favorites to quickly view them all simultaneously.

### Make a project, a folder, or an album a favorite


- In the Library inspector, select a project, a folder, or an album, and choose Add to Favorites from the Library Action pop-up menu .

### View a favorite project, folder, or album

- In the Library inspector, choose Favorite Items from the search field pop-up menu at the top-left corner.

Only the items in the library that have been chosen as favorites are shown. All other items in the Library inspector are removed from view.

### Remove a project, a folder, or an album as a favorite

- In the Library inspector, select a project, a folder, or an album, and choose Remove From Favorites from the Library Action pop-up menu .

### View recently selected items in the Library inspector

- In the Library inspector, choose Recent Items from the search field pop-up menu at the top-left corner.

### View all items in the Library inspector again

- In the Library inspector, choose All Items from the search field pop-up menu.

## Work with the Aperture Trash

All items deleted in Aperture, including projects, albums, folders, versions, and originals, are placed in the Aperture Trash in the Library inspector. You can retrieve any item from the Trash until you empty it.



### Delete a version from a project

- Select a photo, a video clip, or an audio clip, and choose File > Delete Version.

The version is moved to the Trash, along with the original if you deleted its last version.

### Delete an original and all its versions from a project

- Select a photo, a video clip, or an audio clip, and choose File > Delete Original Image and All Versions.

The original and all versions are moved to the Trash.

### Delete only a version from an album

- Select a photo, a video clip, or an audio clip, and choose Photos > Remove From Album (or press Delete).

The version is deleted. The original and its other versions are not deleted.

### Delete projects and folders

When you delete an item from the Library inspector, the contents of the item are deleted with it.

**Note:** If you delete a project, the originals contained in the project are also deleted.

- 1 Select a project or folder.
- 2 Do one of the following:
  - Choose File > Delete [*item*] (or press Command-Delete).
  - Drag the item to the Aperture Trash.

The selected item is moved to the Trash in the Library inspector.

### Move an item out of the Aperture Trash

If you delete an item in the Library inspector by mistake, it's easy to fix.

Do one of the following:

- Drag the item out of the Aperture Trash.
- Control-click the item in the Aperture Trash, and choose Put Back from the shortcut menu.

The selected item is moved back to its original position in the Library inspector.

### Empty the Aperture Trash

After you've reviewed the contents of the Aperture Trash and are confident that you no longer need the items within it, you can empty the Trash. When you empty the Aperture Trash, all of its photos and videos are placed in the Finder Trash.

- 1 Do one of the following:
  - Choose Aperture > Empty Aperture Trash (or press Shift-Command-Delete).
  - Control-click the Aperture Trash, and choose Empty Aperture Trash from the shortcut menu.

A dialog appears, warning you that the items will be removed from the Aperture Trash permanently.

- 2 Click Delete.

**WARNING:** This action cannot be undone, but you can retrieve the originals from the Finder Trash until you empty it.

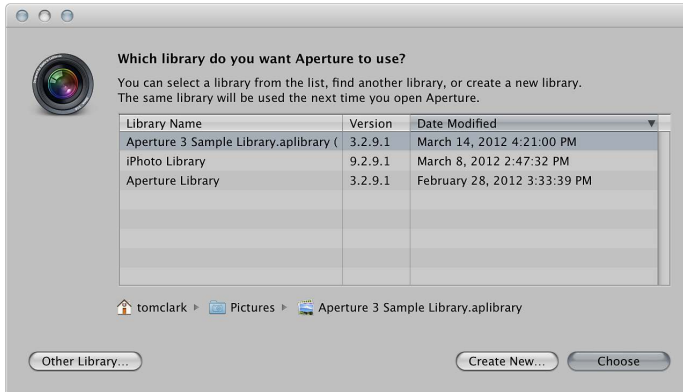
## Work with library files

### Create new libraries

If the Aperture library becomes large, you can create additional, separate library files to hold more photos. You can create additional library files in different locations on your internal hard disk or on different hard disks. You can also rename library files as needed. Thus, you might have multiple library files with different names in the same location, with Aperture set to access the library file you want.

#### Create a new, empty library file in a new location

- 1 Choose File > Switch to Library > Other/New.
- 2 In the dialog that appears, click Create New.



- 3 In the next dialog, enter a name for the library in the Save As field, choose a location, and click Create.

### View other libraries

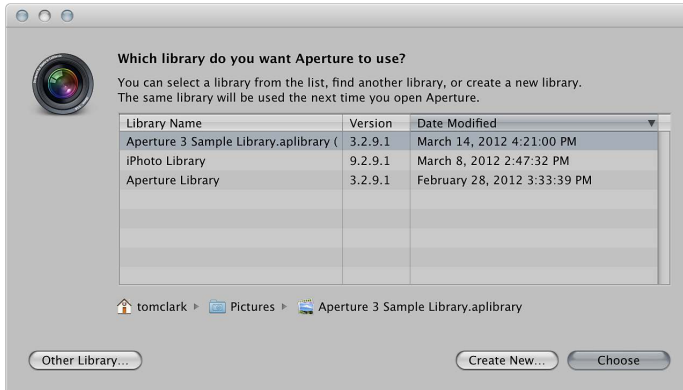
When you have multiple Aperture and iPhoto library files accessible to your Aperture system, you can switch between them and view their contents. You can also choose which library file to use when you open Aperture.

**Important:** Aperture can only open and view iPhoto libraries upgraded to iPhoto 9.3 or later. To upgrade your iPhoto library, open it in iPhoto 9.3 or later. iPhoto upgrades the library automatically. All cards, books, calendars, and Smart Albums in your iPhoto library can be viewed but not edited in Aperture. To work with your iPhoto cards, books, calendars, and Smart Albums, close Aperture and open your iPhoto library in iPhoto.

#### Access a different Aperture or iPhoto library

- 1 Choose File > Switch to Library > [library filename].
- 2 If the library you're looking for doesn't appear in the Switch to Library submenu, choose Other/New.

- 3 In the dialog that appears, select the library you want to open from the list, and click Choose.



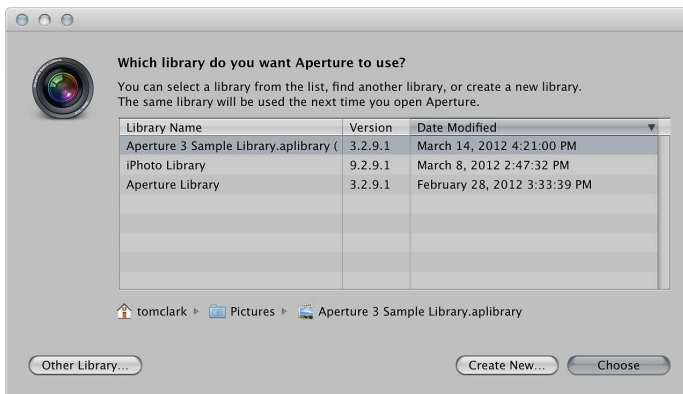
**Note:** You must close iPhoto before opening your iPhoto library in Aperture.

Aperture opens the library you selected.

### Choose which library to use while opening Aperture

- 1 Hold down the Option key while opening Aperture.

A dialog appears, with options for selecting an existing library or creating a new one.



- 2 Do one of the following:

- *To open an Aperture library file shown in the dialog:* Select the library file, and click Choose.
- *To open an Aperture library file not shown in the dialog:* Click the Other Library button, locate the library file in the dialog that appears, and click Select.
- *To open a new, empty library:* Click the Create New button, give the library a name in the Save As field, select a location for the library, and click Create.

Aperture creates a new, empty library file and opens it.

## Merge libraries

If you work with several computers, or work on projects with other people, you may find it necessary to transfer projects and albums from one Aperture system to another. Transferring folders, projects, and albums is a simple export and import process. The items you export are consolidated into a library file. When you import the library into the second Aperture system, you can add files, delete files, modify metadata, and make adjustments. When you're ready to return the contents of the modified library to the original computer, Aperture merges the two libraries together.

### Transfer folders, projects, and albums from one computer to another

- 1 In the Library inspector, select the items you want to transfer, and choose File > Export > Items as New Library.

**Note:** Items in the Export menu change depending on what is selected. If you have a single item, such as an album, selected in the Library inspector, choose File > Export > Album as New Library.

- 2 Enter a name and choose a location for the exported library.
- 3 Do any of the following:
  - *If your project contains referenced images and you want the original files to be available to the new Aperture system:* Select the “Consolidate originals into exported library” checkbox to copy the original image files into the new library file.
  - *If you want to copy the previews into the new library so that you don’t have to rebuild them on the new Aperture system:* Select the “Include Previews in exported library” checkbox.
  - *If you want Aperture to alert you when it finishes building the new library:* Select the “Show alert when finished” checkbox.

- 4 Click Export Library.

Aperture consolidates the selected items into a library, and the library file is exported to the location you chose.

- 5 Connect or network the two computers together, and copy the exported library file to the second computer.

For more information, see the documentation that came with the computers.

- 6 Open Aperture on the second computer, and choose File > Switch to Library > [*library filename*].

You can now work with the exported library from the first computer on the second computer.

### Merge the modified library from the second computer into the library of the first computer

When you’re ready to merge the modified library on the second computer into the library on the first computer, import it into the open library on the first computer.

- 1 Follow the steps in the previous task to transfer the modified library on the second computer to the first computer.
- 2 On the first computer, choose File > Import > Library/Project, locate the modified library file from the second computer, and click Import.

A dialog appears, giving you the option to merge the imported library with the current library or add the contents of the imported library to the current library.

- 3 Click Merge.

A dialog appears, asking you to choose which library to use to resolve potential conflicts caused by the differences between the libraries.

- 4 To import the changes in the modified library, choose the library from the second computer.

Aperture imports the modified library from the second computer, merging the changes made to the projects and albums on the second computer into the same projects and albums on the first computer. Any files that were deleted on the second computer, or for some other reason no longer exist in the library file of the second computer, are moved to the Aperture Trash in the library of the first computer.

## Add the contents of the library from the second computer without overwriting the contents of the library on the first computer

If you don't want to overwrite the original projects and albums you exported from the first computer with the projects and albums you modified on the second computer, you can add the modified projects and albums to the library on the first computer as unique items.

- 1 Transfer the modified library from the second computer to the first computer.
- 2 On the first computer, choose File > Import > Library/Project, locate the modified library file from the second computer, and click Import.

A dialog appears, asking you to choose which library to use to resolve potential conflicts caused by the differences between the libraries.

- 3 Click Add.

Aperture imports the contents of the modified library from the second computer into the library of the first computer. Instead of overwriting the files that changed, Aperture adds the changed files as additional items. If imported items have the same names as existing items in the Library inspector, the names of the imported items are appended with "(1)."

## Open your library in iPhoto

You can open your library in iPhoto from within Aperture.

### Open your library in iPhoto

- Choose File > Open Library in iPhoto.

Aperture closes and iPhoto opens the library you were working with in Aperture.

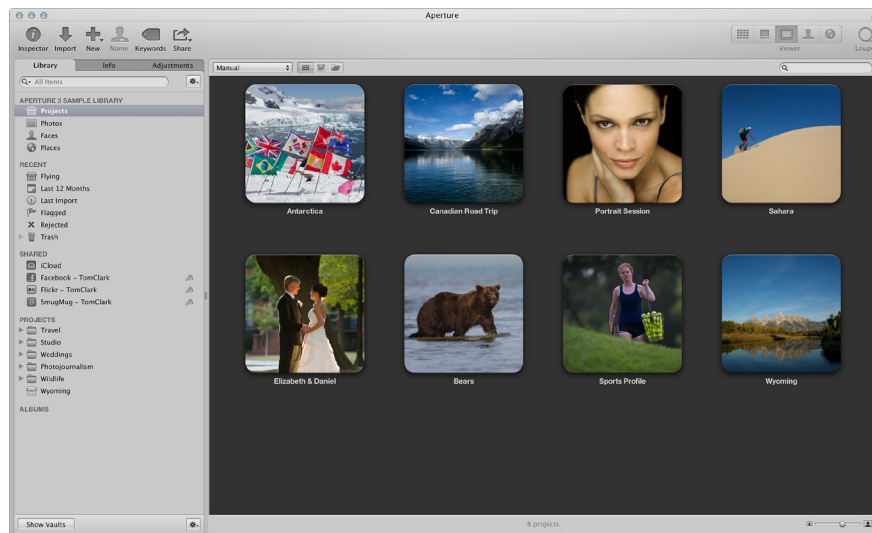
## Work with projects

### View projects

You organize your photos in containers called *projects*. You can view all of your projects in the Library inspector (as a list under the Projects heading) or in Projects view. Projects view displays a thumbnail of each project in your library or libraries. Double-clicking a thumbnail opens a project, displaying all of its photos in the Browser. In Projects view, you can conveniently view, organize, and sort your projects.

### Switch to Projects view

- In the Library inspector, select the Projects icon.



### Preview the photos in a project quickly

In Projects view, do one of the following:

- Slowly drag the pointer horizontally across the project's thumbnail.
- Select the project's thumbnail, and use the Left Arrow and Right Arrow keys to navigate through the photos in the project.

### Set the key photo for a project

You can set any photo within a project as the key photo displayed in Projects view.

- 1 Do one of the following:
  - Move the pointer slowly over the project's thumbnail to skim to the photo you want to set as the key photo.
  - Select the project's thumbnail, and use the Left Arrow and Right Arrow keys to navigate to the photo you want to set as the key photo.
- 2 When you locate the photo you're looking for, press the Space bar.

The selected photo is set as the key photo to represent the project.

### Play a slideshow of a project's photos

You can select a project and play a slideshow to review the photos within it.

- 1 Do one of the following:
  - Select a project's thumbnail, and choose File > Play Slideshow (or press Shift-S).
  - Control-click a project, and choose Play Slideshow from the shortcut menu.
- 2 In the Play Slideshow dialog, choose a preset from the Slideshow Preset pop-up menu, and click Start.

A slideshow of the photos in the selected project plays. Press the Space bar to pause and play the slideshow, and the Escape key to stop the slideshow. For more information about slideshows, see [Slideshows overview](#) on page 376.

### View a project's photos in the Browser

When you locate the project you want to work with in Projects view, you can display the project's photos in the Browser.

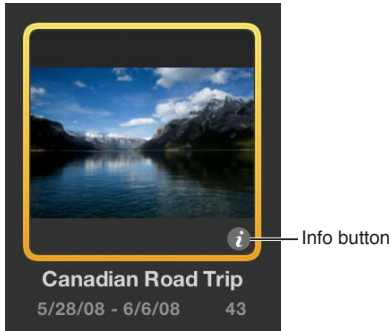
- In Projects view, double-click the project.

The Browser replaces Projects view and displays the selected project's thumbnail images.

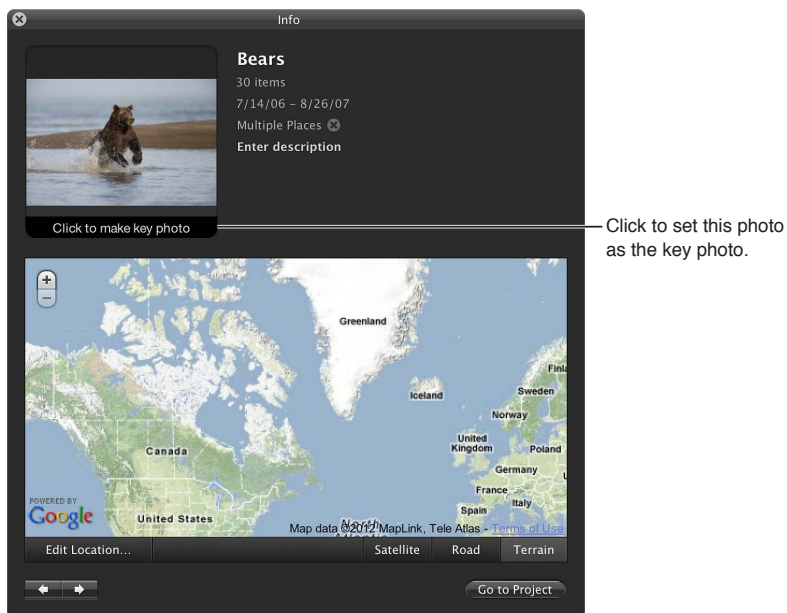
## View and change project information in the Info HUD

In Projects view, you can use the Info HUD to add descriptive information about a project and change the project's key photo (the thumbnail image that represents the project).

- 1 If the Aperture main window is not in Projects view, select Projects at the top of the Library inspector.
- 2 To open the Info HUD for a project, click the Info button on a project's thumbnail.



- 3 In the Info HUD, do either or both of the following:
  - *To add descriptive information about the project:* Type a description in the text field to the right of the project thumbnail.
  - *To change the key photo for the project:* Skim the project thumbnail to locate the photo you want to set as the key photo, and click the "Click to make key photo" button.



The photo you selected appears as the thumbnail image for the project.

To view or change information for another project, navigate to the project by clicking the arrow buttons in the bottom-left corner of the Info HUD. To open a project, click the Go to Project button. To assign location information to a photo, see [Places overview](#).

## Create and delete projects

You can create new projects and delete projects in Projects view.

### Create a new project

- 1 In Projects view, do one of the following:
  - Choose File > New > Project (or press Command-N).
  - Control-click a project, and choose New > Project from the shortcut menu.
  - Choose Project from the New pop-up menu in the toolbar.
- 2 In the dialog that appears, enter a name for the project in the Project Name field.
- 3 Click OK.

The new, empty project opens in the Browser.

### Delete a project

In Projects view, do one of the following:

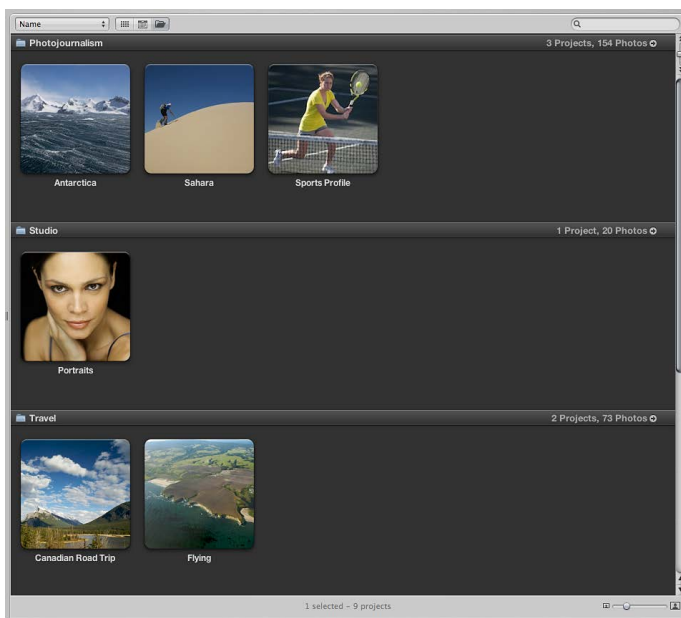
- Select a project's thumbnail, and choose File > Delete Project (or press Command-Delete).
- Control-click a project, and choose Delete Project from the shortcut menu.

The selected project is moved to the Aperture Trash. For more information, see [Work with the Aperture Trash](#) on page 56.

## Organize and sort projects in Projects view



You can organize your projects by the year the photos were created. If you organize your projects in folders in the Library inspector, you can group your projects by the folders they reside in. You can sort projects by name, in ascending and descending order, and in the order in which the projects appear from top to bottom in the Library inspector. If you have a large number of projects in your library, you can search for a specific project, removing the others from view.

If you have more than one project documenting the same subject and you want to consolidate the projects into a single project, you can merge the projects.

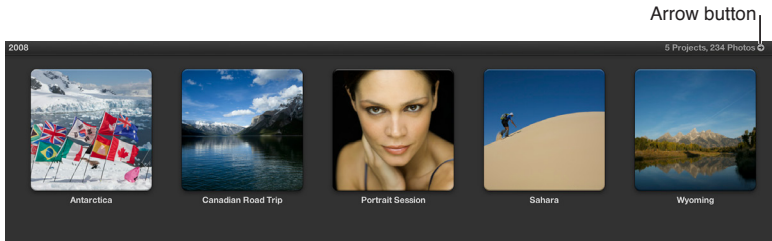




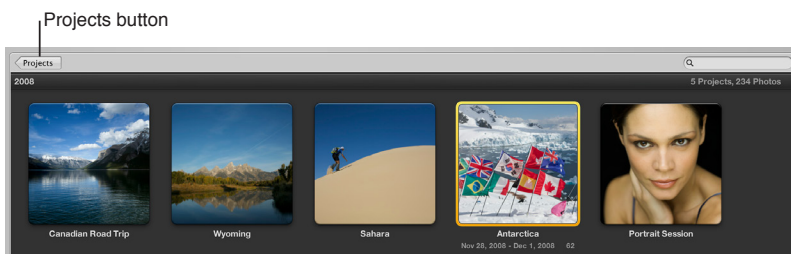
## Group projects by year or by folder

- *To group projects by year:* Click the Group by Year button  at the top of Projects view.
- *To group projects by folder:* Click the Group by Folder button  at the top of Projects view.

When you group projects by year or by folder, the number of projects and photos for each year or folder is displayed in the top-right corner of each group's row. Click the adjacent arrow button to display projects for a single year or folder only.



To return to full display of projects for all years or folders, click the Projects button at the top of the main window in Projects view.



## Sort projects automatically in Projects view

- *To sort projects by name:* Choose Name from the Sorting pop-up menu in the top-left corner of Projects view.
- *To sort projects in ascending order by the date the photos were captured:* Choose Date – Newest First from the Sorting pop-up menu.
- *To sort projects in descending order by the date the photos were captured:* Choose Date – Oldest First from the Sorting pop-up menu.
- *To sort projects by the order in which they appear in the Library inspector:* Choose Library from the Sorting pop-up menu.

## Sort projects manually in Projects view

- 1 Choose Manual from the Sorting pop-up menu in the top-left corner of Projects view.
- 2 In the Browser, select a project and drag it to a new position.

A green line indicates the project's new position.

## Search for projects

- In Projects view, enter the name of the project you want to locate in the search field.

All projects are removed from view except for the project or projects matching the name in the search field. To display all projects again, click the Reset button (with an X) in the search field.

## Import photos into projects

You can import files, as well as Aperture projects and libraries, into a project selected in Projects view.

### Import files into a project

In Projects view, do one of the following:

- Select a project's thumbnail, and choose File > Import > Files (or press Command-I).
- Control-click a project, and choose Import > Files from the shortcut menu.

The Import browser appears with the project selected in the Destination pop-up menu. For more information about importing files, see [Importing photos overview](#) on page 27.

### Import another project or an Aperture library into a project

- 1 In Projects view, Control-click a project, and choose Import > Library or Import > Folders as Projects from the shortcut menu.
- 2 In the dialog that appears, select the project or library that you want to merge into the project selected in Projects view, and click Import.

The project or library is merged into the project selected in Projects view. For more information, see [Merge libraries](#) on page 59.

## Merge projects

If you create multiple projects and then later decide that the content spread among the projects belongs in a single project, you can select the projects in the Library inspector or in Projects view and merge them into one project.

### Merge projects in the Library inspector

- 1 In the Library inspector, select the projects you want to merge by Shift-clicking adjacent projects or Command-clicking nonadjacent projects.
- 2 Choose File > Merge Projects.

A dialog appears, indicating which project the selected projects will be merged into.

- 3 Click Merge.

The content in the selected projects is merged into the topmost selected project in the Library inspector.

### Merge projects in Projects view

In Projects view, do one of the following:

- Select a project or projects, drag them into the project that you want to contain the other project or projects, and click Merge in the dialog that appears.
- Select the projects you want to merge, choose File > Merge Projects, and click Merge in the dialog that appears.

## Duplicate a project structure

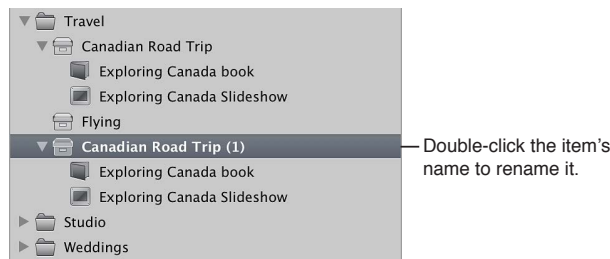
If you routinely use the same project structure populated with the same types of albums and folders, you can duplicate the structure of an existing project and create a new, empty project with the same arrangement of albums and folders. If the project you're duplicating has Smart Albums, the settings for those Smart Albums are duplicated as well. For more information about Smart Albums, see [Collect photos in a new Smart Album](#) on page 156.

### Duplicate a project structure

- 1 In the Library inspector, select the project whose structure you want to copy.
- 2 Choose File > Duplicate Project Structure.

The project and all of its subordinate items, such as albums, folders, and Smart Albums, are duplicated along with their names. However, the duplicated project contains no photos, audio clips, or video clips.

- 3 Double-click the name of each duplicated item in the new project to give it a new name.



## Work with referenced images

A *referenced image* is a photo whose original isn't stored in the Aperture library. You create a referenced image by specifying a location outside of the library when you import the image. Aperture tracks the locations of referenced images and works with them in the same way as with images in the library, except that referenced originals are not backed up when you back up your library. You can identify referenced images in Aperture by turning on referenced image badge overlays.

A referenced image is *online* if Aperture can access its original. Referenced images remain online even if you rename them or move their originals to another location on the same hard disk or volume. If you disconnect the disk that holds a referenced original, move the original to the Finder Trash, or move the original to a different hard disk or volume, the referenced image becomes *offline* (unavailable). When an original is offline, Aperture draws the thumbnail image first, and then the preview if it exists. Because the preview is high quality, you can zoom and even use the Loupe. However, you can't make adjustments until you either reconnect the disk that holds the original or use Aperture to reconnect to the original in its new location.

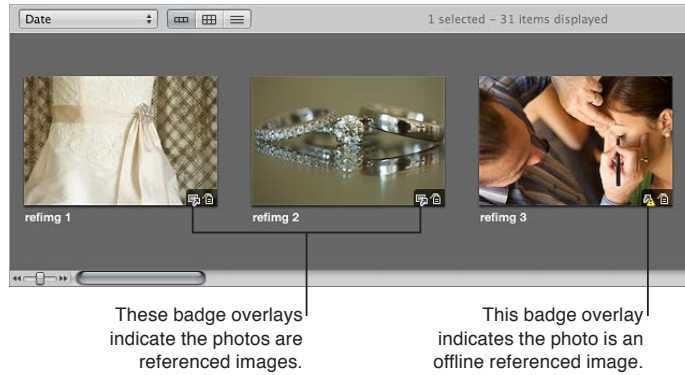
You can copy, move, delete, and search for referenced images in your Aperture projects using the same procedures you use for other Aperture versions and originals. When you copy a version of a referenced image in Aperture, a new version is created and tracked in the Aperture library. No new files are recorded on the hard disk in the location of the referenced image's original. When you move a referenced image between projects on your Aperture system, the referenced original remains in its original location on your hard disk.

If you decide that it would be more convenient to store referenced originals in the Aperture library (for example, so that you can back them up to vaults), you can have Aperture move or copy the files to the library.

When you delete a referenced original from Aperture, you can specify whether the photo's version is placed in the Aperture Trash. When you empty the Aperture Trash, the link to the original is deleted, but the original remains in its current location in the Finder.

### Identify referenced images

After you import referenced images, you can identify them in the Browser by turning on referenced image badge overlays. Referenced images appear with badges that show whether their originals are currently online (available) or offline (unavailable).



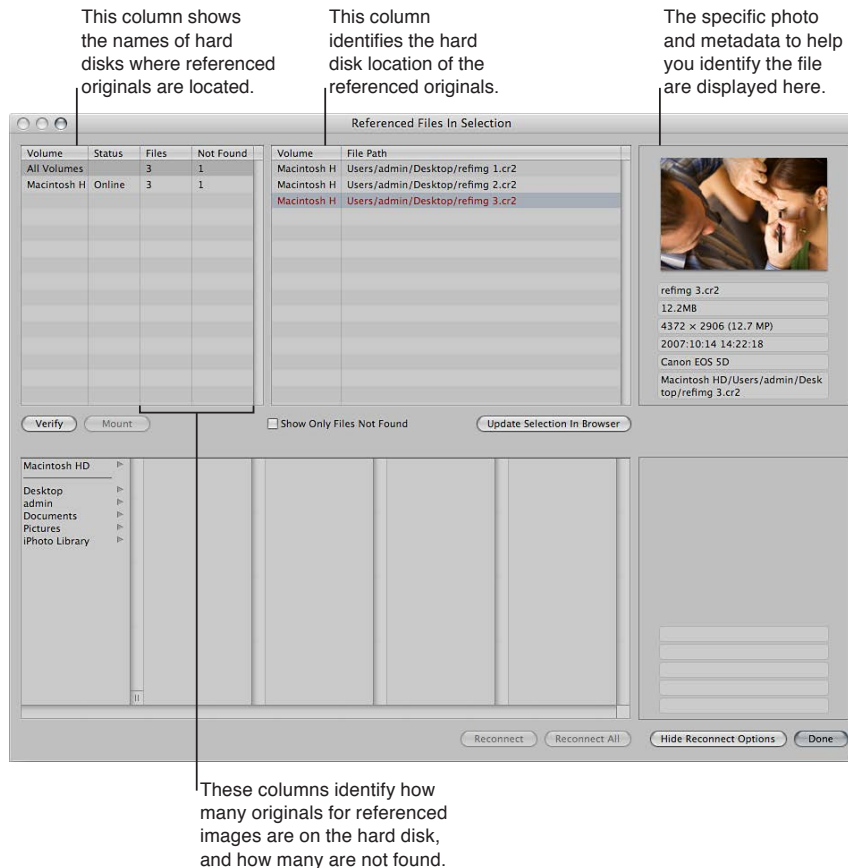
- 1 Choose Aperture > Preferences, or press Command-Comma (,).
- 2 In the Preferences window, click Appearance and select the “Badge referenced items” checkbox.

### See a list of referenced images in a selection

When working with a selection of photos in the Browser, you may need to determine which photos have originals that reside in the Aperture library and which are referenced images whose originals are located elsewhere on your hard disks. You can select a group of photos in the Browser and show a list of the referenced images within the selection, along with their locations.

- 1 In the Browser, select a group of photos.
- 2 Choose File > Locate Referenced Files.

The Referenced Files In Selection dialog appears.



### Locate a referenced image's original in the Finder

At times, you may need to quickly find a referenced image's original on your hard disk to copy or move it, attach it to an email, or otherwise work with it outside of Aperture. You can select a photo in the Browser and display the location of the photo's original in the Finder.

- 1 Select a referenced image in the Browser.
- 2 Choose File > Show in Finder.

A Finder window appears, displaying the file path for the referenced original.

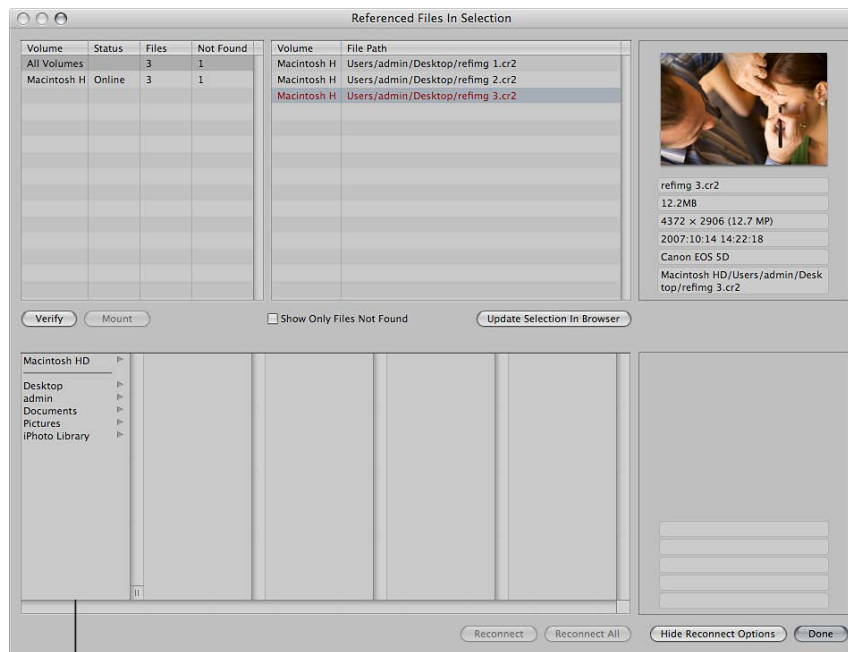
**Note:** If you open a referenced image's original from the Finder in another application, you won't see the changes or adjustments you've made to the image in Aperture. Your changes appear in versions stored in the Aperture library, and the referenced image's original is always left unchanged. To see the adjusted photo, you need to export a version of it.

## Reconnect offline referenced images

If you disconnected a hard disk drive that holds referenced image's originals, you can reconnect the drive to your computer, and Aperture automatically reconnects the originals.

If a photo is offline or modified in some way that makes it unrecognizable as the original referenced image, you can still select it and have Aperture reconnect the original.

- 1 Reconnect the hard disk drive holding the referenced originals, or otherwise locate or make the files available to Aperture for reconnecting.
- 2 Select the project that contains the offline photos you want to reconnect, or select the offline photos in the Browser.
- 3 Choose File > Locate Referenced Files.
- 4 If necessary, click the Show Reconnect Options button.



Select the volume you want here, and navigate to the location of the file on the hard disk.

- 5 At the top of the dialog, select the file path for the original that you want to reconnect. A thumbnail of the photo and some identifying metadata appear.
- 6 In the bottom half of the dialog, navigate to the location of the referenced image's original on the hard disk and select the original. You can follow the file path listed for a selected photo in the top of the dialog. When you select the file, a thumbnail of the photo and metadata appear, allowing you to compare them to the thumbnail and metadata in the upper part of the dialog to make sure you've selected the correct file.
- 7 Click Reconnect to reconnect a specific photo, or click Reconnect All to reconnect all selected photos.

### Move originals for referenced images to a new location

You can easily move referenced originals to new locations on the same hard disk or a different hard disk.

- 1 In the Browser, select the referenced images whose originals you want to move.
- 2 Choose File > Relocate Originals.
- 3 Select a folder location in the dialog that appears.
- 4 To specify that the files be stored as separate, individual files in the selected folder, choose None from the Subfolders pop-up menu.

You can also specify that Aperture create a hierarchy of subfolders with specific folder names to store your files. For more information about creating folders to hold your imported image files, see [Import originals for referenced images into folders](#) on page 46.

- 5 To specify how you want the originals named, choose a naming convention from the Name Format pop-up menu.

For example, choose Original File Name from the Name Format pop-up menu to have your files stored using the original filenames from your camera or card. Choose a custom name format to have your originals stored using a specified name. If you choose a custom name format, enter the name you want in the Custom Name field. For more information about naming files, see [Automatically name imported photos](#) on page 37.

- 6 Click Relocate Originals.


### Move referenced originals to the Aperture library

If you have originals stored in different hard disk locations but want to work with them all stored in the Aperture library, you can select the referenced images in the Browser and move their originals to the library. Aperture manages all aspects of originals stored in the library, keeping them always available and allowing you to back them up in your vaults.

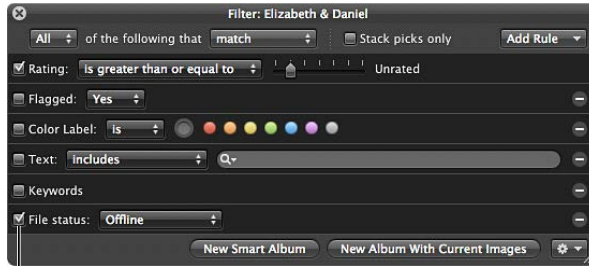
- 1 In the Browser, select the referenced images whose originals you want to move to the library.
- 2 Choose File > Consolidate Originals.
- 3 Choose whether you want the image files moved or copied into the Aperture library by clicking the “Move files” or “Copy files” button.
- 4 Click Continue.

### Search for photos by file status

You can search for photos using their file status. For example, you can search for photos that are referenced images, managed images, and online or offline images.

- 1 In the Library inspector, select an item you want to search.
- 2 Show the Filter HUD by doing one of the following:
  - Choose Edit > Find (or press Command-F).
  - Click the Filter HUD button  beside the search field in the Browser.
- 3 In the Filter HUD, choose File Status from the Add Rule pop-up menu in the top-right corner, and select the “File status” checkbox.

- 4 Deselect any checkboxes that aren't part of your query, and choose a file status from the "File status" pop-up menu.



Select the "File status" checkbox and choose the file status you want to search for.

- 5 Choose Any from the pop-up menu in the top-left corner.

The photos that match the search criteria appear in the Browser.

## Back up the library

### Plan your backup system

As you begin working with Aperture, it's important to perform regular backups of your photos. Using the Aperture backup system, you can create backups and update them whenever you wish. Aperture tracks your backups and indicates how up to date your most recent backup is. In the rare event of equipment failure or an unforeseen catastrophe such as a fire or weather-related damage, you can easily restore the entire Aperture library onto your computer or a new computer.

You set Aperture to back up a copy of the library to a designated storage area called a *vault*. For safety and redundancy, use external hard disks to hold your vaults. You can create as many vaults as you deem necessary.

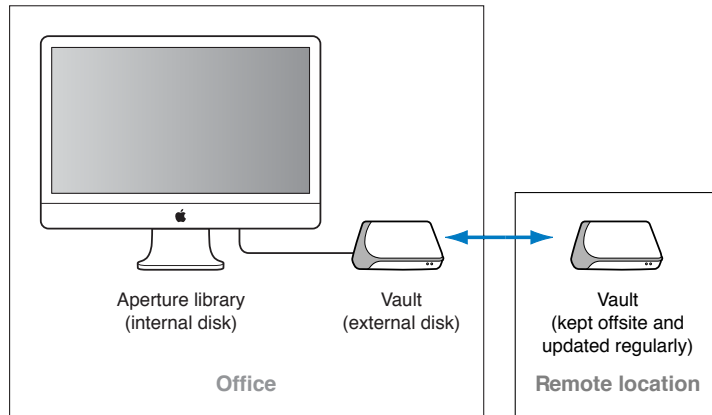
When you back up your photos, Aperture makes a complete copy of the library in its current state. If you remove items from the library, those items are removed from the backup when it is next updated.

All originals for managed images, all versions, and all metadata, previews, and adjustment information associated with your photos are backed up. The versions, previews, and metadata associated with referenced images are also backed up in the vault.

**Important:** Referenced images' originals are not backed up in the vault with the library. Because the originals for referenced images are stored outside of the library, you must manage the backup and archiving of them yourself.



A typical backup system used with Aperture might look like the following:



This system backs up the Aperture library to two vaults stored on external hard disks. You routinely back up the library on one external hard disk. You use the second hard disk as a backup that you keep offsite. You can then rotate your onsite external hard disk with the offsite hard disk to keep all your vaults updated.

To set up your Aperture backup system, you need to do the following:

- Determine the number of vaults you need. For example, do you need one for routine backups, one for weekly backups, and one for offsite storage?
- Determine the number of hard disks you need for routine backups.
- Determine the number of hard disks you'll use for storing backups offsite.
- Connect your hard disk drives to your computer.
- Open Aperture and create the vaults you need, assigning a hard disk to each vault.
- Update the new, empty vaults with copies of the Aperture library.
- Disconnect one of the vault hard disks and take it to an offsite location for safekeeping.

When planning the amount of storage space you'll need, estimate the amount of disk space needed to hold your existing digital images (photos you plan to import into Aperture) and the amount of space you might need for new projects. For example, RAW images typically require 8 to 25 or more megabytes (MB) of disk space per file. Estimating the number of photos in a typical project and the number of projects you usually create in a year, you can make a rough estimate of what might represent a year's storage space.

### Create and update vaults

Before you can back up your files, you must create a vault and assign a hard disk to it. After you assign a disk to the vault, Aperture uses the vault to back up the entire library. You can create additional vaults and assign hard disks to them, and each additional vault also records a complete backup of the library.

#### Show the Vault pane

Do one of the following:

- Choose Window > Show Vaults (or press Shift-R).
- Click the Show Vaults button below the Library inspector.

## Create a new vault

1 Do one of the following:

- Choose File > Vault > Add Vault.
- Choose Add Vault from the Vault Action pop-up menu below the Library inspector.



A dialog appears, listing the number of managed files that will be backed up to the vault and the number of referenced files that will not be included.

2 Click Continue.


3 In the Add Vault dialog, enter a name for the vault, choose a location to save it, and click Add.

The new, empty vault appears in the Vault pane.

**Important:** To ensure preservation of your photos, make sure to assign a separate external hard disk drive to each vault.

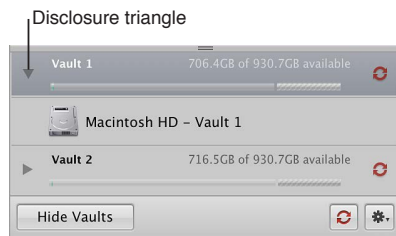
## Update a new, empty vault

When you create a new vault, it's empty. As soon as you create a new vault, you should update it.

- In the Vault pane, click the Vault Status button  to the right of the vault's name.

## See the hard disk assigned to a vault

- In the Vault pane, click the disclosure triangle beside the vault name.



You can easily see the amount of free space your vault has available next to the vault name. Make sure to assign enough disk space to the vault to ensure a complete backup of the library and to allow the library to grow as you import new photos over time.

## Update all connected vaults

1 Do one of the following:


- Choose File > Vault > Update All Vaults.
- In the Vault pane, click the Update All Vaults button.

2 In the dialog that appears, click Update.

## Update an existing vault

1 In the Vault pane, select the vault you want to update.


2 Do one of the following:

- Choose Update Vault from the Vault Action pop-up menu .
- Click the Vault Status button beside the vault name.

3 In the dialog that appears, click Update.

### Permanently remove a vault and delete its information

You can delete an entire vault and all the photos on it when you need to reconfigure your backup system. This is useful when you have moved your backup vault to a larger-capacity hard disk and you want to delete the vault information from the current hard disk drive to use it for other purposes.

- 1 In the Vault pane, select the vault you want to remove.
- 2 Do one of the following:
  - Choose File > Vault > Remove Vault.
  - Choose Remove Vault from the Vault Action pop-up menu .

A dialog appears, asking if you want to remove the vault.

- 3 Click one of the following buttons:
  - *Remove and Delete*: When you click this button, Aperture no longer tracks the vault, and the vault's files are deleted from your hard disk.
  - *Remove*: When you click this button, Aperture no longer tracks the vault, but the vault's files remain on the hard disk.


### Disconnect and reconnect vaults

You may routinely disconnect a backup hard disk drive from your Aperture system and take it to a safe offsite location. When you disconnect a backup hard disk from your computer, Aperture takes the associated vault offline. When you reconnect the hard disk, Aperture automatically detects the hard disk and connects it to the corresponding vault.

#### Disconnect a vault's hard disk drive from your Aperture system

- 1 In the Finder, drag the icon for the hard disk drive to the Trash, or select the disk in the sidebar of a Finder window and click the Eject button.
- 2 Disconnect the hard disk drive from your computer.

#### Specify a vault's new location or path

- 1 Connect the hard disk drive to your computer.
- 2 To show the Vault pane, do one of the following:
  - Choose Window > Show Vaults (or press Shift-R).
  - Click the Show Vaults button below the Library inspector.
- 3 Select the vault to be updated to a new path.
- 4 Choose Update Vault Path from the Vault Action pop-up menu .
- 5 Navigate to the location of the vault on the hard disk drive, select it, and click Update Path.

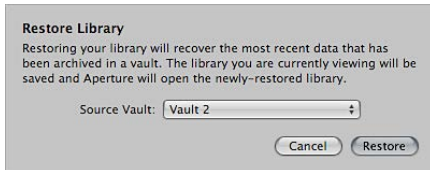
## Restore your Aperture library

If you experience equipment failure or other unexpected events, such as fire or weather-related damage to your computer, you can easily restore your Aperture library from a vault stored on a backup disk. You can also use the backup disk to transfer your library to another computer that has Aperture installed.

### Restore the entire library from an external backup disk

- 1 Connect the hard disk drive that contains the most up-to-date vault to your computer, and open Aperture.
- 2 Choose File > Vault > Restore Library.

The Restore Library dialog appears.



- 3 Choose the vault you want to use to restore your library from the Source Vault pop-up menu.  
If the vault doesn't appear in the Source Vault pop-up menu, choose Select Source Vault from the Source Vault pop-up menu, navigate to the vault's location in the Select Source Vault dialog, and click Select.
- 4 Click Restore, and then click Restore again.

## Repair and rebuild your Aperture library

In the rare event that your Aperture database becomes corrupted or the files within it have permissions issues, Aperture provides a few methods for reconstituting your Aperture library and the file relationships within it.

### Repair or rebuild your Aperture library

- 1 Close Aperture, if it's open.
- 2 Locate the Aperture library you want to fix, and then hold down the Command and Option keys while double-clicking the Aperture library.

The Photo Library First Aid dialog appears.



3 Do one of the following:

- *To repair the permissions of the files within your Aperture library:* Select Repair Permissions.  
This option should be used when Aperture can't access some of the image files within the database or is unable to open the library. The Repair Permissions option reviews each file in your Aperture library and sets the read-and-write access of each file where appropriate, allowing Aperture to access the files again.  
**Note:** This option does not relocate referenced images whose original image files are offline. For more information about reconnecting offline images, see [Work with referenced images](#) on page 67.
- *To repair your Aperture library file:* Select Repair Database.  
This is the first option you should use if you believe there is something wrong with the Aperture library other than image file access issues.
- *To rebuild your database from scratch:* Select Rebuild Database.  
Rebuilding large libraries can be time-consuming; use this option if you've tried repairing your database and the issues with your library persist. Aperture examines the library's entire database and rebuilds each component until it reconstitutes your original Aperture library.

4 Depending on your selection, click Repair or Rebuild.

Aperture either fixes file permissions within the library or repairs or rebuilds the library, and then opens the application workspace.

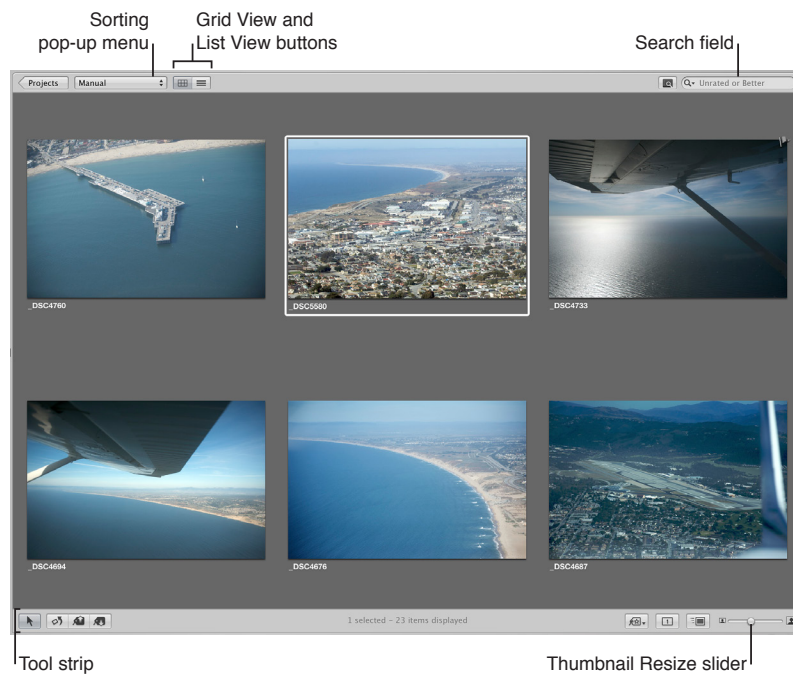
# Organize and sort photos

# 4

## Browser overview

After a shoot, you may need to sort through hundreds or even thousands of photos in a project. Aperture provides efficient methods for increasing your productivity when working with large numbers of photos.

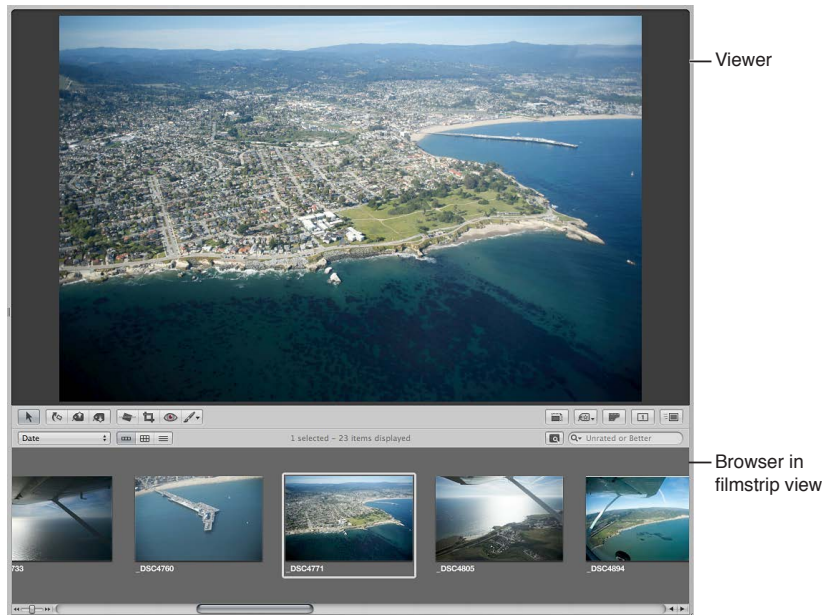
When you select a project, a folder, or an album in the Library inspector, thumbnails of its photos appear in the Browser. You select photos in the Browser to work with them. You can move and rearrange photos, rotate photos, make new versions, and delete photos from a project.



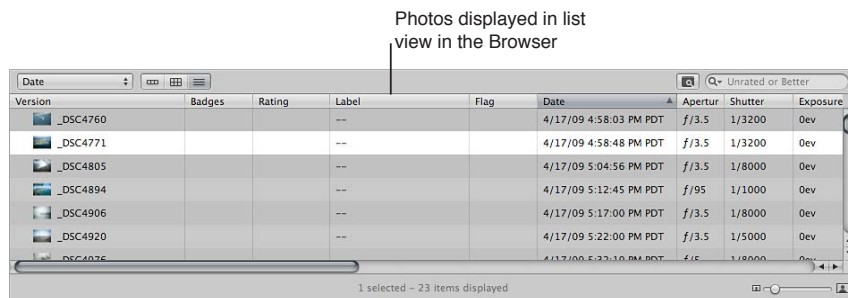
Aperture provides fast and efficient ways of selecting photos in the Browser. You can use the arrow keys to quickly select a photo or multiple photos to work on. You can also select photos by clicking, dragging a selection rectangle, and using keyboard shortcuts. If using Aperture with a trackpad, you can use the swipe gesture to select photos. For more information about using gestures with Aperture, see [Use gestures with Aperture](#) on page 487.

In the Browser, you can display thumbnails in any of three views:

- *Filmstrip view*: Displays a single row of photos that you can select and navigate through.



- *Grid view*: Displays thumbnails of your photos in a grid pattern. Use grid view when it's easiest to identify your photos by sight and work with thumbnails as you organize, stack, or assign keywords to photos.
- *List view*: Displays a list of your photos with associated file information. Use list view when you need to see or sort your photos by corresponding file properties such as image date, file size, or rating.



List view is a great way to quickly see information about your files. You can also use list view to sort your photos by any of the column categories. Click a column heading to sort your photos by that category.

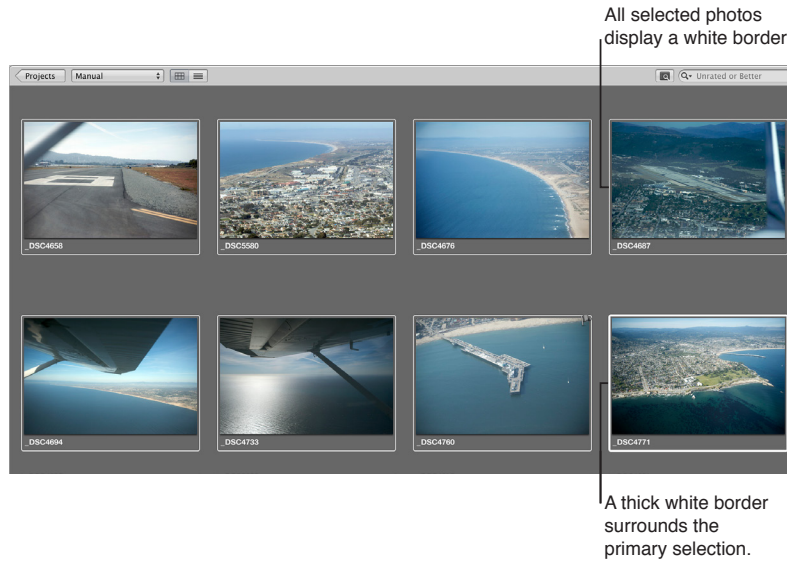
You can also customize the information that appears with your photos in the Browser. For example, you can set your photos to appear with the filename as well as the IPTC data and EXIF data. You can change what information appears in the Browser in grid view, list view, and filmstrip view by customizing the Metadata options in the Browser & Viewer Metadata window. For more information, see [Metadata overlays overview](#) on page 201.

For information about changing the configuration of Aperture window layouts, see [Change the main window layout](#) on page 474.

## Navigate through and select photos

### Navigate through photos in the Browser

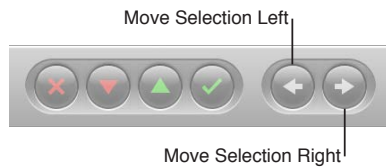
You can select one or more thumbnail-size photos in the Browser, and then modify them in the Browser or see them in a larger format in the Viewer. Photos selected in the Browser are highlighted with a white border. When you select a group of photos, the most recently selected photo, called the *primary selection*, appears with a thicker white border than the other selected photos.



### Navigate through photos

Do one of the following:

- Press an arrow key to move left, right, up, or down in the Browser.
- Use the scroll bar to scroll through the photos in the Browser, then click the photo you want to view.
- Choose Window > Show Control Bar to display the control bar. In the control bar, click the Move Selection Left or Move Selection Right button.





## Select photos

Selecting photos in the Browser is a fundamental task in Aperture. Knowing the many ways you can select photos can help increase your productivity and satisfaction while working with your photos.

You can select photos in the following ways.

Task	Action
Select a single photo	<ul style="list-style-type: none"><li>• Click the photo.</li><li>• Press the arrow keys to navigate to the photo.</li></ul>
Select a range of photos	<ul style="list-style-type: none"><li>• Select the first photo, then choose Edit &gt; Select to End (or press Shift-End) to extend the selection to the last photo in the Browser.</li><li>• Select the last photo in a range, then choose Edit &gt; Select to Beginning (or press Shift-Home) to extend the selection to the first photo in the Browser.</li><li>• Click the first photo in a range, then Shift-click the last photo.</li><li>• Press the arrow keys to select the first photo, then press Shift and an arrow key to select the last photo in the range.</li><li>• Drag a selection rectangle to select all the photos that fall within the rectangle.</li></ul>
Select a photo among selected photos	<ul style="list-style-type: none"><li>• Press Semicolon (;) or press Option-Command-Left Arrow to select the previous photo in the selection. Press Apostrophe (') or press Option-Command-Right Arrow to select the next photo in the selection.</li></ul>
Select a photo in a stack	<ul style="list-style-type: none"><li>• Press the Right Arrow or Left Arrow key.</li></ul>
Select nonadjacent photos	<ul style="list-style-type: none"><li>• Command-click the photos you want to select. Command-click the photos again to deselect them.</li></ul>
Slide a selection	<ul style="list-style-type: none"><li>• Press Command-Left Arrow or Command-Right Arrow to slide the current selection over by one photo. For example, you can move a three-photo selection left or right by one photo at a time.</li></ul>
Select the next stack	<ul style="list-style-type: none"><li>• With a stack selected, press Option-Page Up or Option-Page Down.</li></ul>
Select or set a compare photo	<ul style="list-style-type: none"><li>• Select the photo, then press Option-O.</li></ul>
Deselect the compare photo	<ul style="list-style-type: none"><li>• Press Command-Return.</li></ul>
Select a different compare photo	<ul style="list-style-type: none"><li>• Select the photo you want as a compare photo, then press Return.</li></ul>
Select all photos in the Browser	<ul style="list-style-type: none"><li>• Choose Edit &gt; Select All (or press Command-A).</li></ul>
Select only the primary photo, deselecting all others	<ul style="list-style-type: none"><li>• Choose Edit &gt; Reduce Selection (or press Shift-E).</li></ul>
Deselect all photos in the Browser	<ul style="list-style-type: none"><li>• Choose Edit &gt; Deselect All (or press Shift-Command-A).</li><li>• Click the gray background of the Browser.</li></ul>

## Navigate through photos in Quick Preview mode

As you work with photos in the Browser and Viewer, you can set Aperture to display JPEG representations of the photos called *previews*. Because the preview's file size is smaller than that of the original photo, Aperture can display the photo more quickly. For example, the thumbnails in the Browser are preview representations of the originals, reduced to thumbnail size.

Likewise, when you select a photo in the Viewer, Aperture first displays a preview photo as it reads the larger original on disk. It then displays the full original after the image is decoded. This process of displaying the previews and then the originals can be nearly instantaneous, or, depending on the size of your originals, there can be a short delay in the final display.

For more information about creating and working with previews, see [Preview images overview](#) on page 494.

To speed up the access and display of photos, you can turn on Quick Preview mode. In Quick Preview mode, Aperture displays preview photos only, without reading the larger originals. You can use Quick Preview mode to rapidly move to and select different photos. For example, you might use Quick Preview mode to quickly select and stack photos, add keywords, or change other metadata. When using Quick Preview mode, however, there are some things you can't do, such as make adjustments to photos. In Quick Preview mode, tools and functions that aren't available appear dimmed. Depending on your task, you may find switching to Quick Preview mode a great way to gain speedy access to photos.

### Turn on Quick Preview mode

Do one of the following:

- Choose View > Quick Preview (or press P).
- Click the Quick Preview button in the tool strip.

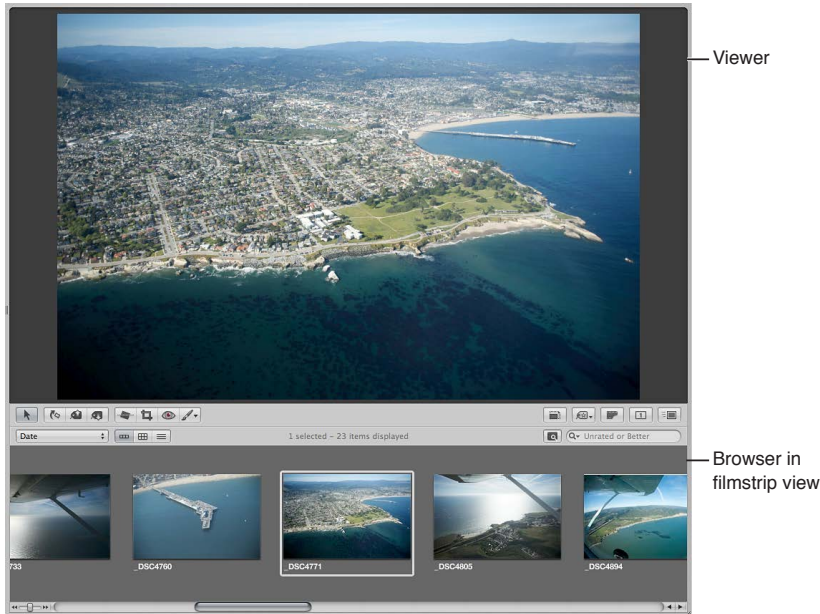


The Quick Preview button in the tool strip turns yellow, and the border around the photo selection in the Browser changes from white to yellow.

## Change the Browser view

### Work with photos in filmstrip view

Filmstrip view, the default view for the Browser, displays the photos in your selection in the Library inspector as a strip of thumbnails under the Viewer. You can use filmstrip view in combination with the Viewer to quickly scroll from photo to photo, making changes and comparing photos. For example, you can select several photos in a row, group them in a stack, apply ratings, and compare them side by side in the Viewer. You can use the Right Arrow and Left Arrow keys to quickly move from photo to photo, and you can use the scroll bar and the Shuttle control to scroll through photos. You can resize the thumbnails in the filmstrip by dragging the top of the filmstrip to enlarge its area.



### Switch to filmstrip view

Do one of the following:

- Choose View > Browser > Filmstrip (or press Control-F).
- Click the Filmstrip View button in the Browser.



**Note:** The main window must be set to the Split View layout in order to access the filmstrip in the Browser. When the main window is set to Browser, the Filmstrip View button disappears.

### Shuttle continuously through the photos in filmstrip view

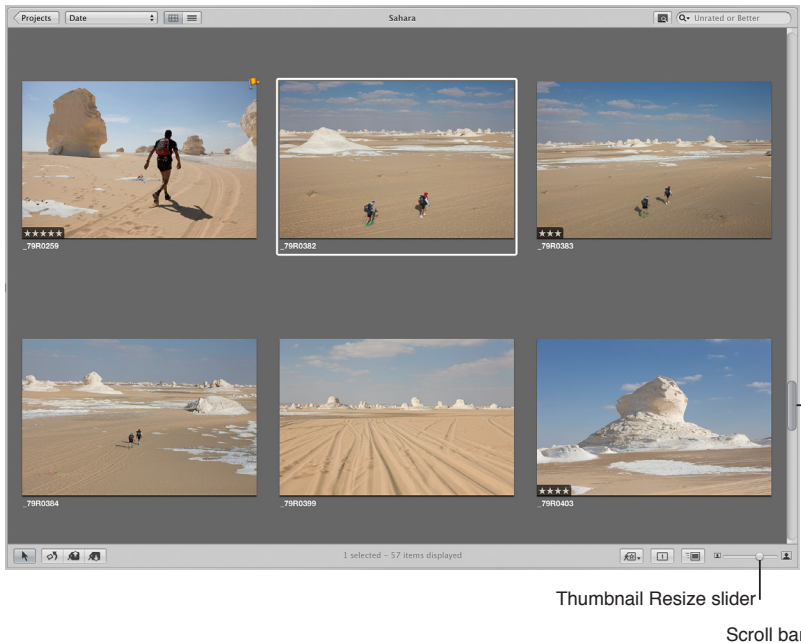
- Press J to shuttle left, press K to stop shuttling, or press L to shuttle right.

**Note:** Pressing J or L multiple times increases the shuttle speed.

## Work with photos in grid view

Grid view displays the photos in your selection in the Library inspector as a grid of thumbnails in the Browser. You can use grid view when you want to review large thumbnail photos quickly. Setting the Aperture main window to show the Browser by itself provides the maximum amount of space to dedicate to viewing thumbnails. You may want to adjust the size of the thumbnails to a size convenient for selecting and working with them. If your selection in the Library inspector has many photos, you can also use the Shuttle control or the scroll bar to scroll through the photos.

For more information about setting the Aperture main window to show the Browser by itself, see [Change the main window layout](#) on page 474.



### Switch to grid view

Do one of the following:

- Choose View > Browser > Grid (or press Control-G).
- Click the Grid View button in the Browser.



### Adjust the thumbnail size

- Drag the Thumbnail Resize slider to increase or decrease the size of the thumbnails.

### Shuttle continuously through the photos in grid view

- Press J to shuttle left, press K to stop shuttling, or press L to shuttle right.

**Note:** Pressing J or L multiple times increases the shuttle speed.

### Lighten or darken the background of the Browser

Depending on your work preferences, you may want to lighten or darken the background that your thumbnails appear against in the Browser. The darker the background, the less it interferes with the colors in your photo. It's a good idea to set the background to a dark color when performing color adjustments to your photo. You can darken the background from shades of gray all the way to black, or lighten it from gray to white.

- 1 Choose Aperture > Preferences, or press Command-Comma (,).
- 2 In the Preferences window, click Appearance and drag the Browser Background Brightness slider to lighten or darken the background, then close the window.

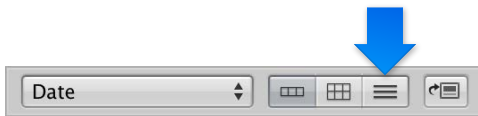
### Work with photos in list view

Instead of displaying thumbnails, list view displays photos by name and icon with accompanying information such as rating, image dimensions, file size, and date.

#### Switch to list view

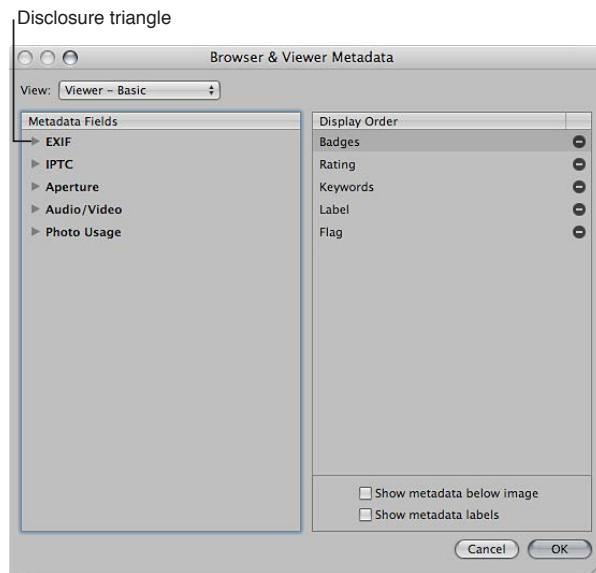
Do one of the following:

- Choose View > Browser > List (or press Control-L).
- Click the List View button in the Browser.



#### Choose what type of information is displayed in list view

- 1 Choose View > Metadata Display > Customize (or press Command-J).
- 2 In the Browser & Viewer Metadata dialog, choose a list view option from the View pop-up menu.



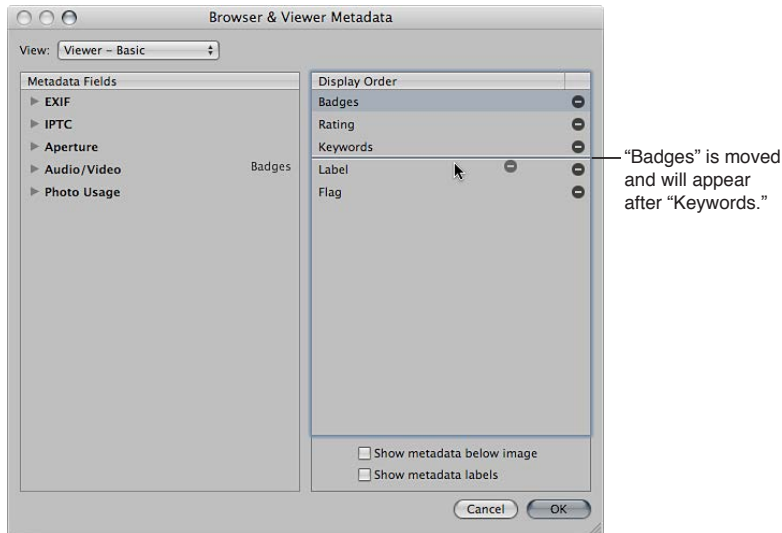
- 3 In the Metadata Fields column, click the disclosure triangles next to the main groups of metadata to reveal the options within them.

- Specify the type of metadata that appears in list view by selecting the checkboxes corresponding to each type (and deselecting the checkboxes for metadata items you want to remove).

Each metadata item selected in the Metadata Fields column in the Browser & Viewer Metadata dialog appears as a column in list view.

- If necessary, rearrange the order in which the metadata columns are displayed by dragging the metadata items up or down in the Display Order column.

The order of metadata selections in the Display Order column from top to bottom corresponds to the order of columns in the Browser in list view from left to right. Moving an item up in the Display Order column moves the metadata column to the left in list view.

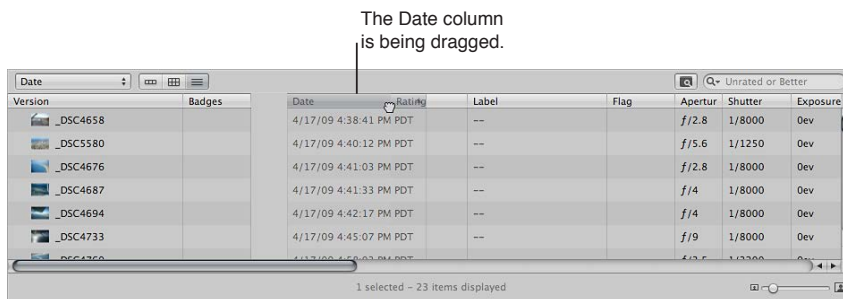


- When you're satisfied with your metadata selections and the order in which they will be displayed in list view, click OK.

### Rearrange the metadata columns in list view

You can rearrange the metadata columns to keep the most important information in view.

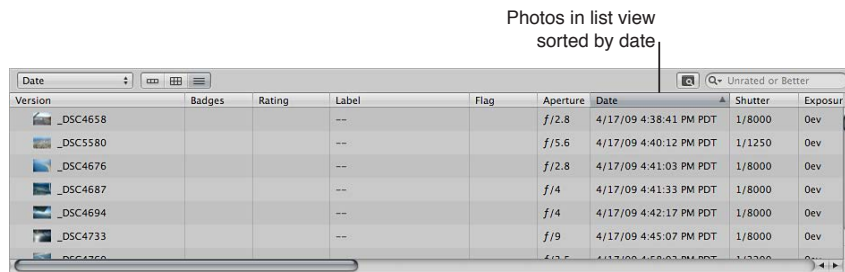
- Select the column's header and drag the column to a new position.



## Sort photos in list view by a category

One of the main advantages of list view is that you can quickly sort photos based on a category of information. When you click a column heading in list view, Aperture reorders the photos, sorting them by that category. For example, you might sort your photos by date.

- Click the category column heading in the Browser.



## Enlarge the thumbnail icons in list view

When you work in list view, it may sometimes be difficult to determine the content of a photo based on the file information. You can enlarge the thumbnail icons that appear in list view to give you a better look at the photos.

- Drag the Thumbnail Resize slider to increase or decrease the size of the icons.

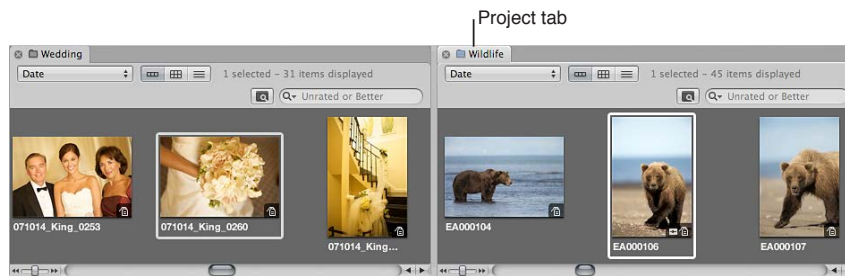
## Rename a photo version in list view

You can easily rename files after importing them. When you rename a file, you are renaming the photo version, not the original. The filename of the original does not change.

- Select a photo, then double-click the photo's version name and enter a new name.

## Work with two Browsers open

You can work with two items in the Library inspector open at once, splitting the Browser into a separate pane for each item.



## Split the Browser into two panes

- Select one item in the Library inspector, and Option-click a second item in the Library inspector.

The Browser splits into two panes and shows thumbnail images for both items.

You can also set different display options for each pane. For example, one pane may show photos in grid view and the other in list view. You may find that working with multiple Browser panes open allows you to easily copy or transfer the contents of one item in the Library inspector to another. You can also open multiple items in the Library inspector and display their contents in a single Browser. For more information about opening and closing multiple projects, see [Open and close items in the Library inspector](#) on page 54.

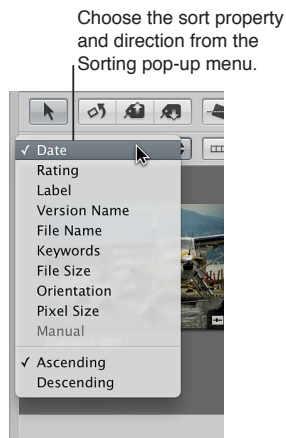
## Set up and arrange photos

### Rearrange and sort photos in the Browser

As you work with photos in the Browser, you can move and rearrange them into any order or grouping you like. For example, you might want to keep all related photos of a wedding project, such as the cake cutting, in close proximity to allow you to easily sort through the best ones and then adjust them.

You can drag photos to new locations in the Browser. When you drag photos to new locations, you create a custom arrangement of your photos, and the Sorting pop-up menu changes to show the Manual option. Aperture records the order of your photos, and whenever you choose Manual from the Sorting pop-up menu, your photos reappear in that order.

You can also change the order of photos in the Browser based on photo properties such as filename, file size, date, color label, rating, and more. For example, when displaying photos by filename, Aperture places the photos in alphabetical order. You might also order the photos by date or time. You choose the sort property from the Sorting pop-up menu in grid view, list view, and filmstrip view.



### Rearrange photos in the Browser

- *In grid view:* Drag the photos you want to rearrange to a new location; when the green bar appears, release the mouse button.
- *In list view:* Drag the photos you want to rearrange to a new location; when the blue bar appears, release the mouse button.

### Restore a manual arrangement of your photos in the Browser

- Choose Manual from the Sorting pop-up menu.

Aperture remembers the last time you moved photos and restores that arrangement.

### Change the displayed order of photos in the Browser

- Choose a sort property from the Sorting pop-up menu. Choose Ascending or Descending to specify an ascending or descending sort order.



## Rotate photos

When photos are imported into a project, some may be displayed in an incorrect orientation, requiring you to rotate them. The tool strip provides a Rotate tool for rotating selected photos counterclockwise. You can rotate photos individually or select a group and rotate them all at once. You can also select photos and quickly rotate them using keyboard shortcuts.

### Rotate photos individually

Do one of the following:

- Select the photo you want to rotate, then choose Photos > Rotate Counterclockwise (or press []), or choose Photos > Rotate Clockwise (or press []).
- Select a photo and click the Rotate tool in the tool strip to rotate the photo counterclockwise, or Option-click the Rotate tool to rotate the photo clockwise.



- Make sure no photos are selected, then select the Rotate tool in the tool strip, and click a photo to rotate it counterclockwise, or Option-click a photo to rotate it clockwise.

### Rotate a group of selected photos

Do one of the following:

- Select a group of photos, then choose Photos > Rotate Counterclockwise (or press []), or choose Photos > Rotate Clockwise (or press []).
- Select a group of photos, then click the Rotate tool in the tool strip to rotate the photos counterclockwise, or Option-click the Rotate tool to rotate the photos clockwise.



## Create versions of a photo

Occasionally, you may want to make a second version of a photo. For example, you might want to create another version of a photo and apply different exposure settings or other adjustments, or change it for a specific use, such as placement in a webpage or book.

You create a new photo version by duplicating either the original image or the currently selected version. When you duplicate a version, all of the changes you've made to the first version are carried over to the new version. If you've made a series of adjustments to a photo and now you want to start from the original photo and make different adjustments, you can duplicate the original and start with a fresh, unchanged photo. In contrast, if you plan to use the same adjustments in multiple versions, you can make those adjustments first and then duplicate the version with the adjustments applied.

### Create a new version from an original

- 1 Select the photo you want to duplicate.
- 2 Choose Photos > New Version From Original (or press Option-G).

### Duplicate the selected photo version

- 1 Select the photo you want to duplicate.
- 2 Choose Photos > Duplicate Version (or press Option-V).

## Delete photos from the Browser

If necessary, you can delete versions and even originals.

When deleting photos, you can:

- Remove a version of the photo from an album, leaving any other versions in their original locations in the library
- Delete versions from within a stack
- Delete a version from a project
- Delete originals

### Remove a version from an album

- Select the version and choose Photos > Remove From Album (or press Delete).

### Delete an original

When a photo is represented in the Browser by a single version, you can select the version and delete it, and the corresponding original is deleted as well.

- 1 Select a version.
- 2 Choose File > Delete Version (or press Command-Delete).

The original and its version are moved to the Aperture Trash. For more information, see [Work with the Aperture Trash](#) on page 56.

### Delete a version from a stack

When you create new versions of a photo, you can set Aperture to group the versions in a *stack*—a set of related photos that can be shown side by side in the Browser for comparison purposes. You can delete a version from such a version stack. For more information, see [Create stacks](#) on page 93.

- 1 Click the Stack button to open the stack, and select the version you want to delete.
- 2 Choose File > Delete Version (or press Command-Delete).

The deleted version is moved to the Aperture Trash. For more information, see [Work with the Aperture Trash](#) on page 56.

### Delete a version from a project

- Select a photo, a video clip, or an audio clip, and choose File > Delete Version.

The version is moved to the Trash, along with the original if you deleted its last version.

### Delete a version stack and its original

You can select a stack containing versions of the same image and delete all the image versions in the stack as well as the original.

- 1 Select the stack you want to delete.
- 2 Choose File > Delete Original Image and All Versions.

The original and all its versions are moved to the Aperture Trash. For more information, see [Work with the Aperture Trash](#) on page 56.

### Recover a deleted photo

If you accidentally delete a photo you meant to keep, and you can't recover it by choosing Undo, you may be able to recover it from the Aperture Trash.

- 1 In the Library inspector, select Trash.

All photos currently in the Aperture Trash are displayed in the Browser.

- 2 Do one of the following:

- Drag the photo you accidentally deleted back to its original project.
- Control-click the accidentally deleted photo and choose Put Back from the submenu.

If you've already emptied the Aperture Trash, you may be able to recover the photo from the Finder Trash. If you've already emptied the Finder Trash, but you backed up your library before deleting the photo, you may be able to restore the project containing the deleted photo from the vault. If you updated your vault after emptying the Aperture Trash, the vault won't contain the deleted photo.

### Rename original image files

At times, you may want to rename original image files to match the names you've assigned to the photo versions in Aperture. Although Aperture keeps track of your originals regardless of what they are named, it's often useful for your image filenames to match inside and outside of Aperture—especially when the originals are referenced images. For more information about working with referenced images, see [Work with referenced images](#) on page 67.

#### Rename originals

- 1 In the Browser, select a photo or group of photos.
- 2 Choose Metadata > Batch Change (or press Shift-Command-B).
- 3 In the Batch Change dialog, choose a naming convention from the Version Name Format pop-up menu to specify how you want the originals named.

For example, choose Version Name from the Version Name Format pop-up menu to have your original filenames changed to match the names of the corresponding versions in Aperture. If you choose a custom name format, enter the name you want in the Custom Name text field. For more information about naming files, see [Automatically name imported photos](#) on page 37.

- 4 Select the Apply to Original Files checkbox, then click OK.

The original files corresponding to the selected photos are renamed. For more information about working with the Batch Change dialog, see [Batch change metadata](#) on page 212.

### Drag photos into different projects and albums

You can drag photos into different projects and albums. Depending on where you drag a photo, Aperture either moves or copies the photo to the new location.

As a general rule, when you drag a photo into a different *project*, Aperture moves the photo into the new project.

When you drag a photo into a different *album*, Aperture creates a duplicate version of the photo and places it in the album. A photo can be copied into any album in the same project or into albums in different projects. The destination album can be an album, book album, Light Table album, slideshow, or web journal or webpage album.

### Copy a photo into a different album

- Drag the photo into another album in the Library inspector.

### Move a photo into a different project

- Drag the photo into another project in the Library inspector.

### Copy a photo into a different project

- Option-drag the photo into another project in the Library inspector.

You can also drag photos out of Smart Albums. If you drag a photo from a Smart Album into another album, the version is copied to the new location. If you drag a photo into a project different from the project that contains the Smart Album, Aperture moves the photo to the destination project. All links to versions in other albums are maintained. For more information about working with Smart Albums, see [Collect photos in a new Smart Album](#) on page 156.

## Stack photos and make picks

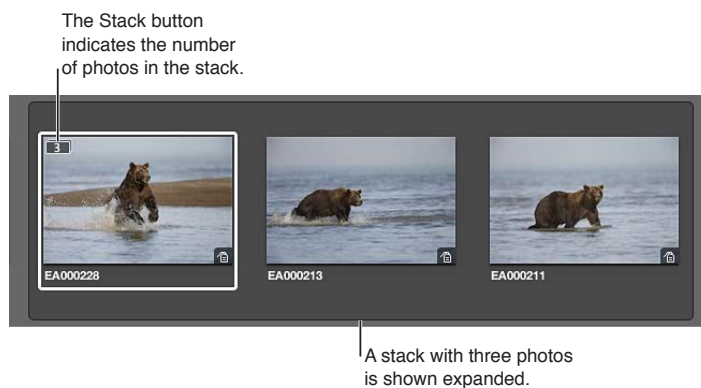
### Stacking photos overview

To capture a specific moment in time, such as a bride and groom kissing or a student soccer player kicking the winning goal, a photographer may shoot multiple photos, using both bracketing and continuous shooting, to increase the odds of capturing a usable photo. After shooting the series, the photographer reviews the images and picks the best photo of the group.

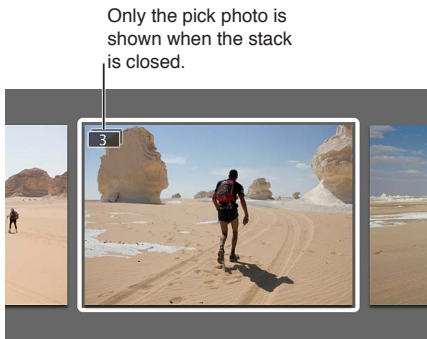
Reviewing and making picks from many related photos can be time-consuming and difficult. Aperture makes it simple to choose the best photo out of a series by allowing you to group related photos into sets, called *stacks*, that are easy to review, work with, and select final picks from.

Aperture can automatically create stacks by grouping photos that were shot in quick succession, or by grouping multiple versions of the same photo. You can also select photos and create stacks manually.

A stack appears in the Browser as a group of thumbnail images. The photo that represents the stack, called the *pick*, is selected and displayed on the left. You can select any photo in the stack as the pick, and it moves to the leftmost position in the stack. You can rearrange the order of photos in a stack. For example, you might choose an alternate photo and position it next to the pick. A Stack button appears in the upper-left corner of the pick photo in the stack, indicating the number of photos in the stack.



After creating a stack and selecting the pick, you can close the stack by clicking the Stack button on the pick photo. When a stack is closed, only the stack's pick photo appears in the Browser. Clicking the Stack button again expands the stack.



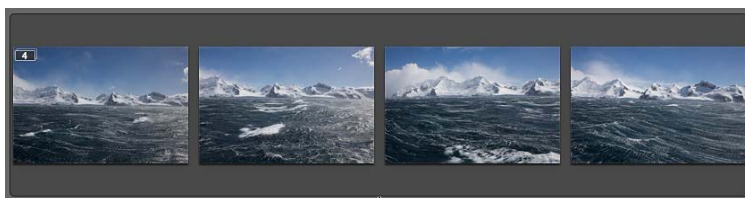
By closing stacks, you quickly reduce the number of photos you have to visually sort through when selecting photos in the final photo edit.

After creating stacks, you can organize and change them as needed. You can add photos to a stack and remove those that don't belong. You can also split a stack into multiple stacks if necessary.

**Important:** When you open an Aperture library in iPhoto, only stack picks are shown. The photos within stacks are not shown or accessible, but they are not discarded. To work with your photos within stacks, open the Aperture library in Aperture.

## Create stacks

You can create stacks in two ways: specify that Aperture create stacks automatically, or you can create stacks manually. For example, if you shoot a series of photos in quick succession (such as at a sports event) or if you bracket photos to allow for differences in lighting or exposure, you most likely will want to view those photos together. Aperture can stack those photos automatically based on metadata recorded by the camera as the series of pictures is taken.



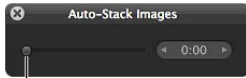
A series of photos taken in quick succession.

You can also have Aperture automatically group new versions of the same photo as you create them.

### Stack photos automatically

- 1 In the Library inspector, select a project or an album that contains the photos you want to stack.
- 2 Choose Stacks > Auto-Stack (or press Option-Command-A).

- 3 In the Auto-Stack Images HUD, drag the slider to specify the maximum interval for successive shots in a stack.



Move the slider to indicate the maximum interval for successive shots.

As you drag the slider, the photos in the Browser are stacked according to the interval of time specified. For example, if you typically shoot a series of related photos in 15-second intervals, set the slider to 15 seconds.

- 4 Inspect the stacks to determine if the time interval should be shortened or lengthened.

**Note:** You can also manually select photos in the Import browser and stack and unstack them using the same commands and procedures you use to stack photos in the Browser.

#### Create new version stacks automatically

- 1 Choose Aperture > Preferences, or press Command-Comma (,).

The Aperture Preferences window appears.

- 2 Click the General button, then select the “Automatically stack new versions” checkbox.

#### Create a stack manually

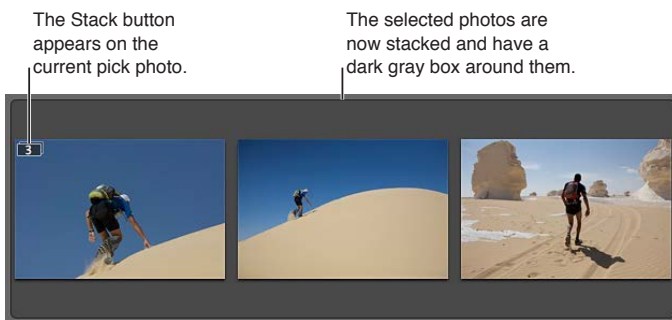
After importing photos, you may want to quickly review them and delete those that you immediately see have technical or content flaws. You may then want to group the remaining photos into stacks before rating them. Stacking photos manually can help provide an initial organization and an overview of your shots, which you can then put through a more refined or discriminating rating pass later.

- 1 In the Browser, select the photos you want to stack.

You can Shift-click adjacent photos and Command-click nonadjacent photos to select them.

**Tip:** To quickly select a series of photos, select a photo at one end of the series, hold down the Shift key and press the Right Arrow or Left Arrow key to select additional photos.

- 2 Choose Stacks > Stack (or press Command-K).



The Stack button appears on the current pick photo.

The selected photos are now stacked and have a dark gray box around them.

The selected photos are now stacked and appear linked in gray. The Stack button appears as an overlay on the top-left portion of the current pick photo in the Browser. You can change the pick photo and rearrange the order of the photos in the stack as you wish.

#### Unstack a selection of photos

- After creating a stack, choose Edit > Undo, or select a photo in the stack and choose Stacks > Unstack (or press Shift-Command-K).

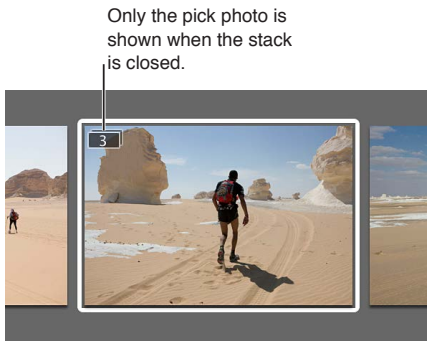
## Open and close stacks

You can close a stack and open it again whenever you wish. You may want to do this to free up space in the Browser. You can also close stacks to quickly reduce the number of photos you must sort through visually when selecting photos for a final photo edit. When a stack is closed, only the stack's pick photo appears in the Browser.

### Close or open a stack

- *To close a stack:* Select an open stack, then choose Stacks > Close Stack (or press Shift-K).
- *To open a stack:* Select a closed stack, then choose Stacks > Open Stack (or press Shift-K).

You can also close or open a stack by clicking the Stack button on the pick photo.



### Close or open all stacks

- *To close all stacks:* Choose Stacks > Close All Stacks, or press Option-Semicolon (;).
- *To open all stacks:* Choose Stacks > Open All Stacks, or press Option-Apostrophe (').

## Set a pick photo for a stack

The pick photo represents the stack. You can set the photo you like best as the pick, or Aperture can set the pick automatically. When you select and stack photos manually in the Browser, the leftmost photo becomes the pick. You can change the pick whenever you wish.

If the same stack appears in several albums, you can assign a different pick photo for the stack in each album. For example, a stack in a webpage album may have one pick photo, and the same stack in a book album may have a different pick photo adjusted for printing. An album pick appears with the Album Pick badge at the top of the image's thumbnail in the Browser.



### Set a photo as the stack pick

Do one of the following:

- Select a photo in the stack, then choose Stacks > Pick, or press Command-Backslash (\).
- Drag the photo you want into the pick (or leftmost) position in the stack. When you see a green bar appear, release the mouse button.

### Select an album pick for a stack that appears in multiple albums

- Select a photo in the stack, then choose Stacks > Set Album Pick, or press Shift-Command-Backslash (\).

To clear an album pick from a stack, choose Stacks > Clear Album Pick, or press Shift-Command-Backslash (\) again.

## Work with stacked photos

You can change the order of photos in a stack, add or remove photos in a stack, split a stack into multiple stacks, and drag a stack (or photos within a stack) to a new location.

### Promote a photo in a stack

You can change the order of photos within a stack to help you choose the pick and alternates. Moving a photo to the left promotes it; moving it to the right demotes it.

- *To promote a photo:* Select a photo, then choose Stacks > Promote, or press Command–Left Bracket ([]).
- *To demote a photo:* Select a photo, then choose Stacks > Demote, or press Command–Right Bracket (]).

You can also drag a photo to a new location in a stack. When you see a green bar appear, then release the mouse button.

### Add or remove photos in stacks

You can add photos to and remove photos from stacks at any time. You can drag photos into or out of a stack, and you can also drag photos from one stack to another.

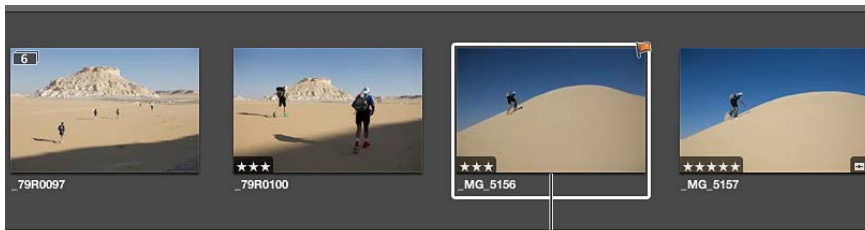
- *To add a photo:* Select the photos in a stack and the photo you want to add to the stack, then choose Stacks > Stack (or press Command-K).
- *To remove a photo:* Select the photo, then choose Stacks > Extract Item (or press Option-Shift-K).

You can also drag photos into or out of expanded stacks.

### Split a stack

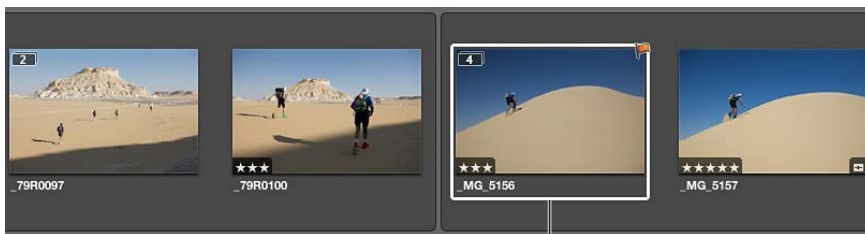
You can split a stack into multiple stacks to refine the organization of your photos. All photos remain stacked, but they are now part of new stacks. The photo selected as the splitting point becomes the pick for the new stack.

- 1 In an expanded stack, select the photo that you want as the first photo in a new stack.



Select the photo you want as the first image in the new stack.

- 2 Choose Stacks > Split Stack (or press Option-K).



The selected image becomes the pick in the new stack, which is marked with a white outline.



### Drag a stack to a new location

- With the stack closed, drag the stack to a new location in the browser.

The entire stack is relocated.

You can also drag photos into or out of a stack. However, if you drag a photo within a stack into a new project, the entire stack moves to the new location.

When you drag a stack into a webpage album, web journal album, book album, or slideshow album, the entire stack appears in the Browser, but only the stack picks can be used for publication in webpages, web journals, books, and slideshows.

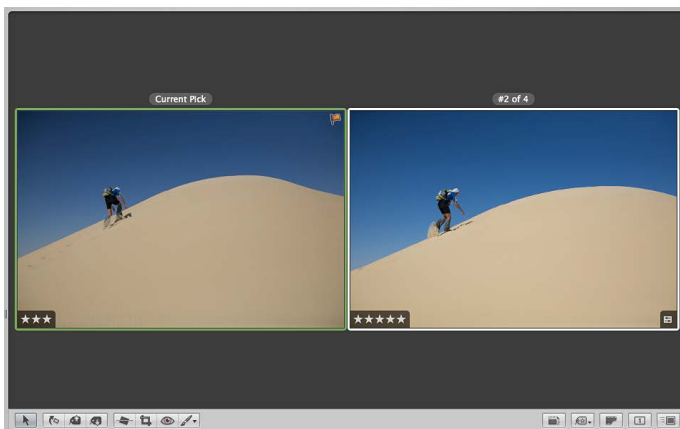
### Compare photos in stacks

You can see a side-by-side comparison of the pick and any any other photo in a stack using the stack-viewing feature. When you enable this feature, clicking a stack in the Browser opens the stack and displays its pick in the Viewer alongside the next leftmost photo in the stack. You can change the comparison photo by clicking any other photo in the stack.

This stack-viewing feature also works in full-screen view.

### Set the Viewer to open and compare two photos in a stack

- Choose View > Main Viewer > Stack (or press Option-T).



The pick photo and the photo to its immediate right in the stack open in the Viewer. The pick photo is surrounded by a green border, and the alternate photo is surrounded by a white border.

**Tip:** When the Viewer is in Stack mode, you can press the Up Arrow and Down Arrow keys to move from stack to stack.

### Select another alternate photo

Do one of the following:

- Press the Left Arrow and Right Arrow keys.
- Select any photo in the stack.

### Promote or demote the alternate photo in the stack

- *To promote the alternate photo:* Press Command–Left Bracket ([).
- *To demote the alternate photo:* Press Command–Right Bracket (]).

The alternate photo moves one position left or right in the Browser.

### Set the alternate photo as the stack pick photo

- Press Command-Backslash (\).

The photo moves to the far left of the stack, becoming the pick photo.

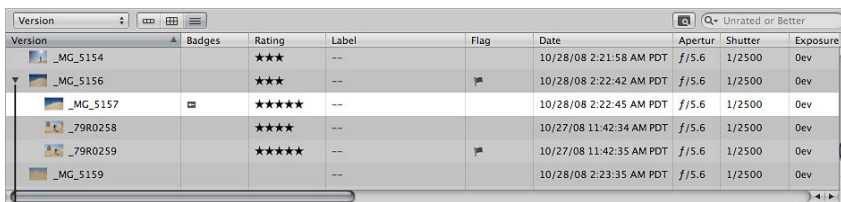
### Stop comparing photos in a stack

Do one of the following:

- Press Command-Return.
- Choose another option from the View > Main Viewer menu.
- Select a photo in the Browser that is not in a stack.

## Work with stacks in list view

If you prefer, you can create and work with stacks in list view. You can select photos to stack, select a pick, add and remove photos, and split stacks, just as you can in filmstrip view and grid view.



Click the disclosure triangle to the left of the pick photo to view the photos within the stack.

In list view, a stack is identified by a disclosure triangle beside the name of the pick photo.

### Open and close stacks in list view

- Click the disclosure triangle beside the name of the pick photo.

You can work with the photos in a stack in list view by dragging, pressing keyboard shortcuts, or choosing commands from the Stacks menu.

## Rate photos

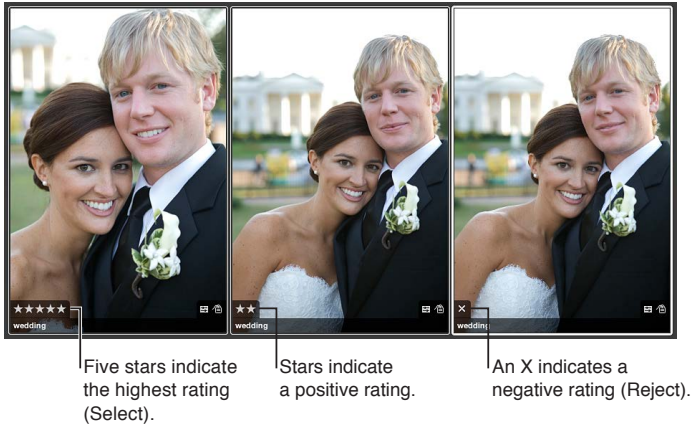
### Rating photos overview

Rating photos is a quick and easy way to narrow down the number of photos you intend to work with. It can also help you locate your best photos later.

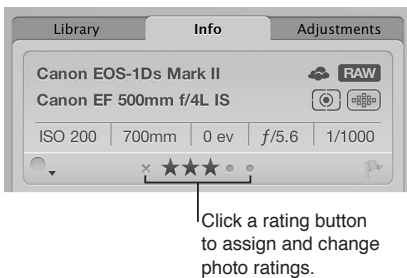
After finishing a shoot, photographers typically review their photos and determine which ones are worth working with. Although a “yes or no” appraisal of a photo can work with a small selection of photos, with a larger collection of similar photos that show small variations, photographers need an organized method of noting which photos are superior shots, which deserve further review, and which are poor quality or rejects. A simple and effective rating system can help you narrow the number of photos to focus on during the selection process.

Rating is a simple process with powerful results. If you can easily identify 100 out of 500 photos that aren't going to work, removing these photos reduces your workload by 20 percent.

Aperture provides a system for rating photos from Select to Reject. The easily decipherable photo ratings appear on the photos themselves as overlays. Positive ratings appear as stars; you can rate photos from one to five stars, with five being the highest, or Select, rating. A negative, or Reject, rating appears as an X.



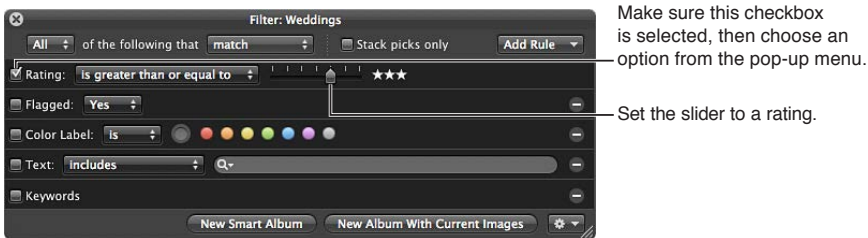
The process of rating a photo can be as easy as selecting a photo and clicking a rating button in the Info inspector.



You can also use keyboard shortcuts to quickly assign or change ratings.

You can select and rate multiple photos at once. You can review and rate photos in the Viewer, Browser, and Light Table, as well as in full-screen view. When you've finished rating photos, Aperture allows you to sort photos according to their ratings.

You can use the Filter HUD to hide or show photos of a certain rating. For example, after an initial rating pass, you can set the Filter HUD to show only those photos that are rated one star. You can then closely inspect and further refine your selection or begin an adjustment pass. Aperture is preset to hide photos that are rated Reject, so you may need to change the Filter HUD settings to see rejected photos.



Rejected photos appear with a white X overlay. Positive ratings appear with white star overlays. If no overlays are displayed on the photo, the photo is considered neutral or is not rated.

## Rating workflow

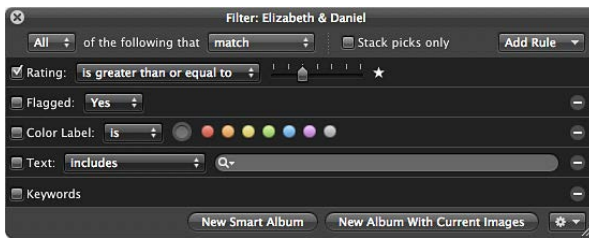
You can use photo rating as part of your workflow to help reduce a large group of photos to a smaller group of preferred photos. Sometimes you can accomplish the selection process in one pass, especially if the group of photos is small. If the group is large, additional rating and culling passes may be necessary.

Rating photos with multiple passes can allow you to take a measured approach to the photo editing process. You can systematically rate photos and then remove levels of rated photos from view to work with your best photos.

Here is a suggested workflow for rating photos in multiple passes.

### Rate photos in multiple passes

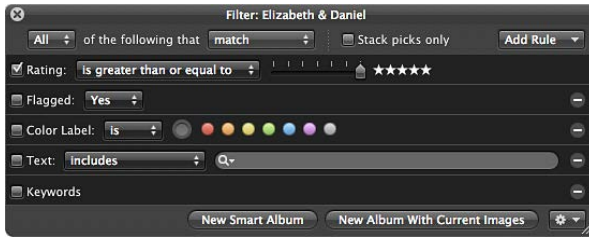
- 1 Begin by assigning a Reject rating to all photos that are clearly unacceptable.  
If the Filter HUD is set to show unrated photos or better (the default setting), the rejected photos immediately disappear.
- 2 In the next rating pass, assign positive ratings to any photos that deserve a rating of one star or better. Leave photos you're uncertain about unrated.
- 3 To hide all unrated photos, show the Filter HUD and specify a rating that is greater than or equal to one star as search criteria.



Only photos with a rating of one star or better remain visible in the Browser.

- 4 In the next rating pass, assign a rating of two stars to any photos that are better than one star.
- 5 Change the search criteria in the Filter HUD to show only those photos that are rated two stars or better.
- 6 In the next rating pass, assign a rating of three stars to your photos that are better than two stars.
- 7 Change the search criteria in the Filter HUD to show only those photos that are rated three stars or better.
- 8 In the next rating pass, assign a rating of four stars to your photos that are better than three stars.
- 9 Change the search criteria in the Filter HUD to show only those photos that are rated four stars or better.
- 10 In the next pass, assign a rating of five stars, or Select, to your best photos.

- 11 Specify a rating that is equal to five stars in the Filter HUD.



Only the photos rated Select remain visible in the Browser. Now you can focus on those photos that deserve your attention.

You can also set up a series of Smart Albums in a project, where each Smart Album represents a rating from Reject to Select. As you rate your photos in the project, the Smart Albums gather the photos with matching ratings. You can then review the photos in each Smart Album to verify they belong in the Smart Album's rating category. As you progressively change the ratings on your photos, the contents within the Smart Albums you set up change dynamically to gather the photos that correspond to their rating setting.

For more information about working with Smart Albums, see [Collect photos in a new Smart Album](#) on page 156.

## Rate and compare photos

You can quickly rate a selected photo using the rating buttons in the Info inspector or in the control bar.

For quick and efficient rating, you use the arrow keys to select photos and then use the appropriate keyboard shortcuts to apply ratings. For more information about keyboard shortcuts used to apply ratings to photos, choose Help > Keyboard Shortcuts.

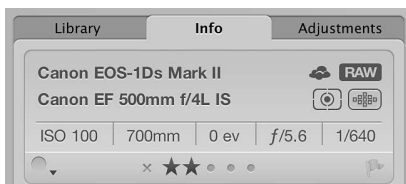
You can also apply a rating to several photos at once. If the photos are already assigned various ratings, you can increase and decrease their ratings by equivalent amounts, such as one star.

For those really tough decisions, Aperture allows you to compare and rate a Select photo against close alternates. This is particularly useful when you are trying to choose a photo from a small group of similarly composed photos.

For example, choosing the best photo from a series of head shots can be difficult. Even in head shots captured within a short time span, the facial expressions of the subject can change ever so slightly. By comparing photos side by side and rating them, you can more easily choose among like photos.

### Rate an individual photo using the rating buttons in the Info inspector

- 1 Select a photo.
- 2 In the Info inspector or the Info pane of the Inspector HUD, click a rating button.

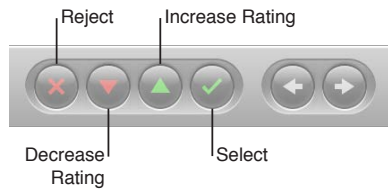


Click a rating button to assign and change photo ratings.

**Note:** As long as the photo is selected, you can change its rating.

### Rate an individual photo using the rating buttons in the control bar

- 1 Select a photo.
- 2 To show the control bar, choose Window > Show Control Bar (or press D).
- 3 Click the rating buttons in the control bar to assign a rating.



- To assign the highest rating to the photo: Click the Select button.
- To assign a rating of Reject: Click the Reject button.
- To increase or decrease the photo rating: Click the Increase Rating or Decrease Rating button.

**Note:** As long as the photo is selected, you can change its rating.

- 4 To select the next photo, press the Right Arrow or Left Arrow key, or click the left arrow or right arrow button in the control bar.

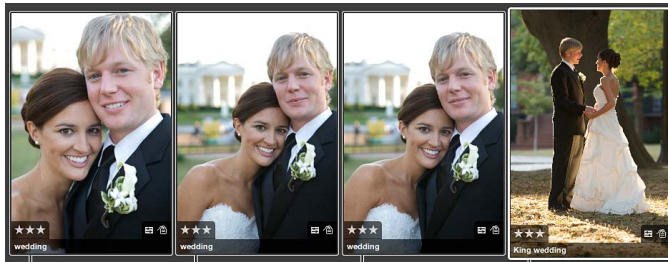
### Apply the same rating to multiple photos at once

- 1 Select the photos you want to rate.

For more information, see [Select photos](#) on page 81.


- 2 Click a rating button in the control bar, or press the keyboard shortcut for a rating.

For more information about keyboard shortcuts used to apply ratings to photos, open Aperture and choose Help > Keyboard Shortcuts.

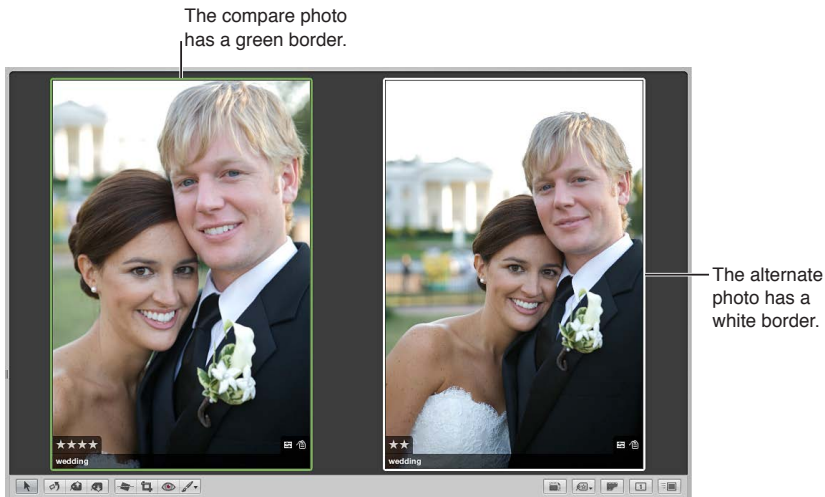


The rating you assign is displayed on all the selected photos.

### Compare and rate photos

- 1 Make sure the Browser and Viewer are showing by clicking the Split View button  in the toolbar.
- 2 In the Browser, select the photo that appears to be the best.
- 3 To set this photo as the “compare” photo, choose View > Main Viewer > Compare (or press Option-O).

The compare photo appears in the Viewer and the Browser with a green border. The next selected photo appears with a white border immediately to the right of the compare photo. If you want to view another photo against the compare photo, simply select it. The alternate photo you selected appears to the right of the compare photo in the Viewer.



If you have a second display and want to view each photo on a different display, choose View > Secondary Viewer > Span (or press Option-S).

**4** Rate your compare photo by doing one of the following:

- *To assign the Select rating:* Press Option-Backslash (\).
- *To increase the compare photo's rating:* Press Option-Equal Sign (=).
- *To decrease the compare photo's rating:* Press Option-Hyphen (-).

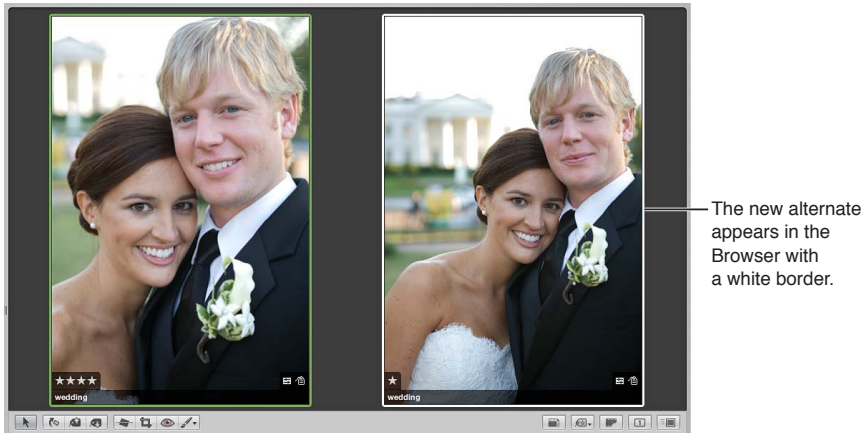
The rating appears as an overlay on the compare photo.

**5** Rate the alternate photo by doing one of the following:

- *To assign the Select rating:* Press Backslash (\).
- *To increase the photo's rating:* Press Equal Sign (=).
- *To decrease the photo's rating:* Press Hyphen (-).
- *To assign the Reject rating:* Press 9.

The rating appears as an overlay on the alternate photo.

- 6 Navigate to the next alternate by pressing the Left Arrow or Right Arrow key or by clicking the left arrow or right arrow button in the control bar.



If you discover that the new selection is a better choice or has the best rating, you can make it the compare photo by pressing Return or choosing Edit > Set Compare Item. You can then review and compare your alternates against this photo to confirm it as the best photo.

- 7 Press Command-Return to turn off the comparison feature.

### Sort photos by rating

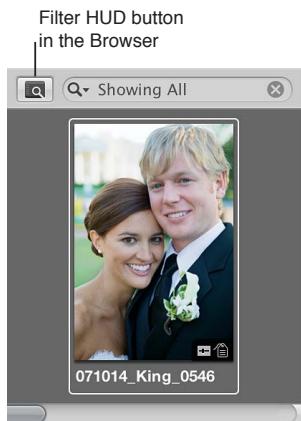
After you've rated your photos, you can sort photos according to a specific rating. For example, after an initial rating pass, you can choose to show only those photos rated Select, with five stars. You can then closely inspect and further refine your selection or begin making image adjustments. You can sort photos by rating using either the pop-up menu in the Browser's search field or the Rating controls in the Filter HUD.

**Note:** Original image files are not deleted when sorted by rating. They are only temporarily removed from view.

For more information on using the Browser's search field to sort photos by rating, see [Search for and display photos](#) on page 150.

### Sort photos by rating using the Filter HUD

- 1 Show the Filter HUD by doing one of the following:
  - Choose Edit > Find (or press Command-F).
  - In the Browser, click the Filter HUD button next to the search field.





## 2 Select the Rating checkbox.



## 3 Choose an option from the Rating pop-up menu.

- To show photos with a specific rating only: Choose “is.”
- To show photos with a specific rating or better: Choose “is greater than or equal to.”
- To show photos with a specific rating or worse: Choose “is less than or equal to.”

## 4 Drag the Rating slider to specify a rating.

The Browser instantly displays only photos that meet the specified rating criteria.

### View all photos again

Do one of the following:

- Deselect the Rating checkbox in the Filter HUD.
- Press Control-6.

### View all photos that are unrated or better

- Press Control-Grave Accent (`).

### View rejected photos only

- Press Control-8.

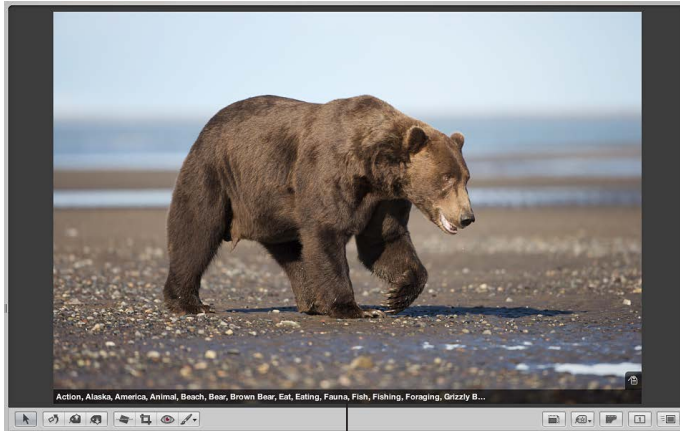
## Add keywords to photos

### Keywords overview

Keywords are descriptive words assigned to photo versions and saved as metadata. For example, a family portrait may include such keywords as *Portrait, Family, Father, Mother, Daughter, Husband, Wife, Park, Client, Select, Purchased*, and more.

Adding keywords to your photos helps you organize your photos and quickly locate specific photos.

After you've applied keywords to your photos, you can have Aperture display a photo's keywords in the Viewer and Browser. You can also view keywords for selected photos in the Info inspector.



Keywords assigned to a photo

You can use the Smart Settings HUD to quickly locate photos by their keywords, and you can use Smart Albums to automatically group photos that have specific keywords assigned. For example, you can create a Smart Album at the library level named *Purchased*, which automatically groups all photos with the keyword *Purchased*. If you want to quickly review the photos your clients bought over time, all you have to do is open the Smart Album named *Purchased*.

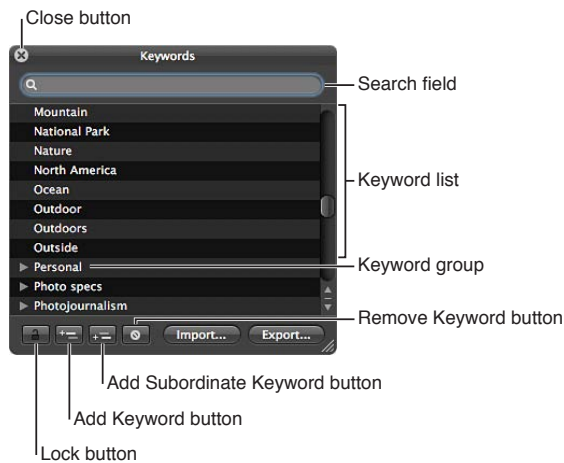
You can also apply keywords to photos based on your future intentions. For example, you can create a Smart Web Page Album that gathers photos that have a *For Web* keyword applied. As you're reviewing your photos, apply the keyword *For Web* to any photo you think is worthy of being published on your website. All photos with the keyword *For Web* are now collected in the Smart Web Page Album. If you later change your mind about publishing a photo on your website, you can always remove the keyword. As soon as you remove the keyword, the photo is removed from the Smart Web Page Album.

If you sell your photos to image libraries, you can export the keywords assigned to your photos as IPTC data. During export, Aperture embeds your keywords individually in the image file as IPTC-compliant keyword fields. The more keywords you apply to your photos, the more likely it is that your photos will be located by potential customers. For more information, see [Apply IPTC metadata and keywords to your photos](#) on page 370.

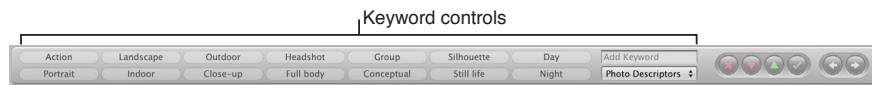
**Important:** If you're planning to export your keywords as IPTC data, make sure your keyword phrases are no more than 64 characters in length. Longer keyword phrases may not be displayed properly in other IPTC editors or operating systems.

There are several ways to apply keywords:

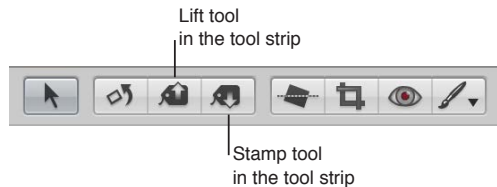
- Using the Keywords HUD



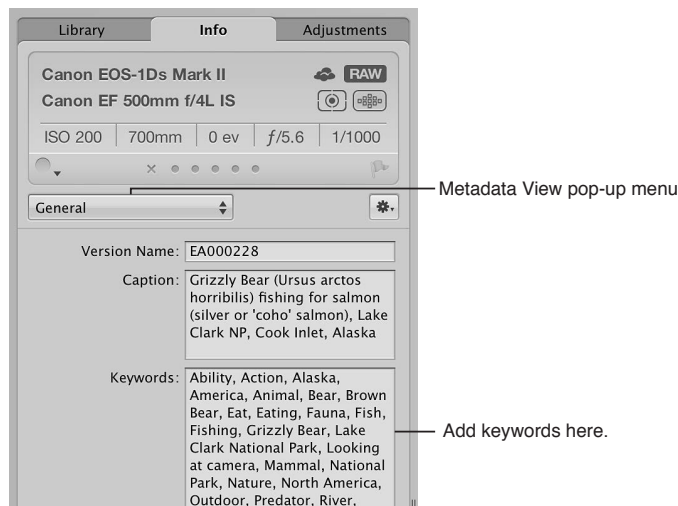
- Using keyword controls, presets, and the keyword field in the control bar



- Using the Lift and Stamp tools via the Lift & Stamp HUD



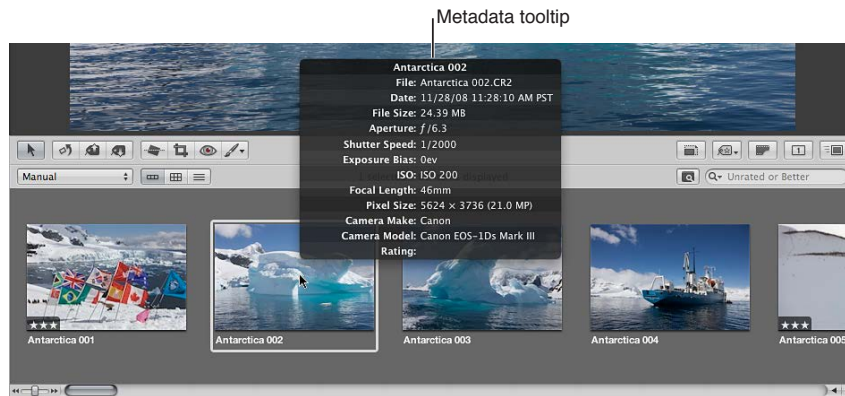
- Using the Info inspector



You can turn on the display of photo keywords in the Viewer and Browser using metadata overlay views. Your keywords are displayed in overlays that appear across the bottom of the photo or below the photo. However, you must choose a metadata view that includes keywords, such as General or Caption & Keywords.

For more information about turning on metadata overlays in the Viewer and Browser, see [Metadata overlays overview](#) on page 201.

You can also view a photo's keywords using metadata tooltips—floating info windows that appear when you position the pointer over a photo in the Browser or Viewer. You turn metadata tooltips on and off by pressing Control-T.

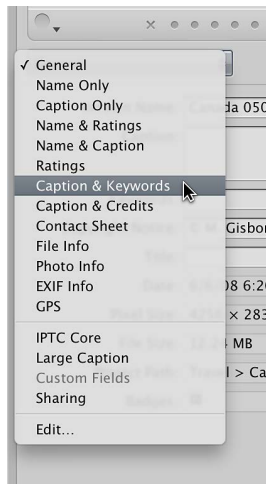


### View a photo's keywords

You can view a photo's keywords in the Info inspector, in the Info pane of the Inspector HUD, or in the Browser when it's set to list view.

#### View a photo's keywords in the Info inspector

- 1 Show the Info inspector by doing one of the following:
  - Choose Window > Show Inspector (or press I), then click the Info tab.
  - Click the Inspector button in the toolbar, then click the Info tab.
- 2 Choose a metadata view that includes keywords, such as General or Caption & Keywords, from the Metadata View pop-up menu.



- 3 In the Browser, select a photo to see its keywords.

Any keywords applied to the selected photo appear in the Keywords field of the Info inspector.

## View a photo's keywords using the Info pane of the Inspector HUD

- 1 Show the Info pane of the Inspector HUD by choosing Window > Show Inspector HUD (or pressing H), then click the Info button.
- 2 Choose a metadata view that includes keywords, such as General or Caption & Keywords, from the Metadata View pop-up menu.



- 3 Select a photo to see its keywords.

Any keywords applied to the selected photo appear in the Keywords field of the Info pane of the Inspector HUD.

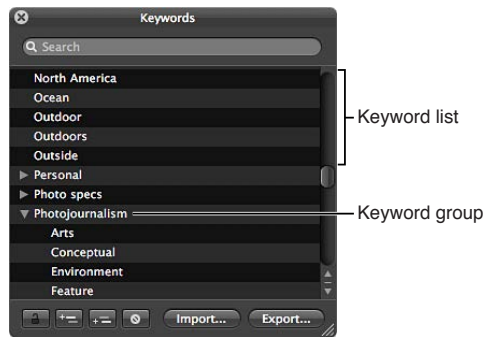
## View keywords in the Keywords column of the Browser

When the Browser is set to list view, Aperture can display a column that shows the keywords assigned to photos.

- 1 To set the Browser to list view, click the List View button (or press Control-L).  
The Browser switches to list view.
- 2 Choose View > Metadata Display > Customize (or press Command-J).  
The Browser & Viewer Metadata dialog appears.
- 3 Select a list view option from the View pop-up menu.
- 4 Make sure the Keywords checkbox is selected in the Metadata Fields column by clicking the IPTC and Content disclosure triangles.  
The Keywords checkbox can be found in the Content category.
- 5 Click OK.
- 6 In the Browser, you can resize the Keywords column by dragging the edge of the column heading to view all the keywords assigned to the photo.  
The keywords for each photo appear in the Keywords column.

## Apply keywords using the Keywords HUD

The Keywords HUD provides an efficient way to apply keywords to photos. You simply drag keywords to any photo or selection of photos in the Viewer or Browser.



The Keywords HUD contains a predefined library of keywords that you can browse and search. You can also add new keywords, remove keywords, and create keyword groups. For example, if you added the keyword *Fish* to your list, you might want to add *Angelfish*, *Dolphin*, *Tuna*, and *Shark* under the *Fish* keyword to further define your photos.

The Keywords HUD is automatically updated with any keywords you add. For example, when you enter a new keyword in the Info inspector, that keyword also appears in the Keywords HUD. When you change a keyword—by changing its spelling or capitalization, for example—the keyword is updated on all photos that have that keyword assigned.

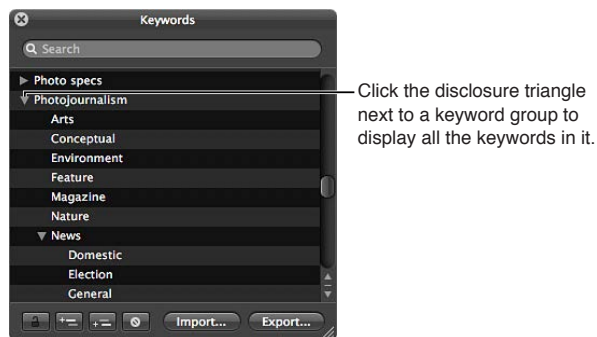
When entering a large group of keywords in the Keywords HUD, it's not uncommon to make spelling mistakes. It's easy to modify existing keywords to fix the mistakes.

### Assign keywords using the Keywords HUD

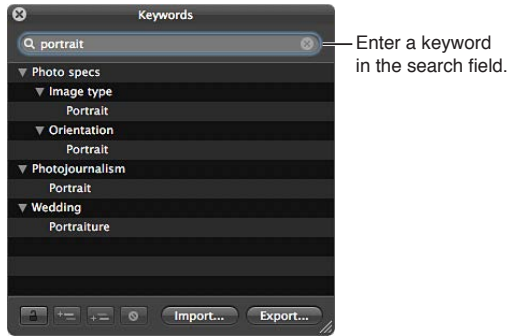
- 1 To show the Keywords HUD, do one of the following:
  - Choose Window > Show Keywords HUD (or press Shift-H).
  - Click the Keywords button in the toolbar.

The Keywords HUD appears.

- 2 Do one of the following:
  - *To browse for a keyword:* Scroll up and down to review the keywords, and click the disclosure triangles to reveal the keywords in each keyword group.



- *To search for a keyword:* Type the keyword you're looking for in the Keywords HUD search field.



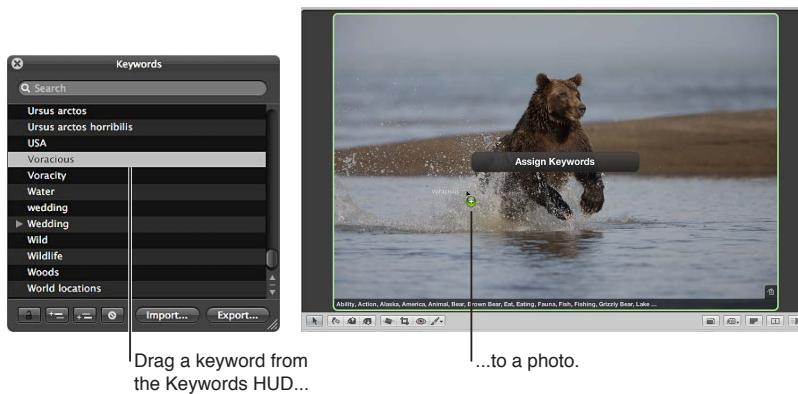
3 To select the keyword or multiple keywords you want to apply, do one of the following:

- Click to select a single keyword in the list.
- Hold down the Shift key while pressing the Up Arrow or Down Arrow key to select several keywords.
- Shift-click a group of adjacent keywords.
- Command-click nonadjacent keywords.

The selected keywords are highlighted in the keyword list.

4 To apply a keyword or keywords, do one of the following:

- *If the Browser is in filmstrip view or grid view:* Drag a keyword or selected keywords from the Keywords HUD to a photo or selected photos in the Viewer or Browser.



- *If the Browser is in list view:* Drag a keyword or selected keywords from the Keywords HUD to a photo selection in the Browser list. The keyword appears in the Keywords column for the photo or photos.

**Note:** Depending on the metadata options you have set, the Keywords column may not appear. For more information, see [View a photo's keywords](#) on page 108.

- *If Aperture is set to full-screen view:* Drag a keyword, selected keywords, or keyword group from the Keywords HUD to a photo or selected photos displayed onscreen or in the filmstrip.

The keyword or keywords are applied to the photo or selection of photos. To view keywords applied to photos, see [View a photo's keywords](#) on page 108.

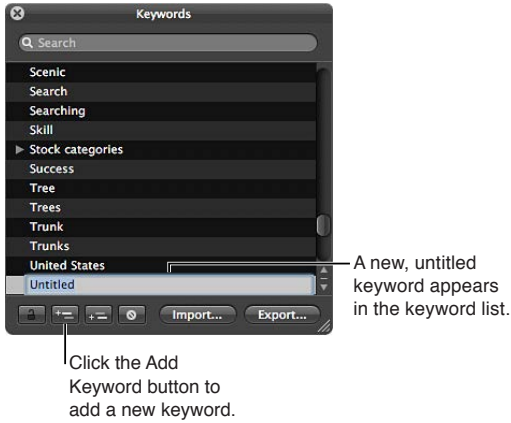
## Add new keywords to the keyword library

- 1 To show the Keywords HUD, do one of the following:
  - Choose Window > Show Keywords HUD (or press Shift-H).
  - Click the Keywords button in the toolbar.

The Keywords HUD appears.

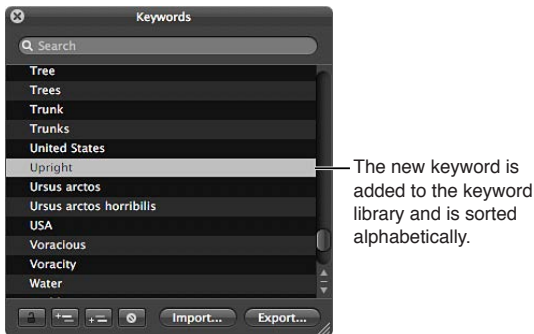
- 2 Click the Add Keyword button.

A new, untitled keyword appears in the keyword list.



- 3 Type a name for the new keyword, then press Return.

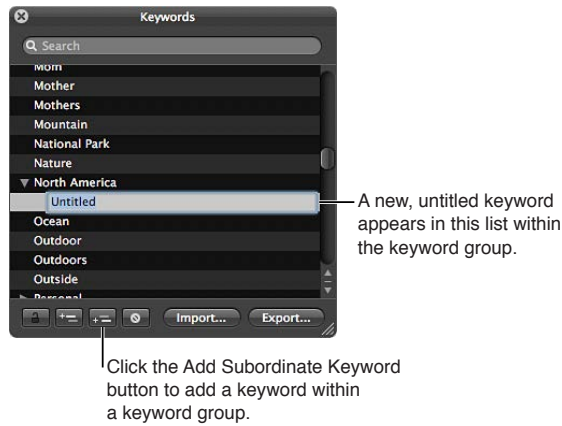
The new keyword is added to the keyword library.





### Add keywords to a keyword group

- 1 In the Keywords HUD, select the keyword group to which you want to add a keyword.
- 2 Do one of the following:
  - Click the Add Subordinate Keyword button, type the new keyword, then press Return.



- Drag an existing keyword into the keyword group.

The new keyword appears in the keyword group you selected, sorted alphabetically within the group.

### Create a new keyword group with keywords in it

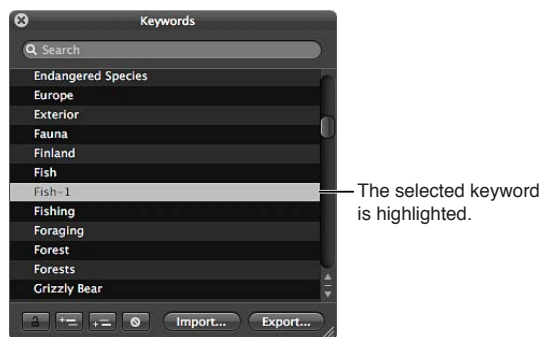
- 1 In the Keywords HUD, click the Add Keyword button, then type a name for the new keyword group.
- 2 With the new keyword group name selected, click the Add Subordinate Keyword button, type a keyword, then press Return.

The keyword you just added becomes the first keyword in the new group.

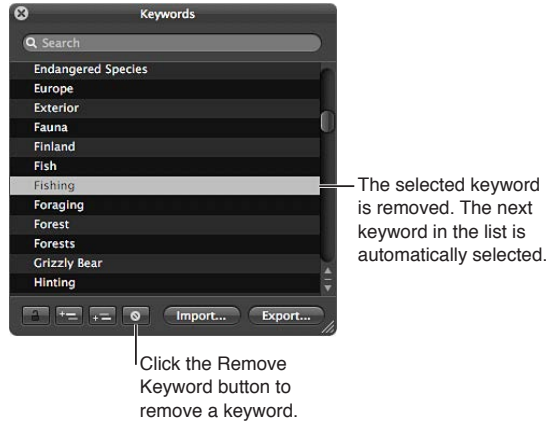
- 3 To add another keyword to the new group, click the Add Subordinate Keyword button, type a keyword, then press Return.

### Remove a keyword or keyword group from the keyword library

- 1 In the Keywords HUD, select the keyword or keyword group you want to remove.



- 2 Do one of the following:
  - Click the Remove Keyword button.
  - Press the Delete key.



If the keyword you are attempting to remove is assigned to any photo in your library, a dialog appears, indicating the number of times it's being used. If you still want to remove the keyword, click "Remove from all versions."

**Important:** Removing a keyword from the keyword library removes it from any photos to which it's already assigned.

### Modify an existing keyword in the Keywords HUD

When entering a large group of keywords in the Keywords HUD, it's not uncommon to make spelling mistakes. It's easy to modify existing keywords to fix the mistakes.

- 1 In the Keywords HUD, double-click the keyword you want to change.

The selected keyword is highlighted, and you can edit it.

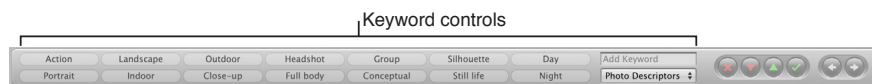
- 2 Enter the correction, then press Return.

If the keyword you are attempting to modify is assigned to any photo in your library, a dialog appears, indicating the number of times it's being used. If you still want to change the keyword, click "Rename in all versions."

**Note:** If you're planning to enter a large group of keywords, it may be easier to enter them in a tab-delimited text (.txt) file, using an application such as TextEdit, and then import the list of keywords into Aperture. For more information, see [Export and import keyword lists](#) on page 123.

### Apply keywords using keyword controls and keyword presets

One way to apply and remove keywords is to use the keyword controls located at the left side of the control bar. The keyword controls are not shown by default.

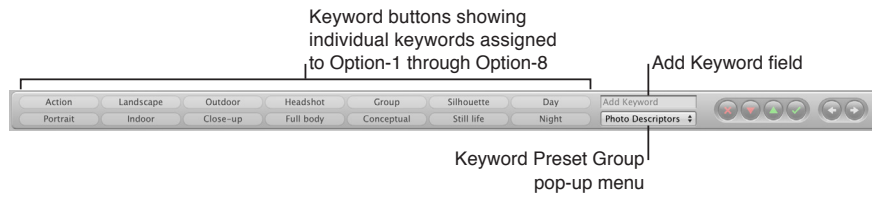


You can add new keywords to photos or apply preset keywords that are part of a keyword preset group (a group of related keywords). Aperture provides keyword preset groups, and you can create your own keyword preset groups that include keywords you frequently use.

When you choose a keyword preset group, Aperture assigns the specific keywords to keyword buttons in the control bar. This allows you to set the control bar to show the most useful keywords.

## Show the keyword controls in the control bar

- Choose Window > Show Keyword Controls (or press Shift-D).

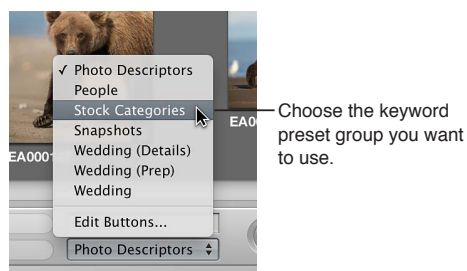


The following keyword controls appear:

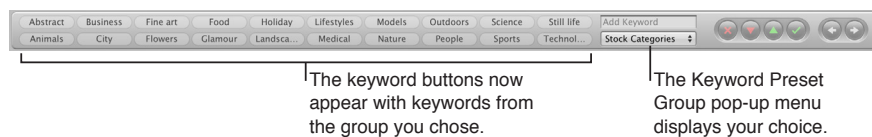
- Keyword buttons:** These buttons display the preset keywords in the selected keyword preset group. The first eight keywords are assigned to the keyboard shortcut key combination of Option and a number key (1 through 8) on the keyboard. Press Option and a number key on the keyboard (not the numeric keypad) to add the preset keyword to a selected photo, or click a keyword button. The control bar can hold up to 20 keyword buttons. To remove a keyword applied by clicking a button, press Option-Shift and the button's corresponding number key. To remove all keywords, press Option-Shift-9.
- Add Keyword field:** Type a new keyword in this field and press Return to add it to a selected photo. If the keyword has been used before, Aperture automatically completes the word as you type it. If the Keywords HUD is locked, you are asked whether you want to unlock the Keywords HUD and add the keyword to the keyword library, or not add the keyword to the photo. To remove a keyword you've just applied, type the keyword again and press Shift-Return. Keywords removed using the keyword field are not removed from the Keywords HUD.
- Keyword Preset Group pop-up menu:** Use this pop-up menu to choose the keyword preset group you want displayed. You can also use the Comma (,) key and Period (.) key to quickly cycle forward and backward through the keyword preset groups. The first eight keywords in the group are assigned to the keyboard shortcut key combination of Option and a number key from 1 through 8.

## Choose a keyword preset group

- Select a photo or group of photos in the Browser.
- In the control bar, choose a keyword preset group from the Keyword Preset Group pop-up menu.



The keyword buttons in the control bar update according to the keyword preset group you chose.



### Add a preset keyword to a photo

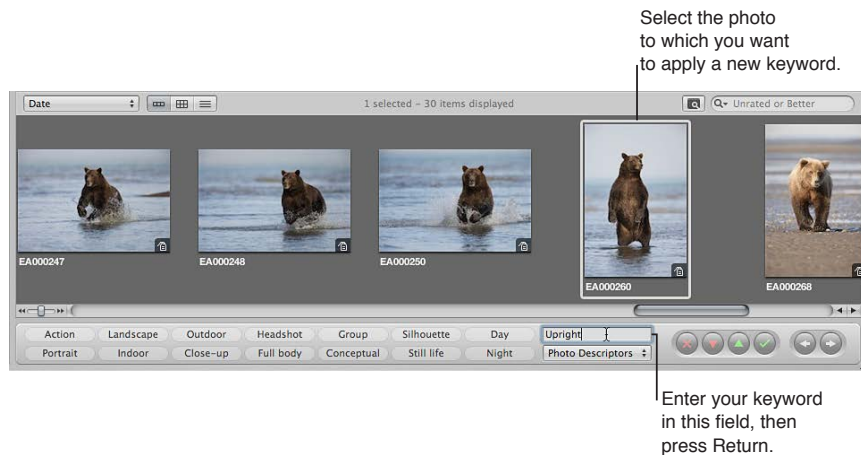
- 1 Select the photo to which you want to assign a keyword.
- 2 In the control bar, choose a keyword preset group from the Keyword Preset Group pop-up menu.
- 3 Do one of the following:
  - Choose Metadata > Add Keyword, then choose the keyword you want from the submenu.
  - Press Option and a number key from 1 to 8 to assign one of the first eight keywords.
  - Click a keyword button in the control bar.

### Remove a preset keyword from a photo

- 1 Select the photo with the preset keyword you want to remove.
- 2 In the control bar, select a keyword preset group from the Keyword Preset Group pop-up menu.
- 3 Do one of the following:
  - Choose Metadata > Remove Keyword, then choose the keyword you want to remove from the submenu.
  - Press Option-Shift and a number key from 1 to 8 to remove one of the first eight keywords.
  - Shift-click the keyword button in the control bar.

### Apply a new keyword using the keyword controls

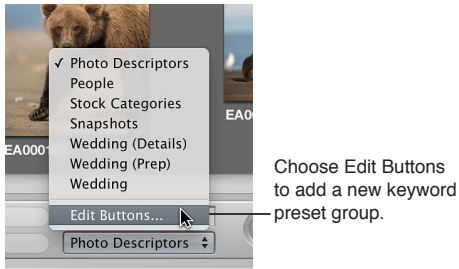
- 1 In the Browser, select a photo or group of photos.
- 2 In the control bar, type the new keyword in the Add Keyword field, then press Return.



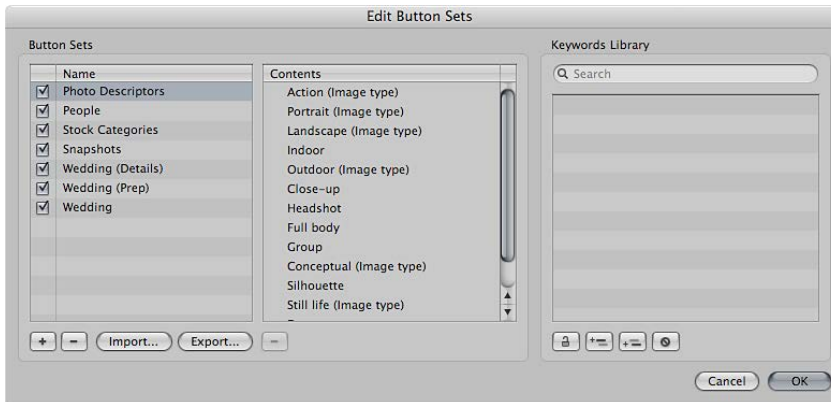
The keyword you entered is now applied to the photo or group of photos.

## Create a keyword preset group and assign keywords to it

- 1 In the control bar, choose Edit Buttons from the Keyword Preset Group pop-up menu.



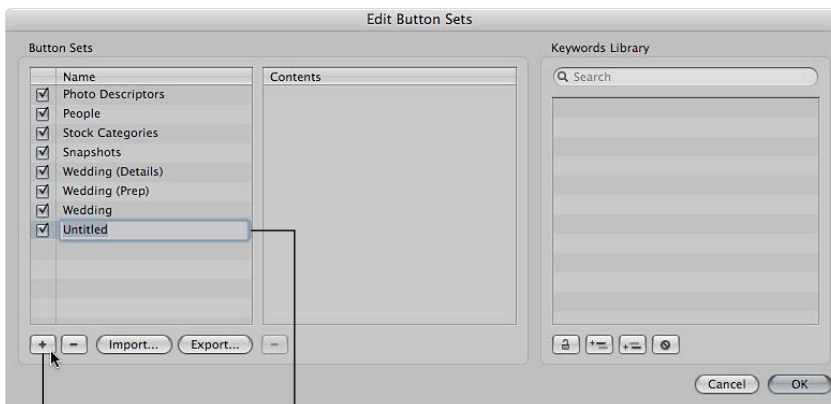
The Edit Button Sets dialog appears.



The Name column on the left lists the keyword preset groups that already exist. When you select a keyword preset group in this column, the keywords included in the group appear in the center Contents column. You add or remove keywords by adding them to or removing them from the Contents column. The Keywords Library column provides a list of the existing keywords in your keyword library. You can drag keywords from this list into the Contents column. You can also add keywords and keyword groups to your keyword library using the controls below the Keywords Library column.

- 2 To create a new keyword preset group, click the Add button (+).

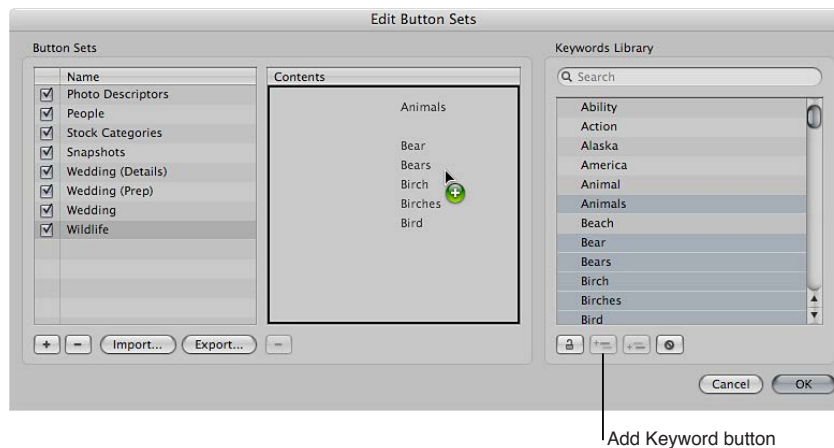
An untitled keyword preset group appears in the Name column.



Click the Add button to add a keyword preset group.

A new, untitled preset group appears in this list.

- 3 Type a name for the new keyword preset group, then press Return.
- 4 Drag keywords from the Keywords Library column to the Contents column.



If you wish, you can select multiple keywords and drag them to the Contents column at the same time. Hold down the Shift key while pressing the Up Arrow or Down Arrow key to select several keywords, Shift-click to select adjacent keywords, or Command-click to select nonadjacent keywords. If you have a large list of keywords, you can quickly locate the one you're looking for by typing the keyword in the search field. You can also add new keywords to the Keywords Library column by clicking the Add Keyword button. You can then drag the new keywords into the Contents column.

- 5 If you want to rearrange the order of the keywords in the Contents column, drag them into the order you prefer.

The first eight keywords are assigned to the keyboard shortcut key combination of Option and a number key (1 through 8) on the keyboard. To remove a keyword from the column, select it and press Delete, or click the Remove button (–) below the column.

- 6 After arranging the keywords in order, click OK.

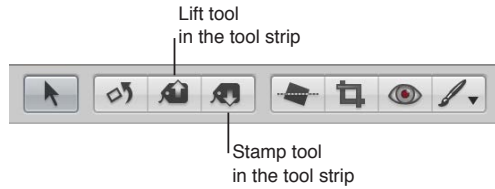
### Apply keywords using the Lift & Stamp HUD

You can use the Lift and Stamp tools to quickly apply all or some of the keywords from one photo to other photos. Using the Lift and Stamp tools is an efficient way to apply keywords and other types of metadata, such as ratings, to large numbers of photos. The Lift and Stamp tools can also apply adjustments made to photos, such as cropping, straightening, exposure changes, and other adjustments. For more information about using the Lift and Stamp tools to apply adjustments, see [Apply standard adjustments](#) on page 225.

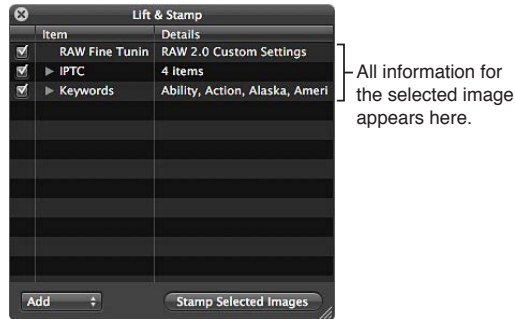
The Lift and Stamp tools have a corresponding HUD you can use to view and remove items you've lifted (copied) from one photo before you stamp (paste) them onto another photo.

Lift all the keywords from a photo and stamp them onto another photo or group of photos

- 1 Select a photo.
- 2 Select the Lift tool (or press O).

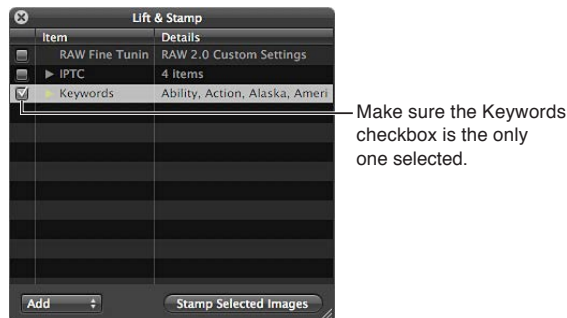


The Lift & Stamp HUD appears.



All the photo's metadata, such as applied adjustments, rating, and keywords, appears in the Lift & Stamp HUD.

- 3 Deselect all checkboxes except for Keywords, or select items in the HUD and press Delete to remove them.



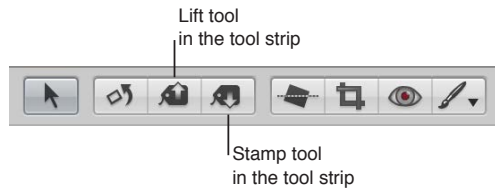
- 4 To apply the keywords from the Lift & Stamp HUD, do one of the following:
  - Use the Stamp tool to select the photos to which you want to assign the keywords.
  - Use the Selection tool to select a group of photos in the Browser, then click the Stamp Selected Images button in the Lift & Stamp HUD.

The keywords from the first photo are applied to all of the photos you stamped them on.

### Stamp a reduced selection of keywords onto a photo

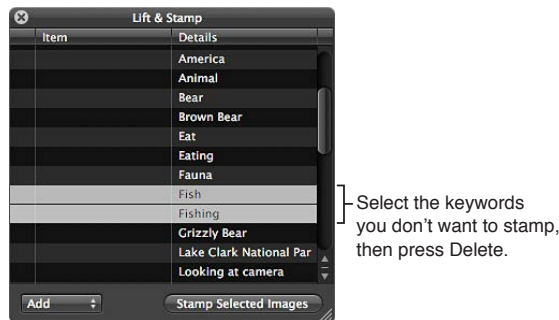
In many cases, you do not want to copy all keywords from one photo and paste them onto another. For this reason, you can select specific keywords that apply to the photo you want to stamp them on.

- 1 Select a photo.
- 2 Select the Lift tool (or press O).



The Lift & Stamp HUD appears.

- 3 In the Lift & Stamp HUD, deselect all image information checkboxes except for Keywords.
- 4 Click the Keywords disclosure triangle to reveal the keywords from the selected photo.
- 5 Remove any keywords you don't want to stamp onto a photo or group of photos by selecting each unwanted keyword in the list and pressing the Delete key.



- 6 To apply the keywords from the Lift & Stamp HUD, do one of the following:
  - Use the Stamp tool to select the photos to which you want to assign the keywords.
  - Use the Selection tool to select a group of photos in the Browser, and then click the Stamp Selected Images button in the Lift & Stamp HUD.

The reduced selection of keywords is applied to the selected photo.

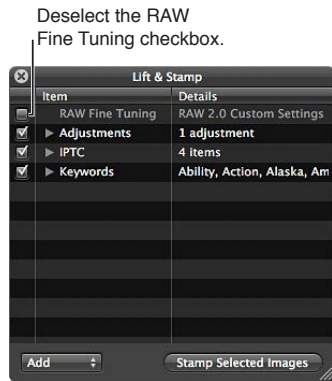
### Quickly lift and stamp photo metadata and adjustments

You can quickly lift and stamp the keywords and all other metadata and adjustments from one photo to another using keyboard shortcuts.

- 1 Select a photo, then press Shift-Command-C to lift the metadata from the photo.
- 2 Select a photo or group of photos, then press Shift-Command-V to stamp the metadata onto the selected photos.



You can also lift RAW Fine Tuning parameter values from one RAW image and stamp them onto another. RAW Fine Tuning adjustments are included in lift and stamp operations by default. If you don't want to lift and stamp RAW Fine Tuning adjustments, you must deselect them in the Lift & Stamp HUD. For more information about lifting and stamping adjustments, see [Apply standard adjustments](#) on page 225. For more information about the RAW Fine Tuning adjustments, see [RAW Fine Tuning controls overview](#) on page 334.



### Exclude everything but metadata from lift and stamp operations

You can use the Lift & Stamp HUD to lift and stamp metadata only.

- 1 Select the photo with the metadata or keywords you want to copy.
- 2 Choose Metadata > Lift Metadata.

The Lift & Stamp HUD appears, showing the metadata and keyword information only.

- 3 Select a photo or group of photos, then click the Stamp Selected Images button.

Only the selected metadata and keywords are applied to the photo selection.

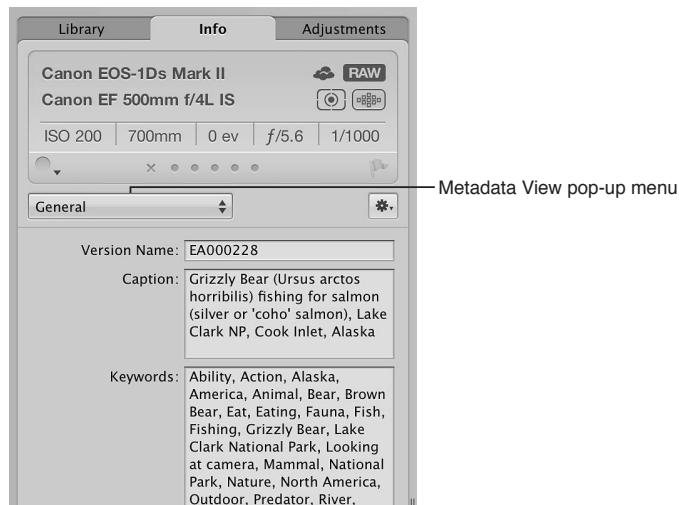
### Apply keywords using the Info inspector

When you select a photo, you can use the Info inspector to see the photo's keywords and add new keywords, if needed.

#### Apply keywords using the Info inspector

- 1 Select a photo.
- 2 Choose Window > Show Inspector (or press I), then click Info.
- 3 Choose Caption & Keywords from the Metadata View pop-up menu.

All keywords assigned to the photo appear in the Keywords field.



- 4 To add a keyword, type a keyword in the Keywords field.

**Note:** All keywords must be separated by commas (,).

### Apply keywords to photos in the Light Table

You can use the Light Table to arrange your photo selection in a freeform manner. After arranging your photos into groups, you can apply keywords to a group of photos at once. For example, if you make a Light Table album consisting of the selects from your wedding shoot, you can group the photos according to the part of the wedding event they show. After you've arranged them, you can apply keywords, such as *Getting Ready*, *Wedding*, *Ceremony*, *Formal Shots*, and *Reception*, as appropriate.

#### Apply keywords to groups of photos in the Light Table

- 1 Select a Light Table album in the Library inspector.
- 2 Click the Keywords button in the toolbar (or press Shift-H).  
The Keywords HUD appears.
- 3 In the Light Table or the Browser, select a group of photos to which you want to assign keywords.
- 4 Drag the appropriate keywords from the Keywords HUD to the selected photos.

The keywords are immediately applied to the selected photos.

For more information about using the Light Table, see [Light Table overview](#) on page 185.

### Remove keywords from a photo

You can remove keywords that you applied to a photo.

#### Remove all keywords from a photo

- 1 Select the photo.
- 2 Choose Metadata > Remove Keyword > Remove All Keywords (or press Option-Shift-9).

#### Remove specific keywords using the Info inspector

- 1 If the Info inspector isn't shown, click the Inspector button in the toolbar, then click Info.
- 2 Choose Caption & Keywords from the Metadata View pop-up menu.
- 3 In the Keywords field, select and delete any keywords you want removed from the photo.

## Remove an individual keyword from a group of photos using keyword controls in the control bar

- 1 Select the group of photos.
- 2 Do one of the following:
  - In the control bar, type the keyword you want to remove in the Add Keyword field, then press Shift-Return.
  - If the keyword is a keyword preset, Shift-click the keyword button in the control bar.

The keyword is removed from the selected photos.

For more information about using the control bar, see [Apply keywords using keyword controls and keyword presets](#) on page 114.

## Export and import keyword lists

You can export and import keyword lists to share with other Aperture users and transfer to other Aperture systems. You can also create keyword lists for specific projects and then import them as needed. When you export a keyword list, all your keywords are placed in a simple tab-delimited text (.txt) file. The tab-delimited list is set up in a hierarchical structure that matches the hierarchical structure of the Keywords HUD.

### Export a keyword list

- 1 Do one of the following:
  - In the Keywords HUD, click the Export button.
  - In the Edit Buttons Sets dialog, click the Export button.
- 2 In the dialog that appears, give the keyword list a name, choose a location, and click Save.

The keyword list is saved as a text (.txt) file to the location you chose.

### Import a keyword list

After you have exported a keyword list, you can transfer the file to another Aperture system and import it. You can also manually create or edit keyword lists using other applications such as TextEdit, and you can import the lists into Aperture as long as they follow a tab-delimited text file structure.

- 1 Do one of the following:
  - In the Keywords HUD, click the Import button.
  - In the Edit Buttons Sets dialog, click the Import button.
- 2 In the dialog that appears, navigate to the keyword list file and click Open.

The Keywords HUD is updated to include all the new keywords from the imported keyword list.

## Organize photos by people using Faces

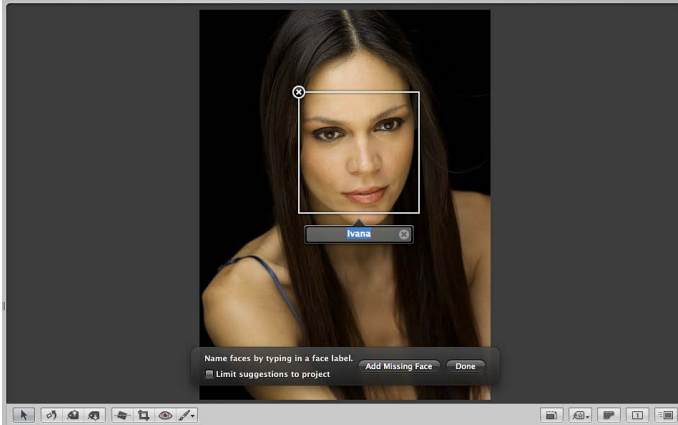
### Faces overview

As image libraries grow, locating photos of specific people becomes increasingly challenging. Typically, this painstaking process involves combing through your entire image library and adding keywords to each photo to identify all the people in it. Aperture helps automate this process using powerful face detection and face recognition technology, called *Faces*.

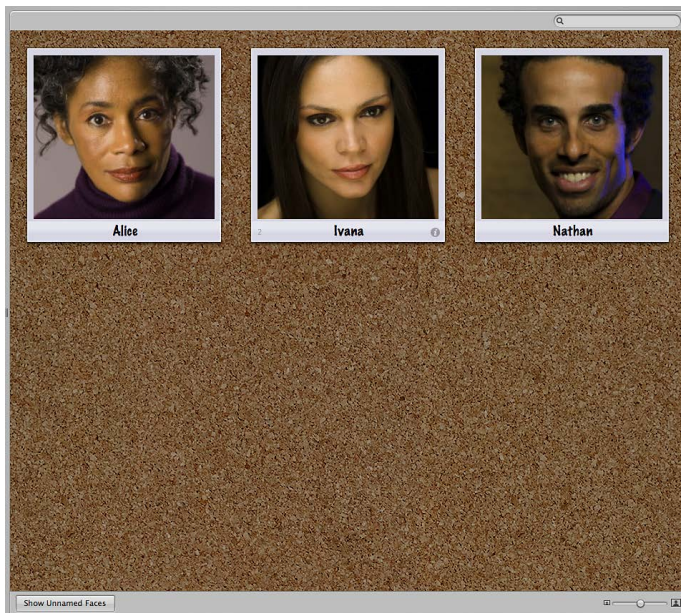
The Faces technology identifies all the photos in your library that contain faces. You then complete the identification process by assigning names to faces—you select a photo with a face in it and click the Name button to assign a name to the subject in the photo.



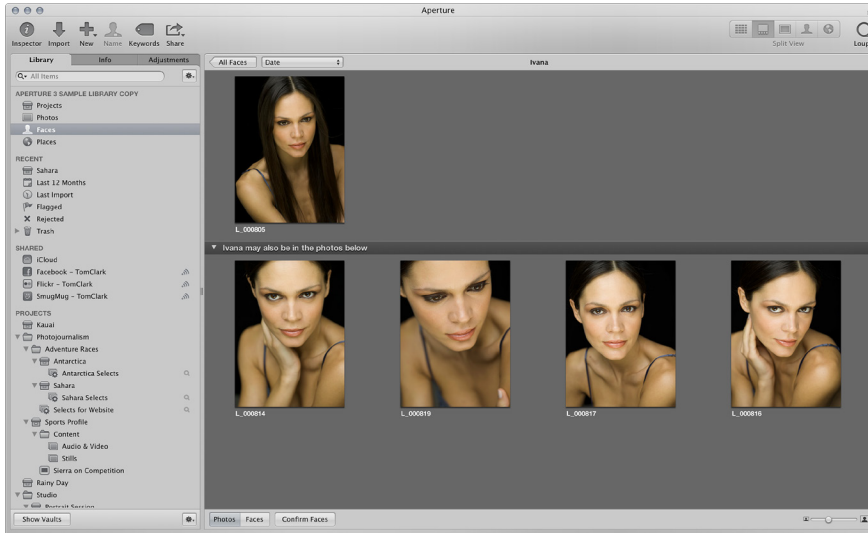
An “unnamed” face label appears below the subject’s face, and you enter the person’s name in the face label.



Now that you’ve identified a person in one of your photos, you can use Faces view to help you assign that person’s name to other photos. Faces view shows snapshots of all the people you’ve named.



When you double-click a person's snapshot, Aperture opens the Faces browser and shows the named snapshot and other suggested photos that might contain the same face.

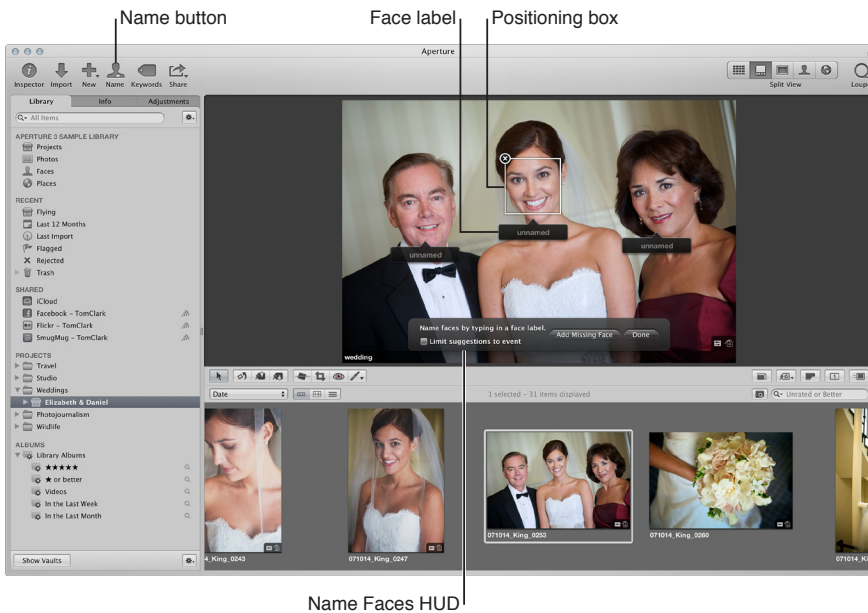


You can then confirm or reject the suggested matches. As you add photos to the library, Aperture continues to analyze your photos and suggest matches for named faces.

After your photos are named, you can easily review all pictures of a specific person. You can also use Smart Albums to gather all images of specific people. For more information, see [Collect photos in a new Smart Album](#) on page 156.

## Add names to faces in your photos

To begin using Faces in Aperture, you must first identify the people in your photos by assigning names to their faces.



### Assign names to faces in your photos

- 1 In the Browser, select a photo with people in it.
- 2 Click the Name button in the toolbar.

Face labels appear below the faces of the people in the photo in the Viewer.

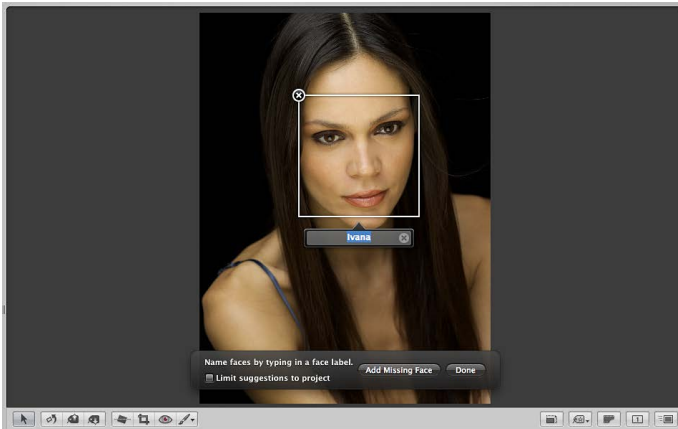
- 3 Click the face label below a person's face and enter the person's name in the text field.

As you enter the person's name, names that have already been assigned to faces, as well as names in your Contacts, are suggested in the face label.

**Note:** If you want to limit the suggestions to faces you've already named in the project, select the "Limit suggestions to project" checkbox.

- 4 When you're satisfied with the person's name in the face label, press Return.

The person's name appears in the face label.

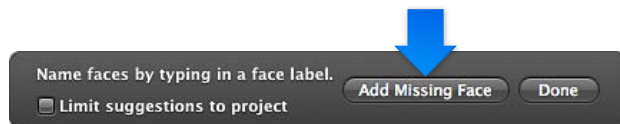


- 5 Enter a name in the face label for each person in the photo, then click Done.

### Add missing faces

If there are faces in a photo that Aperture doesn't detect, you can still add face labels to the faces and assign them names.

- 1 If necessary, click the Name button in the toolbar.
- 2 In the Name Faces HUD, click the Add Missing Face button.



A positioning box appears with a face label below it.

- 3 Drag the positioning box over the face you want to name, and resize the box so that it contains just the face.
- 4 Enter a name in the face label and press Return.
- 5 Repeat steps 2 through 4 until all faces lacking face labels in the photo have been named.
- 6 After identifying all the faces in the photo, click Done.

### Rename a person in a photo

- 1 Select a photo containing the face of a person you want to rename.
- 2 Click the Name button in the toolbar.
- 3 Select the face label for the person whose name you want to change, and enter a new name in the text field.
- 4 After renaming the face in the photo, click Done.

### Delete a face label

- 1 Select a photo containing a face label you want to remove.
- 2 Click the Name button in the toolbar.
- 3 Position the pointer over the person's face, then click the Remove button at the top-left corner of the positioning box.



The positioning box and face label are removed.

### View photos in Faces view

After you've assigned names to the people in a few of your photos, you can review suggested photos of the same people.

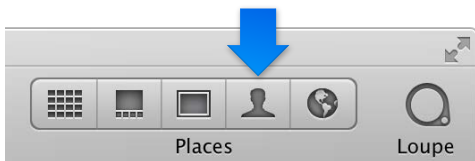
#### Enter Faces view

Do one of the following:

- In the Library inspector, select Faces.

The main window switches to Faces view, displaying snapshots of each named person in the entire library.

- In the Library inspector, select an item, then click the Faces button in the toolbar.



The main window switches to Faces view, displaying snapshots of each named person in the currently selected item in the Library inspector.

### Set a photo as the key photo for a snapshot

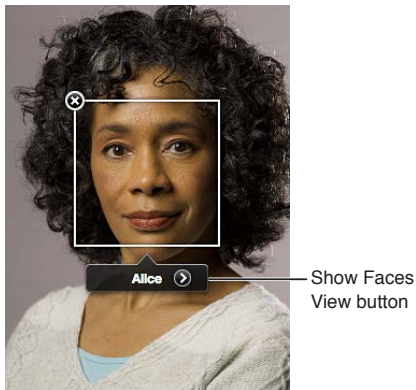
When you enter Faces view, a snapshot of each person you named in the Aperture library appears. You can quickly view the confirmed photos of a person by skimming over the snapshot with the pointer. You can also choose your favorite photo of the person to represent the snapshot, also known as the *key photo*.

- 1 Skim over the snapshot with the pointer.
- 2 When you find your favorite photo of that person, do one of the following:
  - Press the Space bar.
  - Control-click the photo, then choose Make Key Photo from the shortcut menu.

### View all the photos of a specific person

Do one of the following:

- In Faces view, double-click the person's snapshot.
- Click the Name button in the toolbar, then click the Show Faces View button in the face label below the person's face in the Viewer.



The Faces browser appears, showing all the confirmed photos of the person.

### Confirm photos of a person

When you first open the Faces browser after assigning a name to a new face, Aperture displays all the suggested photos for that person in the bottom half of the Faces browser.

- 1 At the bottom of the Faces browser, click the Confirm Faces button.

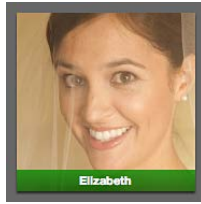


A "click to confirm" overlay appears at the bottom of each suggested photo.



2 To confirm a face as a match, do one of the following:

- *To confirm the face in a single photo:* Click the photo.  
The person's name appears below the photo.

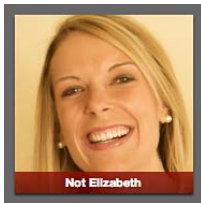


- *To confirm the face in multiple suggested photos:* Shift-click the photos.  
The person's name appears below each photo.

3 To reject a photo as a match, do one of the following:

- Click the photo, then click it again to reject it.
- Option-click the photo.

"Not [name of face]" appears below the photo.



4 When you've finished confirming photos, click Done.

Confirmed photos move to the top of the Faces browser.

**Note:** As you confirm or reject the face of the person appearing in each photo, you can have Aperture suggest additional photos by pressing the Option key and clicking the Update button. When you press the Option key, the Done button changes to the Update button. Clicking the Update button also saves any confirm and reject decisions you've already made.

#### Customize the Faces browser

As the number of confirmed photos of a person grows, it can be difficult to identify a person's face in a small thumbnail image. To make it easier to identify a person's face in a photo, you can either make the thumbnail images larger or switch from showing whole photos to showing only faces.



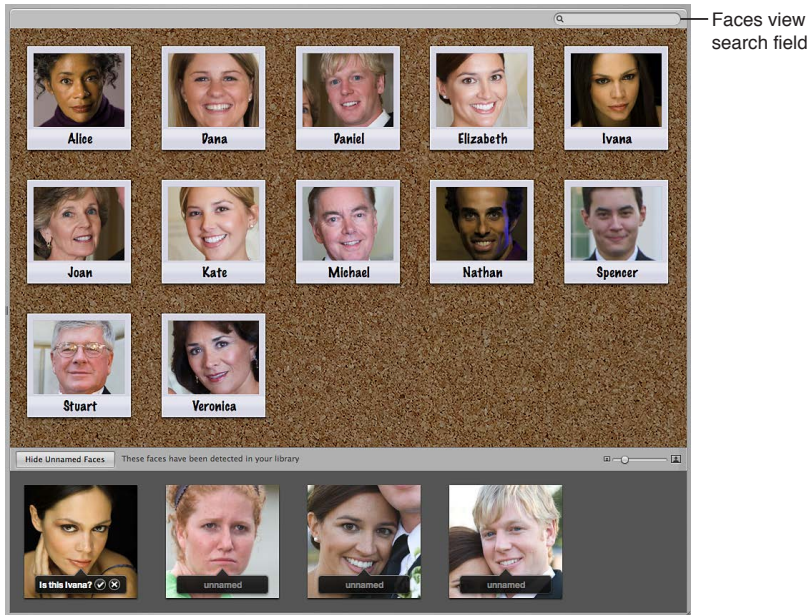
- *To show whole photos:* In the Faces browser, click the Photos button.  
The thumbnail images in the Faces browser return to displaying whole photos.
- *To show faces only:* In the Faces browser, click the Faces button.  
Each thumbnail image in the Faces browser is cropped to show only the person's face.
- *To make the thumbnail images larger:* In the Faces browser, drag the Thumbnail Resize slider to the right.
- *To return to Faces view:* Click the All Faces button at the top of the Faces browser.

## Search for photos by face

As you name the people that appear in the photos in the library, the number of named faces quickly grows. Locating photos of a particular person is a simple process.

### Search for photos of a particular person

- 1 In the Library inspector, select Faces.
- 2 In Faces view, enter the name of the person you are looking for in the search field.



Aperture displays the snapshot of the person whose name you entered in the search field, removing all others from view.

### Show all faces again

- In Faces view, click the Reset button (with an X) on the right side of the search field.

Snapshots for all the people identified in the library reappear in Faces view.

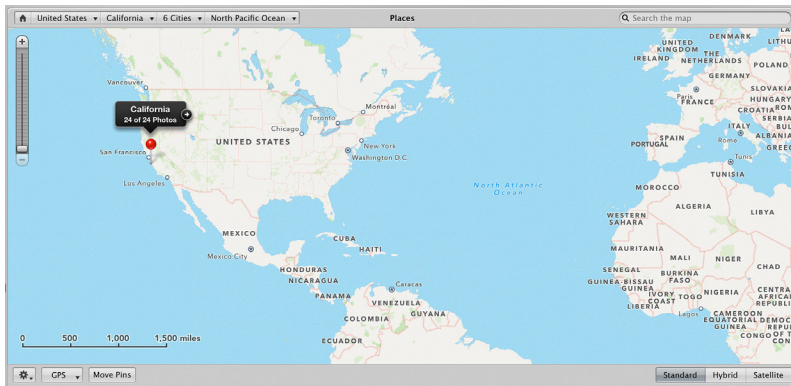
You can use the Filter HUD in the Browser to perform more complex searches for people in your photos. For more information, see [Search using a combination of criteria](#) on page 152.

## Organize photos by location using Places

### Places overview

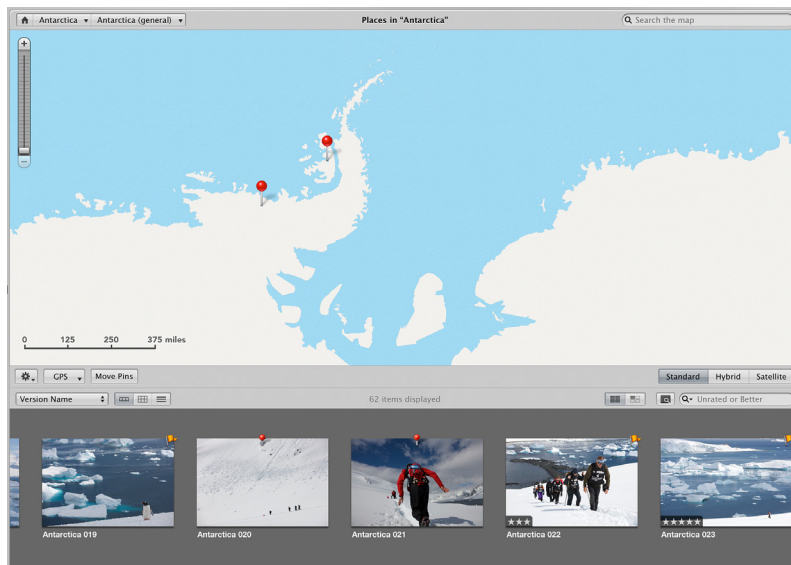
In Aperture, you can organize and explore your photos by location using the Places feature.

If you have a GPS-enabled camera or iOS device, Aperture categorizes your photos by location and converts the GPS location tags to place names such as Vancouver, Canada. Aperture can also convert photo location information from GPS trackers (including those generated by iPhone apps) and from iPhoto photos. You can explore where your photos were shot using Places view.

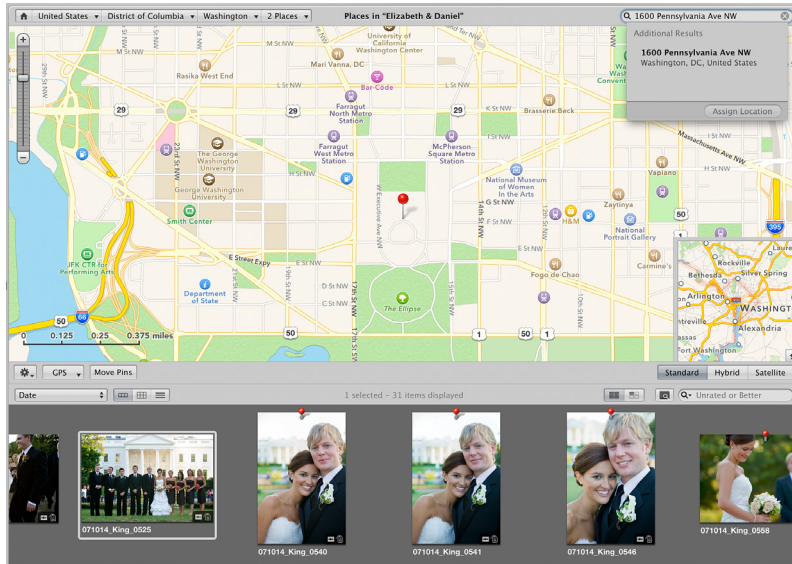


If you don't have a GPS-enabled camera or iOS device, you can still make the most of Places. You can assign locations to your photos by:

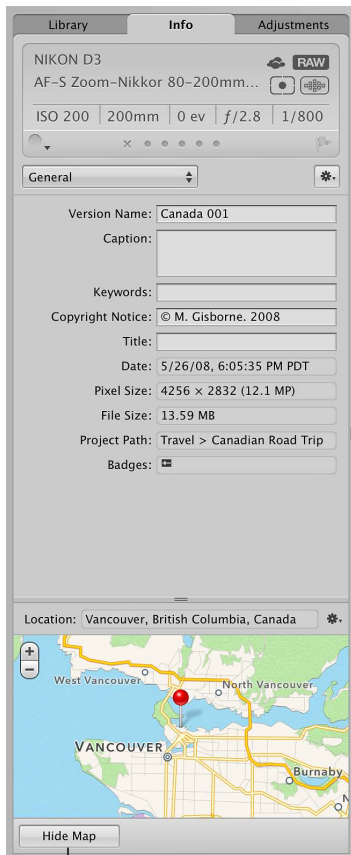
- Dragging photos from the Browser to the appropriate spot on the map in Places view



- Typing the name of a place or entering an address in the Places view search field, and then clicking the Assign Location button



- Entering the name of a place or an address in the Location field in the Map pane of the Info inspector



Show/Hide Map button

## View photo locations

Aperture saves every location that has been assigned to a photo.

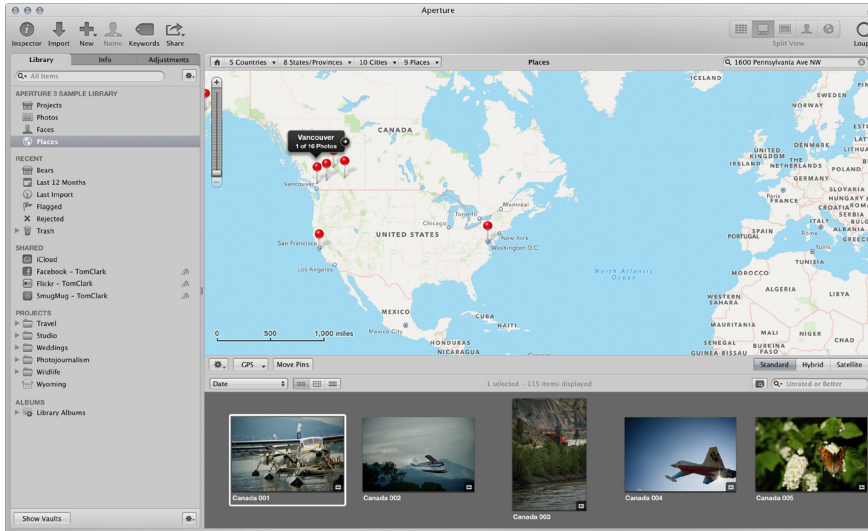
**Important:** To use Places, you must be connected to the Internet.

If you shot your photos with a GPS-enabled camera or iOS device, Aperture automatically plots the location of each photo on the map in Places view. There are many ways to view a photo's location and the photos associated with a location using Places view.

### View all photos in the Aperture library that have location assignments

- 1 In the Library inspector, select Places.

Places view appears, with red pins representing photos that have location assignments.



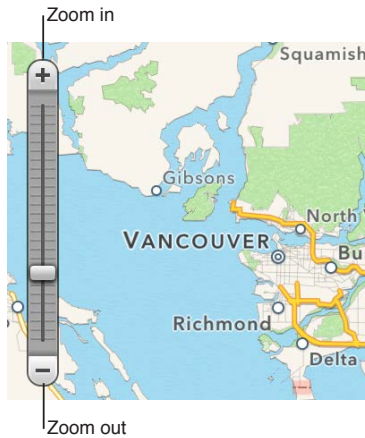
- 2 Zoom in to a specific location by doing one of the following:

- Choose a location from one of the Places Path Navigator pop-up menus at the top of Places view.



Aperture repositions the map to display the selected location.

- In Places view, use the Zoom slider and buttons to zoom in to the location of a photo group.



As you zoom in to the map, photo locations grouped together in a single pin begin to be marked by their own pins.

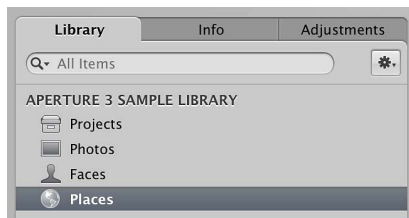
- Position the pointer over a pin that represents the location of a group of photos, then use the pinch gesture to zoom in or out on the map.

As you zoom in to the map, photo locations grouped together in a single pin begin to be marked by their own pins. As you zoom out of the map, photo locations marked by individual pins are consolidated into fewer pins as they get closer together.

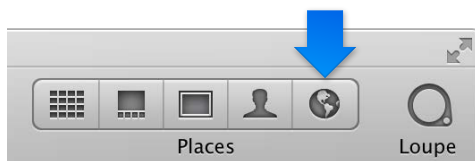
### View the location information for a photo or group of photos

- 1 Do one of the following:

- *To view the photo locations for photos throughout the library:* In the Library inspector, select Places.



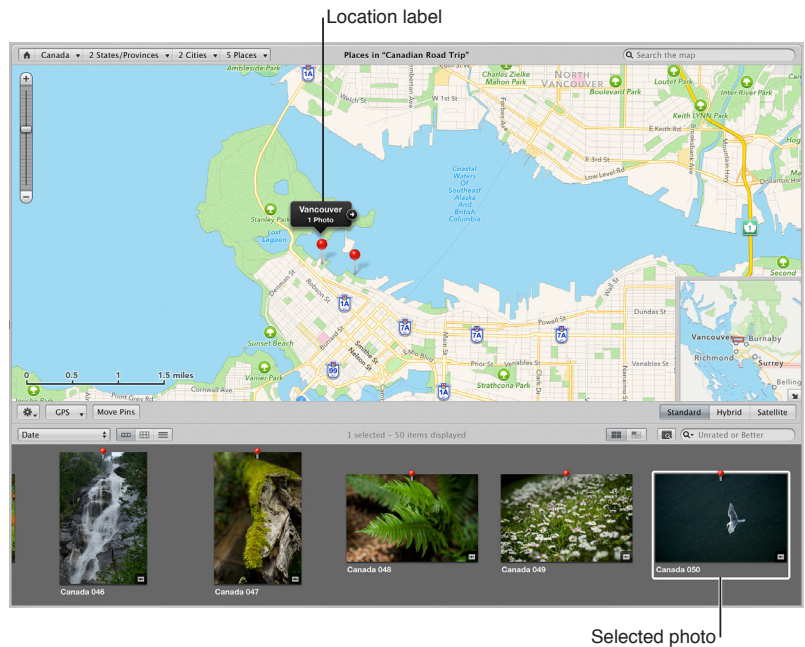
- *To view the photo locations for photos in an item selected in the Library inspector:* Select an item in the Library inspector containing photos that already have location information assigned to them, then click the Places button in the toolbar.



The Aperture main window switches to Places view. Red location pins mark the locations where photos or groups of photos were shot.

2 In the Browser, select a photo.

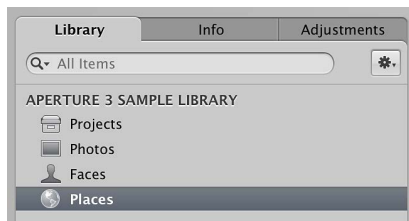
A location label appears above a pin in Places view, indicating the location where the photo was shot. The location label indicates the name of the location and the number of photos that were captured there.



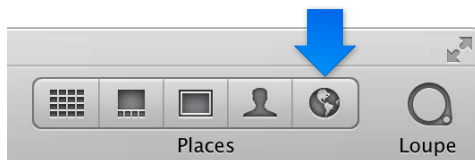
View the photos associated with a location

1 Do one of the following:

- In the Library inspector, select Places.



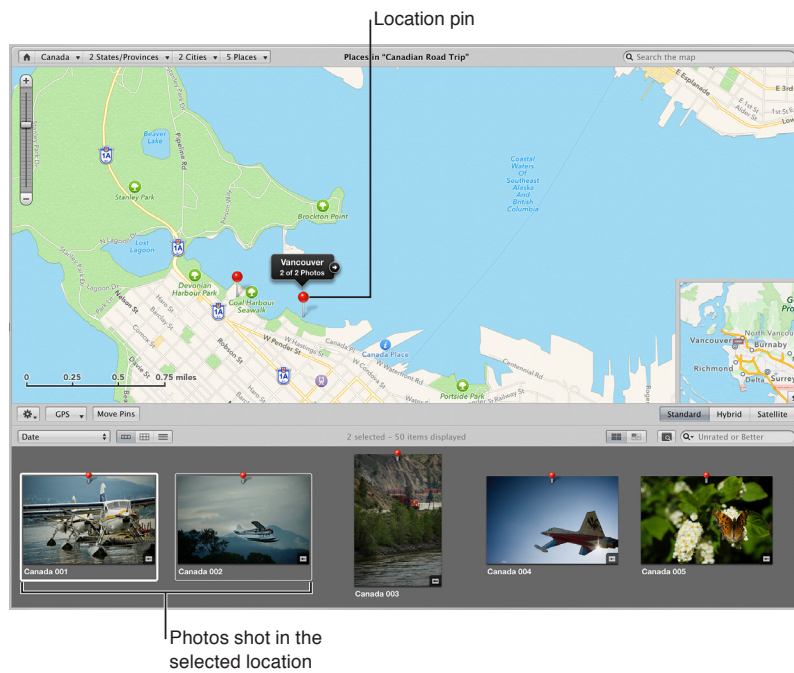
- Select an item in the Library inspector containing photos that already have location information assigned to them, then click the Places button in the toolbar.



The Aperture main window switches to Places view. Red location pins mark the locations where photos or groups of photos were shot.

2 Select a red pin.

The photo or photos marked by the pin appear selected in the Browser.



Find locations quickly

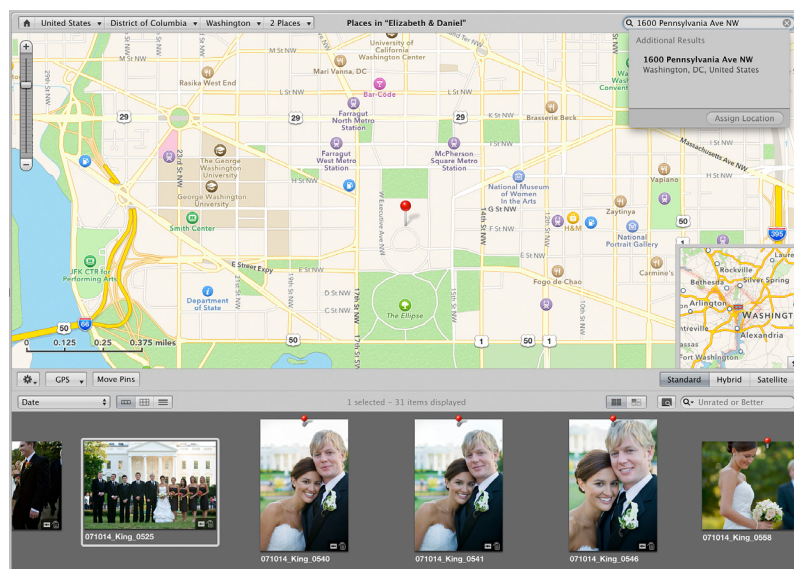
As you assign locations to the photos in the Aperture library, the list of locations quickly grows. Although you may have shot photos all over the world, you can quickly find the locations where photos were shot using the search field in Places view.

1 In the Library inspector, select Places.

The Aperture main window switches to Places view.

2 Enter the location you want to find in the Places view search field.

Locations you've assigned whose names match the text entered in the search field appear at the top of the search results list.





- 3 Select the correct location in the list that appears below the search field.

The location pin for the location you selected appears in Places view.

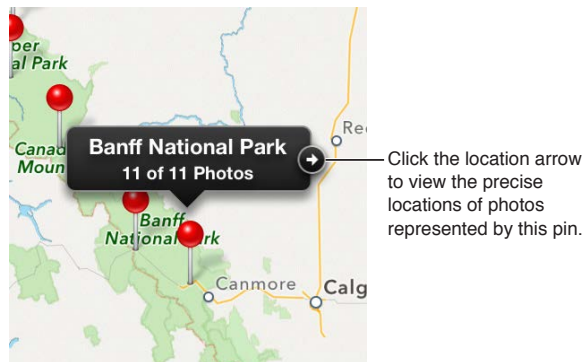
**Note:** You can also remove location information from photos using the Map pane of the Info inspector. For more information, see [Work with location information using the Info inspector](#) on page 146.

### View the precise location of photos represented by the same location pin

Depending on the zoom setting in Places view, Aperture might use a single pin to represent a group of photos shot in close proximity. However, you can view the precise location where each photo in the group was shot.

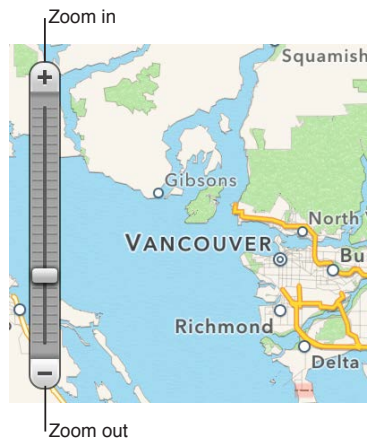
Do one of the following:

- In Places view, click a pin and then click the location arrow on the location label.



Places view zooms in to the location of the photo group, marking the location of each photo with a pin. Some photos may remain grouped together in a single location pin if shot in close proximity. Click the location arrow on the location label to zoom in further.

- In Places view, use the Zoom slider and buttons to zoom in to the location of the photo group.

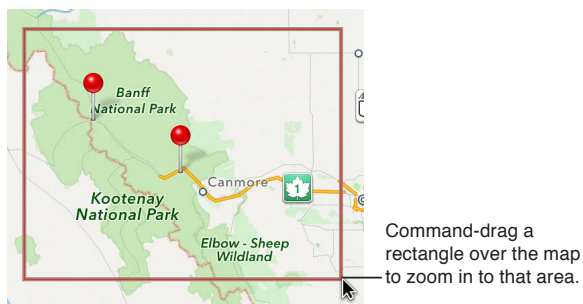


As you zoom in to the map, locations grouped together in a single pin begin to be marked by their own pins.

- Use the pinch gesture to zoom in and out.

As you zoom in to the map, locations grouped together in a single pin begin to be marked by their own pins.

- Command-drag a specific area of the map.  
The map zooms in to the area indicated by the selection rectangle.

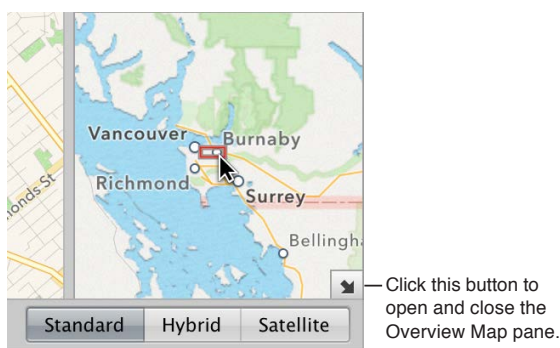


### Reposition the map in Places view

As you zoom in to the map, you may need to reposition it. You can also click the Overview Map Pane button to open or close the Overview Map pane.

Do one of the following:

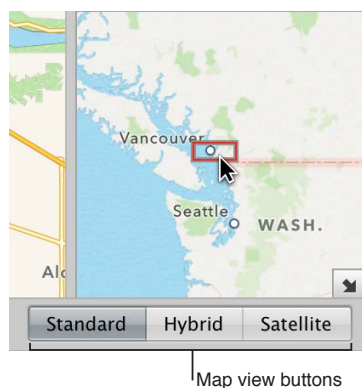
- Move the map by dragging it.
- Drag the red box in the Overview Map pane, which appears in the bottom-right corner of Places view.



### Change the map view

There are three different map views you can use within Places view:

- Standard view*: This view shows the map with a traditional depiction of roads, parks, borders, bodies of water, and more.



- Hybrid view*: This view shows the map with a traditional depiction of roads and place names overlaid on a satellite image.
- Satellite view*: This view shows the map as satellite imagery.

### Change the map view within Places view

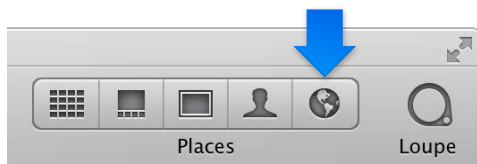
- *To switch to the Standard view:* Click the Standard button.
- *To switch to the Hybrid view:* Click the Hybrid button.
- *To switch to the Satellite view:* Click the Satellite button.

### Add locations to photos

You don't need a GPS-enabled camera or iOS device to use Places. Adding location information in Places view is as simple as dragging photos from the Browser to the area on the Places view map where they were shot. Another option is to enter a specific location in the search field in Places view, select a location from the Results list that appears below the search field, and then click the Assign Location button. You can also designate a large geographical area, such as a city or national park, as a location and assign this general location to photos.

### Assign locations to photos in the Browser manually

- 1 Select an item in the Library inspector containing photos to which you want to assign location information.
- 2 Click the Places button in the toolbar.

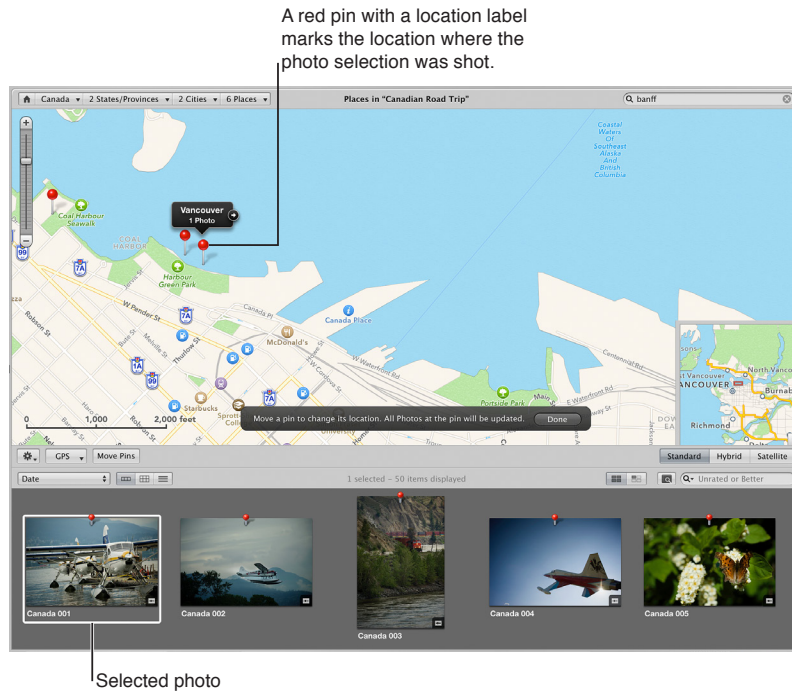


The Aperture main window switches to Places view. Red pins mark the locations where photos that already have location information were shot.

- 3 Position the map in Places view to display the location you want to assign to the photos by dragging and zooming in to the map.
- 4 In the Browser, select a photo or group of photos, then drag the photo selection to the appropriate location on the map in Places view.

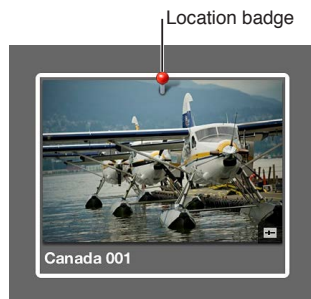
A pin with a location label appears, marking the location where the photo or photo group was shot. The location label indicates the name of the location and the number of photos that were captured there.

A dialog also appears at the bottom of Places view, informing you that you can move the pin to change the location assigned to all photos associated with the pin.



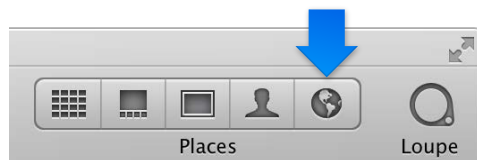
##### 5 Click Done.

The pin indicates that the location you specified has been assigned to the selected photos, and a location badge (a red pin) appears over the thumbnail images in the Browser.



#### Search for a location and assign it to a photo selection

- 1 Select an item in the Library inspector containing photos to which you want to assign location information.
- 2 If the main window is not in Places view, click the Places button in the toolbar.



The Aperture main window switches to Places view. Red pins mark the locations where photos that already have location information were shot.

- 3 In the Browser, select the photos to which you want to assign a location.

4 Choose Metadata > Assign Location.

5 In the dialog that appears, enter the location you want to search for in the search field. For example, you can enter a city name or an address.

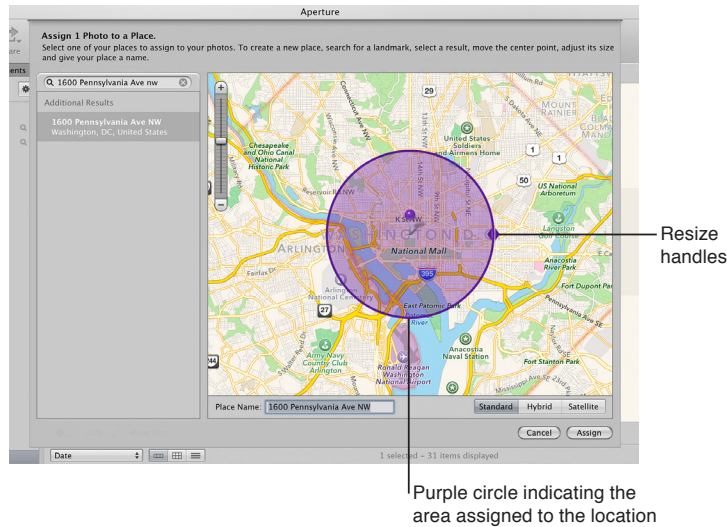
Locations whose names match the text you entered are listed below the search field.

6 Select the appropriate location in the search results list.

A location is plotted on the map with a purple circle surrounding it. The purple circle is used to determine the geographical area encompassed by the location.

7 If you wish, enter a custom name for the location, such as “Our backyard,” in the Place Name field.

8 Drag the resize handles on the right side of the purple circle to change the area assigned to the location.



9 When you are satisfied with the area assigned to the location, click the Assign button.

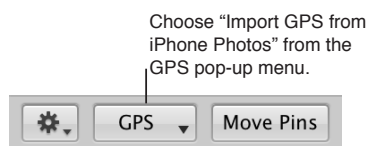
A red pin appears on the map in Places view, with a location label indicating the name of the location and the number of photos it's assigned to. A purple circle indicates the area the location covers. A red location badge appears over the selected thumbnail images in the Browser, indicating that a location has been assigned.

### Assign location information to photos shot with a GPS-enabled iOS device

If you have photos imported from a GPS-enabled iOS device, you can use the GPS data from the photos to automatically assign location information to them.

1 In the Library inspector, select a project containing photos captured with a GPS-enabled iOS device.

2 In Places view, choose “Import GPS from iPhone Photos” from the GPS pop-up menu.



3 In the dialog that appears, select the photos to which you want to assign location information, then click OK.

Aperture displays waypoints for the photos in Places view.

4 In the Browser, drag a photo to a waypoint in Places view to assign location information to it.

## Change photo locations

If you've assigned incorrect locations to photos, it's easy to change their location information. There are three methods for reassigning photo locations:

- *Change the location assignment for all photos associated with a location:* You can move the location pin in Places view.
- *Change the location assignment for a subset of photos associated with a location:* You can reassign the location for the photo subset using the Assign Location dialog.
- *Change the location assignment for a single photo:* You can reassign the location for the photo using the Map pane of the Info inspector. For more information, see [Work with location information using the Info inspector](#) on page 146.

### Move a pin, changing the location for all photos with that location assignment

1 Do one of the following:

- In the Library inspector, select Places.
- Select the item in the Library inspector containing the photos whose location you want to change, then click the Places button in the toolbar.

2 In Places view, click the Move Pins button.

The location pins on the Places view map turn purple, indicating that they can be moved.

3 Drag the incorrectly placed pin to the correct location, then click Done in the dialog that appears at the bottom of Places view.

The location pin is moved to its new location, and the location information is changed for all photos associated with the original location.

### Change the location assignment for a photo selection

1 In the Browser, select the photos whose location information you want to change.

2 Choose Metadata > Assign Location.

3 In the dialog that appears, enter the new location you want to assign in the search field.

Locations whose names match the text you entered are listed below the search field.

4 Select the appropriate location in the search results list.

A location is plotted on the map with a purple circle surrounding it. The purple circle is used to determine the geographical area encompassed by the location.

5 Adjust the area covered by the location as necessary by dragging the resize handles on the right side of the purple circle.


6 When you are satisfied with the location and the area assigned to it, click the Assign button.

The location assignment for the selected photos changes to the new location. A red pin appears on the map in Places view, with a location label indicating the location name and the number of photos it's assigned to. A purple circle indicates the area the location covers.

## Remove locations

If you have assigned a location to a photo or group of photos by mistake, you can remove it.

### Remove location information from a photo or group of photos

- 1 Do one of the following:
  - *To remove a location assignment from all photos associated with a location:* In Places view, select the location pin.
  - *To remove a location assignment from a subset of photos associated with a location:* In the Browser, select the photos whose location information you want to remove.
- 2 In Places view, choose Remove Locations from the Places Action pop-up menu .

If you selected a location pin, the location is removed from all photos associated with the pin. If you selected photos in the Browser, the location information is removed from the selected photos.

You can also remove location information from photos using the Map pane of the Info inspector. For more information, see [Work with location information using the Info inspector](#) on page 146.

## Import and work with GPS Track file data

To begin working with a GPS track file in Places view, you must first import the GPS track file into Aperture.

GPS track points are digital bread crumbs that are used to define a path or route (“track”) using precise coordinates saved by a GPS device or GPS tracking iPhone app. If you have a GPS-enabled camera or iOS device or another GPS device that you use to create track files and save waypoints, you can import the track files into Aperture and work with them in Places view. Each leg and waypoint (digital bread crumb) is displayed in Places view, and you can assign the legs and waypoints to photos. Photos taken with a GPS-enabled camera or iOS device are automatically assigned locations corresponding to waypoints in the track file.

### Import a GPS track file

- 1 In the Library inspector, select the project into which you want to import the track file, then click the Places button in the toolbar.
- 2 In Places view, choose Import GPS Track from the GPS pop-up menu.
- 3 In the dialog that appears, navigate to the location of the GPS track file, select it, then click Choose Track File.

The track file is imported into the selected project. The track file appears as a purple line on the map in Places view.

### Create a new location based on a waypoint in a GPS track file

After you have imported the GPS track file into your Aperture project, you can begin working with the GPS track data to create new locations, assign locations to photos, and move location pins.

- 1 In the Library inspector, select a project with an imported GPS track file.
- 2 In the Browser, select a photo and drag it to a waypoint in Places view.

A small dialog appears at the bottom of Places view asking if you would like to assign location information to other photos in the project based on time.

3 Do one of the following:

- *To assign photo location information to other photos in the project based on time in the GPS track file:* Click Assign Locations.
- *If you don't want to assign photo location information to other photos in the project:* Click Done.

#### Assign location information from a GPS waypoint to a photo selection

- 1 In the Browser, select the photo or photos to which you want to assign location information.
- 2 In Places view, Control-click the waypoint whose location information you want to assign to the selected photos, then choose Assign Photos from the shortcut menu.

The waypoint's location information is assigned to the photo selection, and a location badge (a red pin) appears at the top of each selected photo in the Browser.

Moving location pins that correspond to waypoints in a GPS track file works the same way as moving other location pins. For more information about moving location pins, see [Change photo locations](#) on page 142.

#### Delete a GPS track file

You can delete a GPS track file at any time. For example, if you have several GPS track files on your computer and you aren't sure which locations they track, you can import the files individually to see if the track data corresponds to locations in your project. If a GPS track file contains track data that doesn't match locations in your project, you can delete it.

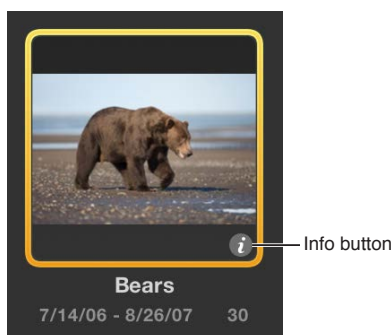
- In Places view, choose Delete Selected Track from the GPS pop-up menu.

#### Assign location information to projects

If all the photos in a project were shot in the same location, you can save time by assigning location information to the project in Projects view. Rather than selecting photos in the Browser and assigning them a location, you can assign the location to the project. Assigning a location to a project assigns the location to all versions in the project.

#### Assign a location to all versions in a project quickly

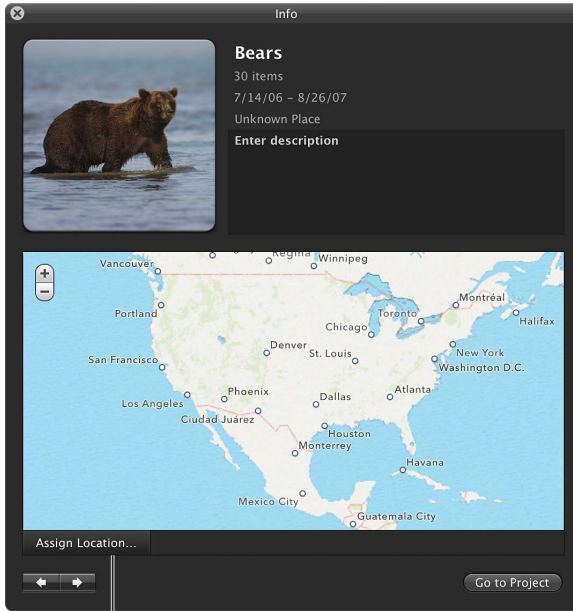
- 1 In the Library inspector, select Projects.  
The Aperture main window switches to Projects view.
- 2 Click the Info button for the project to which you want to assign the location.



The Info HUD appears.



- 3 In the Info HUD, click Assign Location.

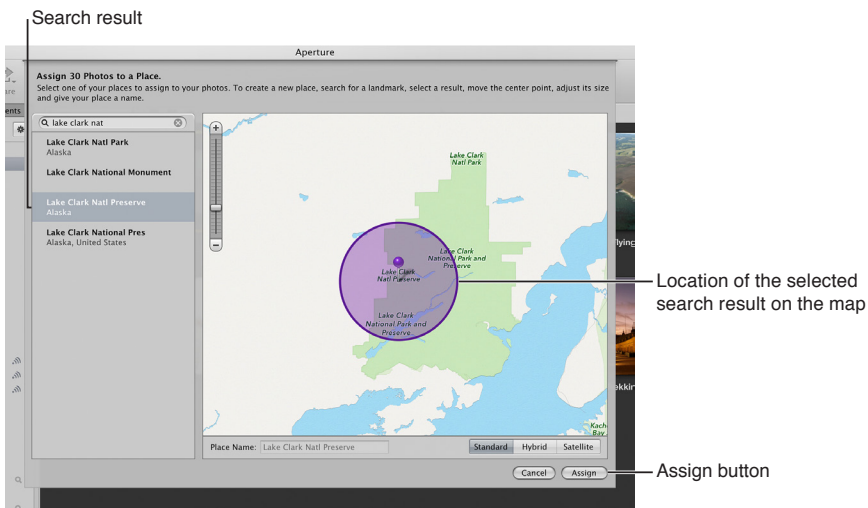


Assign Location button

- 4 In the dialog that appears, enter a specific address or the name of a place, a city or town, or a significant geographical location such as a national park in the search field.

Aperture searches for the location you entered in the search field and displays a list of search results. Place names that match the text you entered are displayed at the top of the search results list.

- 5 Select the search result that matches the location you are looking for.



- 6 If you would like to give the location a custom name, enter a name in the Place Name field.
- 7 Click Assign.

The selected location is assigned to every photo in the project.

## Work with location information using the Info inspector

In addition to working with location information in Places view and Projects view, you can also work with location information in the Map pane of the Info inspector. The Map pane of the Info inspector provides a convenient means of modifying a photo's location information without having to switch to Places view.

There are three map views you can use within the Map pane of the Info inspector:

- *Standard view*: This view shows the map with a traditional depiction of roads, parks, borders, bodies of water, and more.
- *Hybrid*: This view shows the map as satellite imagery with street names and other information.
- *Satellite*: This view shows the map as satellite imagery.

### View a photo's location information using the Map pane of the Info inspector

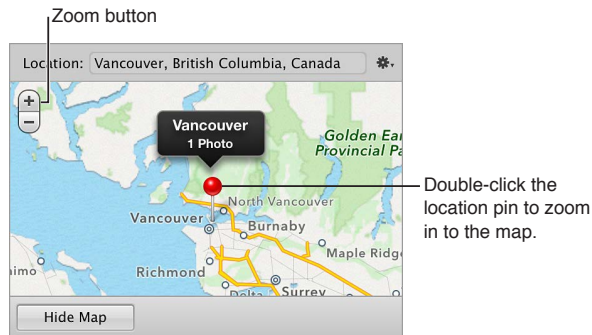
- 1 In the Browser, select a photo whose location information you want to view.
- 2 In the Info inspector, click the Show Map button.

The Map pane appears, with a red pin in the center of the map indicating where the photo was shot.



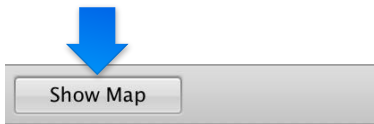
Show/Hide Map button

- 3 In the Map pane of the Info inspector, do one of the following:
  - Use the Zoom buttons to zoom in to or out of the location where the photo was captured.
  - Use the pinch gesture to zoom in and out.
  - Double-click the location pin to zoom in to the area where the photo was captured. Double-click the location pin again to zoom in further.

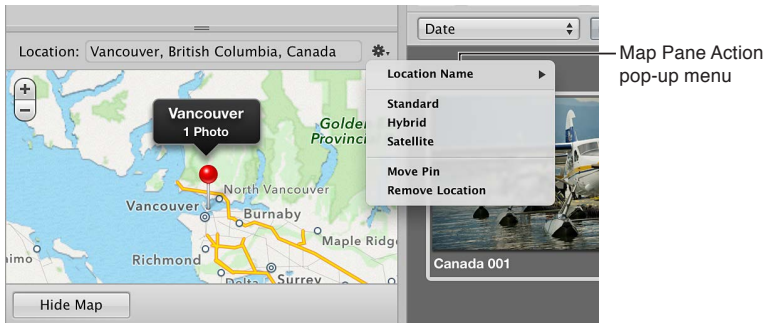


### Switch views within the Map pane of the Info inspector

- 1 In the Browser, select a photo to which you want to assign a location.
- 2 In the Info inspector, click the Show Map button to open the Map pane.



- 3 Choose a map view from the Map Pane Action pop-up menu .



### Assign location information using the Map pane of the Info inspector

- 1 In the Browser, select a photo to which you want to assign a location.
- 2 In the Info inspector, click the Show Map button to open the Map pane.



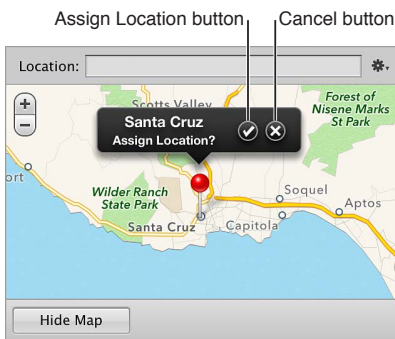
The Map pane appears.

- 3 Enter the name of the location you want to assign to the photo in the Location field, then select the location in the search results list that appears.



The map view changes to show the new location, with a purple location pin and a location label at its center.

- 4 Click the Assign Location button in the location label.



The location information is assigned to the photo.

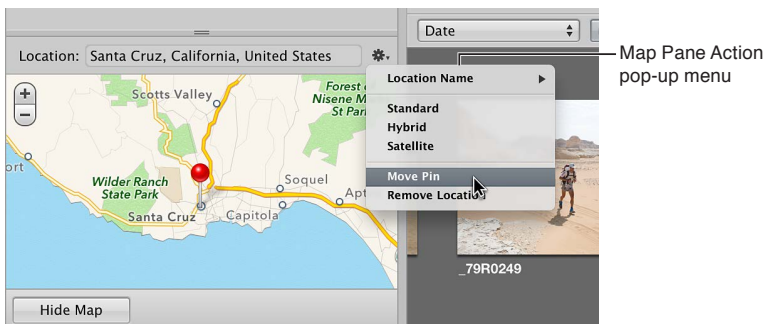
### Change a photo's location information using the Map pane of the Info inspector

- 1 In the Browser, select a photo whose location information you want to change.
- 2 In the Info inspector, click the Show Map button to open the Map pane.



The Map pane appears, with a red pin in the center of the map indicating where the photo was shot.

- 3 Choose Move Pin from the Map Pane Action pop-up menu.



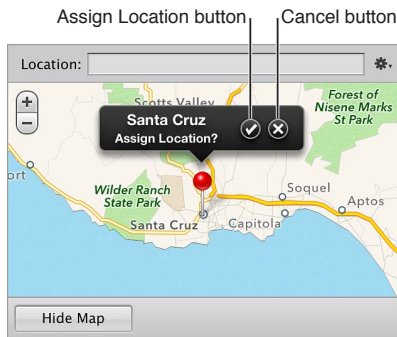
The red pin turns purple.

- 4 Enter the name of a new location to assign to the photo in the Location field, then select the location in the search results list that appears.



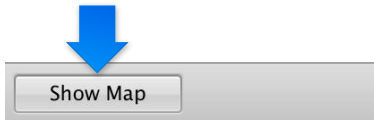
The map view changes to show the new location.

- 5 Do one of the following:
  - *To assign the location to the photo:* Click the Assign Location button in the location label.
  - *To cancel the location change:* Click the Cancel button in the location label.

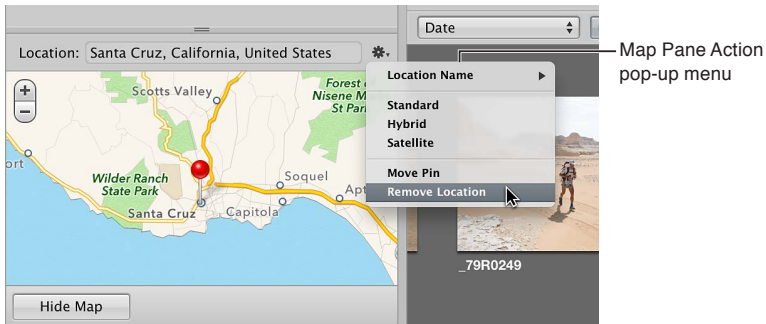


### Remove location information using the Map pane of the Info inspector

- 1 In the Browser, select a photo whose location information you want to remove.
- 2 In the Info inspector, click the Show Map button to open the Map pane.



- 3 Choose Remove Location from the Map Pane Action pop-up menu.

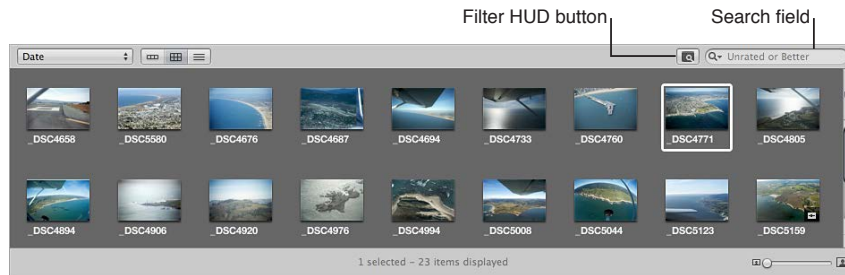


The location information is removed from the photo.

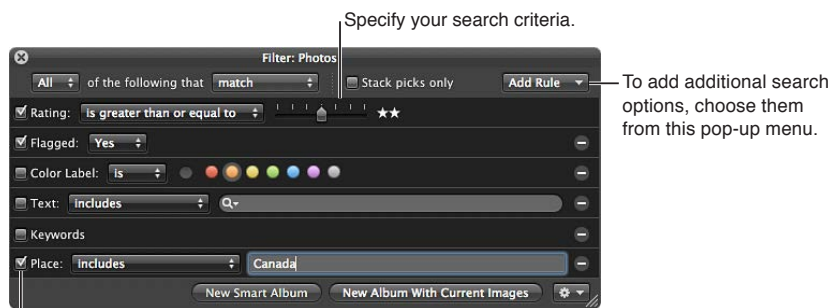
## Search for and display photos

### Searching overview

In Aperture, you can search for photos in multiple ways. You can use the search field and pop-up menu in the Browser to quickly locate photos by name or display photos by rating, flag status, and color label. To perform more complex searches, you can open the Filter HUD by clicking the button to the left of the Browser search field.



In the Filter HUD you can search for photos by a wide variety of criteria, including photo name, subject, keyword, photographer, caption or text, date, location, EXIF and IPTC information, and applied adjustments. You can also search by a combination of criteria.



Specify your search criteria.

To add additional search options, choose them from this pop-up menu.

Select the checkboxes for the items you want to search by.

You can search for photos across the entire library or within a particular project, album, or folder. Your search doesn't change the contents of the library or the selected project, album, or folder; it only temporarily changes the photos you view in the Browser. If you cancel the search criteria in the Filter HUD, all of your photos appear in the Browser again. The Filter HUD is preset to show photos that are unrated or better, hiding rejected photos, but you can change the Filter HUD criteria to show rejected photos if you wish.

**Important:** Search criteria set in the Aperture Browser filters photos only within Aperture. If you open your Aperture library in iPhoto, all photos are shown.

If you want to save your search results, you can create a new album containing the photos from your search, or you can create a Smart Album that automatically gathers photos based on your search criteria.

For more information about searching, see:

- [Library inspector overview](#) on page 51
- [Search for photos by face](#) on page 130
- [Organize photos by location using Places](#) on page 131

## Perform quick searches using the Search Field pop-up menu

The search field pop-up menu in the Browser provides a set of options that let you quickly remove photos from view in the Browser so that you can focus on the photos with which you want to work. You can either enter the name of a photo in the search field or choose a rating, flag status, or color label from the search field pop-up menu to filter photos in the Browser. Although photos that don't match your search string or search field pop-up menu choice are removed from view, they are not deleted. To view all photos in the Browser again, you simply click the Reset button in the search field.

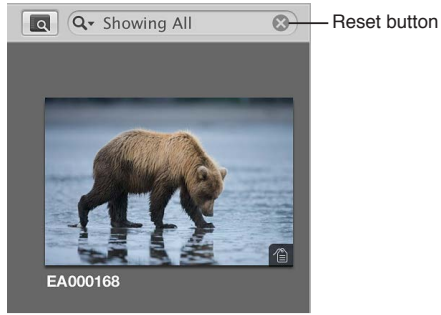
**Note:** By default, the Browser is set to show photos that are unrated or better, hiding rejected photos from view.



### Filter photos using the Browser search field and search field pop-up menu.

- 1 In the Library inspector, select the item you want to search.  
To search all the photos in the library, select Photos.
- 2 In the Browser, do one of the following:
  - *To show photos based on text (such as a keyword) or a numerical value (such as width or height in pixels):* Enter text or a number in the search field, then press Return.
  - *To show photos that have been assigned a specific star rating or better:* Choose a star rating option from the search field pop-up menu (or press the keyboard shortcut for the option, shown in the menu).
  - *To show all photos, including rejects:* Choose Show All from the search field pop-up menu (or press Control-6).
  - *To show unrated photos only:* Choose Unrated from the search field pop-up menu (or press Control-7).
  - *To show rejected photos only:* Choose Rejected from the search field pop-up menu (or press Control-8).
  - *To show flagged photos only:* Choose Flagged from the search field pop-up menu (or press Control-Slash (/)).
  - *To show photos that have a color label assigned to them:* Choose a colored label from the search field pop-up menu, or press the keyboard shortcut for the label (to see the keyboard shortcut for the label, move the pointer over it).

- To reset the search field pop-up menu to the default setting of *Unrated or Better*: Click the Reset button on the right side of the search field, or delete the text in the search field.




For more information about rating photos, see [Rating photos overview](#) on page 98. For more information about flagging photos, see [Modify metadata in the Info inspector and Inspector HUD](#) on page 198.

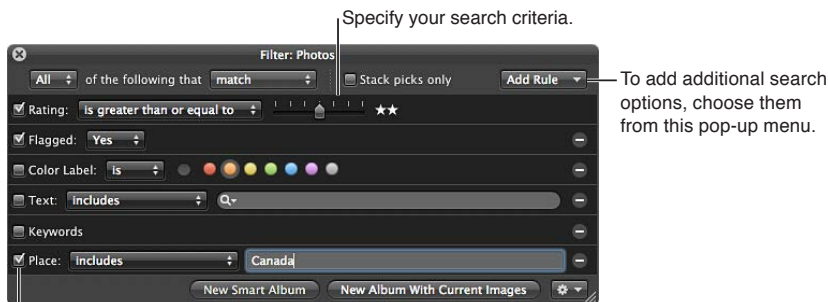
## Search using a combination of criteria

You can use the Filter HUD to see all photos that match a certain search criteria. For example, you can search for all the photos in a project that have a rating of five stars. You can show photos with a specific keyword assigned, photos that are flagged or color labelled, or photos taken in a specific location or on a specific date. The Filter HUD allows you do searches based on a wide variety of the metadata assigned to your photos. You can also find photos that match a combination of criteria, which allows you do to complex searches. You can search for photos within a specific project, album, or folder, as well as search your entire library in a broad search.

### Search for photos

- 1 In the Library inspector, select the item you want to search.
 

To search across the entire library, select Photos. The main window switches to Photos view, displaying all of the photos in the Aperture library. In Photos view, you can use the Browser and Viewer to locate, sort, and adjust photos as necessary.
- 2 Make sure the Browser is showing by doing one of the following:
  - To show the Browser by itself: Choose View > Browser.
  - To show the Browser and Viewer together: Choose View > Split View.
- 3 Click the Filter HUD button  beside the search field in the Browser (or press Command-F).
- 4 In the Filter HUD, choose search criteria or rules from the Add Rule pop-up menu.



Select the checkboxes for the items you want to search by.



When you choose an item from the Add Rule pop-up menu, additional controls become available in the Filter HUD. The Add Rule pop-up menu contains the following items:

- *Adjustments*: Search for photos based on the type of adjustment that has been applied to them in Aperture, as well as which RAW decoding version was used to render the image. You can also search for photos that do not have a specific type of adjustment applied to them.
- *Aperture Metadata*: Search for photos with Aperture-specific metadata applied to them, such as version name and project name.
- *Attachment*: Search for photos based on whether they have audio attachments.
- *Calendar*: Search for photos by the date they were taken as registered in the EXIF data. You can select a date or several dates in the calendar to search for photos taken on those dates, as well as specify a range of dates. In addition, you can search for photos taken outside of a range of dates. Use the Calendar navigation buttons to navigate through the monthly calendars. Shift-click to select a range of continuous dates; Command-click to select multiple noncontinuous dates.
- *Color Label*: Search for photos that have color labels assigned to them. You can search for more than one color label at a time. You can also search for photos that do not have a specific color label assigned to them.
- *Date*: Search for photos based on their creation date. Images that you import from sources other than digital cameras and card readers, such as JPEG or TIFF files, may not have EXIF information associated with them. However, they typically have a creation date assigned to the file. You can use this creation date to locate images using the Date search options.
- *EXIF*: Search for photos using any EXIF information recorded by the camera.
- *Face*: Search for photos based on the faces that have been assigned names. You can search for photos that only contain a single named face, as well as photos that have multiple people in them, including the face you're looking for.
- *File Status*: Search for photos based on whether they are managed images, referenced images, or online or offline images. You can use the File Status search category to show the photos whose originals Aperture considers missing.
- *File Type*: Search for files of a specific type, such as RAW or video. You can also search for RAW + JPEG image pairs, movie and audio file attachments, and images edited with external applications.
- *Flagged*: Search for photos that you have flagged in Aperture.
- *Import Session*: Search for photos that were imported at a specific time or on a specific date. Aperture keeps track of your import sessions and can identify photos that were imported at the same time. You can also search for photos that were not imported during a specific import session or range of sessions.
- *IPTC*: Search for photos based on any IPTC information assigned to them.
- *Keywords*: Search for photos by any of the keywords that you've assigned to them. You can select one or more keywords to search for. You can also specify which keywords a photo must have to qualify as a match.
- *Photo Usage*: Search for photos that have been employed for a specific purpose in Aperture, such as photos currently used in a book, emailed photos, and prints ordered via the Apple print service.
- *Place*: Search for photos by the location information assigned to them. If you have photos that were shot with a GPS-enabled digital camera or if you've identified where photos were shot using Places, you can search for photos by location.

- *Rating*: Search for photos based on the ratings assigned to them in Aperture.
- *Text*: Search for photos based on any text associated with a photo. For example, you might search for photos based on text in a photo's caption or keywords, or in any other text entry. You can also search by multiple text entries.

5 Do one of the following:

- *To specify that a photo must match at least one of the criteria or keywords*: Choose Any from the Any/All pop-up menu and "match" from the Match pop-up menu.
- *To specify that a photo must match all the criteria and keywords*: Choose All from the Any/All pop-up menu and "match" from the Match pop-up menu.
- *To specify that a photo must not match any of the criteria and keywords*: Choose Any from the Any/All pop-up menu and "do not match" from the Match pop-up menu.
- *To specify that a photo must not match all of the criteria and keywords*: Choose All from the Any/All pop-up menu and "do not match" from the Match pop-up menu.

### Save your search results

When you perform a search using the Filter HUD, you can save your results in several ways. You can create a new Smart Album that locates photos that match the search criteria. You can also save the search results themselves in a new album, book album, Light Table album, slideshow album, Flickr album, Facebook album, Smart Web Page Album, webpage album, or web journal album.

#### Create a Smart Album based on the search criteria


- 1 Use the Filter HUD to search for photos based on specified criteria.
- 2 In the Filter HUD, click the New Smart Album button.  
A new, untitled Smart Album appears in the Library inspector.
- 3 In the Library inspector, enter a name for the Smart Album, then press Return.

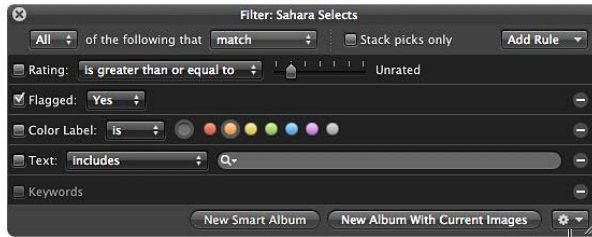
When you add photos to a project or the library that match the search criteria, they are automatically added to the Smart Album.

For more information, see [Group photos with Smart Albums](#).

#### Save your search results in an album

- 1 Use the Filter HUD to search for photos based on specified criteria.
- 2 In the Filter HUD, do one of the following:
  - *To create a new album*: Click the New Album With Current Images button, enter a name for the album that appears in the Library inspector, then press Return.

- To create a new book album, Light Table album, slideshow album, Flickr album, Facebook album, Smart Web Page Album, webpage album, or web journal album: Choose the appropriate item from the Filter HUD Action pop-up menu , enter a name for the album, then press Return.



Filter HUD Action pop-up menu

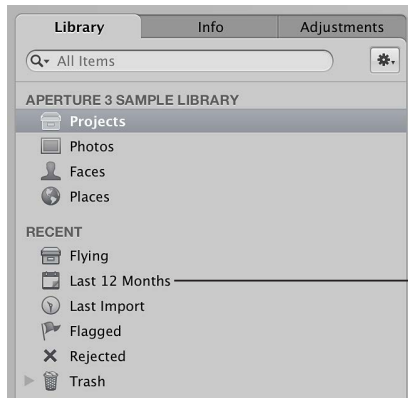
All photos that match the search criteria are placed in the new album you created.

## Group photos with Smart Albums

### Smart Albums overview

When you need to group certain types of photos, either temporarily or permanently, you can use a Smart Album to gather the photos automatically based on the search criteria you specify. For example, suppose you want to see the best photos you took of a particular sports event. You select the project containing shots of the sports event, create a Smart Album, show the Smart Settings HUD, and search for photos rated Select (five stars). All photos with that rating immediately appear in the Smart Album. Whenever a photo meets the search criteria later, it's automatically added to the Smart Album.

Aperture comes with a Smart Album set up in the library for you that contains all photos imported into Aperture over the last 12 months. Select a Smart Album to see its contents in the Browser.



Select this Smart Album to see all the photos taken in the last year.

You can also choose where to search for photos—across the entire library or within a specific project or folder. For example, when you select the Projects item in the Library inspector and create a Smart Album, the Smart Album searches across the entire library. When you select a project or folder and create a Smart Album, the Smart Album searches within that project or folder.

You can create Smart Albums that:

- Collect photos of certain poses or subjects, such as head shots, photos of particular models, or photos of sports scenes
- Collect photos suitable for a specific purpose, such as distribution on the web or submission to stock photography houses
- Gather the best photos of your collection into a portfolio of poster photos that you use to present or introduce your work
- Gather a project's select photos
- Gather specific types of media, such as audio and video clips
- Collect photos with a specific type of adjustment applied, such as a vignette.

You might also use Smart Albums to explore different aspects of your photography portfolio. For example, you can create temporary collections of photos based on technical data such as camera model, exposure, or lens type as you investigate technical influences on your photos.

You can quickly create a Smart Album to review photos and then delete it. Or, you can create Smart Albums that hold permanent and expanding collections of photos. Using Smart Albums can become an efficient way to relieve yourself of slow reviews of photos that you are required to track periodically.

**Important:** Aperture Smart Albums cannot be edited in iPhoto. To modify the search criteria of an Aperture Smart Album, you must open the Aperture Library in Aperture and then revise the Smart Album's search criteria. For more information, see [Revise the contents of a Smart Album](#) on page 159.

## Collect photos in a new Smart Album

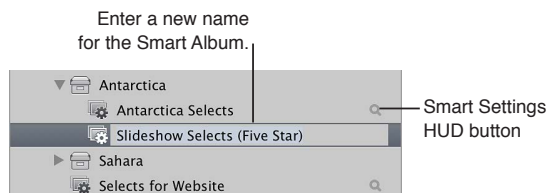
You can collect photos based on any of the information you can search for using the Smart Settings HUD. For example, you can create a Smart Album that gathers photos based on a specific keyword or a combination of keywords, ratings, dates, or other metadata. You can narrow or broaden the Smart Album search criteria in the Smart Settings HUD at any time.

### Create a Smart Album that searches only within one project

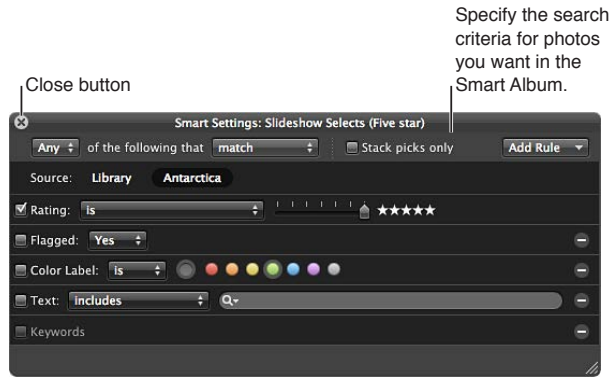
- 1 Select a project in the Library inspector.
- 2 Do one of the following:
  - Choose File > New > Smart Album (or press Shift-Command-L).
  - In the Library inspector, Control-click the project, then choose New > Smart Album from the shortcut menu.
  - Choose Smart Album from the New pop-up menu in the toolbar.

A new, untitled Smart Album appears within the project, and the Smart Settings HUD appears to its right.

- 3 Rename the Smart Album by entering a new name.



- 4 In the Smart Settings HUD that appears, specify search criteria.



The controls in the Smart Settings HUD are nearly identical to those in the Filter HUD. For more information about using the Filter HUD and specifying search criteria, see [Searching overview](#) on page 150.

- 5 Click the Smart Settings HUD's close button.

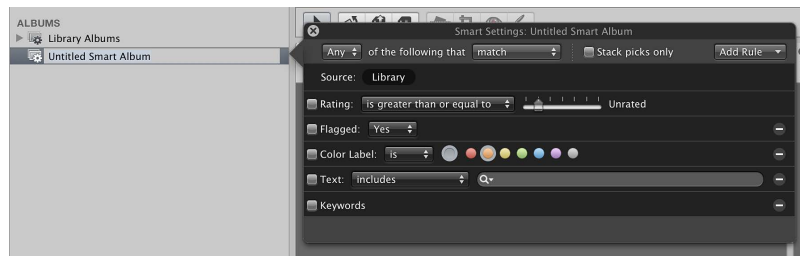
Aperture finds the photos within the project that match the specified search criteria and displays them in the Browser. You can now work with these versions of your photos in the same way you work with photos in any project or album.

### Create a Smart Album that searches across the entire library

- 1 In the Library inspector, select Projects.
- 2 Do one of the following:
  - Choose File > New > Smart Album (or press Shift-Command-L).
  - Choose Smart Album from the New pop-up menu in the toolbar.

A new, untitled Smart Album appears in the Albums section of the Library inspector.

- 3 Rename the Smart Album by entering a new name.
- 4 In the Smart Settings HUD, specify search criteria.



For more information about using the Smart Settings HUD and specifying search criteria, see [Searching overview](#) on page 150.

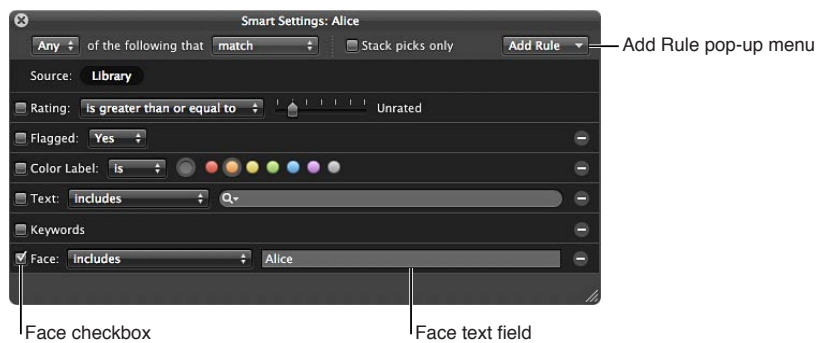
- 5 Click the Smart Settings HUD's close button.

Aperture finds the photos in the library that match the specified search criteria and displays them in the Browser. You can now work with these versions of your photos in the same way you work with photos in any project or album.

### Configure a Smart Album to collect photos of particular people

You can create a Smart Album and specify a person or a group of people as search criteria. For example, you can create a Smart Album that is set to collect photos of your family members. First you create the Smart Album, and then you use the Smart Album's Smart Settings HUD to specify that it collect photos of each individual in your family.

- 1 In the Library inspector, select Projects.
- 2 Choose File > New > Smart Album (or press Shift-Command-L).  
A new, untitled Smart Album appears in the Albums section of the Library inspector.
- 3 Give the Smart Album a name.
- 4 In the Smart Album's Smart Settings HUD, choose Face from the Add Rule pop-up menu.
- 5 Select the Face checkbox, choose "includes" from the Face pop-up menu, then enter the name of the person you want to include in the Smart Album in the text field to the right of the pop-up menu.



- 6 Repeat steps 4 and 5 for each additional person you want added to the Smart Album.
- 7 When you have finished, close the Smart Settings HUD.

**Tip:** In Faces view, you can quickly create a Smart Album that gathers photos of a particular person by dragging the person's snapshot to the Library inspector. For more information about Faces, see [Faces overview](#) on page 123.

## Search within a Smart Album

After creating a Smart Album, you can search for specific photos within the contents of the Smart Album.

### Search within the contents of a Smart Album

- 1 In the Library inspector, select the Smart Album whose contents you want to search, then click the Filter HUD button in the Browser.



Select the Smart Album you want to search within.

Show the Browser's Filter HUD and specify search criteria.

- 2 When the Filter HUD appears, specify secondary search criteria to show specific photos within the Smart Album.


To see the entire contents of the Smart Album again, delete the search criteria in the Filter HUD.

## Revise the contents of a Smart Album

To change the contents of a Smart Album, you change the search criteria for the Smart Album. You can manually select individual photos and delete them, but the deletion removes both the version and the original wherever it exists in the original project. Similarly, you cannot simply drag photos into a Smart Album to add them.

If you decide that certain photos should not be in a Smart Album, you can narrow the search criteria to exclude photos. Aperture performs a new search and revises the Smart Album's contents. To remove a photo from a Smart Album, you can also change the photo so that it no longer matches the Smart Album's search criteria. For example, if a Smart Album gathers photos rated five stars, changing a photo's rating to four stars removes it from the Smart Album.

### Change the contents of a Smart Album by changing the search criteria

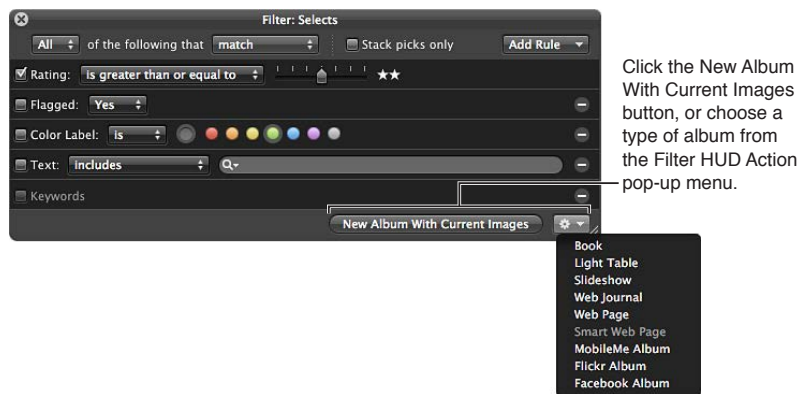
- 1 In the Library inspector, click the Smart Settings HUD button  to the right of the Smart Album to show the Smart Settings HUD.
- 2 Revise the search criteria in the Smart Settings HUD to eliminate or add the photos you want.
- 3 Click the Smart Settings HUD's close button.

## Transfer Smart Album photos to an album

You can transfer photos from a Smart Album to another album, such as a slideshow album or a book album. You transfer photos by selecting the photos in the Smart Album and dragging or copying them into another album. You can also select the photos in the Smart Album and have Aperture create a new album to hold them.

### Transfer photos from a Smart Album to a new album that Aperture creates

- 1 In the Library inspector, select the Smart Album containing the photos you want to transfer, then click the Filter HUD button in the Browser.
- 2 In the Filter HUD, specify search criteria for the photos you want to transfer.
- 3 Click the New Album With Current Images button to create an album, or choose the type of album you want from the Filter HUD Action pop-up menu in the bottom-right corner of the Filter HUD.



A new album is created, containing the photos you selected using the search criteria.

## Delete a Smart Album

You can delete a Smart Album at any time, and none of the photos gathered from the library are deleted. If you've transferred photos from a Smart Album to another album, the photos in the other album are also not deleted when you delete the Smart Album.

### Delete a Smart Album

- 1 Select the Smart Album in the Library inspector.
- 2 Choose File > Delete Smart Album (or press Command-Delete).

## Work with library albums

If you created a library in a previous version of Aperture, a selection of Smart Albums was set up in the Library inspector for you automatically. When you click the disclosure triangle beside Library Albums in the Library inspector, you see the following Smart Albums:

- *Five Stars*: Select this Smart Album to see all photos in the library that are rated five stars.
- *One Star or Better*: Select this Smart Album to see all photos that are rated one star or better.
- *Rejected*: Select this Smart Album to see all photos that are rated Reject.
- *Videos*: Select this Smart Album to see all video clips in the library.
- *In the Last Week*: Select this Smart Album to see all photos taken in the last week.
- *In the Last Month*: Select this Smart Album to see all photos taken in the last month.

**Important:** Library albums appear in the Library inspector only if your Aperture library was created in Aperture 3.2 or earlier.



### **Work with library albums**

- Open an Aperture library created in a previous version of Aperture.

The library albums appear in the Albums section of the Library inspector. For information about switching libraries, see [View other libraries](#) on page 58.

### **Remove the library albums from the Library inspector**

If you're working with an Aperture library created in a previous version of Aperture and you no longer want to see the library albums, you can remove them.

- In the Library inspector, select Library Albums, then choose File > Delete Folder (or press Command-Delete).

# View and compare photos

# 5

## View photos in the Viewer

### Viewer overview

The Viewer displays a detailed view of the photo or photos selected in the Browser. You can view one photo in incredible detail or view several photos at a time.

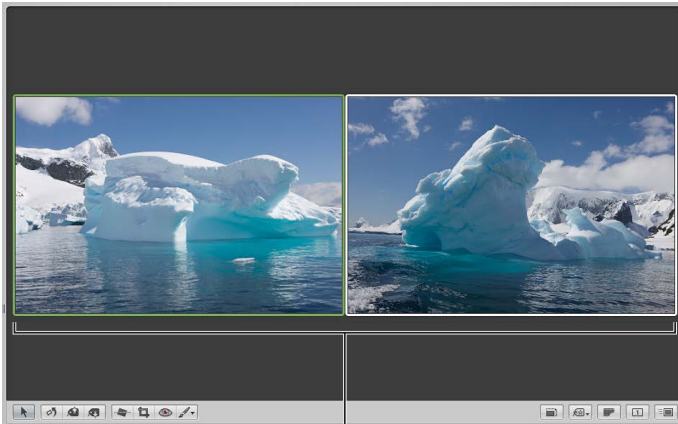


A detailed view of the selected photo appears in the Viewer.

Selected photo in the Browser

You use the Viewer to make adjustments, closely compare similar photos, and inspect photos at full resolution. If you use a dual-display system, you can set the Viewer to show your photos on both screens to provide stunning, full-detail views. You can also use the Viewer to preview and edit audio attachments and video clips.

When rating or adjusting photos, you can set the Viewer to compare two photos at once. You select a photo to compare against and then display other similar or related photos next to it for inspection. You might use the Aperture comparison feature to select photos from a series or compare versions of adjusted images to see which is best.



You can use the Viewer to compare two photos.

Depending on the size of your display and Viewer, photos may be displayed at a reduced size to fit in the Viewer. Aperture can display your photos at full resolution, which allows you to examine a photo exactly as it was recorded and see the precise effects of your adjustments and changes. If a full-resolution photo doesn't fit in the Viewer, you can pan across the photo to inspect different parts of the image. You can also zoom in to check details, such as sharpness.

Full-resolution view of a photo that is larger than the Viewer's screen size



You can also display photos in the Viewer with keywords and other information, such as IPTC or EXIF metadata. For more information, see [Working with metadata overview](#) on page 193.

You can work with the Viewer and Browser together, or you can change the main window layout to show just the Viewer, providing more space to view your images. For more information, see [Change the main window layout](#) on page 474.

## Change the number of photos in the Viewer

You can specify whether the Viewer displays one photo, three photos, or multiple photos at a time. If your system uses multiple displays, you can configure your main and secondary displays to show single photos, three photos, or multiple photos simultaneously. The display settings you choose also control the display of photos in full-screen view.

### Change the number of photos displayed in the Viewer

- *To display multiple photos:* Choose View > Main Viewer > Show Multiple (or press Option-U).

This is the default setting. When Show Multiple is chosen, the Viewer can display anywhere from one photo up to twelve at a time, depending on the number of photos selected in the Browser.

- *To display a single photo:* Choose View > Main Viewer > Show One (or press Option-R).

When the Viewer is set to Show One, the Viewer displays one photo at a time regardless of the number of photos selected in the Browser. This setting allows you to make a multiple photo selection in the Browser and then view each photo by itself within the selection.

- *To display three photos:* Choose View > Main Viewer > Three Up (or press Option-H).

When the Viewer is set to show three photos at a time, Aperture displays the selected photo in the center of the three photos that appear in the Viewer.

## Compare photos

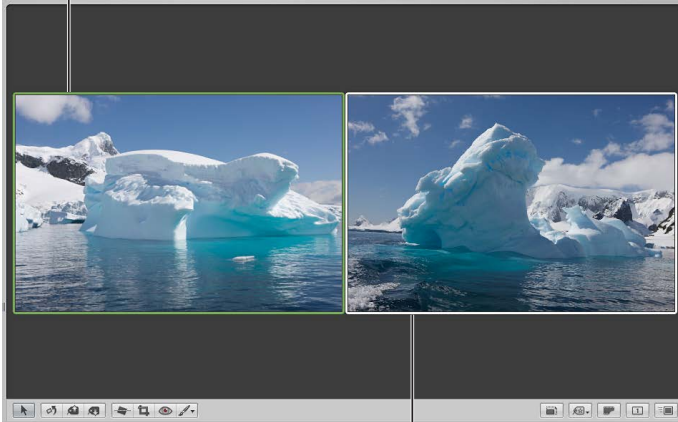
You can select a photo against which to compare other photos in your project or in the library. The selected photo remains on the screen as you select and display other photos (alternates) to compare against it. The comparison feature is useful for making final selections of the best photos in a series or comparing two versions of a photo for correct exposure or highlights. When comparing photos, you can apply ratings and keywords and make adjustments to selected photos.

### Set the Viewer to compare photos

- 1 Select a photo.
- 2 Choose View > Main Viewer > Compare (or press Option-O).

The compare photo appears on the left with a green border, and an alternate photo appears on the right.

The compare photo is displayed with a green border, visible in the Viewer and Browser.



The photo you want to examine against the compare photo is shown to the right.

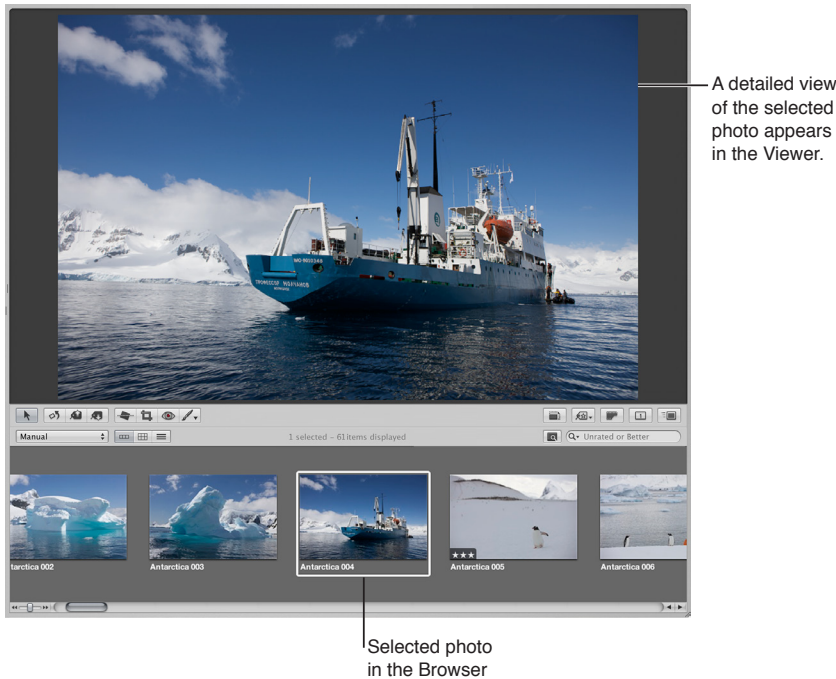
**3** Do any of the following:

- *To view a photo against the compare photo:* In the Browser, select another photo, or navigate to another photo using the arrow keys.
- *To set the alternate photo as the compare photo and navigate to the next photo:* Press Return.
- *To turn off the comparison feature and select the compare photo:* Choose Edit > Select Compare Item (or press Option-Return).
- *To turn off the comparison feature and select the alternate photo:* Choose Edit > Clear Compare Item (or press Command-Return).

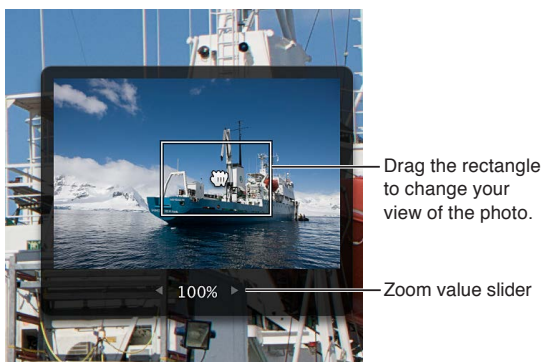
You can also use these procedures to compare photos in full-screen view. For information about full-screen view, see [Full-screen view overview](#) on page 172.

## View photos at full resolution

A full-resolution view of a photo shows every pixel in the photo. You can set Aperture to display a photo at full resolution even though the photo may not fit within the Viewer. Viewing photos at full resolution allows you to inspect your photo using the finest level of detail possible.



When a photo doesn't fit within the area of the Viewer, a small gray navigation box appears on the right side of the photo. You can drag the white rectangle within the navigation box to see other parts of the photo, also known as *panning*. You can also incrementally zoom in to and out of the photo at values from 25 to 1000 percent using the Zoom value slider at the bottom of the navigation box.



### Display a selected photo at full resolution

Do one of the following:

- Choose View > Zoom to Actual Size (or press Z).
- Click the Zoom Viewer button in the tool strip.



To turn off the full-resolution display, click the button again.

- Double-tap with two fingers.

To turn off the full-resolution display, double-tap with two fingers again.

**Note:** Smart zoom must be turned on in the Trackpad pane of System Preferences. For information about turning on smart zoom, see Help Center.

### Pan a full-resolution photo in the Viewer

Do one of the following:

- Drag the white rectangle that appears in the navigation box.
- Drag the photo in the Viewer.

### Zoom in to and out of a photo incrementally

- *To zoom in or out by single percentage increments:* Click the right or left arrow in the Zoom value slider.
- *To quickly zoom in or out:* Drag right or left in the Zoom value slider.
- *To zoom in or out using keyboard shortcuts:* Press Command–Plus Sign (+) to zoom in, and Command–Minus Sign (–) to zoom out.

## View original photos

When working with adjusted images, or versions, you may at times want to check what the original photo looks like. Aperture can quickly display the original photo on which a selected version is based.

### Display the original photo for a selected version

Do one of the following:

- Choose View > Show Original Image (or press M).
- Click the Show Original button in the tool strip.



## Work with audio and video in the Viewer

If you have imported audio and video files into Aperture, you can use the Viewer to review and edit them. You can edit the length of video and audio clips using the video and audio controls in the Viewer. You can also set the poster frame for a video clip (the frame that appears as the video's thumbnail in the Browser), as well as create a JPEG image from any frame in the video clip.

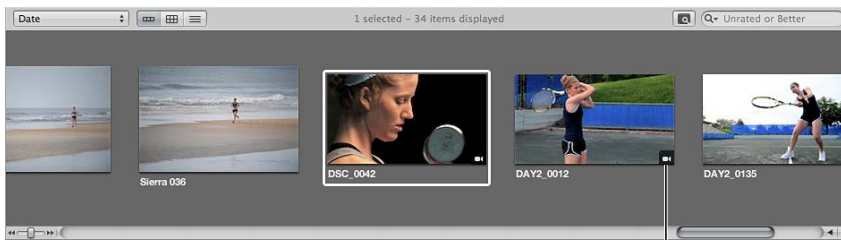
**Note:** If you have a camera that can record audio annotations or if you have manually attached an audio file to a photo, you use the Info inspector to listen to and edit audio attachments. For more information, see [Modify metadata in the Info inspector and Inspector HUD](#) on page 198.

### Listen to audio clips or view video clips

- 1 In the Library inspector, select an item that contains audio or video clips.

The audio and video clips appear in the Browser as thumbnails.

- 2 In the Browser, select an audio clip or a video clip.



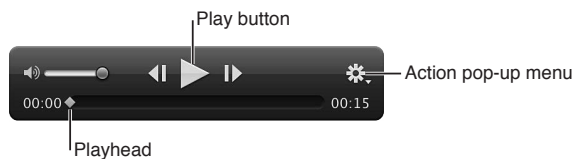
This icon indicates a video clip.

- 3 In the Viewer, do one of the following:

- *If you selected an audio clip:* Audio controls with the audio clip's filename appear in the Viewer. Click the Play button to listen to the audio clip, and use the playhead to navigate forward and backward.



- *If you selected a video clip:* The video clip appears in the Viewer. Move the pointer over the Viewer, and the video controls appear. Click the Play button to view the video clip, and use the playhead to navigate forward and backward.





## Trim an audio clip

- 1 Select the audio clip in the Browser.

The audio controls appear in the Viewer with the selected audio clip's filename displayed at the top.

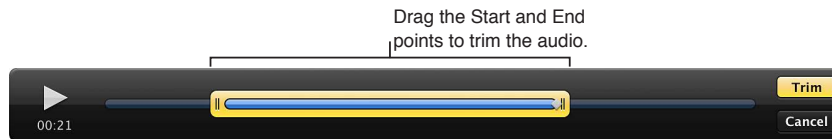


- 2 In the Viewer, click the Trim button.

The Trim controls appear.

- 3 Click the Play button to listen to the audio clip and determine which parts of the audio you want to keep.
- 4 Drag the Start point to the beginning of the audio you plan to use, and drag the End point to the position where you want the audio to end.

The Trim button turns yellow, indicating that the length of the audio clip has changed.

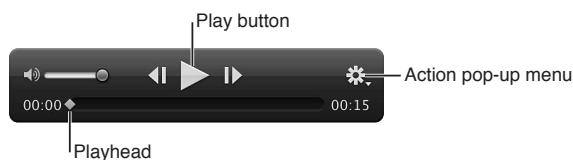


- 5 When you're satisfied with the length of the audio clip, click the Trim button.

**Tip:** If you want to use more than one part of the audio clip, choose Photos > New Version from Original (or press Option-G) for each additional part of the clip you plan to use, and repeat the steps above.

## Trim a video clip

You adjust the length of a video clip by choosing Trim from the Action pop-up menu.



- 1 Select the video clip in the Browser.
- 2 Move the pointer over the video image in the Viewer.
- 3 Choose Trim from the Action pop-up menu in the video controls.

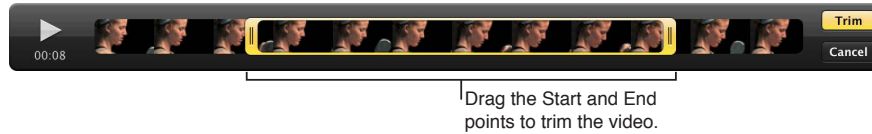
The Trim controls appear.

- 4 Click the Play button to view the video clip and determine which parts of the video you want to keep.

**Note:** If you move the pointer away from the Trim controls, they disappear. Move the pointer over the Viewer to show them again.

- 5 Drag the Start point to the beginning of the video you plan to use, and drag the End point to the position where you want the video to end.


The Trim button turns yellow, indicating that the length of the video clip has changed.




- 6 When you're satisfied with the length of the video clip, click the Trim button.

**Tip:** If you want to use more than one part of the video clip, choose Photos > New Version from Original (or press Option-G) for each additional part of the clip you plan to use, and repeat the steps above.

#### Set the poster frame for the video clip's thumbnail in the Browser

- 1 Select the video clip in the Browser.
- 2 Move the pointer over the video in the Viewer to show the video controls, and drag the playhead to the frame of video you want to set as the poster frame.
- 3 Choose "Set as poster frame" from the Action pop-up menu  in the video controls.

#### Create a JPEG image from a video frame

- 1 Select the video clip in the Browser.
- 2 Move the pointer over the lower portion of the video in the Viewer to show the video controls, and drag the playhead to the video frame you want to create a JPEG image from.
- 3 Choose "New JPEG from frame" from the Action pop-up menu  in the video controls.

A JPEG image of the video frame is created, and the thumbnail image appears in a stack with the video clip in the Browser. For information about working with stacks, see [Stacking photos overview](#) on page 92.

### View photos on multiple displays

Using the additional screen space of a second display provides an excellent platform for viewing and performing image adjustments, playing slideshows, and presenting your full-color, full-size photos to clients. When your system uses two displays, Aperture provides two Viewers in which you can view multiple photos. These Viewers are called the *Main Viewer* and the *Secondary Viewer*. The Main Viewer is used for displaying the Aperture application, and the Secondary Viewer for viewing photos. You can choose whether Aperture displays the same photos in the Main Viewer and Secondary Viewer, displays only the currently selected photo in the Secondary Viewer, or splits the display of photos between the Main Viewer and the Secondary Viewer.

#### Set how photos are displayed in the Secondary Viewer

- *To display the same photos in the Main Viewer and the Secondary Viewer:* Choose View > Secondary Viewer > Mirror (or press Option-M).
- *To display the currently selected photo in the Secondary Viewer:* Choose View > Secondary Viewer > Alternate (or press Option-A).

When you choose this option, the Secondary Viewer shows only one photo, even when you have the Main Viewer set to display multiple photos.

- *To display a selection of photos across both the Main Viewer and the Secondary Viewer:* Choose View > Secondary Viewer > Span (or press Option-S).

This option splits the display of the currently selected photos between the Main Viewer and the Secondary Viewer. For example, if you select seven photos to view, the Main Viewer shows as many as fit its screen size, and the remaining photos appear in the Secondary Viewer. Thus, one Viewer might show four photos, and the other Viewer might show the remaining three of the seven. You can also use the Span option to select two photos and compare them, showing one photo per display.

- *To turn off the display of photos in the Secondary Viewer, making the screen black:* Choose View > Secondary Viewer > Black (or press Option-B).

This option sets the Secondary Viewer to be a blank screen.

- *To turn off the dual-display function:* Choose View > Secondary Viewer > Off (or press Option-X).

### Show hot and cold areas in your photos

Photos may occasionally have overly bright areas where color information is beyond the standard limits of the Aperture working color space. For example, white areas in a photo brightly lit with direct sunlight, or bright flashes off a water surface, may be so bright that their color is outside the working color space. Similarly, photos may occasionally have black areas where color information is below the standard limits of the working color space.

Aperture can display these “hot” and “cold” areas of an image with tints on the photo to help you identify where they’re located. You may be able to adjust the areas identified by the hot and cold area overlays and recover highlight and shadow detail by changing the image’s exposure, recovery, black point, or gamma setting.

### Show the hot and cold areas in your photos

- Choose View > Highlight Hot & Cold Areas (or press Option-Shift-H).

You can also monitor color clipping per color channel when performing specific adjustments using modifier keys. For more information, see [Identify color channel clipping](#) on page 342.

### Change the hot and cold area threshold and clipping overlay color

You can adjust the threshold, or sensitivity, of hot and cold area overlays. By default, the hot area threshold is set to 100%, and the cold area threshold is set to 0%. You can set Aperture to flag pixels that are near 100% or 0% by lowering the hot area threshold or increasing the cold area threshold.

You can also choose to view the hot and cold area overlays in color or monochrome.

- 1 Choose Aperture > Preferences, or press Command-Comma (,).
- 2 In the Preferences window, click Advanced.
- 3 Do any of the following:
  - *To adjust the hot area display threshold:* Drag the “Hot Area threshold” slider to the left to increase the sensitivity to highlight pixels, and to the right to decrease it.
  - *To adjust the cold area display threshold:* Drag the “Cold Area threshold” slider to the right to increase the sensitivity to shadow pixels, and to the left to decrease it.
  - *To change the clipping overlay color:* Choose either Color or Monochrome from the “Clipping overlay” pop-up menu.

## Set up the Viewer for onscreen proofing

Photos displayed on your computer screen may look different when displayed on computer screens that use different color technologies. Your photos may also reproduce differently in print depending on the type of printer, the paper used, and the color profile of the printing device.

To see what a photo will look like when you print it or view it on a different display, you can have Aperture adjust your display so that your photos resemble the final results. To adjust your computer display, you choose a proofing profile that matches, as closely as possible, the characteristics of the final output device. For example, if your photo will be printed on sheet-fed coated paper, you can choose a proofing profile for sheet-fed coated paper to see a close approximation of what the printed photo might look like. Aperture provides several dozen profiles that match the characteristics of many printers, display devices, and color spaces.

After choosing a proofing profile that matches the final output of the photo, you turn on the onscreen proofing feature, and the photo changes to show the expected results.

Onscreen proofing alters the look of photos in the Viewer and in full-screen view.

### Choose a proofing profile

- Choose View > Proofing Profile, and choose the profile you want from the submenu.

### Turn onscreen proofing on or off

- Choose View > Onscreen Proofing (or press Option-Shift-P).

## View photos in full-screen view

### Full-screen view overview

Full-screen view shows your photos against a black background for detailed viewing using every inch of the display. Using a dual-display system in full-screen view gives you an enlarged space in which to compare and adjust images.

You can view, compare, and stack your photos in full-screen view. You can also apply adjustments and keywords. When you've finished working with your photos, you can use this view to preview and proof your photos.

You can use any of the Aperture HUDs in full-screen view. You can open the Inspector HUD or Keywords HUD by pressing its keyboard shortcut. In fact, you'll find it convenient to use keyboard shortcuts for most features you use in full-screen view. For more information about keyboard shortcuts you can use, see the *Aperture 3 Keyboard Shortcuts* PDF available in the Help menu.

Full-screen view has three modes that you can access by pressing the V key:

- *Viewer mode* is similar to the Split View layout in the Aperture main window. Use the filmstrip to navigate through, organize, and rate your photos. Photos selected in the filmstrip appear above the filmstrip in high resolution, filling the screen.

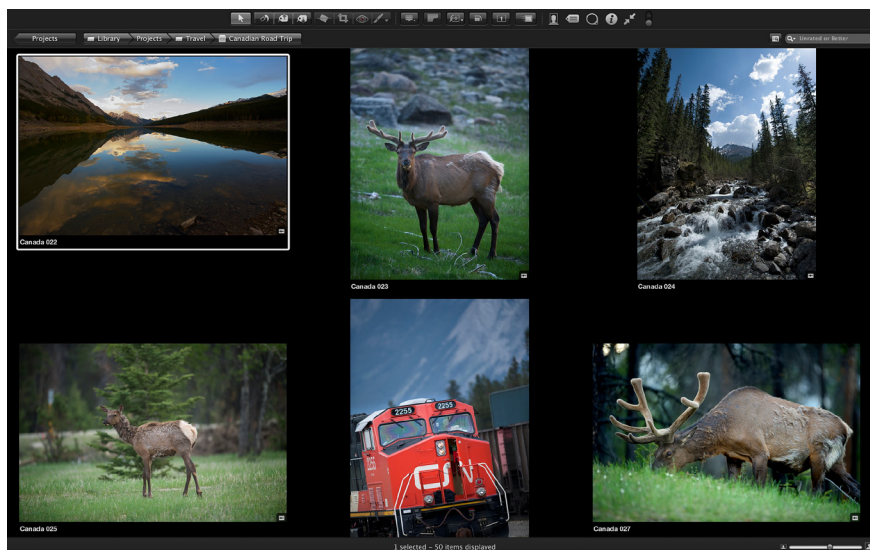


You can dock the filmstrip on the left, right, or bottom of the screen—wherever it best suits your work habits. You can also hide or show the filmstrip.

Use the toolbar buttons and tools to modify your photos. The toolbar includes buttons for creating versions and working with stacks, as well as a full set of image adjustment tools.

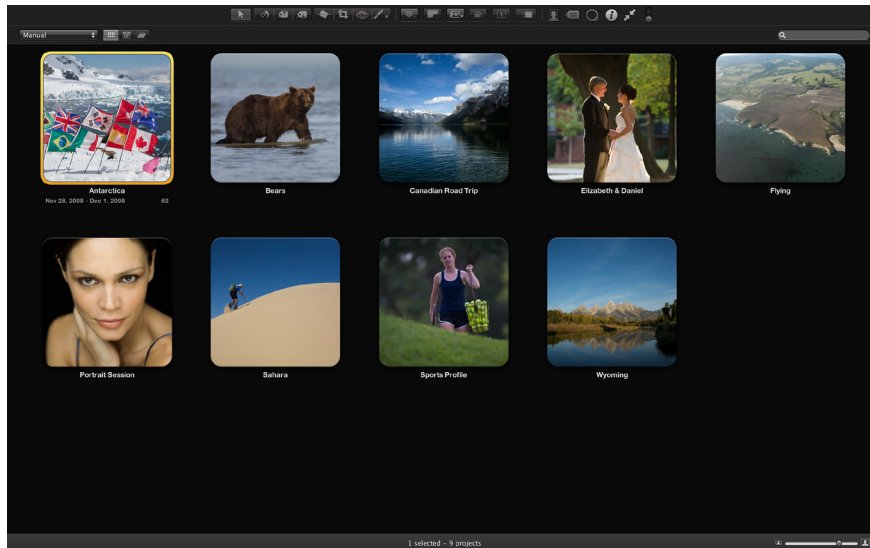
For more information, see [Work in Viewer mode in full-screen view](#) on page 175.

- *Browser mode* is similar to the working layout you see when the Browser is set to grid view in the Aperture main window. The search field and Filter HUD are accessible for filtering photos, and the Library Path Navigator pop-up menus provide access to all the items in the Library inspector.



For more information, see [Work in Browser mode in full-screen view](#) on page 177.

- *Projects mode* is similar to the Projects view in the Aperture main window. Each project is displayed as a thumbnail image. You can group projects by the year the photos were created or by the folders in which they reside in the Library inspector.



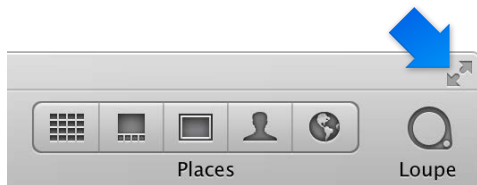
For more information, see [Work in Projects mode in full-screen view](#) on page 178.

## Enter and exit full-screen view

You can quickly switch between full-screen view and your workspace layout in the Aperture main window.

### Enter full-screen view

- Click the Full Screen button at the top-right corner of the Aperture main window (or press F).



The Aperture main window disappears, and your photos appear in full-screen view.

### Exit full-screen view

Do one of the following:

- Click the Exit Full Screen button in the full-screen view toolbar (or press F).



- Press Esc (Escape).

The workspace view you were working in before entering full-screen view reappears.

**Note:** When you quit Aperture while working in full-screen view, Aperture returns to full-screen view the next time you open the application. You can bypass full-screen view and return to the main Aperture workspace by pressing Option-Shift while opening Aperture.

### Work in Viewer mode in full-screen view

When you first enter full-screen view, Viewer mode is shown. Viewer mode is similar to the Split View layout in the Aperture main window; however, the photos are displayed in high resolution against a solid background. You navigate through your photos using the filmstrip.

#### View a photo in the filmstrip

- 1 If necessary, position the pointer over the area of the window where the filmstrip is docked (bottom, left, or right side) to display the filmstrip.
- 2 Select a photo displayed in the filmstrip by pressing the arrow keys or clicking the photo you want to see.

#### View more than one photo at the same time

- 1 Choose Show Multiple from the Viewer Mode pop-up menu in the toolbar.



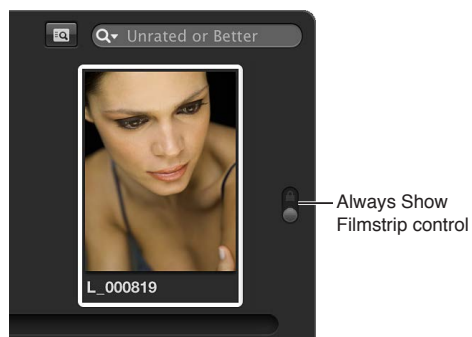
- 2 Position the pointer over area of the window where the filmstrip is docked (bottom, left, or right side) to display the filmstrip and do one of the following:
  - Command-click nonadjacent photos to select them.
  - Shift-click images to select a range of photos.

#### Show and move the filmstrip

You can choose to always show the filmstrip, so that Aperture automatically fits the photos and filmstrip on your screen without overlapping, or you can hide it, so that it appears only when you place the pointer over the area where it's docked.

You can also move the filmstrip to the left, bottom, or right side of your main display.

- *To always show the filmstrip:* Move the Always Show Filmstrip control to the locked position.



- *To show the filmstrip only when you move the pointer over its docked position:* Move the Always Show Filmstrip control to the unlocked position.
- *To move the filmstrip to a different location:* Drag the filmstrip to the left, right, or bottom of the Aperture window.

### Search for a photo in the filmstrip

When you have more photos than the filmstrip can display at once, you can use the search field in the filmstrip to quickly locate photos. The search is confined to the selection in the Library pane of the Inspector HUD.

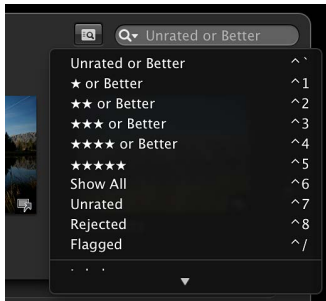
- Enter text associated with that photo in the filmstrip's search field.

Aperture finds the relevant photo or photos for you, removing others from view. To see all your photos again, click the search field's Reset button (with an X) or delete the text in the search field.

**Important:** You can use keyboard shortcuts to quickly implement a search that displays photos with specific ratings or photos that have a specific keyword. It's possible, while working with photos, to accidentally press such a keyboard shortcut and see photos on your screen unexpectedly change or even disappear. If this happens, you can display your photos by clicking the Reset button in the search field to reset the search criteria in the Filter HUD.

### Set the filmstrip to filter photos

By default, the filmstrip is set to show photos that are unrated or better. Any photos that have been assigned the Reject rating are automatically removed from view. To view rejected photos, you must set the filmstrip to show all photos.



You can also filter the photos shown in the filmstrip by criteria other than ratings. For example, you can filter photos by whether they've been flagged or assigned a color label.

- *To set the filmstrip to show all photos:* In the filmstrip, choose Show All from the search field pop-up menu.  
All photos, including rejects, appear in the filmstrip, and Showing All appears in the filmstrip's search field.
- *To set the filmstrip to show only rejected photos:* In the filmstrip, choose Rejected from the search field pop-up menu.  
Only photos with the Reject rating appear in the filmstrip, and X appears in the filmstrip's search field.
- *To set the filmstrip to show only flagged photos:* In the filmstrip, choose Flagged from the search field pop-up menu.
- *To set the filmstrip to show only photos assigned a specific color label:* In the filmstrip, choose a color label from the search field pop-up menu.



### View the full-screen view toolbar

The toolbar displayed in full-screen view is similar to the toolbar in the Aperture main window. You use the toolbar's buttons and tools to make image adjustments and to control your displays.

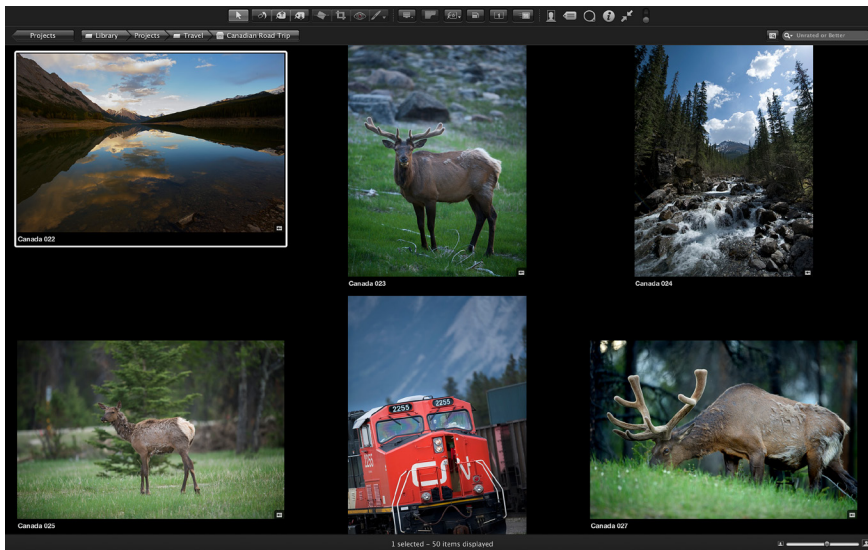
- In full-screen view, move the pointer to the top of the screen on the main display.

You can have the toolbar always appear on the screen by clicking the Always Show Toolbar control in the toolbar.



### Work in Browser mode in full-screen view

You can set full-screen view to switch between Viewer mode and Browser mode. Browser mode displays thumbnail images in a grid over a black background with minimal color interference. As in the Browser in the main Aperture workspace, the search field and Filter HUD are accessible for filtering photos. When full-screen view is set to Browser mode, the toolbar remains accessible at the top of the screen but the filmstrip disappears.



#### Set full-screen view to Browser mode

- 1 If Aperture is not already in full-screen view, enter it by pressing F.
- 2 To switch from Viewer mode to Browser mode, press V.

To switch back to Viewer mode, press V or double-click a thumbnail image.

#### Navigate through photos

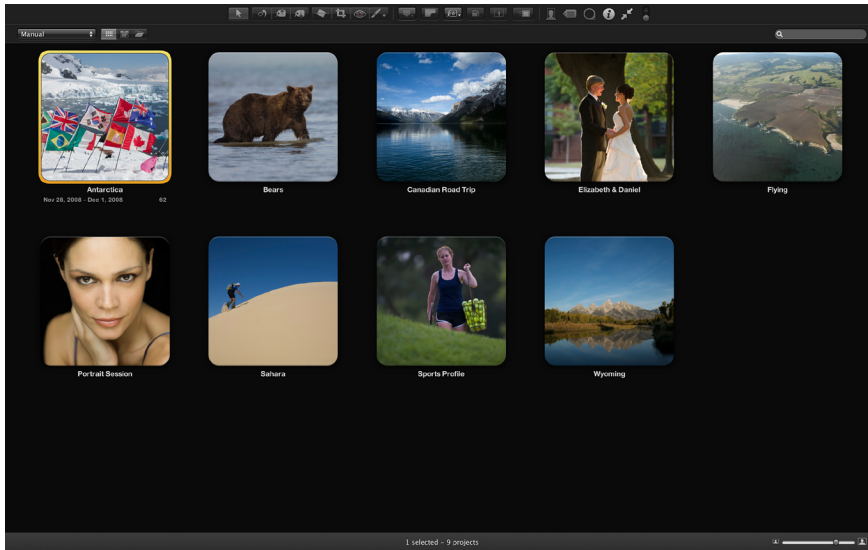
Do one of the following:

- Press an arrow key to move left, right, up, or down.
- Use the swipe gesture to scroll through the photos, and click the photo you want to work with.

You select and search for photos in Browser mode in the same way you select and search for them when the Browser is set to grid view in the main Aperture window. For more information, see [Select photos](#) on page 81 and [Searching overview](#) on page 150.

## Work in Projects mode in full-screen view

When you want to view your projects using as much screen space as possible and with a minimum of color interference, you can set full-screen view to Projects mode.



### Set full-screen view to Projects mode

- 1 If Aperture is not already in full-screen view, enter it by pressing F.
- 2 To set full-screen view to Browser mode, press V.
- 3 Click the Projects button in the top-left corner of the screen.

Full-screen view switches from Browser mode to Projects mode. The controls in Projects mode are the same as the controls in the Projects view in the Aperture main window. For more information, see [Work with projects](#) on page 61 and [View projects](#) on page 61.

To switch back to Browser mode, double-click a project's thumbnail.

## Use HUDs in full-screen view

You can use these HUDs to work with your photos in full-screen view:

- *Keywords HUD*: Create and organize keywords and add keywords to your photos.
- *Inspector HUD*: Navigate through the library, modify metadata in your photos, and perform adjustments.
- *Tool HUDs*: Use any of the adjustment tools that work in conjunction with HUDs.

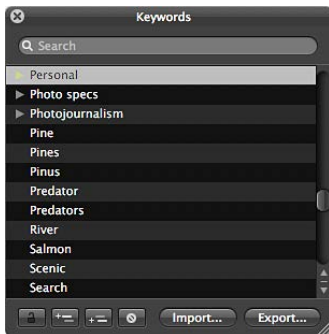
HUDs are available for use in full-screen view and can make adjusting photos easier.



### Show or hide the Keywords HUD

Do one of the following:

- Click the Keywords HUD button in the toolbar.



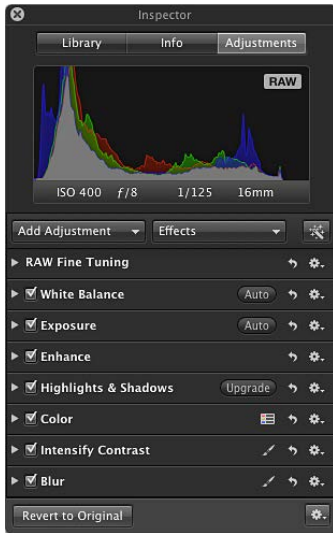
Use the Keywords HUD in full-screen view to quickly add keywords to your photos.

- Press Shift-H.

For more information, see [Apply keywords using the Keywords HUD](#) on page 110.

## Show or hide the Inspector HUD


- Press H.



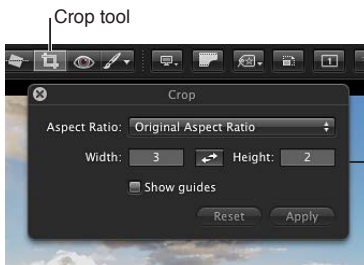
Use the Inspector HUD in full-screen view to open the Library pane, Info pane, or Adjustments pane when working with photos.

**Tip:** To temporarily hide the Inspector HUD while performing an image adjustment, so that you have an unobstructed view of your photo, hold down the Shift key while dragging a slider in the Adjustments pane. When you release the Shift key, the Inspector HUD reappears.

## Open any of the adjustment tool HUDs

- 1 Show the full-screen view toolbar by moving your pointer to the top of the screen on your main display.
- 2 Select an adjustment tool in the toolbar, or choose a Quick Brush adjustment from the Quick Brush pop-up menu .

If the tool you selected has a HUD, that HUD appears.



The Crop HUD appears when you select the Crop tool in the toolbar.

To hide the HUD for an adjustment tool, select the Selection tool in the toolbar.

## Change the display of metadata in full-screen view

The metadata display settings you choose for the Viewer and Browser also apply to photos displayed in full-screen view and in its filmstrip. The settings for the Viewer control the display of metadata for full-screen photos, and the settings for the Browser control the display of metadata for thumbnails in the filmstrip. For more information about setting the display of metadata, see [Working with metadata overview](#) on page 193.

Although the menus are not available in full-screen view, you can change the display of metadata using the same keyboard shortcuts used to change the display of metadata in the Browser and Viewer.

Turn the display of metadata in full-screen view on or off

- Press Y.

Switch between metadata views for photos in full-screen view

- Press Shift-Y.

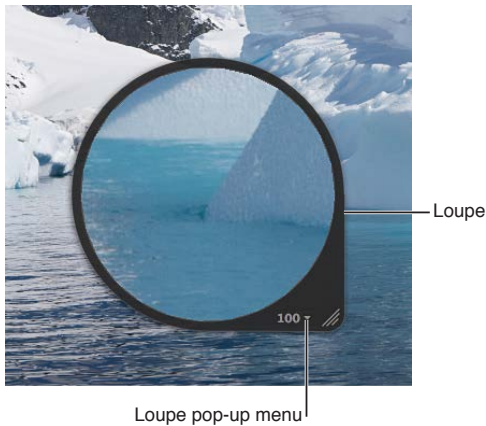
Hide or show metadata in the filmstrip and the full-screen view Browser mode

- Press U.

## View photos with the Loupe

### Loupe overview

Aperture has a Loupe tool (also called the *Centered Loupe*) that allows you to check the focus and details of image thumbnails in the Browser without having to open the photos in the Viewer, zoom in to check details, and then switch back to scanning through thumbnails in the Browser. (For information about using the Viewer to zoom in to images, see [View photos at full resolution](#) on page 166.)



You can position the Loupe over a portion of the photo to see a magnified view of that area. In addition to checking a photo's focus, the Loupe is useful for making quick checks for sensor dust, flaws, fingerprints on film scans, and other issues. You can use the Loupe on any photo or thumbnail in the Aperture library.

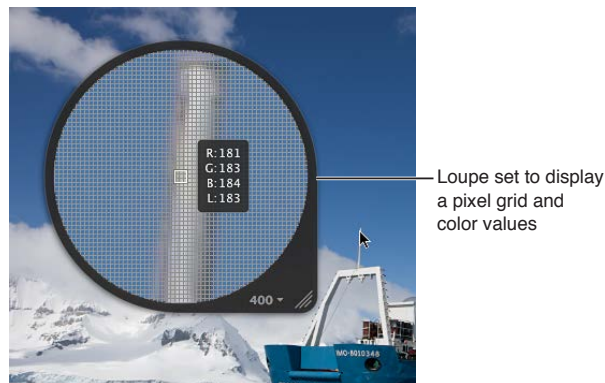
Aperture also provides a second version of the Loupe for your convenience. For more information, see [Use the alternate Loupe](#) on page 184.

## Magnify photos using the Loupe

You can magnify a portion of a photo by placing the Centered Loupe over it. You can also leave the Loupe stationary and set it to magnify the portion of the photo at the position of the pointer. Using the pointer to magnify the photo is useful when you don't want the Loupe to cover part of the photo.



You can change the size of the Loupe and increase or decrease its magnification level. You can also have the Loupe display a photo as a grid that shows the actual pixel composition of the photo, allowing you to see the individual pixel values at high magnification (400 percent or higher). You can also set the Loupe to display readings of the color values of a photo, showing the RGB (%), RGB (8-bit), Lab, CMYK, HSB, or HSL values chosen for the Color meter.



### Show or hide the Loupe

- *To show the Loupe:* Choose View > Show Loupe, or press the Grave Accent key (`).
- *To hide the Loupe:* Choose View > Hide Loupe, or press the Grave Accent key (`).

You can also show or hide the Loupe by clicking the Loupe button in the toolbar.

### Move the Loupe

Do one of the following:

- Drag the Loupe's handle.
- Drag within the Loupe.

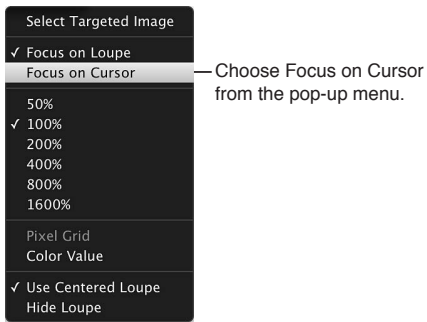
A circle appears that targets the area to be magnified.

- Hold down the Grave Accent key (`) while clicking a specific place in a photo.

The Loupe moves to the part of the photo you clicked.

## Use the pointer to magnify parts of a photo

- Choose Focus on Cursor from the Loupe pop-up menu.



To turn off this feature, choose Focus on Loupe from the Loupe pop-up menu.

## Change the size and magnification of the Loupe

You can change the size of the Loupe and increase or decrease its magnification level.

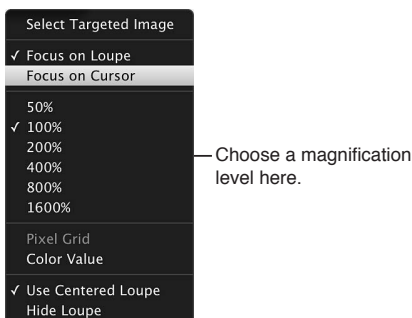
- *To increase the size of the Loupe:* Choose View > Loupe Options > Increase Diameter, or press Option-Shift-Plus Sign (+).

You can also drag the resize control on the Loupe's handle.

- *To decrease the size of the Loupe:* Choose View > Loupe Options > Decrease Diameter, or press Option-Shift-Underscore (⌘).

You can also drag the resize control on the Loupe's handle.

- *To change to a specific magnification level:* Choose a magnification level from the Loupe pop-up menu.



- *To increase the Loupe's magnification incrementally:* Choose View > Loupe Options > Increase Zoom, or press Shift-Command-Plus Sign (+).

Press these keys repeatedly to continue increasing the magnification.

- *To decrease the Loupe's magnification incrementally:* Choose View > Loupe Options > Decrease Zoom, or press Shift-Command-Underscore (⌘).

Press these keys repeatedly to continue decreasing the magnification.

- *To create smooth changes in magnification:* Use the scroll gesture.

## Set the Loupe to show a pixel grid

- 1 Set the Loupe's magnification to 400 percent or higher.
- 2 Do one of the following:
  - Choose View > Loupe Options > Show Pixel Grid in Loupe.
  - Choose Pixel Grid from the Loupe pop-up menu.

To turn off this feature, choose the menu item again.


## Turn on the display of color values in the Loupe

Do one of the following:

- Choose View > Loupe Options > Show Color Value in Loupe, or press Option-Shift-Tilde (~).
- Choose Color Value from the Loupe pop-up menu.

To turn off this feature, choose the menu item again.

## Change the color value option

- In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose a color value option from the Adjustment Action pop-up menu .

For more information, see [Sample color values and display camera information](#) on page 339.

## Use the alternate Loupe

By default, Aperture displays the Centered Loupe when you show the Loupe to examine parts of a photo, but you can also use an alternate Loupe. You position the small ring of the alternate Loupe over the portion of the photo you want to see, and the large ring shows a magnified view. Depending on the details in the photo, you can change the size of the alternate Loupe and increase or decrease its magnification level. It's useful for making quick checks for dust specks, flaws, fingerprints, or other issues. You can use the alternate Loupe on any photo or thumbnail in the Aperture library.

The alternate Loupe shows a magnified view of whatever is beneath it.





### Show the alternate Loupe

- 1 Do one of the following:
  - Choose View > Show Loupe, or press the Grave Accent key (`).
  - Click the Loupe button in the toolbar.
- 2 To turn off the display of the Centered Loupe, choose View > Loupe Options > Use Centered Loupe.

The checkmark next to the Use Centered Loupe menu item disappears, and the Centered Loupe changes to the alternate Loupe.

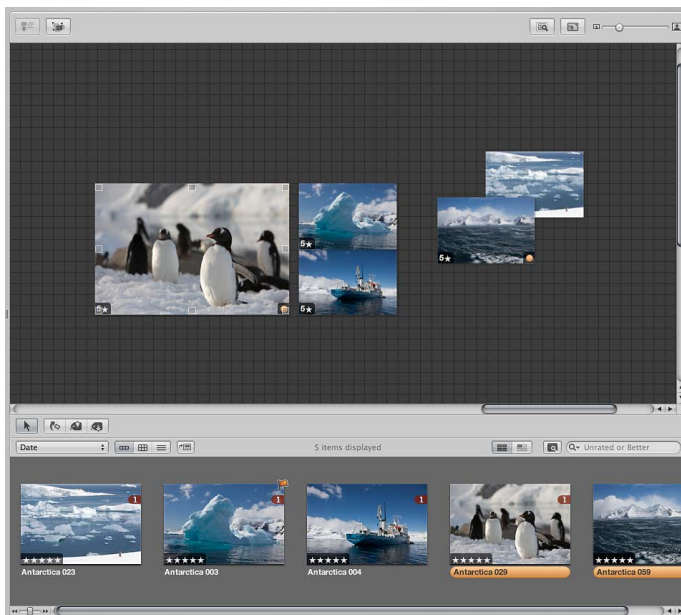
### Change the size and magnification of the alternate Loupe

- *To increase the size of the alternate Loupe:* Choose View > Loupe Options > Increase Diameter, or press Option–Shift–Plus Sign (+).
- *To reduce the size of the alternate Loupe:* Choose View > Loupe Options > Decrease Diameter, or press Option–Shift–Underscore (⌘).
- *To increase the magnification of the alternate Loupe:* Press Shift–Command–Plus Sign (+).  
Press these keys repeatedly to continue increasing the magnification.
- *To decrease the magnification of the alternate Loupe:* Press Shift–Command–Underscore (⌘).  
Press these keys repeatedly to continue decreasing the magnification.

## Arrange photos in the Light Table

### Light Table overview

The Light Table provides a large, open space where you can freely resize, group, and rearrange photos. You can work with photos in the Light Table just as you would work with slides on a physical light table. You can place a selection of photos in the Light Table for review and drag them to new positions, arranging, grouping, and resizing them in different combinations to see how they might look on webpages or book pages. The Light Table automatically displays yellow guidelines that show you how the item you're working with aligns with other items already on the page. You never run out of space in the Light Table—it grows as you add photos to it, and it's easy to adjust the view by zooming in or changing the area of the Light Table that's shown.



You can use the Light Table to:

- Color correct many related photos. You can arrange related photos together and carefully compare the color values between photos.
- Sort photos into related piles. After sorting, you can select groups of photos and assign keywords to all the photos in a group at once.
- Create editorial layouts, arranging photos onscreen to tell a story. You can put the selects from a given project in the Light Table and arrange them so that they progress visually, eliminating repetitive photos. As you group and pair photos of the same subject, you'll find the Light Table ideal for examining the relationships between photos.

After arranging photos in the Light Table, you can print the arrangement. For more information, see [Print Light Table arrangements](#) on page 355.

## Create and delete Light Table albums

To view photos in the Light Table, you first create a Light Table album. You can create a new, empty album and drag photos into it, or you can select photos in a project and create a Light Table album to hold them.

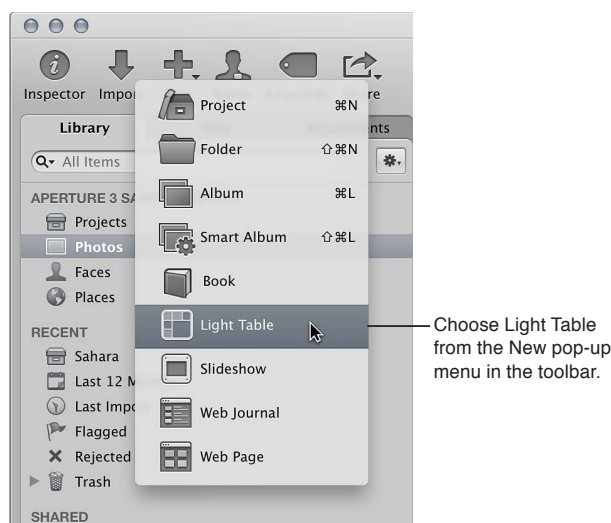
If you no longer need a Light Table album, you can delete it. If you've transferred photos from the Light Table album to other projects or albums, the photos in the other projects and albums remain unchanged, even though the Light Table versions are gone.

### Create a new, empty Light Table album

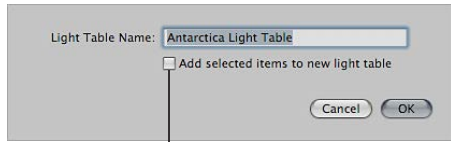
- 1 In the Library inspector, select the project or folder where you want the new Light Table album to appear.

If you want the Light Table to appear in the Light Tables section of the Library inspector, select Projects.

- 2 Do one of the following:
  - Choose File > New > Light Table.
  - Control-click the item in the Library inspector, and choose New > Light Table from the shortcut menu.
  - Choose Light Table from the New pop-up menu in the toolbar.



- 3 In the dialog that appears, enter a name for the Light Table album, and make sure the “Add selected items to new light table” checkbox is not selected.



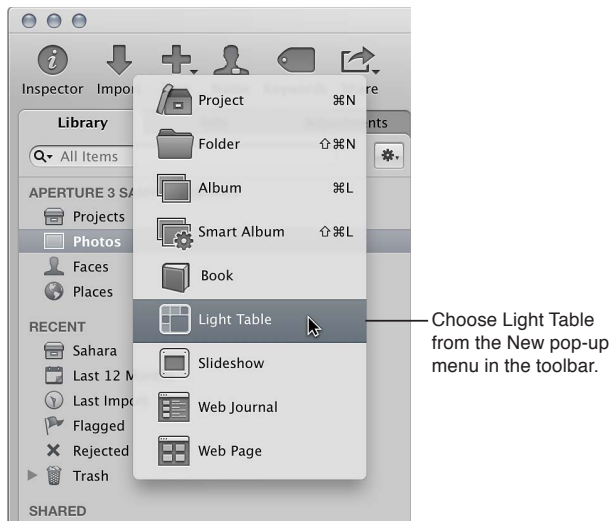
Make sure this checkbox is not selected.

- 4 Click OK.

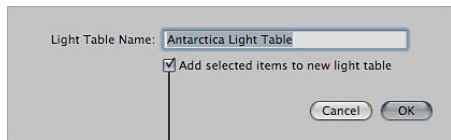
The new, empty Light Table album appears in the Library inspector. You can drag photos into the new Light Table album from any item in the Library inspector.

### Create a Light Table album that holds a selection of photos

- 1 In the Browser, select the photos you want in the Light Table album.
- 2 Do one of the following:
  - Choose File > New > Light Table.
  - Control-click the selected item in the Library inspector, and choose New > Light Table from the shortcut menu.
  - Choose Light Table from the New pop-up menu in the toolbar.



- 3 In the dialog that appears, enter a name for the Light Table album and select the “Add selected items to new light table” checkbox.



Make sure this checkbox is selected.

- 4 Click OK.

The new Light Table album containing your photo selection appears in the Library inspector. If you wish, you can drag additional photos from the Browser to the Light Table album in the Library inspector.

## Delete a Light Table album

- 1 Select the Light Table album in the Library inspector.
- 2 Choose File > Delete Light Table (or press Command-Delete).

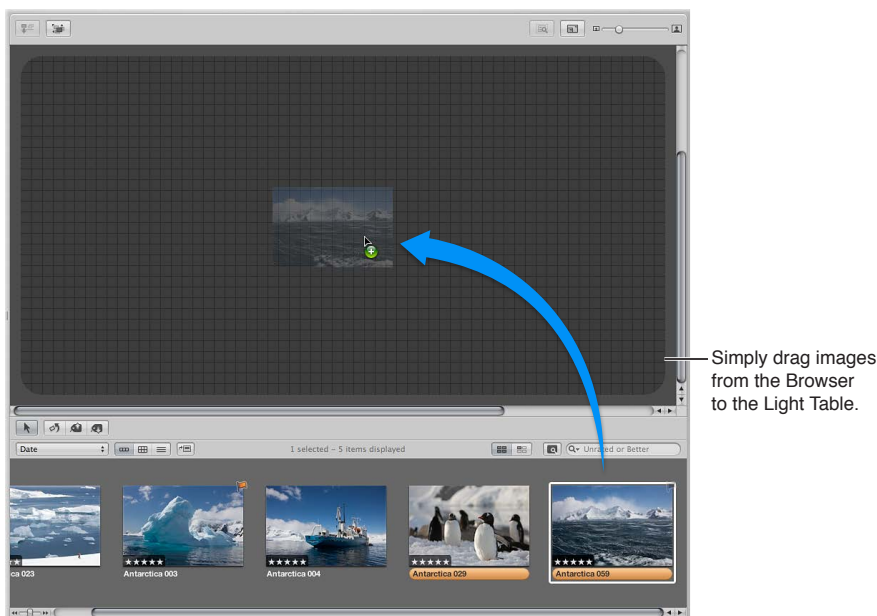
The deleted Light Table album is placed in the Aperture Trash. For more information, see [Work with the Aperture Trash](#) on page 56.

## Place and view photos in the Light Table

After adding photos to the Light Table album, you can select the ones you want to work with and place them in the Light Table for viewing. You can adjust the Light Table view, which is particularly useful when the Light Table is larger than your screen size. You can also increase the area of the Light Table.

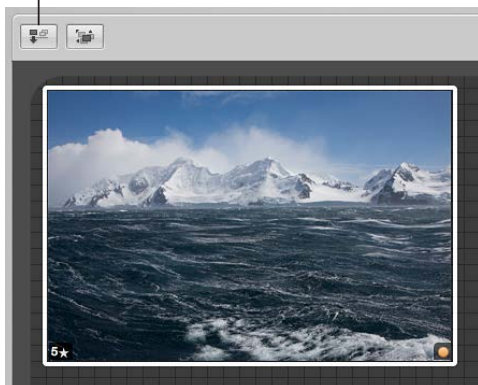
### Add and remove photos in the Light Table

- *To add photos to the Light Table:* Select a Light Table album in the Library inspector, and drag photos from the Browser to the Light Table.



- *To remove a photo from the Light Table:* Select the photo in the Browser, and click the Put Back Selected button at the top-left corner of the Light Table.

Click the Put Back Selected button to remove a selected photo.

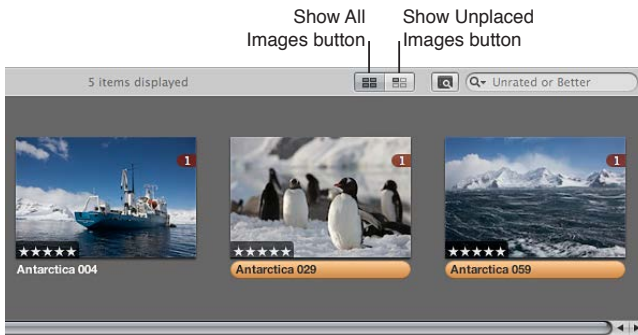


The photo disappears from the Light Table but remains available in the Browser.

## See only photos in the Browser that remain unplaced

If you have many photos in a Light Table album, it may be difficult to remember which photos you haven't yet placed in the Light Table. You can set the Browser to show only unplaced photos.

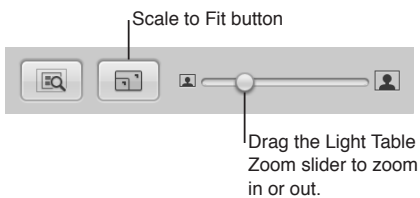
- Click the Show Unplaced Images button.



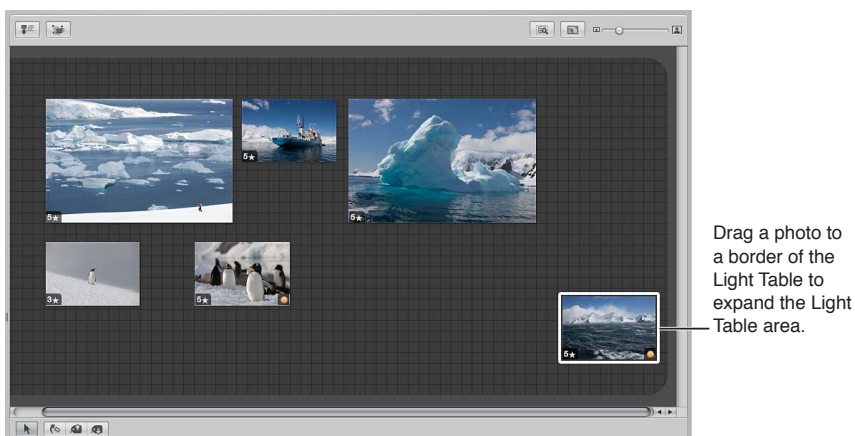
To see the entire contents of the Light Table album in the Browser again, click the Show All Images button.

## Adjust the Light Table view

- To zoom in to or out of the Light Table: Drag the Zoom slider.



- To fit the Light Table to your screen size: Click the Scale to Fit button.
- To change the Light Table view to 100 percent: Control-click in a blank area of the Light Table, and choose Zoom to 100% from the shortcut menu.
- To increase the area of the Light Table: Drag a photo to the border of the grid background so that the area of the Light Table automatically expands.

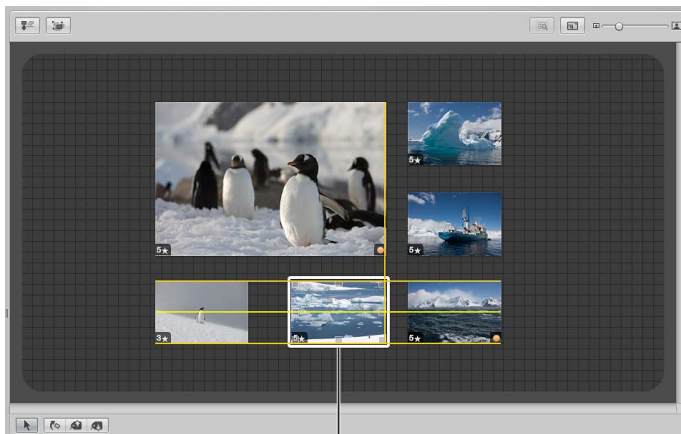


## Move, resize, and align photos in the Light Table

You can drag photos to new locations in the Light Table, trying out different combinations and orientations. For example, you might take a group of related photos and arrange them to see how they'd appear on a print page. You can also enlarge or reduce photos. After resizing a photo, you can quickly reset the photo back to its original size.

As you drag photos in the Light Table, yellow guidelines appear to mark the vertical, horizontal, and center points of the stationary, unselected photos in relation to the photos you're dragging. Using the guidelines, you can make sure that your selected photos visually align with other photos in the Light Table.

You can also select a group of photos in the Light Table and automatically align them according to their top, bottom, or side edges, or by their centers. In addition, you can have Aperture arrange a selected group with equal space between each photo.



When you drag a photo, guidelines appear, helping you align it with the other photos.

### Move photos in the Light Table

- In the Light Table, select the photos you want to move and drag them to a new location.

To add more space for your photos to the Light Table, drag a photo to the border of the Light Table until the screen begins to scroll.

### Change the size of a photo

- Position the pointer over the photo, and drag a resize handle.

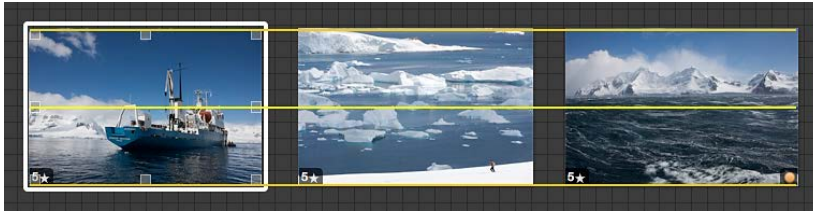


Move the pointer over the photo to show the resize handles, then drag to change the photo's size.

To reset the photo to its previous size, Control-click it and choose Reset Selected Size from the shortcut menu.

### Align and arrange photos in the Light Table

- *To manually align photos:* In the Light Table, select the photos you want to align, making sure that the photo or photos you want to align with remain unselected, and then drag the selected photos.



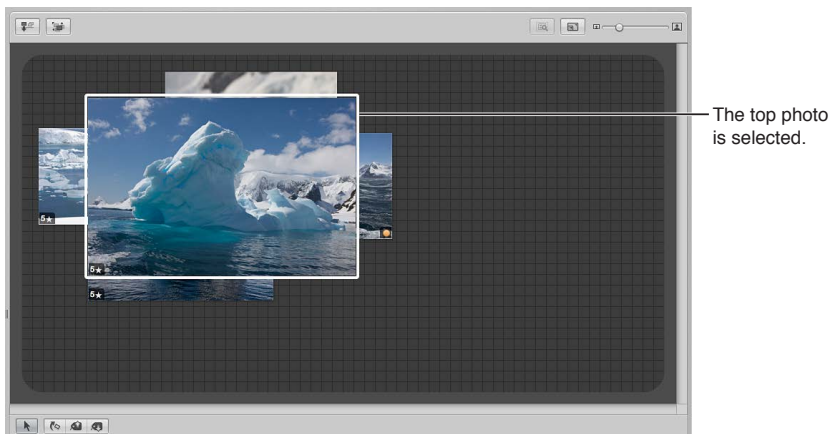
As you drag, yellow guidelines appear to help you align the selected photos with the unselected ones. When you quit dragging, the yellow guidelines disappear.

- *To automatically align a photo selection by the photos' edges or centers:* Select a photo or group of photos, Control-click the photo selection, choose Align from the shortcut menu, and choose an alignment option from the submenu.
- *To automatically arrange all photos in the Light Table:* Control-click beside the photos, and choose Arrange All Items from the shortcut menu.

### Reveal photos in the Light Table that are covered by other photos

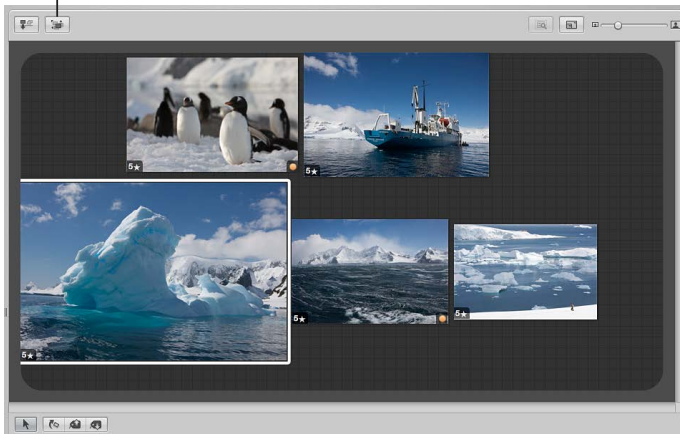
If some photos in a group are hidden behind other photos, you can reveal, or uncover, all photos in the group.

- 1 Select the top photo in the group.



2 Click the Uncover button (or press Shift-X).

Click the Uncover button to reveal all photos under the selected photo.



To regroup the photos, select an uncovered photo. The photos are regrouped, with the selected photo on top.

After arranging photos in the Light Table, you can print the photo arrangement for further review. For more information, see [Print Light Table arrangements](#) on page 355.



# Work with metadata

# 6

## Working with metadata overview

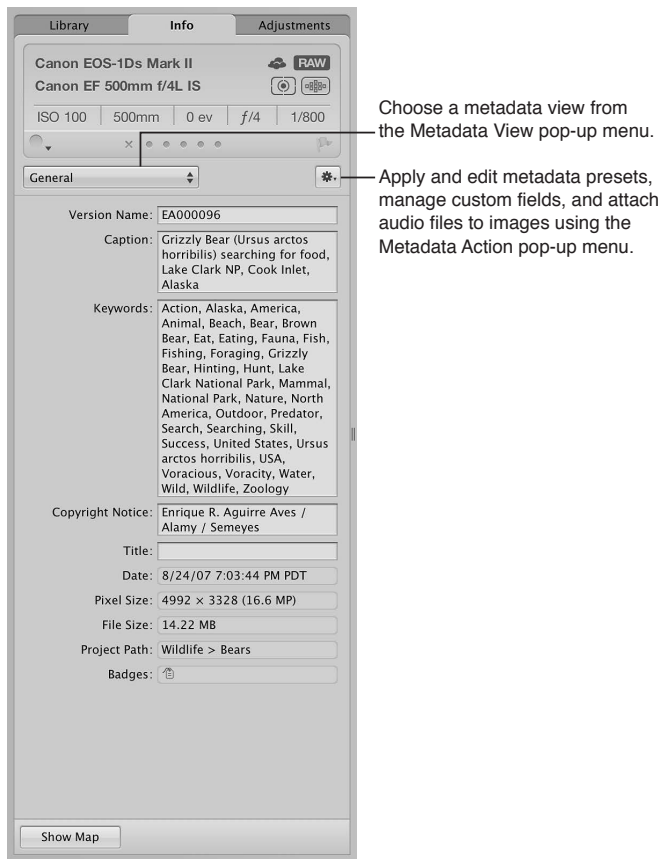
Information about your photos, including the types of adjustments applied, information recorded by the camera, and descriptive information about the photos, is called *metadata*. In Aperture, you work with three types of metadata:

- *Exchangeable Image File data*: information recorded by the camera and stored in the image file at the time it was shot, such as shutter speed, f-stop, the time the photo was captured, the camera model, and GPS data (for cameras that support it).
- *Aperture-applied data*: information you add within Aperture, such as a version name, color labels, flags, keywords, when the photo was imported, the types of adjustments applied to it, and how and where it was published.
- *International Press Telecommunications Council data*: standardized data used by photographers and media organizations to embed keywords, captions, copyright notices, and other information in the image files themselves. You can view and modify IPTC metadata in Aperture.

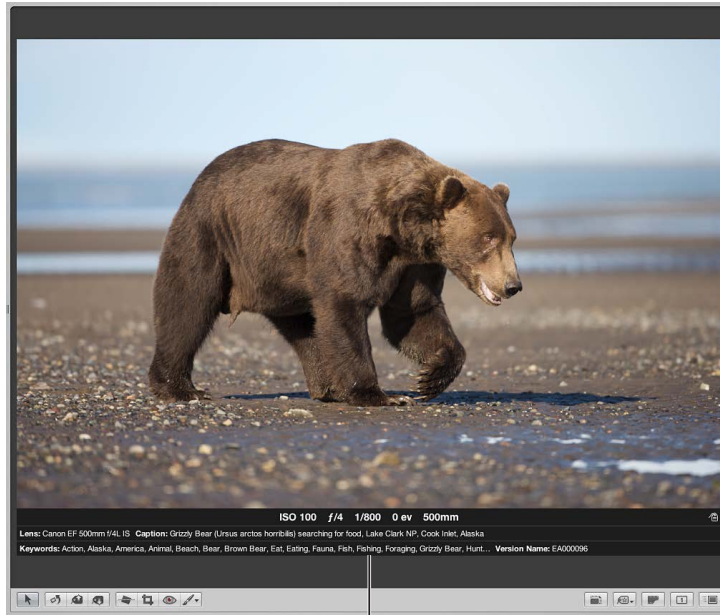
**Note:** For more information about working with GPS data in Aperture, see [Places overview](#) on page 131 and [View photo locations](#) on page 133.

You can view metadata in any of three places:

- In the Info inspector

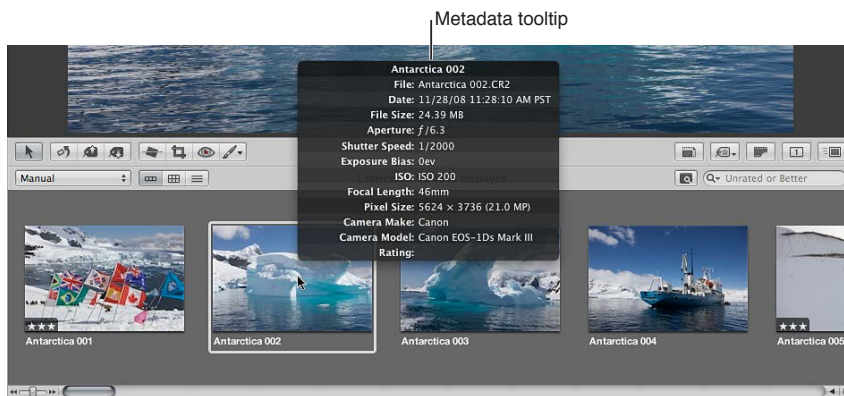


- In caption-style overlays that appear underneath photos in the Browser and Viewer



A photo in the Viewer with metadata shown in the expanded metadata overlay view

- In metadata tooltips—floating info windows that appear when you position the pointer over a photo in the Browser or Viewer



You can turn the display of overlays on or off. You can choose to display a basic overlay view showing a photo's version name and caption, or you can choose to display an expanded overlay view showing a photo's rating, badges, aperture setting, shutter speed, and other information. Additionally, you can create a custom overlay view to display any combination of metadata.

You can choose different metadata overlay views for the Viewer, the Browser in grid view and filmstrip view, and the Browser in list view. You can also display metadata with labels that help identify the types of metadata being displayed.

**Note:** Choosing a metadata view for the Viewer also defines the metadata that appears with photos in full-screen view. Choosing a metadata view for the Browser in grid view defines the metadata that appears with thumbnail images in the full-screen view filmstrip, as well as thumbnail images in the full-screen-view Browser mode.

## View and change metadata in the Info inspector or Info HUD

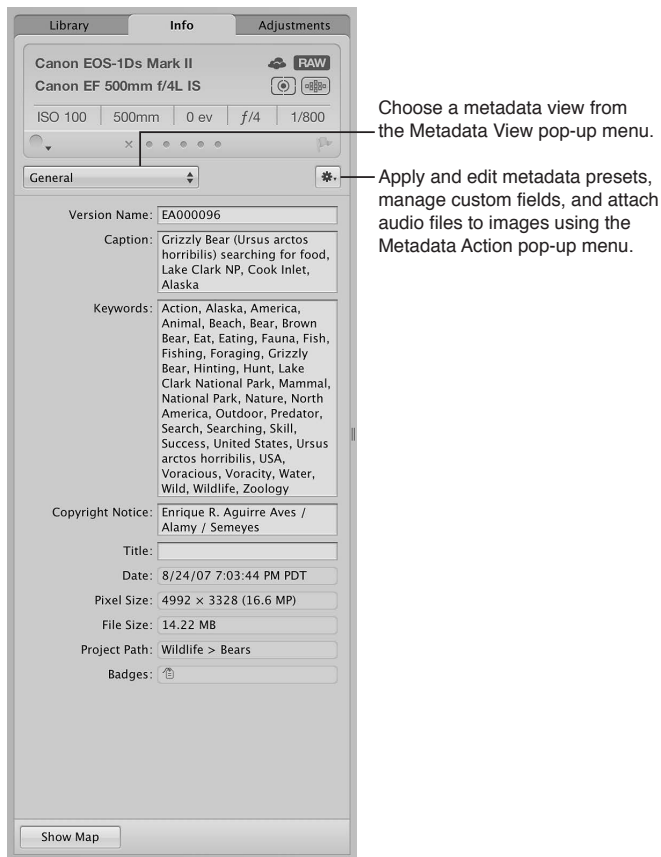
### Show the Info inspector and modify views

You can view the metadata for a selected photo in the Info inspector and the Info pane of the Inspector HUD. Here you can display different sets of metadata (general information, ratings, file info, EXIF info, and so on) and create custom sets to display the information most useful to you. You can also modify some types of metadata (ratings, version names, captions, and so on).

#### Show the Info inspector

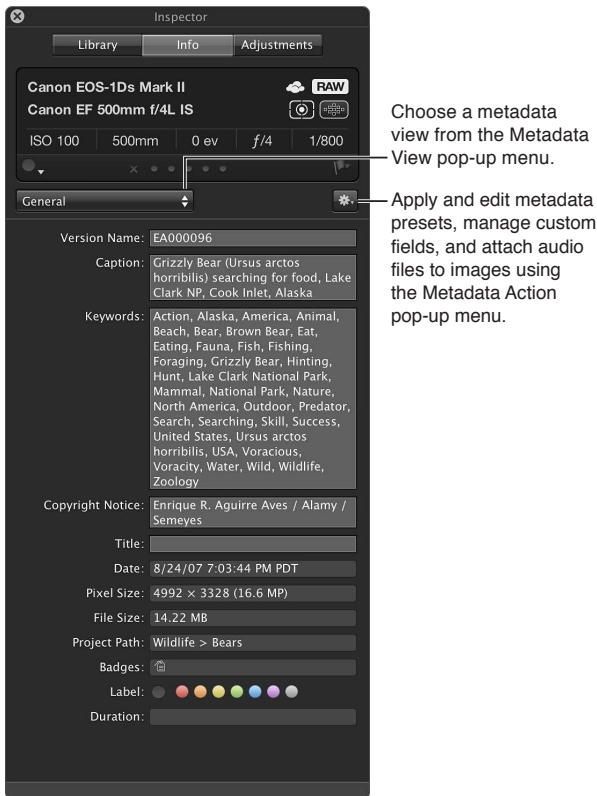
Do one of the following:

- Choose Window > Show Inspector (or press I), then click the Info tab.
- Click the Inspector button in the toolbar, then click the Info tab.



## Show the Info pane of the Inspector HUD

- Choose Window > Show Inspector HUD (or press H), then click Info.



## Switch metadata views in the Info inspector and the Info pane of the Inspector HUD

You can change the metadata fields shown in the Info inspector and the Info pane of the Inspector HUD by choosing a different metadata view from the Metadata View pop-up menu.

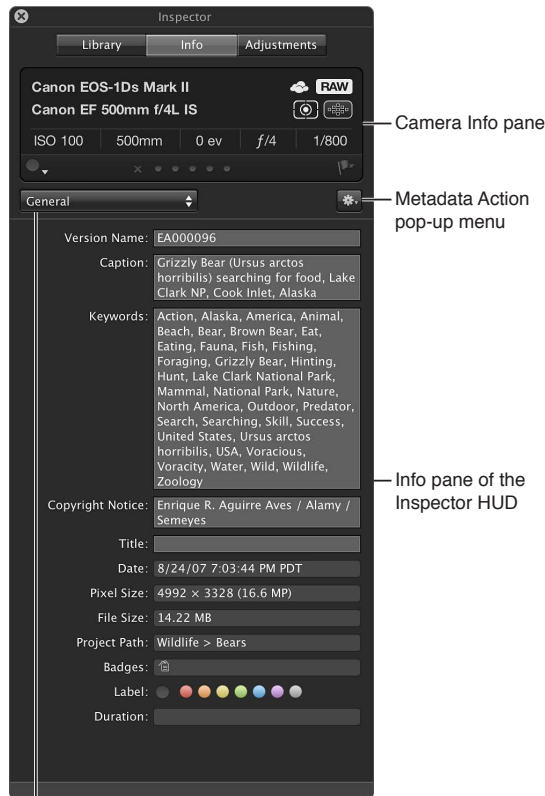
- Do one of the following:
  - To show the Info inspector:* Click the Inspector button in the toolbar (or press I), then click the Info tab.
  - To show the Info pane of the Inspector HUD:* Choose Window > Show Inspector HUD (or press H), then click Info.
- Choose a metadata view from the Metadata View pop-up menu.
- To change the metadata in a text field that can be edited, click in the text field to make it active, then enter the text you want.

## Rearrange the metadata fields in a metadata view

- Drag the metadata labels into the arrangement you want.

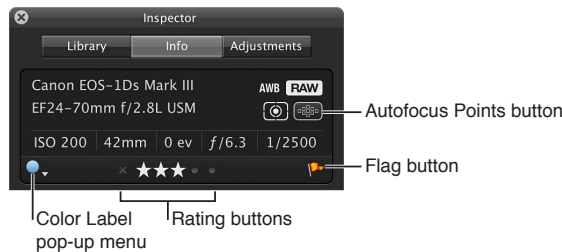
## Modify metadata in the Info inspector and Inspector HUD

You can view or change the metadata for a selected photo in the Info inspector and the Info pane of the Inspector HUD. The selected photo's metadata appears in text fields. You can change the metadata fields shown in the Info inspector and the Info pane of the Inspector HUD by choosing a different metadata view from the Metadata View pop-up menu. You can also modify metadata views by adding EXIF fields, IPTC fields, and other miscellaneous metadata that you specify using the Metadata Views dialog. In addition, you can use controls in the Camera Info pane to add color labels, ratings, and flags to an image selection. If a photo has an audio attachment, you use the controls in the Camera Info pane to listen to the audio as well.




Choose a metadata view from the Metadata View pop-up menu.

The top portion of the Info inspector and the Info pane of the Inspector HUD displays basic camera information about a photo, if it's available. This area is called the *Camera Info pane*. If a video clip is selected, the Camera Info pane displays the length of the video clip, frame size, and number of frames per second. If an audio clip is selected, the Camera Info pane displays the length of the audio clip, the bit rate, and the type of audio file. In addition to displaying basic camera information, the Camera Info pane also contains controls for applying color labels, ratings, and flags to photos, and for displaying autofocus point overlays indicating which part of the image the camera focused on.



### Add a color label, rating, or flag to a photo

- 1 In the Info Inspector or the Info pane of the Inspector HUD, choose Show Camera Info from the Metadata Action pop-up menu .
- 2 In the Camera Info pane, do any of the following:
  - *To add a color label to a photo:* Choose a color label from the Color Label pop-up menu.
  - *To assign a rating to a photo:* Click the rating button corresponding to the rating you want to apply to the photo.  
The leftmost button assigns a Reject rating, and the rightmost button assigns a rating of five stars (or Select).
  - *To flag a photo:* Click the Flag button, or press Slash (/).  
Click the Flag button again to remove the flag from the photo.

### Show autofocus point overlays

If your camera saves autofocus EXIF metadata that's compatible with Aperture, you can have Aperture display the autofocus points over the image. The autofocus points used to focus the image appear in red.

- In the Camera Info pane, click the Autofocus Points button (or press Option-F).  
*Tip:* You can temporarily display the autofocus point overlays on an image by placing the pointer over the Autofocus Points button in the Camera Info pane. The autofocus points overlays disappear when you move the pointer away from the Autofocus Points button.

### Change the metadata for a photo

- 1 Select a photo.
  - 2 In the Metadata View pop-up menu, choose a metadata view that contains the metadata fields you want to change.
  - 3 Click in a text field to make it active, then enter the text you want.
- Note:** Not all metadata fields can be edited. Most EXIF metadata fields cannot be changed.

## Show and hide the Large Caption field

To quickly add caption text to all of your photos, you can set the Info inspector and the Info pane of the Inspector HUD to show an enlarged version of the Caption field by itself. Then you apply the caption text to each selected photo by entering it in this space.

- In the Info inspector or the Info pane of the Inspector HUD, choose Large Caption from the Metadata View pop-up menu.

## Listen to an audio attachment

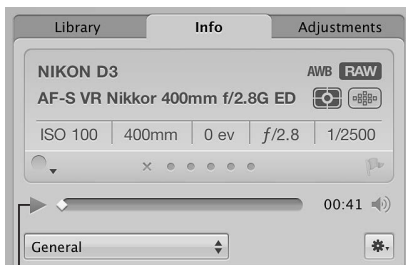
If the photo selected in the Browser has an audio attachment, you can use the Info inspector or the Info pane of the Inspector HUD to listen to it.

- 1 In the Browser, select a photo with an audio attachment.



The audio badge indicates this photo has an audio attachment.

- 2 In the Info inspector or the Info pane of the Inspector HUD, click the Play button.



Aperture plays the audio attachment. For more information about adding attachments to photos, see [Add audio attachments to image files](#) on page 48.

## View the sharing status of a photo

If you've shared photos with your Flickr and Facebook accounts, you can view the status of a photo using the Info inspector. If you downloaded the photo from one of your Flickr or Facebook accounts, the Info inspector displays which account the photo was downloaded from. If you published the photo from Aperture to one of your accounts online, the Info inspector displays the specific Facebook album or Flickr set the photo was published to and when it was published.

- 1 In the Browser, select a photo.
- 2 In the Info inspector or the Info pane of the Inspector HUD, choose Sharing from the Metadata View pop-up menu.

If the photo is shared online, the Info inspector displays either the account it was downloaded from or the specific account and album or set it was published to, along with when it was published. The Info inspector also indicates if the photo has not been shared.



## View and reply to comments that friends post about your Facebook photos

If you've created Facebook albums in Aperture and shared photos from your Aperture library with your Facebook account, you can use the Info inspector to view comments posted about the photos by your friends. Aperture makes it easy to reply to comments that appear in the Info inspector or add your own by opening the appropriate page in your web browser.

- 1 In the Browser, select a photo shared with Facebook.
- 2 In the Info inspector or the Info pane of the Inspector HUD, choose Sharing from the Metadata View pop-up menu.

Comments posted about the selected photo by your friends on Facebook appear in the Info inspector.

- 3 To reply to a comment, click it.

Your Internet browser opens to the Facebook page the photo is posted on. You can post your reply directly in your Facebook account.

## Display metadata with your photos

### Metadata overlays overview

Using several basic controls, you can turn metadata overlays on or off, specify the type of metadata that appears in overlays in the Viewer and Browser, and choose the type of overlay view to display (caption-style or floating tooltips).

Some metadata overlay views are specifically designed for displaying information in the Viewer, in the Browser in grid view or list view, or in metadata tooltips. The following table lists the metadata overlay views that you can choose and the information that each view displays.

Metadata overlay view	Information displayed
Viewer - Basic	Badges, rating, keywords, labels, and flag
Viewer - Expanded	Rating, badges, label, aperture (f-stop), shutter speed, exposure bias, focal length (35mm), focal length, lens, caption, keywords, version name, date, ISO, file size, and project path
Grid View – Basic	Badges, rating, label, and flag
Grid View – Expanded	Badges, rating, version name, label, and flag
List - Basic	Version name, badges, rating, label, flag, date, aperture (f-stop), shutter speed, exposure bias, ISO, focal length (35mm), focal length, lens, pixel size, orientation, aspect ratio, file name, file size, camera model, import session, and project path
List - Expanded	Version name, badges, rating, label, flag, date, caption, keywords, provider, copyright notice, title, filename, file size, camera model, import session, project path, aperture (f-stop), shutter speed, exposure bias, ISO, focal length (35mm), focal length, lens, and pixel size
Metadata Tooltips	Version name, filename, date, file size, caption, keywords, aperture (f-stop), shutter speed, exposure bias, ISO, focal length (35mm), focal length, pixel size, camera make, camera model, and rating

## Turn the display of metadata on or off

You can turn the display of metadata on and off and switch between metadata overlay views in the Viewer and Browser independently using menu commands or the Metadata Overlays pop-up menu in the tool strip.



### Hide or show metadata in the Viewer

Do one of the following:

- Choose View > Metadata Display, then choose Show Metadata from the Viewer section of the submenu (or press Y).
- In the tool strip, choose Show Metadata from the Viewer section of the Metadata Overlays pop-up menu.

### Switch between basic and expanded metadata views in the Viewer

Do one of the following:

- Choose View > Metadata Display, then choose Switch to Expanded View or Switch to Basic View from the Viewer section of the submenu (or press Shift-Y).
- In the tool strip, choose Switch to Expanded View or Switch to Basic View from the Viewer section of the Metadata Overlays pop-up menu.

### Hide or show metadata in the Browser in filmstrip view and grid view

Do one of the following:

- Choose View > Metadata Display, then choose Show Metadata from the Browser section of the submenu (or press U).
- In the tool strip, choose Show Metadata from the Browser section of the Metadata Overlays pop-up menu.

### Switch between basic and expanded metadata views in the Browser in filmstrip view, grid view, and list view

Do one of the following:

- Choose View > Metadata Display, then choose Switch to Expanded View or Switch to Basic View from the Browser section of the submenu (or press Shift-U).
- In the tool strip, choose Switch to Expanded View or Switch to Basic View from the Browser section of the Metadata Overlays pop-up menu.

**Note:** Switching to the expanded view increases the number of columns displayed in list view.

### Turn metadata tooltips on or off

Do one of the following:

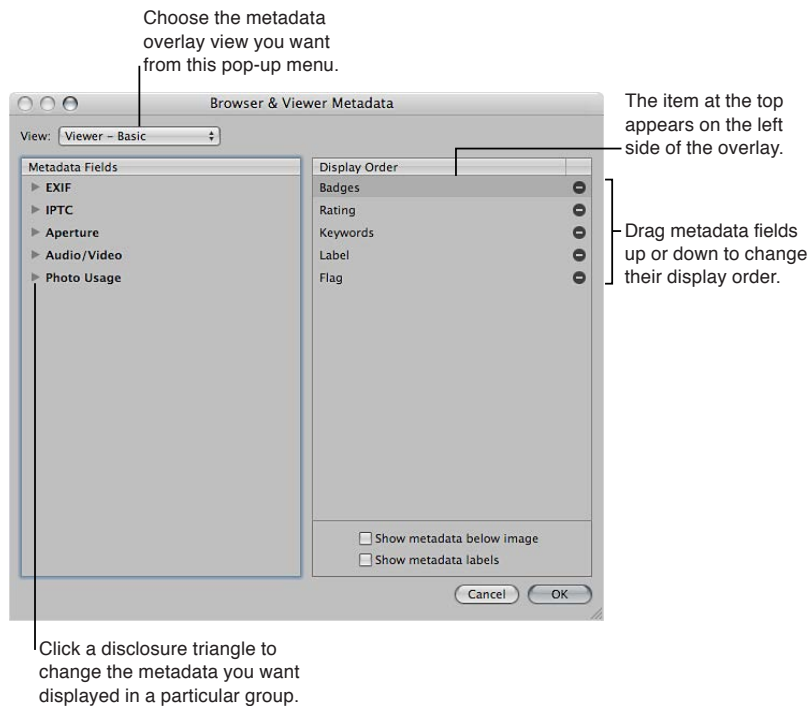
- Choose View > Metadata Display > Image Tooltips (or press Control-T).
- In the tool strip, choose Show Metadata Tooltips from the Metadata Overlays pop-up menu.

A checkmark appears next to the menu item when metadata tooltips are turned on.

## Specify the type of metadata to display in the Viewer and Browser

You use the Browser & Viewer Metadata dialog to specify the types of metadata that are shown in the basic and expanded views for the Viewer, the Browser in grid view and filmstrip view, and the Browser in list view. You can also specify the types of metadata shown in metadata tooltips.

**Note:** When you choose a metadata overlay view for the Browser in list view, the metadata overlay view determines the number of columns that appear. Each metadata item in the metadata overlay view corresponds to a list view column.



### Set the metadata fields that are displayed in a specific metadata overlay view

1 Do one of the following:

- Choose View > Metadata Display > Customize (or press Command-J).
- In the tool strip, choose Edit from the Metadata Overlays pop-up menu.

The Browser & Viewer Metadata dialog appears.

2 Choose the metadata overlay view you want to modify from the View pop-up menu.

3 In the Metadata Fields column, do any of the following:

- *To add EXIF information, such as exposure and aperture settings:* Click the EXIF disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata overlay view.
- *To add IPTC information, such as copyright information and keywords:* Click the IPTC disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata overlay view.
- *To add Aperture information, such as version name and color labels:* Click the Aperture disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata overlay view.

- To add audio and video clip information, such as duration, data rate, and frames per second (fps): Click the Audio/Video disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata overlay view.
- To add information about photo usage, such as whether or not a photo has been printed or emailed: Click the Photo Usage disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata overlay view.

The selected metadata fields are added to the Display Order column.

- 4 If you want to change the order in which the metadata fields are displayed in the overlay, drag the metadata fields in the Display Order column into a new arrangement.

The topmost metadata item in the Display Order column appears on the left side of the overlay.

- 5 When you are satisfied with the metadata fields assigned to the selected metadata overlay view and the arrangement of the metadata fields in that view, click OK.

### Remove a metadata field from a metadata overlay view

- 1 Do one of the following:
  - Choose View > Metadata Display > Customize (or press Command-J).
  - In the tool strip, choose Edit from the Metadata Overlays pop-up menu.

The Browser & Viewer Metadata dialog appears.

- 2 Choose the metadata overlay view you want to modify from the View pop-up menu.
- 3 In the Display Order column, click the Remove (–) button next to the metadata field you want to remove.
- 4 When you are satisfied with the metadata fields assigned to the selected metadata overlay view and the arrangement of the metadata fields in that view, click OK.

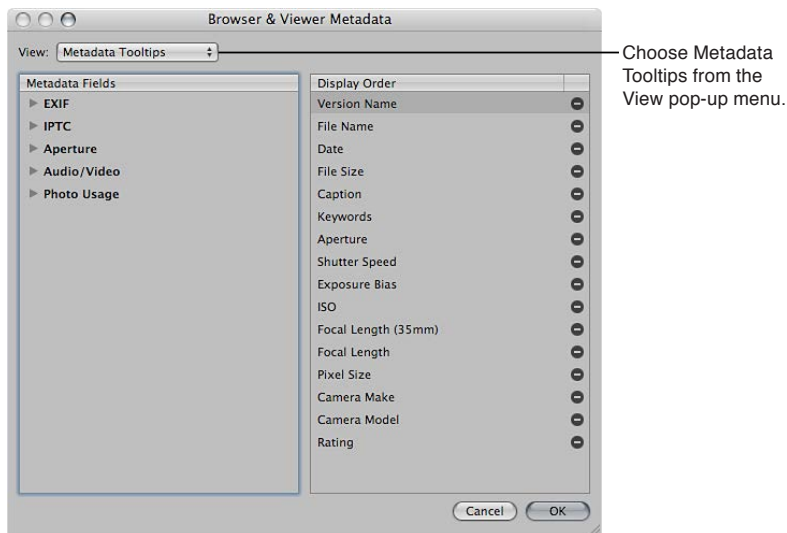
### Set the display of metadata in metadata tooltips

You can also customize the way metadata is displayed in tooltips—the floating info windows that appear when you position the pointer over a photo.

- 1 Do one of the following:
  - Choose View > Metadata Display > Customize (or press Command-J).
  - In the tool strip, choose Edit from the Metadata Overlays pop-up menu.

The Browser & Viewer Metadata dialog appears.

- 2 Choose Metadata Tooltips from the View pop-up menu.



3 In the Metadata Fields column, do any of the following:

- *To add EXIF information, such as exposure and aperture settings:* Click the EXIF disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata tooltip.
- *To add IPTC information, such as copyright information and keywords:* Click the IPTC disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata tooltip.
- *To add Aperture information, such as version name and color label:* Click the Aperture disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata tooltip.
- *To add audio and video clip information, such as duration, data rate, and frames per second (fps):* Click the Audio/Video disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata tooltip.
- *To add information about photo usage, such as whether or not a photo has been printed or emailed:* Click the Photo Usage disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata tooltip.

The selected metadata fields are added to the Display Order column.

- 4 If you want to change the order in which the metadata fields are displayed in the tooltip, drag the metadata fields in the Display Order column into a new arrangement.
- 5 When you are satisfied with the metadata fields assigned to Metadata Tooltips view and the arrangement of the metadata fields in that view, click OK.

#### **Set the position of metadata overlays**

You can use the Browser & Viewer Metadata dialog to specify whether metadata overlays displayed with photos in the Viewer or in the Browser in grid view or list view appear over the lower portion of the photo or directly beneath it.

- *To display the metadata overlay over the lower portion of the photo:* In the area below the Display Order column of the Browser & Viewer Metadata dialog, deselect the “Show metadata below image” checkbox.
- *To display the metadata overlay directly beneath the photo:* In the area below the Display Order column of the Browser & Viewer Metadata dialog, select the “Show metadata below image” checkbox.

#### **Turn the display of metadata labels on or off**

You can use the Browser & Viewer Metadata dialog to specify that a metadata overlay view show metadata with labels. Labels provide the names of the metadata fields, such as “Lens” or “Caption,” and help identify the types of metadata being displayed. In some views, metadata labels are shown by default, but you can turn them off in the Browser & Viewer Metadata dialog. Turning off metadata labels can help save visual space in the selected metadata overlay view, allowing you to add more metadata fields to it.

- In the area below the Display Order column of the Browser & Viewer Metadata dialog, select or deselect the “Show metadata labels” checkbox.

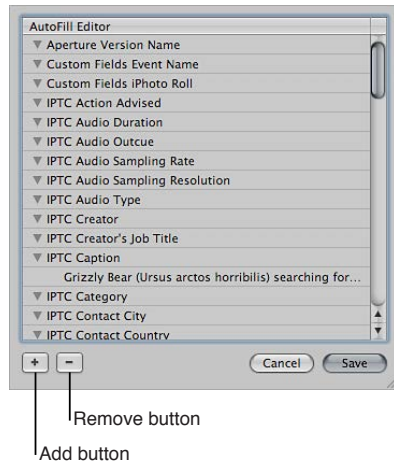
Metadata labels are turned on or off for the selected metadata overlay view. When metadata labels are turned on, they are displayed with the metadata fields they identify.

## Work with the AutoFill Editor

As you enter metadata in the Info inspector's fields, Aperture checks for previous entries, and if it locates a match, it completes the entry for you. For example, if you used the keyword *Landscape* previously, and you type the first few letters of *Landscape* again, Aperture automatically enters *Landscape* in the field. You can set up and change the list of metadata that Aperture automatically enters using the AutoFill Editor. You can enter up to 20 entries for a field type. If you've made a spelling mistake when typing an entry, you can also use the AutoFill Editor to correct the mistake so that Aperture suggests the correct spelling.

### Set up autofill entries in the AutoFill Editor

- 1 Choose Metadata > Edit AutoFill List.



- 2 To edit the list, do one of the following:
  - *To add an entry:* Select the metadata type you want to add, click the Add (+) button, and enter the text you want.
  - *To change an entry:* Click the disclosure triangle for a metadata type to display its entries, then double-click the entry you want to change and type the new text.
  - *To delete an entry:* Click the disclosure triangle for a metadata type to display its entries, then select the entry you want to delete and click the Remove (-) button.
- 3 Click Save.

## Work with metadata views

### Metadata views overview

In addition to the basic and expanded overlay views available from the Metadata Overlays pop-up menu, you can create your own combinations of metadata to display with your photos, called *metadata views*. Using controls in the Info inspector and the Metadata Views dialog, you can either create new metadata views or modify the ones that come with Aperture.

You can also apply combinations of metadata to your photos by recording metadata in a metadata view and saving it as a metadata preset. For more information about creating and using metadata presets, see [Create metadata presets](#) on page 210.

The following table lists the metadata views that you can choose and the information that each view displays.

Metadata view	Information displayed
General	Version name, caption, keywords, copyright notice, title, date, pixel size, file size, project path, and badges
Name Only	Version name
Caption Only	Caption
Name & Ratings	Version name, rating, and badges
Name & Caption	Version name and caption
Ratings	Rating and badges
Caption & Keywords	Version name, caption, and keywords
Caption & Credits	Version name, creator, provider, caption, and copyright notice
Contact Sheet	Version name, caption, label, ISO, focal length, exposure bias, aperture, and shutter speed
File Info	Version name, filename, file size, pixel size, color model, date, and badges
Photo Info	Version name, date, camera model, lens, ISO, focal length, focal length (35mm), exposure bias, aperture, shutter speed, flash, white balance, exposure program, metering mode, exposure mode, focus mode, profile name, and pixel size
EXIF Info	Version name, date, camera make, camera model, serial number, lens, ISO, focal length, focal length (35mm), exposure bias, aperture, shutter speed, flash, flash exposure compensation, white balance, exposure program, shooting mode, metering mode, exposure mode, focus mode, focus distance, file size, pixel size, original pixel size, profile name, aspect ratio, orientation, and depth
GPS	Latitude, longitude, altitude, and compass direction (if available)
IPTC Core	<i>Contact:</i> Creator, job title, address, city, state/province, postal code, country, phone, email, and website <i>Content:</i> Headline, caption, keywords, IPTC subject code, and caption writer <i>Image:</i> Date created, intellectual genre, IPTC scene, location, city, state/province, country, and ISO country code <i>Status:</i> Title, job identifier, instructions, provider, source, copyright, and usage terms
Large Caption	Caption field with large text
Custom Fields	Custom metadata fields created using the Manage Custom Metadata fields dialog. Custom fields are for use only in Aperture.
Sharing	Information about whether and where selected photos have been shared
Comment	Comments associated with a shared photo or video

## Create, modify, and manage metadata views

You can create new metadata views that display different combinations of metadata. You can change the combination of metadata that appears in a metadata view. You can also add or remove metadata fields, create new ones, and rearrange the order in which the metadata fields are displayed.

**Note:** You cannot modify the IPTC Core, Large Caption, and Custom Fields metadata views.

### Create a new metadata view

- 1 Do one of the following:
  - *To show the Info inspector:* Click the Inspector button in the toolbar (or press I), then click the Info tab.
  - *To show the Info pane of the Inspector HUD:* Choose Window > Show Inspector HUD (or press H), then click Info.
- 2 Choose Edit from the Metadata View pop-up menu.

The Metadata Views dialog appears.

- 3 In the Metadata Views dialog, choose New View from the Metadata Views Action pop-up menu.



A new, untitled metadata view appears in the Metadata Views column of the Metadata Views dialog.

- 4 Enter a name for the new metadata view, then press Return.
- 5 In the Metadata Fields column, do any of the following:
  - *To add EXIF information, such as exposure and aperture settings:* Click the EXIF disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata view.
  - *To add IPTC information, such as copyright information and keywords:* Click the IPTC disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata view.
  - *To add Aperture information, such as version name and color label:* Click the Aperture disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata view.
  - *To add audio and video clip information, such as duration, data rate, and frames per second (fps):* Click the Audio/Video disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata view.
  - *To add information about photo usage, such as whether or not a photo has been printed or emailed:* Click the Photo Usage disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata view.
  - *To remove unwanted metadata fields:* Deselect the checkboxes next to the metadata fields you want removed.
- 6 When you are satisfied with the metadata fields assigned to metadata view, click OK.


The new metadata view is added to the Metadata View pop-up menu in the Info inspector and the Info pane of the Inspector HUD. For more information about switching metadata views, see [Modify metadata in the Info inspector and Inspector HUD](#) on page 198.




### Change the metadata fields that appear in an existing metadata view

- 1 Choose Edit from the Metadata View pop-up menu in the Info inspector or the Info pane of the Inspector HUD.  
The Metadata Views dialog appears.
- 2 Select the metadata view you want to change in the Metadata Views column.
- 3 In the Metadata Fields column, do any of the following:
  - *To add EXIF information, such as exposure and aperture settings:* Click the EXIF disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata view.
  - *To add IPTC information, such as copyright information and keywords:* Click the IPTC disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata view.
  - *To add Aperture information, such as version name and color label:* Click the Aperture disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata view.
  - *To add audio and video clip information, such as duration, data rate, and frames per second (fps):* Click the Audio/Video disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata view.
  - *To add information about photo usage, such as whether or not a photo has been printed or emailed:* Click the Photo Usage disclosure triangle, then select the checkboxes next to the metadata fields you want to add to the metadata view.
  - *To remove unwanted metadata fields:* Deselect the checkboxes next to metadata fields you want removed.
- 4 When you are satisfied with the metadata fields assigned to the selected metadata view, click OK.

### Manage metadata views

- 1 Choose Edit from the Metadata View pop-up menu in the Info inspector or the Info pane of the Inspector HUD.  
The Metadata Views dialog appears.
- 2 Do any of the following:
  - *To rename a metadata view:* Double-click a metadata view name in the Metadata Views column, then enter a new name and press Return.
  - *To duplicate a metadata view:* Select the metadata view you want to duplicate in the Metadata Views column, then choose Duplicate View from the Metadata Views Action pop-up menu . The duplicated metadata view appears in the Metadata Views column immediately below the original metadata view.
  - *To delete a metadata view:* Select the metadata view you want to delete in the Metadata Views column, then choose Delete View from the Metadata Views Action pop-up menu.  
The metadata view is removed from the Metadata Views column of the Metadata Views dialog and from the Metadata View pop-up menu in the Info inspector and the Info pane of the Inspector HUD.

### Delete a metadata view

- 1 Choose Edit from the Metadata View pop-up menu in the Info inspector or the Info pane of the Inspector HUD.  
The Metadata Views dialog appears.
- 2 Select the metadata view you want to delete in the Metadata Views column, then choose Delete View from the Metadata Views Action pop-up menu .

## Work with metadata presets


### Create metadata presets

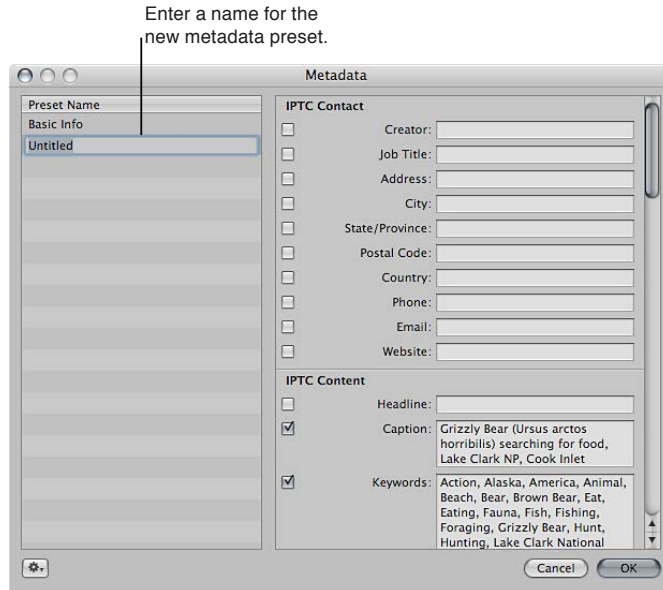
You can create your own preset combinations of metadata that you can save and then apply to your photos as needed. You create a preset by selecting a version that has metadata applied to it and saving the metadata as a preset. You can also select a version with no metadata applied to it, add the metadata you want to apply to the version, and then save the information as a metadata preset. Your metadata preset is then available to be chosen when you import photos, batch change photos, or modify a photo's metadata in the Info inspector or the Info pane of the Inspector HUD. Aperture also provides easy methods of managing your presets.

#### Create a new metadata preset

- 1 In the Info inspector or the Info pane of the Inspector HUD, enter the metadata you want applied to your photos in the metadata fields.


You can add metadata to multiple metadata views by choosing different views from the Metadata View pop-up menu.

- 2 Choose New Preset from Version from the Metadata Action pop-up menu .
- 3 In the Metadata dialog, enter a name for the new metadata preset, then click OK.




The new metadata preset now appears in the Append with Preset and Replace with Preset submenus of the Metadata Action pop-up menu.

#### Modify an existing metadata preset

- 1 In the Info inspector or the Info pane of the Inspector HUD, choose Manage Presets from the Metadata Action pop-up menu .
- 2 In the Metadata dialog, select the preset you want to modify.
- 3 Enter the changes you want to make in the metadata fields on the right side of the Metadata dialog.
- 4 Click OK.


The changes to the metadata preset are saved. If you want, you can rearrange the order of metadata presets in the Append with Preset and Replace with Preset submenus of the Metadata Action pop-up menu.

### Manage metadata presets

- 1 In the Info inspector or the Info pane of the Inspector HUD, choose Manage Presets from the Metadata Action pop-up menu .
- 2 Do any of the following:
  - *To arrange the metadata preset list:* In the Metadata dialog, rearrange the order of metadata presets by dragging them to new locations in the Preset Name column.
  - *To rename a metadata preset:* In the Metadata dialog, double-click the metadata preset name, then type a new name in the field that appears.
  - *To delete a metadata preset:* In the Metadata dialog, select a metadata preset, then press the Delete key.

### Apply a metadata preset when modifying photos with the Info inspector or the Info pane of the Inspector HUD



You can apply metadata presets to selected photos using the Info inspector, the Info pane of the Inspector HUD, or the Batch Change command. You can also apply metadata presets when importing photos using the Import browser. For more information about the Batch Change command, see [Batch change metadata](#) on page 212. For more information about applying metadata presets during import, see [Add metadata at import](#) on page 40.

- 1 Select the photos you want to change.
- 2 In the Info inspector or the Info pane of the Inspector HUD, do one of the following:
  - *To add metadata to the photos, maintaining any currently associated metadata:* Choose Append with Preset from the Metadata Action pop-up menu , then choose the metadata preset you want.
  - *To remove all previously applied metadata to the photos and replace it with a metadata preset:* Choose Replace with Preset from the Metadata Action pop-up menu, then choose the preset you want to use.

### Share metadata presets



When you work with other Aperture users or Aperture systems, you can share your metadata presets to ensure a consistent application of metadata to all the photos. You can export metadata presets for others to use and import presets when you need them.

#### Export a metadata preset

- 1 In the Info inspector or the Info pane of the Inspector HUD, choose Manage Presets from the Metadata Action pop-up menu .
- 2 In the Metadata dialog, select the metadata preset that you want to export, then choose Export from the Action pop-up menu  in the bottom-left corner of the dialog.
- 3 Choose a location to store the metadata preset information, then click Export.

The metadata preset is exported to the location you chose and saved as `[filename].apmetadata`.

## Import a metadata preset


- 1 In the Info inspector or the Info pane of the Inspector HUD, choose Manage Presets from the Metadata Action pop-up menu .
- 2 In the Metadata dialog, choose Import from the Action pop-up menu  in the bottom-left corner of the dialog.
- 3 In the dialog that appears, select the metadata preset file that you want to import, then click Import.

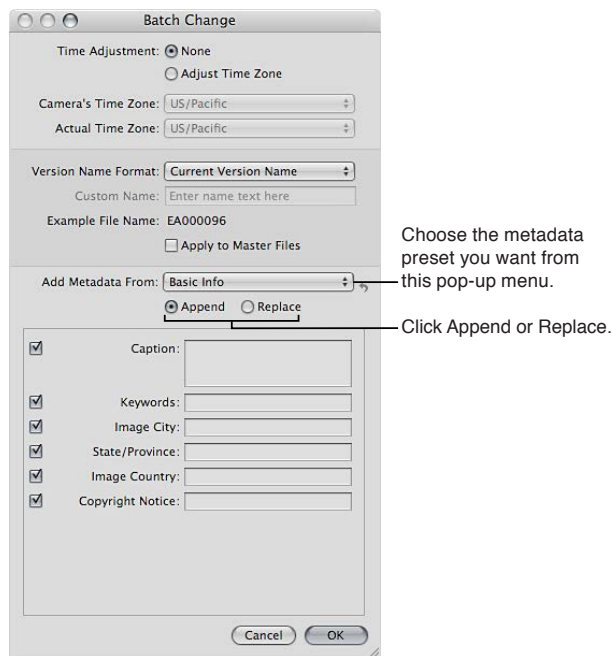
The metadata preset is imported into Aperture and placed at the bottom of the Preset Name column in the Metadata dialog.

## Batch change metadata

You can select a group of photos and make metadata changes to all the photos at once. For example, if you need to add the same set of keywords to a selection of photos, or change the version name format, you can select the photos and use the Batch Change dialog to change them.

### Change the metadata associated with a selection of photos

- 1 Do one of the following:
  - Choose Metadata > Batch Change (or press Shift-Command-B).
  - In the Info inspector or the Info pane of the Inspector HUD, choose Batch Change from the Metadata Action pop-up menu .
- 2 In the Batch Change dialog, choose the metadata preset you want from the Add Metadata From pop-up menu.



- 3 Click Append to add the preset's metadata to the photos, maintaining any currently associated metadata, or click Replace to add the preset's metadata to the photos and remove any other associated metadata.
- 4 Enter any additional metadata you want applied in the metadata fields.
- 5 Specify any other metadata options you want to change, then click OK.

## About IPTC metadata

In Aperture, you can import and export IPTC metadata for a photo in an XMP sidecar file. XMP sidecar files are XML files that accompany each photo containing IPTC and other metadata associated with the photo. Any field containing information in the IPTC Core metadata view for a selected photo version can be exported to the XMP sidecar file for that version. The IPTC Core metadata view is compliant with the IPTC Core specification version 1.0. For more information about choosing the IPTC Core metadata view, see [Modify metadata in the Info inspector and Inspector HUD](#) on page 198. For more information about exporting XMP sidecar files, see [Exporting photos overview](#) on page 358. For more information about the IPTC Core specification, go to <http://www.iptc.org>.

If you intend to export your keywords as IPTC metadata, make sure each keyword entry is no more than 64 characters long. Keyword entries longer than 64 characters may not be displayed properly in other IPTC editors or operating systems.

Here are some examples of common character limits for IPTC fields.

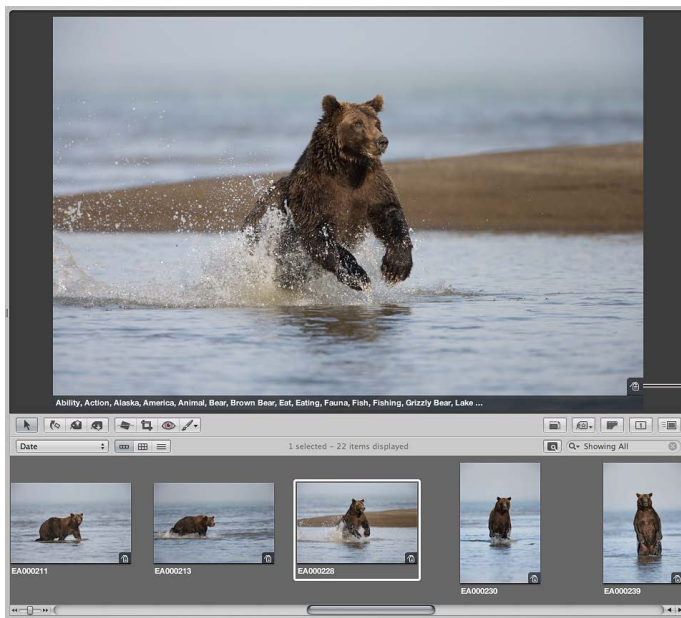
IPTC field and character limit	Description and example
Caption (2000 characters)	A long-form description of the subject and related information in a natural-language caption <i>Example:</i> Mayor Alvarado addresses a crowd at the first soccer match of the season.
Keywords (64 characters)	A list of words describing the subject in discrete words or phrases <i>Example:</i> Politician, Mayor, Futbol, Soccer, News, Game, Team, San Jose
Provider (32 characters)	Photographer's name and/or agency name <i>Example:</i> Matthew Birdsell/Sun Times News
Copyright (128 characters)	Copyright date, photographer's name, agency name, and rights <i>Example:</i> © 2009 Matthew Birdsell/Sun Times News. All rights reserved.
Title (64 characters)	A unique identifier, used by an agency or organization to catalog images <i>Example:</i> mt52642j
Date Created (16 characters)	Date the photo was created <i>Example:</i> 05/16/2009
Image City (32 characters)	City where the photo was captured <i>Example:</i> San Jose
Image State/Province (32 characters)	Province or state where the photo was captured <i>Example:</i> California
Image Country (64 characters)	Country where the photo was captured <i>Example:</i> USA
Instructions (256 characters)	Applicable restrictions, rights, or embargo information <i>Example:</i> MAGS OUT, INTERNET OUT, NO THIRD-PARTY SALES
Creator (64 characters)	The photo byline text <i>Example:</i> © Matthew Birdsell/Sun Times News

IPTC field and character limit	Description and example
Headline (256 characters)	The headline published with the photo <i>Example:</i> Mayor Alvarado Opens New Soccer Season in San Jose
Source (32 characters)	The source that provided the photo <i>Example:</i> Mercury News

## Understanding badge overlays






### Badge overlays overview













When you apply adjustments, keywords, or other changes to a photo, Aperture marks the photo with a badge overlay. Badges can appear on photos in the Viewer, the Browser, and the Light Table, in book pages and webpages, and in full-screen view.



Keywords have been applied to this photo.

The following table shows badges that appear on photos in Aperture.

Badge	Definition
 or 	One or more adjustments have been applied to the photo.
	One or more keywords have been applied to the photo.
	Photos are contained in a stack. The number indicates the number of photos in the stack.
	The photo has been edited with an external editor, and is therefore represented by the original created when the file was exported to the external editor.

Badge	Definition
	The photo is an album's pick photo, the identifying photo for that album, webpage album, web journal album, Light Table album, slideshow album, or book album.
	Because of low image resolution, the photo's print quality may be affected. This badge appears on photos placed in book pages and webpages.
	The number indicates the number of times the photo has been used in a given book, web journal, or Light Table arrangement.
	The photo is a referenced image.
	The referenced image's original is offline.
	The referenced image's original has not been found.
	The photo was downloaded from My Photo Stream or a shared photo stream, or imported from a Facebook album, Flickr set, or SmugMug gallery online.
	A location has been assigned to the photo.
	The photo has an audio file attached.
	The thumbnail image represents a video clip.
	The photo is part of a RAW + JPEG image pair, and this photo's original is the RAW file.
	The photo is part of a RAW + JPEG image pair, and this photo's original is the JPEG file.

## Display photos with badge overlays

Badge visibility is determined by the metadata overlay view that is displayed. You can control whether badges are visible by choosing a metadata overlay view that includes badge overlays; you can also control whether badge overlays are visible by turning metadata overlays on or off.

**Important:** Badge overlays appear only in the Aperture application; they do not appear on photos exported or printed from Aperture.

### Display badge overlays on photos in the Viewer and Browser

- Do one of the following:
  - Choose View > Metadata Display > Customize (or press Command-J).
  - In the tool strip, choose Edit from the Metadata Overlays pop-up menu.

The Browser & Viewer Metadata dialog appears.
- Do the following:
  - To display badge overlays on photos in the Viewer:* Choose a Viewer metadata overlay view from the View pop-up menu.
  - To display badge overlays on photos in the Browser:* Choose a Grid View metadata overlay view from the View pop-up menu.
- In the Metadata Fields column, click the Aperture disclosure triangle to reveal the metadata fields below it, then select the Badges checkbox.

- 4 Click OK.
- 5 Make sure both Show Metadata and the metadata overlay view you just modified are selected for the Viewer and/or Browser in the Metadata Overlays pop-up menu in the tool strip.

Badges are now visible in the Viewer or Browser depending on what you selected.

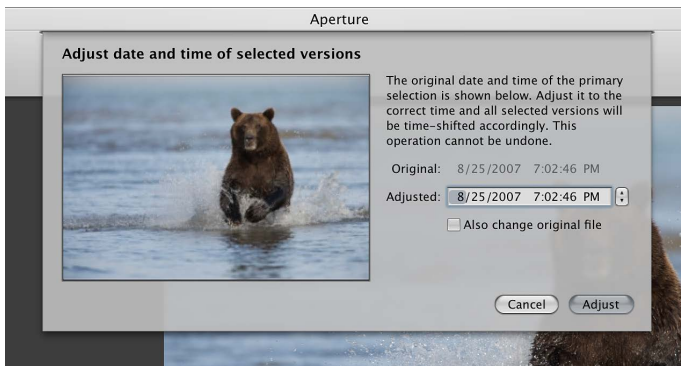
You can turn off the display of badge overlays in the Viewer or in the Browser by turning off the display of metadata. For more information, see [Turn the display of metadata on or off](#) on page 202.

## Adjust the photo date and time

You can adjust the date and time a photo was taken at any time. Aperture gives you the option of adjusting the date and time of a photo's version or the photo's version and original.

### Change the creation date of a photo or group of photos

- 1 Select a photo or group of photos.
- 2 Choose Metadata > Adjust Date and Time.



- 3 Enter a new date and time in the Adjusted field.
- 4 If you want to modify the creation date of the original or originals, select the "Also change original file(s)" checkbox.
- 5 Click the Adjust button.

The creation date and time of the version or versions changes. If you selected the "Also change original file" checkbox, the date and time adjustment is applied to the original as well.



# Make image adjustments

# 7

## Adjustments in Aperture

Aperture includes a standard set of adjustments you can apply to images using the controls in the Adjustments inspector and the Adjustments pane of the Inspector HUD. The standard adjustments target specific pixels in an image, no matter where they occur. For example, you can use the Highlights & Shadows adjustment to target just the highlights, shadows, or midtones of your image.

If you want to adjust a specific area of your image, you can manually brush an adjustment on the area of the image you want to change. Most of the standard adjustments can be brushed on images, and Aperture also includes a set of Quick Brush adjustments designed just for brushing on images.

**Note:** When you take a photo using an iPad, iPhone, or iPod touch with iOS 5 or later and then make adjustments to the image using the iOS device, the image adjustments are retained and automatically applied when the image is imported into Aperture. For devices using iOS 7 or later, filters such as Tonal, Noir, and Fade applied to a photo using Camera and Photos are also preserved in Aperture. However, you can modify the adjustments and filters in Aperture at any time.

### Standard adjustments

You can make the following standard adjustments to images in Aperture. For instructions, see [Apply standard adjustments](#) on page 225 or the topic for a particular standard adjustment. To learn how to brush standard adjustments on images, see [Apply brushed adjustments](#) on page 228.

Adjustment	Function
Retouch	Retouches all types of imperfections in an image, such as skin blemishes, using either the Repair or Clone brush.
Red Eye Correction	Reduces red-eye in the eyes of the subjects in your images. Used in conjunction with the Red Eye tool.
Spot & Patch	In previous Aperture versions, fixed imperfections in an image caused by sensor dust. In Aperture 3, the Retouch adjustment is recommended for fixing imperfections in an image.
Straighten	Levels the image's horizon. Used in conjunction with the Straighten tool.
Crop	Trims the image. Used in conjunction with the Crop tool.
Flip	Inverts the composition of the image horizontally, vertically, or both.

Adjustment	Function
Chromatic Aberration	Corrects chromatic aberration, produced by certain lenses during shooting.
Devignette	Corrects a vignette created when the image was shot.
Noise Reduction	Reduces digital noise in an image.
White Balance	Sets an image's white balance by evaluating the image for natural gray or skin tone in identified faces, as well as by adjusting the color temperature and tint.
Exposure	Adjusts exposure, recovery, black point, and brightness.
Enhance	Adjusts contrast, definition, saturation, and vibrancy, as well as black, gray, and white tints.
Curves	Selectively remaps the tonal range of the image by applying a curve from input to output.
Highlights & Shadows	Selectively adjusts the exposure in the shadows and highlights of an image.
Levels	Selectively adjusts the tonal range of an image.
Color	Adjusts hue, saturation, and luminance on a color-by-color basis, as well as chromatic range.
Black & White	Selectively controls the source red, green, and blue color channels when a color image is converted to grayscale.
Color Monochrome	Desaturates the image and applies a color tint of your choosing to the midtones.
Sepia Tone	Changes a color image to sepia, allowing you to desaturate the image to the level of sepia coloring you want.
Edge Sharpen	Sharpens the image based on luminance using multiple sharpening passes.  A separate Sharpen adjustment is also available to preserve sharpening adjustments made in earlier versions of Aperture.
Vignette	Applies a vignette effect to the image.

**Note:** You can also modify how OS X decodes RAW files using the RAW Fine Tuning controls, and you can modify iPhoto effects for images you're working with in iPhoto. For more information about decoding RAW files, see [RAW Fine Tuning controls overview](#) on page 334. For more information about working with iPhoto, see [Apply iPhoto effects to images](#) on page 240.

### Quick Brush adjustments

You can brush the following Quick Brush adjustments on specific areas of an image. For instructions, see [Apply Quick Brush adjustments](#) on page 231 or the topic for a particular Quick Brush adjustment.

Quick Brush	Function
Skin Smoothing	Smooths people's skin by subtly blurring wrinkles and skin pores in brushed areas of an image.
Dodge (Lighten)	Dodges (lightens) brushed areas of an image.
Burn (Darken)	Burns (darkens) brushed areas of an image.

Quick Brush	Function
Polarize (Multiply)	Deepens the colors in brushed areas of an image by specifically darkening the shadows and midtones while preserving the highlights.
Intensify Contrast (Overlay)	Corrects shadows that appear washed out in brushed areas of an image by intensifying the contrast between pure black and 50% gray.
Tint	Shifts the tint in brushed areas of an image.
Contrast	Applies additional contrast in brushed areas of an image.
Saturation	Saturates the colors in brushed areas of an image.
Definition	Adds clarity and reduces haze in brushed areas of an image without adding too much contrast.
Vibrancy	Adds saturation to desaturated colors only in brushed areas of an image. Skin tones aren't affected.
Blur	Blurs (softens) brushed areas of an image.
Sharpen	Sharpens brushed areas of an image.
Halo Reduction	Removes blue and purple fringes in brushed areas of an image. Fringing is occasionally produced by certain lenses when the image is overexposed.
Noise Reduction	Removes digital noise in brushed areas of an image.

## About making adjustments onscreen

Human eyes perceive color subjectively. It's difficult to make objective changes to the colors in an image because the brain is so advanced that it skews the perception of colors to make them appear as natural as possible. For this reason, it's essential that you create the best possible work environment for performing color adjustments. Such an environment excludes extraneous colors that have the potential to throw off your eye.

Before you begin making color adjustments to your images, it's important to do the following:

- Set your display to its highest-resolution setting. This will give you the best view of your image.
- Practice good color management by calibrating your displays and printers and making sure their profiles are up to date.
- Reduce the ambient light in the room you're working in to prevent the light from skewing your perception of the colors on your screens, and set your displays to their brightest levels.
- If possible, paint the walls in the room in which you perform detailed image adjustments a neutral gray. Keep bright-colored objects to a minimum to ensure that the colors on your screens are not altered by the color in the rest of the room.

## Use the adjustment controls

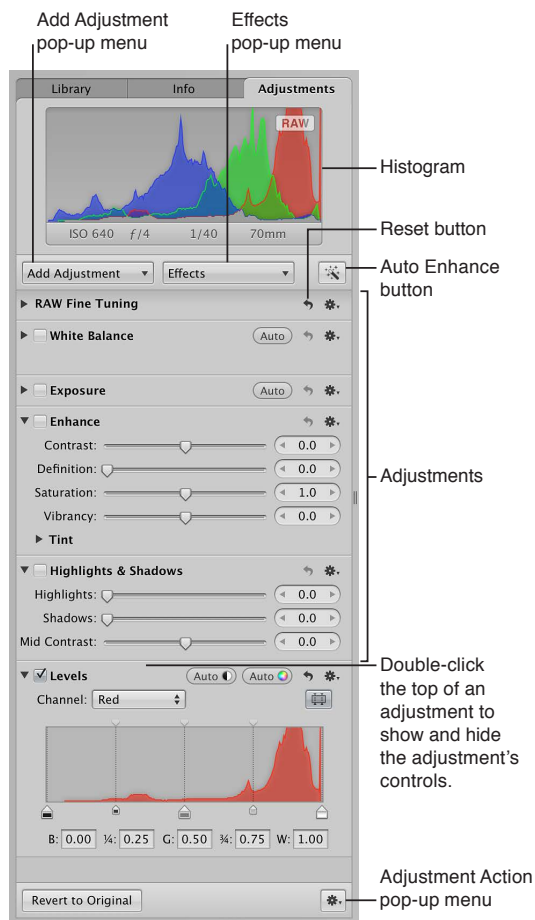
### Use the Adjustments inspector and Inspector HUD

You can use menu commands, keyboard shortcuts, or the Inspector button on the left side of the toolbar to show and hide the Inspector pane containing the adjustment controls. The adjustment controls in the Adjustments inspector are also found in the Adjustments pane of the Inspector HUD. You can use menu commands and buttons in the full-screen view toolbar to show or hide the Inspector HUD.

#### Show the Adjustments inspector

Do one of the following:

- Choose Window > Show Inspector (or press I), and click the Adjustments tab.
- Click the Inspector button in the toolbar, and click the Adjustments tab.



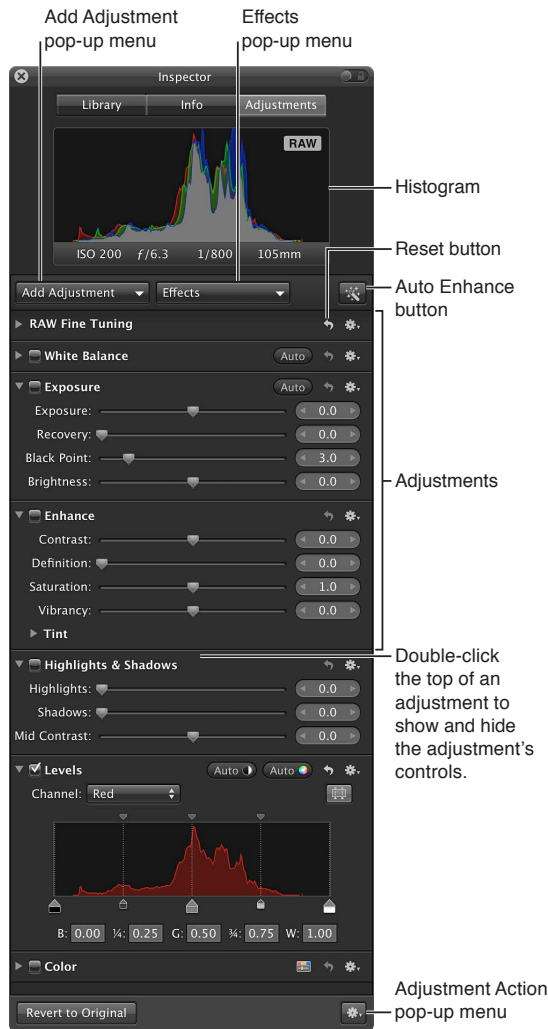
Each adjustment contains individual properties, called *parameters*, for which you can specify a range of values. You click an adjustment's disclosure triangle, or double-click the top of the adjustment, to view the parameters for the adjustment and the controls you use to change parameter values. For more information about using the adjustment controls to change parameter values, see [Use sliders](#) on page 223.

#### Show the Adjustments pane of the Inspector HUD

Do one of the following:

- Choose Window > Show Inspector HUD (or press H), and click the Adjustments button.
- Click the Inspector HUD button in the full-screen view toolbar, and click the Adjustments button.


For more information, see [Perform adjustments in full-screen view](#) on page 238.



**Note:** The adjustment controls in the Adjustments inspector and the Adjustments pane of the Inspector HUD are dimmed when an audio clip or a video clip is selected.

### Choose a histogram view

When you show the Adjustments inspector or the Adjustments pane of the Inspector HUD, a histogram of the selected image's luminance or color channels appears. The histogram displays a graph of the brightness values in the image, from the blackest point to the whitest point. You can adjust the histogram to show luminance; red, green, and blue (RGB) channels displayed together; or separate red, green, and blue channels.

- Choose a view option from the Histogram Options section of the Adjustment Action pop-up menu .

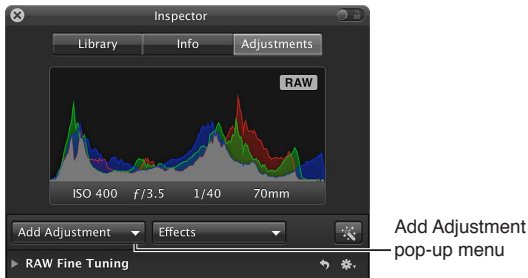
**Note:** The histogram updates in real time for images displayed in the Viewer and in full-screen view, but is slightly delayed in the Book Layout Editor, the Webpage Editor, and the Light Table. For information about how to interpret a histogram, see [Histograms overview](#) on page 344.

## Add additional adjustments

The first time you show either the Adjustments inspector or the Adjustments pane of the Inspector HUD, only the White Balance, Exposure, Enhance, and Highlights & Shadows adjustments are available.

**Note:** A photo must be selected in the Browser for adjustment controls to appear in the Adjustments inspector or the Adjustments pane of the Inspector HUD.

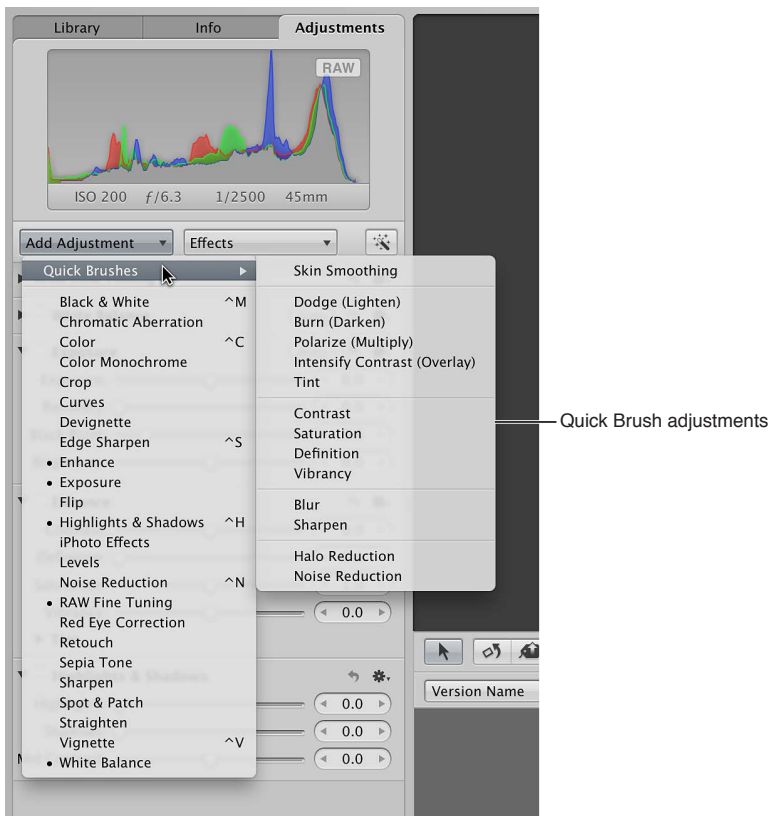
- Choose an adjustment from the Add Adjustment pop-up menu at the top of either the Adjustments inspector or the Adjustments pane of the Inspector HUD.



The new adjustment appears highlighted in both the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown. For more information about adjustment controls, see [Use sliders](#) on page 223.

## Add Quick Brushes

- Choose a Quick Brush adjustment from the Add Adjustment pop-up menu at the top of either the Adjustments inspector or the Adjustments pane of the Inspector HUD.

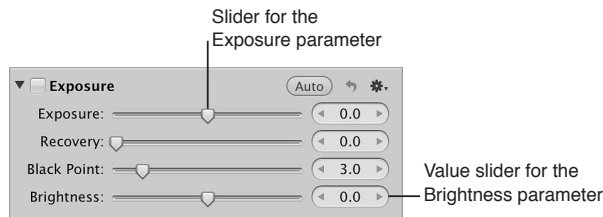


The adjustment controls for the Quick Brush appear in both the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown. Also, a floating window containing the Quick Brush controls appears, and the pointer changes to a brush. For more information, see [Apply Quick Brush adjustments](#) on page 231.

## Use sliders

There are two types of slider controls for changing parameter values—sliders and value sliders. Slider controls have varying value ranges depending on the parameter.

- *Sliders:* You can drag the slider left or right to set a value, or click anywhere along the slider's range to jump directly to that value.



- *Value sliders:* You can double-click the value and type a number in the value field, click the left or right arrow, or drag inside the value field to set a value. Often, you can type a much larger number in the value field than can be achieved by dragging the standard sliders. When using value sliders, you can use a modifier key to make value adjustments in small or large increments.

### Change values in small increments

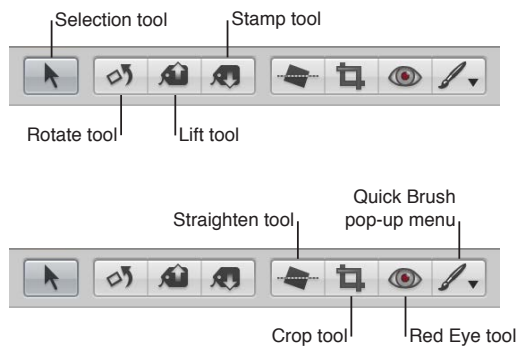
- Option-drag in the value field.

### Change values in large increments

- Shift-drag in the value field.

## Work with adjustment tools in the tool strip

When the Viewer is shown, the tool strip contains tools for working with your images in the Viewer and Browser. Many of the adjustment tools also work in conjunction with adjustment controls.



## Use the brush controls

Whenever a photo is selected and displayed in the Viewer or in full-screen view, you can retouch it using a brushed adjustment, which allows you to manually target a specific part of the image using brush controls. Most adjustments can be brushed on images. You choose a brush for an adjustment from the adjustment's Action pop-up menu.

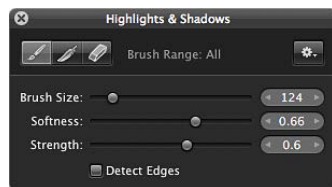
A Brush button appears when the adjustment is brushed on the photo. Click the button to open the Brush HUD for the adjustment.



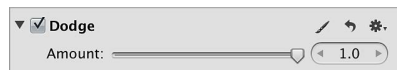
In addition to brushing standard adjustments, you can also use Quick Brush adjustments that are specifically designed for brushing on images. Quick Brush adjustments are accessible from the Add Adjustment pop-up menu in the Adjustments inspector and the Adjustments pane of the Inspector HUD, as well as from the Quick Brush pop-up menu in the tool strip.



When you choose to brush an adjustment, its Brush HUD appears. You specify settings using the controls in the HUD and then brush the adjustment on the image.



When you choose a Quick Brush adjustment, its adjustment controls appear highlighted in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown. As with the standard adjustment controls, you use the checkbox for the adjustment to turn Quick Brush adjustments on and off. For more information, see [Remove adjustments](#) on page 238. Some Quick Brush adjustments also have sliders for changing parameter values after the Quick Brush adjustment has been applied. For more information, see [Use sliders](#) on page 223.



For more information, see [Apply brushed adjustments](#) on page 228 or the topic for a particular Quick Brush adjustment.



## Ways to perform adjustments

### Apply standard adjustments

To modify the appearance of the entire image, you apply a standard adjustment and adjust its settings.



Before Exposure adjustment

After Exposure adjustment

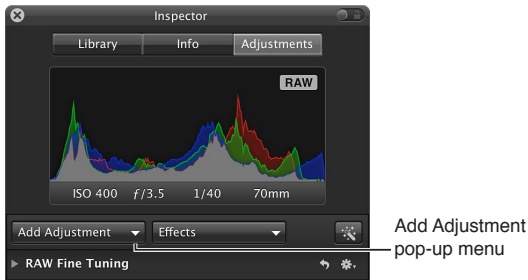
Some images can be difficult to perfect. Images shot in mixed-lighting and low-light conditions often require the same adjustment applied multiple times in small increments to achieve the appearance you're looking for. For example, an image shot in low-light conditions may require multiple incremental Noise Reduction adjustments so that the image isn't muddied by a single strong Noise Reduction adjustment. In Aperture, adjustments are applied from top to bottom as they appear in the Adjustments inspector. In the example above, you can add the Noise Reduction controls with a slight Radius adjustment coupled with a slight Edge Detail adjustment, and then add the same Noise Reduction controls to the Adjustments inspector again, with the same incremental settings.

You can also apply an adjustment or a group of adjustments to a range of images by first applying the adjustments to one image and then lifting the adjustments from the first image and stamping them on the other images.

#### Apply a standard adjustment

- 1 Select a photo.
- 2 Do one of the following:
  - *To open the Adjustments inspector:* Click the Inspector button in the toolbar, and click the Adjustments tab.
  - *To open the Adjustments pane of the Inspector HUD:* Choose Window > Show Inspector HUD (or press H), and click the Adjustments button.

- 3 If the adjustment you want to apply to the image isn't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose an adjustment from the Add Adjustment pop-up menu.



- 4 Specify parameter settings for the adjustment while viewing the effect on the image.

For information about applying a particular standard adjustment, see the topic for the adjustment.

#### Add the same adjustment multiple times

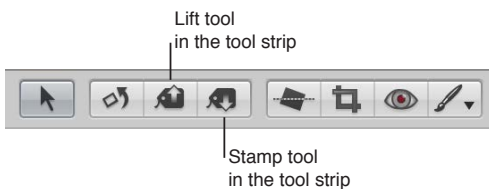
- In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Add New [adjustment] from the Action pop-up menu for the adjustment.

Another set of adjustment controls for the same adjustment appears immediately below the current adjustment in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

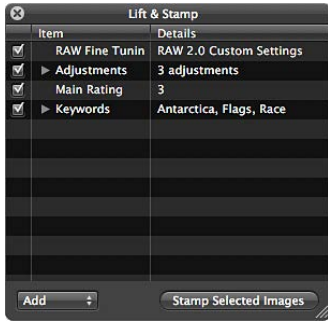


#### Lift adjustments from one image and stamp them on a group of images

- 1 In the Browser, select the photo that has the adjustments you want to copy.
- 2 In the tool strip, select the Lift tool (or press O).

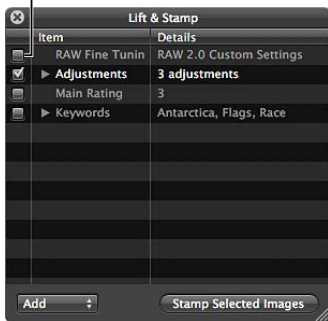


The Lift & Stamp HUD appears, showing the adjustments, IPTC metadata, and keywords applied to the image.

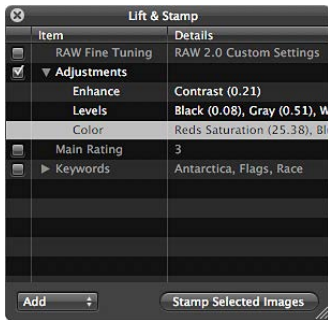


- 3 Deselect all metadata-related checkboxes to prevent Aperture from copying the metadata from the selected photo.

Deselect a checkbox to prevent Aperture from copying the item from the selected photo.



- 4 If necessary, remove any unwanted adjustments by clicking the Adjustments disclosure triangle in the Lift & Stamp HUD, selecting the unwanted adjustments, and pressing Delete.



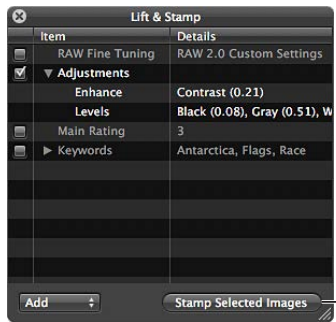
Select an adjustment and press Delete to remove it.

- 5 In the tool strip, select the Selection tool (or press A), and do one of the following:
  - Drag a selection rectangle around the photos to which you want to apply the adjustments.
  - Select the photos to which you want to apply the adjustments by Shift-clicking to select a range of adjacent photos and Command-clicking to select nonadjacent photos.

**Note:** The adjustments aren't applied to photos within closed stacks. If you want to stamp the adjustments on photos within a stack, you must open it first by choosing Stacks > Open Stack (or pressing Shift-K).

6 Do one of the following:

- In the tool strip, select the Stamp tool.
- In the Lift & Stamp HUD, click the Stamp Selected Images button.



Click the Stamp Selected Images button to apply the adjustments to the selected images.

The adjustments copied from the first photo are applied to the selected photos. For more information about using the Lift & Stamp HUD, see [Apply keywords using the Lift & Stamp HUD](#) on page 118.

### Apply brushed adjustments

There are two methods you can use to brush adjustments on images. When you want to apply an adjustment to a small portion of an image, you can specify the adjustment settings and then brush the adjustment on just that area. This is called *brushing in*.



A plus sign (+) indicates that you're brushing the adjustment in.

When you want to apply an adjustment to most of an image except for a specific portion, you can specify the settings for the adjustment and then brush the adjustment on the areas of the image you want to exclude. This is called *brushing away*.



A minus sign (-) indicates that you're brushing the adjustment away (erasing).

After applying a brushed adjustment to an image, you can still modify the effect of the adjustment on the image. Whether you brushed a standard adjustment or a Quick Brush adjustment, you can modify the adjustment using the controls for that adjustment in the Adjustments inspector or the Adjustments pane of the Inspector HUD.

**Note:** The parameter settings for the Retouch and Halo Reduction brushed adjustments cannot be modified after the adjustments have been applied.

### Brush an adjustment in

- 1 Select a photo.
- 2 If the adjustment you want to apply to the image isn't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose the adjustment from the Add Adjustment pop-up menu.

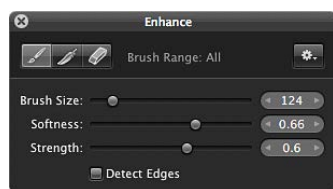
**Note:** The Red Eye Correction, Spot & Patch, Straighten, Crop, Flip, White Balance, and Exposure adjustments cannot be brushed on images.

- 3 Specify parameter settings for the adjustment while viewing the effect on the image.
- 4 When the area of the image you want to adjust has the correct appearance, choose "Brush [*adjustment*]" in" from the adjustment's Action pop-up menu.



The pointer turns into a brush, and the Brush HUD for the adjustment appears. The adjustment is also removed from the image.

- 5 In the Brush HUD, specify the following settings:
  - *To adjust the size of the brush:* Use the Brush Size parameter controls.  
**Tip:** Use the scroll gesture to quickly resize the brush as you work.
  - *To adjust the softness of the brush:* Use the Softness parameter controls.
  - *To adjust the intensity of the brush:* Use the Strength parameter controls.
  - *To specify that the adjustment detect edges in order to preserve detail:* Select the Detect Edges checkbox.



- 6 Brush the adjustment over the areas of the image you want to modify.  
**Tip:** It's a good idea to regularly zoom in to the image to ensure that the brush strokes cover the areas of the image you want to adjust.

The adjustment is applied to the portion of the image it was brushed on.

For information about modifying the effect of the adjustment after it has been brushed on the image, see [Work with brush strokes](#) on page 232.

## Brush an adjustment away

- 1 Select a photo.
- 2 If the adjustment you want to apply to the image isn't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose the adjustment from the Add Adjustment pop-up menu.

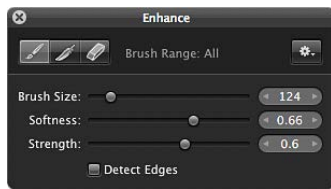
**Note:** The Red Eye Correction, Spot & Patch, Straighten, Crop, Flip, White Balance, and Exposure adjustments cannot be brushed on images.

- 3 Specify parameter settings for the adjustment while viewing the effect on the image.
- 4 When the area of the image you want to adjust has the correct appearance, choose "Brush [adjustment] away" from the adjustment's Action pop-up menu.



The pointer turns into a brush, and the Brush HUD for the adjustment appears. The adjustment remains applied to the entire image.

- 5 In the Brush HUD, specify the following settings:
  - *To adjust the size of the brush:* Use the Brush Size parameter controls.  
**Tip:** Use the scroll gesture to quickly resize the brush as you work.
  - *To adjust the softness of the brush:* Use the Softness parameter controls.
  - *To adjust the intensity of the brush:* Use the Strength parameter controls.
  - *To specify that the adjustment detect edges in order to preserve detail:* Select the Detect Edges checkbox.



- 6 Brush over the areas of the image you don't want adjusted.

**Tip:** It's a good idea to regularly zoom in to the image to ensure that the brush strokes cover the areas of the image you don't want adjusted.

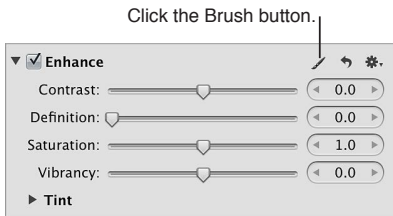
The adjustment is removed from the brushed areas of the image.

For information about modifying the effect of the adjustment after it has been brushed on the image, see [Work with brush strokes](#) on page 232.

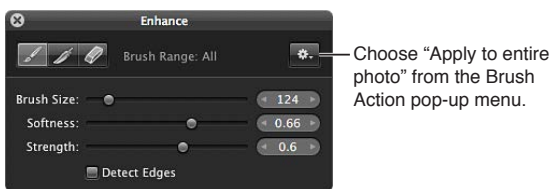
## Apply a brushed adjustment to the entire image

You can extend a brushed adjustment to cover the entire image rather than just the area you brushed over.

- 1 Select the photo with the adjustment you want applied to the entire image.
- 2 Select the brushed adjustment in the Adjustments inspector or the Adjustments pane of the Inspector HUD, and click the Brush button in the adjustment controls.



- 3 In the Brush HUD, choose “Apply to entire photo” from the Brush Action pop-up menu.




The brushed adjustment’s brush strokes are removed, and the adjustment is applied to the entire image.

## Apply Quick Brush adjustments

Aperture provides Quick Brush adjustments, such as Dodge, Burn, Halo Reduction, and Skin Smoothing, that have been specifically designed for brushing on images. To apply a Quick Brush adjustment, you brush the adjustment on the image and then modify the adjustment’s parameter settings.

### Apply a Quick Brush adjustment

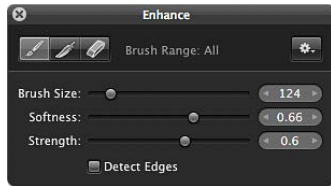
- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes from the Add Adjustment pop-up menu, and choose a Quick Brush adjustment from the submenu.
  - Choose a Quick Brush adjustment from the Quick Brush pop-up menu  in the tool strip.
  - In full-screen view, choose a Quick Brush adjustment from the Quick Brush pop-up menu in the toolbar.

The pointer turns into a brush, the Brush HUD for the adjustment appears, and adjustment controls for the adjustment appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

**Note:** The controls in the Retouch HUD are different from those that appear in the Brush HUD for other brushed adjustments. For more information, see [Retouch an image](#) on page 242.

- 3 In the Brush HUD, specify the following settings:
  - *To adjust the size of the brush:* Use the Brush Size parameter controls.  
*Tip:* Use the scroll gesture to quickly resize the brush as you work.

- To adjust the softness of the brush: Use the Softness parameter controls.
- To adjust the intensity of the brush: Use the Strength parameter controls.
- To specify that the adjustment detect edges in order to preserve detail: Select the Detect Edges checkbox.

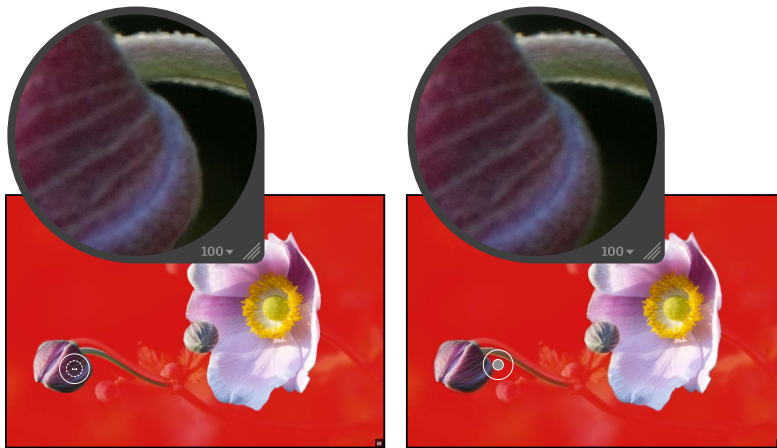


**Note:** For additional options, see [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment over the areas of the image you want to apply it to.

## Work with brush strokes

There are many controls in the Brush HUD that you can use to apply, remove, and feather brush strokes.



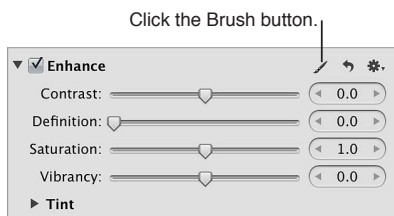
**Before feathering**

**After feathering**  
(used the feathering brush to smooth the edge of a previously applied brush stroke)

## Feather brush strokes

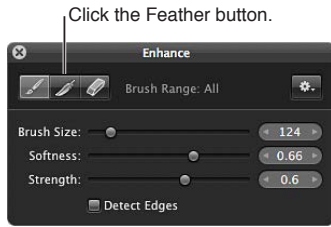
In many situations, it's best to avoid brush strokes that have hard, noticeable edges. The Brush HUD has a feathering brush that you can use to smooth the edges of previously applied brush strokes so that they blend seamlessly into the image. The feathering brush is applied to the selected brushed adjustment only.

- 1 Select the photo with the brushed adjustment whose brush strokes you want to feather.
- 2 Select the brushed adjustment in the Adjustments inspector or the Adjustments pane of the Inspector HUD, and click the Brush button in the adjustment controls.





- 3 In the Brush HUD, click the Feather button.



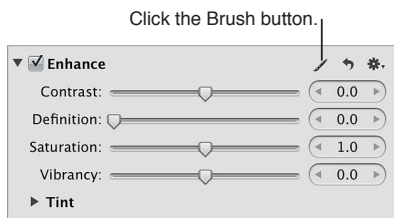
- 4 Specify the diameter of the brush and its intensity using the Brush Size and Strength sliders and value sliders.
- 5 Drag the brush over the edges of the previously applied brush strokes.

**Tip:** When feathering brush strokes, it's a good idea to display the brush strokes as color overlays to help identify the boundaries of each brush stroke. You can turn the color overlays off at regular intervals and visually inspect the image to ensure that the brush strokes are feathered appropriately. For more information, see [Work with brushed adjustment overlays](#) on page 235.

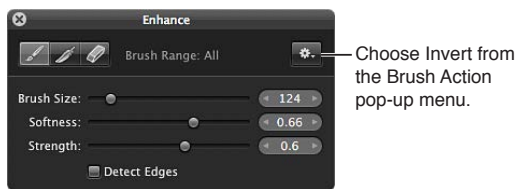
### Invert an adjustment's brush strokes

You can remove an adjustment from the area you brushed it on and apply it to the rest of the image instead.

- 1 Select the photo with the brushed adjustment whose brush strokes you want to invert.
- 2 Select the brushed adjustment in the Adjustments inspector or the Adjustments pane of the Inspector HUD, and click the Brush button in the adjustment controls.



- 3 In the Brush HUD, choose Invert from the Brush Action pop-up menu.

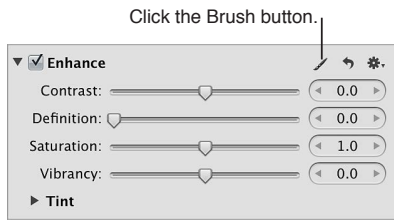


### Erase brush strokes

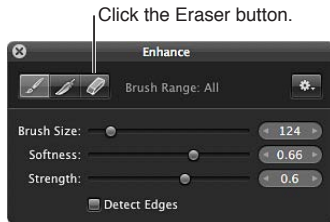
You can erase the brush strokes for a previously applied brushed adjustment using the eraser brush in the Brush HUD. The eraser brush erases the brush strokes of the selected brushed adjustment only. The eraser brush uses the same parameters as the standard brush (Brush Size, Softness, and Strength).

**Tip:** You can quickly switch from the brush to the eraser by holding down the Option key. To switch back to the brush, release the Option key.

- 1 Select the photo with the brushed adjustment whose brush strokes you want to erase.
- 2 Select the brushed adjustment in the Adjustments inspector or the Adjustments pane of the Inspector HUD, and click the Brush button in the adjustment controls.



- 3 In the Brush HUD, click the Eraser button.

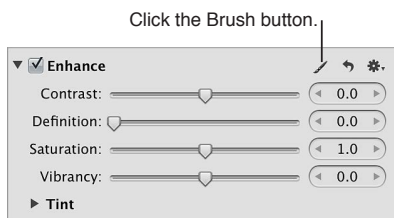


- 4 Specify the diameter of the brush, its softness, and its intensity using the Brush Size, Softness, and Strength sliders and value sliders.
- 5 Drag the brush over the previously applied brush strokes that you want to remove.

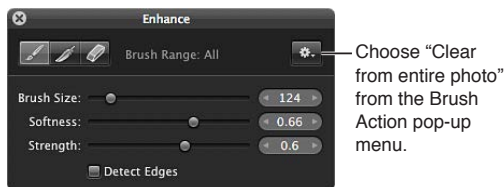
*Tip:* Some brushed adjustments are so subtle that it's difficult to identify the boundaries of the brush strokes or even the brush strokes themselves. In some cases, one brushed adjustment can obscure another when brushed over the same area. To help identify brush strokes, it's a good idea to use overlays. For more information, see [Work with brushed adjustment overlays](#) on page 235.

### Remove all brush strokes for a specific adjustment from an image

- 1 Select the photo with the brushed adjustment whose brush strokes you want to remove.
- 2 Select the brushed adjustment in the Adjustments inspector or the Adjustments pane of the Inspector HUD, and click the Brush button in the adjustment controls.



- 3 In the Brush HUD, choose "Clear from entire photo" from the Brush Action pop-up menu.



## Work with brushed adjustment overlays

Overlays are useful tools for identifying where brush strokes for the selected brushed adjustment have been applied to the image. When you've brushed an adjustment with a subtle softness and strength over the image, it can be difficult to discern the boundaries of the brush strokes. Aperture provides several types of overlays to help you visually identify the selected brushed adjustment's cumulative brush strokes. When you accurately identify the boundaries of a brush stroke, you can use the eraser brush to remove any parts of the brush stroke that don't belong, and you can use the feathering brush to smooth out the edges. For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

The Brush Action pop-up menu in the Brush HUD provides the following overlay options to help you with detailed brushing:

- *Color Overlay*: Displays a pink overlay over the brush strokes for the selected adjustment.



- *Brush Strokes*: Displays the brush strokes for the selected adjustment as pure white over a pure black background. This option provides the easiest method for identifying brush strokes that have been applied to an image. It's a good idea to use this overlay option if you suspect that you missed a tiny part of the image when brushing. The missed portions of the image appear as black dots or lines.



- *On Black*: Displays a pure black mask over the image, with the brush strokes revealing the image beneath. This option is useful for showing detailed brush strokes over a bright area in the image.

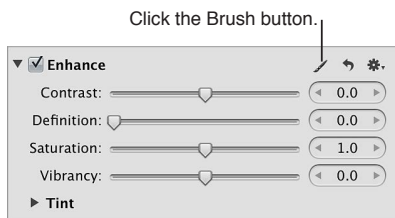


- *On White*: Displays a pure white mask over the image, with brush strokes revealing the image beneath. This option is useful for detailed brush strokes over dark areas in the image.

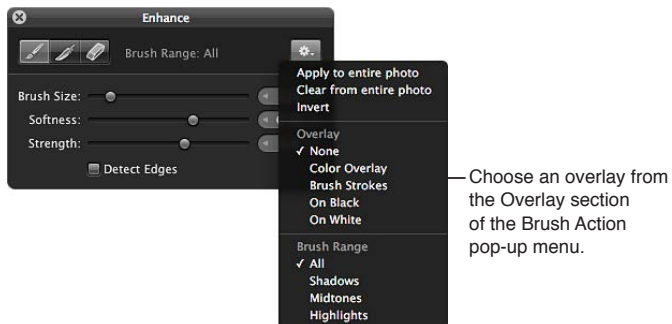


### Apply an overlay for a brushed adjustment to an image

- 1 Select the photo with the brushed adjustment whose brush strokes you want to identify.
- 2 Select the brushed adjustment in the Adjustments inspector or the Adjustments pane of the Inspector HUD, and click the Brush button in the adjustment controls.



- 3 In the Brush HUD, choose an overlay option from the Overlay section of the Brush Action pop-up menu.






To turn an overlay off, choose None from the Overlay section of the Brush Action pop-up menu.

## Limit the tonal range of brushed adjustments

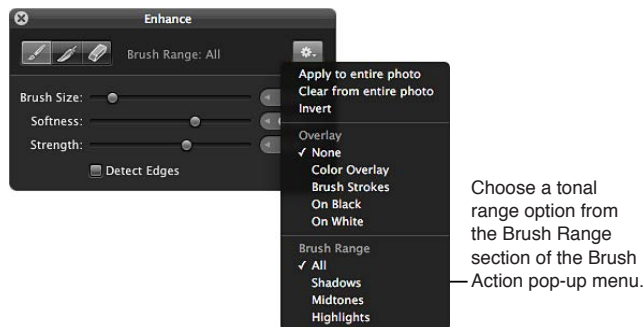
You can limit the adjustment you're about to brush on an image to a specific tonal range. For example, if you want to brush an adjustment on an image and have the adjustment affect only the shadows, you choose Shadows from the Brush Action pop-up menu and then brush the adjustment on the image. If the brush touches a midtone or highlight, that part of the image is not changed.

**Tip:** This feature is particularly useful when burning and dodging, because you can limit the exposure adjustment to the tonal range you want to modify without having to worry about adversely affecting details in the tonal ranges that are correctly exposed.

### Limit a brushed adjustment to a specific tonal range

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose either "Brush [adjustment] in" or "Brush [adjustment] away" from the Action pop-up menu  for the adjustment you want to apply to the image.
  - Choose a Quick Brush adjustment from the Quick Brush pop-up menu  in the tool strip.
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes from the Add Adjustment pop-up menu, and choose a Quick Brush adjustment from the submenu.
  - In full-screen view, choose a Quick Brush adjustment from the Quick Brush pop-up menu  in the toolbar.
- 3 In the Brush HUD, choose a tonal range for the adjustment from the Brush Range section of the Brush Action pop-up menu.

**Note:** If you don't want the brushed adjustment limited to a specific tonal range, choose All.

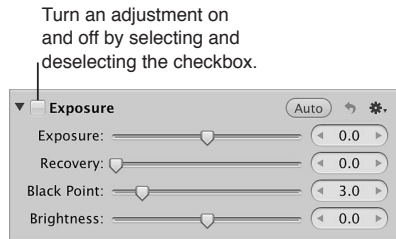


## Remove adjustments

In Aperture, you can temporarily turn adjustments on and off to verify the cumulative effect of the adjustments on your image. You can also remove specific adjustments or remove all adjustments from a photo selection at once.

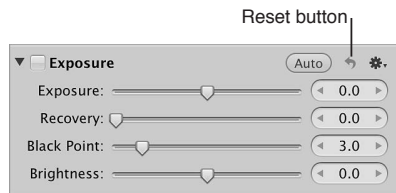
### Turn an adjustment on and off

- In the Adjustments inspector or the Adjustments pane of the Inspector HUD, select the checkbox next to the adjustment's name to turn the adjustment on, and deselect the checkbox to turn it off.



### Remove a single adjustment from an image

- Select a photo, and click the Reset button for the adjustment you want to remove.



### Remove all adjustments from an image

- 1 Select a photo.
- 2 Do one of the following:
  - Choose Photos > Revert to Original.
  - In the bottom-left corner of the Adjustments inspector or the Adjustments pane of the Inspector HUD, click the Revert to Original button.



## Perform adjustments in full-screen view

Full-screen view, which displays photos against a solid background and contains only a few interface elements, provides the best onscreen work environment for performing color adjustments. It's highly recommended that you perform adjustments in full-screen view to achieve the best results possible. For more information, see [Full-screen view overview](#) on page 172.

### Switch to full-screen view

Do one of the following:

- Choose View > Full Screen (or press F).
- Click the Full Screen button in the toolbar.

To switch back to the Aperture main window, click the Exit Full Screen button in the full-screen view toolbar, or Press F or the Esc (Escape) key.

### Show the Inspector HUD while in full-screen view

- Press H.

### Lock the Inspector HUD to the side of the screen so that it doesn't overlap the image

- Click the control in the top-right corner of the HUD.

### Select adjustment tools in full-screen view

- Move your pointer to the top of the screen until the full-screen view toolbar appears, and select a tool.

If you want to set the toolbar to remain on the screen, move the pointer to the top of the screen and click the Always Show Toolbar control.



## Adjust images from within Aperture editors

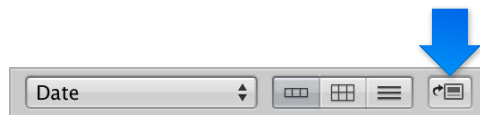
Whenever a photo is selected and displayed in the Viewer or in full-screen view, you can adjust it using the adjustment controls in the Adjustments inspector or the Adjustments pane of the Inspector HUD. You can also adjust images in the Book Layout Editor, Webpage Editor, Slideshow Editor, and Light Table.

**Note:** Some of the adjustment controls are not available for use in the Aperture editors, but you can easily switch to the Viewer to make your changes.

### Switch to the Viewer from the Book Layout Editor, Webpage Editor, Slideshow Editor, or Light Table

Do one of the following:

- Click the Show Viewer button at the top of the Browser.



When you've finished making the adjustment, click the Show Viewer button again to return to the previous view.

- If you have a system that has more than one display, choose View > Secondary Viewer > Alternate, and perform the adjustments on the second display.

For more information, see [View photos on multiple displays](#) on page 170.

## Use an external editor

If you need to perform more advanced image operations, such as compositing, you can set an external editor for use within Aperture. First you have to specify which application Aperture should use and the file format (TIFF or PSD). You only have to do this once. Then you select a photo and choose a menu command to have the photo open in the application designated as the external editor. You can also set an external editor for audio and video files.

### Set an external editor for photos in Aperture

- 1 Choose Aperture > Preferences, and click Export.
- 2 Click the Choose button to the right of the External Photo Editor field, navigate to an application in the Select Application dialog, and click Select.

The application's name appears in the External Photo Editor field.

- 3 Choose the appropriate file format (TIFF or PSD) from the External Editor File Format pop-up menu, and enter a resolution in the dpi field.

This is the file format Aperture uses when opening files in external editors.

**Tip:** It's a good idea to choose the 16-bit option for the External Editor file format because the greater bit depth allows each pixel to express an exponentially larger number of colors and helps reduce color clipping and banding.

### Set an external editor for audio and video files in Aperture

- 1 Choose Aperture > Preferences, and click Export.
- 2 Do either or both of the following:
  - *To set an external editor for audio files:* Click the Choose button to the right of the External Audio Editor field, navigate to an application in the Select Audio Application dialog, and click Select.  
The application's name appears in the External Audio Editor field.
  - *To set an external editor for video files:* Click the Choose button to the right of the External Video Editor field, navigate to an application in the Select Video Application dialog, and click Select.  
The application's name appears in the External Video Editor field.

### Use an external editor in Aperture

- 1 Select an item in the Browser.
- 2 Choose Photos > Edit with External Editor (or press Shift-Command-O).

Aperture duplicates the original, converts the duplicate to the chosen file format, and opens the new file in the external editor. The file is tracked as a new original stacked with the previous original.

- 3 When you've finished modifying the image, audio, or video file in the external application, save the file.

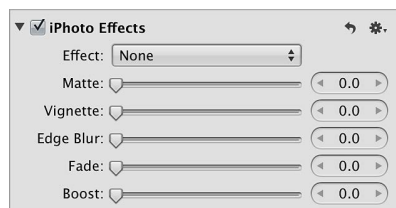
The saved file is automatically updated in Aperture.

## Apply iPhoto effects to images

If you prefer working with iPhoto effects, you can apply them to your images from within Aperture. If you've applied an effect in iPhoto, such as a Matte effect or an Antique effect, you can adjust the effect's parameters in Aperture as well.

### Apply an iPhoto effect to an image

- 1 Select an image.
- 2 Choose iPhoto Effects from the Add Adjustment pop-up menu in the Adjustments inspector or the Adjustments pane of the Inspector HUD.





3 Do either or both of the following:

- *To apply the Black & White, Sepia, or Antique effect to the image:* Choose an option from the Effect pop-up menu.  
The Amount slider and value slider appear when you choose Antique from the Effect pop-up menu. Use the Amount controls to adjust the intensity of the Antique effect.  
**Note:** The None option removes the Black & White, Sepia, or Antique effect.
- *To apply the Matte, Vignette, Edge Blur, Fade, or Boost effect:* Drag the slider or use the value slider for the effect.

## Apply specific standard adjustments

### Enhance an image automatically

You use the Auto Enhance button when you want to quickly improve your image or preview what the image will look like when adjusted. When you click the Auto Enhance button, Aperture evaluates the image and then applies the White Balance, Enhance, Curves, and Highlights & Shadows adjustment settings in a manner that suits the selected photo. Using Auto Enhance is a good starting point when adjusting an image because you can always fine-tune the parameter settings for each adjustment.



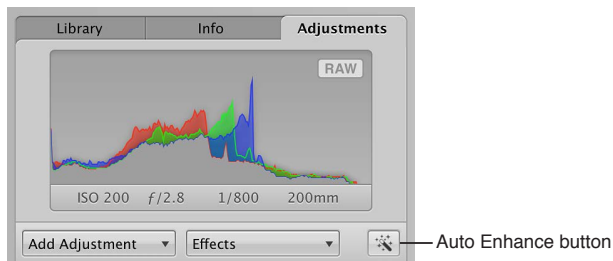
Before Auto Enhance adjustment



After Auto Enhance adjustment

### Enhance an image automatically

- 1 Select a photo.
- 2 At the top of the Adjustments inspector or the Adjustments pane of the Inspector HUD, click the Auto Enhance button.



To fine-tune the White Balance, Enhance, Curves, and Highlights & Shadows parameter settings applied by the Auto Enhance adjustment, see the following topics:

- [White balance an image](#) on page 266
- [Adjust contrast, clarity, and saturation](#) on page 273
- [Adjust the tonal curve of an image](#) on page 282
- [Preserve highlight and shadow details in an image](#) on page 292

## Retouch an image

You use the Retouch brushes to touch up imperfections in the image caused by sensor dust, image artifacts, and other environmental conditions. You can also copy an element of an image and paste it in another area for purely aesthetic reasons. Aperture provides two methods of retouching your images.

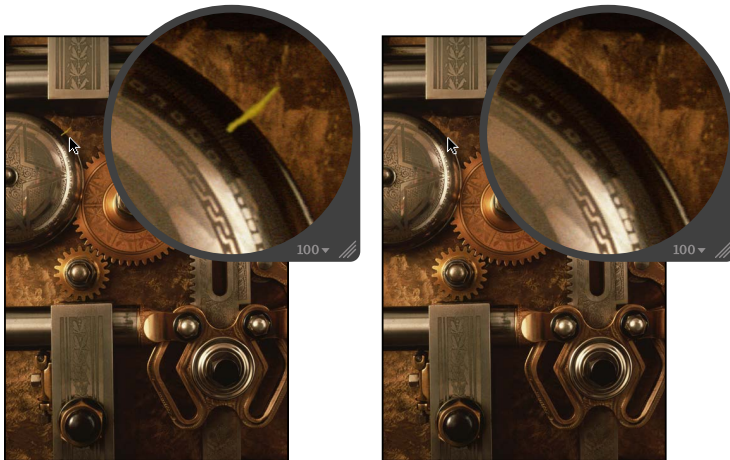
If the area you need to repair has a hard edge near the problem area, you use the “repair” method. You also use the repair method when you want to copy high-frequency texture from one area of the image (the source) and brush the texture over the destination area while maintaining the underlying color and shading of the destination area.



Before Repair adjustment

After Repair adjustment

The second method, “cloning,” is used when you simply want to copy pixels from one area and paste them on another area. Cloning is useful when you want to copy an element of an image as is (a cloud, for example) and paste it in another area.



Before Clone adjustment

After Clone adjustment

**Note:** Aperture provides two sets of retouching controls: Retouch and Spot & Patch. In the vast majority of cases, the Retouch controls will best serve your image-repair needs. The Spot & Patch controls are included in Aperture 3 to retain the integrity of images adjusted with earlier versions of Aperture. You can often improve image repairs by removing an existing Spot & Patch repair and replacing it with a Repair or Clone adjustment performed with the Retouch tool. In a few situations, Spot & Patch is the adjustment of choice. For example, an artifact on or very near a curved edge may be more effectively removed using the Angle parameter. For more information, see [Spot and patch an image](#) on page 250.

### Retouch an image using the Repair brush

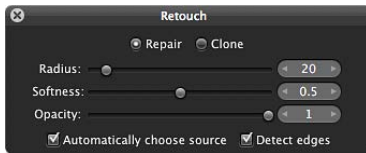
- 1 Select a photo.
- 2 To display the photo at full size, click the Zoom Viewer button in the tool strip or the full-screen view toolbar (or press Z).



Setting the photo to appear at full size (100 percent) prevents image scaling from obscuring details.

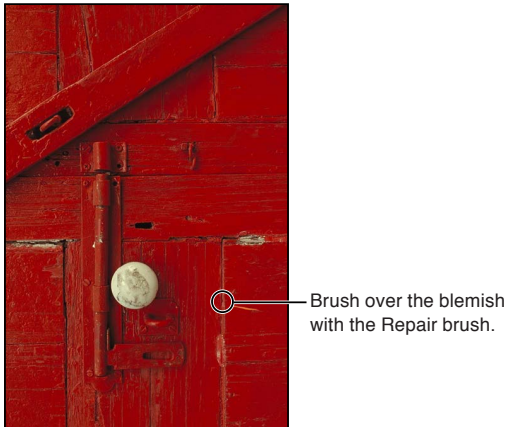
- 3 Choose Retouch from the Quick Brush pop-up menu  in the tool strip or the full-screen view toolbar.

The pointer changes to a brush, and the Retouch HUD appears.



- 4 In the Retouch HUD, specify the following settings:
  - *To select the Repair brush:* Click the Repair button.
  - *To set the radius of the brush:* Drag the Radius slider, enter a value in the Radius value slider, or use the scroll gesture.  
**Note:** You can't use the scroll gesture when the pointer is placed over the Retouch HUD.
  - *To set the softness of the brush:* Drag the Softness slider or enter a value in the Softness value slider.
  - *To set the opacity of the brush:* Drag the Opacity slider or enter a value in the Opacity value slider.
- 5 If you want the Retouch adjustment to preserve edge details in the image, select the "Detect edges" checkbox.
- 6 If you need to copy pixels from another area of the image, deselect the "Automatically choose source" checkbox, and Option-click the source area.

- 7 Brush over the area with the imperfection.



### Retouch an image using the Clone brush

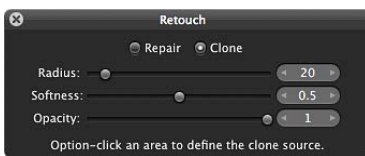
- 1 Select a photo.
- 2 To display the photo at full size, click the Zoom Viewer button in the tool strip or the full-screen view toolbar (or press Z).



Setting the photo to appear at full size (100 percent) prevents image scaling from obscuring details.

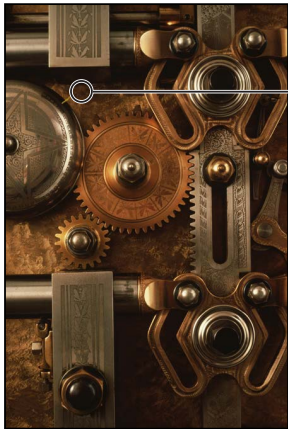
- 3 Choose Retouch from the Quick Brush pop-up menu  in the tool strip or the full-screen view toolbar.

The pointer changes to a brush, and the Retouch HUD appears.



- 4 In the Retouch HUD, specify the following settings:
  - *To select the Clone brush:* Click the Clone button.
  - *To set the radius of the brush:* Drag the Radius slider or enter a value in the Radius value slider.
  - *To set the softness of the brush:* Drag the Softness slider or enter a value in the Softness value slider.
  - *To set the opacity of the brush:* Drag the Opacity slider or enter a value in the Opacity value slider.
- 5 Option-click the source area (the area where you want to copy the pixels).

## 6 Brush over the area with the imperfection.



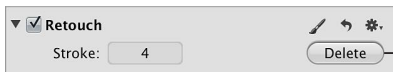
Brush over the blemish with the Clone brush.

### Delete brush strokes


Because pixels in brush strokes are sampled sequentially, brush strokes can be deleted only in reverse order.

Do one of the following:

- *To delete single brush strokes:* Repeatedly click the Delete button in the Retouch area of the Adjustments inspector or the Adjustments pane of the Inspector HUD until the brush stroke you want to remove is deleted.



Click the Delete button to remove a brush stroke.

- *To delete all brush strokes at once:* Click the Reset button  in the Retouch area of the Adjustments inspector or the Adjustments pane of the Inspector HUD.

### Remove red-eye

You use the Red Eye tool and the Red Eye Correction adjustment controls to reduce the red-eye effect in the eyes of the subjects in your image. You use the Red Eye tool to place targets on the red eyes, and then you can adjust the radius and sensitivity of the target overlays using the Red Eye Correction controls. Aperture desaturates the red pixels within the target overlay area, reducing the effect.



Before Red Eye adjustment




After Red Eye adjustment

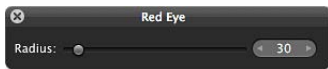
## Remove red-eye with the Red Eye tool

- 1 Select a photo.
- 2 To display the photo at full size, click the Zoom Viewer button in the tool strip or the full-screen view toolbar (or press Z).

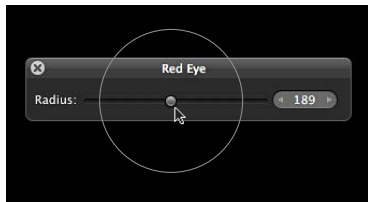


Setting the photo to appear at full size (100 percent) prevents image scaling from obscuring details.

- 3 Select the Red Eye tool  in the tool strip or the full-screen view toolbar (or press E).  
The pointer changes to a target, and the Red Eye HUD appears.



- 4 Change the size of the Red Eye tool's target by doing one of the following:
  - Drag the Radius slider in the Red Eye HUD.






- Use the scroll gesture.
- 5 Click a red eye in the image to place a Red Eye target overlay on it.



The red pixels within the Red Eye target overlay are desaturated.

- 6 Repeat step 4 until all of the red eyes in your image are corrected.

To view the corrected image with the Red Eye target overlays turned off, select the Selection tool  in the tool strip or the full-screen view toolbar (or press A). To turn the Red Eye target overlays on again, select the Red Eye tool  in the tool strip or the full-screen view toolbar (or press E), or click the Red Eye Tool button  in the Adjustments inspector or the Adjustments pane of the Inspector HUD.

### Change the size of an existing Red Eye target overlay

You can adjust the size of a Red Eye target overlay after it's placed on the image.

- 1 To display the image at full size (100 percent), click the Zoom Viewer button in the tool strip or the full-screen view toolbar (or press Z).



- 2 Click the Red Eye target overlay to select it.

A hand icon appears to indicate that you can select the Red Eye target overlay.



The Red Eye tool changes to a hand icon to indicate that you can select the Red Eye target overlay.

- 3 In the Red Eye Correction area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Radius parameter controls to change the size of the overlay.



Drag the Radius slider to adjust the size of the selected Red Eye target overlay.

### Adjust the sensitivity of a Red Eye target overlay

When you target a red eye in a picture, Aperture automatically desaturates the area within the target overlay circle. In a few cases, the area might be either slightly too large or slightly too small (typically including a few pixels in the eyelid skin, or missing a few red pixels inside the pupil). For these difficult cases, you can adjust the Sensitivity parameter to change the area where desaturation occurs. For example, dragging the Sensitivity slider to the left by one notch decreases the radius of the active area within the Red Eye target overlay by one pixel, and dragging the Sensitivity slider one notch to the right enlarges it by one pixel.



**Before Sensitivity adjustment**  
(the eyelids are desaturated)

**After Sensitivity adjustment**


- 1 Click the Red Eye target overlay to select it.
- 2 In the Red Eye Correction area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Sensitivity parameter controls to adjust the area within the Red Eye target overlay where desaturation occurs.

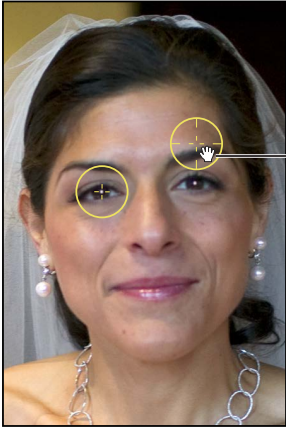


Use the Sensitivity slider and value slider to fine-tune the area within the Red Eye target overlay where desaturation occurs.



### Move a Red Eye target overlay

- 1 Select the Red Eye tool , and place the Red Eye tool's target over the Red Eye target overlay you want to move until the target changes to a hand icon.
- 2 Drag the Red Eye target overlay to the appropriate position over the subject's eye.

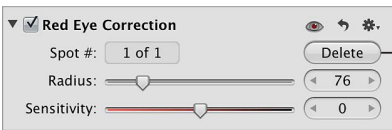


Drag the Red Eye target overlay over the red eye in the image.

### Remove a Red Eye target overlay

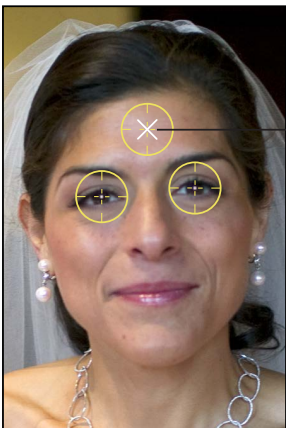
Do one of the following:

- Select a Red Eye target overlay in the image, and click the Delete button in the Red Eye Correction area of the Adjustments inspector or the Adjustments pane of the Inspector HUD.



Click the Delete button to delete a Red Eye target overlay.

- Command-click a Red Eye target overlay.



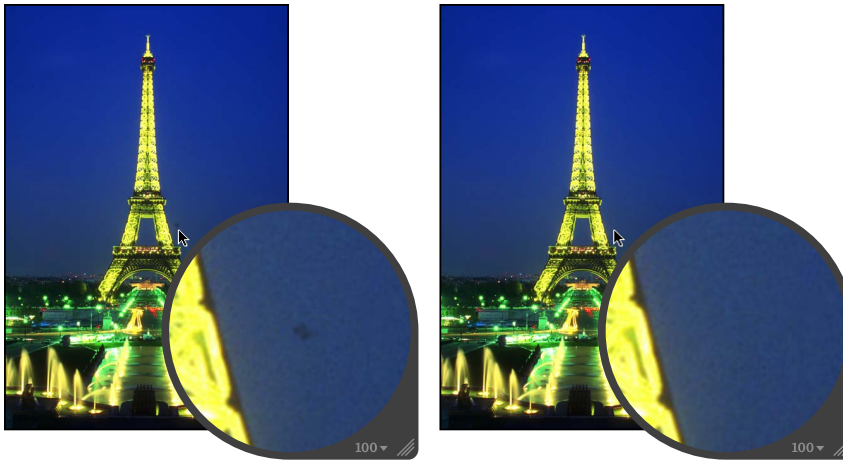
Command-click a Red Eye target overlay to delete it.

## Spot and patch an image

You use the Spot & Patch adjustment controls when you need to modify a Spot & Patch adjustment that was applied using a previous version of Aperture.

**Note:** Aperture provides two sets of retouching controls: Retouch and Spot & Patch. In the vast majority of cases, the Retouch controls will best serve your image-repair needs. The Spot & Patch controls are included in Aperture 3 to retain the integrity of images adjusted with earlier versions of Aperture. You can often improve image repairs by removing an existing Spot & Patch repair and replacing it with a Repair or Clone adjustment performed with the Retouch tool. For more information, see [Retouch an image](#) on page 242. In a few situations, Spot & Patch is the adjustment of choice. For example, an artifact on or very near a curved edge may be more effectively removed using the Angle parameter.

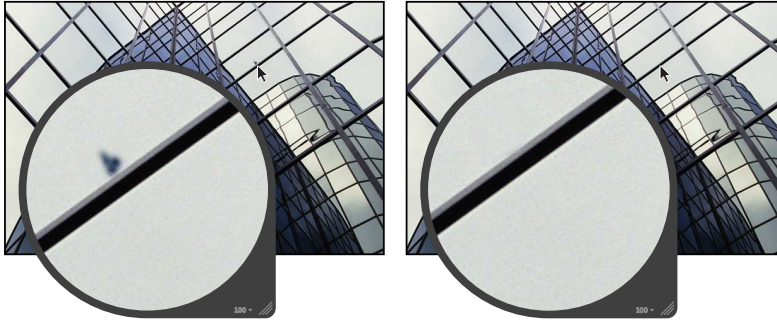
The Spot & Patch adjustment provides two methods of correcting your images. When the area around the blemish is continuous (such as a solid color) and doesn't contain a distinct texture, you can use the "spotting" method to obscure the blemish by integrating the pixels that surround it. You fix a blemish by placing the Spot & Patch target overlay over the blemish in the image and then adjusting the size of the target overlay so that it just barely covers the blemish. By keeping the target overlay small, you minimize the chance of a visual aberration in the final image.



**Before Spot & Patch adjustment**  
(spotting)

**After Spot & Patch adjustment**  
(spotting)

When you need to clone pixels from a different area of an image to fix the area where the blemish is, you use the “patching” method. Patching is similar to spotting, except that there are some additional steps. You first place a Spot & Patch target overlay (yellow) over the blemish, and then you place a source target overlay (white) over the area you want to clone. The pixels in the Spot & Patch target overlay are replaced by the pixels copied from the source target overlay.



**Before Spot & Patch adjustment**  
(patching)

**After Spot & Patch adjustment**  
(patching)

For both spotting and patching, Aperture provides additional parameter controls to allow you to adjust the softness, opacity, and amount of detail in the cloned pixels, so that the corrected area looks as natural as possible.

### Spot an image

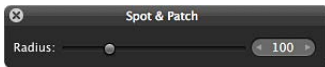
- 1 Select a photo.
- 2 To display the photo at full size, click the Zoom Viewer button in the tool strip or the full-screen view toolbar (or press Z).



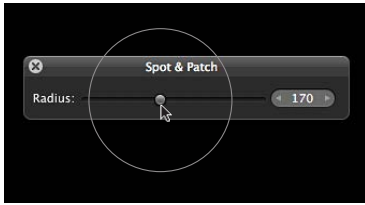
Setting the photo to appear at full size (100 percent) prevents image scaling from obscuring details.

- 3 Choose Spot & Patch from the Add Adjustment pop-up menu in the Adjustments inspector or the Adjustments pane of the Inspector HUD.

The pointer changes to a target, and the Spot & Patch HUD appears.



- 4 Change the size of the Spot & Patch target using the Radius parameter control in the Spot & Patch HUD, or use the scroll gesture.



It's best to adjust the size of the target overlay so that it fits the area around the blemish as tightly as possible. A tight fit minimizes visual aberrations.

- 5 Click the blemish area to place the Spot & Patch target overlay on it.



The yellow Spot & Patch target overlay is placed over the blemish, and the blemish disappears.



Click a blemish to place a Spot & Patch target overlay on it.

**Note:** You can always adjust the size of the target overlay and other parameters.

- 6 Repeat step 5 until all of the blemishes in your image are removed.

To view the corrected image with Spot & Patch overlays turned off, select the Selection tool  in the toolbar or the full-screen view toolbar (or press A). To turn the Spot & Patch target overlays on again, click the Spot & Patch Tool button  in the Spot & Patch area of the Adjustments inspector or the Adjustments pane of the Inspector HUD.

### Patch a blemish in an image

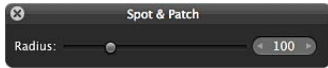
- 1 Select a photo.
- 2 To display the photo at full size, click the Zoom Viewer button in the tool strip or the full-screen view toolbar (or press Z).



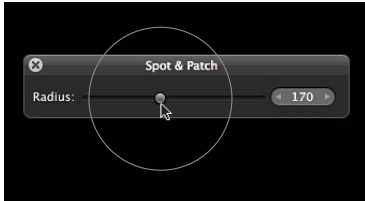
Setting the photo to appear at full size (100 percent) prevents image scaling from obscuring details.

- 3 Choose Spot & Patch from the Add Adjustment pop-up menu in the Adjustments inspector or the Adjustments pane of the Inspector HUD.

The pointer changes to a target, and the Spot & Patch HUD appears.



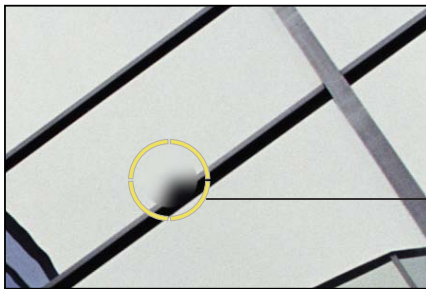
- 4 Change the size of the Spot & Patch target using the Radius parameter control in the Spot & Patch HUD, or use the scroll gesture.



It's best to adjust the size of the target overlay so that it fits the area around the blemish as tightly as possible. A tight fit minimizes visual aberrations.

- 5 Click the blemish area to place a Spot & Patch target overlay on it.

A yellow target overlay is placed over the blemish, and the blemish is replaced by the pixels that surround it. This yellow target overlay is the destination target overlay.

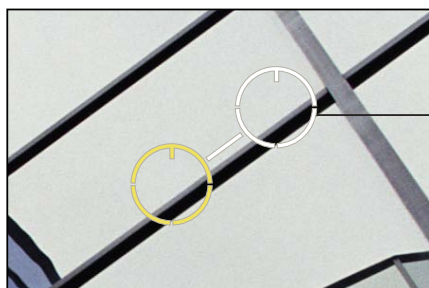


Click a blemish to place a Spot & Patch target overlay on it.

- 6 Do one of the following:

- Select the Patch checkbox in the Spot & Patch area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, and drag the white source target overlay to the area you want to clone (the source area).
- Option-click the area you want to clone.

A white source target overlay appears and is placed over the source area.





Option-click the area you want to clone to place a source target overlay on it.

The pixels within the source target overlay are copied and replace the pixels within the destination target overlay, patching the blemish.

**Note:** You can always adjust the size of the target overlay and other parameters.

- 7 Repeat steps 5 and 6 until all blemishes are removed from your image.

To view the corrected image with Spot & Patch overlays turned off, select the Selection tool  in the toolstrip or the full-screen view toolbar (or press A). To turn the Spot & Patch target overlays on again, click the Spot & Patch Tool button  in the Spot & Patch area of the Adjustments inspector or the Adjustments pane of the Inspector HUD.

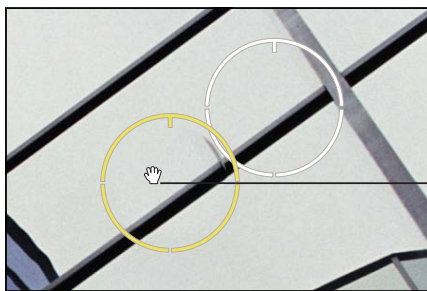
### Change the size of an existing Spot & Patch target overlay

- 1 To display the image at full size (100 percent), click the Zoom Viewer button in the tool strip or the full-screen view toolbar (or press Z).



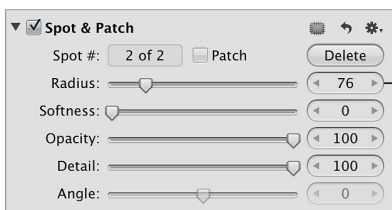
- 2 Click a Spot & Patch target overlay to select it.

A hand icon appears to indicate that you can select the Spot & Patch target overlay rather than place a new one.



A hand icon appears to indicate that you can move the target overlay.

- 3 In the Spot & Patch area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Radius parameter controls to adjust the size of the Spot & Patch target overlay.

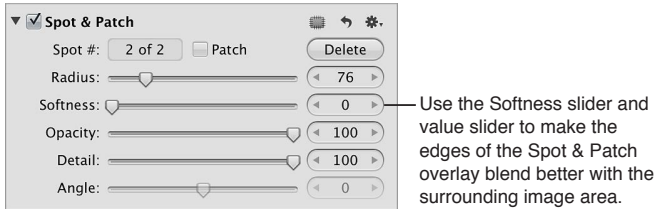


Use the Radius slider and value slider to adjust the size of previously placed Spot & Patch target overlays.

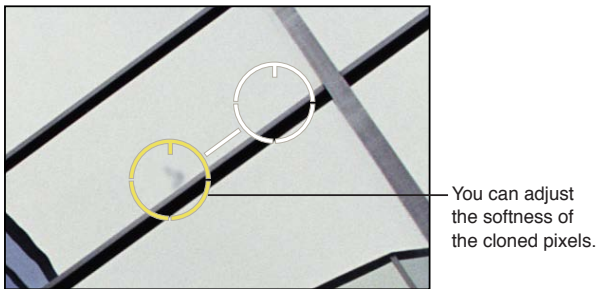
## Modify a Spot & Patch overlay's settings

You can change the settings for a Spot & Patch target overlay using controls in the Spot & Patch area of the Adjustments inspector or the Adjustments pane of the Inspector HUD.

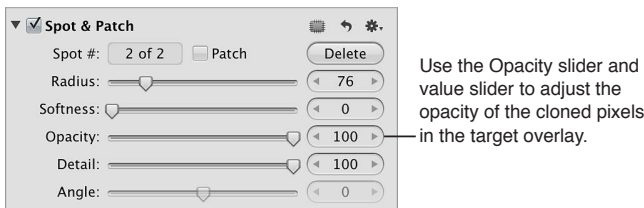
- To adjust the softness of pixels in a Spot & Patch target overlay: Use the Softness parameter controls.



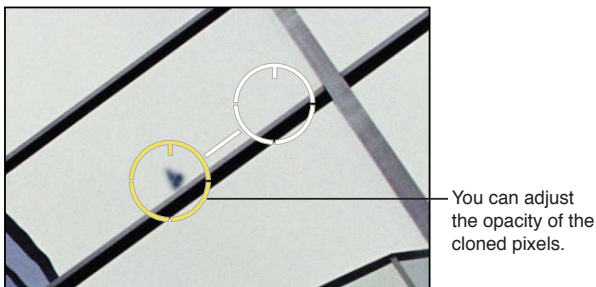
The Softness parameter controls the blending of pixels between the center of the Spot & Patch target overlay and the circumference. The higher the Softness parameter value, the closer to the center the pixel blending occurs. The lower the parameter value, the less pixel blending occurs, resulting in a "hard edge."



- To adjust the opacity of cloned pixels in a Spot & Patch target overlay: Use the Opacity parameter controls.



The Opacity parameter controls how much the original pixels are hidden by the cloned pixels. The higher the Opacity parameter value, the more the cloned pixels obscure the original pixels.

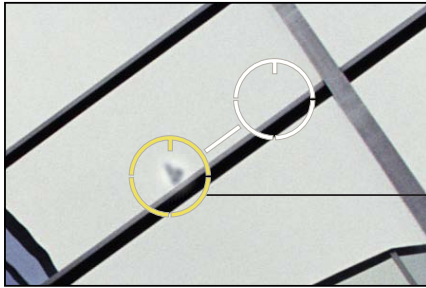


- To adjust the amount of detail in cloned pixels in a Spot & Patch target overlay: Use the Detail parameter controls.



Use the Detail slider and value slider to adjust the amount of detail in the cloned pixels in the target overlay.

The Detail parameter controls the amount of detail, such as texture or grain, that is preserved in the cloned pixels.



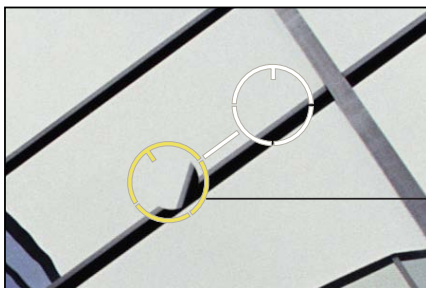
You can adjust the amount of detail in the cloned pixels.

- To adjust the angle of the cloned pixels within a destination target overlay: Use the Angle parameter controls.



Use the Angle slider and value slider to adjust the angle of the pixels in the destination target overlay.

The Angle parameter controls the angle of the cloned pixels within a destination target overlay (for patch adjustments only). This is particularly useful if you're cloning an area that has a visual element, such as a pattern or line, that is at a different angle from elements in the destination area. The Angle controls allow you to match the angle of the pixels within the destination target overlay.

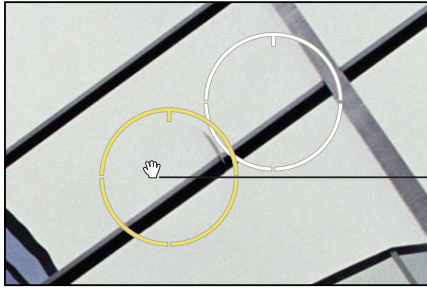


You can adjust the angle of the cloned pixels.



### Move a Spot & Patch target overlay

- 1 Make sure the Spot & Patch HUD is shown, and place the Spot & Patch target over the Spot & Patch target overlay you want to move until a hand icon appears.



A hand icon appears to indicate that you can select the Spot & Patch target overlay.

- 2 Drag the Spot & Patch target overlay to reposition it.

### Delete a Spot & Patch target overlay

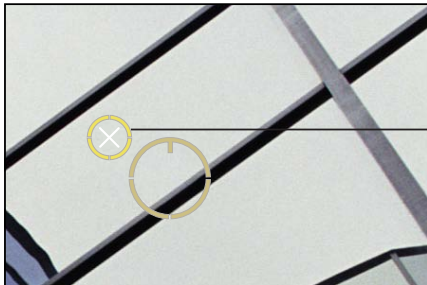
Do one of the following:

- Select a Spot & Patch target overlay in the image, and click the Delete button in the Spot & Patch area of the Adjustments inspector or the Adjustments pane of the Inspector HUD.



Click the Delete button to delete a Spot & Patch target overlay.

- Command-click the Spot & Patch target overlay.



Command-click a Spot & Patch target overlay to delete it.

## Straighten an image's horizon

When you shoot photos, environmental conditions often make it difficult to frame an image that is level in relation to the horizon—either real or virtual. In Aperture, you can straighten an image so that the horizon in the image is parallel to the bottom and top edges.



Before Straighten adjustment



After Straighten adjustment

You can straighten your images using either the Straighten tool or the Straighten adjustment controls. However, you may find it most efficient to use the Straighten tool to quickly level the image and then use the Straighten controls for more precision.

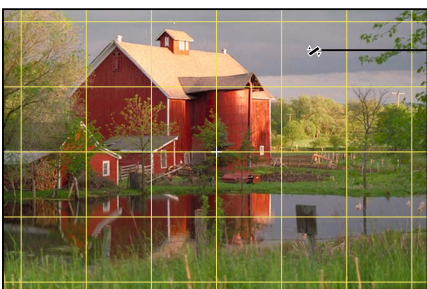
**Note:** It's a good idea to turn off zooming when straightening an image, so that the full image fits within the Viewer. If an image is zoomed in to its actual size, you can turn off zooming by clicking the Zoom Viewer button in the tool strip or the full-screen view toolbar (or by pressing Z).

### Rotate an image using the Straighten tool

Rotating an image with the Straighten tool is as simple as selecting the tool and dragging within the image to make it straight. However, it's important to understand that although the image appears to enlarge as you rotate it, Aperture actually crops the image so that it fits within its rectangular border without blank edges appearing on the sides.

- 1 Select a photo.
- 2 Select the Straighten tool in the tool strip or the full-screen view toolbar (or press G).
- 3 With the Straighten tool selected, drag within the image to rotate it either clockwise or counterclockwise.

As you rotate the image, a yellow grid appears to help you make the horizon perfectly straight, and the image is cropped to prevent gaps from appearing in the corners.

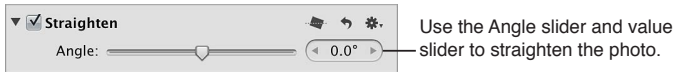


Drag within the image to rotate it.

## Rotate an image using the Straighten controls

The Straighten adjustment controls provide a high degree of precision for straightening your images.

- 1 Select a photo.
- 2 In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Straighten from the Add Adjustment pop-up menu, and use the Angle parameter controls to straighten the image.



Increasing the value rotates the image clockwise, and decreasing the value rotates the image counterclockwise.

## Crop an image

You can crop an image to improve its composition or change its aspect ratio. For example, you can change an image's aspect ratio from 4 x 6 to 3 x 5.



Before Crop adjustment




After Crop adjustment

There are two methods for cropping an image: you can use the Crop tool to manually crop the image, or you can use the Crop adjustment controls. The method you choose is determined by the level of precision you require.

### Crop an image using the Crop tool

Cropping an image with the Crop tool is the easiest method. You simply select the Crop tool and drag a rectangle over your image to exclude the unwanted areas. The Crop HUD appears, providing additional controls for setting the aspect ratio of the image and displaying cropping guides to help you visually align the composition of the image according to the rule of thirds.

- 1 Select a photo.
- 2 Select the Crop tool  in the tool strip or the full-screen view toolbar (or press C).

The Selection tool changes to the Crop tool, and the Crop HUD appears.



- 3 With the Crop tool selected, drag a rectangle over the image to exclude the areas that you want to trim.

A Crop overlay appears on the image with resize handles, and the trimmed edges are dimmed.



Drag across the photo with the Crop tool. A dark overlay is placed over the trimmed areas.

- 4 Do any of the following:

- *To set the aspect ratio of the Crop overlay:* Choose an aspect ratio from the Aspect Ratio pop-up menu, or set a custom aspect ratio by entering values in the Width and Height fields.



Choose a standard aspect ratio for the crop from the Aspect Ratio pop-up menu.

**Note:** Aperture interprets small (single- and double-digit) numbers as inches and larger numbers as pixels.

- *To change the orientation of the crop:* Click the Switch Aspect Ratio button.



Click the Switch Aspect Ratio button to change the orientation to portrait or landscape.

The values in the Width and Height fields are reversed, and the Crop overlay is updated to show the new orientation. (Entering a number in the Width field that is smaller than the number in the Height field sets a portrait orientation. Entering a larger number in the Width field sets a landscape orientation.)

- *To show cropping guides within the Crop overlay:* Select the “Show guides” checkbox.



Select the “Show guides” checkbox to display cropping guides over the photo.

- *To change the size and shape of a Crop overlay:* Drag a resize handle on the Crop overlay.  
**Note:** If you have chosen a fixed aspect ratio from the Aspect Ratio pop-up menu in the Crop HUD, the shape of the crop remains fixed to respect the aspect ratio setting.



Drag a resize handle to resize the Crop overlay.

- *To adjust the placement of the crop on the image:* Drag the Crop overlay to the appropriate position.



Drag the Crop overlay to adjust its position.

5 When you're satisfied with the composition of the crop, do one of the following:


- Click the Apply button in the Crop HUD.
- Click the close button (with an X) at the top-left corner of the Crop HUD.
- Select another tool in the tool strip or the full-screen view toolbar.

For example, select the Selection tool (or press A).

The cropped image appears in the Viewer. To make the trimmed edges visible in the Viewer again, select the Crop tool (or press C).

### Remove the crop from an image

If you're unhappy with how an image is cropped, you can remove the Crop and start over.

- 1 Select the photo with the crop you want to reset.
- 2 In the tool strip, select the Crop tool .
- 3 Click the Reset button in the Crop HUD.

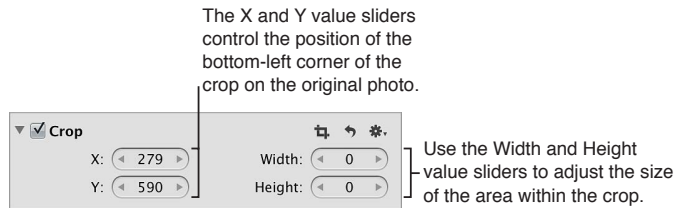
### Set crop dimensions using the Crop adjustment controls

You use the Crop adjustment controls when an extra level of precision is required—for example, if a client wants an image cropped to precise dimensions that don't match the standard aspect ratios.

Aperture uses a simple coordinate system to position the Crop overlay on the image. You simply set x and y coordinates to specify the position of the bottom-left corner of the crop. The x-coordinate moves the bottom-left corner of the crop horizontally, and the y-coordinate moves the bottom-left corner of the crop vertically. Then you set the width and height to determine the area within the crop.

- 1 Select a photo.
- 2 If you wish, use the Crop tool to place a rough crop on the image.
- 3 If the Crop controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Crop from the Add Adjustment pop-up menu.
- 4 Use the X and Y value sliders to set the position of the bottom-left corner of the crop overlay relative to the original photo.

The X and Y values are measured in pixels.



- 5 Specify the size of the crop overlay using the Width and Height value sliders.  
The width and height values are measured in pixels
- 6 To apply the crop to the image, press Return.

## Flip the composition of an image

You use the Flip adjustment controls when you want to flip the composition of the image vertically, horizontally, or both.



Before Flip adjustment



After Flip adjustment

### Flip an image's composition

- 1 Select a photo.
- 2 If the Flip controls are not shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Flip from the Add Adjustment pop-up menu.



- 3 Choose an option from the Flip Type pop-up menu:
  - To flip the image horizontally: Choose Horizontal.
  - To flip the image vertically: Choose Vertical.
  - To flip the image both horizontally and vertically: Choose Horizontal and Vertical.

## Remove chromatic aberration

When you want to fix chromatic aberration, also known as *purple fringing*, you use the Chromatic Aberration adjustment controls. For example, if your image has a ghost image in high-contrast boundary areas, you use the Chromatic Aberration adjustment controls to neutralize the color fringing. Chromatic aberration can be caused by a poorly designed lens that fails to focus light at the correct point on the focal plane when the lens is set at different focal lengths. Certain types of light sources can also cause chromatic aberration.



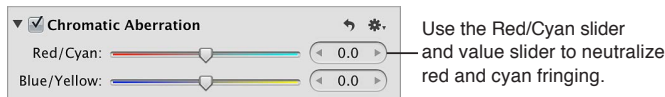
Before Chromatic Aberration adjustment

After Chromatic Aberration adjustment  
(increased cyan)

**Important:** The Chromatic Aberration adjustment controls are available only for images using Aperture 3 image processing. For more information, see [Reprocess photos from earlier versions of Aperture](#) on page 49.

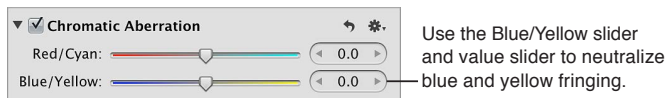
### Remove purple fringing from an image

- 1 Select a photo.
- 2 If the Chromatic Aberration controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Chromatic Aberration from the Add Adjustment pop-up menu, and specify the following settings:
  - *To neutralize red or cyan fringing:* Use the Red/Cyan parameter controls.



Adding cyan neutralizes red fringing, and adding red neutralizes cyan fringing.

- *To neutralize blue and yellow fringing:* Use the Blue/Yellow parameter controls.



Adding yellow neutralizes blue fringing, and adding blue neutralizes yellow fringing.

You can also brush the Chromatic Aberration adjustment on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228.

## Remove a vignette

You use the Devignette adjustment controls to correct a vignette that was applied to an image as it was shot. The term *vignette* describes an image whose brightness fades at the edges. Vignettes are usually caused by poor lens design, stacked filters, lens hoods, and wide-angle zoom lenses. Aperture corrects the image by increasing the brightness at the edges of the image where vignettes typically occur.

**Note:** When you apply a Devignette and a Crop adjustment to the same image, Aperture applies the Devignette adjustment first to correct lens artifacts. Applying the Devignette adjustment before the crop prevents any distortion that would otherwise appear in the cropped image.



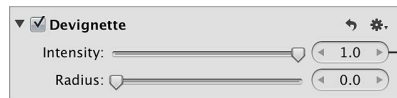
Before Devignette adjustment



After Devignette adjustment

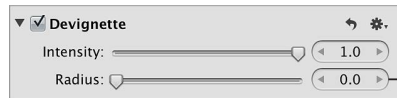
### Remove the vignette from your image

- 1 Select a photo.
- 2 If the Devignette controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Devignette from the Add Adjustment pop-up menu, and specify the following settings:
  - *To set the amount of brightness applied to the edges of the image:* Use the Intensity parameter controls.



Use the Intensity slider and value slider to adjust the amount of brightness applied to the edges of the photo.

- *To adjust the distance Aperture goes from the edge of the image, in pixels, to apply the Devignette adjustment:* Use the Radius parameter controls.



Use the Radius slider and value slider to adjust the size of the area over which the Devignette adjustment is applied.

For information about applying a vignette to an image, see [Apply a vignette to an image](#) on page 313.

You can also brush the Devignette adjustment on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228.



## Reduce digital noise

You use the Noise Reduction adjustment controls when you need to reduce digital noise in an image. Digital noise is often caused by shooting at high ISO settings in low-light conditions. When you reduce noise in an image, you often have to sharpen the image to prevent blurry edges or loss of detail. For more information, see [Sharpen an image](#) on page 311.



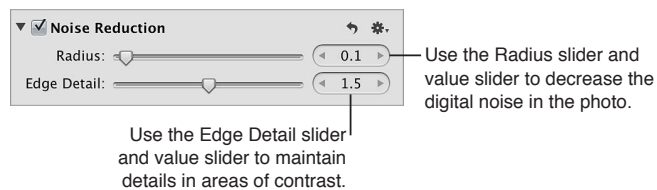
Before Noise Reduction adjustment

After Noise Reduction adjustment

**Note:** For RAW images, you can also use the De-noise option in combination with the Edges adjustment in the Raw Fine Tuning adjustment block to reduce noise. For more information, see [RAW Fine Tuning controls overview](#) on page 334.

### Reduce digital noise in an image

- 1 Select a photo.
- 2 If the Noise Reduction controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Noise Reduction from the Add Adjustment pop-up menu (or press Control-N), and specify the following settings:
  - *To reduce digital noise in the image:* Use the Radius parameter controls.



A value of 0.0 applies no digital noise adjustment to the image. A value greater than 0.0 reduces digital noise in the image.

- *To maintain edge detail in areas of high contrast in the image:* Use the Edge Detail parameter controls.

As you change the parameter value, the image is updated to display the amount of edge detail sharpening applied to it.

You can also brush the Noise Reduction adjustment on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228.

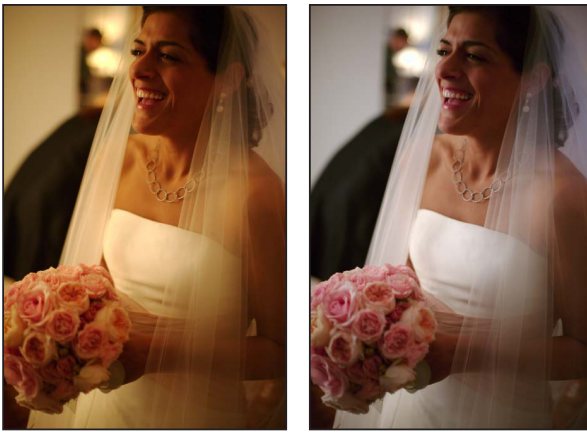
## White balance an image

If an image has unnatural skin tones or pixels that should be pure white, you can use the White Balance adjustment controls to remove the color cast from the image. Aperture provides three methods for adjusting an image's white balance:

- Balance the warmth of the image based on natural gray.
- Balance the warmth of the image based on skin tones.
- Balance the image based on traditional color temperature (in degrees kelvin) and tint.

You can adjust an image's white balance automatically or manually. In most cases, the automatic adjustment succeeds in removing the color cast from the image. You can also use the White Balance eyedropper to choose the natural gray or skin tone pixels that Aperture uses to balance the image. If the Auto White Balance button or the White Balance eyedropper doesn't completely remove the color cast from the image, you can use the White Balance controls to fine-tune the adjustment.

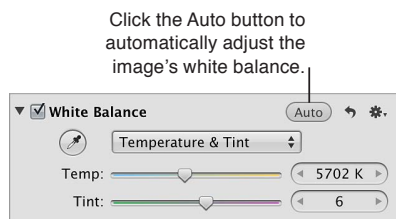
Although Aperture can set the white balance of the image with great accuracy, sometimes you have to use a combination of these methods to achieve the warm or cool tonality you intended.



Before White Balance adjustment    After White Balance adjustment

### Adjust an image's white balance automatically

- 1 Select a photo.
- 2 In the White Balance area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, click the Auto button.



Aperture evaluates the image. If faces are detected in the image, the image is adjusted to preserve skin tones. If no faces are detected, Aperture identifies a natural gray value in the image and adjusts the image's white balance based on that value.

To fine-tune the image's white balance settings after the automatic adjustment has been applied, see "Adjust the color temperature of an image manually," below.

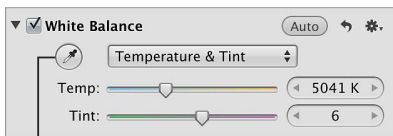
## Adjust an image's white balance using the White Balance eyedropper

When you have pixels in your image that should be pure white, you can use the White Balance eyedropper tool to automatically set the color temperature and tint of the image.

- 1 Select a photo.
- 2 In the White Balance area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, specify the method Aperture uses to adjust the image's white balance by choosing an option from the White Balance pop-up menu.



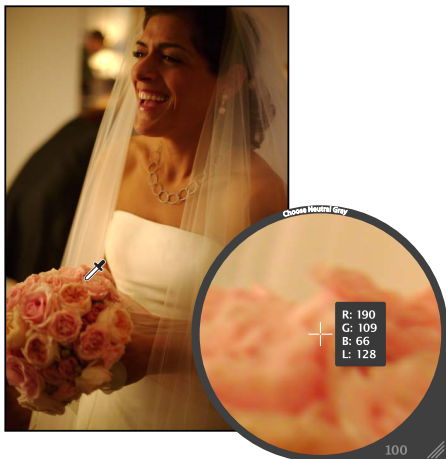
- To adjust the image's white balance based on natural gray: Choose Natural Gray.
  - To adjust the image's white balance based on a skin tone: Choose Skin Tone.
  - To adjust the image's white balance based on color temperature (in degrees kelvin) and tint: Choose Temperature & Tint.
- 3 Select the White Balance eyedropper tool to activate the Loupe.



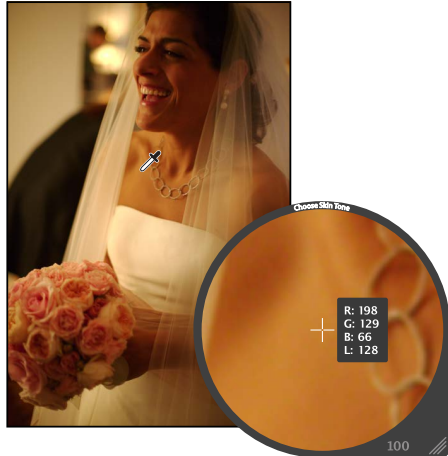
Click the White Balance eyedropper tool to activate the Loupe.

The pointer changes to the Loupe, showing a magnified view of the target area. By default, the Loupe is set to magnify the image to 100 percent (full size). If necessary, you can increase the magnification of the Loupe by pressing Shift–Command–Plus Sign (+). For more information, see [Loupe overview](#) on page 181.

- 4 Do one of the following:
  - If you chose either Natural Gray or Temperature & Tint from the White Balance pop-up menu: Position the target area of the Loupe over the pixels in the image that are a natural gray, and click.



- If you chose Skin Tone from the White Balance pop-up menu: Position the target area of the Loupe over a skin tone in the image, and click.



The color tonality of the image is shifted either cooler or warmer, depending on the tonality of the original image.

**Important:** Make sure that there is as little digital noise in the target area of the Loupe as possible. Digital noise can skew the white balance calculation results, introducing a color cast that wasn't previously there. A simple way to avoid errant pixels is to increase the magnification of the Loupe by pressing Shift–Command–Plus Sign (+).

#### Adjust the color temperature of an image manually

You can manually adjust an image's white balance using the Warmth, Temp, and Tint parameter controls.

You use the Warmth and Temp parameter controls to adjust the image's color temperature. *Color temperature* is a term used to describe the color of light when the image was shot. However, it refers to the color value of the light rather than its heat value. Light's color temperature is measured in units called *kelvin (K)*. Adjusting the color temperature of the image changes how Aperture interprets the colors in the image in relation to the assigned temperature of light. The purpose of adjusting the color temperature of an image is to make colors look as natural as possible.

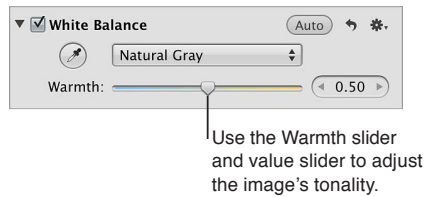
You can manually adjust the tint of an image using the Tint parameter controls. You use the Tint parameter controls when you need to fine-tune the white balance adjustment by neutralizing the remaining green or magenta tint.

**Note:** The Warmth and Temp parameter controls adjust the image's color temperature in the same way, except that Aperture doesn't display the Warmth values in kelvin (K) units.

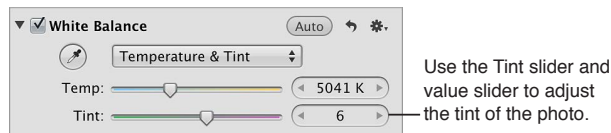
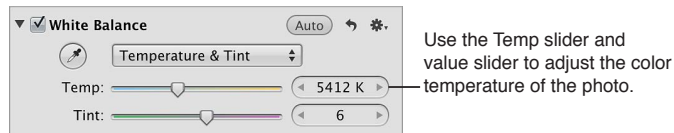
- 1 Select a photo.
- 2 In the White Balance area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, specify the method Aperture uses to adjust the image's white balance by choosing an option from the White Balance pop-up menu.



- To adjust the image's white balance based on natural gray: Choose Natural Gray.
  - To adjust the image's white balance based on a skin tone: Choose Skin Tone.
  - To adjust the image's white balance based on color temperature (in degrees kelvin) and tint: Choose Temperature & Tint.
- 3 Do one of the following:
    - If you chose either Natural Gray or Skin Tone from the White Balance pop-up menu: Use the Warmth parameter controls to warm or cool the the image's tonality.



- If you chose Temperature & Tint from the White Balance pop-up menu: Use the Temp parameter controls to adjust the image's color temperature (in degrees kelvin) and the Tint parameter controls to neutralize unwanted green or magenta tints.



**Tip:** You can brush Natural Gray and Skin Tone White Balance adjustments on an image. For more information, see [Apply brushed adjustments](#) on page 228.

## Correct exposure, highlight detail, shadow detail, and brightness

You use the Exposure adjustment controls to set the exposure, recovery (highlight detail), black point (shadow detail), and brightness values.

You can quickly adjust the exposure of a RAW image using the Auto Exposure button. You can also correct an image's exposure manually by adjusting the Exposure parameter. The amount of latitude you have—the visually acceptable range of f-stops—depends on the file type, the bit depth, and the amount of compression applied to the image during capture. Typically, a RAW file is capable of a slightly wider latitude than a JPEG file.



Before Exposure adjustment

After Exposure adjustment

You can adjust the Brightness parameter when you want to lighten or darken your image. When you adjust brightness, the brightness values of the midtone pixels in the image change the most. You can change the brightness of the image temporarily to see how the adjustment affects details in the shadows, midtones, and highlights. For more precise control over the range of tonality in the image, consider using the Levels adjustment controls. For more information, see [Adjust the levels of an image](#) on page 295.



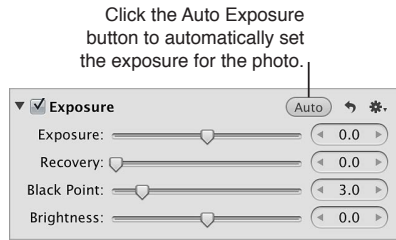
Before Brightness adjustment

After Brightness adjustment

You can also recover highlight and shadow details in an image by adjusting the Recovery and Black Point parameters.

## Correct the exposure of a RAW image automatically

- 1 Select a photo.
- 2 In the Exposure area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, click the Auto Exposure button.



## Correct the exposure of an image manually

You can fine-tune the automatic adjustment using the Exposure adjustment controls.

- 1 Select a photo.
- 2 In the Exposure area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Exposure parameter controls to change the image's exposure.



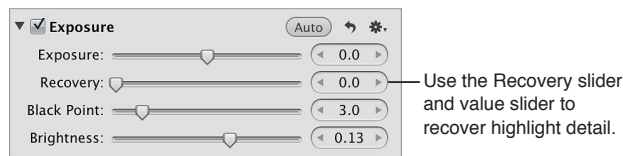
A negative value decreases the exposure (darkening the image), and a positive value increases the exposure (lightening the image).

## Recover highlight details in the image

Many images, especially RAW image files, have additional highlight detail that isn't displayed by default. Aperture provides the Recovery parameter controls to give you access to that additional headroom. Because digital image sensors differ from camera model to camera model, the highlight headroom varies. In some cases, you can recover significant detail that appears lost or blown out in the most extreme highlight areas of the image.

**Note:** The Recovery controls aren't available for RAW decoding versions 1.0 and 1.1. To make the Recovery controls available, reprocess the image. For more information, see [RAW Fine Tuning controls overview](#) on page 334.

- 1 Select a photo.
- 2 In the Exposure area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Recovery parameter controls to recover highlight details.



The higher the value, the more highlight information is made available, and the more highlight detail is recovered.

## Set the image's blacks

Shadow detail and the importance of visual elements in shadow vary from image to image. In addition, some cameras are more capable of capturing shadow details than others. In some photos, such as an image of a person's face in the shadow of an alley, the shadow is the most important visual element. In other photos, the details in the shadows have nothing to do with the main subject. For example, the shadow area of the image may obscure trash that would otherwise ruin a pristine image. In Aperture, you use the Black Point parameter controls to increase the threshold of shadow details in the image as well as crush the blacks when necessary.

**Note:** The Black Point controls aren't available for RAW decoding versions 1.0 and 1.1. To make the Black Point controls available, reprocess the image. For more information, see [RAW Fine Tuning controls overview](#) on page 334.

- 1 Select a photo.
- 2 In the Exposure area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Black Point parameter controls to recover or suppress shadow detail.



Decreasing the value increases the amount of detail in the shadow areas by moving pure black below the current black point. Increasing the value decreases the amount of detail in the shadow areas of the image, effectively crushing the blacks by moving pure black above the current black point.

## Adjust brightness in an image

- 1 Select a photo.
- 2 In the Exposure area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Brightness parameter controls to lighten or darken the image.



A value below 0.0 decreases the brightness of the image. A value greater than 0.0 increases the brightness.



## Adjust contrast, clarity, and saturation

You use the Enhance adjustment controls to set the contrast, definition, saturation, and vibrancy.

If you want to adjust the difference between the dark and bright areas of the image, you can modify the Contrast parameter.



Before Contrast adjustment



After Contrast adjustment

When you want to add a little clarity and definition to an image without adding too much contrast, you use the Definition parameter controls.



Before Definition adjustment



After Definition adjustment

You can change the value for the Saturation parameter to either give your image an extra burst of color or tone down the color palette by desaturating the image.



Before Saturation adjustment



After Saturation adjustment

You use the Vibrancy parameter controls when you want to add a bit of punch to the image without affecting skin tones.



Before Vibrancy adjustment

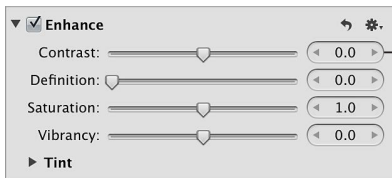
After Vibrancy adjustment  
(reduced saturation except for the skin tones)

You can also brush the Enhance adjustment on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228. For information about using the Enhance adjustment controls to set black, gray, and white tint values, see [Remove unwanted tints from an image](#) on page 276.

### Adjust the contrast in an image

An image with very little midtone tonality is considered to have a lot of contrast, whereas an image with considerable midtone tonality is considered to have minimal contrast. Often, an image with too much midtone tonality looks flat. Adding contrast to the image can add depth to it. However, you add contrast to the image at the expense of detail in the midtones, so a little contrast goes a long way.

- 1 Select a photo.
- 2 In the Enhance area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Contrast parameter controls to modify the contrast between light and dark colors in the photo.



Use the Contrast slider and value slider to modify the contrast between light and dark colors in the photo.

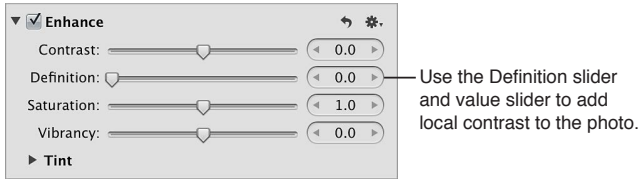
A value below 0.0 decreases the contrast in the image. A value greater than 0.0 increases the contrast.

**Note:** If you're trying to retrieve detail in a high-contrast image, you should use the Highlights & Shadows controls. For more information, see [Preserve highlight and shadow details in an image](#) on page 292.

## Adjust definition in an image

The Definition parameter is useful for adding local contrast (adding contrast only to the areas of the image that need a contrast adjustment) as well as reducing haze.

- 1 Select a photo.
- 2 In the Enhance area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Definition parameter controls to add clarity and definition to the image.

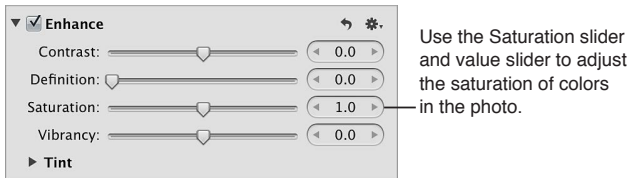


A value greater than 0.0 increases the clarity in the image.

## Change the saturation of an image

Increasing the saturation of an image can make the colors appear more pure, and many people like the effect of an image whose colors are more saturated than they would appear naturally. However, you can easily oversaturate an image. In the process of making the colors more pure, subtleties in shades of colors disappear, often resulting in reduced detail in the image. To ensure that visual elements aren't unnecessarily lost, pay attention to the details in your image as you increase saturation.

- 1 Select a photo.
- 2 In the Enhance area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Saturation parameter controls to add a burst of color to an image, or remove color from an image.

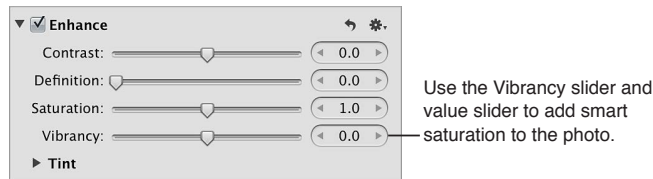


A value below 1.0 decreases the color saturation in the image, and a value above 1.0 increases the saturation. A value of 0.0 removes all color from the image, making it grayscale. A value of 4.0 increases the saturation by 400 percent.

## Adjust vibrancy in an image

The Vibrancy parameter applies saturation to the image in a nonlinear manner. Colors that are already saturated are left alone, while saturation is added to all other colors. In addition, the Vibrancy parameter takes skin tones into account, leaving them untouched. This allows you to take a portrait and desaturate the image except for the skin tones.

- 1 Select a photo.
- 2 In the Enhance area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Vibrancy parameter controls to adjust saturation in the image without affecting skin tones.



A value below 0.0 decreases the color saturation in the image, and a value above 0.0 increases the saturation of the nonsaturated colors. A value of  $-1.0$  removes all color from the image, making it grayscale except for any skin tones.

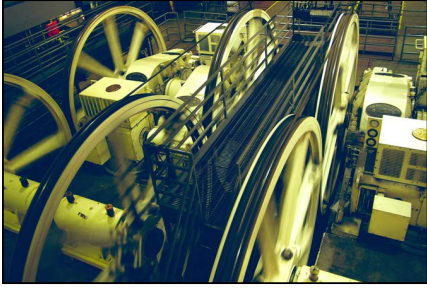
For information about adjusting the tints in an image, see [Remove unwanted tints from an image](#) on page 276.

## Remove unwanted tints from an image

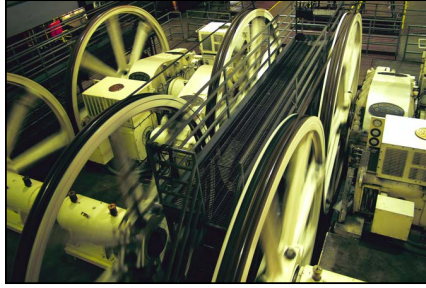
You use the Black Tint, Gray Tint, and White Tint controls to selectively remove color casts from the shadows, midtones, and highlights in an image. Color casts are often caused by shooting in mixed lighting and unnatural lighting situations, where the different types of source lights can produce a color variance in a specific tonal range. For example, when you shoot indoors, interior incandescent (tungsten) lighting can often produce a yellow color cast through the white colors in the image. You can use the White Tint controls to isolate the highlights and add blue to the white values, thereby reducing the yellow color cast and returning the whites to neutral white.

There are two methods for selectively adjusting the tint values in an image: using the Black Tint, Gray Tint, and White Tint eyedroppers to automatically adjust the tint to neutral color values, and using the Black Tint, Gray Tint, and White Tint color wheels to manually adjust the tint values. The method you choose depends on the level of precision you require. The eyedroppers provide an accurate means of identifying the color cast within the tonal range of each eyedropper and returning the color values to neutral. However, depending on the subject, you may not want to completely remove the color cast found in a specific tonal range. In that case, you can manually adjust the tint values.

You use the Black Tint eyedropper to remove color casts from the shadows in your images.



Before Black Tint adjustment



After Black Tint adjustment

You use the Gray Tint eyedropper to remove color casts from the midtones in your images.



Before Gray Tint adjustment



After Gray Tint adjustment

You use the White Tint eyedropper to remove color casts from the highlights in your images.



Before White Tint adjustment

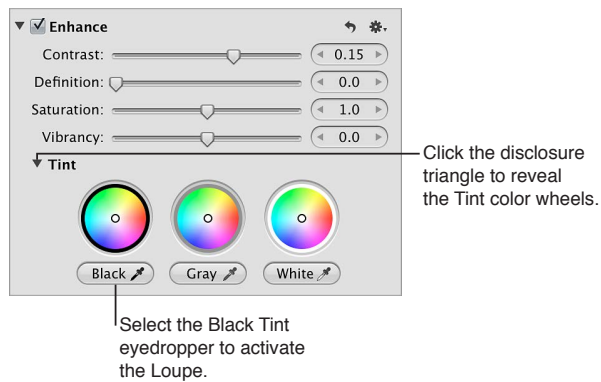


After White Tint adjustment

**Note:** Whereas using the White Balance controls adjusts the tints of all tonal values in the image uniformly, the Black Tint, Gray Tint, and White Tint eyedropper tools allow you to selectively neutralize color casts that affect only the shadows, midtones, or highlights. In some difficult cases, you can use the Black Tint, Gray Tint, and White Tint eyedropper tools in combination with the White Balance controls to first neutralize a tint in a specific tonal range and then uniformly remove the tint from the rest of the image. For more information about adjusting white balance, see [White balance an image](#) on page 266.

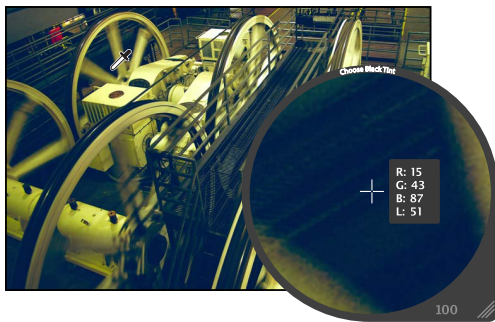
## Set the tint of the shadows in an image

- 1 Select a photo.
- 2 Click the Tint disclosure triangle in the Enhance area of the Adjustments inspector or the Adjustments pane of the Inspector HUD to reveal the Tint color wheels, and select the Black Tint eyedropper.



The pointer changes to the Loupe, showing a magnified view of the target area. By default, the Loupe is set to magnify the image to 100 percent (full size). If necessary, you can increase the magnification of the Loupe by pressing Shift–Command–Plus Sign (+). For more information, see [Loupe overview](#) on page 181.

- 3 Position the target area of the Loupe over the darkest pixels in the image, and click.

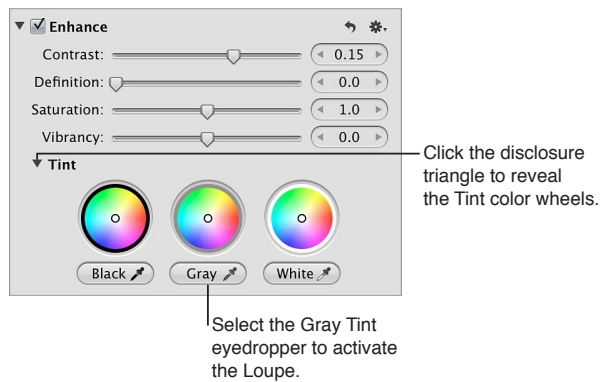


The tint (hue and saturation) of the black values in the image is set to remove the color cast in the shadows.

**Important:** Make sure that there are no bright pixels in the target area of the Loupe. Bright pixels in the target area can skew the Black Tint calculation, making the image look different than intended. A simple way to avoid errant bright pixels is to increase the magnification of the Loupe by choosing an increased magnification level from the Loupe pop-up menu. For more information, see [Loupe overview](#) on page 181.

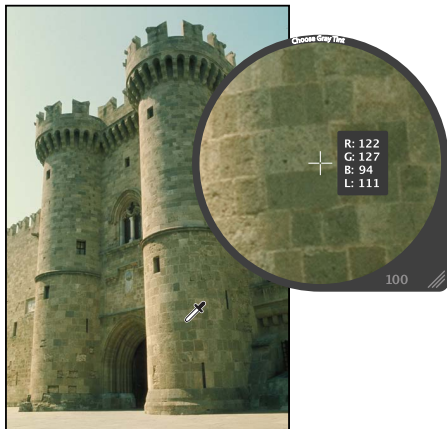
## Set the tint of the midtone values in an image

- 1 Select a photo.
- 2 Click the Tint disclosure triangle in the Enhance area of the Adjustments inspector or the Adjustments pane of the Inspector HUD to reveal the Tint color wheels, and select the Gray Tint eyedropper.



The pointer changes to the Loupe, showing a magnified view of the target area. By default, the Loupe is set to magnify the image to 100 percent (full size). If necessary, you can increase the magnification of the Loupe by choosing an increased magnification level from the Loupe pop-up menu. For more information, see [Loupe overview](#) on page 181.

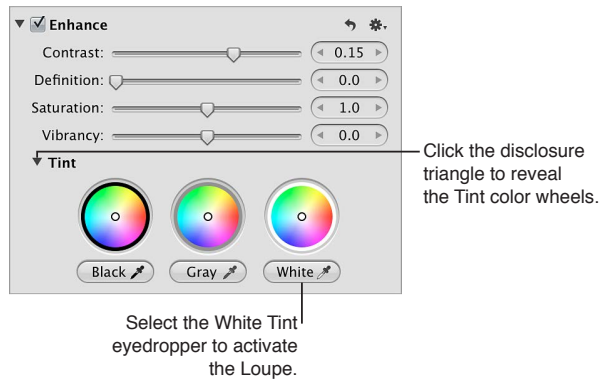
- 3 Position the target area of the Loupe over a midrange color that is as close as possible to medium gray, and click.



The tint (hue and saturation) of the gray values in the image is set to remove the color cast in the midtones.

## Set the tint of the highlight values in an image

- 1 Select a photo.
- 2 Click the Tint disclosure triangle in the Enhance area of the Adjustments inspector or the Adjustments pane of the Inspector HUD to reveal the Tint color wheels, and select the White Tint eyedropper.



The pointer changes to the Loupe, showing a magnified view of the target area. By default, the Loupe is set to magnify the image to 100 percent (full size). If necessary, you can increase the magnification of the Loupe by choosing an increased magnification level from the Loupe pop-up menu. For more information, see [Loupe overview](#) on page 181.

- 3 Position the target area of the Loupe over the lightest (white) pixels in the image, then click.



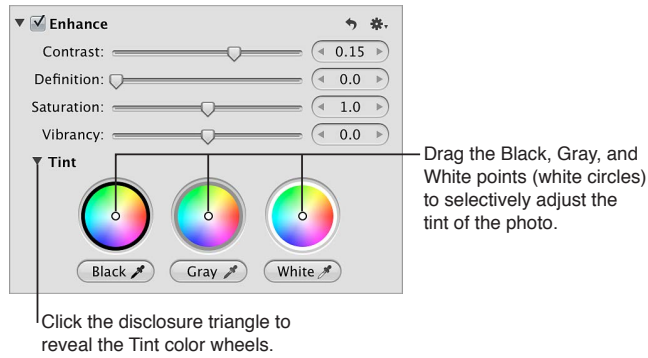
The tint (hue and saturation) of the white values in the image is set to remove the color cast in the highlights.

**Important:** Make sure that there are no dark pixels in the target area of the Loupe. Dark pixels in the target area can skew the White Tint calculation, making the image look different than intended. A simple way to avoid errant dark pixels is to increase the magnification of the Loupe by pressing Shift-Command-Plus Sign (+).



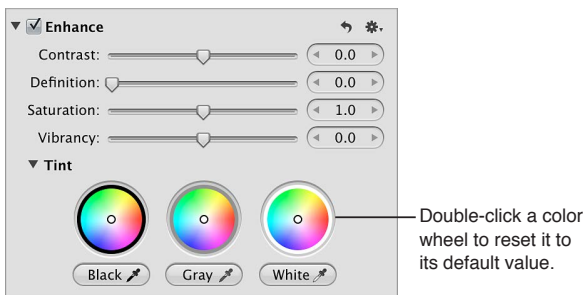
## Manually adjust the tint of the shadow, midtone, and highlight values in an image

- 1 Select a photo.
- 2 Click the Tint disclosure triangle in the Enhance area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, and specify the following settings:
  - *To adjust the tint of the shadows:* Drag the Black point in the Black Tint color wheel.
  - *To adjust the tint of the midtones:* Drag the Gray point in the Gray Tint color wheel.
  - *To adjust the tint of the highlights:* Drag the White point in the White Tint color wheel.



You remove a color cast in a tonal range by dragging the point in the color wheel toward the opposite color. For example, to remove a blue cast, you drag the point in the color wheel toward yellow until the color cast is neutralized.

To reset a Tint color wheel without affecting the other parameters in the Enhance area, double-click it.



## Adjust the tonal curve of an image

You use the Curves adjustment controls when you want to manually set the tonal values of the shadows, midtones, and highlights in an image using a tonal curve. Unlike the Levels adjustment controls, the Curves controls don't reappportion the luminance values in the image by constraining the white and black points. Instead, the Curves controls precisely remap the position of the midtones relative to the white and black points. Because the human eye's perception of light is logarithmic rather than incremental, a curve is necessary to distribute the luminance values across all tonal ranges in an image in a way that matches how the eye perceives light.



Before Curves adjustment



After Curves adjustment

In addition to adjusting the tonal values of an image for overall luminance, you can color correct an image by applying the Curves adjustment to the red, green, and blue channels independently. Applying a Curves adjustment to each color channel allows you to control the color tonality in an image.

You can also have Aperture automatically identify tonal ranges in an image using the Black Point, Gray Point, and White Point eyedropper tools in the Curves adjustment controls. When you select a tonal range using one of the eyedropper tools, Aperture plots the corresponding curve over the Curves histogram.

You can also brush the Curves adjustment on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228.

**Important:** The Curves adjustment controls are available only for images using Aperture 3 image processing. For more information, see [Reprocess photos from earlier versions of Aperture](#) on page 49.

### Automatically adjust the tonal curve of an image

When you want to quickly adjust the tonal curve of an image based on total luminance values—red, green, and blue channels combined—you use the Auto Curves Combined button. Red, green, and blue channels are adjusted by the same amount based on the total luminance. The Auto Curves Combined button corrects the contrast of the image without modifying its color cast.



Before Auto Curves Combined adjustment



After Auto Curves Combined adjustment

When you want to automatically adjust the tonal curve of an image based on individual evaluations of the red, green, and blue channels, you use the Auto Curves Separate button. Red, green, and blue channels are adjusted based on an evaluation of each channel. The Auto Curves Separate button corrects the color cast in the image in addition to the contrast.

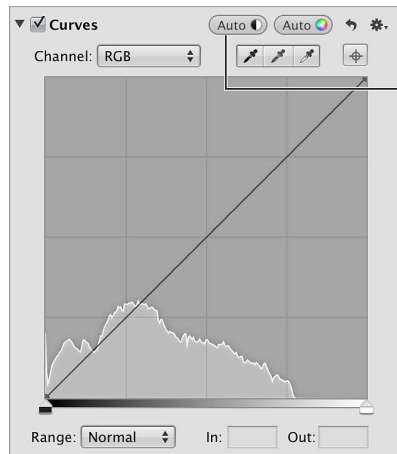


Before Auto Curves Separate adjustment



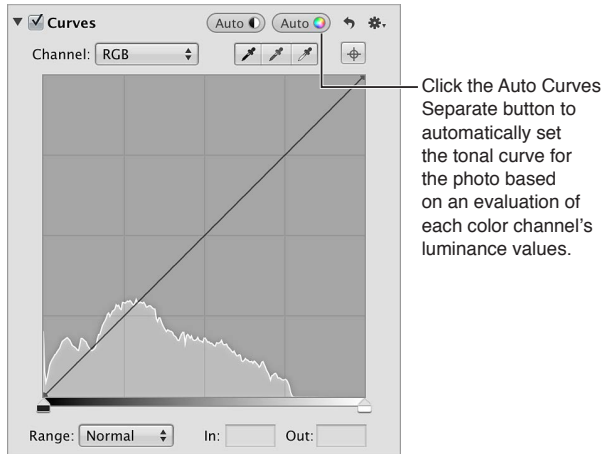
After Auto Curves Separate adjustment

- 1 Select a photo.
- 2 If the Curves controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Curves from the Add Adjustment pop-up menu.
- 3 In the Curves area, do one of the following:
  - *To adjust the tonal curve of an image based on total luminance:* Click the Auto Curves Combined button.



Click the Auto Curves Combined button to automatically set the tonal curve for the photo based on all three color channels.

- To adjust the tonal curve of an image based on an evaluation of each color channel: Click the Auto Curves Separate button.



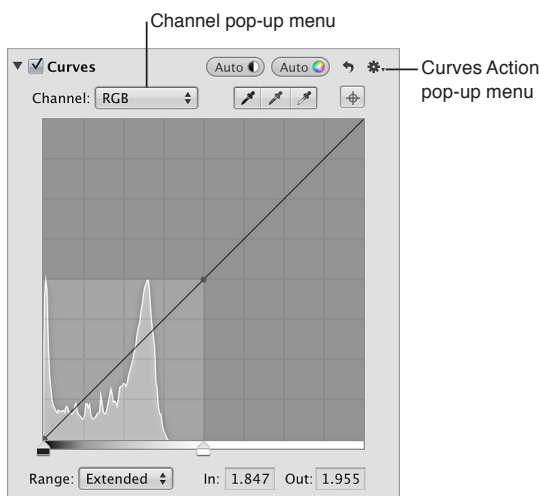
The tonal curve of the image is adjusted. To fine-tune the tonal curve adjustment, see the following instructions.

### Manually adjust the tonal curve of an image

You use the tonal curve in the Curves adjustment controls to adjust the overall tonality of an image. There are two types of tonal curve adjustments: RGB and Luminance. When you want to specify a tonal curve adjustment that modifies both the contrast and the tint in the image, you use the RGB tonal curve. When you want to adjust the overall tonality of an image without affecting its color cast, you use the luminance tonal curve.

As you perform a tonal curve adjustment, a histogram appears behind the tonal curve and is updated as you manipulate the tonal curve. You can specify the tonal range of the histogram to focus the graph on the part of the tonal curve you plan to work with. For example, if you plan to manipulate the contrast in the shadow areas of the image, you can limit the tonal range of the tonal curve and histogram to display pure black to 50 percent gray only. You can also extend the range of the histogram and tonal curve beyond pure white to capture highlight detail that would be clipped otherwise.


- 1 Select a photo.
- 2 If the Curves controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Curves from the Add Adjustment pop-up menu.



3 Do one of the following:

- *To modify both the contrast and the tint in the image:* Choose RGB from the Channel pop-up menu.

Choosing the RGB tonal curve allows you to manipulate the tonal curve of the red, green, and blue color channels combined.

- *To manipulate the luminance of the combined red, green, and blue channels without affecting the tint:* Choose Luminance from the Grayscale section of the Curves Action pop-up menu .

4 Choose a tonal range display option from the Range pop-up menu:

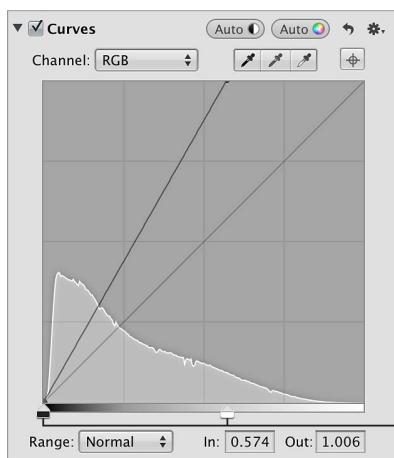
- *To set the histogram and tonal curve to display pure black to pure white:* Choose Normal.
- *To expand the histogram view to display pure black to two times pure white:* Choose Extended.

Because some cameras are capable of capturing image information beyond pure white, using the Extended range option provides controls for bringing that information into the viewable image.

5 Choose the type of tonal curve adjustment to apply to the image from the Type section of the Curves Action pop-up menu.

Choosing Linear—the default option—applies the Curves adjustment to the image evenly from pure black to pure white and beyond. Choosing Gamma-Corrected applies the Curves adjustment logarithmically to match the way the human eye perceives light, adding additional weight to the shadows.

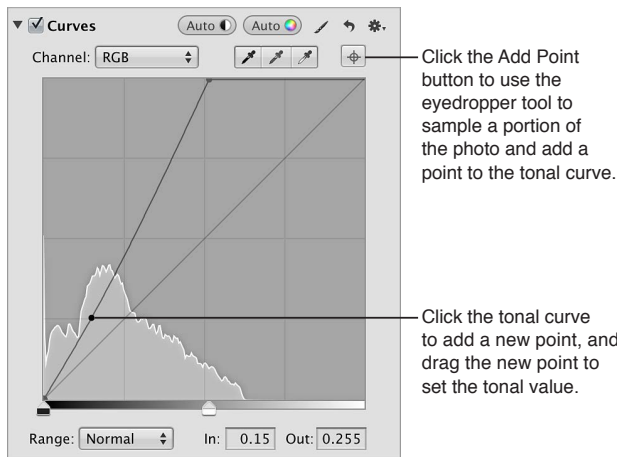
6 Drag the Black Point and White Point sliders to where they touch the outside of the histogram graph, constraining the image to its new black and white points.



Drag the Black Point and White Point sliders to where they touch the outside of the histogram graph.

7 To set a point along the curve, do one of the following:

- Click the Add Point button and use the eyedropper tool to sample a portion of the image.



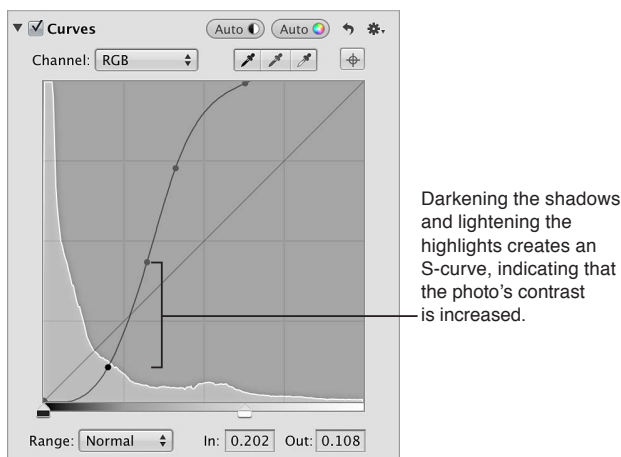
**Note:** You can change the Loupe's color value sample size by choosing an option from the Adjustment Action pop-up menu . For more information, see [Sample color values and display camera information](#) on page 339.

- Click a place on the curve where you want to add a point.  
Aperture places a point on the curve in the exact tonal range of the sampled area of the image.

8 To adjust the shape of the curve, do one of the following:

- Drag the point on the curve until that tonal area of the image looks correct.  
For example, dragging a point down in the shadow area of the curve darkens the shadows in the image, and dragging a point up in the shadow area lightens the shadows in the image.
- Click a point on the curve and enter new In point and Out point values in the In and Out fields.  
The In point values represent the horizontal axis of the graph, and the Out point values represent the vertical axis of the graph.

Points on the curve that are not selected remain anchored, allowing you to independently adjust each tonal area.



9 Repeat steps 7 and 8 for each tonal area in the image that you want to correct.

The tonal values in the image are adjusted, giving the image the appropriate amount of contrast.

### Use eyedropper tools to set black, gray, and white points

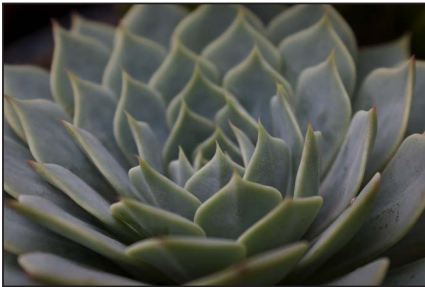
You use the Black Point, Gray Point, and White Point eyedropper tools in the Curves adjustment controls when you want to have Aperture selectively modify the tonal values of the shadows, midtones, and highlights in an image automatically. Using an eyedropper tool, you sample the pixels of the tonal value in the image you intend to correct, and Aperture places a point on the tonal curve and automatically adjusts the image so that the pixels that fall in the same tonal range as the sampled pixels are set to either black, gray, or white. For example, you use the Black Point eyedropper tool to select the specific area of the image that should be black. Aperture samples the pixels within the selection, places a point on the curve, and then adjusts the curve to make the selected pixels—and all other pixels in the image of the same tonal value or darker—black.



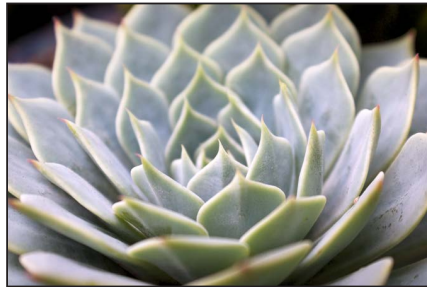
Before Black Point Curves adjustment



After Black Point Curves adjustment



Before Gray Point Curves adjustment



After Gray Point Curves adjustment



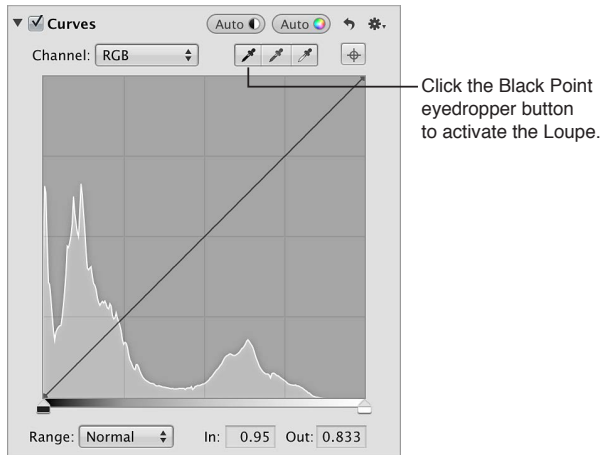
Before White Point Curves adjustment



After White Point Curves adjustment

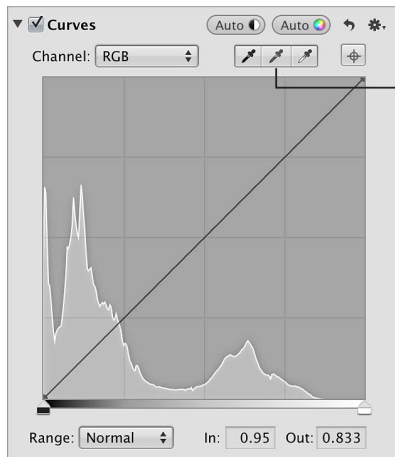
In some difficult cases, you can use the Black Point, Gray Point, and White Point eyedropper tools in combination with points that you manually place on the tonal curve to neutralize a tint or create the specific contrast you want in the image.

- 1 Select a photo.
- 2 If the Curves controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Curves from the Add Adjustment pop-up menu.
- 3 Do any of the following:
  - *To set the black point in an image:* Select the Black Point eyedropper tool to activate the Loupe, position the eyedropper over the darkest pixels in the image, and click.





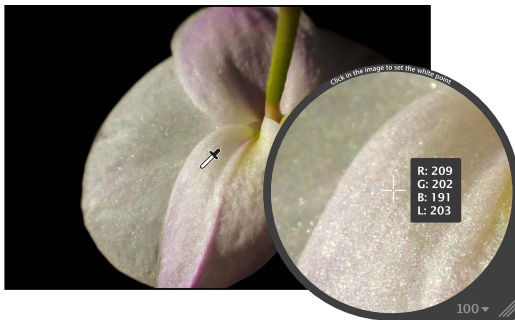
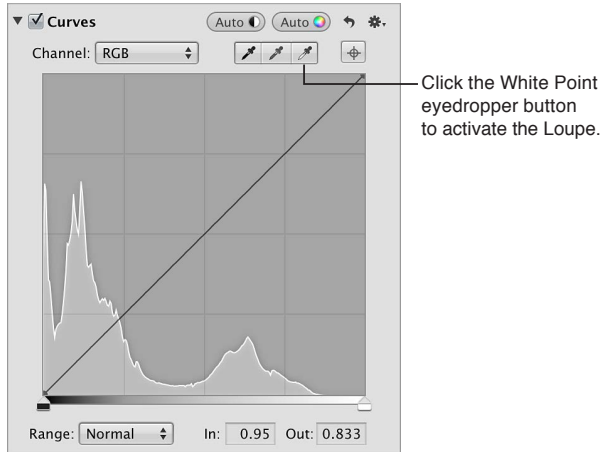
- To set the gray point in an image: Select the Gray Point eyedropper tool to activate the Loupe, position the eyedropper over a midrange color that is as close as possible to medium gray, and click.



Click the Gray Point eyedropper button to activate the Loupe.



- To set the white point in an image: Select the White Point eyedropper tool to activate the Loupe, position the eyedropper over the lightest pixels in the image, and click.



By default, the Loupe is set to magnify the image to 100 percent (full size). If necessary, you can increase the magnification of the Loupe by choosing an increased magnification level from the Loupe pop-up menu. For more information, see [Loupe overview](#) on page 181.

### Use the Curves controls for color correction

One of the most powerful ways to remove a color cast from an image or accentuate a desirable color cast is to adjust the tonal curves of the red, green, and blue color channels independently. It's important to understand that you're adjusting the colors of the image within the RGB spectrum; you reduce yellow when you increase blue, you reduce magenta when you increase green, and so on.

You adjust the tonal curve of the red color channel when you want to remove red and cyan color casts in the image.



Before Red Curves adjustment



After Red Curves adjustment

You adjust the tonal curve of the green color channel when you want to remove green and magenta color casts in the image.



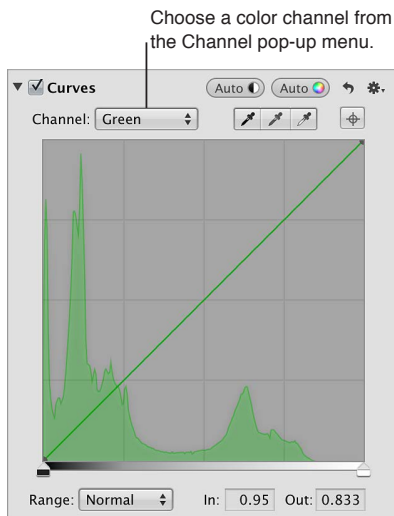
Before Green Curves adjustment      After Green Curves adjustment

You adjust the tonal curve of the blue color channel when you want to remove blue and yellow color casts in the image.



Before Blue Curves adjustment      After Blue Curves adjustment

- 1 If the Curves controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Curves from the Add Adjustment pop-up menu.



- 2 To adjust the tonal curve of the red color channel, choose Red from the Channel pop-up menu, place points on the curve, and adjust the points as necessary to remove or accentuate red and cyan color casts.

For information about placing points on the curve, see “Manually adjust the tonal curve of an image,” above.

You can adjust the red tonal curve in the following ways:

- *To add cyan to the shadows, removing red:* Move the tonal curve down in the shadows.
- *To add red to the shadows, removing cyan:* Move the tonal curve up in the shadows.
- *To add cyan to the midtones, removing red:* Move the tonal curve down in the midtones.
- *To add red to the midtones, removing cyan:* Move the tonal curve up in the midtones.
- *To add cyan to the highlights, removing red:* Move the tonal curve down in the highlights.
- *To add red to the highlights, removing cyan:* Move the tonal curve up in the highlights.

- 3 To adjust the tonal curve of the green color channel, choose Green from the Channel pop-up menu, place points on the curve, and adjust the points as necessary to remove or accentuate green and magenta color casts.

You can adjust the green tonal curve in the following ways:

- *To add magenta to the shadows, removing green:* Move the tonal curve down in the shadows.
- *To add green to the shadows, removing magenta:* Move the tonal curve up in the shadows.
- *To add magenta to the midtones, removing green:* Move the tonal curve down in the midtones.
- *To add green to the midtones, removing magenta:* Move the tonal curve up in the midtones.
- *To add magenta to the highlights, removing green:* Move the tonal curve down in the highlights.
- *To add green to the highlights, removing magenta:* Move the tonal curve up in the highlights.

- 4 To adjust the tonal curve of the blue color channel, choose Blue from the Channel pop-up menu, place points on the curve, and adjust the points as necessary to remove or accentuate blue and yellow color casts.

You can adjust the blue tonal curve in the following ways:

- *To add yellow to the shadows, removing blue:* Move the tonal curve down in the shadows.
- *To add blue to the shadows, removing yellow:* Move the tonal curve up in the shadows.
- *To add yellow to the midtones, removing blue:* Move the tonal curve down in the midtones.
- *To add blue to the midtones, removing yellow:* Move the tonal curve up in the midtones.
- *To add yellow to the highlights, removing blue:* Move the tonal curve down in the highlights.
- *To add blue to the highlights, removing yellow:* Move the tonal curve up in the highlights.

### Preserve highlight and shadow details in an image

You use the Highlights & Shadows adjustment controls to correct the exposure in images shot in complex lighting conditions. For example, you can use the Highlights & Shadows controls to correct the exposure of the darker areas (shadows) of an image that was otherwise correctly exposed for silhouette. You can also use the Highlights & Shadows controls to retrieve detail in extremely bright areas of an image. This is particularly useful when adjusting images of clouds or snow, or images correctly exposed for the shadow areas. Using the Highlights & Shadows controls is the best way to optimize your image’s exposure in the highlights, midtones, or shadows without compromising detail in the other areas of tonality.

You can also brush the Highlights & Shadows adjustment on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228.

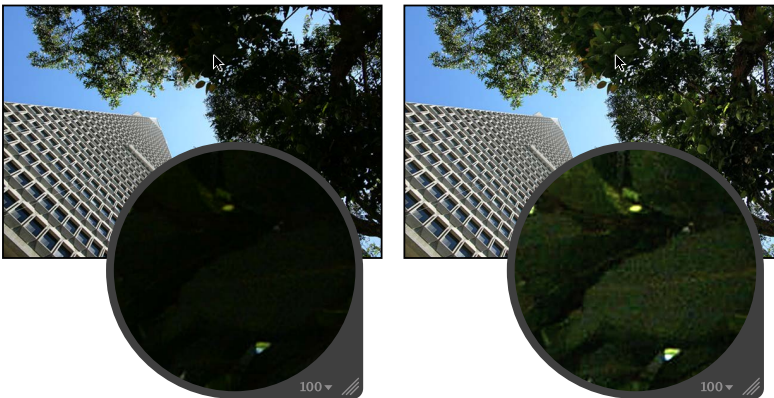
When you want to adjust the brightness values in the highlight areas of the image without affecting the midtones and shadows, you adjust the Highlights parameter. Although the human eye is more sensitive to details in shadow areas than in highlight areas, such as snow, there is usually a fair amount of visual information that you can retrieve in the highlights using the Highlights parameter controls. Another example of when to use the Highlights controls is when the background of your image is correctly exposed, and the foreground of the image is slightly overexposed. In this case, you use the Highlights controls to make the overexposed foreground match the exposure of the correctly exposed background.



Before Highlights adjustment

After Highlights adjustment

Adjusting the shadow areas in an image is necessary when the shadow areas are underexposed. A good example is an image shot in a doorway, where the background is correctly exposed but the foreground is a little underexposed. Adjusting the shadows lightens the pixels in the shadow areas only, bringing out detail that would normally have been shades of black or dark gray.



Before Shadows adjustment

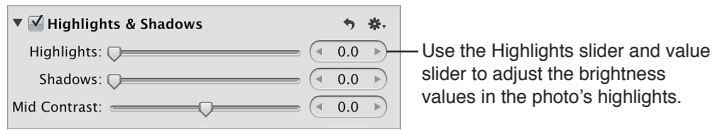
After Shadows adjustment

You can also adjust the amount of contrast in the midtones of the image using the Mid Contrast parameter controls.

**Note:** The Highlights & Shadows adjustment controls have been updated in Aperture 3.3 for ease of use, reduced halo effect with shadow adjustments, improved highlight detail recovery, and better overall performance. Images that were adjusted using the original Highlights & Shadows controls are not upgraded by default. You can upgrade an image to use the new Highlights & Shadows adjustment controls, or you can continue to use the original Highlights & Shadows controls.

## Adjust the highlights, shadows, and midtone contrast in an image

- 1 Select a photo.
- 2 In the Highlights & Shadows area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, specify the following settings:
  - *To recover details in the highlight areas of the image:* Use the Highlights parameter controls.



- *To recover details in the shadow areas of the image:* Use the Shadows parameter controls.



- *To adjust the amount of contrast in the midtones of the image:* Use the Mid Contrast parameter controls.



## Upgrade an image to use the new Highlights & Shadows adjustment controls

When you upgrade your image to use the new Highlights & Shadows adjustment controls, Aperture removes the old Highlights & Shadows adjustment and reprocesses the image using the new adjustment. The image's appearance may change.

- 1 Select a photo with a Highlights & Shadows adjustment that was applied using a previous version of Aperture.

An Upgrade button appears at the top of the Highlights & Shadows adjustment controls in the Adjustments inspector and the Adjustments pane of the Inspector HUD.
- 2 Click the Upgrade button.

The image is upgraded to use the new Highlights & Shadows adjustment, and the new controls appear. The highlight and shadow details in the image may change.

## Adjust an image using the legacy Highlights & Shadows adjustment controls

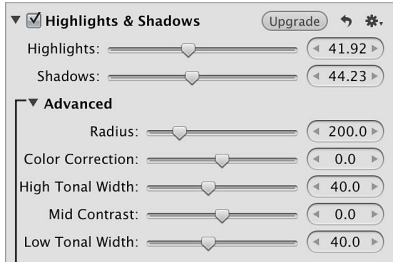
If you don't want to upgrade an image to use the new Highlights & Shadows adjustment controls, you can still fine-tune a Highlights & Shadows adjustment that was applied to the image using a previous version of Aperture.

**Note:** When Highlights & Shadows adjustments are applied to an image for the first time in Aperture 3.3 or later, only the new Highlights & Shadows controls appear.

- 1 Select a photo with a Highlights & Shadows adjustment that was applied using a previous version of Aperture.

An Upgrade button appears at the top of the Highlights & Shadows adjustment controls indicating that the Highlights & Shadows adjustment was applied to the image using a previous version of Aperture.

- In the Highlights & Shadows area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, specify the following settings:
  - To recover details in the highlight areas of the image: Use the Highlights parameter controls.
  - To recover details in the shadow areas of the image: Use the Shadows parameter controls.
- If you want to adjust the Highlights & Shadows advanced settings, click the Advanced disclosure triangle to show the advanced Highlights & Shadows controls, and specify the following settings:



Click the disclosure triangle to reveal the advanced Highlights & Shadows controls.

- To set the area Aperture uses to determine each pixel's tonality: Use the Radius parameter controls.
- To set the amount of saturation applied during a Highlights & Shadows adjustment: Use the Color Correction parameter controls.
- To set the range of tones that are modified in the highlights: Use the High Tonal Width parameter controls.
- To set the amount of contrast in the midtones: Use the Mid Contrast parameter controls.
- To set the range of tones that are modified in the shadows: Use the Low Tonal Width parameter controls.

## Adjust the levels of an image

You can use the Levels adjustment controls to manually set the tonal values of the shadows, midtones, and highlights in an image. By default, Aperture sets 0 as pure black and 1 as pure white. Constraining the white and black point values evenly redistributes the tonal range of the pixels between black and white. Reapportioning the luminance values increases the tonal range and contrast in the image. However, if you clip too far into either the black or white tonal values, tonal values that were originally *near* pure black and pure white are now changed to pure black and pure white, resulting in lost image detail.

To simplify your workflow, you can use the Auto Levels buttons in the Levels adjustment to automatically analyze the image and adjust the levels based on that analysis. This is a good way to make a quick correction to an image before fine-tuning the Levels adjustment with the manual adjustment controls.

There are two ways to perform an automatic levels adjustment. When you want to correct an image's contrast without modifying its color cast, you use the Auto Levels Combined button to adjust levels based on the total luminance of the combined red, green, and blue color channels.



Before Auto Levels Combined adjustment



After Auto Levels Combined adjustment

When you want to correct the image's color cast in addition to its contrast, you use the Auto Levels Separate button to adjust levels based on an evaluation of each channel.



Before Auto Levels Separate adjustment



After Auto Levels Separate adjustment

You can also adjust the tolerance of the black and white clipping points of the Auto Levels adjustment.

In addition to adjusting the tonal values of an image for overall shadows, midtones, and highlights, you can color correct an image by adjusting the levels of the red, green, and blue channels independently. Aperture provides a way to adjust levels for each color channel, allowing you to control the color tonality in an image.

You can also brush the Levels adjustment on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228.

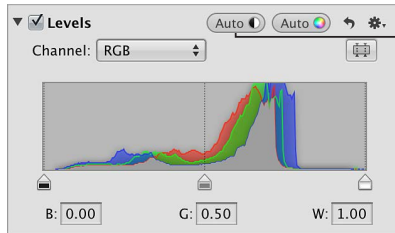
#### Adjust the levels of an image automatically

- 1 Select a photo.
- 2 In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Levels from the Add Adjustment pop-up menu.



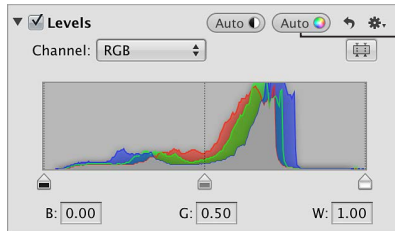
3 Do one of the following:

- *To adjust levels based on the total luminance of the red, green, and blue channels combined:* In the Levels area of the Adjustments inspector, choose Luminance from the Channel pop-up menu, and click the Auto Levels Combined button.



Click the Auto Levels Combined button to automatically set the levels for the photo based on the combined luminance of all three color channels.

- *To adjust levels based on an evaluation of each color channel:* Choose RGB from the Channel pop-up menu, and click the Auto Levels Separate button.



Click the Auto Levels Separate button to automatically set the levels for the photo based on an evaluation of each color channel's luminance values.

To fine-tune the automatic levels adjustment, see “Manually adjust levels in an image based on luminance,” below.

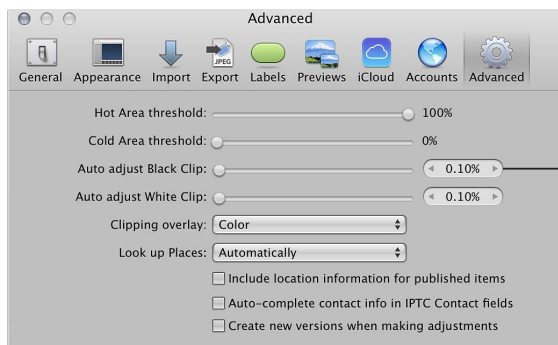
### Adjust black and white clipping points for Auto Levels adjustments

Aperture provides the option to set both the black and white clipping point parameters for the Auto Levels adjustments. Modifying the black and white clipping points from their default value of 0% expands the tonal range of the image. One reason for expanding the tonal range of an image is to preserve shadow and highlight detail when the image is printed.

**Note:** You may have to perform a few print tests to determine the output characteristics of your printer before settling on final values for black and white clipping points.

- 1 Choose Aperture > Preferences, and click Advanced.
- 2 In the Advanced pane, specify the following settings:

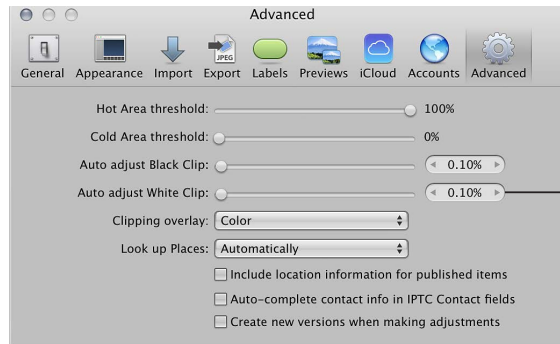
- *To adjust the black clipping point:* Use the “Auto adjust Black Clip” parameter controls.



Use the Auto Adjust Black Clip slider and value slider to add tolerance to Auto Levels adjustments when evaluating colors beyond black.

Dragging the slider to the right increases the tolerance of Auto Levels adjustments to colors beyond the analyzed black point in the image.

- *To adjust the white clipping point:* Use the “Auto adjust White Clip” parameter controls.



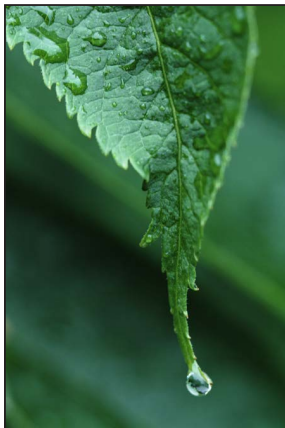
Use the Auto Adjust White Clip slider and value slider to add tolerance to Auto Levels adjustments when evaluating colors beyond white.

Dragging the slider to the right increases the tolerance of Auto Levels adjustments to colors beyond the analyzed white point in the image.

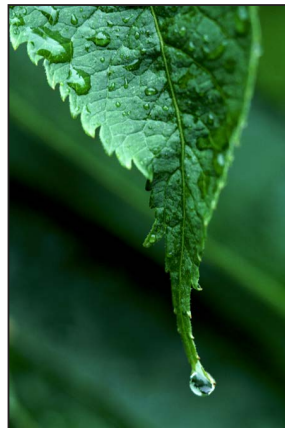
- 3 After the black and white clipping points are adjusted, click either the Auto Levels Combined or Auto Levels Separate button in the Levels area of the Adjustments inspector or the Adjustments pane of the Inspector HUD to view the effect on the image.

### Manually adjust levels in an image based on luminance

To manually adjust the overall tonality of an image without affecting its color cast, you use the Levels adjustment controls based on a histogram that shows luminance. When the histogram is set to show luminance, it displays the cumulative brightness values for all three color channels for each pixel.



Before Levels adjustment



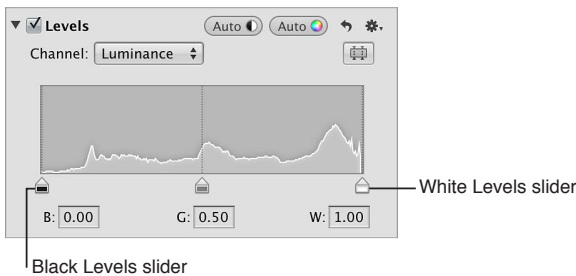
After Levels adjustment

You can also use the Gray Levels slider if you need to adjust the brightness values of the midtones while limiting the brightening effect in the black and white points. The brighter areas of shadows and the darker areas of highlights are affected, but the effect tapers off as it nears dark blacks and bright whites.

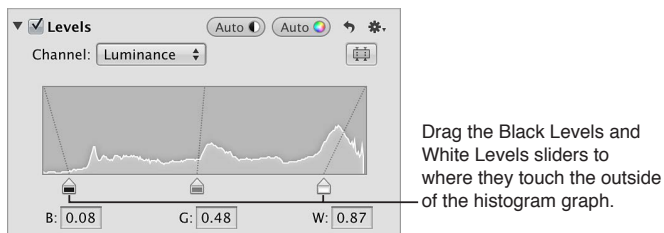


Before Gray Levels adjustment      After Gray Levels adjustment

- 1 Select a photo.
- 2 In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Levels from the Add Adjustment pop-up menu.
- 3 To display the Levels histogram, select the Levels checkbox in the Levels area of the Adjustments inspector or the Adjustments pane of the Inspector HUD.

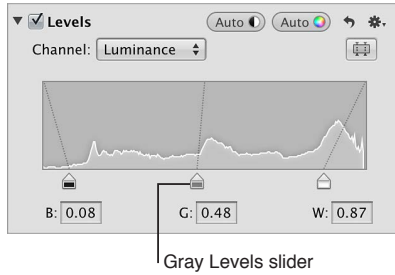


- 4 Choose Luminance from the Channel pop-up menu.
- 5 Do either or both of the following:
  - *To constrain the image to its new black and white points:* Drag the Black Levels and White Levels sliders to where they touch the outside of the histogram graph.



You can also select the numbers in the Black (B) and White (W) fields, and enter a value from 0.00 to 1.00. By default, the black point is set to 0.00, and the white point is set to 1.00.

- *To adjust the image's brightness values:* Drag the Gray Levels slider until the image's midtones are correct.



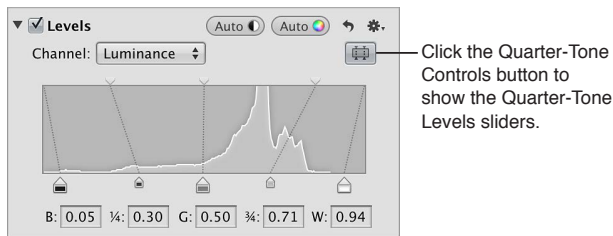
You can also select the number in the Gray (G) field, and enter a value from 0.02 to 0.98 to correct the brightness values in the image's midtones. By default, the gray point is set to 0.50.

The tonal values for shadows and highlights in the image are updated, resulting in more defined blacks and highlight values as well as increased overall contrast.

### Show the Quarter-Tone Levels controls

When you need additional control over tonal values between the midtones and shadows as well as the midtones and highlights (for example, to add contrast to the midtone values independently of the black and white point settings), you use the Quarter-Tone Levels controls. Unlike the Black Levels and White Levels sliders, the Quarter-Tone Levels sliders affect only the tonal range of the pixels they represent: either shadows to midtones or midtones to highlights.

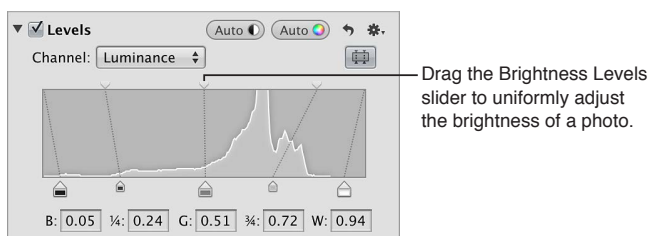
- In the Levels area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, click the Quarter-Tone Controls button.



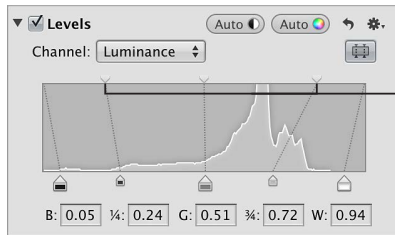
### Adjust the brightness of an image

You can also use the Levels adjustment controls to adjust the brightness of an image. After you adjust the brightness, you can use the Black Levels, Gray Levels, and White Levels sliders to modify the tonality of the image based on the new brightness value.

- *To adjust the brightness of the image uniformly:* In the Levels area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, drag the Brightness Levels slider until the brightness of the entire image is correct.



- To selectively adjust the brightness of the shadows and highlights in an image: Drag the Shadow Brightness Levels and Highlight Brightness Levels sliders until the brightness values of the shadows and highlights in the image are correct.



Drag the Shadow Brightness Levels (on the left) and Highlight Brightness Levels sliders to selectively adjust the brightness of a photo.

### Use levels for color correction

A powerful way to color correct an image is to adjust the levels of each color channel in the image, which allows you to remove color casts. It's important to understand that you're adjusting the colors of the image within the RGB spectrum; you reduce yellow when you increase blue, you reduce magenta when you increase green, and so on.

You adjust the levels of the red color channel when you want to remove red and cyan color casts in the image.



Before Red Levels adjustment



After Red Levels adjustment  
(moved Gray Levels slider right)

You adjust the levels of the green color channel when you want to remove green and magenta color casts in the image.



Before Green Levels adjustment



After Green Levels adjustment  
(moved Gray Levels slider right)

You adjust the levels of the blue color channel when you want to remove blue and yellow color casts in the image.

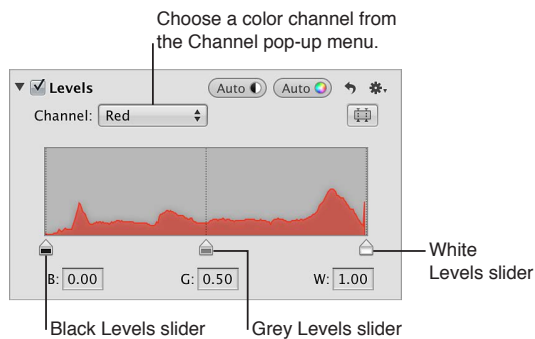


**Before Blue Levels adjustment**



**After Blue Levels adjustment**  
(moved White Levels and Gray Levels sliders left)

- 1 If the Levels controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Levels from the Add Adjustment pop-up menu.
- 2 To adjust the levels of the red color channel, choose Red from the Channel pop-up menu, and do any of the following:



- To add cyan to the shadows, removing red: Drag the Black Levels slider to the right.
  - To add red to the midtones, removing cyan: Drag the Gray Levels slider to the left.
  - To add cyan to the midtones, removing red: Drag the Gray Levels slider to the right.
  - To add red to the highlights, removing cyan: Drag the White Levels slider to the left.
- 3 To adjust the levels of the green color channel, choose Green from the Channel pop-up menu, and do any of the following:
    - To add magenta to the shadows, removing green: Drag the Black Levels slider to the right.
    - To add green to the midtones, removing magenta: Drag the Gray Levels slider to the left.
    - To add magenta to the midtones, removing green: Drag the Gray Levels slider to the right.
    - To add green to the highlights, removing magenta: Drag the White Levels slider to the left.
  - 4 To adjust the levels of the blue color channel, choose Blue from the Channel pop-up menu, and do any of the following:
    - To add yellow to the shadows, removing blue: Drag the Black Levels slider to the right.
    - To add blue to the midtones, removing yellow: Drag the Gray Levels slider to the left.
    - To add yellow to the midtones, removing blue: Drag the Gray Levels slider to the right.
    - To add blue to the highlights, removing yellow: Drag the White Levels slider to the left.

## Selectively adjust the color values in an image

You use the Color adjustment controls to selectively adjust the red, green, blue, cyan, magenta, and yellow colors in an image. Each color has individual Hue, Saturation, and Luminance controls. If you need to adjust the hue, saturation, and luminance of a color that doesn't appear in the Color controls, you can use the Color eyedropper to identify a hue in the image that needs adjusting.

Although segmenting control of hue, saturation, and luminance on a per-color basis may seem complicated at first, restricting these adjustments to specific colors helps correct and enhance targeted colors without affecting others. In addition, Aperture provides Range controls used to set the extent of colors affected by the Hue, Saturation, and Luminance adjustments. The extent of colors affected by these adjustments is also known as *chromatic spread*. You use the Range controls to fine-tune your color adjustments.

You can also brush the Color adjustment on selected parts of an image. For more information, see [Apply brushed adjustments](#) on page 228.



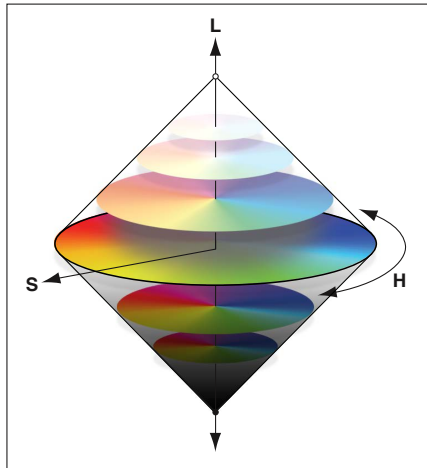
Before Color adjustment

After Color adjustment  
(adjusted the hue and  
saturation of blue)

Hue, saturation, and luminance describe the characteristics of a particular color:

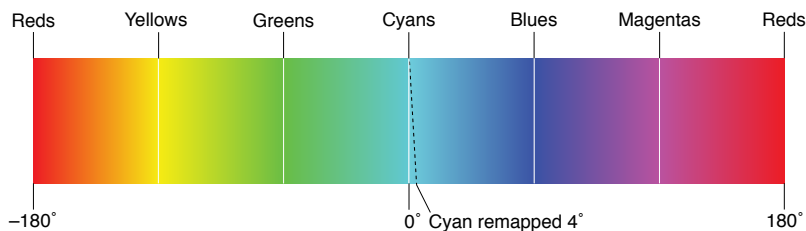
- *Hue (H)*: Describes the actual color itself. Hue is measured as an angle on a color wheel. Moving a Hue slider in Aperture remaps the color from its original position on the color wheel to the new position indicated by the slider. Hue adjustments are often made to match the color of the same subject in different images. Adjusting the hue of an image is particularly useful when the subject you shot moved between various lighting conditions. Another advantage of adjusting the hue of an image is that camera models of different types or from different manufacturers rarely capture and render color exactly the same way. You can use the Hue controls to match the color of a subject shot by two different cameras, so that when the images are placed side by side, they match.
- *Saturation (S)*: Defines the intensity of a specific hue. A saturated hue gives the color a vivid and pure appearance. A less saturated hue appears flatter and more gray. A completely desaturated hue becomes a shade of gray.

- *Luminance (L)*: Describes the brightness of the selected color. An increase in luminance brightens the selected color value. A maximum luminance adjustment results in pure white. Conversely, a decrease in luminance darkens the selected color. A minimum luminance adjustment results in pure black.



### Adjust a color value in an image

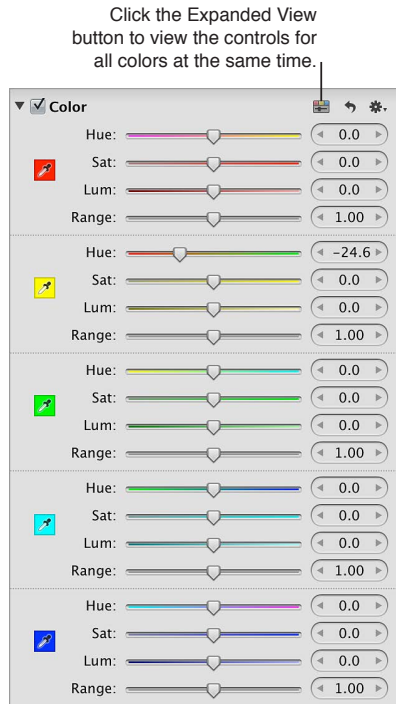
When you want to adjust the color values in an image, you must first identify the colors that have the most influence on the colors you want to change. It's important to understand that you're adjusting the colors of the image within the RGB spectrum; you reduce yellow when you increase blue, you reduce magenta when you increase green, and so on. When you want to isolate a color and adjust its hue, it's important to identify the color's location on the color wheel. For example, if the color value is closer to cyan than blue, you may decide to adjust the cyan hue value without adjusting the blue hue value. Depending on the image, you may decide to adjust both the cyan and blue hue values to achieve the color values you're looking for. There's not just one correct way of perfecting the colors in an image. Your approach should be based on the image's subject and the overall aesthetic you want to achieve.



- 1 Select a photo.
- 2 In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Color from the Add Adjustment pop-up menu (or press Control-C).
- 3 Click the color you want to adjust to view its Hue, Saturation, Luminance, and Range controls.



**Note:** You can also click the Expanded View button to expand the Color area to show the controls for all colors at the same time.



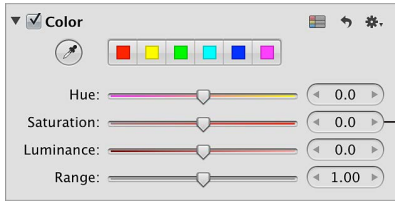
4 To remap the hue of the selected color in the image, use the Hue controls.



Depending on the color you selected, you can remap the hue in the following ways:

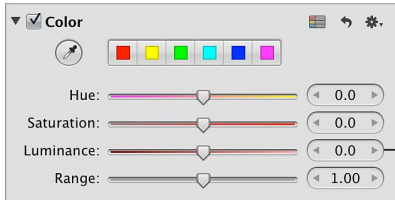
- *Red*: Decreasing the hue value moves the hue toward magenta, and increasing the value moves the hue toward yellow.
- *Yellow*: Decreasing the hue value moves the hue toward red, and increasing the value moves the hue toward green.
- *Green*: Decreasing the hue value moves the hue toward yellow, and increasing the value moves the hue toward cyan.
- *Cyan*: Decreasing the hue value moves the hue toward green, and increasing the value moves the hue toward blue.
- *Blue*: Decreasing the hue value moves the hue toward cyan, and increasing the value moves the hue toward magenta.
- *Magenta*: Decreasing the hue value moves the hue toward blue, and increasing the value moves the hue toward red.

5 To adjust the intensity of the selected color's hue, use the Saturation parameter controls.



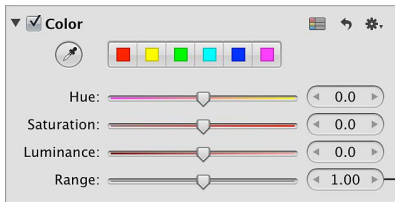
Use the Saturation slider and value slider to correct the intensity of the hue of the selected color.

6 To adjust the brightness of the selected color, use the Luminance parameter controls.



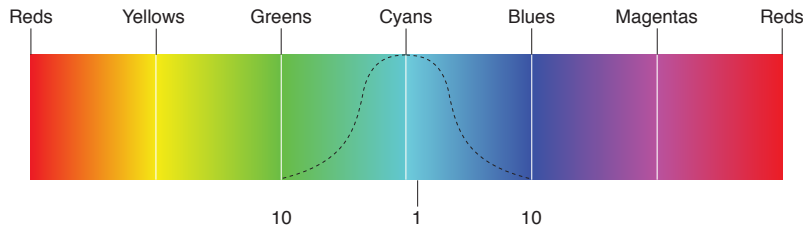
Use the Luminance slider and value slider to correct the brightness of the hue of the selected color.

7 To limit or expand the chromatic range of the adjustment on the selected color's hue, use the Range parameter controls.



Use the Range slider and value slider to adjust the chromatic range of the color adjustment.

By default, the Range value slider is set to 1.00.



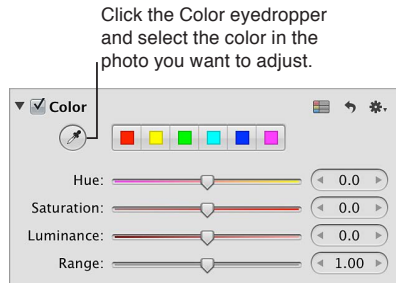
You can adjust the chromatic range up to 20. The default spread is 1.

8 Repeat steps 3 through 7 until you're satisfied with the appearance of the colors in your image.

## Adjust a custom color value in an image

If you require a specific hue as a starting point for your color adjustment, you can use the Color eyedropper to identify a hue in the image.

- 1 Select a photo.
- 2 In the Color area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, click the color with the hue closest to the one you plan to adjust, and select the Color eyedropper tool.



The pointer changes to an eyedropper, and the Loupe appears, showing a magnified view of the target area. By default, the Loupe is set to magnify the image to 100 percent (full size). If necessary, you can increase the magnification of the Loupe by choosing a magnification level from the Loupe pop-up menu. For more information, see [Loupe overview](#) on page 181.

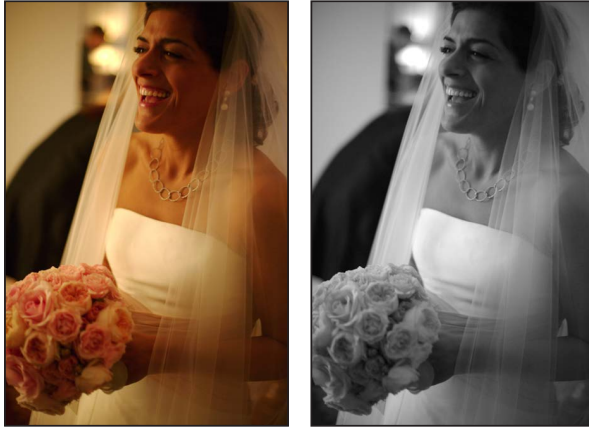
- 3 Position the eyedropper over the color in the image that you want to adjust, and click.



The new hue is selected and becomes the starting point for color adjustments of that hue.

## Manually convert an image to black and white

You use the Black & White adjustment controls when you want more control over converting a color image to black and white than simply desaturating it gives you. The Black & White adjustment controls allow you to adjust tonal relationships and contrast by adjusting the red, green, and blue channels independently. The effects of a Black & White adjustment are similar to the effects of attaching a color filter to a camera lens and shooting black-and-white film.



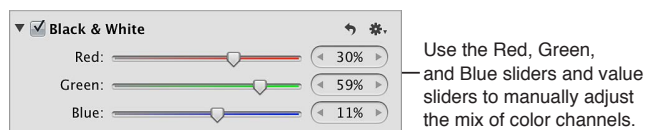
Before Black & White adjustment    After Black & White adjustment

The key to the successful use of the Black & White adjustment controls is to experiment with changing values for the Red, Green, and Blue parameters until you're satisfied with the effect on the image.

**Note:** A good rule of thumb is to keep the total percentage of the red, green, and blue channels at or below 100 percent to prevent blowing out the highlights in your image.

### Convert a color image to black and white using the Black & White controls

- 1 Select a photo.
- 2 If the Black & White controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Black & White from the Add Adjustment pop-up menu (or press Control-M).
- 3 Use the Red, Green, and Blue parameter controls to adjust the mix of color channels and the tonal relationships and contrast in the image.



You can also brush the Black & White adjustment on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228.

## Convert a color image to black and white with a color tint

The Color Monochrome adjustment controls are useful when you want to perform a basic conversion from color to black and white while simultaneously applying a color tint to the image's midtones.



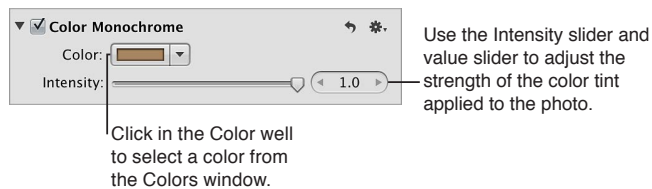
Before Color Monochrome adjustment



After Color Monochrome adjustment  
(applied blue tint)

### Convert a color image to black and white and add a color tint

- 1 Select a photo.
- 2 If the Color Monochrome controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Color Monochrome from the Add Adjustment pop-up menu, and specify the following settings:



- *To choose a different tint color:* Click the Color well and select a new tint color from the Colors window, or click the disclosure button (to the right of the color well) and select a new tint color from the pop-up color palette.
- *To adjust the strength of the color tint applied to the image:* Use the Intensity slider. By default, the color intensity is set to the maximum value of 1.0, which is full desaturation and maximum color tint.

The image is converted to black and white, with the selected color tint applied to the midtones.

You can also brush the Color Monochrome adjustment on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228.

## Apply a sepia tint

The Sepia Tone adjustment controls behave similarly to the Color Monochrome controls, except that the sepia color is already selected.



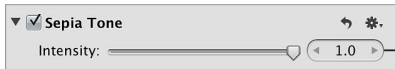
Before Sepia Tone adjustment



After Sepia Tone adjustment

### Apply a sepia tint to an image

- 1 Select a photo.
- 2 If the Sepia Tone controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Sepia Tone from the Add Adjustment pop-up menu.
- 3 Use the Intensity parameter controls to adjust the strength of the sepia tint applied to the image.



Use the Intensity slider and value slider to adjust the strength of the sepia tint applied to the photo.

By default, the intensity of the sepia color is set to the maximum value of 1.0.

The image is converted to black and white, with the sepia color tint applied to the midtones.

You can also brush the Sepia Tone adjustment on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228.

## Sharpen an image

You use the Edge Sharpen controls to sharpen the detail in your image. Images shot with digital image sensors are often a bit soft in focus because of the demosaic filter applied by the camera's processor. The Edge Sharpen controls adjust the luminance values in the image, increasing the contrast between light and dark pixels that touch, creating an "edge." Increasing the contrast between these neighboring light and dark pixels gives the image a crisper, or sharper, appearance. You also use the Edge Sharpen controls when you make noise-reduction adjustments, so that the image retains detail and crisp edges that might otherwise be obscured by the effect of the noise-reduction adjustment. Edge Sharpen adjustments can also compensate for the softening that occurs with some printing processes.



Before Edge Sharpen adjustment

After Edge Sharpen adjustment

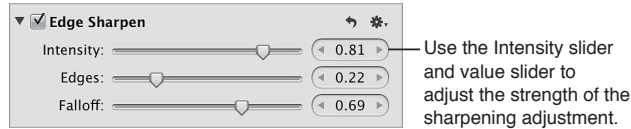
For maximum accuracy, the Edge Sharpen adjustment sharpens the image in three passes that appear to occur simultaneously—an initial sharpening pass, where a majority of the sharpening occurs, followed by two subsequent sharpening passes. These subsequent passes are called *falloff*.

**Important:** The Edge Sharpen controls are not designed to correct images that were shot out of focus.

Aperture also includes a sharpening adjustment from previous versions of Aperture. If you applied sharpening in a previous version of Aperture using the Sharpen adjustment, the Sharpen adjustment controls are still there so that your adjustments remain intact and unchanged. However, to do further sharpening on other images, it's recommended that you use the Edge Sharpen adjustment controls, which generally offer more precise control over how sharpening is applied.

## Sharpen an image using the Edge Sharpen controls

- 1 Select a photo.
- 2 If the Edge Sharpen controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Edge Sharpen from the Add Adjustment pop-up menu (or press Control-S), and specify the following settings:
  - *To adjust the strength of the Edge Sharpen adjustment:* Use the Intensity parameter controls.



A value of 0.0 applies no sharpening adjustment to the image. A value greater than 0.0 increases the sharpening adjustment.

- *To adjust the threshold for determining which pixels are edges and which ones are not:* Use the Edges parameter controls.



A value of 0.0 applies no sharpening adjustment to the image. A value greater than 0.0 increases the number of pixels that qualify as edges.

**Note:** If you observe digital noise beginning to increase in flat areas of the image (areas with little or no contrast), decrease the Edges parameter setting.

- *To adjust the amount of sharpening applied in the subsequent sharpening passes:* Use the Falloff parameter controls.



The falloff percentage is applied proportionally to the second and third sharpening passes. For example, if 0.69 (69 percent) is set as the Falloff parameter value, 69 percent of the original amount of sharpening is applied during the second sharpening pass, and 69 percent of the amount of sharpening from the second sharpening pass is applied during the third sharpening pass. In other words, only 47.6 percent of the amount of the original sharpening is applied during the third sharpening pass.

You can also brush the Edge Sharpen adjustment on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228.

### Use the Edge Sharpen workflow

The Edge Sharpen adjustment in Aperture is a professional tool that's used to sharpen photos. Using the Edge Sharpen adjustment controls in conjunction with the following workflow makes it easy to achieve professional results.

- 1 In the Edge Sharpen area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, set the Intensity slider to the maximum value to see the effect of the operation.
- 2 Adjust the Edges slider so that you can see which parts of the image are being sharpened. Try to adjust the Edges slider so that edges are sharpened, but noise and texture in the image aren't affected.

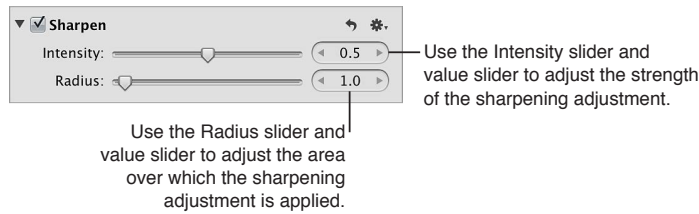


- 3 Adjust the Falloff slider so that the edge sizes you want sharpened the most are accentuated.
- 4 Decrease the Intensity parameter value until the sharpening effect is appropriately subtle.  
Values below 0.5 usually work best.

### Sharpen an image using the legacy Sharpen controls

You use the Sharpen adjustment controls when you need to modify Sharpen adjustment parameter settings that were applied to an image in a previous version of Aperture.

- 1 Select a photo.
- 2 If the Sharpen controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Sharpen from the Add Adjustment pop-up menu, and specify the following settings:
  - *To adjust the amount of sharpening applied to the image:* Use the Intensity parameter controls.



A value of 0.0 applies no sharpening adjustment to the image. A value greater than 0.0 increases the sharpening adjustment to the image.

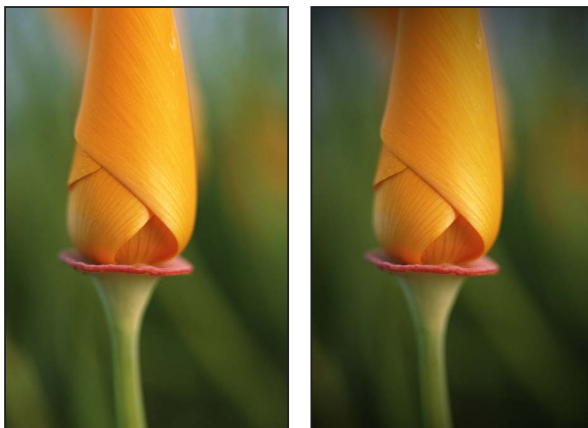
- *To adjust the area over which the sharpening adjustment is applied (the distance, in pixels, that Aperture goes from each pixel to evaluate sharpness):* Use the Radius parameter controls.  
A value of 0.0 applies no sharpening adjustment to the image. A value greater than 0.0 increases the area over which the sharpening adjustment is applied.

You can also brush the Sharpen adjustment on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228.

### Apply a vignette to an image

You use the Vignette adjustment controls to apply a vignette to an image. The term *vignette* describes an image whose brightness fades to its periphery from its center. Vignettes are usually applied to an image after it's shot, for artistic effect. Aperture provides two types of vignettes: Exposure and Gamma.

The Exposure vignette is designed to simulate a lens-created vignette.



Before Exposure Vignette adjustment

After Exposure Vignette adjustment

The Gamma vignette is designed for artistic effect and applies a gamma adjustment to the affected pixels within the vignette. Because the Gamma vignette intensifies colors in the affected pixels, it creates a more pronounced vignette effect than the Exposure vignette.



Before Gamma Vignette adjustment

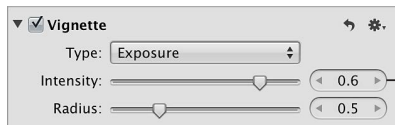


After Gamma Vignette adjustment

**Note:** You can add a vignette to any image cropped in Aperture. The adjustment is applied after the image is cropped.

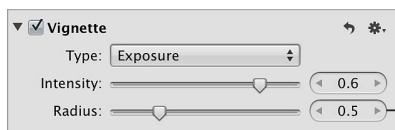
### Apply an Exposure vignette or a Gamma vignette to an image

- 1 Select a photo.
- 2 If the Vignette controls aren't shown in the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Vignette from the Add Adjustment pop-up menu (or press Control-V).
- 3 Do one of the following:
  - *To apply an Exposure vignette:* Choose Exposure from the Type pop-up menu.
  - *To apply a Gamma vignette:* Choose Gamma from the Type pop-up menu.
- 4 Specify the following settings:
  - *To adjust the amount of vignette to apply to the image:* Use the Intensity parameter controls.



Use the Intensity slider and value slider to adjust the amount of brightness removed from the edges of the photo.

- *To adjust the size of the vignette, in pixels:* Use the Radius parameter controls.



Use the Radius slider and value slider to adjust the size of the area over which the Vignette adjustment is applied.

After you apply a vignette to an image, you can change the vignette type and maintain the Intensity and Radius parameter values you set using the previous vignette. To change the vignette, choose the other vignette type from the Type pop-up menu.

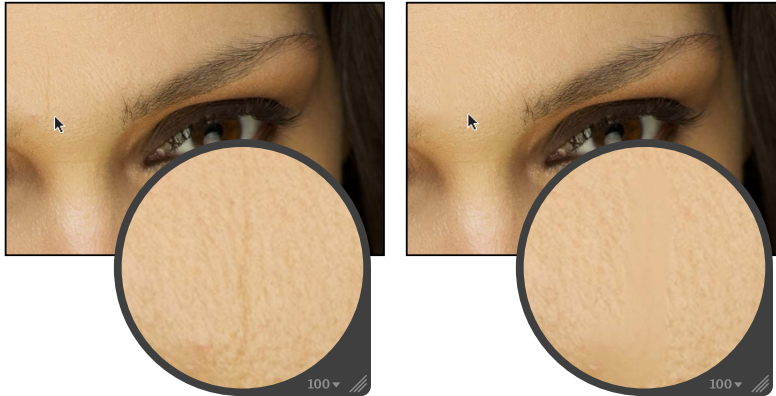
You can also brush the Exposure and Gamma Vignette adjustments on specific areas of an image. For more information, see [Apply brushed adjustments](#) on page 228.

For information about removing a vignette that was applied to an image when it was shot, see [Remove a vignette](#) on page 264.

## Apply specific Quick Brush adjustments

### Brush the Skin Smoothing adjustment on an image


You use the Skin Smoothing Quick Brush adjustment to smooth a person's skin by subtly blurring wrinkles and skin pores.



**Before Skin Smoothing**  
Quick Brush adjustment

**After Skin Smoothing**  
Quick Brush adjustment

#### Smooth a person's skin

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Skin Smoothing from the Add Adjustment pop-up menu.
  - In the tool strip, choose Skin Smoothing from the Quick Brush pop-up menu .

The Skin Smoothing Brush HUD appears, and the Skin Smoothing adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

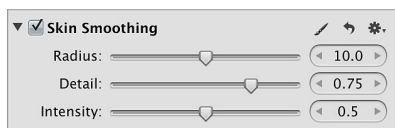
- 3 Specify the brush stroke settings using the controls in the Skin Smoothing Brush HUD.

For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment on the area of the image where you want to smooth a person's skin.

#### Modify the Skin Smoothing adjustment after it has been applied to an image

- 1 Select a photo with the Skin Smoothing adjustment applied to it.
- 2 In the Skin Smoothing area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, adjust the following settings:
  - *To specify the area over which the Skin Smoothing adjustment is applied:* Use the Radius parameter controls.
  - *To specify the amount of detail to preserve in the area where the Skin Smoothing adjustment is applied:* Use the Detail parameter controls.
  - *To specify the strength of the Skin Smoothing adjustment:* Use the Intensity parameter controls.



## Brush the Dodge adjustment on an image

You use the Dodge Quick Brush adjustment to lighten a specific area of an image. For example, you could emphasize a subject in the foreground of the image by making it slightly lighter than the background.




Before Dodge adjustment



After Dodge adjustment  
(lightened the hills in the foreground)

### Selectively lighten an image

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Dodge (Lighten) from the Add Adjustment pop-up menu.
  - In the tool strip, choose Dodge (Lighten) from the Quick Brush pop-up menu .

The Dodge Brush HUD appears, and the Dodge adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

- 3 Specify the brush stroke settings using the controls in the Dodge Brush HUD.

For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment on the area of the image you want to lighten.

### Modify the Dodge adjustment after it has been applied to an image

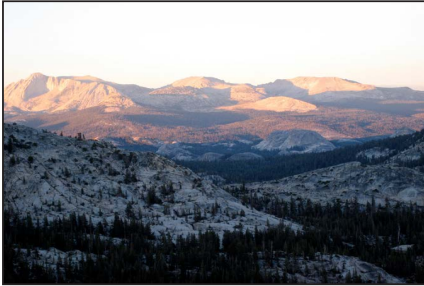
- 1 Select a photo with the Dodge adjustment applied to it.
- 2 In the Dodge area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Amount parameter controls to modify the strength of the adjustment.



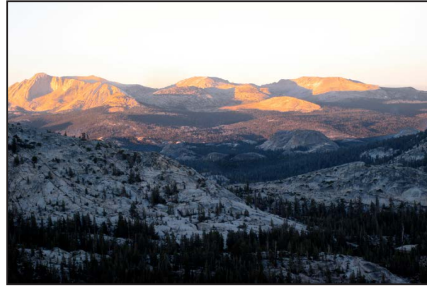
## Brush the Burn adjustment on an image

You use the Burn Quick Brush adjustment to darken a specific area of an image. For example, if you want to obscure a visual element in the shadows of the image without using the Levels or Curves adjustment to crush the blacks (changing the tonality of all shadows in the image), you use the Burn Quick Brush adjustment.

For information about Levels and Curves adjustments, see [Adjust the levels of an image](#) on page 295 and [Adjust the tonal curve of an image](#) on page 282.




Before Burn adjustment



After Burn adjustment  
(darkened the mountains in the background)

### Selectively darken an image

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Burn (Darken) from the Add Adjustment pop-up menu.
  - In the tool strip, choose Burn (Darken) from the Quick Brush pop-up menu .

The Burn Brush HUD appears, and the Burn adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

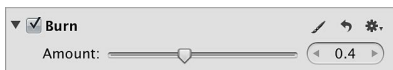
- 3 Specify the brush stroke settings using the controls in the Burn Brush HUD.

For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment on the area of the image you want to darken.

### Modify the Burn adjustment after it has been applied to an image

- 1 Select a photo with the Burn adjustment applied to it.
- 2 In the Burn area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Amount parameter controls to modify the strength of the adjustment.



## Brush the Polarize adjustment on an image

You use the Polarize Quick Brush adjustment to deepen colors in a specific area of an image by darkening the shadows and midtones without affecting the black and white points. The Polarize Quick Brush adjustment uses a Multiply blend to create an effect similar to that of a polarizing filter.




Before Polarize adjustment



After Polarize adjustment

(added contrast to the shadows and midtones of the granite rocks in the foreground)

### Selectively polarize an image

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Polarize (Multiply) from the Add Adjustment pop-up menu.
  - In the tool strip, choose Polarize (Multiply) from the Quick Brush pop-up menu .

The Polarize Brush HUD appears, and the Polarize adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

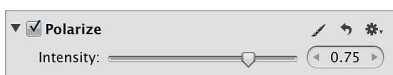
- 3 Specify the brush stroke settings using the controls in the Polarize Brush HUD.

For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment on the area of the image that contains shadows and midtones you want to add contrast to.

### Modify the Polarize adjustment after it has been applied to an image

- 1 Select a photo with the Polarize adjustment applied to it.
- 2 In the Polarize area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Intensity parameter controls to modify the strength of the adjustment.



## Brush the Intensify Contrast adjustment on an image

You use the Intensify Contrast Quick Brush adjustment to correct shadow areas of the image that appear washed out. The Intensify Contrast adjustment increases the contrast between pure black and 50 percent gray in brushed areas of the image, and is equivalent to applying an Overlay blend.




Before Intensify Contrast adjustment



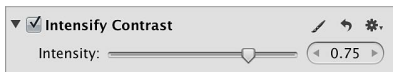
After Intensify Contrast adjustment  
(added contrast to the exposed mountainside and trees in the foreground)

### Selectively adjust contrast in shadow areas of an image

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Intensify Contrast (Overlay) from the Add Adjustment pop-up menu.
  - In the tool strip, choose Intensify Contrast (Overlay) from the Quick Brush pop-up menu .The Intensify Contrast Brush HUD appears, and the Intensify Contrast adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.
- 3 Specify the brush stroke settings using the controls in the Intensify Contrast Brush HUD.  
For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.
- 4 Brush the adjustment on the area of the image where you want to intensify contrast in shadows.

### Modify the Intensify Contrast adjustment after it has been applied to an image

- 1 Select a photo with the Intensify Contrast adjustment applied to it.
- 2 In the Intensify Contrast area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Intensity parameter controls to modify the strength of the adjustment.



## Brush the Tint adjustment on an image

You use the Tint Quick Brush adjustment to shift the tint in a specific area of an image. For example, if an object in your image has a cyan tint that you want to neutralize, you can add magenta to just that object without changing the overall tint of the image.




Before Tint adjustment



After Tint adjustment  
(changed the color of three flower petals)

**Note:** You can also apply a Tint adjustment by brushing the Enhance adjustment on an image. However, brushing the Enhance adjustment on an image applies the Contrast, Definition, Saturation, Vibrancy, and Tint parameter settings. You use the Quick Brush equivalents when you need to apply each of these adjustments in different ways to different parts of the photo. For more information about the Enhance adjustment, see [Adjust contrast, clarity, and saturation](#) on page 273.

### Selectively adjust tint in an image

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Tint from the Add Adjustment pop-up menu.
  - In the tool strip, choose Tint from the Quick Brush pop-up menu .

The Tint Brush HUD appears, and the Tint adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

- 3 Specify the brush stroke settings using the controls in the Tint Brush HUD.

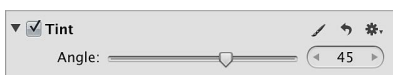
For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment on the area of the image where you want to change the tint.

**Note:** You may not notice the tint changes in the area of the image where you brushed the tint adjustment. To change the tint value, see “Modify the Tint adjustment after it has been applied to an image,” below.

### Modify the Tint adjustment after it has been applied to an image

- 1 Select a photo with the Tint adjustment applied to it.
- 2 In the Tint area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Angle parameter controls to modify the way the color’s tint is shifted.





## Brush the Contrast adjustment on an image

You use the Contrast Quick Brush adjustment to modify the contrast in a specific area of an image.




Before Contrast adjustment



After Contrast adjustment  
(added contrast to elk and grass)

**Note:** You can also apply a Contrast adjustment by brushing the Enhance adjustment on an image. However, brushing the Enhance adjustment on an image applies the Contrast, Definition, Saturation, Vibrancy, and Tint parameter settings. You use the Quick Brush equivalents when you need to apply each of these adjustments in different ways to different parts of the photo. For more information about the Enhance adjustment, see [Adjust contrast, clarity, and saturation](#) on page 273.

### Selectively adjust contrast in an image

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Contrast from the Add Adjustment pop-up menu.
  - In the tool strip, choose Contrast from the Quick Brush pop-up menu .

The Contrast Brush HUD appears, and the Contrast adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

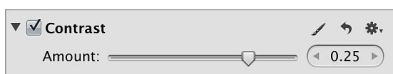
- 3 Specify the brush stroke settings using the controls in the Contrast Brush HUD.

For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment on the area of the image where you want to change the contrast.

### Modify the Contrast adjustment after it has been applied to an image

- 1 Select a photo with the Contrast adjustment applied to it.
- 2 In the Contrast area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Amount parameter controls to modify the strength of the adjustment.



## Brush the Saturation adjustment on an image

You use the Saturation Quick Brush adjustment to modify the saturation of the colors in a specific area of an image.




Before Saturation adjustment



After Saturation adjustment  
(added saturation to the green trees  
in the background)

**Note:** You can also apply a Saturation adjustment by brushing the Enhance adjustment on an image. However, brushing the Enhance adjustment on an image applies the Contrast, Definition, Saturation, Vibrancy, and Tint parameter settings. You use the Quick Brush equivalents when you need to apply each of these adjustments in different ways to different parts of the photo. For more information about the Enhance adjustment, see [Adjust contrast, clarity, and saturation](#) on page 273.

### Selectively adjust saturation in an image

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Saturation from the Add Adjustment pop-up menu.
  - In the tool strip, choose Saturation from the Quick Brush pop-up menu .

The Saturation Brush HUD appears, and the Saturation adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

- 3 Specify the brush stroke settings using the controls in the Saturation Brush HUD.

For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment on the area of the image where you want to change the saturation.

### Modify the Saturation adjustment after it has been applied to an image

- 1 Select a photo with the Saturation adjustment applied to it.
- 2 In the Saturation area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Amount parameter controls to modify the strength of the adjustment.



## Brush the Definition adjustment on an image

You use the Definition Quick Brush adjustment to add clarity and reduce haze in a specific area of an image, without adding too much contrast.




Before Definition adjustment



After Definition adjustment  
(added definition to the flower in the foreground)

**Note:** You can also apply a Definition adjustment by brushing the Enhance adjustment on an image. However, brushing the Enhance adjustment on an image applies the Contrast, Definition, Saturation, Vibrancy, and Tint parameter settings. You use the Quick Brush equivalents when you need to apply each of these adjustments in different ways to different parts of the photo. For more information about the Enhance adjustment, see [Adjust contrast, clarity, and saturation](#) on page 273.

### Selectively adjust clarity in an image

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Definition from the Add Adjustment pop-up menu.
  - In the tool strip, choose Definition from the Quick Brush pop-up menu .

The Definition Brush HUD appears, and the Definition adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

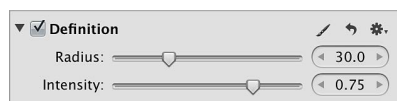
- 3 Specify the brush stroke settings using the controls in the Definition Brush HUD.

For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment on the area of the image where you want to add definition.

### Modify the Definition adjustment after it has been applied to an image

- 1 Select a photo with the Definition adjustment applied to it.
- 2 In the Definition area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, adjust the following settings:
  - *To specify the area over which the Definition adjustment is applied:* Use the Radius parameter controls.
  - *To specify the strength of the Definition adjustment:* Use the Intensity parameter controls.



## Brush the Vibrancy adjustment on an image

You use the Vibrancy Quick Brush adjustment to add saturation just to desaturated colors in a specific area of an image. Skin tones are not affected.




Before Vibrancy adjustment



After Vibrancy adjustment  
(added saturation to desaturated colors  
in the green wave)

**Note:** You can also apply a Vibrancy adjustment by brushing the Enhance adjustment on an image. However, brushing the Enhance adjustment on an image applies the Contrast, Definition, Saturation, Vibrancy, and Tint parameter settings. You use the Quick Brush equivalents when you need to apply each of these adjustments in different ways to different parts of the photo. For more information about the Enhance adjustment, see [Adjust contrast, clarity, and saturation](#) on page 273.

### Selectively adjust desaturated colors in an image

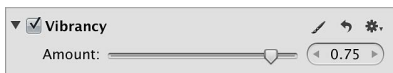
- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Vibrancy from the Add Adjustment pop-up menu.
  - In the tool strip, choose Vibrancy from the Quick Brush pop-up menu .

The Vibrancy Brush HUD appears, and the Vibrancy adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

- 3 Specify the brush stroke settings using the controls in the Vibrancy Brush HUD.  
For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.
- 4 Brush the adjustment on the area of the image where you want to add saturation to desaturated colors only.

### Modify the Vibrancy adjustment after it has been applied to an image

- 1 Select a photo with the Vibrancy adjustment applied to it.
- 2 In the Vibrancy area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Amount parameter controls to modify the strength of the adjustment.



## Brush the Blur adjustment on an image

You use the Blur Quick Brush adjustment to soften a specific area of an image.




Before Blur adjustment



After Blur adjustment  
(blurred the background)

### Blur portions of an image

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Blur from the Add Adjustment pop-up menu.
  - In the tool strip, choose Blur from the Quick Brush pop-up menu .

The Blur Brush HUD appears, and the Blur adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

- 3 Specify the brush stroke settings using the controls in the Blur Brush HUD.

For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment on the area of the image where you want to soften or obscure detail.

### Modify the Blur adjustment after it has been applied to an image

- 1 Select a photo with the Blur adjustment applied to it.
- 2 In the Blur area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Amount parameter controls to modify the strength of the adjustment.



## Brush the Sharpen adjustment on an image


You use the Sharpen Quick Brush adjustment to fine-tune details in a specific area of an image.



Before Sharpen adjustment

After Sharpen adjustment

### Selectively sharpen an image

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Sharpen from the Add Adjustment pop-up menu.
  - In the tool strip, choose Sharpen from the Quick Brush pop-up menu .

The Sharpen Brush HUD appears, and the Sharpen adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

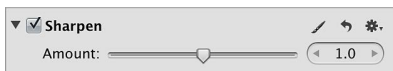
- 3 Specify the brush stroke settings using the controls in the Sharpen Brush HUD.

For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment on the area of the image that you want to sharpen.

### Modify the Sharpen adjustment after it has been applied to an image


- 1 Select a photo with the Sharpen adjustment applied to it.
- 2 In the Sharpen area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, use the Amount parameter controls to modify the strength of the adjustment.



## Brush the Halo Reduction adjustment on an image

You use the Halo Reduction Quick Brush adjustment to remove the blue and purple fringes that are occasionally produced with certain lenses when an image is overexposed.

### Selectively blue and purple fringing in an image

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Halo Reduction from the Add Adjustment pop-up menu.
  - In the tool strip, choose Halo Reduction from the Quick Brush pop-up menu .

The Halo Reduction Brush HUD appears, and the Halo Reduction adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

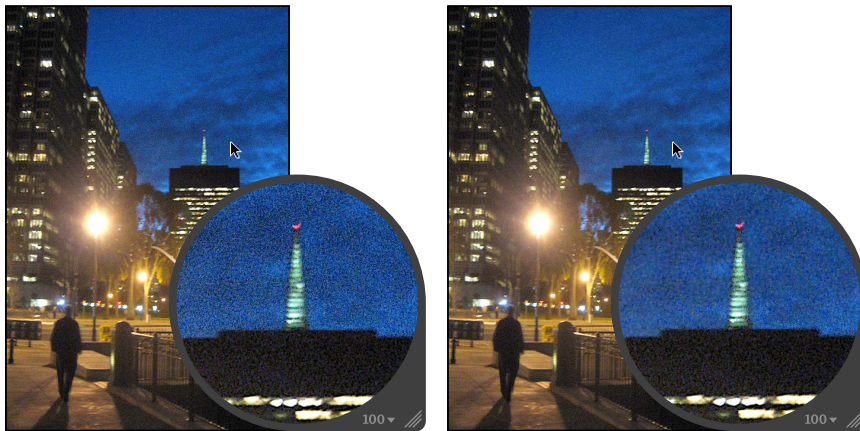
- 3 Specify the brush stroke settings using the controls in the Halo Reduction Brush HUD.

For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment on the area of the image where you want to remove the halo effect.

## Brush the Noise Reduction adjustment on an image


You use the Noise Reduction Quick Brush adjustment to remove digital noise in a specific area of an image.



Before Noise Reduction adjustment

After Noise Reduction adjustment

### Selectively reduce noise in an image

- 1 Select a photo.
- 2 Do one of the following:
  - In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Quick Brushes > Noise Reduction from the Add Adjustment pop-up menu.
  - In the tool strip, choose Noise Reduction from the Quick Brush pop-up menu .

The Noise Reduction Brush HUD appears, and the Noise Reduction adjustment controls appear in the Adjustments inspector and the Adjustments pane of the Inspector HUD, if both are shown.

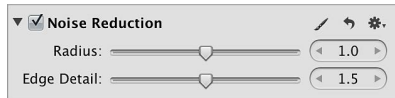
- 3 Specify the brush stroke settings using the controls in the Noise Reduction Brush HUD.

For more information, see [Apply Quick Brush adjustments](#) on page 231 and [Work with brush strokes](#) on page 232.

- 4 Brush the adjustment on the area of the image where you want to reduce the digital noise.

### Modify the Noise Reduction adjustment after it has been applied to an image

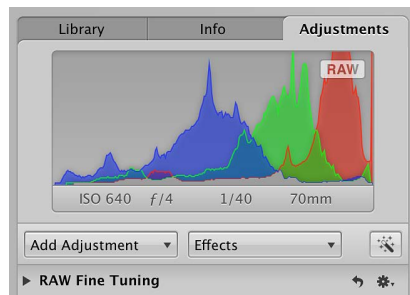
- 1 Select a photo with the Noise Reduction adjustment applied to it.
- 2 In the Noise Reduction area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, adjust the following settings:
  - To specify the area over which the Noise Reduction adjustment is applied: Use the Radius parameter controls.
  - To specify the amount of edge detail to preserve in areas of high contrast: Use the Edge Detail parameter controls.



## Create and apply effects

If you frequently use the same adjustment parameter settings, you can save the settings as an effect. For example, you can create an effect that converts a color image to black and white. You can create effects for individual adjustments or for a set of multiple adjustments.

When you create an effect, it appears in the Effects pop-up menu in the Adjustments inspector and the Adjustments pane of the Inspector HUD. New effects appear at the bottom of the Effects pop-up menu. As this list grows, it can become difficult to locate a specific effect in a long list of effects. You can rearrange the order of the effects to make them easier to find.



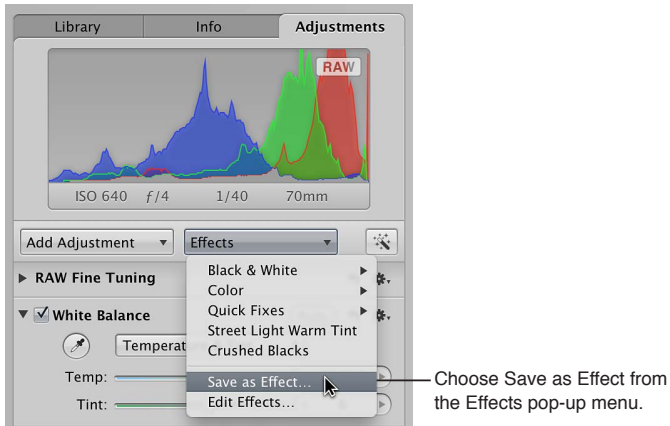
You can also organize effects of like type by grouping them into effect groups, and you can export effects to use them on another Aperture system.

**Important:** In previous versions of Aperture, effects (formerly known as *adjustment presets*) for single adjustments were accessible via the Preset Action pop-up menu for each adjustment. Presets were created and stored in the preset dialog for that adjustment. If you created and saved adjustment presets in a previous version of Aperture, the adjustment presets now appear as effects in the Effects pop-up menu at the top of the Adjustments inspector or the Adjustments pane of the Inspector HUD. If you want to remove adjustment presets created in previous versions of Aperture, see "Modify effects," below.

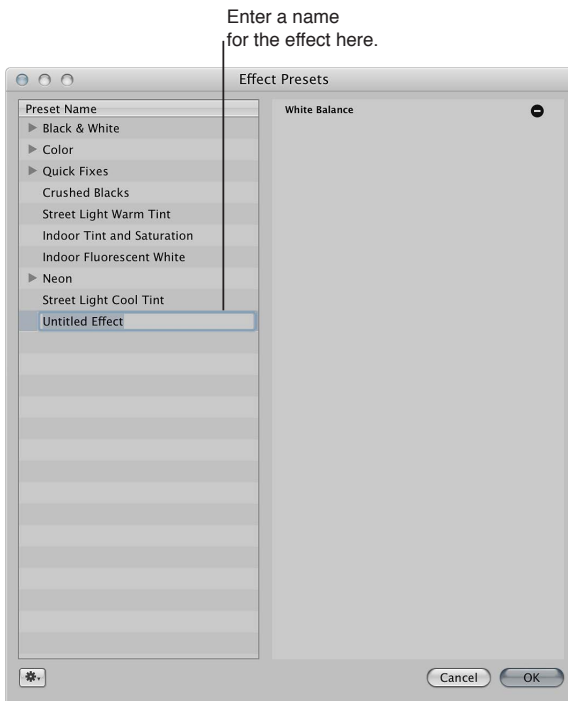


## Create an effect

- 1 Select a photo with the adjustment parameter settings you want to save.
- 2 At the top of the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Save as Effect from the Effects pop-up menu.



- 3 In the Effect Presets dialog, enter a name for the new effect, and click OK.



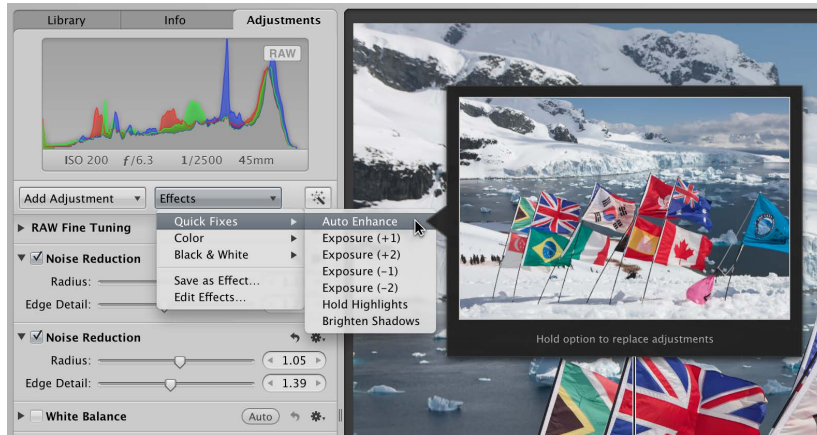
The adjustment parameter settings are saved as an effect, and the new effect is now available for use in the Effects pop-up menu in the Adjustments inspector or the Adjustments pane of the Inspector HUD.

## Apply an effect to an image

When you apply an effect to an image, the adjustment controls and parameter values update to reflect the settings saved in the effect. If you prefer, you can use an effect as a starting point in your image adjustment workflow and then fine-tune the effect after it's applied to the image.

- 1 Select a photo.
- 2 In the Adjustments inspector or the Adjustments pane of the Inspector HUD, do one of the following:
  - *To apply an effect in addition to any previously applied adjustments:* Choose the effect you want to apply to the image from the Effects pop-up menu.

**Note:** When you place the pointer over an effect in the Effects pop-up menu, a preview of the adjustment applied to the image appears to the right of the highlighted effect.

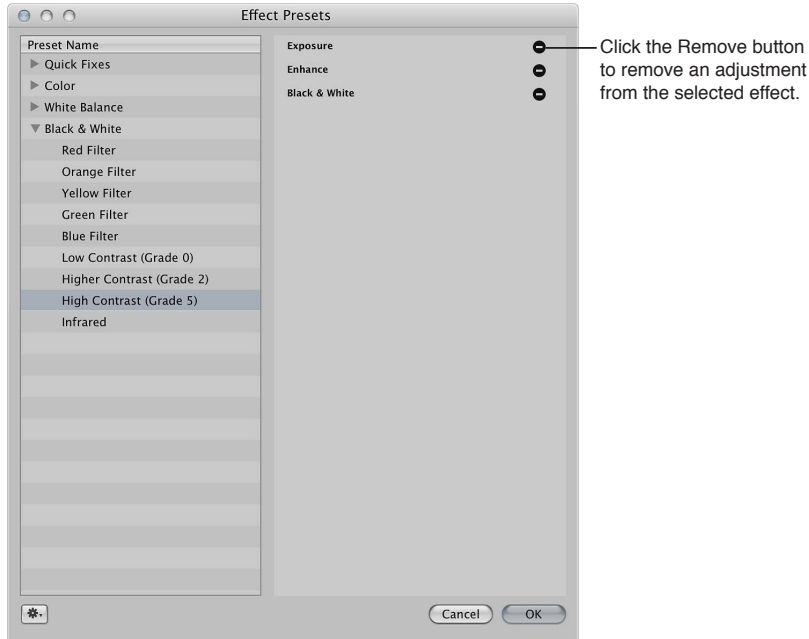


Place the pointer over an effect to preview its effect on the photo.

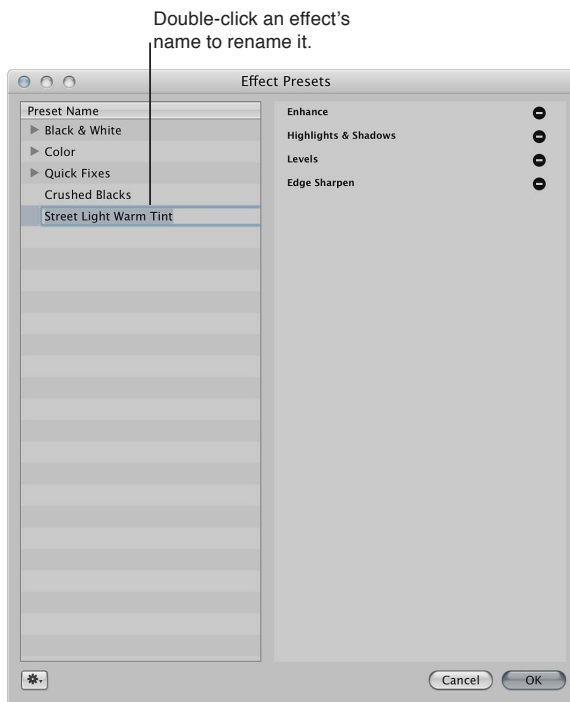
- *To replace any previously applied adjustments with an effect:* Hold down the Option key while choosing the effect from the Effects pop-up menu.

## Modify effects

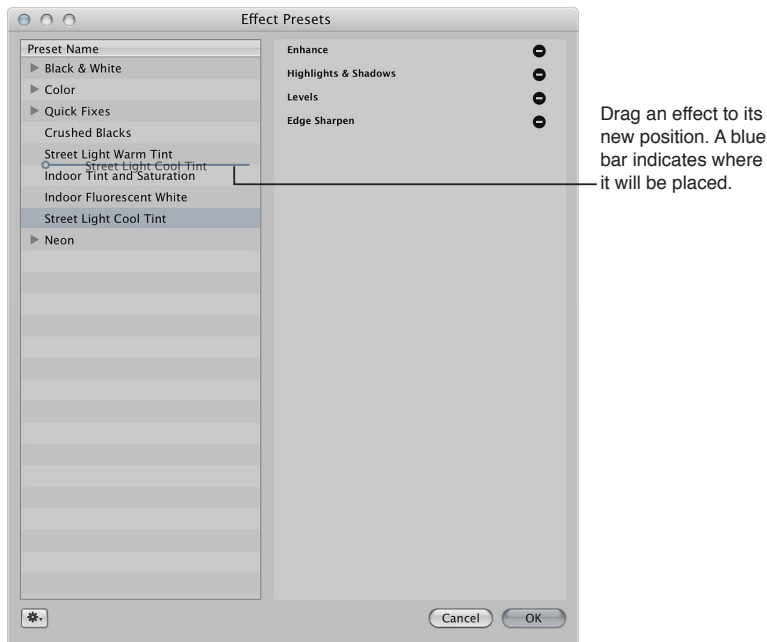
- 1 In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Edit Effects from the Effects pop-up menu.
- 2 In the Effect Presets dialog, do any of the following:
  - *To remove an adjustment from an effect:* Select the effect you want to modify, click the Remove button (–) beside each adjustment you want removed from the selected effect, and click OK.




- *To rename an effect:* Double-click the name of the effect you want to change, enter a new name, and press Return.



- *To reorder effects:* Drag the effects into the order you want, and click OK.  
When you drag an effect, a blue bar indicates where the effect will be placed.

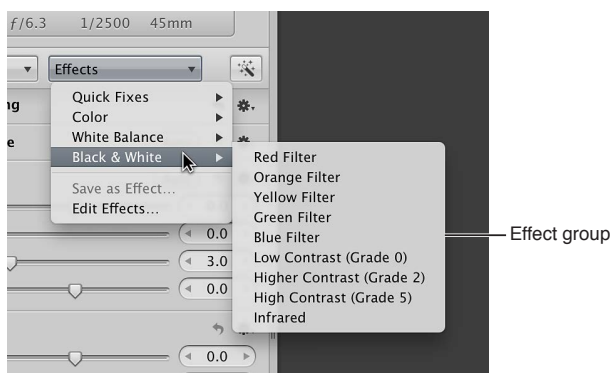



The effects list in the Effects pop-up menu is updated to match the order of effects in the Effect Presets dialog.

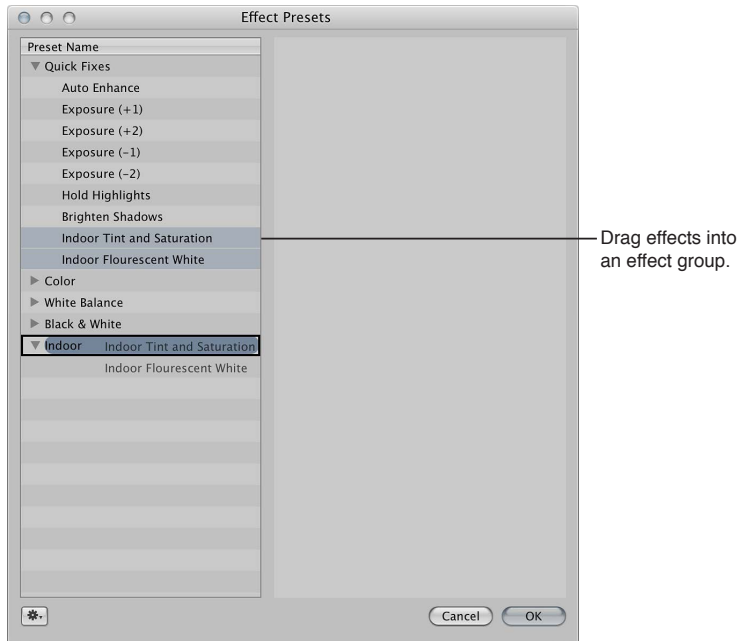
- *To delete an effect:* Select the effect you want to delete, and press the Delete key.  
You can also choose Delete Preset from the Effect Action pop-up menu  and click Delete in the dialog that appears.  
When you delete an effect, any adjustments that were applied to images using the effect remain applied.
- *To restore the default effects that came with Aperture:* Choose Reset All to Factory Settings from the Effect Action pop-up menu.

### Create an effect group

Creating effect groups helps reduce the list of effects that are initially displayed in the Effects pop-up menu. For example, if you have several types of Color adjustment settings saved as individual effects, you can create an effect group for Color effects, named Color. When you choose Color from the Effects pop-up menu, the individual Color effects are displayed in a submenu to the right.




- 1 In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Edit Effects from the Effects pop-up menu.
- 2 In the Effect Presets dialog, choose New Preset Group from the Effect Action pop-up menu .
- 3 Give the new effect group a name and press Return.
- 4 Drag effects into the effect group.



The effects are consolidated into the effect group and can be accessed by clicking the disclosure triangle to the left of the effect group's name.

- 5 Click OK.

### Share your effects with another Aperture system

- 1 On the first Aperture system, choose Edit Effects from the Effects pop-up menu at the top of the Adjustments inspector or the Adjustments pane of the Inspector HUD.
- 2 In the Effect Presets dialog, select the effect you want to share.  
**Note:** To share more than one effect, you have to create an effect group and then select the group. For more information, see "Create an effect group," above.
- 3 Choose Export from the Effect Action pop-up menu .

- 4 In the dialog that appears, enter an effect name in the Save As field, choose a location for the exported effect, and click Export.

The effect is exported to the location you chose as `[name].AdjustmentPresets`. It's a good idea to export the effect to a location the other Aperture system can access. Effect files are small and can be easily sent to another Aperture system via email.

- 5 On the second Aperture system, navigate to the location of the effect file, Control-click it, and choose Open With > Aperture from the shortcut menu.

The effect is transferred to the second Aperture system and appears in the Effects pop-up menu.

## Adjust how Aperture decodes RAW images

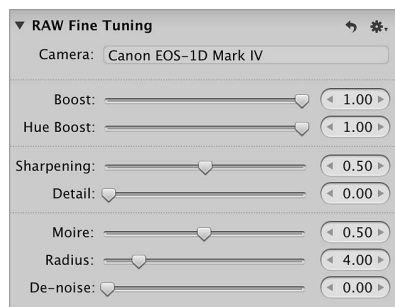
### RAW Fine Tuning controls overview

You can modify how OS X decodes RAW files using the adjustment controls in the RAW Fine Tuning area of the Adjustments inspector or the Adjustments pane of the Inspector HUD. OS X characterizes the RAW file format for each digital camera supported by Aperture. This calibration data usually results in the optimal decoding of the RAW image files for a particular camera. However, certain types of images may require adjustments to how OS X decodes the RAW image file.

The RAW Fine Tuning controls include the following parameters:

- *Boost*: Use the Boost and Hue Boost sliders and value sliders to control image contrast. For more information, see [Use the Boost controls](#) on page 335.
- *Sharpening*: Use the Sharpening and Edges sliders and value sliders to fine-tune the amount of sharpening you want applied to images during the RAW decoding process. For more information, see [Use the Sharpening controls](#) on page 335.
- *Moire*: Use the Moire and Radius sliders and value sliders to correct color fringing in high-contrast edges and the moire pattern effect found in images with subjects whose linear patterns introduce the effect, such as a brick wall or a picket fence.

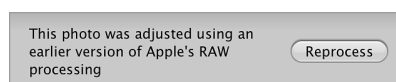
For more information, see [Use the Moire controls](#) on page 336.



**Note:** Some controls in the RAW Fine Tuning area of the Adjustments inspector and the Adjustments pane of the Inspector HUD appear dimmed if these settings aren't available for use with images derived from a particular RAW file format. Some camera models can create multiple types of RAW file formats, and different controls may be available for each of these RAW file formats.

Using these controls, you can fine-tune your RAW decoding settings on an image-by-image basis. Aperture also enables you to save your customized RAW decoding settings as effects or as the default settings always used with a specific camera, so that you can easily apply them to newly imported images. For more information, see [Set the camera default](#) on page 338.

If the RAW Fine Tuning controls don't appear, the selected photo is from a previous version of Aperture. You must first reprocess the image using the most current RAW image processing. For more information, see [Reprocess photos from earlier versions of Aperture](#) on page 49. If you do not see the Reprocess button, the image may not be a RAW photo.



## Use the Boost controls

OS X characterizes each digital camera's RAW file format to determine an optimal contrast setting. The Boost controls allow you to set the strength of the contrast when the RAW file is decoded. The Hue Boost controls are used to maintain the hues in the image as the contrast is increased using the Boost controls. When the Hue Boost parameter is set to 1.00 and the Boost parameter is set to 1.00, the hues of the primary and secondary colors are pinned to their pure color values, resulting in a shift of all the hues in the image.

For images that consist of saturated primary and secondary colors, such as an image of flowers in a lush garden, shifting the hues to their true values has a desirable visual effect. However, this is not visually desirable for images containing skin tones. Shifting the hues most often causes the skin to appear yellow. Setting the Hue Boost parameter to 0.00 increases the color contrast in the image while preserving the original hues in the image.

### Adjust contrast applied during RAW decoding

- 1 Select a RAW photo.

**Note:** If the RAW Fine Tuning controls don't appear in the Adjustments inspector or the Adjustments pane of the Inspector HUD, the selected image is from a previous version of Aperture. You must first reprocess the image using the most current RAW image processing. For more information, see [Reprocess photos from earlier versions of Aperture](#) on page 49.

- 2 In the Adjustments inspector or the Adjustments pane of the Inspector HUD, adjust the Boost parameter using the Boost slider and value slider.



A value of 0.00 applies no contrast adjustment to the image during the RAW decoding process. A value greater than 0.00 increases the contrast adjustment. A value of 1.00 applies the full Apple-recommended contrast adjustment for the specific camera model.

- 3 Adjust the Hue Boost parameter using the Hue Boost slider and value slider.



A value of 0.00 preserves the original hues in the image in relation to the Boost adjustment (color contrast) during the RAW decoding process. A value greater than 0.00 increases the hue adjustment. A value of 1.00 applies the full Apple-recommended hue adjustment for the specific camera model.

## Use the Sharpening controls

You can adjust sharpening during the RAW decoding process by using the RAW Fine Tuning Sharpening controls in the Adjustments inspector or the Adjustments pane of the Inspector HUD.

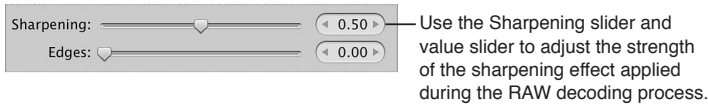
**Note:** The effect of sharpening an image or group of images using the RAW Fine Tuning adjustment is very subtle. More sharpening effects can be obtained using the Edge Sharpen adjustment. For more information, see [Sharpen an image](#) on page 311.

## Adjust sharpening applied during RAW decoding

- 1 Select a RAW photo.

**Note:** If the RAW Fine Tuning controls don't appear in the Adjustments inspector or the Adjustments pane of the Inspector HUD, the selected image is from a previous version of Aperture. You must first reprocess the image using the most current RAW image processing. For more information, see [Reprocess photos from earlier versions of Aperture](#) on page 49.

- 2 Adjust the strength of the sharpening effect using the Sharpening slider and value slider.



A value of 0.00 applies no sharpening effect to the image during the RAW decoding process. A value greater than 0.00 increases the sharpening effect.

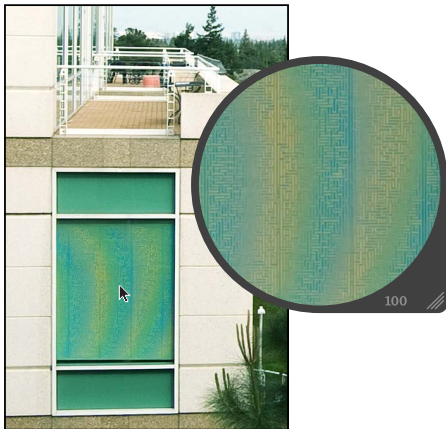
- 3 Adjust how the sharpening effect is applied to edges using the Edges slider and value slider.



A value greater than 0.00 intensifies the sharpening effect on hard edges.

## Use the Moire controls

Digital images often have color artifacts that appear around edges and lines because of noise created by digital image sensors. Images whose subjects have linear patterns often introduce a moire pattern that gives the subject a wrinkled or rainbow-colored appearance. In addition, cameras with image sensors employing Bayer patterns often introduce noise into monochromatic images. The Moire adjustment controls in the RAW Fine Tuning area of the Adjustments inspector or the Adjustments pane of the Inspector HUD identify these patterns and correct these artifacts.



Because many digital cameras have weak anti-aliasing filters, the Moire and Radius parameters are specifically used to correct aliasing in an image caused by edges with high color contrast. Weak anti-aliasing filters tend to curve edges, skewing the colors in the process. During the RAW decoding process, OS X scans for high-frequency information in the RAW file, looking for blended colors, and then replaces the blended colors with the edge colors that originally existed in the scene. The Moire parameter adjusts the amount of signal to apply the adjustment to. The Radius parameter adjusts the pixel area (visual threshold) the adjustment is applied to.

**Note:** The Moire controls replace the Chroma Blur controls found in previous versions of Aperture.

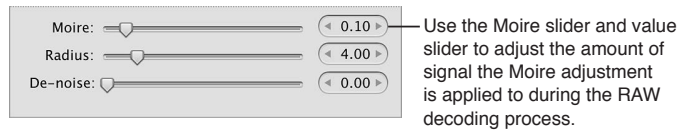


## Adjust moire reduction during RAW decoding

- 1 Select a RAW photo.

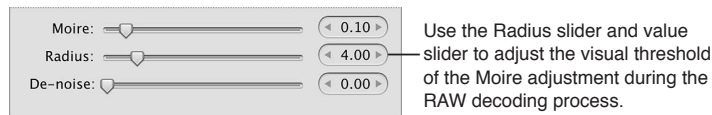
**Note:** If the RAW Fine Tuning controls don't appear in the Adjustments inspector or the Adjustments pane of the Inspector HUD, the selected image is from a previous version of Aperture. You must first reprocess the image using the most current RAW image processing. For more information, see [Reprocess photos from earlier versions of Aperture](#) on page 49.

- 2 Adjust the amount of signal to apply the Moire adjustment to using the Moire slider and value slider.



A value of 0.00 applies no moire correction during the RAW decoding process. A value greater than 0.00 applies moire correction during the RAW decoding process.

- 3 Adjust the pixel area (visual threshold) the Moire adjustment is applied to using the Radius slider and value slider.



- 4 If supported by the camera, reduce digital noise in the image using the De-noise slider and value slider.

A value greater than 0.00 reduces noise in the image.

## Use the De-noise control

You use the De-noise adjustment control when you need to reduce digital noise in a RAW image. When you reduce noise in an image, you often have to sharpen the image to prevent blurry edges or loss of detail. To sharpen the image, use the Edges slider in the RAW Fine Tuning adjustment.

**Note:** You can also use the Noise Reduction adjustment when you need to reduce digital noise in an image. For more information, see [Sharpen an image](#) on page 311.

## Reduce noise during RAW decoding

- 1 Select a RAW photo.

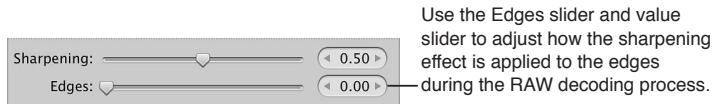
**Note:** If the RAW Fine Tuning controls don't appear in the Adjustments inspector or the Adjustments pane of the Inspector HUD, the selected image is from a previous version of Aperture. You must first reprocess the image using the most current RAW image processing. For more information, see [Reprocess photos from earlier versions of Aperture](#) on page 49.

- 2 Adjust the amount of noise reduction using the De-noise slider and value slider.



A value greater than 0.00 reduces noise in the image.

- 3 Adjust how the noise reduction is applied to edges using the Edges slider and value slider.



A value greater than 0.00 intensifies the sharpening effect on hard edges.

## Work with DNG files

In Aperture, you can adjust how OS X decodes RAW images in the DNG format. If the digital camera that captured a photo is supported by Aperture, the calibration data for that camera is used to decode the RAW file in the same manner as if it were decoded from the RAW file format itself. If the DNG file is from an unsupported camera, Aperture uses the camera information stored in the DNG file to decode the image.

### Adjust the RAW Fine Tuning parameters of a DNG file

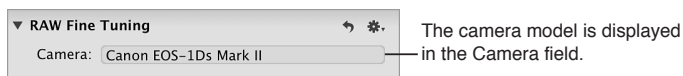
- 1 Select a DNG file imported with or reprocessed using Aperture 3 image processing.

**Note:** If the RAW Fine Tuning controls don't appear in the Adjustments inspector or the Adjustments pane of the Inspector HUD, the selected image is from a previous version of Aperture. You must first reprocess the image using Aperture 3 image processing. For more information, see [Reprocess photos from earlier versions of Aperture](#) on page 49.


- 2 Adjust the RAW Fine Tuning parameters as necessary for the image.

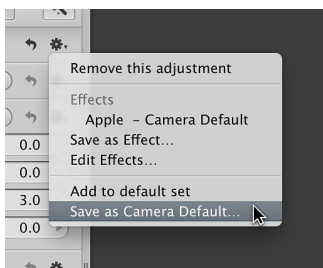
### Set the camera default

When you've modified the RAW decoding settings using the controls in the RAW Fine Tuning area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, you can save these settings as the default parameter values for the camera model. All RAW image files from this camera model that are imported into Aperture are decoded using these saved settings.



### Save the camera default settings

- 1 In the RAW Fine Tuning area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Save as Camera Default from the Action pop-up menu  for the RAW Fine Tuning adjustment.




- 2 In the RAW Fine Tuning Adjustment Presets dialog, enter a name for the preset and click OK.

The Action pop-up menu for the RAW Fine Tuning adjustment displays the preset's name with a checkmark next to it.


### Clear the camera default settings

To remove a RAW Fine Tuning adjustment preset from the list of camera default settings, you have to delete it.

- 1 In the RAW Fine Tuning area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Apple from the Action pop-up menu  to make it the camera default setting, and then choose Edit Effects from the Action pop-up menu.
- 2 In the RAW Fine Tuning Adjustment Presets dialog, select the RAW Fine Tuning preset you want to remove, and press the Delete key.
- 3 In the dialog that appears, click the Delete Adjustment Presets button.

The adjustment preset is removed from the RAW Fine Tuning Adjustment Presets dialog, and the adjustment preset no longer appears in the RAW Fine Tuning Action pop-up menu.

### Use the Apple-recommended camera default settings


- In the RAW Fine Tuning area of the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Apple from the Action pop-up menu .

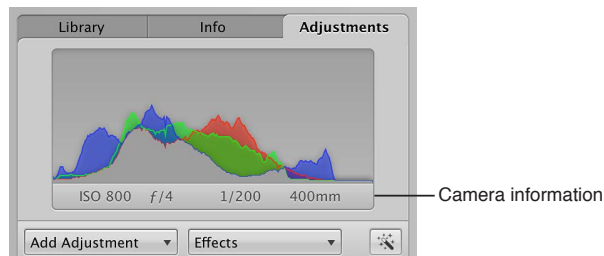
A checkmark appears next to Apple in the Action pop-up menu.

## Sample color values and display camera information


Aperture provides a built-in Color meter you can use to sample the color values in an image and display them as RGB, Lab, CMYK, HSL, or HSB values. When you place the pointer over a photo or thumbnail, the color values are displayed in the Adjustments inspector or the Adjustments pane of the Inspector HUD. You can also use the Loupe for a more accurate pixel selection and see the color values displayed within the magnified area of the Loupe. When the pointer is moved away from the photo, the color values are replaced by basic EXIF metadata values for the image, such as ISO setting, f-stop, shutter speed, and focal length.

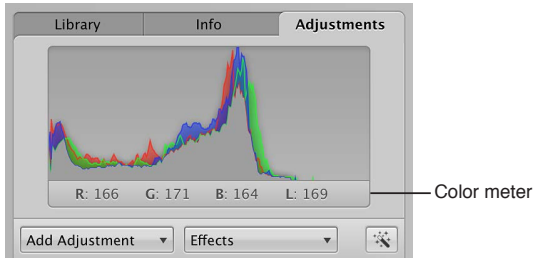
### Display camera and color information

- In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Show Camera/Color Info from the Adjustment Action pop-up menu .



### Use the pointer to sample the color values in an image

- 1 In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose Show Camera/Color Info from the Adjustment Action pop-up menu .
- 2 Place the pointer over the area of the image where you want to sample the color values, and view the values at the top of the Adjustments inspector or the Adjustments pane of the Inspector HUD.




### Use the Loupe to sample color values in an image

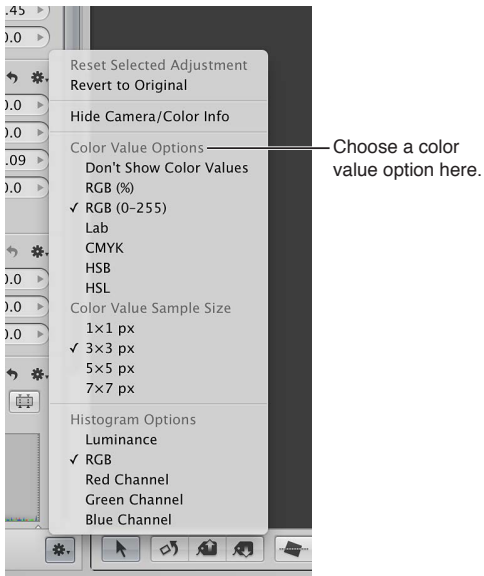
- 1 Click the Loupe button in the toolbar, or press the Grave Accent (`) key.
- 2 Choose View > Loupe Options > Show Color Value in Loupe, or press Option-Shift-Tilde (~).
- 3 Place the target area of the Loupe over the area of the image where you want to sample the color values.

The color values appear in the magnified area of the Loupe.




### Choose a color value option for the Color meter

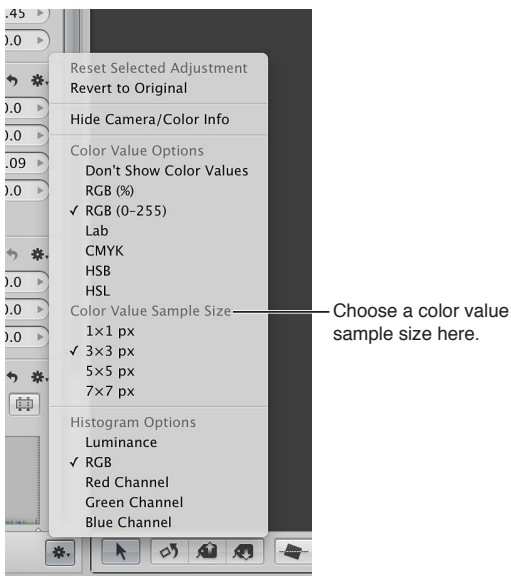
- In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose a color value option from the Adjustment Action pop-up menu .



### Choose a color value sample size for the Color meter

You can set the sample size (pixel area) Aperture uses to determine color values.

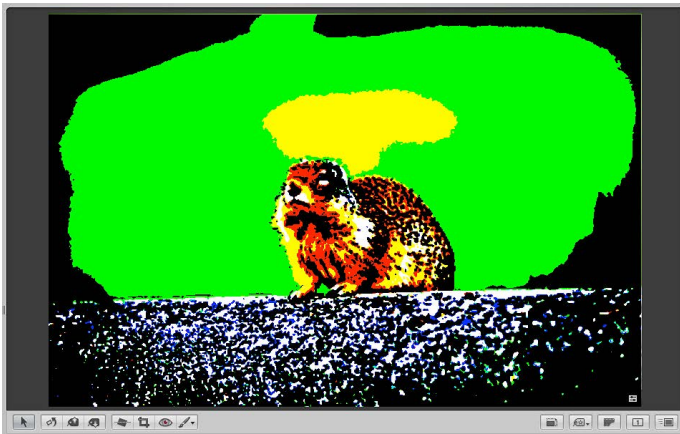
- In the Adjustments inspector or the Adjustments pane of the Inspector HUD, choose an appropriate color value sample size from the Adjustment Action pop-up menu .



## Use modifier keys to identify color clipping

When performing adjustments, it's useful to know if you're clipping one or more color channels and thereby losing important image details. In Aperture, you can use modifier keys to get instant feedback on channel clipping when using controls in the Exposure and Levels adjustments. Color overlays appear on the image when you press the Command key and drag the sliders to indicate that any, all, or a combination of color channels have been clipped.

The color of the color channel clipping overlay indicates which color channel or combination of color channels are clipped. In addition, Aperture gives you the option of choosing color or monochromatic overlays to indicate clipping.



### Identify color channel clipping

- Press Command while dragging the following sliders:
  - *Exposure slider (Exposure controls)*: Shows highlight clipping.
  - *Recovery slider (Exposure controls)*: Shows highlight clipping.
  - *Black Point slider (Exposure controls)*: Shows shadow clipping.
  - *Black Levels slider (Levels controls)*: Shows shadow clipping.
  - *White Levels slider (Levels controls)*: Shows highlight clipping.

If one or more color channels are clipped as a result of adjusting one of the above parameters, colored overlays appear over the areas of the image where clipping is occurring. The color of the overlay indicates which color channel is clipped. Release the Command key, and the color overlays disappear.

**Note:** The color channel clipping overlays appear regardless of whether Highlight Hot & Cold Areas is turned on. For more information, see [Show hot and cold areas in your photos](#) on page 171.

### Set the color channel clipping overlays to color

- 1 Choose Aperture > Preferences, and click Advanced.
- 2 Choose Color from the Clipping Overlay pop-up menu.

The following table lists the color overlays and the corresponding color channels that have been clipped by the adjustment parameter setting.

Adjustments	Color clipping information
Exposure parameter (Exposure adjustment)	<ul style="list-style-type: none"> <li>• <i>Red</i>: Indicates highlight clipping in the red color channel.</li> <li>• <i>Green</i>: Indicates highlight clipping in the green color channel.</li> <li>• <i>Blue</i>: Indicates highlight clipping in the blue color channel.</li> <li>• <i>Yellow</i>: Indicates highlight clipping in the red and green color channels.</li> <li>• <i>Pink</i>: Indicates highlight clipping in the red and blue color channels.</li> <li>• <i>Cyan</i>: Indicates highlight clipping in the blue and green color channels.</li> <li>• <i>White</i>: Indicates highlight clipping in all three color channels.</li> <li>• <i>Black</i>: Indicates no highlight clipping in any color channel.</li> </ul>
Recovery parameter (Exposure adjustment)	
White Levels parameter (Levels adjustment)	
Black Point parameter (Exposure adjustment)	<ul style="list-style-type: none"> <li>• <i>Red</i>: Indicates shadow clipping in the red color channel.</li> <li>• <i>Green</i>: Indicates shadow clipping in the green color channel.</li> <li>• <i>Blue</i>: Indicates shadow clipping in the blue color channel.</li> <li>• <i>Yellow</i>: Indicates shadow clipping in the red and green color channels.</li> <li>• <i>Pink</i>: Indicates shadow clipping in the red and blue color channels.</li> <li>• <i>Cyan</i>: Indicates shadow clipping in the blue and green color channels.</li> <li>• <i>White</i>: Indicates no shadow clipping in any color channel.</li> <li>• <i>Black</i>: Indicates shadow clipping in all three color channels.</li> </ul>
Black Levels parameter (Levels adjustment)	

### Set the color channel clipping overlays to monochrome

- 1 Choose Aperture > Preferences, and click Advanced.
- 2 Choose Monochrome from the Clipping Overlay pop-up menu.

The following table lists the monochrome overlays and the corresponding color channels that have been clipped by the adjustment parameter setting.

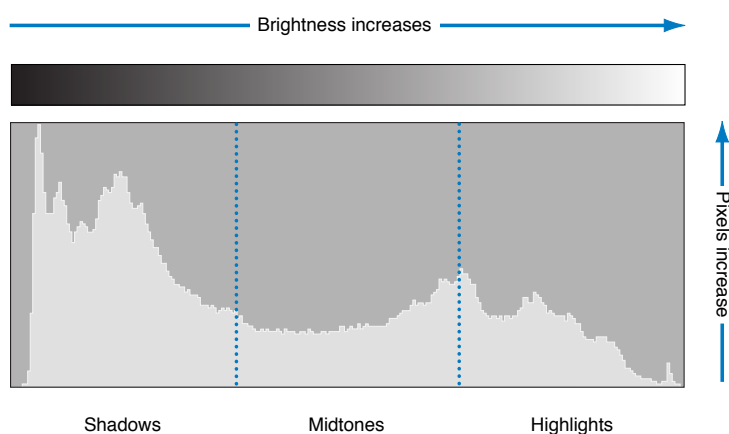
Adjustments	Color clipping information
Exposure parameter (Exposure adjustment)	<ul style="list-style-type: none"> <li>• <i>White</i>: Indicates highlight clipping in all color channels.</li> <li>• <i>66% gray</i>: Indicates highlight clipping in two color channels.</li> <li>• <i>33% gray</i>: Indicates highlight clipping in one color channel.</li> <li>• <i>Black</i>: Indicates no highlight clipping in any color channel.</li> </ul>
Recovery parameter (Exposure adjustment)	
White Levels parameter (Levels adjustment)	

Adjustments	Color clipping information
Black Point parameter (Exposure adjustment)	<ul style="list-style-type: none"> <li>• <i>White</i>: Indicates no shadow clipping in any color channel.</li> </ul>
Black Levels parameter (Levels adjustment)	<ul style="list-style-type: none"> <li>• <i>66% gray</i>: Indicates shadow clipping in one color channel.</li> <li>• <i>33% gray</i>: Indicates shadow clipping in two color channels.</li> <li>• <i>Black</i>: Indicates shadow clipping in all three color channels.</li> </ul>

## Understanding how to read histograms

### Histograms overview

The histogram is a graph that displays relative brightness in an image, from pure black to pure white. The area under the graph represents all the pixels in the image. From left to right, the histogram describes the range of dark pixels (shadows), gray pixels (midtone), and bright pixels (highlights) in the image. The shape of the histogram graph depends on the tonality of the scene and the exposure.



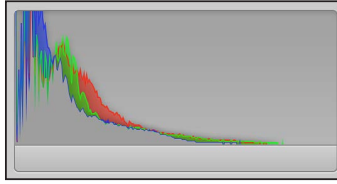
A histogram can also be used as a tool to evaluate whether there's enough shadow, midtone, and highlight information in the image. Aperture provides three histograms in the Adjustments inspector and the Adjustments pane of the Inspector HUD:

- The histogram above the adjustment controls indicates the current state of the image.
- The Levels histogram included with the Levels adjustment controls provides a way to adjust the brightness values in the image in relation to the displayed histogram. You use the Levels controls to adjust the shadow, dark quarter-tone, midtone, light quarter-tone, and highlight values independently of one another without affecting the other areas of the image.  
For information about performing a Levels adjustment, see [Adjust the levels of an image](#) on page 295.
- The Curves histogram included with the Curves adjustment controls provides a way to adjust the tonal values in the image in relation to the displayed histogram. You use the Curves controls to adjust the full range of tonal values independently of one another without affecting the other areas of the image.  
For information about performing a Curves adjustment, see [Adjust the tonal curve of an image](#) on page 282.

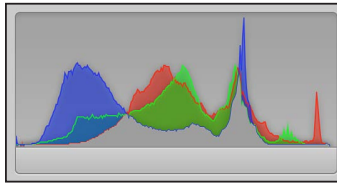


## About evaluating exposure

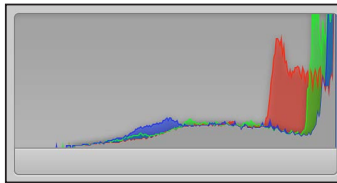
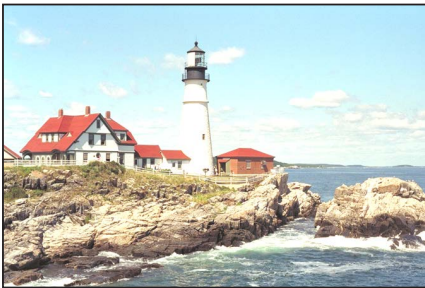
Histograms are good tools for evaluating exposure. For example, a series of peaks in the darker side of the histogram often indicates an underexposed image that consists mainly of dark pixels.



A series of peaks in the center of the histogram often indicates a balanced exposure because a majority of the pixels are concentrated within the midtones of the histogram. They're not too dark or too bright.

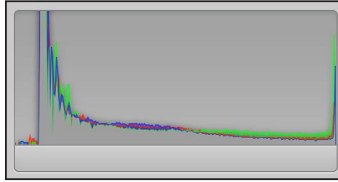


However, a series of peaks in the brighter side of the histogram often indicates an overexposed image because most of the pixels in the image are too bright.

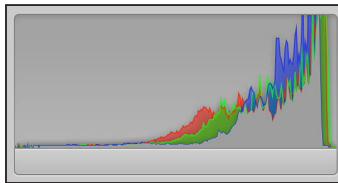


## About evaluating tonality and contrast

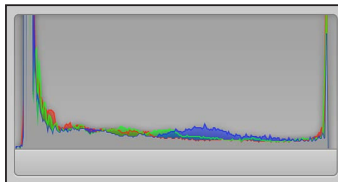
Although histogram graphs are good tools for evaluating an image's exposure, you shouldn't interpret histograms for exposure information only, because the shape of the histogram is also influenced by the tonality in the scene. You need to take the subject of the image into account when evaluating its histogram. For example, images shot at night naturally have a majority of peaks in the darker side of the histogram.



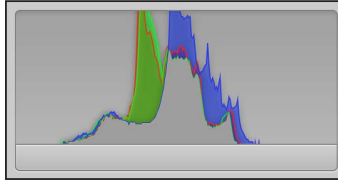
Likewise, images of bright scenes, such as snow or light reflecting off the ocean, have a majority of their peaks in the brighter side of the histogram.



Histograms can also depict contrast in an image. For example, this silhouette of the man in the hammock in front of the sunset consists of a relatively even assortment of extreme bright and dark tonal values with few midtones. In this case, the histogram is shaped like a valley with peaks in both the dark and bright sides.



Likewise, histograms can depict a lack of contrast in an image. For example, an image of a rainbow in the fog lacks contrast. Without directional lighting, there aren't any highlights or shadows in the image. In this case, the peaks of the histogram are concentrated in the center and don't come close to either the dark or bright side.



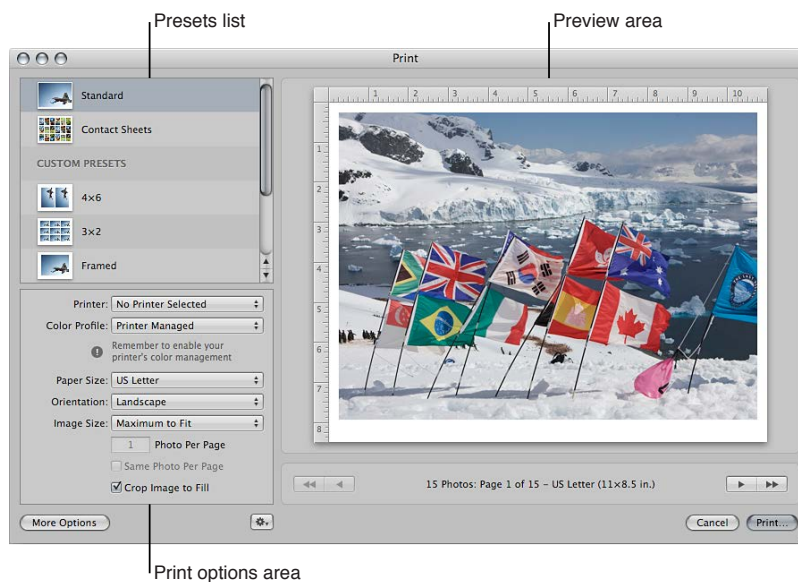
# Print photos

# 8

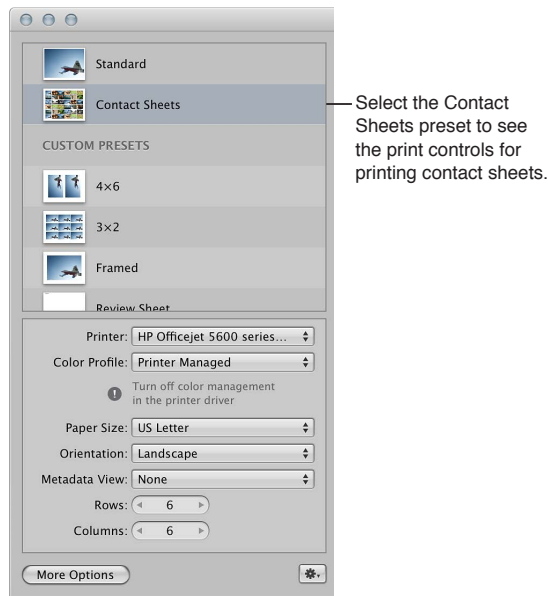
## Printing overview

You can use Aperture to print single photos, contact sheets, webpages, books, and photos selected in the Light Table, as well as create PDF files that you can send others for review. Aperture also offers a variety of printing options, including using a standard, roll, or custom paper size and assigning a specific ColorSync profile.

The easiest way to print photos is to use one of the Aperture print presets in the Print dialog. Print presets are groups of commonly used print settings that allow you to print your photos without having to select multiple print options individually. If the preconfigured presets don't meet your needs, you can create your own. For example, if you regularly print both 8-by-10-inch and 11-by-14-inch photographs, you can create a print preset for each of those paper sizes. You can also create print presets to match the print characteristics of different printers.



When you select a print preset, the print options area changes to show the print controls available for that preset. For example, when you choose the Contact Sheets preset, the print options show print controls for setting up a contact sheet.



If additional print controls are available, a More Options button appears under the print options area.

You can create new print presets, modify existing print presets, and delete print presets you no longer use. When changing your print presets, remember that modifying an existing preset changes its original settings; creating a new preset, on the other hand, allows you to preserve the settings in the existing preset. For more information about working with print presets, see [Create and modify print presets](#) on page 356.

Before you print your photos, you can soft proof them onscreen using the onscreen proofing feature. Profiles used for onscreen proofing are also applied to the photo when printed. For more information, see [Set up the Viewer for onscreen proofing](#) on page 172.

Here are a few suggestions to help you with the printing process:

- *Use the highest-resolution image possible:* It's preferable to work with photos imported directly from your digital camera. However, even photos imported directly from your camera or card reader can be low-resolution, low-quality images. This is why it's important to shoot with the highest-resolution settings available on your camera. Compression settings applied during image capture may be apparent when you print. Consider shooting RAW files if the setting is available, and shoot at the highest bit depth possible.

If you've imported a photo that was reduced or compressed in another application, Aperture cannot increase the resolution of the file. If possible, locate the original full-resolution image file, use the Lift and Stamp tools to apply the adjustments you've made to the low-resolution file, and print the higher-resolution image file.

- *Use a printer that supports 16-bit printing:* If the photo you're printing is a high-resolution 16-bit file, using a printer that supports 16-bit printing results in smoother gradations.
- *Color calibrate your Aperture system:* It's important to calibrate your display and printer so that your printed photos look as much as possible like the photos you see on the computer screen.

## Print individual photos

To print photos, you begin by selecting the photo or photos you want to print in the Browser. You can print:

- Individual photos, one photo per page
- An individual photo multiple times on the same page

To print individual photos, choose the Standard preset or one of the presets in the Custom Presets area of the Print dialog. You then choose the Aperture print options you want and finally use the OS X print dialog to start printing.

### Print individual photos, one photo per page

- 1 In the Browser, select the photo or photos that you want to print.
- 2 Choose File > Print Image (or press Command-P).
- 3 In the Print dialog, select either the Standard preset or a preset in the Custom Presets area.
- 4 In the default print options area, specify the following settings:
  - Choose a printer from the Printer pop-up menu.
  - If necessary, choose a print profile from the Color Profile pop-up menu.  
**Note:** Printer Managed, the default setting, is the appropriate choice in most cases. If you are outputting to a specific device profile or if you have color calibrated your printer, you should choose an appropriate profile from this pop-up menu.
  - Choose a paper size from the available items in the Paper Size pop-up menu.
  - In the Orientation pop-up menu, choose whether you want the image printed in Landscape mode or Portrait mode.
  - Choose the size of the printed photo from the Image Size pop-up menu, by doing one of the following:
    - *To fit the image on the page in its original aspect ratio:* Choose Maximum to Fit. If you've chosen a borderless printing option, Aperture fits the entire photo on the page; margins appear on two sides of the photo where the dimensions don't match.
    - *To crop the image so that it fills the entire page:* Choose Maximum to Fit, and select the Crop Image to Fill checkbox below the Image Size pop-up menu. If you've chosen a borderless printing option, the photo covers the entire page; parts of the photo are cropped if the dimensions don't match.
    - *To use a standard print size:* Choose a standard dimension, such as 5 x 7, from the pop-up menu.
    - *To use a custom print size:* Choose Custom from the pop-up menu, then enter the dimensions in the Height and Width fields that appear below.
- 5 After you've verified that the settings in the Print dialog are correct, click Print.

The OS X Print dialog appears.

To print multiple copies of the selected photos, one copy per page, click the disclosure button to reveal additional print controls. Next, enter the number of copies that you want in the Copies field. For example, if you want two copies of each selected photo, enter 2.

- 6 Confirm that the settings in the OS X Print dialog are correct.

**Important:** Make sure the paper type matches the color profile selected in the Aperture Print dialog. If you chose Printer Managed, make sure to enable your printer's color management. For more information about enabling color management on your printer, see the documentation that came with your printer.

- 7 Click Print.

Each high-resolution photo is printed on a single sheet of paper.

#### **Print the same photo multiple times on a single sheet of paper**

You can print the same photo multiple times on the same sheet of paper. This option is useful for saving paper when the image size is small.

- 1 In the Browser, select the photo you want to print.

- 2 Choose File > Print Image (or press Command-P).

- 3 In the Print dialog, select either the Standard preset or a preset in Custom Presets.

- 4 In the default print options area, specify the following settings:

- Choose a printer from the Printer pop-up menu.
- If necessary, choose a print profile from the Color Profile pop-up menu.

**Note:** Printer Managed, the default setting, is the appropriate choice in most cases. If you are outputting to a specific device profile or if you have color calibrated your printer, you should choose an appropriate profile from this pop-up menu.

- Choose a paper size from the available items in the Paper Size pop-up menu.
- In the Orientation pop-up menu, choose whether you want the photo printed in Landscape mode or Portrait mode.
- Choose a standardized size, such as 2 x 3, for the printed photo from the Image Size pop-up menu. Pick a size that's small enough to fit multiple photos on the paper size chosen in the Paper Size pop-up menu.

The Photo Per Page and Same Photo Per Page controls below the Image Size pop-up menu become available.

- Enter the number of times you want the photo printed on the page in the Photos Per Page field, then select the Same Photo Per Page checkbox.

The Preview area updates to show multiple photos on the page.

- To have each photo to fill its allotted printable space, select the Crop Image to Fill checkbox.

- 5 If you want to modify the arrangement of the photos on the page, click the More Options button at the bottom of the Print dialog, then use the Layout and Margins controls to adjust the image spacing and page margins.

- 6 After you've verified that the settings in the Print dialog are correct, click Print.

The OS X Print dialog appears.

- 7 Confirm that the settings in the OS X Print dialog are correct.

**Important:** Make sure the paper type matches the color profile selected in the Aperture Print dialog. If you chose Printer Managed, make sure to enable your printer's color management. For more information about enabling color management on your printer, see the documentation that came with your printer.

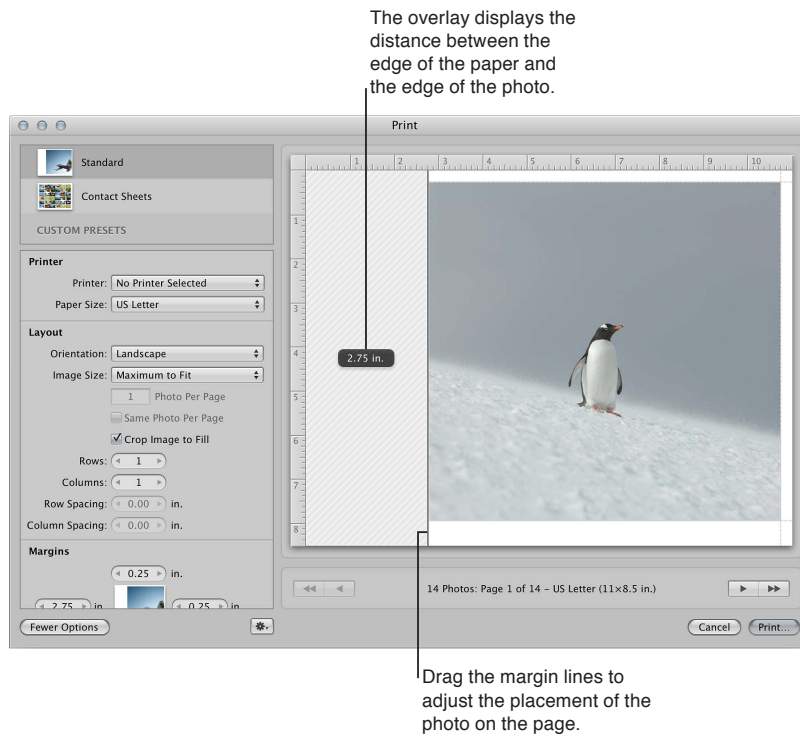
- 8 Click Print.

### Manually adjust the placement of a single photo on a page

You can adjust the layout and margins of your prints using the Layout and Margins controls, which are available when you click More Options in the Print dialog. You can also manually adjust the margins and spacing in the Preview area of the Print dialog. When printing a single photo with a border or dimensions smaller than the paper size, you can adjust the placement of the photo on the page by dragging the margin lines in the Preview area. If you selected the Crop Marks checkbox in the Metadata & Page Options section of the Print dialog, you can also adjust the crop lines to modify the margins and spacing of the photos on the page.

**Note:** The margin lines are not visible unless you place the pointer over the Preview area of the Print dialog.

- 1 In the Browser, select the photo you want to print.
- 2 Choose File > Print Images (or press Command-P).
- 3 In the Print dialog, choose a single photo print preset and a photo size that is smaller than the chosen paper size.
- 4 In the Preview area, drag the margin lines to adjust the placement of the photo on the page.



The distance between the edge of the paper and the edge of the photo is displayed in an overlay as you drag the margin line.

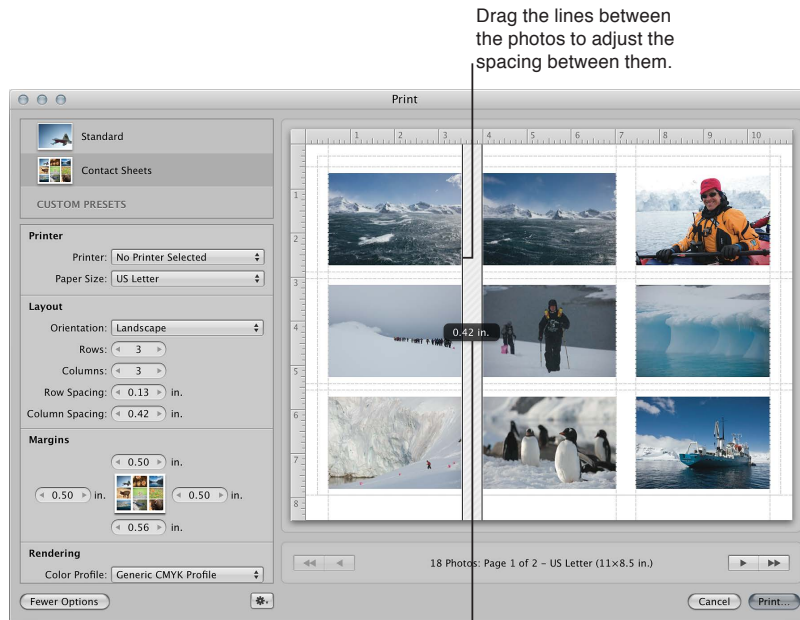
### Manually adjust the placement of multiple photos on a page

You can adjust the layout and margins of your prints using the Layout and Margins controls, which are available when you click More Options in the Print dialog. You can also manually adjust the margins and spacing in the Preview area of the Print dialog. When you are printing multiple photos on the same sheet of paper, you can adjust both the margins surrounding the photos and the spacing between the photos. If you selected the Crop Marks checkbox in the Metadata & Page Options section of the Print dialog, you can also adjust the crop lines to modify the margins and spacing of the photos on the page.



**Note:** The margin lines are not visible unless you place the pointer over the Preview area of the Print dialog.

- 1 In the Browser, select the photo or photos you want to print.
- 2 Choose File > Print Images (or press Command-P).
- 3 In the Print dialog, do one of the following:
  - Select a print preset that prints the same photo multiple times on the same sheet of paper.
  - Select a print preset for a contact sheet.
- 4 In the Preview area, do either or both of the following:
  - Drag the margin lines between the outer edges of the photos and the paper's edge.
  - Drag the lines between the photos to adjust the spacing between them.



The overlay displays the distance between the photos.

Dragging one vertical line adjusts the vertical spacing between all photos on the page equally; similarly, dragging one horizontal line adjusts the horizontal spacing between the photos in equal amounts.

## Print contact sheets

You can print contact sheets of your photos, and Aperture does all the layout work for you. All you have to do is specify the number of pages or columns; Aperture adjusts the size of the photos based on your layout and margin settings.

### Print a contact sheet or series of contact sheets

- 1 In the Browser, select the photos you want to print.
- 2 Choose File > Print Images (or press Command-P).
- 3 In the Print dialog, select either the Contact Sheets preset or the Review Sheet preset in the Custom Presets section.

- 4 In the print options area, specify the following settings:
  - Choose a printer from the Printer pop-up menu.
  - If necessary, choose a color profile from the Color Profile pop-up menu.

**Note:** Printer Managed, the default setting, is the appropriate choice in most cases. If you are outputting to a specific device profile or if you have color calibrated your printer, you should choose an appropriate profile from this pop-up menu.
  - Choose a paper size from the available items in the Paper Size pop-up menu.
  - In the Orientation pop-up menu, choose whether you want the contact sheet printed in Landscape mode or Portrait mode.
  - Choose a metadata view to display underneath each photo on the contact sheet.
  - Specify the number of rows and columns to set how many photos are printed on the page.

The Preview area updates to show the new print dimensions for each photo in the contact sheet. You can double-click a photo to adjust its scale within the image frame. You use the Image Scale HUD to zoom in to and out of the photo.
- 5 If you want to modify the arrangement of the photos on the page, click the More Options button at the bottom of the Print dialog, then use the Layout and Margins controls to adjust image spacing between the photos and add margins.

**Note:** The margin lines are not visible unless you place the pointer over the Preview area of the Print dialog.
- 6 To manually adjust the spacing margins, drag the row and column lines in the Preview area.
- 7 Confirm that the settings in the Print dialog are correct, then click Print.

The OS X Print dialog appears.
- 8 Confirm that the settings in the OS X Print dialog are correct.

**Important:** Make sure the paper type matches the color profile selected in the Aperture Print dialog. If you chose Printer Managed, make sure to enable your printer's color management. For more information about enabling color management on your printer, see the documentation that came with your printer.
- 9 Click Print.

Your contact sheet is printed.

## Print books

You can print a book to check its final format and appearance before handing it off to a professional printer, ordering a printed copy online, or distributing copies to others. You can also create a PDF file of a book to store an electronic copy for use at another time or to send to others.

For more information about creating and working with books, see [Creating books overview](#) on page 404.

### Print a book

- 1 Select a book album in the Library inspector.

The book appears in the Book Layout Editor.
- 2 Choose File > Print Book (or press Command-P).

The OS X Print dialog appears.
- 3 Verify that the settings in the OS X Print dialog are correct, then click Print.

Your book is printed.

### Create a PDF file of a book

- 1 In the Library inspector, select a book album.
- 2 Choose File > Print Book (or press Command-P).
- 3 In the Print dialog, choose Save as PDF from the PDF pop-up menu.

The Save dialog appears.

- 4 Enter a name for the PDF file in the Save As field, choose a location to save the file from the pop-up menu, then click Save.

## Print Light Table arrangements

You can print an arrangement of images in the Light Table. You can also create a PDF of your Light Table arrangement using the OS X Print dialog.

### Print a Light Table arrangement

- 1 Select a Light Table album in the Library inspector.

The Light Table appears above the Browser.

- 2 Do one of the following:

- *To print selected photos:* Select the photos you want to print in the Light Table.
- *To print the entire Light Table arrangement:* Deselect all photos in the Light Table by clicking the background.

- 3 Choose File > Print Light Table (or press Command-P).

The OS X Print dialog appears.

- 4 Verify that the settings in the OS X Print dialog are correct, then click Print.

Your Light Table arrangement is printed.

### Create a PDF file of a Light Table arrangement

- 1 Select a Light Table album in the Library inspector.

The Light Table appears above the Browser.

- 2 Do one of the following:

- *To print selected photos:* Select the photos you want to print in the Light Table.
- *To print the entire Light Table arrangement:* Deselect all photos in the Light Table by clicking the background.

- 3 Choose File > Print Light Table (or press Command-P).

The OS X Print dialog appears.

- 4 Choose Save as PDF from the PDF pop-up menu in the bottom-left corner of the dialog.

The Save dialog appears.

- 5 Enter a name for the PDF file in the Save As field, choose a location to save the file to from the pop-up menu, then click Save.

## Create and modify print presets

At times, you may want to modify a print preset in the Custom Presets area of the Print dialog. There are two ways to do this:

- Duplicate an existing preset, then modify and save the duplicate.
- Modify an existing preset, then save it. (Note that when you modify an existing preset without duplicating it first, saving the modifications will overwrite the original preset.)


**Note:** If you modify a Standard or Contact Sheets preset, the original default settings are restored when you close the Print dialog.

### Duplicate and modify an existing print preset

You create new print presets by duplicating existing print presets and then making modifications to them.

- 1 Select a photo, then choose File > Print Images (or press Command-P).

The Print dialog appears.

- 2 In the Print dialog, select a print preset in the Custom Presets area, then choose Duplicate Preset from the Print Action pop-up menu .
- 3 Enter a new name for the preset.
- 4 Modify the settings as appropriate, then choose Save Preset from the Print Action pop-up menu.


You can now select this preset whenever you need to use these print settings.

### Modify an existing print preset

Any preset you created can be changed, either temporarily or permanently. If you change a preset's settings without saving it, the preset will revert to its original settings after the print job is processed. If you save the modified settings, the preset will retain the setting changes, overwriting the previous settings. (For this reason, it's inadvisable to modify a default preset using this method.)

- 1 Select a photo, then choose File > Print Image (or press Command-P).


The Print dialog appears.

- 2 In the Custom Presets area of the Print dialog, select a print preset that you created and want to modify, then click the More Options button.
- 3 Modify the settings as appropriate.
- 4 When you're ready to save the preset, choose Save Preset from the Print Action pop-up menu .

The print preset is saved with its new settings.

### Delete a print preset

You can delete a print preset that you no longer use.

- 1 In the Custom Presets area of the Print dialog, select the preset you want to delete.
- 2 Choose Delete Preset from the Print Action pop-up menu .
- 3 Confirm the deletion in the dialog that appears.

The preset is deleted from the Custom Presets list.

## Proof images and manage color

The printer, paper type, and color profile settings all affect the way your photos are printed. Onscreen proofing allows you to check the color in your photos, before you print them.

To use onscreen proofing, choose the proofing profile that most closely matches the characteristics of the final output device, and then turn on onscreen proofing. When onscreen proofing is turned on, the photo is converted using the selected profile before it is sent to the printer.

### Choose a proofing profile

- Choose View > Proofing Profile, then choose the profile you want from the submenu.

### Turn onscreen proofing on or off

- Choose View > Onscreen Proofing (or press Option-Shift-P).

When onscreen proofing is on, a checkmark appears beside the item in the View menu.

### Turn off color management for your printer

For best results, you should turn off color management in your printer when printing a photo using Aperture. By default, most printers are set to convert the photo to the printer's color space. However, Aperture is designed to perform this conversion internally. Each printer manufacturer creates its own Print dialog. This means the setting for turning off color management in your printer varies depending upon the manufacturer of your printer and the printer model.

**Note:** If you have multiple printers connected to your computer, you should create a print preset and turn off color management for each printer.

- Refer to the owner's manual that came with your printer.

For more information about using the Aperture onscreen proofing feature, see [Set up the Viewer for onscreen proofing](#) on page 172.

## Exporting photos overview

Using Aperture, you can export photos (both versions and copies of originals), projects, albums, folders, audio clips, and video clips in a variety of ways.

When you export photo versions, you can export them in JPEG, TIFF, PNG, and PSD file formats. You can rename files, resize and adjust images, and include metadata such as EXIF information, IPTC information, and keywords. You can also apply ColorSync profiles and watermarks to the versions you're exporting. You can export separate lists of metadata for selected photos as a file. And you can export originals with IPTC data stored in XMP sidecar files that can be used in other applications, such as Adobe Photoshop.

An easy way to export photos is to use one of the Aperture export preset. Presets, or groups of export settings, allow you to efficiently export your photos in any of several common formats. If the presets included with Aperture don't meet your needs, you can create your own presets, modify existing export presets, or delete presets you no longer use.

When you export projects, folders, and albums (or a combination of all three), Aperture consolidates the originals and versions of the items you selected in the Library inspector and exports them as a library, maintaining their organizational structure. You can then merge the exported library into the Aperture library on another computer.

## Export tips

Consider the following workflow tips before you begin exporting your photos and other media:

- Before exporting your photos to another application, a printing service, a client, or a website, you need to know what file types the recipient can use. You should also check with the recipient about other important information, including file size limitations, required image dimensions, and naming conventions. The key to a successful file transfer is anticipating—and avoiding—anything that can prevent the recipient from opening your files.
- If you regularly send groups of photos to a stock photography house and a printer, you can create an export preset for each destination. Give the presets a name you'll remember, and the next time you need to send photos to either destination, simply select the correct export preset.
- Aperture allows you to perform multiple export operations concurrently. However, to prevent unintended behavior, it's extremely important that you avoid making changes to the photos you are exporting until the operation is complete.

## Export by dragging

You can export photo, audio, and video versions by dragging them from the Browser to the desktop or any location in the Finder. You can do the same with projects, albums, and folders in the Library inspector. (Flickr and Facebook albums cannot be exported by dragging.)

When you export a photo by dragging, you're exporting its optimized JPEG preview image (at the quality and size specified by the Previews settings in Aperture preferences). If you want to export in any other format or quality, you must use the Export command described in [Export using the Export command](#) on page 359. For more information about JPEG previews, see [Preview images overview](#) on page 494.

**Note:** A photo version without a JPEG preview cannot be exported by dragging. If the version doesn't have a preview, dragging is disabled for that version (except within Aperture). If you are dragging multiple photos, but only some of them have previews, only the versions with previews are dragged out.

### Export versions from the Browser by dragging

- 1 In the Browser, select the photo, audio, and video versions you want to export.
- 2 Drag the versions to the desktop or any location in the Finder.

### Export items from the Library inspector by dragging

- 1 In the Library inspector, select the items you want to export by Shift-clicking adjacent items and Command-clicking nonadjacent items.
- 2 Drag the items to the desktop or any location in the Finder.

The exported items are consolidated into a single Aperture library. The library is named after the item that appears at the highest point (from top to bottom) in the Library inspector. If an album is selected for export, the album and the project to which it is subordinate are exported, but only the versions within the album are exported. Any other photos in the project are left out of the export.

If you want to rename the exported library, click the file, then click its name and enter a new name.

**WARNING:** In rare instances, color shifts between exported photos may occur when the Camera Previews option is selected in the Import pane of the Aperture Preferences window. This color shift happens because some RAW photos have fully rendered previews, and others still use the camera's RAW thumbnail. To prevent this from happening, view all photos you want to export in the Viewer, and Aperture generates a fully rendered preview for each photo. For more information, see [Preview images overview](#) on page 494 and [Import preferences](#) on page 480.

## Export using the Export command

When you need more control over export formats than dragging provides, the File > Export command gives you a variety of options:

- *Export versions:* You can export versions of photos with the adjustments and other changes you've applied.
- *Export originals:* You can export copies of the original files that you imported into Aperture.
- *Export audio and video:* You can export audio or video clips that you've imported.

- *Export Aperture projects, albums, and folders:* You can select parts of your library, such as specific projects, folders, or albums and export them as a new Aperture library. You can then open that separate library in Aperture or transfer that library to another computer that has Aperture installed.
- *Export using third-party plug-ins:* You can also use third-party plug-ins to automate the export process.
- *Export metadata associated with photos in a separate file:* You can select photos and export the IPTC metadata assigned to them in a tab-delimited text file.

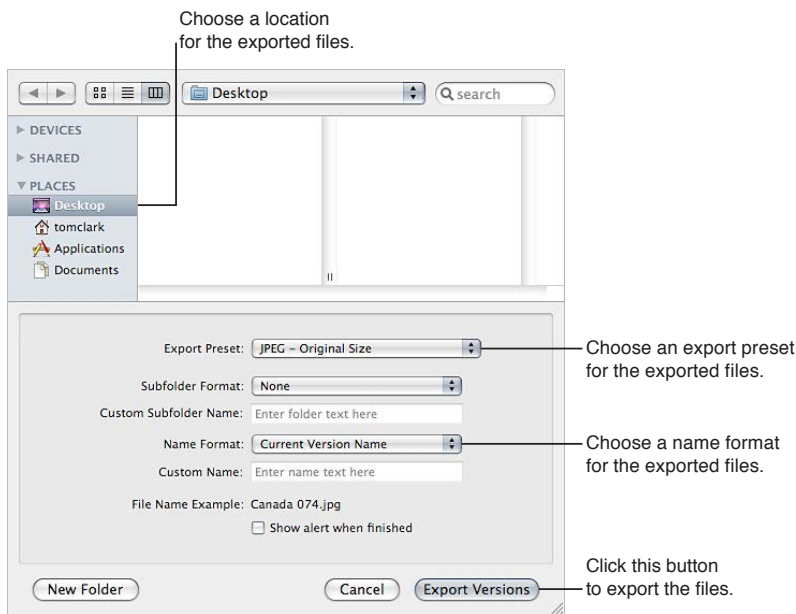
### Export versions of photos

You can export photo versions that you've created in Aperture. For example, you might make adjustments to images for a specific purpose and then export them for use in another application. You can also rename photos when exporting them, make minor adjustments on export, add watermarks, and export photos with metadata. You can also quickly export photos to your email application to send them to others.

When you export photo versions, you can specify settings for the exported files, such as format, size, and filename.

**Note:** You can set Aperture to always include location information and names assigned to faces when exporting your photos. For more information about including Places and Faces information with your photos, see [Export preferences](#) on page 481.

- 1 Select a photo or photos in the Browser.
- 2 Choose File > Export > Versions (or press Shift-Command-E).
- 3 In the dialog that appears, navigate to the location where you want the exported photos placed.



- 4 Choose an export preset from the Export Preset pop-up menu.

For more information, see [Work with export presets](#) on page 364.



- 5 Do one of the following:
  - Choose None from the Subfolder Format pop-up menu to store the versions as separate files in the selected folder.
  - Choose a folder name preset from the Subfolder Format pop-up menu to have Aperture create a hierarchy of subfolders with specific folder names to hold your files. For more information, see [Export photos into named or numbered folders](#) on page 374.
  - Choose Custom Name or Custom Name with Counter from the Subfolder Format pop-up menu, then enter a custom folder name in the Custom Subfolder Name field.
- 6 Choose a name format for your files from the Name Format pop-up menu.

If you choose a Custom Name format, enter a name in the Custom Name field. For more information, see [Rename photos at export](#) on page 371.

- 7 If you want to be notified when the export process is complete, select the “Show alert when finished” checkbox.
- 8 When you’re ready to export files, click Export Versions.

The photos you selected are exported to the location you specified. If you selected the “Show alert when finished” checkbox, a dialog appears displaying the number of versions exported and the file path. If you want Aperture to open the Finder to the location where you exported your versions, click the Reveal in Finder button. Otherwise, click OK to close the dialog.

**Note:** If you want to check the progress of an export operation, choose Window > Show Activity. You can also use this window to pause or cancel an export operation.

#### Export copies of originals

When you export originals, duplicates of the files that were imported from your camera or other source are created; no adjustments, file modifications, or any other changes are exported with the file.

- 1 Select a photo or photos in the Browser.
- 2 Choose File > Export > Originals (or press Shift-Command-S).
- 3 In the dialog that appears, navigate to the location where you want the exported files placed.
- 4 Do one of the following:
  - Choose None from the Subfolder Format pop-up menu to store the originals as separate files in the selected folder.
  - Choose a folder name preset from the Subfolder Format pop-up menu to have Aperture create a hierarchy of subfolders with specific folder names to hold your files. For more information, see [Export photos into named or numbered folders](#) on page 374.
  - Choose Custom Name or Custom Name with Counter from the Subfolder Format pop-up menu, then enter a custom folder name in the Custom Subfolder Name field.
- 5 Choose a name format for your originals from the Name Format pop-up menu.

For more information about selecting and setting up filenaming formats, see [Rename photos at export](#) on page 371. Aperture shows an example of the selected name format in the dialog.

- 6 To export the originals with IPTC metadata, do one of the following:
  - *To write IPTC metadata into the original:* Choose Include IPTC from the Metadata pop-up menu.
  - *To create an XMP sidecar file that contains the photo’s IPTC metadata:* Choose Create IPTC4XMP Sidecar File from the Metadata pop-up menu.

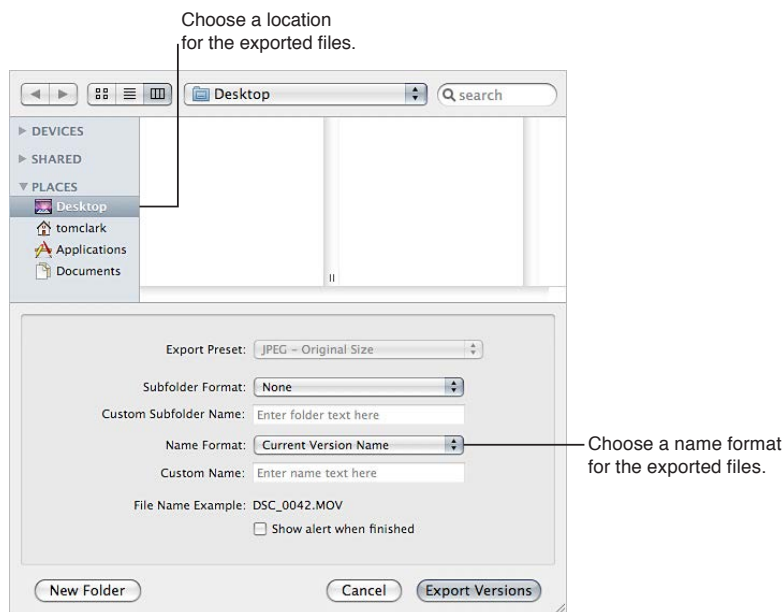
- 7 If you want to include audio attachments with your exported original files, select the Include Audio Attachments checkbox.
- 8 If you want to be notified when the export process is complete, select the “Show alert when finished” checkbox.
- 9 When you’re ready to export your files, click Export Originals.

Copies of the originals for the selected photos are exported to the location you specified. If you selected the “Show alert when finished” checkbox, a dialog appears displaying the number of originals exported and the file path. If you want Aperture to open the Finder to the location where you exported your originals, click the Reveal in Finder button. Otherwise, click OK to close the dialog.

### Export versions of audio and video clips

You can export edited versions of audio and video clips brought into Aperture. If you trimmed the length of the audio or video clip, the new edited length is exported along with any metadata you applied in Aperture.

- 1 Select audio or video clips in the Browser.
- 2 Choose File > Export > Versions (or press Shift-Command-E).
- 3 In the dialog that appears, navigate to the location where you want the exported audio or video files placed.



- 4 Do one of the following:
  - Choose None from the Subfolder Format pop-up menu to have the clips stored as separate files in the selected folder.
  - Choose a folder name preset from the Subfolder Format pop-up menu to have Aperture create a hierarchy of subfolders with specific folder names to hold your files. For more information about creating folders to hold your exported audio and video files, see [Export photos into named or numbered folders](#) on page 374.
  - Choose Custom Name or Custom Name with Counter from the Subfolder Format pop-up menu, then enter a custom folder name in the Custom Subfolder Name field.

- 5 Choose a name format for your files from the Name Format pop-up menu.

If you choose a Custom Name format, enter your custom name in the Custom Name field. For more information on renaming audio and video files at export, see [Rename photos at export](#) on page 371.

- 6 If you want to be notified when the export process is complete, select the “Show alert when finished” checkbox.
- 7 When you’re ready to export files, click Export Versions.

The audio or video clips you selected are exported to the location you specified. Clip file formats are not changed or compressed. If you selected the “Show alert when finished” checkbox, a dialog appears displaying the number of versions exported and the file path. If you want Aperture to open the Finder to the location where you exported your clips, click the Reveal in Finder button. Otherwise, click OK to close the dialog.

**Note:** If you want to check the progress of an export operation, choose Window > Show Activity. You can also use this window to pause or cancel an export operation.

### Export projects, folders, and albums in a new library

You can select and export any combination of projects, folders, and albums in the Library inspector. Aperture consolidates the selected items into an Aperture library and places it in the location of your choosing. After exporting the item selection as an Aperture library, you can either open the new library and work within it, or you can merge the library into the library of another Aperture system.

For more information about opening Aperture libraries, see [View other libraries](#) on page 58. For more information about merging Aperture libraries, see [Merge libraries](#) on page 59.

- 1 In the Library inspector, select the items you want to export, then choose File > Export > Items as New Library.

**Note:** The name of the command changes depending upon your selection.

- 2 Enter a name and choose a location for the exported library.
- 3 Do any of the following:

- *If your project contains referenced images and you want the original files available to the new Aperture system:* Select the “Copy originals into exported library” checkbox to copy the original image files into the new library file.
- *If you want to copy the previews into the new library so that you don’t have to rebuild them on the new Aperture system:* Select the “Copy Previews into exported library” checkbox.
- *If you want Aperture to alert you when it has finished building the new library:* Select the “Show alert when finished” checkbox.

- 4 Click Export Library.

Aperture consolidates the selected items into a library and exports the library file to the location you chose.

### Export photos using a third-party plug-in

Some applications, social networking sites, and photography services supply plug-ins that allow Aperture to export files automatically with the format and settings the application or service requires. For example, a stock photography service or print lab may require that photos be transferred at a specific size, in a specific file format, or with particular types of metadata. Such a service can create its own plug-in that automatically sets up Aperture to export files with precisely the characteristics the service needs.

To use an export plug-in, you must first obtain the plug-in software from the service or application vendor and install it. You can find a list of available plug-ins by connecting to the Internet and choosing Aperture > Aperture Plug-ins. Installed third-party plug-ins for Aperture are stored on your computer in the following location: /Library/Application Support/Aperture/Plug-ins/Export/.

- 1 Select the photos you want to transfer.
- 2 Choose File > Export, then choose the plug-in that you want to use.

### Export photo metadata in a text file

You can select photos and export the IPTC metadata assigned to them in a tab-delimited text file. The text file also lists the version names, ratings, keywords, and color labels assigned to the photos in Aperture.

For more information about IPTC metadata, see [About IPTC metadata](#) on page 213.

- 1 Select the photos whose metadata you want to export.
- 2 Choose File > Export > Metadata.
- 3 Enter a name for the text file in the Save As field, select the location where you want the file stored, then click Export Metadata.

Aperture exports the metadata information as a standard Unicode text file that you can open and use with any application that uses text files.

## Choose export settings

### Work with export presets

Export presets are groups of saved export settings that help you quickly and easily export your photos. Aperture comes with numerous export presets, and you can also create your own. The export preset that you set up or choose can modify all the exported photos at once during the export. For example, you can set up an export preset to assign watermarks to images or set a specific resolution for the images. Aperture provides commonly used presets for you, and you can modify them or create new ones to match your needs.

### View the settings for an export preset

Before using an export preset, whether it's one that comes with Aperture or one that you created, you can view its settings to make sure they are exactly what you want.

Do one of the following:

- Choose Aperture > Presets > Image Export.
- With a photo selected, choose File > Export > Version (or press Shift-Command-E) and in the dialog that appears, choose Edit from the Export Preset pop-up menu.

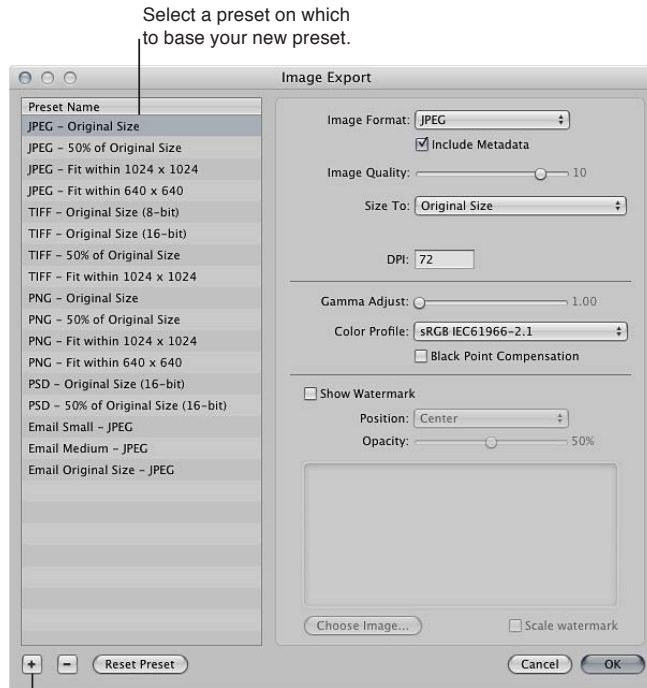
The Image Export dialog appears, listing the presets available and the configurable export settings.

## Create a new export preset

If none of the predefined export presets suits your needs, you can create your own export preset. An easy way to create a new export preset is to copy an existing preset and then modify the copy.

- 1 Choose Aperture > Presets > Image Export.

The Image Export dialog appears.



- 2 Select an export preset on which to base your new preset, then click the Add button (+).

A new preset appears highlighted in the Preset Name list.

- 3 Enter a name for the new preset, then press Return.
- 4 Change the export settings as required, then click OK.

## Modify an existing preset

You can modify existing presets when you need to. The next time you export using that preset, Aperture remembers your modified settings and exports your photos accordingly.

- 1 Choose Aperture > Presets > Image Export.

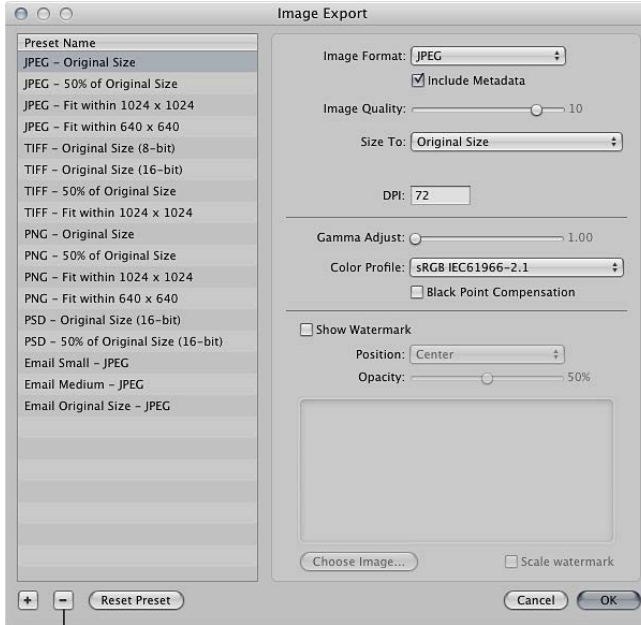
The Image Export dialog appears.

- 2 Select the preset you want to modify and change its settings as required, then click OK.

## Delete an export preset in the Image Export dialog

You can delete an export preset when you no longer need it.

- 1 Select the preset, then click the Remove button (–).



Click the Remove button to delete the selected preset.

- 2 In the dialog that appears, click Delete.

The preset disappears from the Preset Name list.

- 3 Click OK.

The preset is permanently deleted.

**Note:** If you click the Delete button and then click Cancel, the preset reappears the next time you open the Image Export dialog.

## Set image resolution when exporting

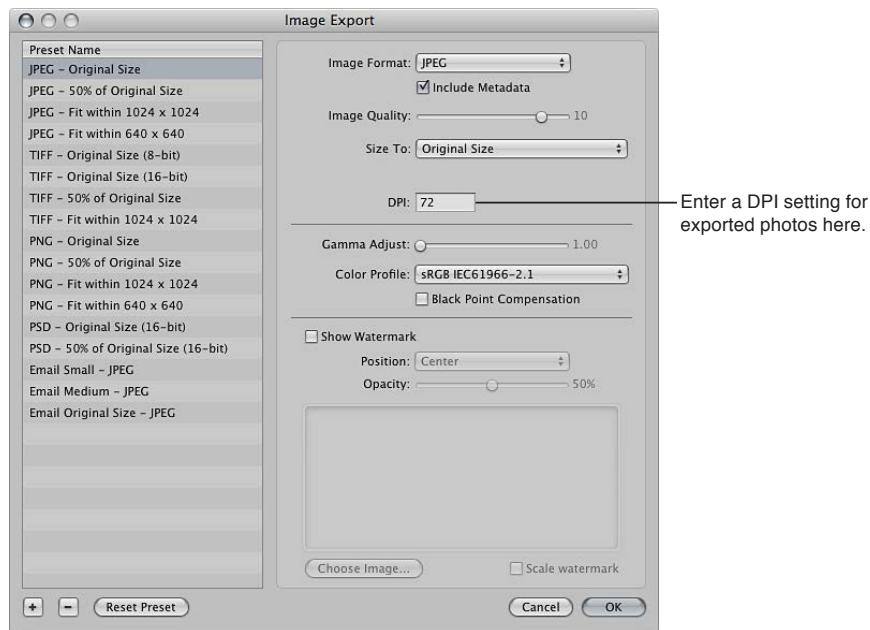
You can set the image resolution you want for exported photos in the Image Export dialog in several ways: by specifying a dpi setting, by specifying a percentage of the original, or by specifying photo dimensions in inches, centimeters, or pixels. First you select an export preset, and then you specify a resolution for that preset.

### Specify the dpi setting for exported photos in an export preset

1 Do one of the following:

- Choose Aperture > Presets > Image Export.
- Choose File > Export > Versions (or press Shift-Command-E), then choose Edit from the Export Preset pop-up menu.

The Image Export dialog appears.



2 Select an export preset or create a new one, then enter a dpi setting.

For more information on creating export presets, see [Work with export presets](#) on page 364.

3 Specify additional settings as necessary, then click OK.

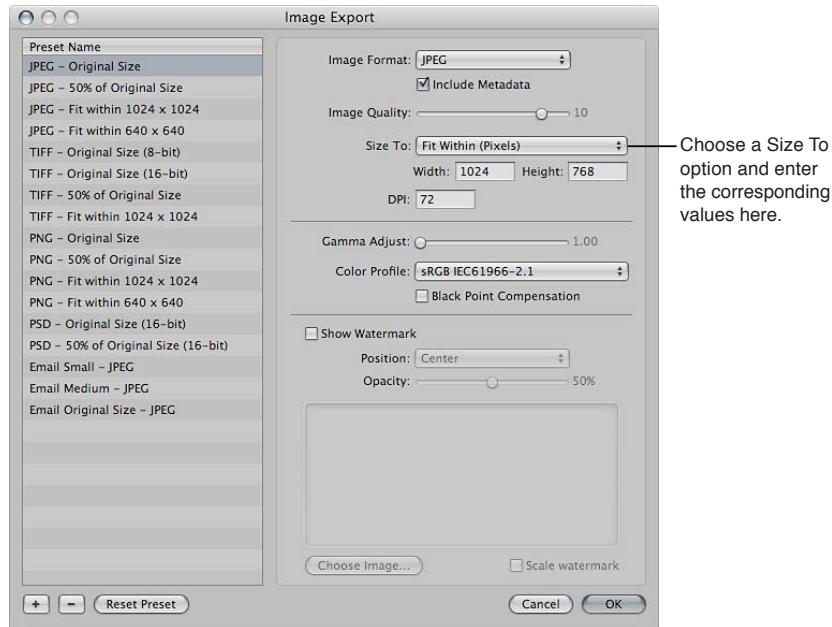
Use this export preset when you need to export versions at the resolution specified in the DPI field. Create a new preset when a new dpi setting is required.

## Create an export preset constraining photos to a specific size at export

### 1 Do one of the following:

- Choose Aperture > Presets > Image Export.
- Choose File > Export > Versions (or press Shift-Command-E), then choose Edit from the Export Preset pop-up menu.

The Image Export dialog appears.



### 2 Select an export preset or create a new one.

For more information on creating export presets, see [Work with export presets](#) on page 364.

### 3 Choose an item from the Size To pop-up menu, then specify the size of the photo by entering values in the fields that appear below it.

### 4 Specify additional settings as necessary, then click OK.

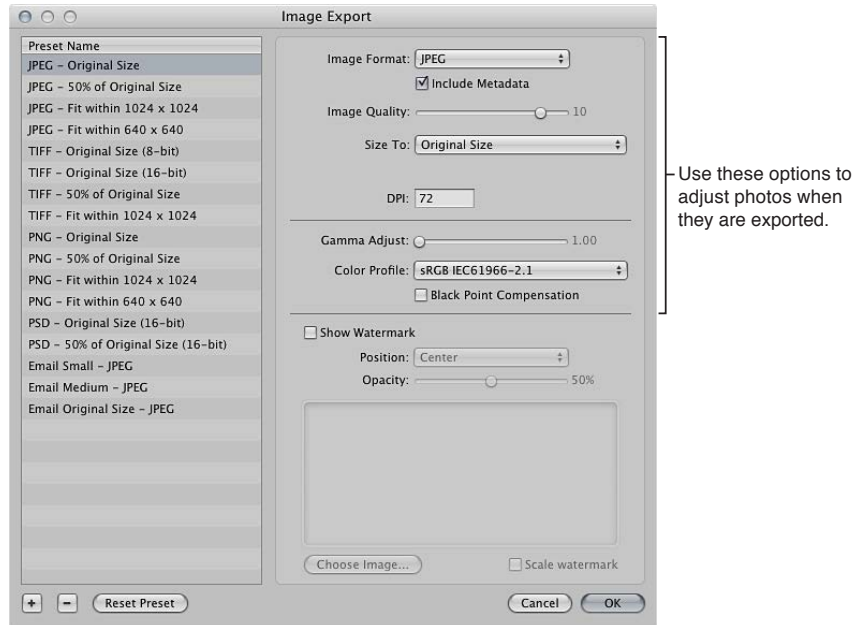
Use this export preset when you need to export photos at a specific size. Create a new preset when new dimensions are required.



## Adjust images at export

You can apply final adjustments to images at export by choosing ColorSync profiles, setting gamma adjustments, and applying black point compensation. Because these adjustments are applied at export, the photo versions and originals in the Aperture library are not changed. Only exported files receive image adjustments applied with an export preset.

To adjust images at export, you create a new export preset in the Image Export dialog and then modify the Image Quality, Gamma Adjust, ColorSync Profile, and Black Point Compensation settings as appropriate.



Gamma adjustments applied at export are applied on top of gamma adjustments previously applied to photo versions. Before exporting, verify that you are not doubling any gamma adjustments previously applied to your photos.

When you export, select the preset that includes the adjustments you want to make.

### Create an image export preset to adjust images at export

- 1 Do one of the following:
  - Choose Aperture > Presets > Image Export.
  - Choose File > Export > Versions (or press Shift-Command-E), then choose Edit from the Export Presets pop-up menu.

The Image Export dialog appears.

- 2 Select an export preset, or create a new one.

For information about creating export presets, see [Work with export presets](#) on page 364.

- 3 Specify adjustment options:
  - *To add a gamma adjustment to the exported photos:* Drag the Gamma Adjust slider to the right.
  - *To change the ColorSync profile applied to the exported photos:* Choose a profile from the Color Profile pop-up menu.
  - *To apply black point compensation to the exported photos:* Select the Black Point Compensation checkbox.
- 4 Specify additional settings as necessary, then click OK.

Use this export preset when you want to export photos with the adjustments you specified.

## Add a watermark at export

A watermark is a visible graphic overlay that is applied to a photo. Photographers often use watermarks to indicate that the photos are protected by a copyright and to discourage others from inappropriately using their photos.

You can import a graphics file and add it to your photos as a watermark.

Use the following guidelines to create high-quality watermarks for your photos:

- Save your watermark as a PSD (Photoshop) file with a transparent background.
- Create multiple sizes of your watermark so that you can select the one that is the best match for the output size of the exported photo.

**Note:** If a watermark file is larger than the photo you want to export, Aperture automatically scales the watermark down to fit the photo. (Aperture does not scale watermarks up.)

- After you create a watermark, save it as part of an export preset so you can reuse it as often as you need.

### Add a watermark image to your exported photos

- 1 Select the photos you want to export.
- 2 Choose File > Export > Versions (or press Shift-Command-E).
- 3 In the dialog that appears, choose Edit from the Export Preset pop-up menu.
- 4 In the Image Export dialog, select the export preset you want to use to export your photos.
- 5 Select the Show Watermark checkbox.
- 6 Click the Choose Image button.
- 7 Select the image you want to use as a watermark, then click Choose.
- 8 Specify where you want the watermark to appear on the photo using the Position pop-up menu.
- 9 To adjust the opacity of the watermark, drag the Opacity slider to a new position.
- 10 If you want the watermark to be scaled in proportion to the photo's output size, select the "Scale watermark" checkbox.
- 11 When you're satisfied with how your watermark appears in the watermark preview area, click OK.
- 12 Navigate to the location where you want the exported photos placed.
- 13 Choose a name format for your exported files from the Name Format pop-up menu.
- 14 Click Export Versions.

Your files are exported with the watermark you created.

## Apply IPTC metadata and keywords to your photos

Many publications use a standard set of image keywords. You can apply these keywords to your photos when exporting to JPEG, TIFF, and PSD file formats.

Remember that applying metadata at export applies all the metadata attached to your photo. If your photo version has metadata that you don't want exported, create a new photo version that includes only the metadata you intend to export.

**Note:** The PNG file format does not support the inclusion of metadata.

## Create an image export preset that includes metadata with exported photos

- 1 Do one of the following:
  - Choose Aperture > Presets > Image Export.
  - Choose File > Export > Versions (or press Shift-Command-E), then choose Edit from the Export Presets pop-up menu.

The Image Export dialog appears.

- 2 In the Image Export dialog, select the export preset you want to use to export your photos, or create a new one.

For more information about creating export presets, see [Work with export presets](#) on page 364.

- 3 Select the Include Metadata checkbox.

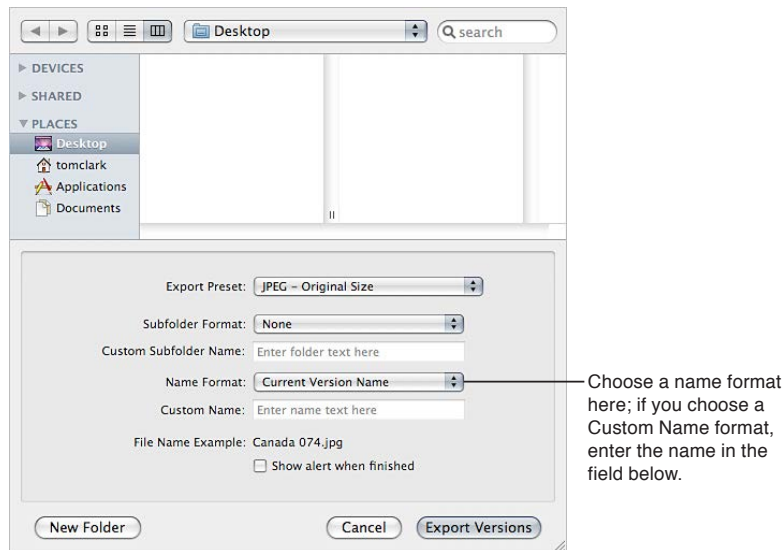
**Note:** This checkbox is dimmed when PNG is chosen in the Image Format pop-up menu.

- 4 Click OK.

The version metadata is included in your exported photos when this export preset is chosen.

## Rename photos at export

When you export a large group of photos, the exported files often have nonsequential names. You can rename your photos at export, giving them more meaningful names. You do this by choosing a file name format from the Name Format pop-up menu in the Export dialog.



For example, suppose you want to export photos LA 031, LA 441, LA 686, and LA 894 from photo group LA 001 to LA 1061. You can use the Custom Name with Index name format to rename your photos LA 1, LA 2, and so on.

## Create a new name format

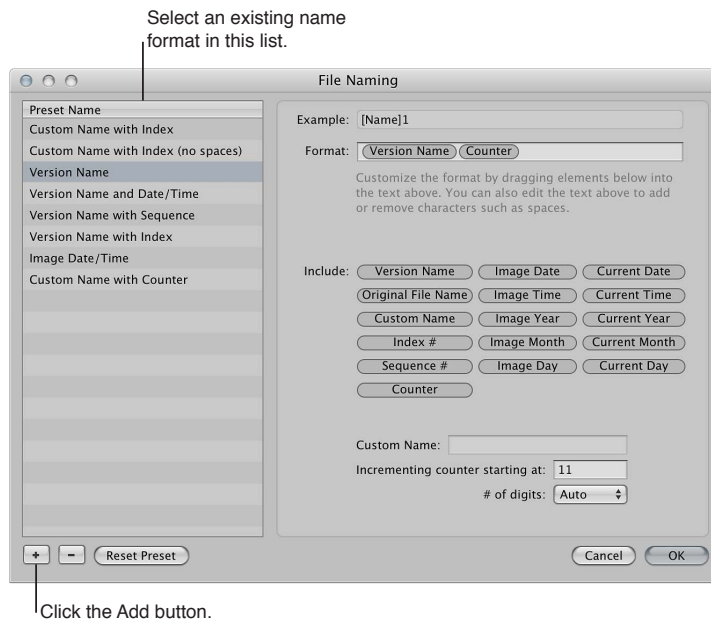
If none of the preset name formats meets your needs, you can create a new name format. For example, you could create a name format that uses a custom name, the index number, and the date.

1 Do one of the following:

- Choose Aperture > Presets > File Naming.
- Choose File > Export > Versions (or press Shift-Command-E), then choose Edit from the Name Format pop-up menu.

The File Naming dialog appears.

2 In the Preset Name list, select an existing name format on which to base the new name format, then click the Add button (+).

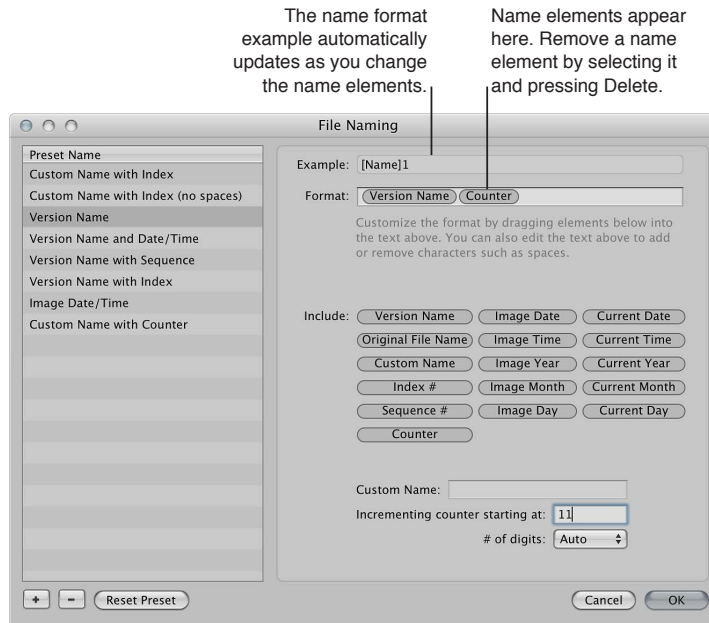


A copy of the selected name format is created.

3 Enter a name for the new preset, then press Return.

4 Add name elements by dragging the elements from the Include area to the Format field.

You can also type characters directly in the Format field. If necessary, enter relevant naming information in the fields provided.



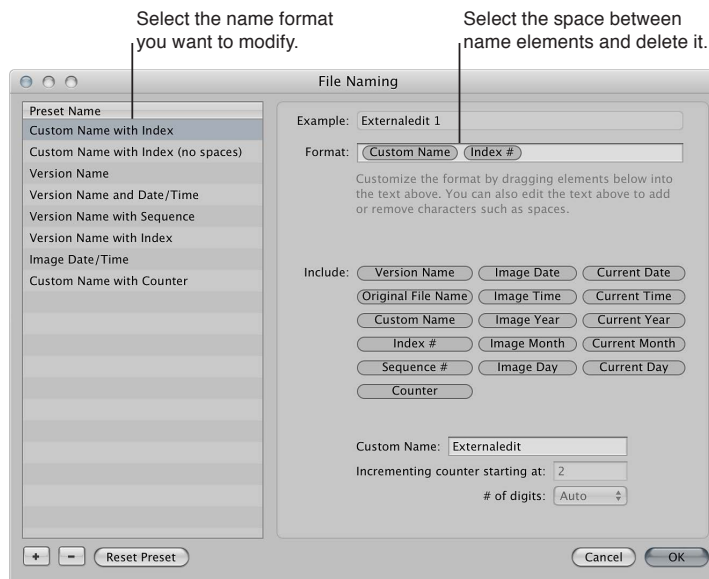
- 5 When you're satisfied with the new name format, click OK.

The new name format appears in the Name Format pop-up menu.

### Modify a name format to remove spaces

When exporting photos for specific uses, such as for use on websites, you may need to use filenames without spaces so that the filenames are compatible with the intended application or website. Aperture adds spaces to filenames depending on the name format you use. You can easily modify name formats to remove spaces from filenames.

- 1 Choose Aperture > Presets > File Naming.
- 2 In the File Naming dialog, select the preset name format you want to modify.



- 3 In the Format field, select and delete the spaces or characters between the name elements.  
If you wish, you can also add spaces or characters between name elements.
- 4 Click OK.

## Export photos into named or numbered folders

When you export versions and originals, you can have Aperture place the files individually into a selected folder or create subfolders to hold the files. You do this by choosing a folder name format from the Subfolder Format pop-up menu in the Export dialog.

### Create a folder name preset

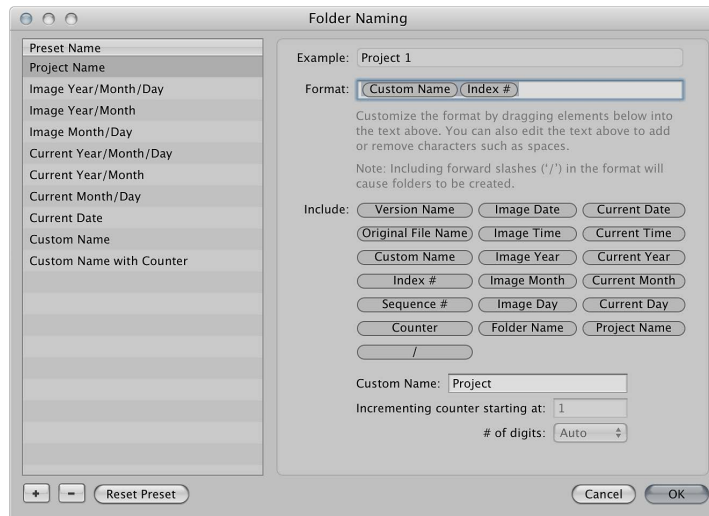
You can create custom folder name formats that you can quickly choose to select the folder structure you want. For example, you might have the exported files placed in subfolders identified by date.

You can specify a combination of name elements to create custom folder names.

You can also create a hierarchy of folders within folders. For example, you can specify that Aperture place your photos in a subfolder named Date, and within that folder you can create subfolders identified by the time the photo was taken.

- 1 Do one of the following:
  - Choose Aperture > Presets > Folder Naming.
  - In the Export dialog, choose Edit from the Subfolder Format pop-up menu.

The Folder Naming dialog appears.



- 2 Click the Add button (+) to create a new folder name format, or select the preset folder name format you want to change.
- 3 Drag the name elements you want into the Format field in the order you want them.
- 4 Drag a slash between the elements where you want subfolders created.

- 5 Enter a custom name in the Custom Name field, if you wish.

**Note:** The Custom Name field is dimmed unless “Custom Name” is one of the elements in the Format field.

- 6 Click OK.

Your new folder name format now appears in the Subfolder Format pop-up menu.

#### **Reset the starting number of a counter in a folder name preset**

When using a counter in your folder name format, you can specify the starting number and the number of digits, from 1 to 6, that appear in the counter. When you use a folder name format with a counter, make sure to reset the initial starting number, if necessary. Otherwise, on the next export Aperture will continue numbering the folders containing the exported photos starting from the last number of the previous export.

- In the Folder Naming dialog, type 0 (zero) in the “Incrementing counter starting at” field.

## Slideshows overview

With Aperture, you can easily create and present slideshows of your photos. You can use two main methods to create slideshows in Aperture:

- *Create a slideshow quickly:* You can quickly create a slideshow from a selection of photos using a slideshow preset. Slideshow presets are collections of predefined slideshow settings that determine the overall look of your slideshow and how your photos appear on the screen. Aperture provides a number of slideshow presets, and you can also create your own custom presets. Slideshow presets are convenient when you're sitting with a client or friend and you want to give a basic presentation of your photos on your computer, but you don't need to save the slideshow. For more information, see [Slideshow presets overview](#) on page 376.
- *Create a full-featured slideshow:* To create a more elaborate multimedia presentation or to export your slideshow as a movie for others to view, you create a slideshow album and use the Slideshow Editor to edit the slideshow. Aperture provides themes that you can apply to your slideshow to give it a professional look, and you can also include video clips, create a layered soundtrack, and customize elements such as titles, borders, transitions, and effects. You can play the slideshow on your computer, or you can export the slideshow as a movie to share with others via email or the web. You can also send your slideshow directly to iTunes for syncing with iPhone, iPod, iPod touch, iPad, or Apple TV. For information, see [Full-featured slideshow overview](#) on page 381.

**Important:** Aperture slideshows cannot be edited in iPhoto. To modify an Aperture slideshow, you must open your Aperture library in Aperture and then edit the slideshow.

## Create slideshows quickly using presets

### Slideshow presets overview

Slideshow presets are groups of predefined settings for playing a slideshow. For example, you can choose a slideshow preset to change the theme or apply transitions and timing to your onscreen presentation. You choose presets in the Play Slideshow dialog. When you choose a preset, a preview of the preset plays in the dialog.



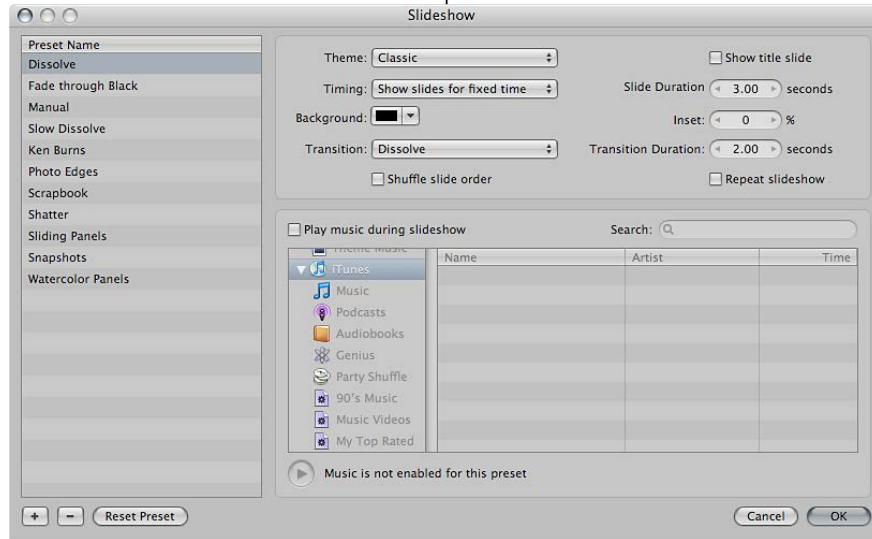
For more information, see [Play a slideshow using a preset](#) on page 377.



You can also create your own custom presets. For example, to prepare for a presentation, you could create two new slideshow presets: one for your presentation and the other for your question-and-answer period. The presentation slideshow can be manually controlled, allowing you to move through the photos at your own pace. Your second slideshow preset, to be used during the question-and-answer period of your presentation, can display the same photos using the Sliding Panels theme set to show each photo for 15 seconds, with music and looping applied.

You create or modify a slideshow preset in the Slideshow dialog. For more information, see [Create and modify slideshow presets](#) on page 379.

The Slideshow dialog lets you create or modify slideshow presets.



## Play a slideshow using a preset

You can easily set up a slideshow by selecting the photos you want and then choosing a slideshow preset, which is a group of predefined settings that determines the style of your slideshow. Once you start the slideshow on your computer, you can control the slideshow using keyboard shortcuts.

**Important:** To display slideshows at the best quality, you should set Aperture to create high-resolution previews. In addition to setting previews to their highest resolution, you should also use full-size previews to prevent upscaling with large displays. If previews are not available, photos in the slideshow may not be as sharp as they would be otherwise. For more information about creating high-resolution previews, see [Preview images overview](#) on page 494.

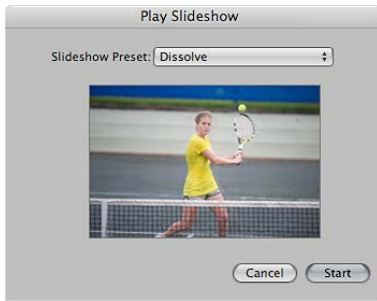
## Create and play a slideshow

Before creating the slideshow, arrange the thumbnail images in the Browser in the order in which you want them to appear in the slideshow.

- 1 Select a set of photos by doing one of the following:
  - Select an item in the Library inspector.
  - Select individual photos or photo stacks in the Browser.

- 2 Choose File > Play Slideshow (or press Shift-S).

The Play Slideshow dialog appears.



- 3 Choose a preset from the Slideshow Preset pop-up menu.

**Note:** Additional slideshow presets appear in the Slideshow Preset pop-up menu for use in Aperture when iPhoto '11 is installed.

When you choose a preset from the Slideshow Preset pop-up menu, a preview of the preset plays below the pop-up menu.

- 4 Click Start.

If either no photo or a single photo is selected, the slideshow displays all photos in the current album or project.

**Important:** You can save slideshows and share them by creating a slideshow album and adding photos to it. For more information, see [Create a slideshow and choose a theme](#) on page 383.

#### Control the display of a slideshow

- *To play or pause the slideshow:* Press the Space bar.
- *To move forward or backward through the slideshow:* Press the Right Arrow or Left Arrow key.
- *To stop the slideshow:* Press Esc (Escape).

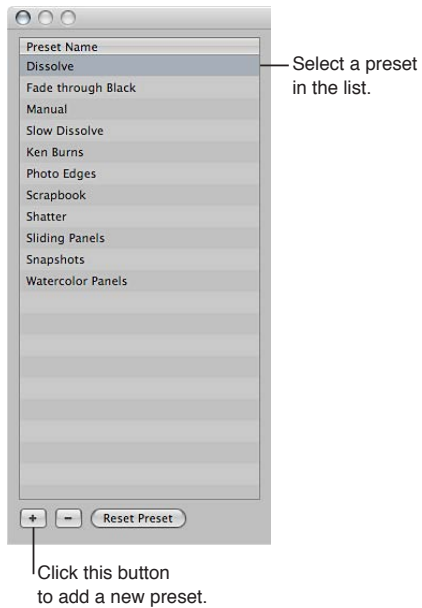
The slideshow stops playing, and the Aperture workspace reappears.

## Create and modify slideshow presets

You create a new slideshow preset by duplicating an existing preset and then modifying the duplicate. You can also add DRM-free music from your iTunes music library to accompany your slideshow.

### Create a new slideshow preset

- 1 Choose Aperture > Presets > Slideshow.
- 2 In the Slideshow dialog, select a preset on which to model your new preset, and click the Add button (+) in the lower-left corner.



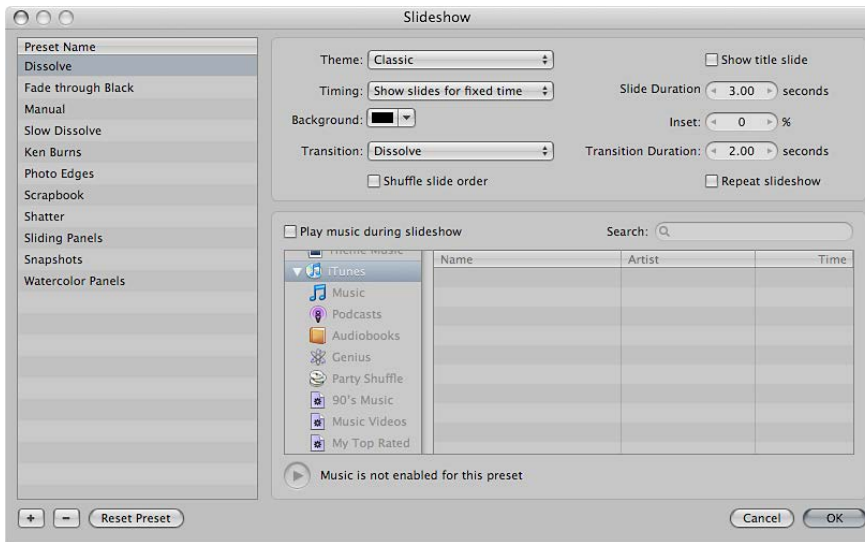
A copy of the slideshow preset appears highlighted in the Preset Name list.

- 3 Enter a new name for the copied slideshow preset, and press Return.
- 4 When you've finished specifying the slideshow settings you want, click OK.

## Modify an existing preset

- 1 Choose Aperture > Presets > Slideshow.

The Slideshow dialog appears.

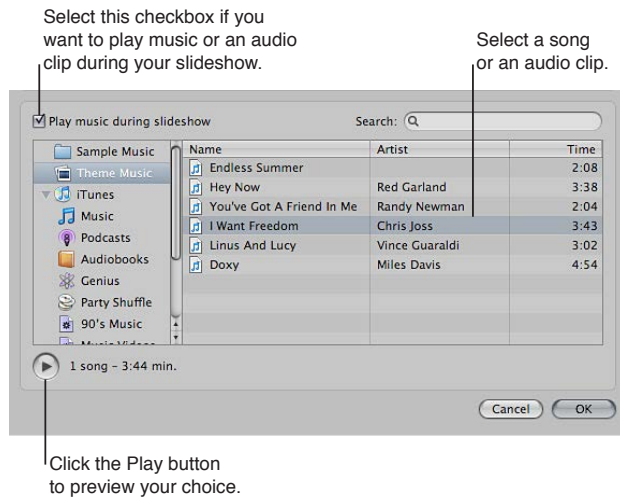


- 2 Select the preset you want to modify in the Preset Name list.
- 3 Modify the slideshow preset's settings as appropriate.
  - *Theme pop-up menu*: Choose a theme for your slideshow preset.
  - *"Show title slide" checkbox*: Select this checkbox to display a title slide at the beginning of the slideshow. Aperture automatically generates the title using the name of the item selected in the Library inspector.
  - *Timing pop-up menu*: Choose how the slideshow duration is determined. There are three options: fitting the slideshow to the duration of the music, showing each photo for a fixed time, or advancing photos manually.
  - *Slide Duration value slider*: Set the minimum amount of time each photo is shown.
  - *Background color well*: Change the background color of your slideshow by clicking the Background color well and then selecting a new background color from the Colors window, or click the disclosure button (to the right of the color well) and select a new background color from the pop-up color palette.
  - *Inset value slider*: Adjust the space between the edges of the screen and the photos.
  - *Transition pop-up menu*: Choose the type of transition that occurs between the slides.
  - *Transition Duration value slider*: Adjust the length of applied transitions. The duration setting is applied uniformly to each transition.
  - *"Shuffle slide order" checkbox*: Select this checkbox to have Aperture shuffle the order of the photos presented in the slideshow.
  - *"Repeat slideshow" checkbox*: Select this checkbox to loop, or continuously play, your slideshow. If you select this option, you must stop your slideshow manually by pressing Esc.
- 4 When you've finished modifying settings for the slideshow preset, click OK.

To revert to a preset's original settings, click the Reset Preset button.

### Modify a preset to add music

- 1 Select a set of photos to be displayed in your slideshow.
- 2 Choose File > Play Slideshow (or press Shift-S).
- 3 In the Play Slideshow dialog, choose Edit from the Slideshow Preset pop-up menu.
- 4 In the Slideshow dialog, do one of the following:
  - Select a slideshow preset to modify.
  - Create a new slideshow preset.For more information about creating and modifying presets, see the instructions above.
- 5 In the Slideshow dialog, select the “Play music during slideshow” checkbox.



- 6 Navigate to a song or an audio track in the audio browser.  
You can search for a specific song, artist, or song time by entering information in the search field.
- 7 If you want to preview your song choice, click the Play button.
- 8 If you're satisfied with your music selection, click OK.  
The Play Slideshow dialog appears.
- 9 To begin playing the slideshow presentation, click Start.

### Delete a preset

- 1 Choose Aperture > Presets > Slideshow.
- 2 Select the preset you want to delete in the Preset Name list.
- 3 Click the Remove button (–) in the lower-left corner.

## Create full-featured slideshows

### Full-featured slideshow overview

Creating, editing, and sharing slideshows containing your photos is a fairly simple process. Here are some of the typical steps in the multimedia slideshow creation and sharing process.

#### Stage 1: Select photos, audio clips, and video clips

Gather your initial selection of photos and video clips in the Browser. Locate any audio clips you plan to use in your slideshow presentation.

**Stage 2: Create a slideshow album**

Create a slideshow album in the Library inspector from the selection of photos and video clips in the Browser, and choose a theme for the slideshow. Drag additional photos and video clips into the slideshow album as necessary.

**Note:** The Classic and Ken Burns slideshow themes are the most customizable. Use the dialog that appears when you create a new slideshow album to preview the slideshow themes that come with Aperture. If you want to significantly modify a slideshow theme, choose Classic or Ken Burns.

**Stage 3: Arrange the slideshow presentation**

Arrange the photos and video clips in the Browser, below the Slideshow Editor, from left to right to tell the story you want. Each photo and video clip functions as an individual slide.

**Stage 4: Preview the slideshow in the Slideshow Editor**

Preview the slideshow in the Slideshow Editor to verify that photos and video clips play in the correct sequence.

**Stage 5: Select music**

Choose the music or audio clip that will play during the slideshow. You can apply a looped song to the main audio track and then add voiceover audio clips and other audio clips to the secondary audio track.

**Stage 6: Adjust transitions**

Adjust transitions to emphasize the most important photos in the slideshow or give a particular treatment to photos with similar subject matter. Make sure that the sequence of photos and the duration of the transitions match the cadence and tempo of the music or audio clip you selected for the slideshow.

**Stage 7: Add a slideshow title and slide text**

Add a title to your slideshow using the titling controls. Insert a blank slide at the beginning of the movie to display your title. You can also use blank slides to act as chapter dividers. Add text to individual slides where appropriate.

**Stage 8: Preview the slideshow again**

Preview the slideshow once again in full-screen mode to make sure the photos and video clips are playing in the correct sequence. Ensure that the music or audio clip matches the theme of the slideshow and the cadence of the photos and video clips, that the effects and transitions are to your liking, and that the title text is correct.

**Stage 9: Export the slideshow**

Export the slideshow as a movie in the format that best fits the platform by which you mean to share it. You can choose a format that is optimized for iPhone, iPod, iPod touch, iPad, YouTube, Apple TV, 720p HD, or 1080p HD. You can also create a custom movie in a wide range of frame rates and frame sizes.

**Stage 10: Share your slideshow**

After exporting your slideshow movie, tell your clients and friends. If you've posted your slideshow on your website or YouTube, send an email announcement.

## Create a slideshow and choose a theme

To create a full-featured slideshow using the Slideshow Editor, you must first create an album that holds the slideshow's photos. The easiest way to do this is to select photos you want to appear in the slideshow and then create an album. You can also create an empty slideshow album and then add the photos you want.

When you first create a slideshow album, Aperture asks you to choose a theme. Aperture provides a set of professionally designed themes that present your photos with background images, graphic elements, and animation. It's a good idea to explore the slideshow themes before you get started. Some themes may lend themselves better to the subject matter of your photos than others.

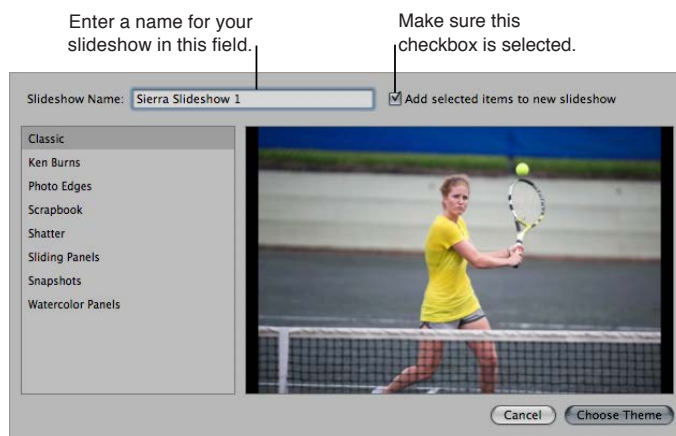
If you create a slideshow and then decide that another theme would work better, you can easily change the theme. You can also change a slideshow's settings, such as the onscreen duration of each slide and the type of transition between slides. The settings available for a slideshow vary depending on the theme you choose. For more information, see [Change slideshow settings](#) on page 385.

**Note:** Additional slideshow themes appear in the Slideshow Themes dialog for use in Aperture when iPhoto '11 is installed. Aperture slideshow themes automatically scale to fit panoramic photos.

### Create a slideshow album from selected photos

When you create a slideshow from selected photos, Aperture places the photos in the order in which they were selected in the Browser, but you can rearrange the order at any time.

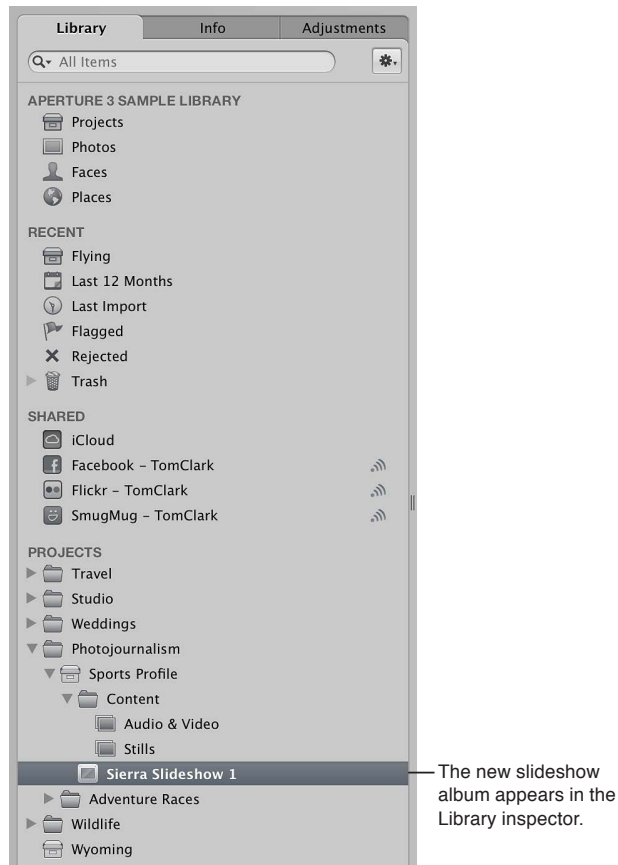
- 1 Do one of the following:
  - In the Browser, select the photos you want to place in your slideshow.
  - Select an item in the Library inspector.
- 2 Do one of the following:
  - Choose File > New > Slideshow.
  - Control-click an item in the Library inspector, and choose New > Slideshow from the shortcut menu.
  - Choose Slideshow from the New pop-up menu in the toolbar.
- 3 In the dialog that appears, give the slideshow a name, select a theme, and make sure the "Add selected items to new slideshow" checkbox is selected.



You can preview slideshow themes by selecting themes in the left column.

#### 4 Click Choose Theme.

The new slideshow album containing the selected photos appears in the Library inspector, and the Slideshow Editor appears above the Browser. If you want to rename the slideshow album, double-click the slideshow album's name in the Library inspector and enter a new name.



#### Create a new, empty slideshow album

- 1 Do one of the following:
  - Choose File > New > Slideshow.
  - Control-click an item in the Library inspector, and choose New > Slideshow from the shortcut menu.
  - Choose Slideshow from the New pop-up menu in the toolbar.
- 2 In the dialog that appears, give the slideshow a name and select a theme.

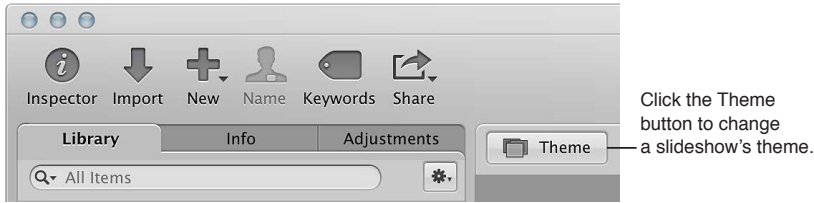
You can preview slideshow themes by selecting themes in the left column.
- 3 Make sure the “Add selected items to new slideshow” checkbox is not selected.
- 4 Click Choose Theme.

The new, empty slideshow album appears in the Library inspector, and the Slideshow Editor appears above the Browser. Drag the photos you want from the Browser into the new slideshow album in the Library inspector.



## Change the theme for an existing slideshow

- 1 In the Slideshow Editor, click the Theme button.

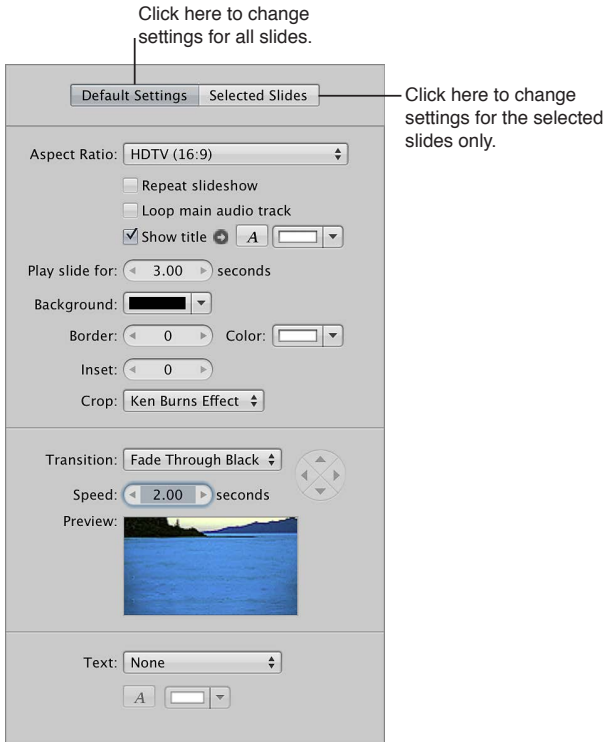


- 2 In the dialog that appears, select a theme from the list and click Choose Theme.

## Change slideshow settings


You can change the settings that determine how your slideshow looks and plays. For example, you can set the aspect ratio for the slideshow, change the background color, set the length of time slides appear, and add titles, transitions, and effects.

You can change settings for the entire slideshow or for individual slides. You change settings for the entire slideshow in the Default Settings pane of the Slideshow Editor, and you change settings for individual slides in the Selected Slides pane.




**Important:** The settings available for a slideshow depend on the theme you choose. The Classic and Ken Burns themes are the most customizable. For information about changing the slideshow theme, see [Create a slideshow and choose a theme](#) on page 383.

## Modify settings for the entire slideshow

- 1 Select a slideshow album in the Library inspector.
- 2 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Default Settings button.
- 3 In the Default Settings pane, change the settings for your slideshow.

### Modify individual slides


- 1 Select a slideshow album in the Library inspector.
- 2 Select photos in the Browser.
- 3 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Selected Slides button.
- 4 In the Selected Slides pane, modify settings for the selected photos.

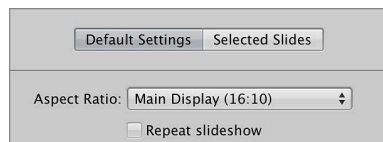
### Set the slideshow aspect ratio and crop

Determining the aspect ratio of the slideshow is the first setting you need to address. Aperture slideshows can be output at aspect ratios that match either the main or secondary display, the dimensions of a standard 4:3 or 16:9 widescreen TV, or the 3:2 aspect ratio of iPhone.

For some themes, you can also choose how photos appear within the slideshow aspect ratio. For example, you can have photos fit within the frame without cropping, or you can have photos fill the frame, which might cause cropping. You can also apply the Ken Burns effect, which zooms in to or out of photos in the slideshow.


#### Set the aspect ratio for the slideshow

- 1 Select a slideshow album in the Library inspector.
- 2 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Default Settings button.
- 3 Choose an aspect ratio from the Aspect Ratio pop-up menu.



#### Fit slides to the aspect ratio

**Note:** The Crop pop-up menu is not available in all themes.

- 1 Select a slideshow album in the Library inspector.
- 2 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Default Settings button.
- 3 Do one of the following:

- *To fit every photo in the slideshow within the chosen aspect ratio without cropping the photos:* Choose Fit in Frame from the Crop pop-up menu.
- *To have every photo in the slideshow fill the frame of the chosen aspect ratio:* Choose Fill Frame from the Crop pop-up menu.

Cropping will occur along the longest dimension of each photo unless the photo's aspect ratio matches the aspect ratio chosen in the Aspect Ratio pop-up menu. Drag within the images to set the portions of the photos that are visible.


- *To apply a Ken Burns effect to the photos in the slideshow:* Choose Ken Burns Effect from the Crop pop-up menu.

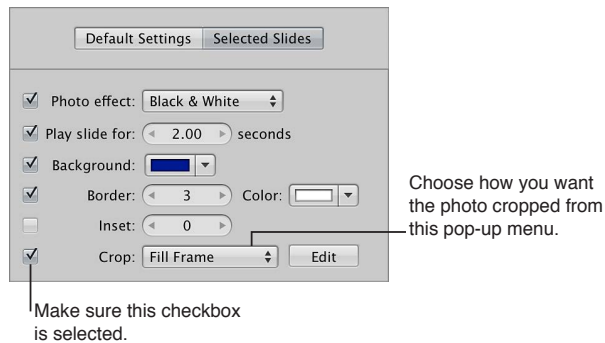
For more information, see [Apply a Ken Burns effect to a slide](#) on page 393.

#### Make an individual photo fill the screen

You can use the Crop controls in the Selected Slides pane to make a photo in your slideshow fill the screen.

**Note:** The Crop controls are not available in all themes.

- 1 Select a slideshow album in the Library inspector.
- 2 Select a photo in the Browser.
- 3 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, click the Selected Slides button, and select the Crop checkbox.



- 4 Choose Fill Frame from the Crop pop-up menu.
- 5 Click the Edit button to the right of the Crop pop-up menu.  
A crop overlay appears over the selected photo.
- 6 Drag the crop overlay over the part of the photo that you want to appear in the slideshow.
- 7 Click Done.


## Add a title or text to the slideshow

You can apply a title to the beginning of your slideshow. You can also display your title over a solid background by inserting a blank slide.

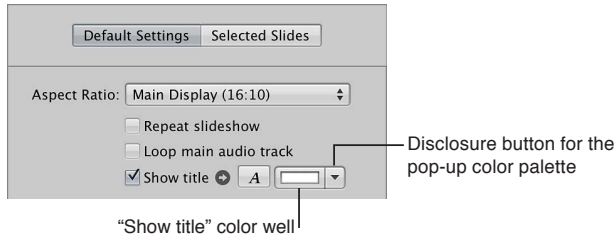
**Note:** The title controls in the Selected Slides pane of the Slideshow Editor and the title options in the Slideshow Action pop-up menu are available only with the Classic and Ken Burns slideshow themes. If iPhoto '11 is installed, a new Text control appears, allowing you to add text to any slideshow theme.

You can also add text that will appear on every slide of the slideshow and add text to individual slides.

### Apply a title to the beginning of the slideshow

- 1 Select a slideshow album in the Library inspector.
- 2 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Default Settings button.
- 3 In the Default Settings pane, select the "Show title" checkbox.  
The slideshow album's name appears in a text box over the first slide in the slideshow.
- 4 If you wish, double-click the title and enter new title text.

- 5 If you want to choose a specific font and font size for the slideshow title, click the Fonts button (with an A) and select a font and font size from the Fonts window.
- 6 If you want to change the font color for the slideshow title, do one of the following:
  - Click the “Show title” color well, and select a color from the Colors window.
  - Click the disclosure button to the right of the color well, and select a color from the pop-up color palette.



### Insert a blank slide for the title

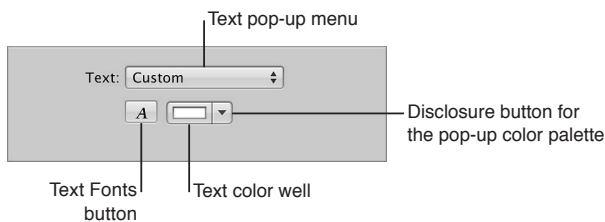
- 1 Select a slideshow album in the Library inspector.
  - 2 In the Browser, move the playhead to the beginning of the slideshow.
  - 3 Choose Insert Blank Slide With Text from the Slideshow Action pop-up menu .
- A blank slide appears at the beginning of the slideshow with the title.
- 4 In the Slideshow Editor, double-click the text in the slide and enter a title for the slideshow.

### Add text to all the slides

You can display basic information about each photo in your slideshow, such as each version's name or caption.

By default, the slide text is displayed on the lower-left side of the photo. However, you can choose where you want the slide text to appear onscreen. The slide text appears in the same position on each slide.

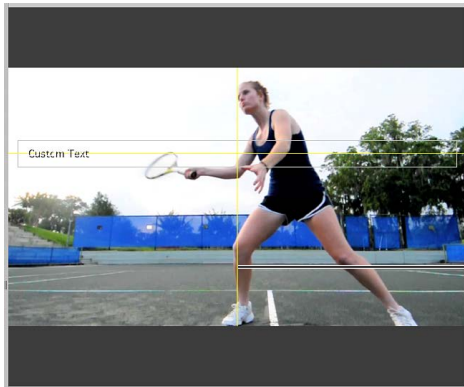
- 1 Select a slideshow album in the Library inspector.
- 2 Click the Slideshow Settings button in the lower-right corner of the Slideshow Editor, and click the Default Settings button.
- 3 In the Default Settings pane, choose the type of information to display with each photo from the Text pop-up menu.



- 4 To change the font and font size for the slide text, click the Text Fonts button and select a font and font size from the Fonts window.
- 5 To change the color of the slide text, do one of the following:
  - Click the Text color well, and select a color from the Colors window.
  - Click the disclosure button to the right of the color well, and select a color from the pop-up color palette.

- 6 To change the position of the slide text, drag it to a new position on the screen.

Yellow alignment guides appear to help you center the text horizontally and vertically or align the text in the upper third or lower third of the photo.




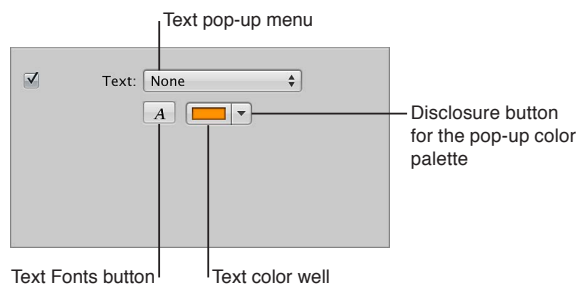
Yellow lines appear to help you position the text.

### Add text to an individual photo in the slideshow

You can add text to individual photos in your slideshow using the Text controls. The text for the individual slides overrides any text applied to the entire slideshow using the Default Settings controls. Text that can be edited appears over the selected photo or group of photos in the slideshow. You can also automatically add text based on metadata such as the version name or caption.

**Note:** The Text controls are not available in all themes.

- 1 Select a slideshow album in the Library inspector.
- 2 In the Browser, select a photo or group of photos.
- 3 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Selected Slides button.
- 4 In the Selected Slides pane, select the Text checkbox, and do one of the following:
  - *To add custom text:* Choose Custom from the Text pop-up menu. Text that can be edited appears over the selected photo in the slideshow. Enter the text for the photo here.
  - *To add text based on the photo's metadata:* Choose a type of metadata from the Text pop-up menu.




- 5 To change the color of the text, do one of the following:
  - Click the Text color well, and select a color from the Colors window.
  - Click the disclosure button to the right of the color well, and select a color from the pop-up color palette.
- 6 To change the font and font size for the slide text, click the Text Fonts button and select a font and font size from the Fonts window.
- 7 To choose where the text appears on the screen, drag the text to a new position.

## Set the length of time slides play

You can set the display time for all slides in your slideshow, and with some themes, set specific display times for individual slides.


### Set the display time for all slides in the slideshow

- 1 Select a slideshow album in the Library inspector.
- 2 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Default Settings button.
- 3 In the Default Settings pane, specify the number of seconds that each slide should appear onscreen using the “Play slide for” value slider.

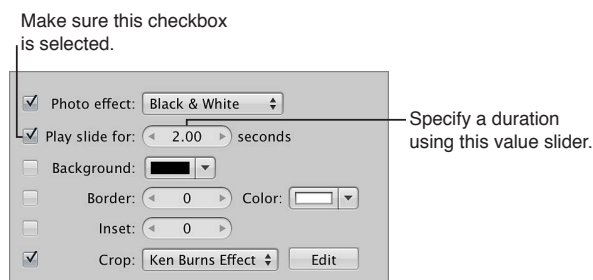
**Note:** Depending on which theme is applied to the slideshow, additional controls may appear for fitting the slideshow to the soundtrack and aligning the slideshow to beats. For more information about adding a soundtrack to a slideshow, see [Add music and audio to slideshows](#) on page 395.

### Set the display time for a specific slide or group of slides

In some themes, you can select individual photos in a slideshow and set a specific display duration.

- 1 Select a slideshow album in the Library inspector.
- 2 Select a photo or group of photos in the Browser.
- 3 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Selected Slides button.
- 4 In the Selected Slides pane, select the “Play slide for” checkbox, and use the value slider to specify the length of time you want the slide or group of slides to appear.

**Note:** The slide duration controls are not available in all themes.



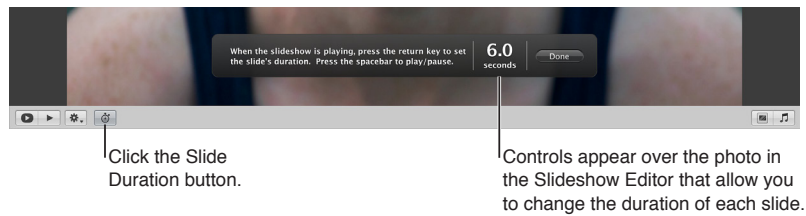
### Set a slide’s duration on the fly

You can change the durations of slides while the slideshow is playing.

- 1 Select a slideshow album in the Library inspector.
- 2 In the Browser, move the playhead to the beginning of the slideshow.

- 3 In the Slideshow Editor, click the Slide Duration button.

An overlay displays the length of time the slide is set to play.



- 4 Press the Space bar to play the slideshow.

As the playhead moves over the selected slide in the Browser, the duration counter in the overlay counts the number of seconds. The playhead stops when it reaches the end of the slide, but the duration counter continues to count.

- 5 To stop the counter and set the current slide's display duration, press Return.

The playhead moves to the next slide in the Browser.

- 6 Repeat step 4 until the duration of each slide is set.

- 7 When you have finished, click Done.


## Apply transitions and effects to slides

Some themes, such as Classic and Ken Burns, allow you to modify the transitions between slides. You can apply changes uniformly to every slide and transition in the slideshow using the Default Settings controls, and you can apply changes to individual slides using the Selected Slides controls.

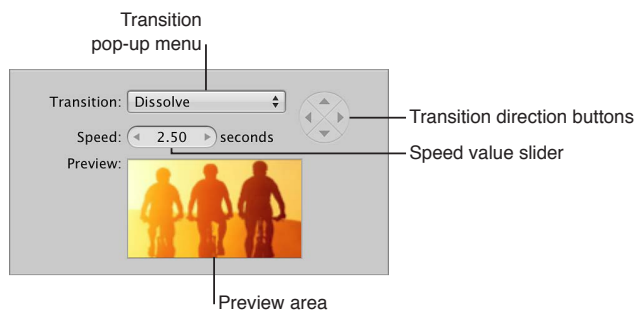
Some themes also allow you to apply an effect, such as a sepia tint, to a selection of slides in your slideshow.

### Apply a transition uniformly between slides in the slideshow

If the theme you're using provides options for changing transitions, you see a Transition pop-up menu in the Default Settings pane of the Slideshow Editor. You can add a transition uniformly between the slides in your slideshow and set the duration of the transition.

- 1 Select a slideshow album in the Library inspector.
- 2 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Default Settings button.
- 3 In the Default Settings pane, choose a transition from the Transition pop-up menu.

A preview of the selected transition plays in the preview area.



- 4 If you chose a transition that can be applied in more than one direction, click a transition direction button to set the direction of the transition.

The preview area shows the angle at which animated transitions enter and exit the frame.

**Note:** The transition direction buttons appear dimmed if you choose a transition that can be applied in only one direction.


- 5 Set the duration of the transition in seconds using the Speed value slider.

The chosen transition is applied uniformly between slides in the slideshow, with the direction and duration you specified.

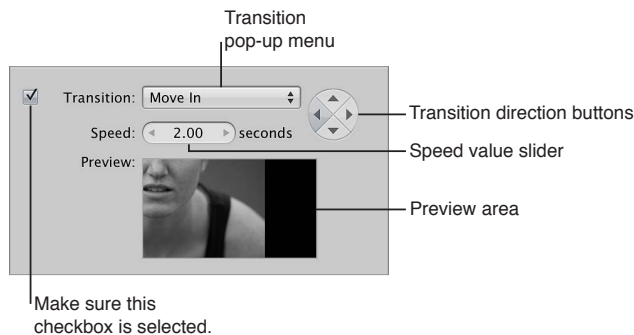
### Apply a transition between selected slides

You can add a unique transition in your slideshow or change an existing one using the Transition controls.

**Note:** The Transition controls are not available in all themes.

- 1 Select a slideshow album in the Library inspector.
- 2 Select a photo or group of photos in the Browser.
- 3 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Selected Slides button.
- 4 In the Selected Slides pane, select the Transition checkbox and choose a transition from the pop-up menu.

A preview of the transition appears in the preview area.




- 5 Set the duration of the transition in seconds using the Speed value slider.
- 6 If you chose a transition that can be applied in more than one direction (the Move In transition, for example), set the direction of the transition by clicking one of the transition direction buttons.

The chosen transition is applied between the selected photos, with the duration and direction you specified.

### Apply a photo effect to a specific slide or group of slides

**Note:** Photo effects are not available in all themes.

- 1 Select a slideshow album in the Library inspector.
- 2 Select a photo or group of photos in the Browser.
- 3 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Selected Slides button.



- 4 In the Selected Slides pane, select the “Photo effect” checkbox and choose an effect from the pop-up menu.



The effect is applied to the selected slides. To turn off the effect, deselect the “Photo effect” checkbox.


### Apply a Ken Burns effect to a slide

Some themes, such as Classic and Ken Burns, allow you to use a Ken Burns effect when displaying slides. The Ken Burns effect zooms in to or out of a photo while panning across its longest dimension. You can apply the Ken Burns effect to the entire slideshow or to individual slides. When you apply the effect to individual slides, you can also choose where the panning begins and ends.


If the faces in the photos have names assigned to them, the Ken Burns effect takes this information into account when cropping and positioning the faces in the slideshow.

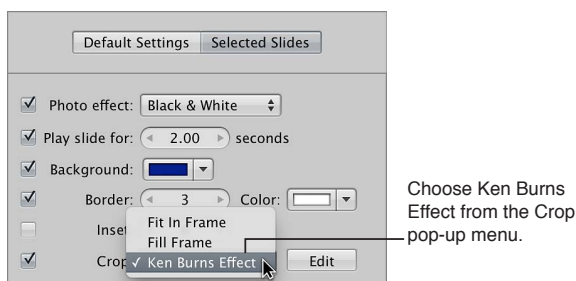
**Note:** The Crop controls and Ken Burns effect are not available in all themes.

### Apply a Ken Burns effect to all slides in the slideshow

- 1 Select a slideshow album in the Library inspector.
- 2 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Default Settings button.
- 3 In the Default Settings pane, choose Ken Burns Effect from the Crop pop-up menu.

### Apply a Ken Burns effect to an individual slide in the slideshow

- 1 Select a slideshow album in the Library inspector.
- 2 Select a photo in the Browser.
- 3 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Selected Slides button.
- 4 Select the Crop checkbox and choose Ken Burns Effect from the Crop pop-up menu.

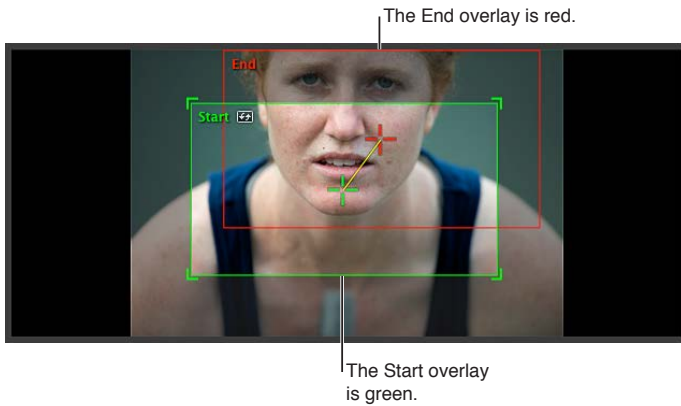


- 5 To specify where panning begins and ends, click the Edit button to the right of the Crop pop-up menu.

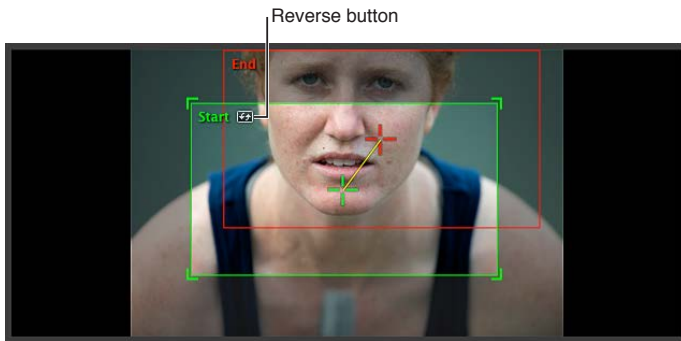
The Start and End overlays appear in the Slideshow Editor.

- 6 Drag the Start (green) and End (red) overlays over the parts of the photo where you want the panning to begin and end.

The yellow line between the center marks of the Start and End overlays indicates the panning path of the Ken Burns effect.



- 7 If you want to reverse the panning motion, click the Reverse button.



- 8 When you're satisfied with the panning path of the Ken Burns effect, click Done.

To review the customized Ken Burns effect you applied to the photo, click the Preview Slideshow button or press the Space bar.




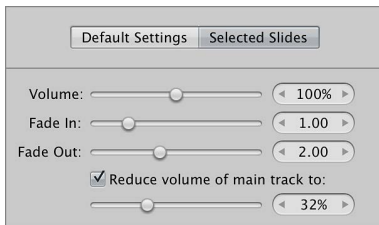
## Adjust the volume of video slides

In Aperture, you can add video clips as individual slides in your slideshow. You work with video clips in the Slideshow Editor and Browser in the same way that you work with photos. However, there are additional controls in the Selected Slides pane of the Slideshow Editor for setting the volume of a video clip. For example, you can mute the audio clip in the main audio track while the video clip is playing. You can also change the duration of the fade-in and fade-out of the video clip's audio to smooth out abrupt transitions between the video clip and the audio clip in the slideshow's main audio track.

**Note:** To trim a video clip or duplicate it so that you can use multiple portions of it in the same slideshow, see [Work with audio and video in the Viewer](#) on page 168.

### Change the volume of a selected video slide

- 1 Select a slideshow album in the Library inspector.
- 2 Select a video clip in the Browser.
- 3 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Selected Slides button.



- 4 In the Selected Slides pane, do any of the following
  - *To change volume:* Set the volume of the video clip using the Volume slider and value slider.
  - *To set a volume fade-in for a slide:* Specify the duration of the fade-in, in seconds, using the Fade In slider and value slider.
  - *To set a volume fade-out for a slide:* Specify the duration of the fade-out, in seconds, using the Fade Out slider and value slider.
  - *To reduce the volume of the main track while a slide plays:* Select the "Reduce volume of main track to" checkbox, and use the slider or value slider to decrease or increase the volume.
  - *To mute the volume of the main track while a slide plays:* Select the "Reduce volume of main track to" checkbox, and set the slider or value slider to 0%.

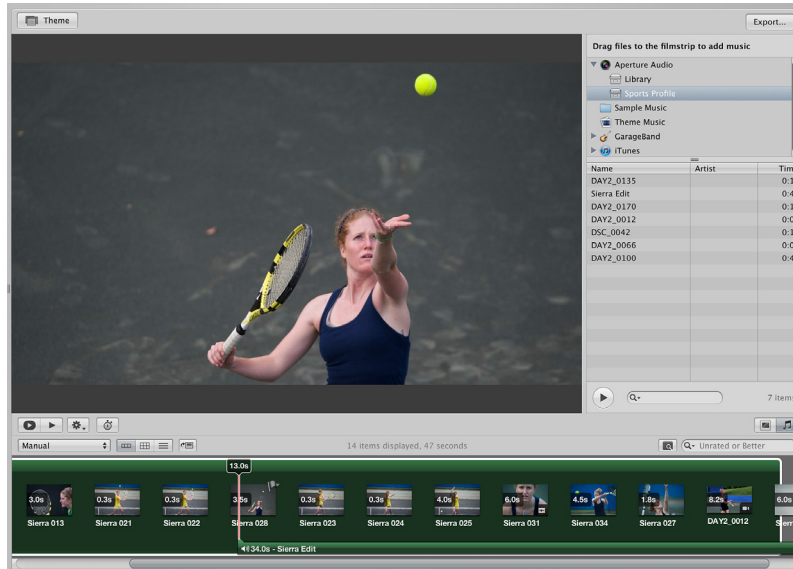
## Add music and audio to slideshows

### Add music and audio to slideshows

You can add music and audio to your slideshow in two ways:

- *Drag a song or an audio clip from the Audio browser to the background of the timeline in the Browser:* Audio added in this way is called the *main audio track* and is used to play audio, such as a song, in the background. Clips in the main audio track cannot be edited, but you can add another audio clip to the end of the track if the slideshow is longer than the audio file. When an audio clip is added to the main audio track, the background of the timeline in the Browser turns green.


- *Drag a song or an audio clip from the Audio browser to a specific slide in the Browser:* Dragging an audio clip to a slide creates a *secondary audio track*, which appears as a green bar below the slides in the Browser. Clips in the secondary audio track always play on top of audio clips in the main audio track. However, you can apply fade-ins and fade-outs to the clips in the secondary audio track, and you can adjust the volume of clips in the main audio track when a clip in the secondary audio track is playing. You can also adjust the duration and placement of audio clips in the secondary audio track.



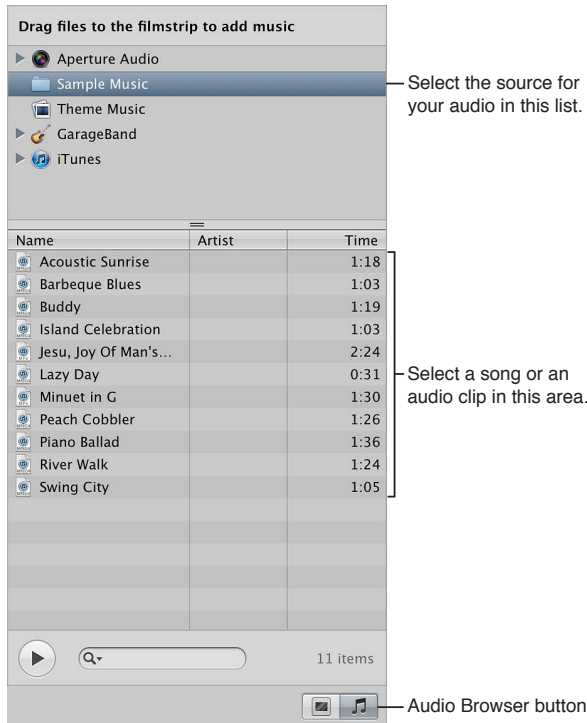
You can fit the slideshow to the length of the main audio track, and you can align the slides to the beat of the music.

### Add an audio clip to the main audio track in your slideshow

You can use the Audio browser to access DRM-free audio files from a variety of sources, including the Sample Music folder, the Theme Music folder, GarageBand, or your iTunes music library. You can also use any audio file imported into the Aperture library.

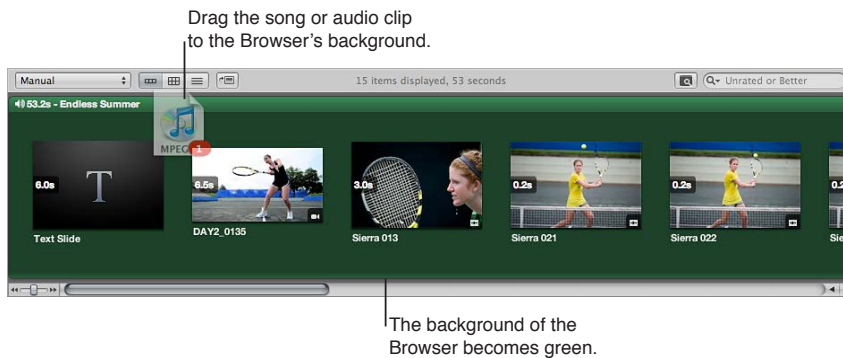
- 1 Select a slideshow album in the Library inspector.
- 2 If the Audio browser controls are not shown in the Slideshow Editor, click the Audio Browser button .

- 3 In the Audio browser, select the source for your audio, and then select a song or an audio clip.



- 4 If you wish, preview the audio by clicking the Play button ▶.
- 5 Drag the selected song or audio clip to the Browser's background.

The background of the Browser turns green, indicating that the selected song or audio clip is applied to the slideshow's main audio track. The main audio track clip always starts at the beginning of the slideshow. When there is more than one clip in the main audio track, the audio clips are placed back to back, with no gaps.




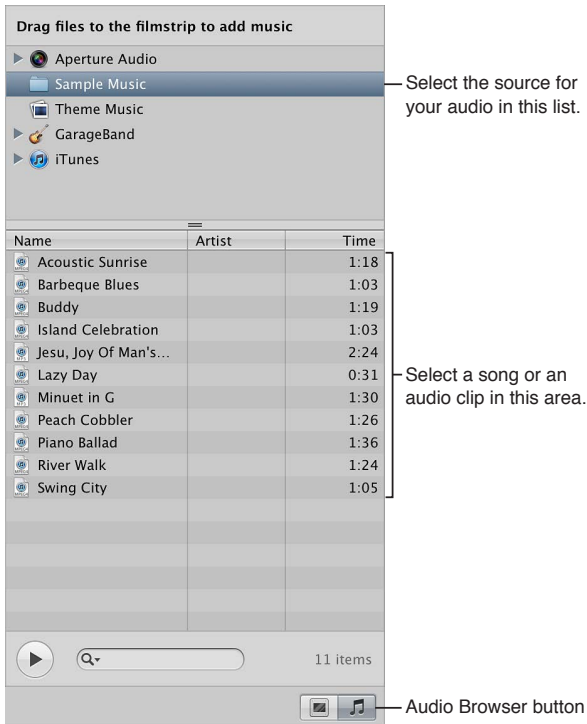
- 6 If the audio clip in the main audio track is not long enough, drag another audio clip from the Audio browser to the point in the Browser where the previous audio clip ended.


The main audio track is extended by the duration of the second audio clip.

To remove an audio clip from the main audio track, select the audio clip and press the Delete key.

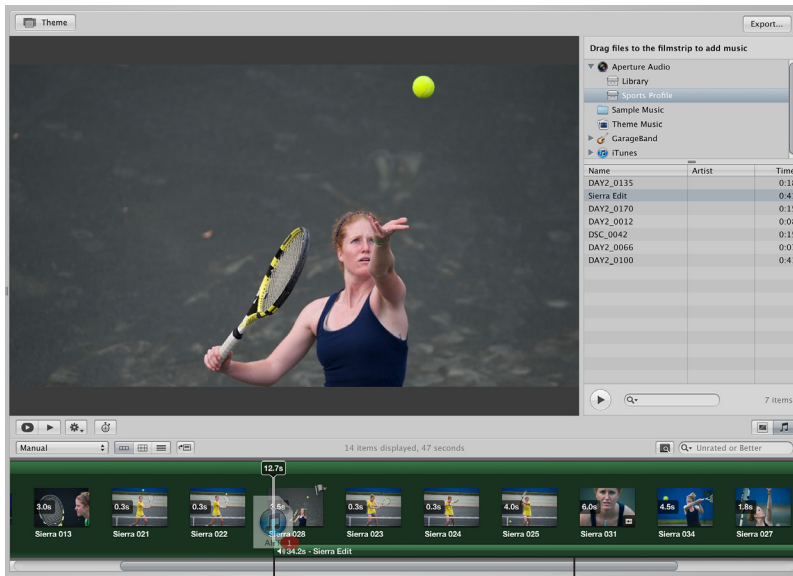
### Add an audio clip to the secondary audio track in your slideshow

- 1 Select a slideshow album in the Library inspector.
- 2 If the Audio browser controls are not shown in the Slideshow Editor, click the Audio Browser button .
- 3 In the Audio browser, select the source for your audio, and then select a song or an audio clip.



- 4 If you wish, preview the audio by clicking the Play button .
- 5 Drag the selected song or audio clip to the specific slide in the Browser where you want the audio to begin.

A green bar appears at the bottom of the Browser to indicate that the audio clip has been added to the secondary audio track. When the playhead reaches the secondary audio track, the audio clip in that track plays over any audio clip in the main audio track.



Drag the song or audio clip to where you want the secondary audio to begin.

The green bar indicates a clip in the secondary audio track.

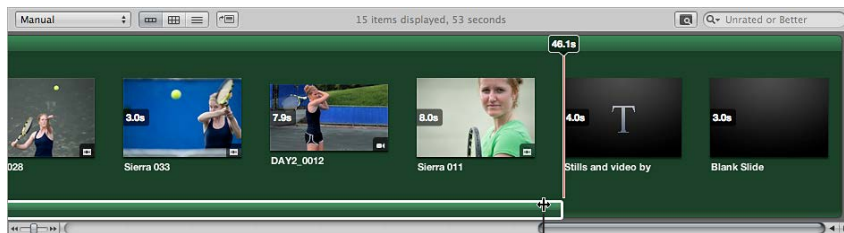
- 6 To add additional audio clips to the secondary audio track, repeat steps 3 through 5.

To remove an audio clip from the secondary audio track, select the audio clip and press the Delete key.

### Trim or move an audio clip in the secondary audio track

- 1 Select a slideshow album in the Library inspector.
- 2 Do one of the following
  - *To trim an audio clip in the secondary audio track:* In the Browser, click the right edge of the audio clip, and drag to the left or right to shorten or lengthen it.

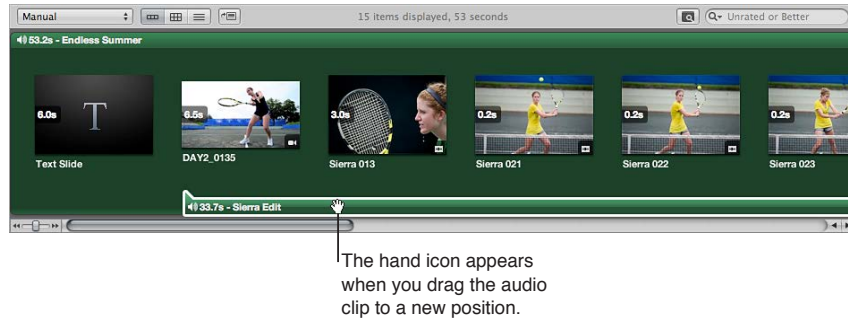
The pointer changes to a Resize pointer, indicating that you can change the clip duration.




Use the Resize pointer to shorten or lengthen the audio clip.

- *To move an audio clip in the secondary audio track:* Drag the audio clip to a new position in the Browser timeline.

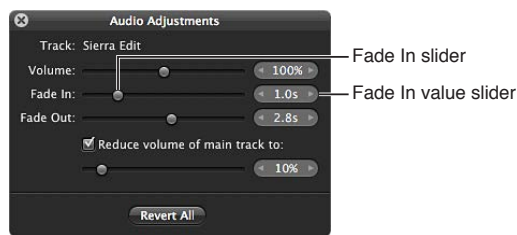
The pointer changes to a hand, indicating that you can drag the audio clip.



### Add a fade-in or fade-out to an audio clip in the secondary audio track

- 1 Select a slideshow album in the Library inspector.
- 2 In the Browser, select the clip in the secondary audio track to which you want to apply a fade-in.
- 3 Do one of the following:
  - Choose Adjust Audio from the Slideshow Action pop-up menu .
  - In the Browser, double-click the audio clip.
- 4 In the Audio Adjustments HUD, drag the Fade In or Fade Out slider to change the duration of the fade-in or fade-out.


You can also click the left or right arrow in the value slider, or drag in the value field.



A setting of 0.0s turns off the fade-in or fade-out.

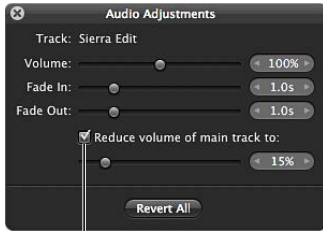
To reset any audio adjustments that you've made, click the Revert All button.

### Adjust the volume of clips in the main audio track while a clip in the secondary audio track is playing

- 1 Select a slideshow album in the Library inspector.
- 2 In the Browser, select a clip in the secondary audio track.
- 3 Do one of the following:
  - Choose Adjust Audio from the Slideshow Action pop-up menu .
  - In the Browser, double-click the audio clip.
- 4 In the Audio Adjustments HUD, select the "Reduce volume of main track to" checkbox, and drag the slider to the left to decrease the volume, or to the right to increase it.



You can also click the left or right arrow in the value slider, or drag in the value field.



Use this checkbox and the controls below to change or mute the volume of clips in the main audio track.

A setting of 0% mutes the main audio track.


To reset any audio adjustments you've made, click the Revert All button.

### Fit the slideshow to the duration of the main audio track

You can set the slideshow to fit the duration of the main audio track. However, you need to make sure that the audio clips you apply to the main audio track are long enough to play each slide.

- In the Slideshow Editor, choose Fit Slides to Main Audio Track from the Slideshow Action pop-up menu .


### Align the slides to the beat of the music

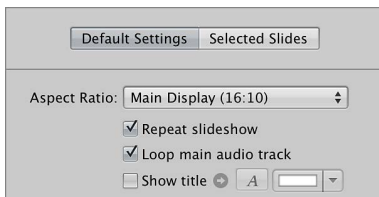
- In the Slideshow Editor, choose Align Slides to Beats from the Slideshow Action pop-up menu .

### Loop the slideshow and the main audio track

You can set the slideshow to loop (play repeatedly) in full-screen mode until you stop playback by pressing Esc. You can also set playback of the audio clip in the slideshow's main audio track to loop until the end of the slideshow.

### Loop the slideshow or the main audio track

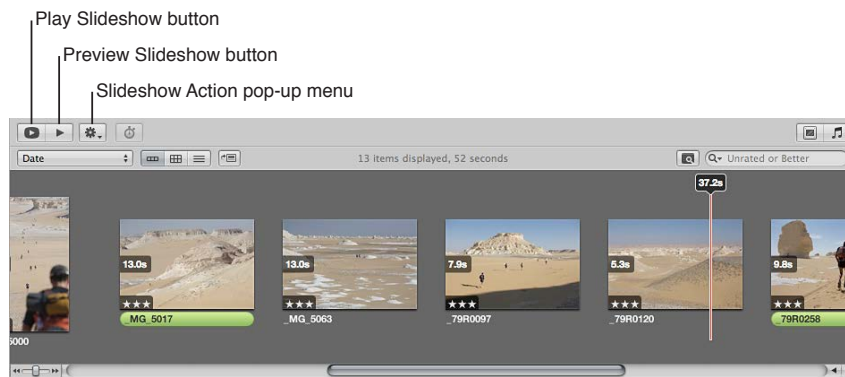
- 1 Select a slideshow album in the Library inspector.
- 2 Click the Slideshow Settings button  in the lower-right corner of the Slideshow Editor, and click the Default Settings button.



- 3 In the Default Settings pane, do either or both of the following:
  - To set the slideshow to loop in full-screen mode until stopped: Select the "Repeat slideshow" checkbox.
  - To loop playback of the slideshow's main audio track: Select the "Loop main audio track" checkbox.

## View your slideshows in Aperture

You can view your slideshow in one of two ways in Aperture: in full-screen mode or in the Slideshow Editor.



### Preview your slideshow

- 1 Select a slideshow album in the Library inspector.
  - 2 In the Slideshow Editor, do one of the following:
    - *To play your slideshow in the Slideshow Editor:* Click the Preview Slideshow button, or press the Space bar.  
A playhead moves across photos in the Browser as they appear in the slideshow in the Slideshow Editor. To stop playback, press the Space bar.
    - *To play your slideshow in full-screen mode:* Click the Play Slideshow button.  
To exit the slideshow, press the Esc key at any time.
- Tip:** If you have a dual-display system, you can choose which display the slideshow appears on when you click the Play Slideshow button. Choose Aperture > Preferences, and click Appearance. Choose which display you want the slideshow to appear on from the “View Slideshows on” pop-up menu.

## Share your slideshow movies

After you complete your slideshow, you can share it with clients and friends. Aperture provides a few simple controls for exporting your slideshow as a movie, in the size and format most suitable for your intended audience. When you’re ready to share your slideshow, the first thing you need to decide is how it will be viewed. The Export dialog provides options for exporting your slideshow as a movie suitable for playback on iPhone, iPod, iPod touch, or iPad; as a movie for the web to be posted on YouTube; or as a high-resolution movie compatible with HD 720p or HD 1080p televisions. You can also output your slideshow movie in a custom size.

### Share your slideshow as a movie

- 1 Select a slideshow album in the Library inspector.
- 2 In the top-right corner of the Slideshow Editor, click the Export button.
- 3 In the dialog that appears, type a name for the slideshow movie in the Save As field, and select a location to save it to.
- 4 Choose the viewing platform for your movie from the “Export for” pop-up menu.

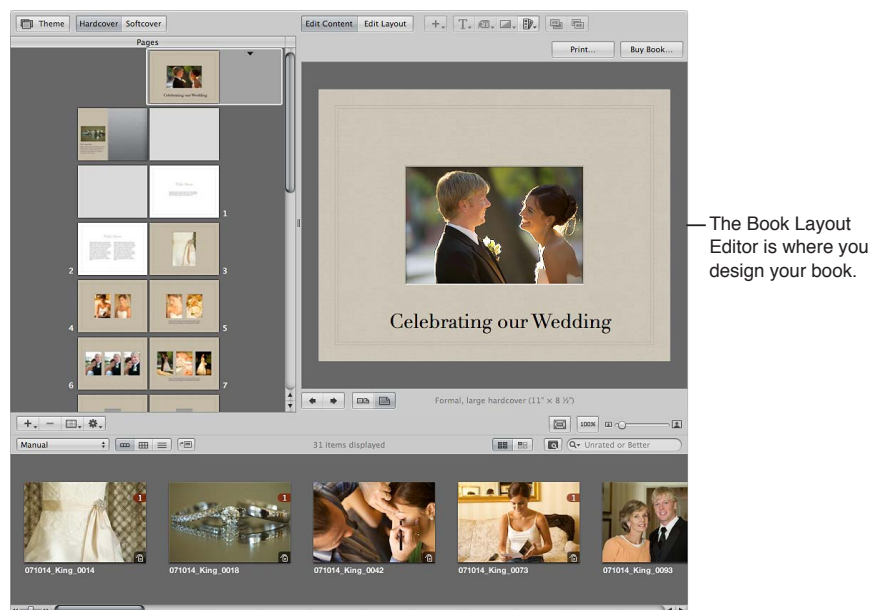
If you want to export a slideshow movie in a custom size, choose Custom from the “Export for” pop-up menu, choose a codec from the Codec pop-up menu, enter the number of frames per second in the Frame Rate field, enter the width and height in pixels in the Width and Height fields, and choose a compression setting from the Quality pop-up menu.

- 5 If you want Aperture to send a copy of the slideshow movie to iTunes, select the “Automatically send slideshow to iTunes” checkbox.
- 6 If you want to be notified when the export process is complete, select the “Show alert when finished” checkbox.
- 7 Click Export.

## Creating books overview

Using the book designs and page layouts included in Aperture, you can print outstanding portfolios of your work that show your photos in their best light. You can order printed books of your photos using the Apple print vendor service, which provides excellent printed results and direct delivery to you or your clients. You can also print your own custom books on a color printer or create files that you can hand off to a print vendor.

When you select or create a book album in the Library inspector, the Book Layout Editor appears along with the Browser. You use the Book Layout Editor to set up the page structure of your book and place photos and text on the pages.



**Note:** Although you can create books larger than 99 pages, there is a 99-page limit for books ordered through the Apple print vendor. When you try to order a book larger than 99 pages, a dialog warns you that there are too many pages. If you plan to print a book using the Apple print vendor, make sure to keep the number of pages at or below the 99-page limit.

If you prefer to print your books yourself, you can print your book using your own office printer or export your book as a PDF file that you can send to a print shop for printing.

**Important:** Books created in Aperture are not visible when working with your Aperture library in iPhoto. However, your Aperture books are not discarded. To view and work with your Aperture books, open the Aperture library in Aperture.

## Plan your book

The amount of planning and work involved in creating a book varies with the type of project you're undertaking. If you're creating wedding photo albums, you may be primarily concerned with creating a reusable book design into which you can quickly place photos that tell the wedding story. The end result may be one or several printed copies per project.

On the other hand, producing a large book, such as a coffee table book, may require a good deal of planning, writing, design, page composition, proofing, and production work. In addition, you'll want to look ahead and decide how the manuscript should be printed and bound, the number of copies for the print run, and what copyright and permissions information your book should include.

For relatively simple books, here are some of the typical steps in the publishing process.

### **Stage 1: Plan your book's cover**

Choose a cover photo and decide what text should appear on the cover.

### **Stage 2: Create copyright notices**

Create any copyright or permissions notices you need.

### **Stage 3: Create a book album**

Create a book album and choose a theme for your book.

### **Stage 4: Choose the book's photos**

Place the book's photos in the book album and arrange them in the Browser in the order in which they should appear in the book. Don't place the photos on your pages yet.

### **Stage 5: Specify the book's settings**

Specify any overall settings for the book, such as size, hardcover or softcover binding, page numbering, and so on.

### **Stage 6: Create the book's pages**

Create the number of pages you need and apply master page designs to them.

### **Stage 7: Place photos in the book**

Have Aperture automatically place your photos, or drag the photos onto your pages.

### **Stage 8: Reposition and resize photos**

Reposition and resize photos, adjusting individual page layouts if necessary.

### **Stage 9: Add text to your book**

Add text to your pages and cover.

### **Stage 10: Proof your book**

Print a proof and carefully review the text and layout of the book.

### **Stage 11: Distribute your book**

Send the book to the Apple print vendor, or create a PDF file that you can print or send to a print vendor. If you create a PDF file, make sure to include all the fonts you used in your book in the PDF file. If you're creating a larger, more complex book, contact your print vendor early in the process to make sure you consider printing issues such as the choice of paper stock, the use of inks and varnishes, and the review of bluelines, as well as other issues such as binding, packaging, shipping, and pricing.

If you routinely produce printed albums, you can create a book album that you can copy and reuse with each new project. After setting up master pages and individual page layouts, you can copy the book album to another project and then substitute the new photos, increasing your publishing productivity greatly. You can then customize certain pages, such as your cover, to provide any unique touches you like.

## Create a book album

You can create a book album in two ways:

- Select the photos you want to include in the book and then create a new book album containing the selected photos.
- Create an empty book album and then drag the photos into it.

You choose a theme for your book when you create your book album. A theme provides a professionally designed set of master pages that determine how text and photos are placed on the page.

### Create a book album

- 1 Do one of the following:
  - *To create a book album from a selection of photos:* Select the photos you want to use in the book.
  - *To create an empty book album:* Proceed to the next step.
- 2 Do one of the following:
  - Choose File > New > Book.
  - Control-click a project, folder, or album in the Library inspector, then choose New > Book from the shortcut menu.
  - Choose Book from the New pop-up menu in the toolbar.
- 3 In the dialog that appears, enter a name for the book album in the Book Name field, and specify the following:
  - *Theme list:* Select a theme in the list to see a preview of its design on the right.
  - *Book Type pop-up menu:* Choose the physical size of the book.
- 4 If you're creating a book album from a selection of photos, make sure to select the "Add selected items to new book" checkbox.

If you're creating an empty book album, make sure the "Add selected items to new book" checkbox is not selected.

- 5 If you plan to use the Apple print service to print your book and you want to check the pricing for your book type and theme combinations, click the Options & Prices button.

Pricing options for ordering printed books through the Apple print service appear in your web browser.

- 6 When you're ready, click Choose Theme.

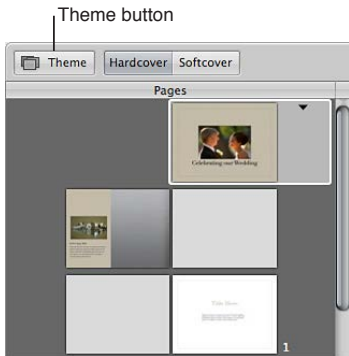
A new book album appears in the Books section of the Library inspector. You can add photos to a book album by dragging photos to it from the Browser. For more information, see [Place photos in a book](#) on page 409.

## Change the theme for your book

It's important to choose the theme you want at the beginning of a project. Although you can change themes after you start a project and Aperture will attempt to convert your book structure to the new theme's master pages, you may need to redo some of your work to make up for differences between themes. It's not recommended that you complete a book and then change themes to see it with different layouts.

**WARNING:** It's possible to lose text when you change themes. If you change book themes, make sure to first copy the text you've entered into another document so that you have a backup copy.

- 1 In the Book Layout Editor, click the Theme button.



A dialog appears, alerting you that you may lose text when you change themes and that any custom layouts you created will not be preserved.

- 2 Click OK.
- 3 Choose a book size from the Book Type pop-up menu.
- 4 In the theme list, select a theme.
- 5 Click Choose Theme.

After you change the theme, Aperture updates all of your pages to use the new theme.

You can also create your own custom theme with the dimensions of your choosing. However, you can't order books from Apple created with custom themes. For more information about creating custom themes, see [Create and share custom themes](#) on page 431.

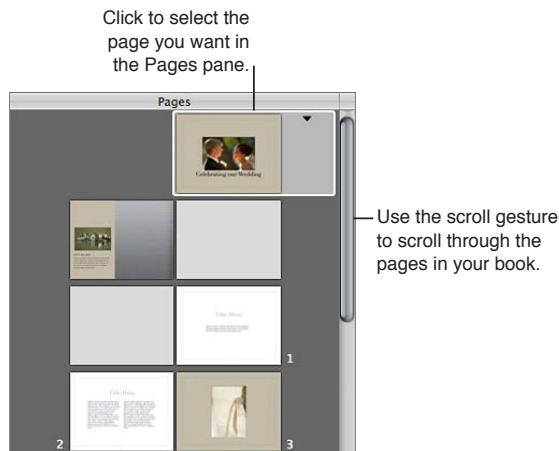
## View pages

As you work on a book, you can select and view particular pages, and you can change your view of the pages. You can display your pages laid out singly or side by side, and you can enlarge or reduce your view of book pages.

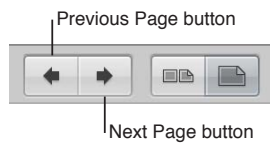
You can navigate to pages in your book by clicking a page in the Pages pane or by clicking the navigation buttons.

## View a particular page in a book

- Use the scroll gesture in the Pages pane of the Book Layout Editor to scroll to a specific page, then click the page to select it.



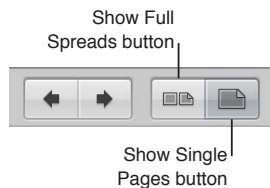
You can also quickly navigate through your pages by clicking the Previous Page and Next Page buttons.



## Display pages singly or side by side

You can set the Book Layout Editor to display your pages singly or side by side. For example, you can display pages side by side to see how photos work beside each other in two-page spreads.

- Click the Show Full Spreads or Show Single Pages button.



**Note:** Printing single- or double-sided pages is a function of your printer and the options available in the printer's Print dialog. If you're purchasing printed books from the Apple print vendor, your book is automatically printed double-sided.

## Resize the page view

You can reduce or enlarge the view of your book pages in the Book Layout Editor. For example, you might enlarge the display of your pages to closely inspect details, or reduce the view to get an overview of the general page composition.



Do any of the following:



- *To reduce or enlarge the display of your pages:* Drag the Display Size slider left or right.
- *To return your page view to a size that fits within the Book Layout Editor:* Click the Scale to Fit button.
- *To change the page view to show the actual size of the page:* Click the Actual Size button.

## Place photos in a book

After you've created a book album with photos and chosen a theme, it's time to place photos on the book's pages. There are three ways to place photos in your book:

- Drag photos from the Browser to a photo box on the page.
- Have Aperture identify unused photos in the Browser and automatically place them in the book.
- Select a group of photos in the Browser and have Aperture automatically place them in the book.

### Add photos to the book manually


- Drag a photo from the Browser to a photo box on the page.

### Have Aperture "autoflow" unplaced photos


Using the Autoflow feature, you can have Aperture automatically place your photos in a book. It's a good idea to set up the page structure of your document first by creating the number of pages needed and assigning master page layouts. Then arrange your photos in the Browser in the order in which they should appear in the book and let Aperture place the photos into the structure you created.

You can place all of the unplaced photos in your book at once, or you can select specific photos and have Aperture distribute them into any empty pages. For example, you might select several photos and have Aperture place them into the first several pages of your book, and then select several more photos and have Aperture place them on the following pages.

If you prefer, you can have Aperture create as many pages as necessary to hold all of your photos and place them on the pages. Aperture creates new pages using master page designs from the selected theme and fills those pages with your photos. You can then change the master page assignments if you wish.

- *To have Aperture "autoflow" unplaced photos:* Choose Autoflow Unplaced Images from the Book Action pop-up menu  in the Book Layout Editor.

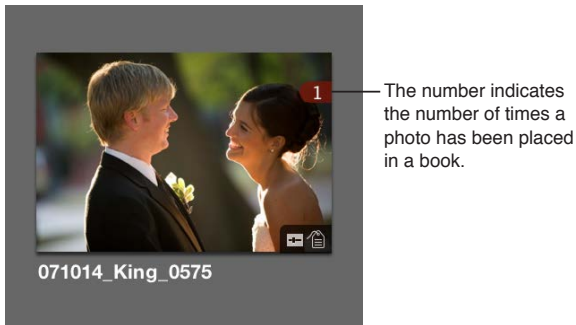
Aperture distributes the unplaced photos beginning with the first empty photo box. If there are more unplaced photos than your current page structure can hold, Aperture creates new pages as necessary.

- *To have Aperture "autoflow" selected photos:* In the Browser, select the photos you want to place in the book, and then choose Autoflow Selected Images from the Book Action pop-up menu  in the Book Layout Editor.

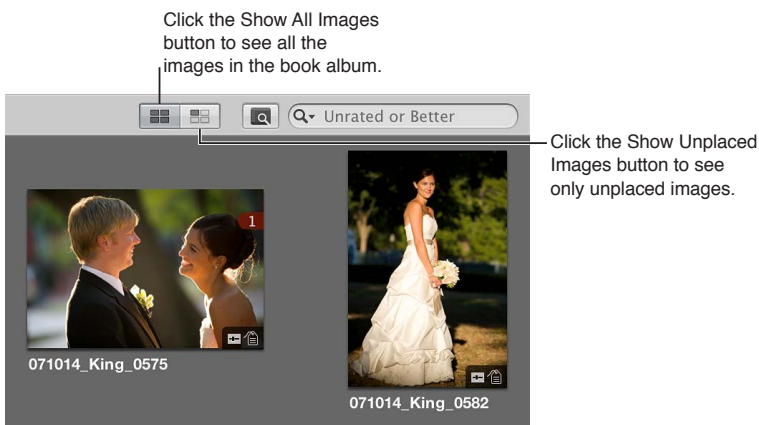
Aperture distributes the selected photos beginning with the first empty photo box. If you selected more photos than your current page structure can hold, Aperture creates new pages as necessary.

## View unplaced photos

After a photo is placed in the book, its Browser thumbnail is marked with a number to show how many times the photo appears on the pages of the book.



In a long book with many photos, it can at times be difficult to know which photos have been placed in a book. To help you work efficiently, you can click the Show Unplaced Images button to see only the photos that remain unplaced.



Do the following:

- *To display only unplaced photos in the Browser:* Click the Show Unplaced Images button.
- *To display all of an album's photos in the Browser:* Click the Show All Images button.

### Display a selection of photos in a book album in a standard Viewer

To inspect selected photos in detail, you can display them in the Viewer. When the Book Layout Editor is open, the Browser provides a button for quickly switching to a standard Viewer.

- 1 Select the photos in the Browser.
- 2 Click the Show Viewer button.



The Book Layout Editor is replaced by the Viewer, allowing you to view the photos in detail and perform image adjustments. To return to the Book Layout Editor, click the Show Viewer button again.

**Note:** You can't select and use the Lift, Stamp, Rotate, and adjustment tools in the tool strip when using the Book Layout Editor. To use these tools to make a change to a photo in your book, select the photo in the Browser, then click the Show Viewer button. The selected photo appears in the Viewer where you can make image adjustments. Click the Show Viewer button again to return to the Book Layout Editor.

## Add and remove pages

### Add individual pages to a book

When you create a book album, Aperture automatically sets up default pages laid out in the Book Layout Editor. You can select and change these pages to suit your book's requirements, and you can add and remove pages as needed. You can insert new blank pages wherever you like. After adding pages, you can drag them in the Pages pane to new locations in the book.

The most basic way to build a book is to create new pages one by one, adding them to the book as you go.



Set Master Page pop-up menu  
Add Pages pop-up menu

### Add a single page to a book

- 1 In the Book Layout Editor, select a page in the Pages pane.  
The new page you are about to create will appear just after the selected page.
- 2 Choose Add New Page from the Add Pages pop-up menu (+).  
The new page appears in the Pages pane just after the selected page.
- 3 With the page selected in the Pages pane, choose a master page from the Set Master Page pop-up menu.  
The layout is applied to the new page.

## Duplicate pages in a book

If you've made changes to a page and you want to use that page again in your book, you can duplicate it. Or, you might duplicate a page and then make small modifications to it, keeping both the new page design and the original for later use.

- 1 In the Pages pane of the Book Layout Editor, select the page or pages you want to duplicate.

You can Shift-click pages in the Pages pane to select multiple pages.

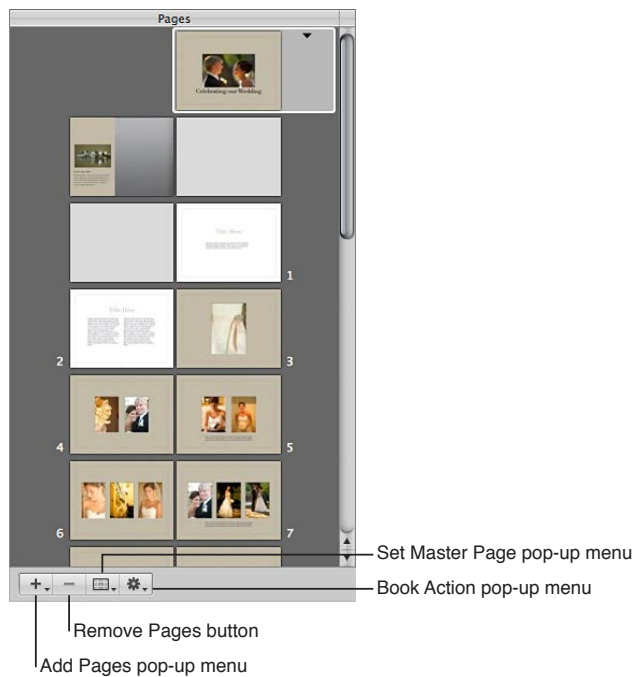
- 2 Do one of the following:


- Choose Edit > Duplicate.
- Choose Duplicate Page from the Add Pages pop-up menu (+).

The new pages appear in the Pages pane with the same page layout as the one you selected.

## Add a new page that is based on a master page

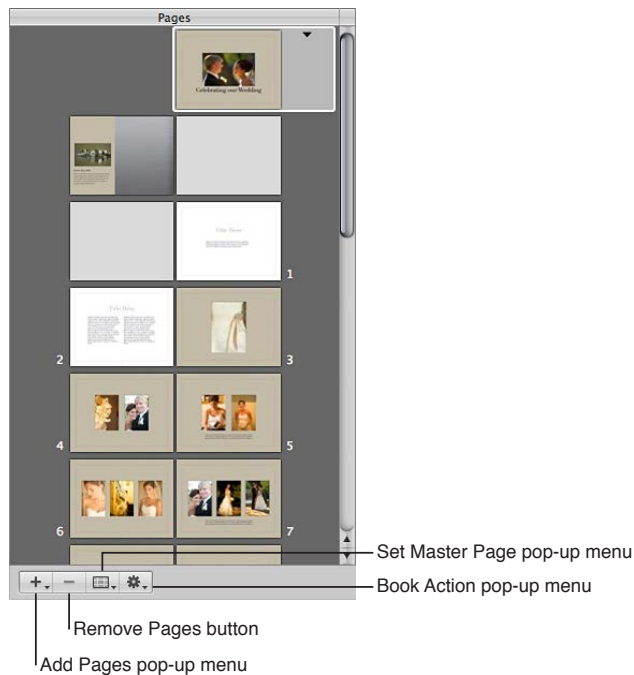
You can add pages that are based on a specific master page.



- 1 To show master pages, choose Show Master Pages from the Book Action pop-up menu  in the Book Layout Editor.
- 2 Select a page in the Pages pane.  
The new page will appear just after the selected page.
- 3 Select a master page in the Master Pages pane.
- 4 Choose Add New Page From Master from the Add Pages pop-up menu (+).

## Automatically create new pages

Aperture can automatically add pages to a book to accommodate the unplaced photos or a selection of photos in the Browser. Aperture creates the number of pages needed to hold the remaining unplaced photos.



### Distribute unplaced photos in pages created automatically by Aperture

- 1 Arrange the book album's photos in the Browser in the order that you want them to appear in the book.
- 2 In the Book Layout Editor, select a page in the Pages pane.  
The new pages will appear just after the selected page.
- 3 Choose Add New Pages > With Unplaced Images from the Add Pages pop-up menu (+).  
All of the unplaced photos in the album are added to new pages in the book.

### Distribute selected photos in new pages


- 1 In the Browser, select the photos in the book album that you want add to the book.
- 2 In the Book Layout Editor, select a page in the Pages pane.  
The new pages will appear just after the selected page.
- 3 Choose Add New Pages > With Selected Images from the Add Pages pop-up menu (+).  
The selected photos are added to a book.

### Distribute unplaced photos in new pages based on a master page


- 1 To show master pages, choose Show Master Pages from the Book Action pop-up menu ⚙️ in the Book Layout Editor.
- 2 Select a master page in the Master Pages pane.
- 3 Choose Add New Pages From Master > With Unplaced Images from the Add Pages pop-up menu (+).

Aperture adds the unplaced photos to new pages and places them at the end of your book. All the new pages are based on the selected master page. If you do not want the new pages to appear at the end of the book, drag them to the position in the book that you prefer in the Pages pane. For more information, see [Work with pages](#) on page 415.

#### Distribute selected photos in new pages based on a master page

- 1 To show master pages, choose Show Master Pages from the Book Action pop-up menu  in the Book Layout Editor.
- 2 Select a master page in the Master Pages pane.
- 3 Select the photos you want in the Browser.
- 4 Choose Add New Pages From Master > With Selected Images from the Add Pages pop-up menu (+).

Aperture adds the selected photos to new pages and places them at the end of your book. All the new pages are based on the selected master page. If you do not want the new pages to appear at the end of the book, drag them to the position in the book that you prefer in the Pages pane. For more information, see [Work with pages](#) on page 415.


*Tip:* If you no longer need to see the Master Pages pane, choose Hide Master Pages from the Book Action pop-up menu .

#### Add a photo index to a book

You can add index pages to a book that show thumbnails of all the book's photos. Depending on the theme you choose, Aperture provides different looks and layouts for photo indexes. You can also add an index of photo metadata to your book. Typically, the photo index appears at the end of a book or at its beginning.

*Note:* Not all themes support photo indexes. For more information about switching themes, see [Create a book album](#) on page 406.

#### Add an index page to the end of your book

- 1 To show master pages, choose Show Master Pages from the Book Action pop-up menu .
- 2 Select an index master page in the Master Pages pane.
- 3 Choose Add New Page From Master from the Add Pages pop-up menu (+).

Add as many index pages as your book needs to hold all the photos.

- 4 Drag photos to the photo boxes to fill the index pages at the end of your book.

If you want the index pages to appear in a different position in your book, drag them in the Pages pane.

## Add a metadata index to your book

- Choose Create Index from the Book Action pop-up menu  in the Book Layout Editor.

Aperture adds metadata index pages to the end of your book and updates the index with the metadata information from your photos. You can change the metadata that appears in the index by selecting metadata boxes and changing the metadata format using the Set Metadata Format pop-up menu.



## Remove pages from a book

You can remove pages from a book. Removing pages removes the contents of the page, and remaining pages simply reflow to fill the deletion. You cannot remove the cover page of a book.

### Remove pages from a book

- Select the page or pages you want to remove in the Pages pane of the Book Layout Editor.  
You can Shift-click pages to select multiple pages.
- Click the Remove Pages button (or press the Delete key), then confirm that you want to delete the page or pages.

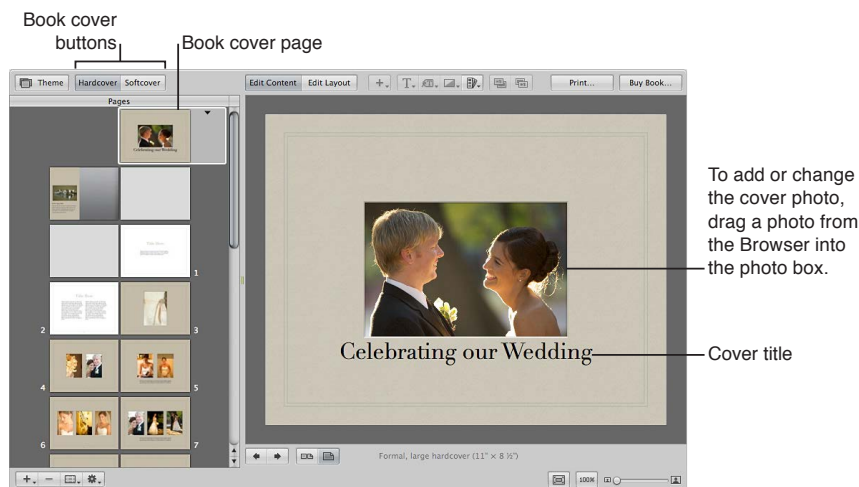
## Work with pages

There are many ways to work with pages in your photo book. You can choose between a hard and soft cover, choose master page layouts, copy pages, reorder pages, and add a background image to appear behind the photos on a page.

### Select a hardcover or softcover design for your book

When you create a new book album, Aperture automatically creates a front cover page for the book. You can select the page and add a title, cover photo or design, and other text or photos that you like.

You can also choose between a softcover or hardcover design. Softcover designs have a white background; if you select a hardcover design and purchase printed copies of the book from the Apple print vendor, you can choose from a selection of hardcover colors. Note that you can only add photos and text to the front cover of your book; you can't specify photos or text on the spine or back cover when purchasing books from the Apple print vendor.



To choose whether your book has a softcover or hardcover design, you click one of the book cover buttons.

- Click the Hardcover or Softcover button in the Book Layout Editor.


If you don't plan to purchase printed books from the Apple print vendor, you may want to employ a graphic designer to create the front and back cover for you, or you can design the cover yourself using a graphics application.

### Apply a master page design to a page

You select a design for your page by applying a master page layout. Aperture provides different master page layouts depending on the theme you choose. You choose a page design from the Set Master Page pop-up menu. For example, you might create a single-photo page and then later decide to change that page to hold two photos.

You can apply different master page designs to a page to find the design that works best for your project.

- 1 Select the page in the Pages pane of the Book Layout Editor.
- 2 Do one of the following:
  - Choose a master page from the Set Master Page pop-up menu.
  - Click the triangle on the page, then choose a master page from the pop-up menu.

If you change a page's design by repositioning or resizing boxes and you want to start over with the original design, you can reapply the original master page design by selecting the page you want to change in the Pages pane of the Book Layout Editor, and then choosing Reapply Master from the Book Action pop-up menu .

### Move a page in your book

You can move pages within a book. If you need to move a particular page forward or backward in the page order, you can drag it to a new location in the book structure.

- 1 Select the page in the Pages pane of the Book Layout Editor.
- 2 Drag the page to a new location.

### Choose a background image

You can choose a background image to appear behind the other photos on a page. For example, you might create a page that shows a bride and groom in the foreground and a church setting in the background. Or, you might choose a background image that complements the colors of the photo in the foreground.

- 1 Select a page in the Pages pane of the Book Layout Editor to which you want to apply the background.
- 2 Do one of the following:
  - *To apply a background image to a single page:* Drag a photo from the Browser over the page in the Book Layout Editor until the background becomes highlighted, and then release the mouse button.
  - *To apply a background image to a two-page spread:* Make sure the Show Full Spreads button is selected in the Book Layout Editor, then drag the photo you want over the spine (center) of the page spread in the Book Layout Editor until the background becomes highlighted on both pages.



## Remove a background image



- 1 Select the page in the Pages pane of the Book Layout Editor.
- 2 Do one of the following:
  - Click the page background to select the image, then press the Delete key to remove the image.
  - Choose No Background from the Set Background pop-up menu.



**Note:** The Set Background pop-up menu is not available for all themes.

## Use page numbers in a book

Aperture provides automatic page numbering in your books. Each theme offers page numbers in preset positions on the page. You can turn off page numbering if you wish. You cannot reposition page numbers on the page or change the format of the page numbers.



- *To turn on page numbering:* Choose Page Numbers > Always from the Book Action pop-up menu  in the Book Layout Editor.
- *To turn off page numbering:* Choose Page Numbers > Off from the Book Action pop-up menu  in the Book Layout Editor.

You can also choose the Automatic option to turn on page numbering. When chosen, the Automatic option displays page numbers on pages when no photos appear behind them.

## Rebuild a book with all of the photos in the Browser

If you've made modifications to the design of a book and you want to start over with an unmodified design, Aperture can rebuild your book. Aperture rebuilds the book structure using the default series of master page designs and adds your photos to the revised pages. You lose any changes that you previously made to your pages. Aperture can place all the photos in the Browser into the book, or only selected photos.

Do one of the following:

- *To rebuild a book with all of the photos in the Browser:* Choose Rebuild Book With All Images from the Book Action pop-up menu  in the Book Layout Editor.
- *To rebuild a book with a selection of photos:* Select the photos in the Browser that you want to place in the book, then choose Rebuild Book With Selected Images from the Book Action pop-up menu  in the Book Layout Editor.

## Work with photos

### Add photo boxes to a book page

After creating a page and applying a master page design, you may need to add more photo boxes to hold photos on the page. You can select a different master page design that has more photo boxes, or you can add photo boxes where you need them.

### Add a photo box to a page

- 1 In the Book Layout Editor, click the Edit Layout button, if it's not already selected.
- 2 Select a page in the Pages pane.

- 3 Choose Add Photo Box from the Add Box pop-up menu (+) next to the Edit Layout button.

When the photo box appears, you can drag it to a new position and resize it.

#### Remove photo boxes from a page


After creating a book page and applying a master page design, you may want to remove one or more photo boxes from the page. You can choose a different master page design that has fewer photo boxes, or you can manually remove photo boxes from the page.

- Click the Edit Layout button, select a photo box or boxes, then choose Edit > Cut (or press Delete).

#### Modify photo boxes

Aperture is preset to scale photos to fill a photo box on a book page. You can change the position of a photo within a photo box, making it appear centered or aligned on the right or left edge. You can also adjust the scaling of a photo within a box. If a photo is scaled so that only part of the photo is visible within the photo box, you can change the portion of the photo that's visible.

#### Change the position of a photo in a photo box

- 1 In the Book Layout Editor, click the Edit Layout button, if it's not already selected.
- 2 Select the photo box you want to change.
- 3 Choose Photo Box Alignment from the Book Action pop-up menu , then choose an alignment option from the submenu.
  - *To scale the photo to fit the size of the box on the page:* Choose Scale to Fill.
  - *To center the photo in the box:* Choose Scale to Fit Centered.
  - *To align the photo on the left edge of the box:* Choose Scale to Fit Left-Aligned.
  - *To align the photo on the right edge of the box:* Choose Scale to Fit Right-Aligned.

#### Change the scale of a photo in a photo box

- 1 Double-click the photo.

The Image Scale HUD appears.
- 2 Drag the slider to adjust the size of the photo within the photo box.

Click outside the photo box to hide the Image Scale HUD.


#### Change the part of the photo that appears in a photo box

- 1 Double-click the photo.

The Image Scale HUD appears.
- 2 Drag the photo to change the part that's visible within the box.

#### Change the aspect ratio of a photo box

Book pages hold photo boxes with specific sizes and aspect ratios. You can select a photo box and change the aspect ratio to fit the photo. For example, you can change a photo box with a landscape orientation to one with a portrait orientation.

- 1 In the Book Layout Editor, click the Edit Layout button, if it's not already selected.
- 2 Select the photo box you want to change.
- 3 Choose Photo Box Aspect Ratio from the Book Action pop-up menu , then choose an aspect ratio from the submenu.
  - *To change a photo box to a 4:3 landscape aspect ratio:* Choose Landscape 4:3.
  - *To change a photo box to a 3:2 landscape aspect ratio:* Choose Landscape 3:2.

- To change a photo box to a 2:3 portrait aspect ratio: Choose Portrait 2:3.
- To change a photo box to a 3:4 portrait aspect ratio: Choose Portrait 3:4.
- To change a photo box to a square aspect ratio: Choose Square.
- To create a photo box that fits the cropping of the current photo in the box: Choose Photo Aspect Ratio.

### Arrange photo boxes on the page

You can resize and reposition photo boxes on a book page.



- 1 In the Book Layout Editor, click the Edit Layout button, if it's not already selected.
- 2 Select the photo box you want to move or resize.
- 3 Drag the photo box to a new location, or drag a handle on the selected box to change the photo's size.

As you drag a photo box, yellow guidelines appear that mark the important margins and image borders on your page. Using the guidelines, you can make sure that your photo boxes correctly align with other boxes on your pages.

### Copy, paste, cut, and remove photos in photo boxes

After you place photos in photo boxes on your book pages, you can select a box or group of boxes and copy and paste the contents, or cut or remove the photos from photo boxes.

#### Copy and paste the contents of selected photo boxes

- 1 In the Book Layout Editor, click the Edit Content button, if it's not already selected.
- 2 Select the photo box or boxes whose contents you want to copy.
- 3 Choose Edit > Copy Content.
- 4 Select the photo box or boxes where you want the copied contents to appear.
- 5 Choose Edit > Paste Content.

#### Copy selected photo boxes

- 1 In the Book Layout Editor, click the Edit Layout button, if it's not already selected.
- 2 Select the box or boxes you want to copy.
- 3 Choose Edit > Copy.
- 4 Select the page where you want the copied photo box or boxes to appear.
- 5 Choose Edit > Paste.

### Cut the contents of selected photo boxes, placing the contents in the Clipboard

- 1 In the Book Layout Editor, click the Edit Content button, if it's not already selected.
- 2 Select the photo box or boxes whose contents you want to cut.
- 3 Choose Edit > Cut Content.

### Remove the contents of selected photo boxes without saving them in the Clipboard


- 1 In the Book Layout Editor, click the Edit Content button, if it's not already selected.
- 2 Select the photo box or boxes whose contents you want to remove.
- 3 Press the Delete key.

### Stack photo boxes in a specific order

As you arrange photo boxes on a book page, perhaps overlapping them to create a certain look, you may want to change their stacking order. For example, you might want to place three photos on top of one another in a specific order. To change the stacking order of photo boxes, you select a photo box and then click the Bring Forward or Send Backward button.



### Change the order of a stack of photo boxes

- 1 In the Book Layout Editor, click the Edit Layout button, if it's not already selected.
- 2 Select the photo box whose stacking order you want to change.
- 3 Do one of the following:
  - Click the Bring Forward or Send Backward button.
  - Choose Arrange from the Book Action pop-up menu , then choose an option from the submenu.

### Change the look of photos with filters

Aperture allows you to change the look of photos in books by applying filters. For example, you might apply a filter that fades a photo so that you can position text over it to create an interesting cover. You can also apply filters that change a photo to black and white or sepia.



### Apply a filter to a photo box

- 1 Select the photo box that contains the photo you want to change.
- 2 Choose the filter style you want from the Set Photo Filter pop-up menu.

**Note:** When you apply a filter to a photo in a book and then examine the photo with the Loupe, the photo appears without the filter effect. The filter is applied only to the photo in the book, not to the photo version. The Loupe displays the photo version.

## Add map boxes to a book page

If you've added location information to your photos using Places, you can add a map to a book page showing the locations where the surrounding photos were shot. In addition, you can define a route between locations to illustrate the journey between destinations.

**Note:** The Map box feature is available only in certain book themes. For more information about book themes, see [Create a book album](#) on page 406.

### Add a map box to a page

- 1 In the Book Layout Editor, click the Edit Layout button, if it's not already selected.
- 2 Select a page in the Pages pane.
- 3 Choose Add Map Box from the Add Box pop-up menu.

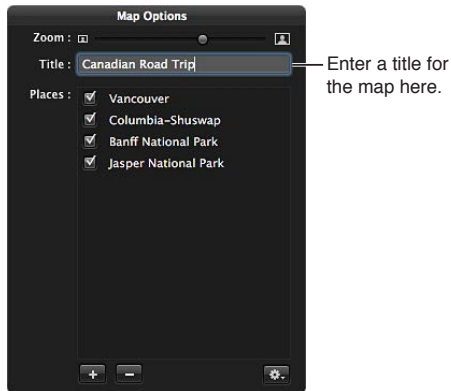


When the map box appears on the selected page in the Book Layout Editor, you can drag it to a new position and resize it. Locations assigned to photos in photo boxes surrounding the map box are automatically plotted on the map.

### Give the map a title

You can give the map a title that appears over the bottom-left portion of the map.

- 1 In the Book Layout Editor, double-click the map.  
The Map Options HUD appears.
- 2 In the Map Options HUD, enter a title for the map in the Title field at the top of the HUD.



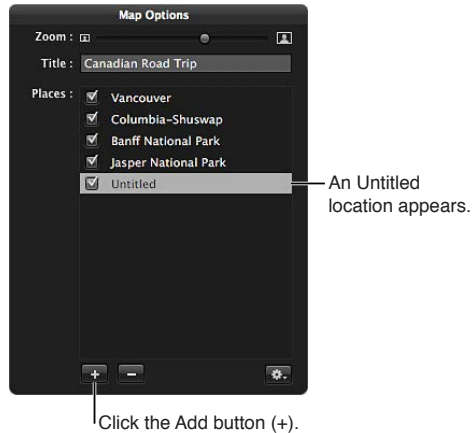
A title appears over the bottom-left portion of the map in the Book Layout Editor.

## Add a location to the map

By default, the map automatically displays the locations where the photos that surround it were captured, provided they have location information assigned to them. However, you can also add and remove locations that appear on the map using the Map Options HUD.

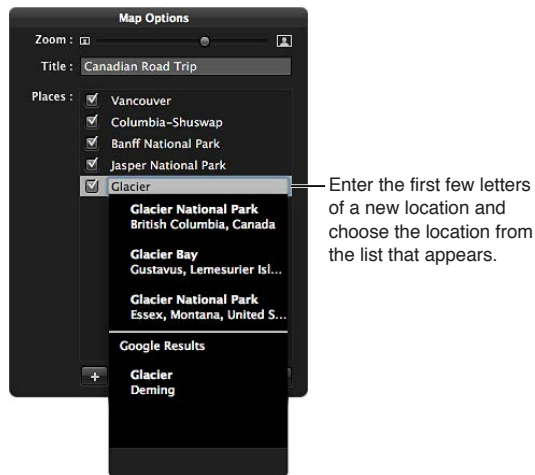
- 1 If necessary, double-click the map in the Book Layout Editor.
- 2 In the Map Options HUD, click the Add button (+) .

A new, untitled location appears.



- 3 Click the Untitled location and enter a location that you would like to appear on the map.

A list of locations appears below.

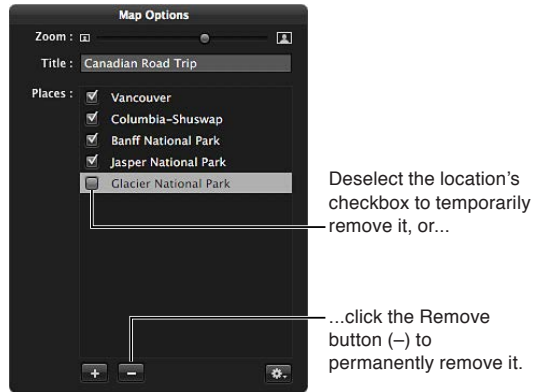


- 4 Choose the location from the list.

The new location appears on the map in the Book Layout Editor.

## Remove a location from the map

- 1 If necessary, double-click the map in the Book Layout Editor.
- 2 In the Map Options HUD, do one of the following:
  - *To temporarily remove a location from the map:* Deselect the checkbox next to the location's name.
  - *To permanently remove a location from the map:* Select the location's name, then click the Remove button (–).

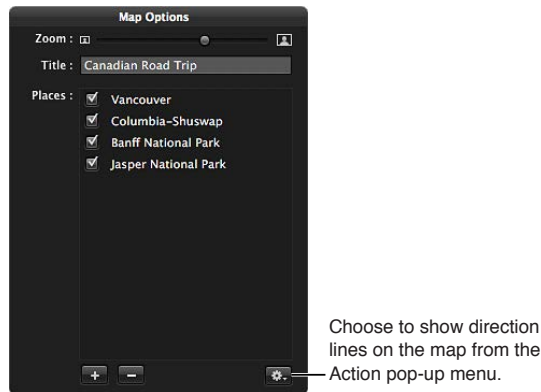


The location is removed from the map.

## Show direction lines between locations on the map

You can show direction lines between locations on the map to illustrate the progression of your journey from place to place in your photo essay.

- 1 If necessary, double-click the map in the Book Layout Editor.
- 2 In the Map Options HUD, choose one of the following options from the Action pop-up menu ⚙️:
  - *To show a simple set of lines connecting the locations on the map:* Choose Show Straight Lines.
  - *To show curved lines with arrowheads indicating the direction of movement from one place to another:* Choose Show Lines with Arrowheads.

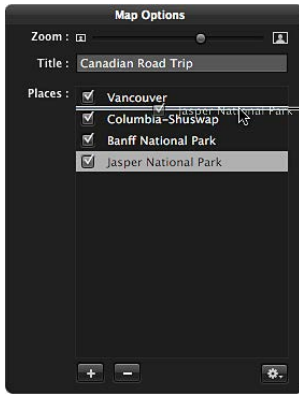


The direction lines appear on the map.


### Set the path of the direction lines in the map

When you show direction lines on the map, they may not initially connect locations in a way that matches the route you intended. You set the path of the direction lines by rearranging the order of the locations in the Map Options HUD.

- 1 If necessary, double-click the map in the Book Layout Editor.
- 2 In the Map Options HUD, drag the locations into the order in which you want the direction lines to appear on the map, from top to bottom.




Drag the locations into the order in which you want the direction lines to appear on the map.

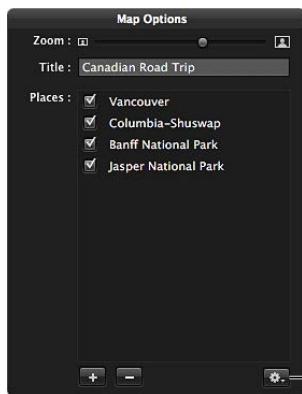
- 3 If you want the last location on the map connected to the first location on the map, choose Return to Starting Place from the Map Options HUD Action pop-up menu .

The direction lines on the map are updated to match the order of locations in the Map Options HUD.

### Choose the area shown in the map

You can specify which part of the map is visible on the page by zooming in to and out of the map and repositioning the map. If you've repositioned the map and the photo locations are off-center or no longer appear, you can return the map to a position centered on the photo locations.

- 1 If necessary, double-click the map in the Book Layout Editor.
- 2 In the Map Options HUD, do any of the following:
  - *To zoom in to and out of the map:* Drag the Zoom slider (at the top of the HUD) to the right to zoom in and to the left to zoom out.
  - *To reposition the map to show other locations:* Drag the map to reposition it.
  - *To center the map on the photo locations:* Choose Center Map on Places from the Map Options HUD Action pop-up menu .



Choose to center the map on places using the Action pop-up menu.



## Work with text

### Place text on the page

As you work with your book layout, you can add text and position it on the page. You can make text changes to individual pages in your book, or you can change master pages to create template pages with custom text styles and layouts. When you want to add text to a book page and need another text box, you can add one and position it anywhere on the page.

Master page designs provide text boxes that you can select and enter text in. You can also copy text and paste it into text boxes on your book pages.

#### Add text to a text box

- 1 In the Book Layout Editor, click the Edit Content button, if it's not already selected.



- 2 In the Pages pane, select the page you want to work on.
- 3 Select the text box you want to change.
- 4 Select any existing text and type or paste the new text.

#### Add a text box to a page

- 1 In the Pages pane of the Book Layout Editor, select the page to which you want to add text.
- 2 Click the Edit Layout button.



- 3 Choose Add Text Box from the Add Box pop-up menu.



A new text box appears on the page.

- 4 Drag the text box to the location where you want it to appear.

You can resize a text box by dragging its resize handles.


#### Arrange text on a page

You can resize and reposition text and metadata boxes on a book page. First click the Edit Layout button; then click boxes to select them. Selected boxes display handles that you drag to resize the boxes. You can also drag the contents of a box to move the box to a new position.

- 1 In the Book Layout Editor, click the Edit Layout button, if it's not already selected.
- 2 In the Pages pane, select the page you want to work on.
- 3 Select the text box on the page that you want to move or resize.
- 4 Drag the box to a new location, or drag a handle on the selected box to change the box's size.

### Change the number of text columns in a text box

You can change a text box on a book page so that it's formatted to hold from one to four columns of text.

- 1 In the Book Layout Editor, click the Edit Layout button, if it's not already selected.
- 2 Select the text box.
- 3 Choose Text Box Columns from the Book Action pop-up menu , then choose the number of columns from the submenu.
- 4 If necessary, resize the text box to better accommodate the changed column layout of the box.

### Remove text or metadata boxes from a page

After creating a book page and applying a master page design, you may want to remove one or more text boxes from the page. You can choose a different master page design that has fewer text boxes, or you can manually select and remove text boxes.

- 1 In the Book Layout Editor, click the Edit Layout button.
- 2 Select the text or metadata box that you want to remove, then choose Edit > Cut Content (or press Delete).

### Add metadata boxes to a page

You can display photos on a book page along with any metadata associated with them. To display a photo's metadata, you add a metadata box to the page and link it to the photo. You can also unlink a metadata box from its selected photo and relink it when necessary.

#### Add a metadata box to a page

- 1 In the Pages pane of the Book Layout Editor, select the page to which you want to add the metadata box.
- 2 Click the Edit Layout button.
- 3 Select the photo box to which you want to add a metadata box.
- 4 Choose Add Metadata Box from the Add Box pop-up menu.




A new metadata box appears on the page.


- 5 Drag the metadata box to the location where you want it to appear.  
You can resize a metadata box by dragging its resize handles.
- 6 Choose the type of metadata you want displayed in the box from the Set Metadata Format pop-up menu.



#### Unlink a metadata box

- 1 In the Pages pane of the Book Layout Editor, select the page that has a metadata box you want to unlink.
- 2 Select the metadata box.
- 3 Choose Unlink Metadata Box from the Book Action pop-up menu .

### Relink a metadata box

- 1 In the Pages pane of the Book Layout Editor, select the page that has the metadata box you want to link.
- 2 Command-click the metadata box and the photo box you want to link to select them both.
- 3 Choose Link Metadata Box from the Book Action pop-up menu .

### Hide or show photo plate numbers in books

You can turn the display of plate numbers in your books and web galleries on or off. Aperture is preset not to display plate numbers for photos.

#### Turn on the display of plate numbers in a book

- In the Book Layout Editor, choose Enable Plate Metadata from the Book Action pop-up menu .

### Modify the appearance of text in books

You can assign text styles to text and metadata boxes to change the look of text in your book. Aperture master pages come with preset text styles that include designs for important text elements such as cover text, subtitles, headings, and paragraph text. You can easily apply these styles to text and metadata boxes as you work.

Aperture also provides a Fonts window that you can use to change fonts in your books. You select text in a text box on a page to change the font, font size, font color, and more.

**Important:** Aperture follows the text-smoothing preferences set in the Appearance pane of System Preferences. The OS X default setting doesn't smooth fonts that are 8 points in size or smaller. This setting only affects the appearance of fonts onscreen; the fonts appear smoothed when printed.

#### Change the text style of a text or metadata box

- 1 Select the text or metadata box you want to change.
- 2 Choose a text style for your text from the Set Text Style pop-up menu.



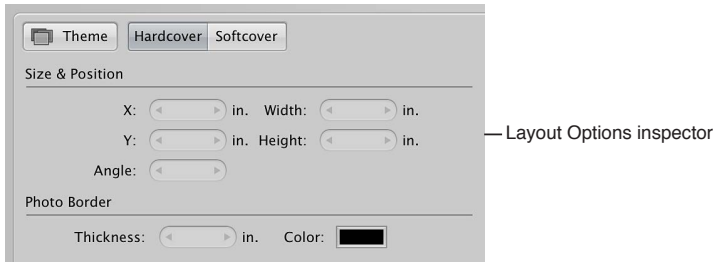
#### Show the Fonts window

Do one of the following:


- Select a text box, then choose Edit > Show Fonts (or press Command-T).
- Control-click the text box, then choose Font > Show Fonts from the shortcut menu.

## Work with the Layout Options inspector

You can select an item on a book page and view its geometry using the Layout Options inspector. Some printers require precise layout dimensions; you can use the Layout Options inspector to accurately place all items on the page by specifying new dimensions using the value sliders. In addition, you can change the angle of text and photo boxes, as well as apply a color border to a photo box.



### Open and close the Layout Options inspector

- *To open and close the Layout Options inspector:* Choose Show Layout Options from the Book Action pop-up menu  in the Book Layout Editor.

The Layout Options inspector appears at the top-left area of the Book Layout Editor.

- *To close the Layout Options inspector:* Choose Hide Layout Options from the Book Action pop-up menu  in the Book Layout Editor.

### Change the dimensions of a text or photo box

- 1 Select a text box or photo box on a book page displayed in the Book Layout Editor.
- 2 Do any of the following:
  - *To move the selected item left or right:* Specify a new value using the X value slider.
  - *To move the selected item up or down:* Specify a new value using the Y value slider.
  - *To change the width of the selected item:* Specify a new value using the Width value slider.
  - *To change the height of the selected item:* Specify a new value using the Height value slider.

### Change the angle of a text or photo box

- 1 Select a text box or photo box on a book page displayed in the Book Layout Editor.
- 2 Specify an angle value using the Angle value slider.

The photo rotates counterclockwise as the value increases. Decrease the value to rotate the photo clockwise.

### Add a border to a photo box

- 1 Select a photo box on a book page displayed in the Book Layout Editor.
- 2 Set the width of the border by specifying a value using the Thickness value slider.
- 3 Set the color of the border by clicking in the Color well and then choosing a color in the Colors window.

The border is applied to the photo.

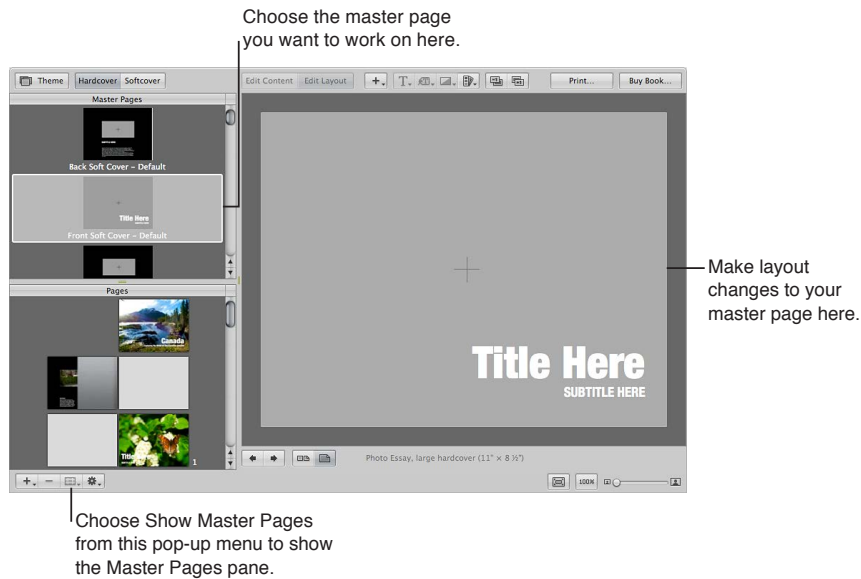
## Work with master pages

### Master pages overview

Master pages supply the initial design of your book pages. You apply master page designs repeatedly throughout a book.

If you plan to make reusable book albums, you can customize the page designs of a selected theme before creating your books. You can select a master page and modify it, changing the photo, text, and metadata boxes that appear on the page. You can also create new master pages to suit specific layout needs. To modify pages, you use the procedures for working with photo, text, and metadata boxes presented earlier in this chapter.

To modify a master page, you show master pages in the Master Pages pane and then add a new page or select the page you want to work on. When you select a master page in the Master Pages pane, the Book Layout Editor displays an enlarged view of the page.




### Create and modify master pages

You can create new master pages, or you can duplicate existing master pages and modify them. For example, if you decide to customize a two-photo layout from an original master page design, you can save the customized version and have multiple two-photo layouts from which you can choose. Once you create a new master page, the master page name appears in the Set Master Page pop-up menu, where you can choose it to apply the design to pages in your book.

**Note:** You cannot modify the master pages for cover pages.


#### Create a new master page design

- 1 Choose Show Master Pages from the Book Action pop-up menu  in the Book Layout Editor.
- 2 Select a master page in the Master Pages pane.
- 3 Choose Add New Page from the Add Pages pop-up menu (+).

The new master page appears in the Master Pages pane underneath the page you selected in step 2.


- 4 If you want to rename the page, double-click its title and type a new name.
- 5 Select the new master page and make your changes.

### Duplicate and modify a master page design

- 1 Choose Show Master Pages from the Book Action pop-up menu  in the Book Layout Editor.
- 2 Select the master page you want to duplicate in the Master Pages pane.
- 3 Choose Duplicate Page from the Add Pages pop-up menu (+).  
The new duplicate page appears in the Master Pages pane underneath the original page.
- 4 If you want to rename the page, double-click its title and type a new name.
- 5 Select the new master page and make your changes.


### Create a new master page design from a page in your book

You can change the design of a page in your book and save the changes to create a new master page.

- 1 In the Pages pane of the Book Layout Editor, select the page whose modifications you want to save as a master page.
- 2 Choose Save Page > As New Document Master from the Book Action pop-up menu .
- 3 Choose Show Master Pages from the Book Action pop-up menu, if necessary, to show the Master Pages pane.
- 4 Select the new master page in the Master Pages pane and rename it.

### Save changes in a book page to the original master page design

After updating the design of a page in your book, you can update the original master page with those changes.


- 1 In the Pages pane of the Book Layout Editor, select the page whose design you modified.
- 2 Choose Save Page > To Document Master from the Book Action pop-up menu .

Aperture updates the original master page with your design changes.


### Unify and split master pages

Some master pages have left and right versions to match the book margins on the left and right facing pages. You can select a left or right master page and consolidate the two versions into one page.

#### Unify left and right versions of a master page

- 1 Select a left or right master page in the Master Pages pane of the Book Layout Editor.
- 2 Choose Unify Master Page from the Book Action pop-up menu .

#### Split a master page that doesn't have left or right versions into left and right versions


- 1 Select a master page in the Master Pages pane of the Book Layout Editor.
- 2 Choose Split Master Page from the Book Action pop-up menu .

You can now adjust the position of items on the new pages to match the margins on the left and right pages.

## Update book pages with master page changes

After you change a master page, the modified design can be applied to pages in your book. Aperture does not automatically update the design of pages whose master pages are modified. However, you can choose to update the pages in a book with revised master page designs.

### Update a page with a changed master page design

- 1 In the Pages pane of the Book Layout Editor, select the page whose master page design you want to update.
- 2 Choose Reapply Master from the Book Action pop-up menu .

Aperture applies the current master page design to the selected page.

## Create and share custom themes

If you need a book with dimensions different from those of the Small, Medium, and Large format books, you can create a custom theme with the precise dimensions you require. The ability to set the dimensions in a custom theme provides the precision demanded by professional printers.

### Create a custom theme

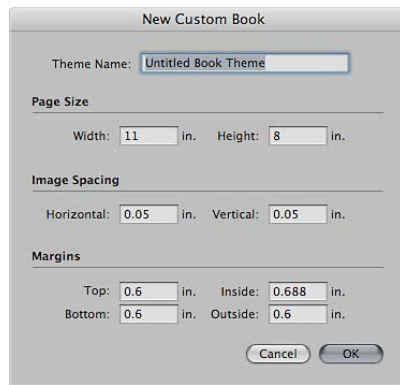
- 1 In the Book Layout Editor, click the Theme button.

A dialog appears, alerting you that you may lose text when you change themes.

- 2 Click OK.
- 3 In the dialog that appears, choose Custom from the Book Type pop-up menu.
- 4 Click the New Theme button at the bottom of the dialog.

The New Custom Book dialog appears.

- 5 In the Theme Name field, enter a name for the custom theme.



- 6 Enter the book's dimensions in the Page Size, Image Spacing, and Margins areas, then click OK.

The new custom theme appears in the theme list.

### Share custom themes with another Aperture system

You can share custom book themes with other Aperture systems. By default, Aperture saves custom themes in the following location in the Finder:

`/Users/username/Library/Application Support/Aperture/Book Themes/`

- Copy the themes folders that you want to share from the Book Themes folder on the first Aperture system to the same location on the other Aperture system.


The custom themes appear in the Book Themes dialog when you choose Custom from the Book Type pop-up menu.

## Copy a book album

After you've set up a book structure that you like, you can reuse it for other book publication projects. For example, you might create a wedding album book structure that you reuse frequently.

You can select and duplicate a book album. You can then remove the photos from the album and replace them with others to fill the new book. Aperture can automatically flow the new photos into the duplicated book structure.

### Copy a book album and place new photos in it

- 1 Select the book album in the Library inspector.
- 2 Choose File > Duplicate Book.  
The duplicate book appears in the Library inspector.
- 3 Drag the duplicate book album to a new project, if you wish.
- 4 With the duplicate book album selected in the Library inspector, select a photo in the Browser and choose Edit > Select All (or press Command-A).
- 5 To remove the photos from the album, choose Photos > Remove From Album (or press Delete).  
All the photos are removed from the Browser and the book pages.
- 6 Select the project, folder, or album that has the photos you want to place in the book.
- 7 In the Browser, select the photos and drag them to the duplicate book album in the Library inspector.
- 8 Select the duplicate book album in the Library inspector.
- 9 Arrange the photos in the Browser in the order you want them to appear in your book.
- 10 Choose Autoflow Unplaced Images from the Book Action pop-up menu  in the Book Layout Editor.

The photos are automatically placed in the book pages.

## Order books from third-party print vendors using plug-ins

Some third-party print vendors supply plug-ins that allow Aperture to submit your book files with the format and settings the print vendor requires. All third-party book plug-ins provide custom themes, book dimensions, and binding options.

To use a third-party book plug-in, you must first obtain the plug-in software from the print vendor and install it. For a list of book plug-ins, go to <http://www.apple.com/aperture/resources/third-party-books.html>.

### Create a book using a third-party book plug-in

- 1 Go to <http://www.apple.com/aperture/resources/third-party-books.html>, download a third-party book plug-in, and install it.
- 2 Create a book album.  
For more information, see [Create a book album](#) on page 406.
- 3 When entering a name for the book album and choosing a theme in the dialog that appears, choose a third-party book plug-in from the Non-Apple Books section of the Book Type pop-up menu.

Custom themes designed specifically for the third-party book plug-in appear in the theme list.



- 4 Select a theme, then click Choose Theme.
- 5 After you have finished laying out the book, click the Send Book button at the top-right corner of the Book Layout Editor.

An order pane for the third-party print vendor appears with options and pricing details.

## Sharing photos overview

Aperture provides a variety of ways to share your photos with others:

- Use My Photo Stream, an iCloud feature, to keep your photos up to date on all your devices without having to sync. See [My Photo Stream overview](#) on page 434.
- Use iCloud Photo Sharing to share photos, video clips, and comments about them with your friends. See [iCloud Photo Sharing overview](#) on page 441.
- Email photos directly from Aperture. See [Email photos](#) on page 448.
- Send photos to Flickr, Facebook, and SmugMug from within Aperture. Photos placed in Flickr, Facebook, and SmugMug albums in Aperture are automatically exported to and published in your Flickr, Facebook, and SmugMug accounts. See [Sharing photos with Flickr, Facebook, and SmugMug overview](#) on page 449.
- Create webpages and share them on the Internet. You can create web galleries with multiple images per page and upload them to your website. You can also create web journals that present your images with descriptions and titles. See [Create webpages](#) on page 463.

## Use iCloud to keep photos up to date across your devices

### My Photo Stream overview

My Photo Stream is the iCloud feature that uploads and stores the last 30 days of your photos and automatically pushes them to all your iOS devices and computers. With My Photo Stream, you can view all your recent photos on all your devices without having to sync—all you have to do is turn it on.

**Note:** You must have an iCloud account to use My Photo Stream. iCloud requires OS X v10.7.2 or later. For more information, see [Set up your iCloud account](#) on page 436.

Here's how My Photo Stream works:

- First, turn on My Photo Stream on any device that you want to be part of your photo stream.
- Next, take a photo with your iOS device, or import some photos from your digital camera to your Mac, iPad, or Windows computer.
- The photos are automatically uploaded to iCloud and then pushed to your other devices (via a Wi-Fi network or Ethernet).

- The photos appear in My Photo Stream on each device: in the Photos app on your iOS devices, in iPhoto or Aperture on a Mac, or in the Pictures folder on a Windows computer.



My Photo Stream is totally automatic, but if you have a Mac, you can choose to turn off automatic uploading when you set up My Photo Stream in iPhoto or Aperture. This can be useful if you regularly import very large numbers of photos.

The photos you upload to My Photo Stream are stored in iCloud for 30 days to give your devices plenty of time to connect and download them. Your iOS devices keep a rolling collection of your last 1000 photos in the My Photo Stream album. To keep these photos on your iOS device permanently, you can save them to your device's Camera Roll or to another album. Because your Mac and PC have more storage than your iOS devices, you can choose to have all of your My Photo Stream photos automatically downloaded to your computer.

**Note:** My Photo Stream is compatible with TIFF files up to 100 MB, JPEG files up to 50 MB, RAW files (in supported formats) up to 100 MB, and PNG files up to 50 MB.

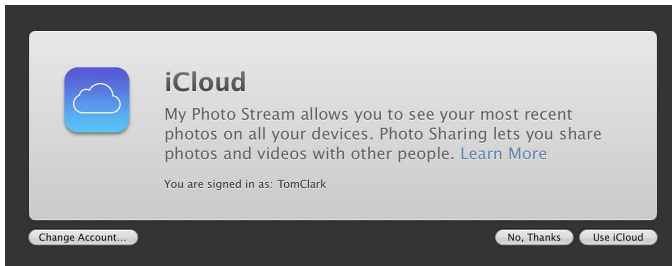
## Set up your iCloud account

To use My Photo Stream, you must set up a free iCloud account. With an active iCloud account, you can set your Aperture library as the main repository for all your photo stream photos. You can also choose which photos you want to download from My Photo Stream into Aperture, as well as the specific photos in your Aperture library that you want to upload to My Photo Stream.

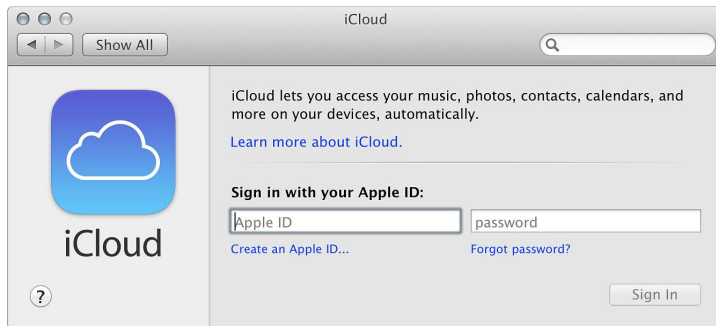
**Note:** You must have an Internet connection to set up an iCloud account.

### Set up an iCloud account for the first time

- 1 In the Library inspector in Aperture, select iCloud.
- 2 Click the Use iCloud button, and click Continue in the dialog that appears.



- 3 In the iCloud pane of the System Preferences window, do one of the following:
  - Enter your Apple ID and password, and click Sign In.



**Note:** If you can't remember your Apple ID and password, click the "Forgot password?" link, and follow the onscreen instructions.

- Click Create an Apple ID, and follow the onscreen instructions.

**Note:** For more instructions on setting up an iCloud account, see Help Center.

You can now return to Aperture to begin working with My Photo Stream.

## Turn on My Photo Stream for an Aperture library

### Turn My Photo Stream on or off

- 1 Choose Aperture > Preferences, and click iCloud.
- 2 Do one of the following:
  - *To turn on My Photo Stream:* Select the My Photo Stream checkbox.
  - *To turn off My Photo Stream:* Deselect the My Photo Stream checkbox, and click Turn Off in the dialog that appears.



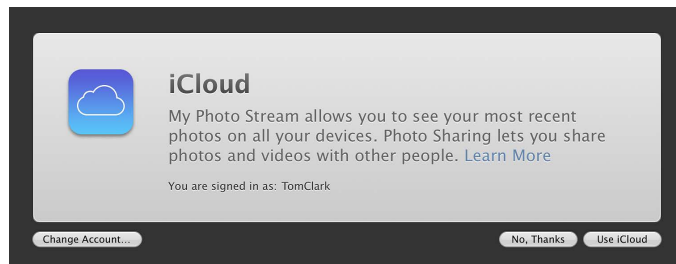
Select or deselect this checkbox to turn My Photo Stream on or off for this library.

### Switch My Photo Stream to another Aperture library

My Photo Stream is designed to work with one Aperture or iPhoto library at a time. When you switch libraries, iPhoto prompts you to set My Photo Stream to share photos with the new library exclusively. Photos from My Photo Stream and shared photo streams are pushed to the new library from that point on. However, it's easy to switch the library iCloud uses to upload and download photos.

**Important:** If you have My Photo Stream turned on in iPhoto, turning on My Photo Stream in Aperture turns off My Photo Stream for your iPhoto library. Photos from My Photo Stream are no longer pushed to your iPhoto library.

- 1 Open the Aperture library you want to use with My Photo Stream.  
**Note:** For instructions for switching Aperture libraries, see [View other libraries](#) on page 58.
- 2 In the Shared section of the Library inspector, select iCloud.
- 3 Click the Use iCloud button, and click Switch in the dialog that appears.



My Photo Stream is turned on for the Aperture library you switched to and is turned off for the library you switched from. New photos downloaded from My Photo Stream appear in the library with My Photo Stream turned on, and only photos from that library are automatically uploaded to My Photo Stream.

For information about setting a library to automatically upload photos to My Photo Stream, see [Automatically transfer photos between Aperture and My Photo Stream](#) on page 438.

## Automatically transfer photos between Aperture and My Photo Stream

When you turn on My Photo Stream for an Aperture library, Aperture is set to automatically upload photos to and download photos from My Photo Stream. However, you can turn these settings on and off. When Aperture is set to automatically download photos from My Photo Stream, new photos are imported into a project named “[Month] [Year] Photo Stream.” When Aperture is set to automatically upload photos to My Photo Stream, photos are uploaded as they are imported into Aperture.

**Note:** To transfer photos between Aperture and My Photo Stream, you must have an Internet connection.

### Set Aperture to automatically upload photos to and download photos from My Photo Stream

- 1 Choose Aperture > Preferences, and click the iCloud button.
- 2 Select the My Photo Stream checkbox.



- 3 Do either or both of the following:
  - *To set Aperture to automatically download photos from My Photo Stream:* Select the Automatic Import checkbox.

**Note:** If you recently switched libraries or have the Automatic Import feature turned off, only new photos added to My Photo Stream are automatically downloaded to your Aperture library. If you want to import the existing photos in My Photo Stream, you must manually download them. For more information, see [Manually transfer photos between Aperture and My Photo Stream](#) on page 439.
  - *To set Aperture to automatically upload photos to My Photo Stream as they are imported into your Aperture library:* Select the Automatic Upload checkbox.

Photos remain in iCloud for 30 days and are then removed automatically—unless you delete them first.

## Manually transfer photos between Aperture and My Photo Stream

You can choose which photos in your Aperture library you want to upload to My Photo Stream. You can also manually download from My Photo Stream just the photos you want to store in your Aperture library.

**Note:** To transfer photos between Aperture and My Photo Stream, you must have an Internet connection.

### Manually upload photos to My Photo Stream

- 1 In the Library inspector, select the item containing the photos you want to upload to My Photo Stream.
- 2 In the Browser, select the photos you want to upload to My Photo Stream, and do one of the following:
  - Choose File > Share > iCloud.
  - Choose iCloud from the Share pop-up menu in the toolbar.
  - Drag the photos to the iCloud item in the Library inspector.
- 3 In the iCloud dialog, choose My Photo Stream from the Stream pop-up menu, and click OK.

The photos are uploaded to iCloud and immediately pushed to the iOS devices connected to your iCloud account. Photos remain in iCloud for 30 days and are then removed automatically—unless you delete them first.

### Manually download photos from My Photo Stream

- 1 In the Library inspector, select iCloud, and double-click My Photo Stream.
- 2 Select the photos you want to download from My Photo Stream, and drag them to a project or an album in the Library inspector.

The photos from My Photo Stream are downloaded to the specified project in Aperture and are permanently stored on your Mac—unless you manually delete them. For more information about deleting images in Aperture, see [Work with the Aperture Trash](#) on page 56.

## About turning on My Photo Stream on more than one Mac

You can turn on My Photo Stream for the same iCloud account on more than one Mac. When you have My Photo Stream turned on for more than one Mac and you upload a photo to My Photo Stream, the upload includes the event information from iPhoto or the project information and hierarchy from Aperture. If the receiving application has Automatic Import turned on in iCloud preferences, the event or project information is passed along in one of the following ways:

- *Photo uploaded from iPhoto on one Mac and pushed to iPhoto on another Mac:* If the iPhoto library the photo is pushed to contains a duplicate of the event in which the photo originated, the photo is placed in that event—even if the event has been renamed. If the same event doesn't appear in the iPhoto library the photo is pushed to, a new event is created and named after the photo's original event.
- *Photo uploaded from iPhoto on one Mac and pushed to Aperture on another Mac:* A new project is created in the Aperture library and named after the iPhoto event in which the photo originated.

- *Photo uploaded from Aperture on one Mac and pushed to iPhoto on another Mac:* A new event is created in the iPhoto library and named after the photo's immediate parent item in the Aperture library. For example, if the photo originated at the top level of a project named "Travel," a new Travel event is created in iPhoto. If the photo originated in an album named "Christmas 2011" that is inside another album or a project, the new iPhoto event is named after the Christmas 2011 album.
- *Photo uploaded from Aperture on one Mac and pushed to Aperture on another Mac:* If the Aperture library the photo is pushed to contains a duplicate of the project or album in which the photo originated, the photo is placed in that project or album—even if the project and any subordinate folders and albums have been renamed or restructured. If the project or its albums don't exist in the Aperture library the photo is pushed to, the project hierarchy is replicated and the photo is placed in its original position.

**Note:** When pushing photos to iPhoto or Aperture, iCloud downloads photos to iPhoto events and Aperture projects that have universally unique identifiers (UUIDs) matching those of the photos' original events or projects. If you manually create iPhoto events or Aperture projects with the same names as events or projects in other libraries, those events or projects are not recognized as matches. To create matching events or projects, you must copy them from one library and merge them with the other.

### About uploading RAW files to My Photo Stream

RAW files imported into Aperture can be uploaded to My Photo Stream and viewed on your iOS devices. The way the RAW file's image is uploaded depends on how the RAW file was imported into Aperture and whether any adjustments have been applied.

**Note:** When you upload a RAW photo via My Photo Stream, an optimized JPEG copy is created and added to the photo stream. For more information, see [My Photo Stream overview](#) on page 434.

RAW image state	How the RAW image is uploaded to My Photo Stream
RAW image with no adjustments applied	The RAW file is uploaded to My Photo Stream.
RAW image with adjustments applied	The JPEG file for the preview image is uploaded to My Photo Stream.  For information about preview images, see <a href="#">Preview images overview</a> on page 494.
RAW + JPEG image pair	The file that is uploaded is determined by the frontmost file in the RAW + JPEG pair.  For information about RAW + JPEG pair import settings, see <a href="#">Import RAW + JPEG image pairs</a> on page 42.



## Use iCloud to share photos with others

### iCloud Photo Sharing overview

Sharing a photo stream is an easy way to keep the important people in your life up to date with your latest photos and video clips. Invitees, who must have an iCloud account to join the shared photo stream, can view, “like,” and comment on your photos and video clips from any device set up with iCloud Photo Sharing. You can also set up shared photo streams so that others can contribute their own photos and video clips. Those invitees without an iCloud account are sent a link to a webpage to view the shared photos; however, they cannot comment on the photos.

Here’s how shared photo streams work:

- First, set up iCloud Photo Sharing on any Apple device that you want to use to create or view shared photo streams.
- Then, select a photo or video on your iOS device or select an item in your Aperture or iPhoto library.
- Create a shared photo stream to share your item with your friends.  
Your friends initially receive an email inviting them to subscribe to your shared photo stream. When they accept, the stream appears on their iOS devices or within Aperture and iPhoto. All subsequent items shared in that photo stream automatically appear on the subscribers’ Apple devices.
- You and your friends can comment on and like shared items, as well as reply to the comments. Your friends can even share their own photos and video clips if you’ve set up your shared photo stream to allow others to share items.

You and your friends are alerted to new photos, video clips, and comments by notifications on your iOS devices and in OS X.

**Note:** iCloud Photo Sharing requires OS X Mountain Lion v10.8.2 or later. iCloud Photo Sharing can be associated with only one library at a time. When you switch libraries, Aperture prompts you to set shared photo streams to share photos with the new library exclusively. Photos from your shared photo streams are pushed to the new library from that point on.

### Turn on iCloud Photo Sharing in Aperture

You can turn iCloud Photo Sharing on and off independently of My Photo Stream.

#### Turn iCloud Photo Sharing on and off in Aperture

- 1 Choose Aperture > Preferences, and click iCloud.
- 2 Do one of the following:
  - *To turn on iCloud Photo Sharing:* Select the Photo Sharing checkbox.
  - *To turn off iCloud Photo Sharing:* Deselect the Photo Sharing checkbox.

After you turn off iCloud Photo Sharing in Aperture, you can continue to add photos to and remove photos from your shared photo streams using your other Apple devices.

## Create shared photo streams

It's easy to create a photo stream to share your photos and video clips. You can also view the items you've already shared.

### Create a shared photo stream

- 1 Select the items you want to share, and do one of the following:
  - Choose File > Share > iCloud.
  - Choose iCloud from the Share pop-up menu in the toolbar.
- 2 In the iCloud dialog, choose New Shared Stream from the Stream pop-up menu.
- 3 In the "To" field, type the email addresses for your invitees.

To enable your invitees to access the shared photo stream from an iOS device, you must provide the email addresses associated with their iCloud accounts.

- 4 In the Name field, type a name for the photo stream.
- 5 If you want invitees to be able to post their own photos and video clips to the stream, select the Subscribers Can Post checkbox.
- 6 If you want to share your photo stream with someone who doesn't have an Apple device, select the Public Website checkbox.

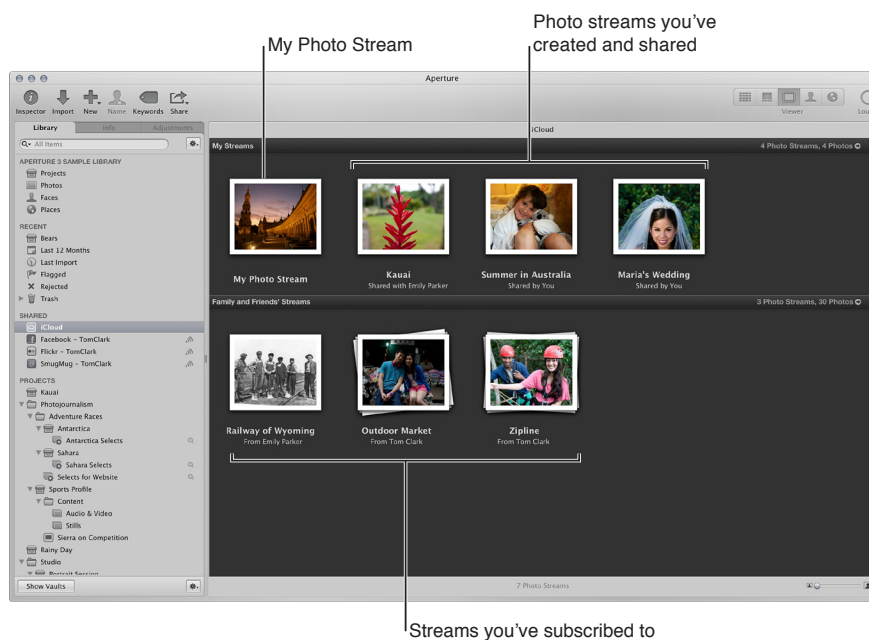
**Note:** People who view your shared photo stream on the web cannot comment on the photos. They also cannot view the comments posted by you or by others who subscribe to your shared photo stream with an Apple device. If you would like someone who doesn't have an Apple device to see the first comment added to a photo, you must post the comment before inviting the person to view the shared stream.

- 7 Click OK.

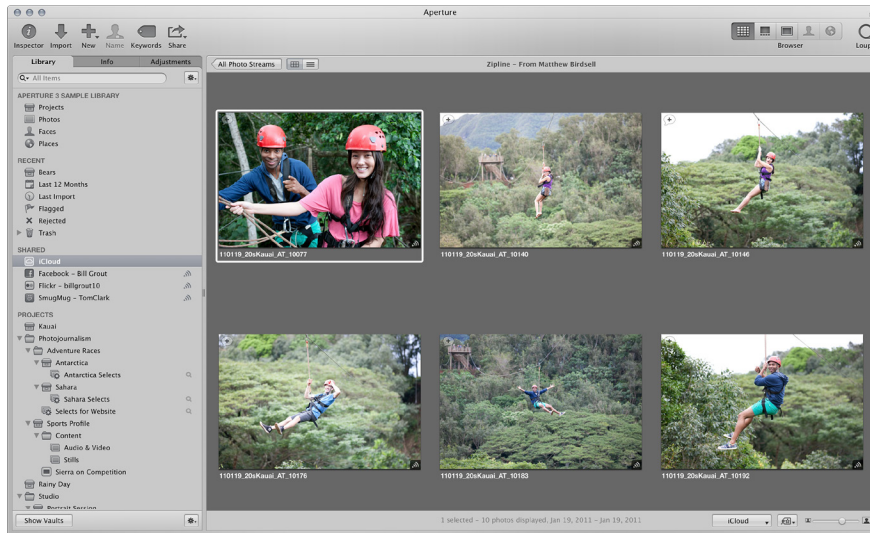
Your invitees are sent an email and a notification asking them to subscribe to your shared photo stream.

### View photos in a shared photo stream

- 1 In the Shared section of the Library inspector, select iCloud.



- 2 To view the contents of a photo stream, double-click its thumbnail.



### Stop sharing a photo stream

If you want to stop sharing a photo stream, all you have to do is delete it.

**WARNING:** When you delete a shared photo stream, it's immediately removed from your subscribers' devices. If you think your subscribers might want to keep some of the photos or video clips, you should alert them to save the items before you delete the shared photo stream.

- 1 In the Shared section of the Library inspector, select iCloud.
- 2 Select the photo stream you want to stop sharing, and press Command-Delete.

### Add, remove, and edit items in a shared photo stream

You can add and remove photos and video clips in a shared photo stream that you created. You can also update items in a shared stream.

#### Add photos and video clips to a shared photo stream

- 1 Select the items you want to add to My Photo Stream or a shared photo stream, and do one of the following:
  - Choose File > Share > iCloud.
  - Choose iCloud from the Share pop-up menu in the toolbar.
- 2 In the iCloud dialog, choose a shared photo stream from the Stream pop-up menu, and click OK.

#### Remove photos and video clips from a shared photo stream

- 1 In the Shared section of the Library inspector, select iCloud.
- 2 Double-click the shared photo stream containing the items you want to remove.
- 3 Select the items you want to remove and press Delete.
- 4 Click Delete Photos.

### Replace a photo or video in a shared photo stream

If you share a photo or video in a shared photo stream and then change or apply image adjustments to it, the newly changed item doesn't automatically appear in the shared photo stream. You can either add it to the existing photo stream along with the older version, or you can delete the older version and replace it with the updated item.

- 1 In the Shared section of the Library inspector, select iCloud.
- 2 Double-click the shared photo stream containing the item you want to replace.
- 3 Select the photo or video you want to replace, press Delete, and then click Delete Photo in the dialog that appears.
- 4 In the Library inspector, select the project containing the updated photo, and select the item.
- 5 Choose iCloud from the Share pop-up menu in the toolbar.

The iCloud dialog appears.

- 6 In the Stream pop-up menu, choose the shared photo stream that contained the photo you want to replace, and click OK.


The updated photo or video replaces the item you just removed.

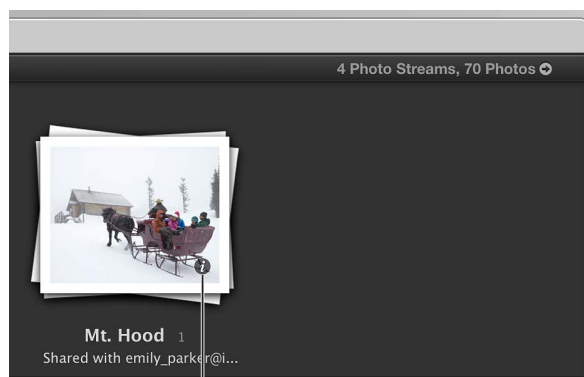
### Manage subscribers to your shared photo streams in Aperture

You can add and remove subscribers to your shared photo streams at any time.

**WARNING:** If you plan to remove a subscriber from a shared photo stream and you think that person might like to keep some photos or video clips in the shared stream, you need to alert the person to save the items before you remove him or her from the subscription list. When you remove the subscriber, your shared stream along with all of its items is immediately removed from the subscriber's Apple devices.

### Add and remove subscribers to a shared photo stream

- 1 In the Shared section of the Library inspector, select iCloud.
- 2 Do one of the following:
  - Move the pointer over the shared photo stream's thumbnail, and click the Info button .



Click the Info button to open the Photo Stream dialog.

- Double-click the shared photo stream's thumbnail, and choose Info from the iCloud pop-up menu in the tool strip.

- 3 In the dialog, do either or both of the following:
  - *To invite a new subscriber:* Type the invitee's email address in the Subscribers field.
  - *To remove a subscriber:* Select the subscriber's email address in the Subscribers field, and click Unsubscribe.
- 4 Click OK.

If you invited a new person to view your shared photo stream, an email and a notification are sent, asking that person to subscribe to your shared photo stream. If you removed an existing subscriber from your shared photo stream, the shared stream is immediately removed from the subscriber's Apple devices. If you want to reinvite a subscriber to view your shared photo stream, delete the person's email address from the "Shared with" field, and add the email address again.

### Subscribe to shared photo streams in Aperture

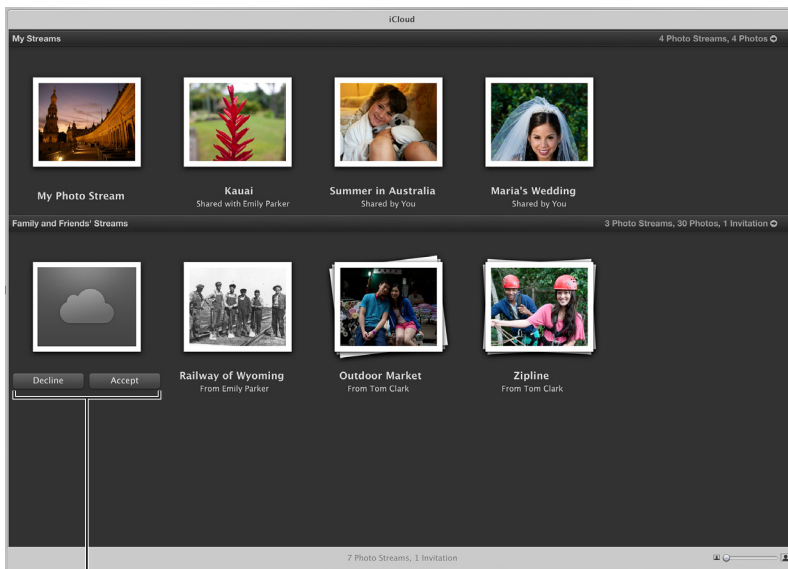
If you have an iCloud account, you can subscribe to shared photo streams that your family and friends invite you to. After you accept, you can view the photos and video clips on all your Apple devices, including your Mac. You can mark the photos you like and comment on photos. You can also post items to a shared photo stream if the creator of the stream has turned on the Subscribers Can Post feature. If you want to use a photo in a shared photo stream that you subscribe to, you can import the photo into your Aperture library and then make adjustments to the photo as needed. You can unsubscribe from a shared photo stream at any time.

#### Subscribe to a shared photo stream

To subscribe to a shared photo stream, all you have to do is accept the invitation. Invitations to a shared photo stream are sent by email and notifications.

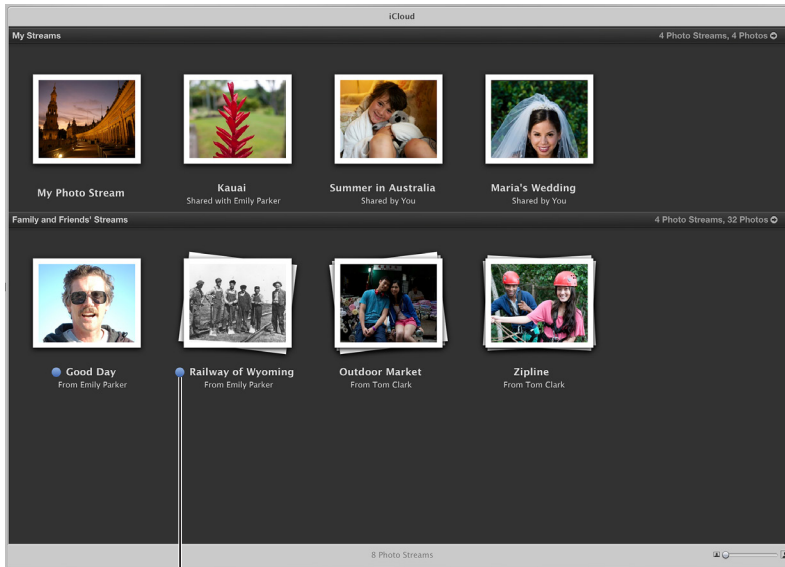
- 1 In the Shared section of the Library inspector, select iCloud.
- 2 Move the pointer over the shared photo stream's thumbnail, and click the Accept button.

If you don't want to subscribe to the shared photo stream, click the Decline button.



Click to accept or decline an invitation to a shared photo stream.

Shared photo streams that you subscribe to appear in the lower portion of iCloud view. A blue dot next to the shared photo stream's name indicates that new photos or video clips have been added to the photo stream or new comments have been added to one of its photos. In addition, a number appears above the Aperture icon in the Dock to indicate that new photos and comments have been shared with you.



A blue dot indicates that new photos or comments have been added.

### Unsubscribe from a shared photo stream

If you want to unsubscribe from a photo stream, all you have to do is delete it.

**WARNING:** When you unsubscribe from a shared photo stream, the photos contained in the shared stream are immediately deleted from all your devices. If you want to keep some of the items, you should import them into your Aperture library first.

- 1 In the Shared section of the Library inspector, select iCloud.
- 2 Select the photo stream you want to unsubscribe from, and press Command-Delete.

### Add photos and video clips to a shared photo stream

- 1 Select the items you want to add to a shared photo stream, and do one of the following:
  - Choose File > Share > iCloud.
  - Choose iCloud from the Share pop-up menu in the toolbar.
- 2 In the iCloud dialog, choose a shared photo stream from the Stream pop-up menu, and click OK.

### Comment on or "like" a photo in a shared photo stream

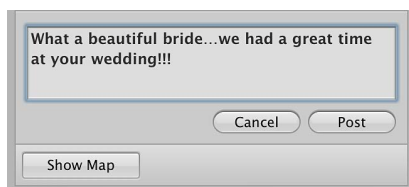
- 1 In the Shared section of the Library inspector, select iCloud.
- 2 Double-click the shared photo stream containing the photo or video you want to like or comment on.
- 3 Select the item.

- 4 In the Info inspector, choose Comments from the Metadata View pop-up menu, and do either or both of the following:
- *To like the photo:* Click the Like button (with a smiley face).



Click the Like button to "like" a photo.

- *To add a comment to the photo:* Type the comment in the text field, and click Post.



When you like or comment on an item in a shared stream, that information is sent to all the Apple devices of the photo stream's creator and subscribers. You can delete comments you added to an item by placing the pointer over the comment and clicking the Delete button that appears.

### Save photos from shared photo streams you subscribe to

Photos and video clips in shared photo streams are view-only. However, you can import shared items into your Aperture library, apply image adjustments, share the updated items, and add them to your slideshows and books.

- 1 In the Shared section of the Library inspector, select iCloud.
- 2 Double-click the shared stream containing the items you want to save.
- 3 Select the photos or video clips.
- 4 Import the items by doing one of the following:
  - Drag the photos into a project in the Library inspector.
  - In the histogram area of the Adjustments inspector, click the Import Photo button.

## Email photos

Although it's not the best method for delivering uncompressed or large image files, email provides a quick and easy way to deliver photos. Aperture contains three export presets (Email Small, Email Medium, and Email Original Size) that create compressed JPEG files that are easy to send via email. You can specify the email application and the export preset you want to use and then send photos directly to your email application from within Aperture.

You can also export photos and attach them to email messages later.

### Specify an email application and email export preset for Aperture to use

- 1 Choose Aperture > Preferences, or press Command-Comma (,), and click Export.
- 2 In the Export pane of the Preferences window, choose the email application you want to use from the "Email using" pop-up menu.
- 3 To specify an export preset for Aperture to use when preparing photos for email transfer, choose a preset from the "Email Photo Export preset" pop-up menu.

If none of the presets meets your needs, choose Edit from the "Email Photo Export preset" pop-up menu and create a new export preset.

For more information, see [Work with export presets](#) on page 364.

### Send a photo directly to your email application

- 1 Select the photo you want to send.
- 2 Do one of the following:
  - Choose File > Share > Email (or press Option-E).
  - Choose Email from the Share pop-up menu in the toolbar.

The photo is exported directly to your email application.

**Note:** Before you attempt to email photos, find out the maximum file size your email client supports. If your exported photos exceed this maximum file size, consider using FTP software or another file-sharing technique to deliver your photos.

### Export a photo or photos to attach to an email message later

- 1 Select the photo or photos you want to export.
- 2 Choose File > Export > Versions (or press Shift-Command-E).
- 3 Navigate to the location where you want the exported photos placed.
- 4 Choose an image file format from the Export Preset pop-up menu.
- 5 Choose a name format for your files from the Name Format pop-up menu.
- 6 When you're ready to export files, click Export Versions.

You can now open your email application and attach the exported files.



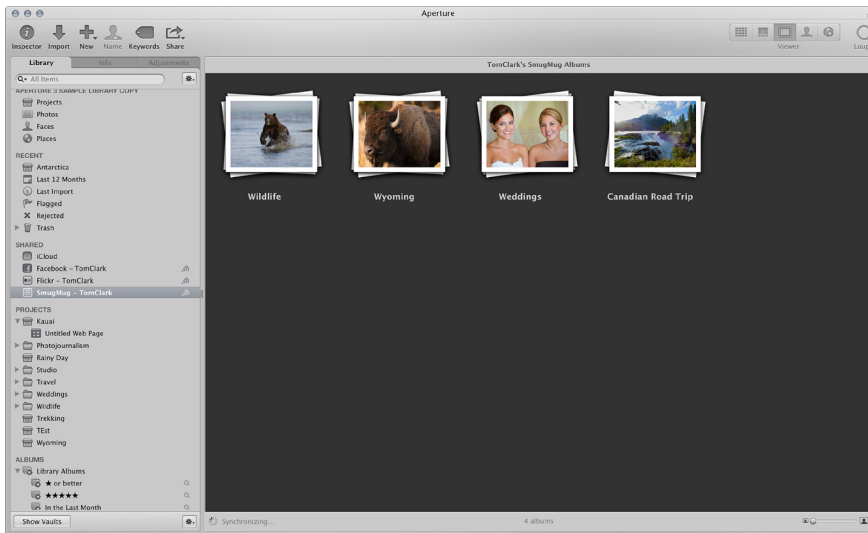
## Publish photos to Flickr, Facebook, and SmugMug

### Sharing photos with Flickr, Facebook, and SmugMug overview

You can create Flickr, Facebook, and SmugMug albums in Aperture to collect photos for publication on [www.flickr.com](http://www.flickr.com), [www.facebook.com](http://www.facebook.com), and [www.smugmug.com](http://www.smugmug.com). Photos placed in Flickr, Facebook, and SmugMug albums in Aperture are automatically exported to and published in your Flickr, Facebook, and SmugMug accounts.

The first time you create a Flickr, Facebook, or SmugMug album, Aperture prompts you to enter your account information. If you don't have an account, you can create one.

You can also post photos to multiple Flickr, Facebook, or SmugMug accounts from within Aperture. Your accounts appear in the Shared section of the Library inspector. Select an account to view its albums.



After you have an existing Flickr, Facebook, or SmugMug album in place, you can continue to publish photos to the web account. Any photos posted to your web accounts from other software applications, your web browser, or a mobile device automatically appear in their respective albums in Aperture.

You can also have Aperture check your online accounts for new photos and new Flickr sets, Facebook albums, or SmugMug galleries and download them into Aperture.

**Note:** A Flickr album is not created for photos and video clips published to your Flickr photostream. For more information, see [Set up a Flickr, Facebook, or SmugMug account in Aperture](#) on page 450.

## Set up a Flickr, Facebook, or SmugMug account in Aperture

To share photos from your Aperture library with Flickr, Facebook, and SmugMug, you create Flickr, Facebook and SmugMug albums. The first step in creating web albums is entering your Flickr, Facebook, and SmugMug account details. You only have to do this once. After you enter your account details, Aperture securely stores the information in the OS X user account's secure keychain. Then you can create as many Flickr, Facebook, and SmugMug albums as you wish and publish the photos in the albums whenever you have an Internet connection. You can also publish to multiple Flickr, Facebook, or SmugMug accounts.

**Important:** You must have an Internet connection to share photos from your Aperture library with Flickr, Facebook, or SmugMug.

The first time you publish to a web album, Aperture asks you to sign in to your Flickr, Facebook, or SmugMug account.

### Sign in to Flickr and create a new Flickr album

- 1 In Aperture, select a group of photos or a video.

**Note:** If you have a basic Flickr account, you can upload only one video file at a time to your Flickr set.

- 2 Do one of the following:
  - Choose File > Share > Flickr.
  - Choose Flickr from the Share pop-up menu in the toolbar.

- 3 In the dialog that appears, click Set Up.

- 4 In the Flickr account sign-in page, do the following:

- a Enter your Yahoo! ID.
- b Enter your password.

- 5 Click Sign In.

A new page opens in Flickr asking if you want Aperture Uploader to link to your Flickr account.

- 6 Click the "OK, I'll Authorize It" button, and switch back to Aperture.

A new dialog appears in Aperture with controls for creating a new Flickr set as well as setting access restrictions for your Flickr page.



- 7 Do the following:
  - a If you have more than one Flickr account, choose the account you want to publish to from the Flickr Account pop-up menu.
  - b Choose New Set from the Set pop-up menu.
  - c Give your Flickr set a name in the Set Name field.
  - d In the “Photos Viewable by” pop-up menu, choose an access level to set who can view your Flickr set.
  - e In the Photo Size pop-up menu, choose whether you want the photos resized and optimized for publication.
- 8 Click Publish.

Aperture securely saves your Flickr account information to your OS X user account’s keychain and then publishes your album to Flickr. A new Flickr album representing the online Flickr set also appears in Aperture. To view the album, select the Flickr account in the Shared section of the Library inspector. To publish additional photos to your Flickr set, see [Update your Flickr, Facebook, and SmugMug albums](#) on page 460.

You can also use the Info inspector to view the specific Flickr account and the set the photos were published to, along with when the photos were published. For more information, see [Modify metadata in the Info inspector and Inspector HUD](#) on page 198.

#### Upload photos or videos to your Flickr account

After signing in to Flickr the first time with Aperture, you can post photos and video clips to new sets, existing sets, and to the your Flickr Photostream.

- 1 In Aperture, select a photo or a video.

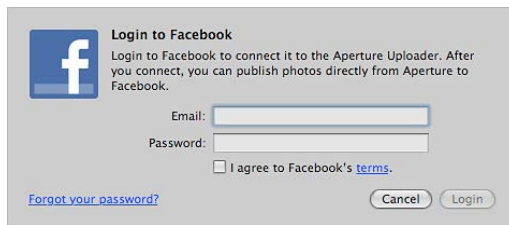
**Note:** If you have a basic Flickr account, you can upload only one video file at a time to your Flickr photostream.
- 2 Do one of the following:
  - Choose File > Share > Flickr.
  - Choose Flickr from the Share pop-up menu in the toolbar.
- 3 In the dialog that appears, do one of the following:
  - To create a new set for your items, choose a set name from the Set pop-up menu. Type a set name, choose who can view the photos, and choose a photo size.
  - To add your items to an existing set, choose an existing set from the Set pop-up menu.
  - To add your items to your Flickr Photostream, choose Photostream from the Set pop-up menu. Choose who can view the photos, and choose a photo size.
- 4 Click Publish.

Aperture securely saves your Flickr account information to your OS X user account’s keychain and then publishes your photo or video to your Flickr photostream.

You can also use the Info inspector to view the specific Flickr account, along with when the photo or video was published. For more information, see [Modify metadata in the Info inspector and Inspector HUD](#) on page 198.

## Sign in to Facebook and create a new Facebook album

- 1 In Aperture, select a photo or a group of photos.
- 2 Do one of the following:
  - Choose File > Share > Facebook.
  - Choose Facebook from the Share pop-up menu in the toolbar.
- 3 In the dialog that appears, do the following:
  - a Enter your email address.
  - b Enter your password.
  - c Select the “I agree to Facebook’s terms” checkbox.
  - d Click Login.



- 4 In the dialog that appears, do the following:
  - a If you have more than one Facebook account, choose the account you want to publish to from the Facebook Account pop-up menu.
  - b Choose New Album from the Album pop-up menu.
  - c Give your Facebook album a name in the Album Name field.
  - d In the Photos Viewable By pop-up menu, choose an access level to set who can view your Facebook album.
  - e Click Publish.



Aperture securely saves your Facebook account information to your OS X user account’s keychain and then publishes your album to Facebook. A new Facebook album also appears in Aperture. To view the album, select the Facebook account in the Shared section of the Library inspector.

**Note:** You will no longer have to log in to your Facebook account if there is a change to this Facebook album or when you create new Facebook albums. For more information, see [Update your Flickr, Facebook, and SmugMug albums](#) on page 460.

## Upload photos or videos to your Facebook account

After signing in to Facebook the first time with Aperture, you can post photos and video clips to new albums and existing albums, and upload single photos or a video clip to your Facebook Timeline.

- 1 In Aperture, select photos or videos.

**Note:** You can upload only one photo or video file at a time to your Facebook timeline.

- 2 Do one of the following:

- Choose File > Share > Facebook.
- Choose Facebook from the Share pop-up menu in the toolbar.

- 3 In the dialog that appears, do one of the following:



- To publish your items to a new album, choose New Album from the Album pop-up menu. Type an album name in the Album name box and choose who can view the items from the Photos Viewable By pop-up menu.
- To publish your items to an existing Facebook album, choose the album name from the Album pop-up menu.
- To publish a single item to your Timeline, choose Timeline from the Album pop-up menu. Type a comment in the Comment box if you want.

- 4 Click Publish.

Aperture securely saves your Facebook account information to your OS X user account's keychain and then publishes your photo or video, along with your comment, to your Facebook account's timeline. Any comments your friends post to your photo on Facebook appear in the Info inspector when the photo is selected in Aperture. For more information, see [Modify metadata in the Info inspector and Inspector HUD](#) on page 198.

## Sign in to SmugMug and create a new SmugMug album

- 1 In Aperture, select a photo or a group of photos.

- 2 Do one of the following:

- Choose File > Share > SmugMug.
- Choose SmugMug from the Share pop-up menu in the toolbar.

- 3 In the dialog that appears, click Set Up.

- 4 In the SmugMug account sign-in page, do the following:

- a Enter your email address.
- b Enter your password.
- c Select the "Remember me" checkbox.

Selecting this checkbox keeps you signed in and prevents you from having to sign in to SmugMug every time you want to publish photos to your SmugMug account.

5 Click Log In.

6 Click Next.

A new page opens in SmugMug asking if you want Aperture Uploader to link to your SmugMug account.

7 Click the “OK, I’ll Authorize It” button, and switch back to Aperture.

A new dialog appears in Aperture with controls for creating a new SmugMug gallery as well as setting access restrictions for your SmugMug page.



The screenshot shows a dialog box titled "Would you like to publish this photo to SmugMug?". Below the title, it says "The photo will be added to TomClark's SmugMug account." The dialog contains several fields and options:

- Gallery:** A dropdown menu with "New Gallery" selected.
- Gallery Name:** A text field containing "Sahara".
- Folder:** A dropdown menu with "Create new folder" selected, and an empty text field below it.
- Description:** A large empty text area.
- Quick Settings:** A dropdown menu with "None" selected.
- Thumbnails:** Radio buttons for "Square" (selected) and "Original".
- Privacy:** Radio buttons for "Public" (selected) and "Unlisted".
- Allow User Comments:** An unchecked checkbox.
- Gallery Password:** An empty text field.
- At the bottom, there are "Cancel" and "Publish" buttons.

8 Do the following:

- If you have more than one SmugMug account, choose the account you want to publish to from the SmugMug Account pop-up menu.
- Choose New Gallery from the Gallery pop-up menu.
- Give your SmugMug gallery a name in the Gallery Name field.
- Add a description, and choose the thumbnail size and privacy settings for your photos.
- Type a password for the gallery in the Gallery Password field.

9 Click Publish.

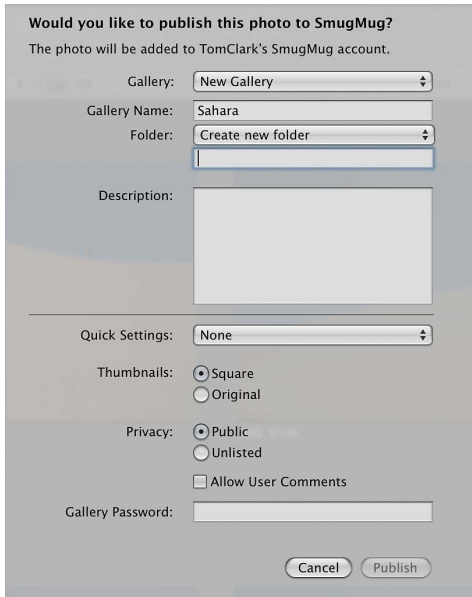
Aperture securely saves your SmugMug account information to your OS X user account’s keychain and then publishes your album to SmugMug. A new SmugMug album also appears in Aperture. To view the album, select the SmugMug account in the Shared section of the Library inspector.

**Note:** You will no longer have to log in to your SmugMug account if there is a change to this SmugMug album or when you create new SmugMug albums. For more information, see [Update your Flickr, Facebook, and SmugMug albums](#) on page 460.

## Upload photos and videos to your SmugMug account

After signing in to SmugMug the first time with Aperture, you can post photos and videos to new and existing galleries.

- 1 In Aperture, select the items you want to upload to SmugMug.
- 2 Do one of the following:
  - Choose File > Share > SmugMug.
  - Choose SmugMug from the Share pop-up menu in the toolbar.
- 3 In the dialog that appears, do one of the following:



- To publish your photos or videos to a new gallery, choose New Gallery from the Gallery pop-up menu. Type a gallery name in the Gallery Name box, and specify whether you want your items placed in folders. Add a description if you want, and choose the thumbnail size and privacy settings for your items. Enter a password for your gallery if you want.
  - To publish your items to an existing Gallery album, choose the gallery name from the Gallery pop-up menu.
- 4 Click Publish.

Aperture securely saves your SmugMug account information to your OS X user account's keychain and then publishes your album to SmugMug. A new SmugMug album also appears in Aperture. To view the album, select the SmugMug account in the Shared section of the Library inspector.

**Note:** You will no longer have to log in to your SmugMug account if there is a change to this SmugMug album or when you create new SmugMug albums. For more information, see [Update your Flickr, Facebook, and SmugMug albums](#) on page 460.

## Create and delete Flickr, Facebook, and SmugMug albums

After you set up your account information and create your first web album, creating new Flickr, Facebook, and SmugMug albums is a simple process.

You can also delete web albums in Aperture at any time.

**WARNING:** Deleting Flickr, Facebook, and SmugMug albums in Aperture permanently deletes the corresponding sets, albums, and galleries online, along with their contents. If you want to temporarily remove an account in Aperture, but keep the albums and photos as they are in your web account online, you can always disable your web account in Aperture. For more information, see [Manage your Flickr, Facebook, and SmugMug accounts](#) on page 461.

### Create a new Flickr album to publish as a Flickr set

- 1 Do one of the following:
  - In the Library inspector, select an item.
  - In the Browser, select a group of photos.
- 2 Do one of the following:
  - Choose File > Share > Flickr.
  - Choose Flickr from the Share pop-up menu in the toolbar.
- 3 In the dialog that appears, do the following:
  - a If you have multiple Flickr accounts, choose the Flickr account you want to publish to from the Flickr Account pop-up menu.
  - b Choose New Set from the Set pop-up menu.
  - c In the Set Name field, give your Flickr set a name.
  - d In the “Photos Viewable by” pop-up menu, choose an access level to set who can view your Flickr set.
  - e In the Photo Size pop-up menu, choose an image size option.
- 4 Click Publish.

Aperture publishes your album to Flickr as a Flickr set, and the new Flickr album appears in Aperture. To view the album, select the Flickr account in the Shared section of the Library inspector. For more information, see [View Flickr, Facebook, and SmugMug albums](#) on page 458.

### Create a new Facebook album

- 1 Do one of the following:
  - In the Library inspector, select an item.
  - In the Browser, select a group of photos.
- 2 Do one of the following:
  - Choose File > Share > Facebook.
  - Choose Facebook from the Share pop-up menu in the toolbar.



- 3 In the dialog that appears, do the following:
  - a If you have more than one Facebook account, choose the Facebook account you want to publish to from the Facebook Account pop-up menu.
  - b Choose New Album from the Album pop-up menu.
  - c In the Album Name field, give your Facebook album a name.
  - d In the Photos Viewable By pop-up menu, choose an access level to set who can view your Facebook album.
- 4 Click Publish.

Aperture publishes your album to Facebook, and the new Facebook album appears in Aperture. To view the album, select the Facebook account in the Shared section of the Library inspector. For more information, see [View Flickr, Facebook, and SmugMug albums](#) on page 458.

#### Create a new SmugMug album

- 1 Do one of the following:
  - In the Library inspector, select an item.
  - In the Browser, select a group of photos.
- 2 Do one of the following:
  - Choose File > Share > SmugMug.
  - Choose SmugMug from the Share pop-up menu in the toolbar.
- 3 In the dialog that appears, do the following:
  - a Choose New Gallery from the Gallery pop-up menu.
  - b Give your SmugMug gallery a name in the Gallery Name field.
  - c Add a description, and choose the thumbnail size and privacy settings you want.
  - d Type a password for the gallery in the Gallery Password field.
- 4 Click Publish.

Aperture publishes your album to SmugMug, and the new SmugMug album appears in Aperture. To view the album, select the SmugMug account in the Shared section of the Library inspector. For more information, see [View Flickr, Facebook, and SmugMug albums](#) on page 458.

#### Delete a Flickr, Facebook, or SmugMug album

- 1 In the Library inspector, select the Flickr, Facebook, or SmugMug account containing the album you want to delete.
- 2 Select the album you want to delete.
- 3 Choose File > Delete Album (or press Command-Delete).

**Note:** The command name differs depending on the type of album you selected.
- 4 In the dialog that appears, select the “Import photos to your library before deleting” checkbox if you want to save the photos before deleting the album in your library and online.
- 5 Click Delete.

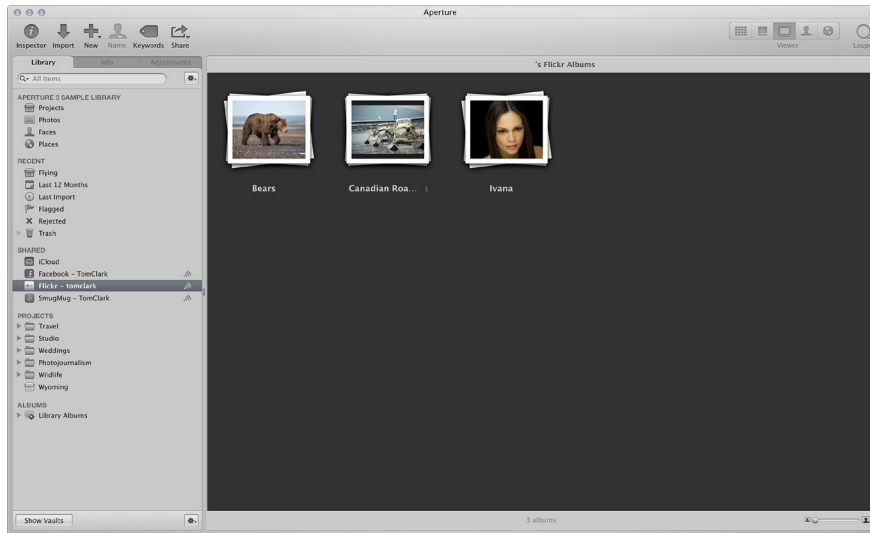
The album you selected is deleted from the Aperture library, and from your web account online.

## View Flickr, Facebook, and SmugMug albums

You can view the contents of your Flickr, Facebook, and SmugMug albums in Aperture at any time. If you're not sure whether a web album is up to date or you just want to check your webpage, you can visit your published web album from within Aperture.

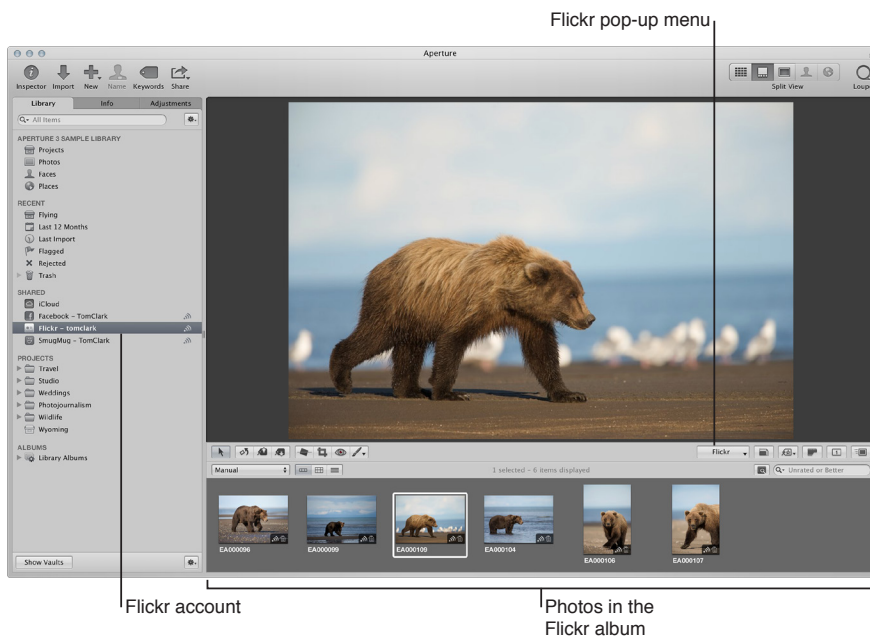
### View a Flickr, Facebook, or SmugMug album in Aperture

- 1 In the Shared section of the Library inspector, select the web account containing the albums you want to view.



The albums for the selected web account appear to the right of the Library inspector.

- 2 To view an album's contents, double-click its thumbnail.



### Visit your published Flickr set

- 1 In the Library inspector, select the Flickr account containing the album you want to visit.
- 2 Do one of the following:
  - Double-click the Flickr album you want to visit, and choose Visit Set from the Flickr pop-up menu in the tool strip.



- Control-click the Flickr album you want to visit, and choose Visit Set from the shortcut menu.

Your web browser opens your Flickr page and displays your published Flickr set.

### Visit your published Facebook album

- 1 In the Library inspector, select the Facebook account containing the album you want to visit.
- 2 Do one of the following:
  - Double-click the Facebook album you want to visit, and choose Visit Album from the Facebook pop-up menu in the tool strip.

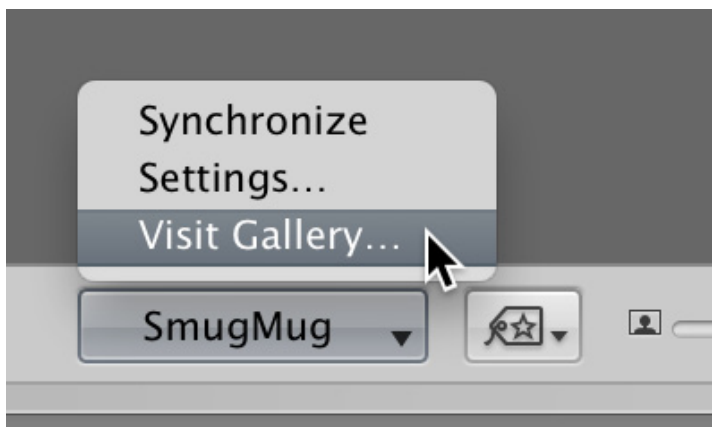


- Control-click the Facebook album you want to visit, and choose Visit Album from the shortcut menu.

Your web browser opens your Facebook page and displays your published album.

### Visit your published SmugMug gallery

- 1 In the Library inspector, select the SmugMug account containing the album you want to visit.
- 2 Do one of the following:
  - Double-click the SmugMug album you want to visit, and choose Visit Gallery from the SmugMug pop-up menu in the tool strip.



- Control-click the SmugMug album you want to visit, and choose Visit Gallery from the shortcut menu.

Your web browser opens your SmugMug page and displays your published album.

## Update your Flickr, Facebook, and SmugMug albums

As your Flickr, Facebook, and SmugMug albums grow, you can publish them at any time. Aperture checks to see which photo versions have already been published in the album and then uploads any changed or new versions. You can also have Aperture check to see whether any of your friends have published new albums to your accounts online.

### Publish new photos to an existing Flickr set

- 1 Select the photos you want to publish to your Flickr set.
- 2 Do one of the following:
  - Choose File > Share > Flickr.
  - Choose Flickr from the Share pop-up menu in the toolbar.
  - Drag the photos to the Flickr account in the Shared section of the Library inspector.
- 3 In the Flickr publication dialog, do the following:
  - a If you have more than one Flickr account, choose the account you want to publish to from the Flickr Account pop-up menu.
  - b Choose the album's name from the Set pop-up menu.
  - c In the "Photos Viewable by" pop-up menu, choose an access level to set who can view your Flickr set.
  - d In the Photo Size pop-up menu, choose whether you want the photos resized and optimized for publication.

- 4 Click Publish.

The selected photos are uploaded to the Flickr set.

### Publish new photos to an existing Facebook album

- 1 Select the photos you want to publish to your Facebook album.
- 2 Do one of the following:
  - Choose File > Share > Facebook.
  - Choose Facebook from the Share pop-up menu in the toolbar.
  - Drag the photos to the Facebook account in the Shared section of the Library inspector.
- 3 In the Facebook publication dialog, do the following:
  - a If you have more than one Facebook account, choose the account you want to publish to from the Facebook Account pop-up menu.
  - b Choose the album's name from the Album pop-up menu.

- 4 Click Publish.

The selected photos are uploaded to the selected Facebook album.


### Publish new photos to an existing SmugMug gallery

- 1 Select the photos you want to publish to your SmugMug gallery.
- 2 Do one of the following:
  - Choose File > Share > SmugMug.
  - Choose SmugMug from the Share pop-up menu in the toolbar.
  - Drag the photos to the SmugMug account in the Shared section of the Library inspector.

- 3 In the SmugMug publication dialog, choose the gallery that you want to publish to from the Gallery pop-up menu.
- 4 Click Publish.

The selected photos are uploaded to the selected SmugMug gallery.

#### **Have Aperture check for new Flickr sets, Facebook albums, or SmugMug galleries online**

- In the Library inspector, click the Sync button  to the right of the Flickr, Facebook, or SmugMug account's name.

Any new sets, albums, or galleries created outside of Aperture are downloaded to the account in the Library inspector.

#### **Have Aperture check an individual Flickr, Facebook, or SmugMug album for new content online**

- 1 In the Library inspector, select the Flickr, Facebook, or SmugMug account containing the album you want to update.
- 2 Control-click the album you want to update, and choose Synchronize Album from the shortcut menu.

Any new photos or video clips posted to the set, album, or gallery online appear in the selected album in Aperture. Double-click the album to view its contents.

### **Manage your Flickr, Facebook, and SmugMug accounts**

After publishing an album to Facebook, you can change its name as well as the restrictions for who can view it. For example, if you recently published photos of your latest family vacation on Facebook and made the album viewable by everyone, you can use the Facebook pop-up menu in the tool strip to restrict viewing to friends only.

You can also disable access to your Flickr, Facebook, or SmugMug accounts and then enable access to them again from within Aperture at any time. When a web account is disabled in Aperture, all of the disabled account's albums are removed from Aperture. However, the albums and their photos are retained and still appear in the web account online.

#### **Change the settings for a published Facebook or SmugMug album**

- 1 Select the Facebook or SmugMug account containing the album whose settings you want to change.
- 2 Double-click the Facebook or SmugMug album to open it.
- 3 In the tool strip, choose Settings from the Facebook pop-up menu, and specify new settings in the dialog that appears.
- 4 Click Change Settings.

#### **Add multiple Flickr, Facebook, and SmugMug accounts to Aperture**

In Aperture, you can share photos with multiple web accounts.

- 1 Choose Aperture > Preferences, or press Command-Comma (,).
- 2 In the Preferences window, click Accounts, and click the Add button (+) to add an account.
- 3 In the dialog that appears, select the account type, and click Add.

#### 4 Do one of the following:

- *To log in to a Flickr account:* Click Set Up.

Your browser opens. Follow the onscreen instructions to sign in to Flickr using your Yahoo! ID and password, and authorize the Aperture Uploader to post photos to your Flickr account on the following page.

- *To log in to a Facebook account:* Enter your email address and password, select the “I agree to Facebook’s terms” checkbox, and click Login.

- *To log in to a SmugMug account:* Click Set Up.

Your browser opens. Follow the onscreen instructions to sign in to SmugMug using your email address and password, and authorize the Aperture Uploader to post photos to your SmugMug account on the following page.

You can now share photos with the new web account. Flickr sets, Facebook albums, and SmugMug galleries created outside of Aperture can be downloaded to the Library inspector. For more information, see [Update your Flickr, Facebook, and SmugMug albums](#) on page 460.

#### **Disable and enable Flickr, Facebook, and SmugMug accounts**

When you disable an account in Aperture, a form appears asking whether you want to import the photos in the account’s albums into your Aperture library. If you choose to import the photos, Aperture places them in a new project in the Library inspector. If you choose not to import the photos, Aperture places the contents of the albums in the Aperture Trash. Any sharing history that appears in the Info inspector for the disabled account is deleted.

If you regularly enable and disable your web accounts in Aperture, and you want to permanently import content posted to these accounts outside of Aperture, drag the content you want to import from the web album to a new or existing project in the Library inspector. Aperture generates new copies of the media and places them in the selected project.

- *To disable a single Flickr, Facebook, or SmugMug account:* Choose File > Web Accounts > Disable [account], and click Disable.

The account is disabled, and all its albums are removed from Aperture. However, the album configurations are saved in case you want to reenable the account later. The sets, albums, or galleries and their contents still appear in the disabled Flickr, Facebook, or SmugMug account online.

- *To disable all of your online accounts:* Choose File > Web Accounts > Disable All Accounts, and click Disable.

All of your online accounts are disabled, and their associated albums are removed from Aperture. However, the album configurations are saved in case you want to reenable the accounts later. The sets, albums, and galleries and their contents still appear in the Flickr, Facebook, and SmugMug accounts online.

- *To enable a single Flickr, Facebook, or SmugMug account:* Choose File > Web Accounts > Enable [account].

The enabled account appears in the Library inspector. Select the account to view its published albums.

- *To enable all of your Flickr, Facebook, and SmugMug accounts:* Choose File > Web Accounts > Enable All Accounts.

The enabled accounts appear in the Library inspector. Select an account to view its published albums.

## Create webpages

### Creating webpages overview

In Aperture, you can create webpages of your photos that you can post to your own website. Then clients can conveniently review your work via the Internet.

You can use built-in Aperture webpage themes and designs to create two types of webpages:

- *Web galleries* show your photos in eye-catching settings and are designed to display photos without your having to lay out pages by hand. Aperture automatically creates the appropriate number of webpages and populates them with the selected photos. You can then adjust the pages to make the photos appear as you want them. You can also choose the metadata information, such as captions, names, and ratings, that appears next to each photo.
- *Web journals* allow you to mix photos and text on the page and are ideal for projects in which you show photos with narrative to support them. For example, you might create web journal pages that show and tell the story of an overseas shoot or a journalistic project. You manually add pages, photos, and text to your web journal. You can choose a theme to apply to all your pages, and you can change the layout of photos and text on your web journal pages.

To create a web gallery or web journal, you create a webpage or web journal album. When you select the album in the Library inspector, the Webpage Editor appears. The Webpage Editor is where you design your webpages, including changing the theme, positioning photos, and adding text.

After you've laid out your web gallery or web journal pages in the Webpage Editor, you can save them as HTML pages that you can post to your webpage server. When the photos are posted online, you can give clients the URL of the pages, and clients can view them remotely.

**Important:** Web galleries and web journals created in Aperture are not visible when working with your Aperture library in iPhoto. However, your web galleries and web journals are not discarded. To view and work with your web galleries and web journals, open the Aperture library in Aperture.

### Create web galleries and web journals

Aperture web galleries and web journals offer a way to showcase your photos on the web. (For descriptions of web galleries and web journals, see [Creating webpages overview](#) on page 463.)

To create a web gallery or web journal, you must first create an album that holds the web gallery or web journal photos. You can create an album from a selection of photos, or you can create an empty album and drag photos into it.

You can also use the Aperture Smart Album feature to gather photos from the library or from projects and place them on web gallery pages automatically. Smart Albums gather photos based on search criteria that you specify. For example, you can create a Smart Web Page Album that gathers your select photos from across the entire Aperture library. Then each time you rate a photo Select, Aperture automatically adds it to your Smart Web Page Album and to its web gallery.

**Note:** The Smart Album feature is not available for web journals.

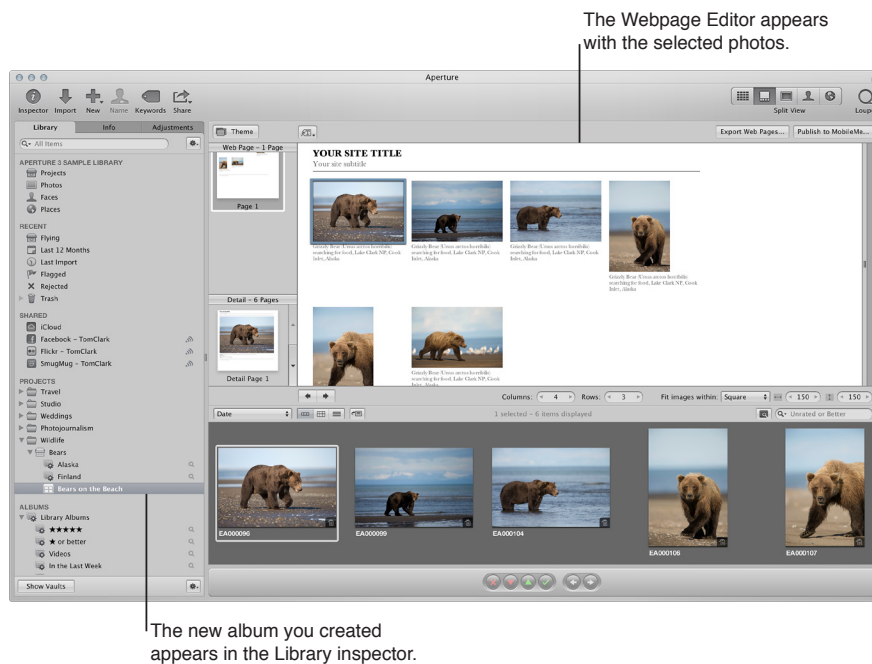
## Create a new webpage album

When you create a web gallery from a selection of photos, Aperture creates as many webpages as necessary to hold all of the selected photos. You can also create an empty webpage album and then drag photos into the album.

- 1 Do one of the following:
  - *To create a new webpage album from selected photos:* In the Browser, select the photos you want to place on your web gallery pages, or select an item in the Library inspector.
  - *To create a new, empty webpage album:* Make sure no photos are selected, and continue to the next step.
- 2 Do one of the following:
  - Choose File > New > Web Page.
  - Control-click in the Library inspector, and choose New > Web Page from the shortcut menu.
  - Choose Web Page from the New pop-up menu in the toolbar.
- 3 In the dialog that appears, give your webpage album a name, select a theme, and click Choose Theme.

**Note:** If you're creating a new webpage album from a photo selection, make sure the "Add selected items to new web page" checkbox is selected.


The new webpage album appears in the Library inspector. If you created the webpage album from selected photos, the photos appear in the Webpage Editor.



If you created an empty webpage album, you can add photos to it by dragging photos from the Browser or from other items selected in the Library inspector.



### Create a Smart Web Page Album of your photos

- 1 Do one of the following:
  - Choose File > New > Smart Web Page.
  - Control-click in the Library inspector, and choose New > Smart Web Site from the shortcut menu.
- 2 Enter a name for the new Smart Web Page Album in the Library inspector.
- 3 If necessary, click the Smart Settings HUD button  to the right of the Smart Web Page Album name to show the Smart Settings HUD.
- 4 In the Smart Settings HUD, specify the search criteria for the Smart Web Page Album.

The Smart Web Page Album is created and filled with the photos that meet the search criteria.

If you change the search criteria, the contents of the Smart Web Page Album change. For more information, see [Collect photos in a new Smart Album](#) on page 156.

### Create a new web journal album

The easiest way to create a web journal is to select photos you want to appear in the web journal and create an album. Aperture creates a web journal album that contains the photos you selected, and the Webpage Editor appears. The Browser contains the selected photos, which you can then manually place on the webpages.

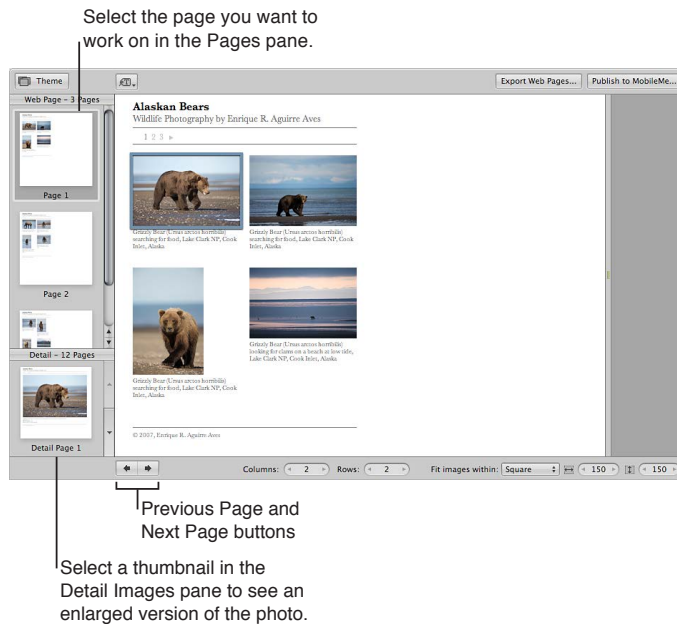
- 1 Do one of the following:
  - *To create a new web journal album from selected photos:* In the Browser, select the photos you want in your web journal, or select an item in the Library inspector.
  - *To create a new, empty web journal album:* Make sure no photos are selected, and continue to the next step.
- 2 Do one of the following:
  - Choose File > New > Web Journal.
  - Control-click in the Library inspector, and choose New > Web Journal from the shortcut menu.
  - Choose Web Journal from the New pop-up menu in the toolbar.
- 3 In the dialog that appears, give your web journal album a name, select a theme, and click Choose Theme.

**Note:** If you're creating a new web journal album from a photo selection, make sure the "Add selected items to new web journal" checkbox is selected.

The new web journal album appears in the Library inspector, and the Webpage Editor appears. If you created the web journal album from a photo selection, the photos appear in the Browser, and you can drag photos to your web journal pages in the Webpage Editor. If you created an empty web journal album, you can drag photos into it from other items selected in the Library inspector. To make changes to the web journal pages, you use the controls in the Webpage Editor.

## View and navigate through webpages

As you modify your web galleries and web journals, there are some easy ways to view and navigate through your pages.



### View a particular webpage


Do one of the following:

- 1 Select a webpage or web journal album in the Library inspector.
- 2 Click the Previous Page or Next Page button below the Webpage Editor to display a different page.
- 3 Use the scroll gesture in the Pages pane of the Webpage Editor to locate the page, and then click the page.

### See an enlarged photo from a webpage

When someone clicks a photo on a page in your website, a page showing an enlarged view of the photo appears. You can view these enlarged photos in the Webpage Editor.

Do one of the following:

- In the Webpage Editor, position the pointer over the photo, and click the Detail button .
- Click the up arrow and down arrow buttons on the side of the Detail Images pane to navigate through detail pages for the photos in a web gallery or web journal.

To return to the page view after viewing an enlarged photo, click the Index link above the photo, or click a page in the Pages pane.

## Choose and modify themes

Aperture provides a variety of themes that you can choose for your web gallery or web journal. The theme you choose for your pages determines the basic template design of the page. Make sure to explore the themes to see which best suits your work.

You choose a theme type and a theme when you create a new web gallery or web journal album, but you can change the theme at any time. After a theme is applied to your pages, you can modify it by changing the number and size of photos on the page.

You can also display photos with metadata and have copyright information appear on your pages.

### Change the theme for your web gallery or web journal

- 1 Select a webpage or web journal album in the Library inspector.
- 2 Click the Theme button at the top-left corner of the Webpage Editor.
- 3 In the dialog that appears, select the theme you want to use, and click Choose.

### Change the number of columns and rows of photos on the page

- In the Webpage Editor, double-click in the number field of the Columns or Rows value slider and enter a new number, or click the left or right arrow.

When you change the number of columns or rows, Aperture automatically updates all the pages in the web gallery or web journal to reflect the new settings.

**Note:** When a web journal is open in the Webpage Editor, only the Columns value slider is available. You can manually add as many rows of photos to a page as you need by dragging a photo from the Browser below the current row of photos in the Webpage Editor.

### Change the size of photos on a page

- 1 In the “Fit images within” pop-up menu in the Webpage Editor, choose how you want the photos to appear on the page.
- 2 To increase or decrease the photo size, double-click in the number field of the Width and Height value sliders and enter new numbers, or click the left or right arrow.

### Specify the types of metadata that appear with your photos

You can choose different combinations of metadata to appear on your pages. For example, you might display your photos with a simple set of metadata that includes the filename, caption, and photo date.

- Choose an option from the Metadata View pop-up menu  at the top of the Webpage Editor.


### Change the copyright information that appears in web galleries and web journals

Web galleries and web journals appear with copyright information on the page. You can select the copyright text on the page and change it. You can also specify the copyright information you want for all your pages in the Preferences window.

- 1 Choose Aperture > Preferences, and click Export.
- 2 Type the text you want in the Web Copyright field.

## Work with web gallery pages

When you create a web gallery, the photos in it are placed automatically. You can then adjust the placement of photos on web gallery pages and add and delete photos in the Webpage Editor. Depending on the theme you choose for your web gallery, pages may appear with titles, subtitles, or headings. You can change the sample text to text appropriate for your web gallery pages. You can also turn on or turn off the display of plate numbers for photos in your web galleries. By default, Aperture doesn't display plate numbers for photos.

**Note:** You can't select and use the Lift, Stamp, Straighten, Crop, or Red Eye tool or any Quick Brush adjustments when using the Webpage Editor. To use these tools to make a change to a photo in a web gallery or web journal, select the photo in the Browser and click the Show Viewer button  at the top of the Browser (to the right of the List View button). The selected photo appears in the Viewer, and you can make changes. Click the Show Viewer button again to return to the Webpage Editor.

### Change the viewing order of photos in a web gallery

- 1 Select a webpage album in the Library inspector.
- 2 Drag the photos to different locations, either in the Webpage Editor or the Browser.

### Add a photo to a web gallery

- Drag a photo from a project, a folder, an album, or the library into the webpage album for the web gallery.

To remove a photo in a web gallery, select the photo in the Browser and choose Photos > Remove from Album (or press the Delete key).

### Change titles and subtitles on web gallery pages

- In the Webpage Editor, click the title, subtitle, or heading you want to change, and type the text you want.

### Turn on the display of photo plate numbers in a web gallery


- Choose Enable Plate Metadata from the Metadata View pop-up menu  at the top of the Webpage Editor.

Plate numbers appear below each photo in the web gallery. To turn off the display of plate numbers, choose Disable Plate Metadata from the Metadata View pop-up menu.

## Work with web journal pages

As you work with a web journal, you can add photos and text to pages, add and remove pages, choose header types, and change the page order.

You must manually place your photos and add text on web journal pages.

### Add and arrange photos on a web journal page

- 1 Select a web journal album in the Library inspector.
- 2 Do any of the following:
  - *To add photos to a web journal page:* Drag photos from the Browser to the page in the Webpage Editor.

You can also drag several photos into place at once by selecting and dragging groups of photos. For example, if your web journal page is set to display four photos per row, you can arrange four photos in the order you want them and then drag all four to the page at once.


- *To move photos on a web journal page:* In the Webpage Editor, drag a photo to its new position in a photo box, or drag the grid mark at the top of the photo box to move the photo or group of photos to a new location on the page.

A green bar appears to indicate where the photo will be placed.

- *To remove a photo from a web journal page:* In the Webpage Editor, click the photo to select it, and then click the Remove button (-).

### **Add and arrange text on a web journal page**

You can add text boxes to web journal pages as you need them. Text boxes are added to the page one after another. New text boxes are always added to the bottom of the page, but you can drag text boxes to new locations to rearrange them.

- 1 On the left side of the Webpage Editor, select the thumbnail of the page to which you want to add text.
- 2 Click the Add Text Block button : at the top of the Webpage Editor.
- 3 Enter the text you want.
- 4 To move the text, position the pointer on the grid mark at the top of the text box, drag the text box until you see a green bar appear where you want to place the text, and release the mouse button.

To remove text from a web journal page, select the text box and click the Remove button (-) that appears in the top-right corner.


### **Add a page to a web journal**

You can add pages to your web journal as you need them. You can also have Aperture create pages in your web journal to hold photos that have a type of metadata, such as a specific rating, keyword, or photo date. For example, you can have Aperture create a page for each keyword assigned to the album's photos and place photos on the correct pages automatically. Or, if your album holds photos with four- and five-star ratings, you can create a page that automatically holds the five-star photos and another that holds the four-star photos.

You can have Aperture add pages for photos based on day, keyword, rating, byline, city, and category.

- 1 In the Webpage Editor, select a thumbnail page where you want the new page to appear. The new page will appear after the selected page.

- 2 Do one of the following:


- *To add a new blank page:* Click the Add Page button (+).
- *To add a new page based on a metadata category:* Choose the type of page you want to add from the Page Action pop-up menu .

To remove a web journal page, select its thumbnail, click the Remove Page button (-), and click the Delete button in the dialog that appears.


### Choose the header style for a web journal page

Depending on the theme you choose, you can change the look of web journal pages by choosing a style that displays either a heading followed by text or a heading followed by a photo.

**Note:** The theme applied to the web journal must allow photos in the header.

- 1 In the Webpage Editor, select a page's thumbnail.
- 2 Choose either Header with Text or Header with Image from the Page Template pop-up menu .

### Reorder web journal pages

- 1 In the Webpage Editor, select the thumbnail of the page you want to move.
- 2 Choose either Move Current Page Up or Move Current Page Down from the Page Action pop-up menu .

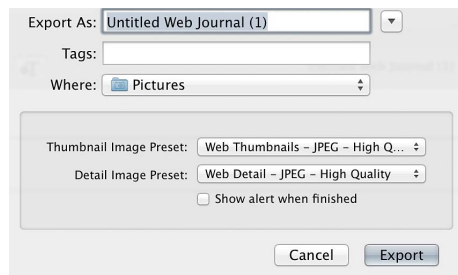
### Export webpages as HTML files

After you create webpages in Aperture, you can export them as HTML files so that they can be added to your website. Integrating your Aperture webpages into your website requires you to thoroughly understand your website structure and web server. If you use a web design service to create and maintain your site, you can supply your Aperture files to your design service and allow the design service to integrate your Aperture webpages.

When you export your Aperture webpages, you can export them to a folder on your computer to keep them organized in one place. You can name the folder and choose the image quality and file types that are created. Aperture provides web export presets that automatically set up the export of webpages, and you can also create your own. For more information, see [Work with web export presets](#) on page 471.

### Export webpages

- 1 In the Webpage Editor, click the Export Web Pages button.
- 2 In the dialog that appears, type a name for the folder that will hold the webpage files in the Export As field.



- 3 Choose a location for the webpage folder from the Where pop-up menu.
- 4 Choose a web export preset for your thumbnail images from the Thumbnail Image Preset pop-up menu.
- 5 Choose a web export preset for your detail image pages from the Detail Image Preset pop-up menu.

- 6 If you want to be notified when the export process is complete, select the “Show alert when finished” checkbox.
- 7 When you’re ready to export your webpage files, click Export.

**Note:** To check on the progress of an export operation, choose Window > Show Activity. The Activity window displays the progress of each export operation. You can also use this window to pause and cancel an export operation.

## Work with web export presets

Web export presets are groups of saved export settings that are configured to produce different types of web images. You use them to help you quickly and easily export your photos for use on the web. Aperture comes with a number of web export presets, and you can create your own.

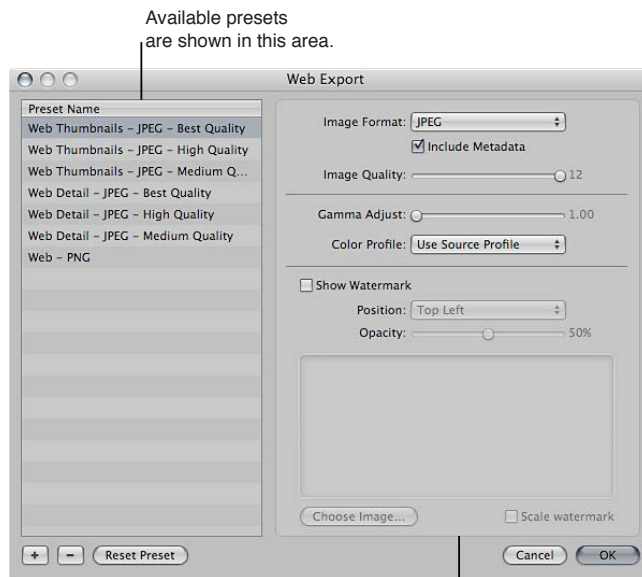
Before using a web export preset, whether it’s one that comes with Aperture or one that you created, you can view its settings to make sure they are exactly what you want.

After examining a selected preset’s settings, you may want to change something about the preset. To modify a selected preset, you can simply change the necessary settings and click OK. The next time you export using that preset, Aperture remembers your modified settings and exports your web images accordingly. However, when you modify an existing preset, you lose its original settings.

### View the settings for an export preset

- Choose Aperture > Presets > Web Export.

The Web Export dialog appears, listing the presets available and their export settings.

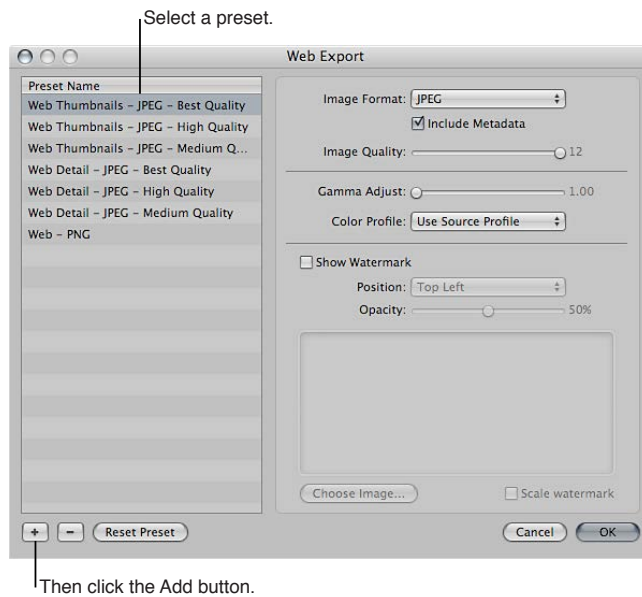


The right side of the dialog shows the settings for the selected preset.

## Create a new web export preset

An easy way to create a new export preset is to copy an existing preset and then modify the copy.

- 1 Do one of the following:
  - Choose Aperture > Presets > Web Export.
  - In the Webpage Editor, click the Export Web Pages button and choose Edit from the Thumbnail Image Preset or Detail Image Preset pop-up menu.
- 2 In the Web Export dialog, select a web export preset on which to base your new preset, and click the Add button (+).



A new preset, based on the export preset you selected, appears highlighted in the Preset Name list.

- 3 Enter a new name for the preset.
- 4 Make your changes to the export settings, and click OK.

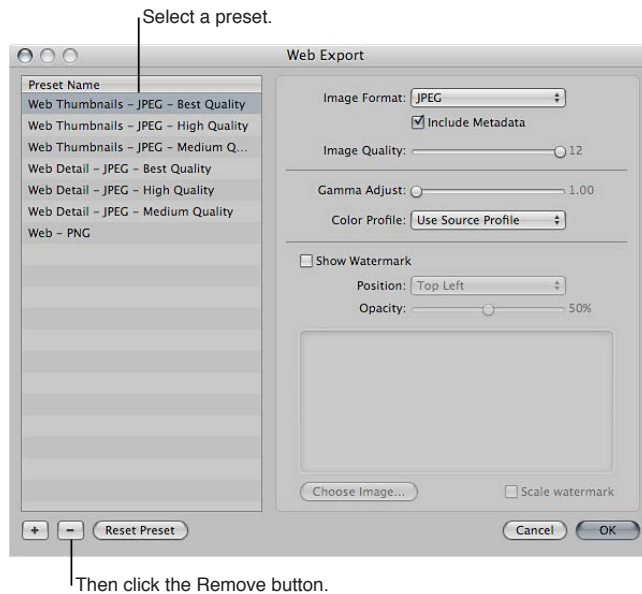
## Change a web export preset

- 1 Do one of the following:
  - Choose Aperture > Presets > Web Export.
  - In the Webpage Editor, click the Export Web Pages button and choose Edit from the Thumbnail Image Preset or Detail Image Preset pop-up menu.
- 2 In the Web Export dialog, select the export preset you want to change, modify its settings, and click OK.



## Delete a web export preset

- In the Web Export dialog, select the preset and click the Remove button (–).



## Add watermarks to webpage photos

You can add a graphics file to your photos as a watermark to discourage others from using your photos without your permission. Watermarks are especially useful when applied to photos posted on the web.

Use the following guidelines to create high-quality watermarks for your photos:

- Save your watermark as a Photoshop (.psd) file with a transparent background.
- Create multiple sizes of your watermark so that you can select the one that best matches the output size of the exported photo.

**Note:** If a watermark file is larger than the photo you want to export, Aperture automatically scales the watermark down to fit the photo. (Aperture doesn't scale watermarks up.)

- After you create a watermark, save it as part of a web export preset so that you can reuse it.

**Note:** Export presets and web export presets are independent of one another. Make sure to save your watermark as part of the appropriate preset.

### Create a preset that adds a watermark to your exported web photos

- 1 Choose Aperture > Presets > Web Export.
- 2 In the Web Export dialog, select the web export preset you want to modify, or click the Add button (+) to create a new preset.
- 3 Select the Show Watermark checkbox.
- 4 Click the Choose Image button.
- 5 Select the image you want as a watermark, and click Choose.
- 6 Choose where you want the watermark to appear on the photo from the Position pop-up menu.
- 7 To adjust the opacity of the watermark, drag the Opacity slider.
- 8 When you're satisfied with how your watermark appears in the watermark preview area, click OK.

# Customize the Aperture workspace

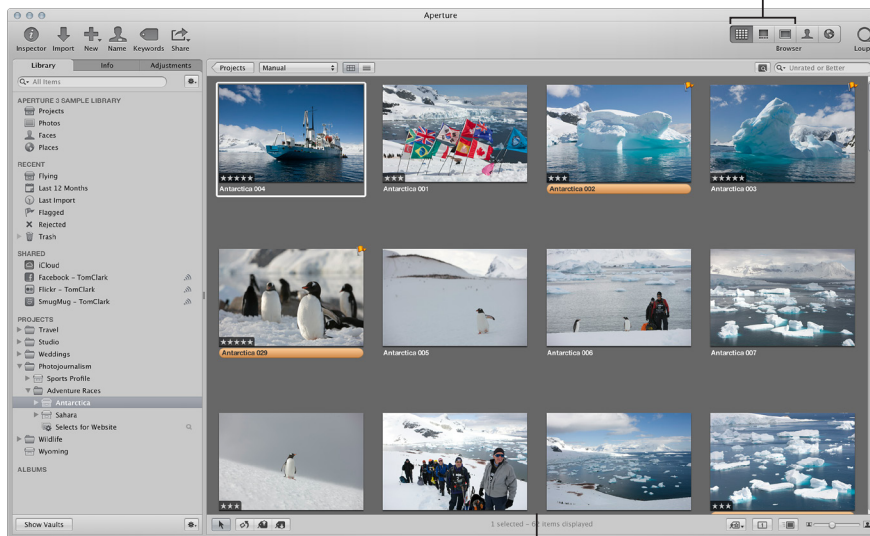
# 13

## Change the main window layout

When a project, album, or folder is selected in the Library inspector, Aperture offers three basic layouts for the main window:

- **Browser:** Use this layout to display image thumbnails in an enlarged Browser so you can review photos, perform initial rating passes, and create and work with stacks of photos.

**Layout buttons:** Click a button to select a main window layout.



**Browser layout:** The Browser fills the workspace and displays a grid of thumbnail images.

- **Split View:** Use this layout to display both the Browser and Viewer together and use them in combination to review and work with photos.



**Split View layout:** The Viewer and Browser appear together.

- **Viewer:** Use this layout to display photos in an enlarged Viewer and work with them in detail.

**Viewer layout:** The Viewer fills the workspace and displays your photo selection.



**Tool strip:** Use these tools to adjust and work with your photos.

You can switch between layouts by pressing V, choosing commands from the View menu, or clicking buttons in the toolbar.

### Change the window layout

Do one of the following:

- Choose Browser, Split View, Viewer, or Cycle View Mode from the View menu (or press V).
- Click the Browser, Split View, or Viewer button in the toolbar.

### Rotate the position of the Browser in Split View

In the Split View layout, the Browser appears horizontally under the Viewer by default. However, you can change the layout to display the Browser vertically, beside the Viewer.

- Choose View > Browser > Rotate Position (or press Shift-W).

### Swap the position of the Browser and the Viewer in Split View

- Choose View > Browser > Swap Position (or press Option-W).

### Change the background of the Viewer

- 1 Choose Aperture > Preferences, or press Command-Comma (,).
- 2 In the Preferences window, click Appearance, then drag the Viewer Brightness slider to lighten or darken the background.

## Set Aperture preferences

### Aperture preferences overview

Aperture provides a Preferences window for specifying settings that control the location of the Aperture library, the appearance of the Aperture window, the application used to import photos onto your computer, how photos are exported out of Aperture, how color labels are defined, how preview images are generated, as well as additional advanced settings. By taking time to specify your preference settings, you can speed up your workflow.

The Aperture Preferences window contains the following controls:



- *General*: Click the General button to display options for setting the location of the library, setting the length of time to keep track of recently imported photos, automatically stacking new versions of the same photo together, enabling scrolling with the mouse to navigate through photos in the Viewer, enabling face detection, and enabling gestures when using a Multi-Touch trackpad or Magic Mouse. For more information, see [General preferences](#) on page 478.
- *Appearance*: Click the Appearance button to display options for customizing the Aperture interface, including setting the background brightness level for the Browser, the Viewer, and full-screen view, choosing which display to view slideshows on, and displaying tooltips and badges. For more information, see [Appearance preferences](#) on page 479.
- *Import*: Click the Import button to specify what Aperture should do when a camera is connected to your computer, whether photos should be imported into a new project or into the item selected in the Library inspector, and the length of time used to determine when to automatically split projects. For more information, see [Import preferences](#) on page 480.

- *Export*: Click the Export button to display options for selecting an external editor for changing your photos, audio, and video outside of Aperture, as well as specifying the email application and settings you want used when emailing photos. You can also create a copyright statement that will be included in webpages that you create, as well as specify that photos exported from Aperture contain location information and Faces metadata (names you have assigned to people in your photos using Faces). For more information see [Export preferences](#) on page 481.
- *Labels*: Click the Labels button to display options for assigning text to color labels. For more information, see [Labels preferences](#) on page 482.
- *Previews*: Click the Previews button to display options for how Aperture creates and displays preview images. For more information, see [Previews preferences](#) on page 482.
- *iCloud*: Click the iCloud button to display options for turning on My Photo Stream and iCloud Photo Sharing in Aperture. For more information, see [iCloud preferences](#) on page 483.
- *Accounts*: Click the Accounts button to display options for reviewing and updating albums that you published to your Flickr, Facebook, and SmugMug accounts online. For more information, see [Accounts preferences](#) on page 483.
- *Advanced*: Click the Advanced button to display options for specifying hot and cold area thresholds, adding tolerance to Auto Levels adjustments, choosing color or monochrome clipping overlays, and choosing to have Aperture look up photo location information automatically. For more information, see [Advanced preferences](#) on page 484.

## Open Aperture preferences

You can open the Aperture Preferences window at any time.

### Open the Preferences window

- Choose Aperture > Preferences, or press Command-Comma (,).

The Preferences window appears. For more information about the Aperture Preferences window, see [Aperture preferences overview](#) on page 476.



## General preferences

Use the controls in the General preference pane to set the location of the library, set the length of time to keep track of recently imported photos, enable face detection, automatically stack new versions of the same photo, and configure other photo management options.

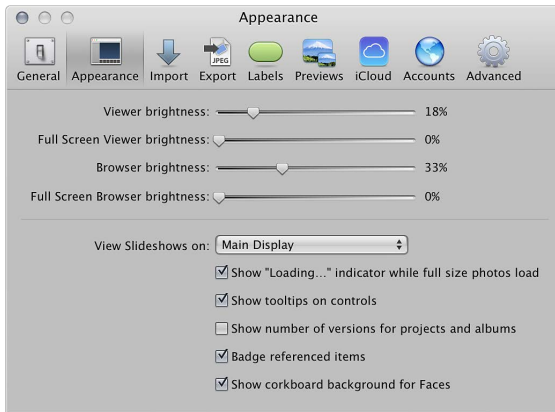


The General preference pane contains the following controls:

- *Library Location field*: Displays the default location of the library. To specify a custom location for the Aperture library, click Change and navigate to a location to store the library. Quit and reopen Aperture to complete the location change. Click Reveal to display the Aperture library file in the Finder.
- *“Show last [number] months album” checkbox*: Select this checkbox to add an item to the Recent section of the Library inspector that tracks recently imported photos. Use the value slider to set the number of months to keep track of the imported photos.
- *“Automatically stack new versions” checkbox*: Select this checkbox to automatically stack versions of the same photo as you create them.
- *“Scroll to navigate photos in the Viewer” checkbox*: Select this checkbox to enable scrolling with the mouse when the pointer is placed over the photo in the Viewer (or in the Viewer mode in full-screen view).
- *Enable Faces checkbox*: Select this checkbox to enable face detection when importing photos into the Aperture library.
- *“Enable gestures” checkbox*: Select this checkbox to enable gesture functions in Aperture when using a Multi-Touch trackpad or Magic Mouse. For more information about the gesture functions supported in Aperture, see [Use gestures with Aperture](#) on page 487.
- *Reset All Warnings button*: Click this button to display warning messages. If you have set Aperture to not display certain warnings, this button resets Aperture to display them again.

## Appearance preferences

Use the controls in the Appearance preference pane to customize the Aperture interface.

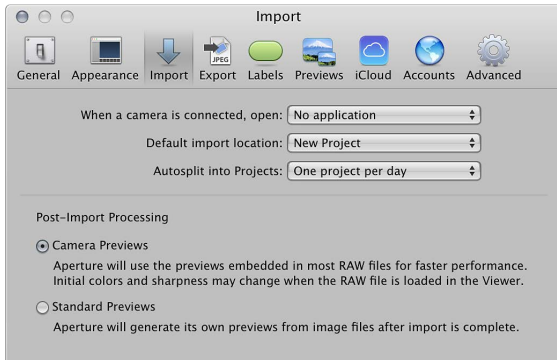


The Appearance preference pane contains the following controls:

- *“Viewer brightness” slider*: Adjust the Viewer background brightness using this slider.
- *“Full-screen viewer brightness” slider*: Adjust the full-screen view Viewer mode background brightness using this slider.
- *“Browser brightness” slider*: Adjust the Browser background brightness using this slider.
- *“Full Screen Browser brightness” slider*: Adjust the full-screen view Browser mode background brightness using this slider.
- *“View Slideshows on” pop-up menu*: Choose to display slideshows in full-screen mode on your main display or secondary display. For more information about playing slideshows in full-screen mode, see [View your slideshows in Aperture](#) on page 402.
- *“Show ‘Loading...’ indicator while full size photos load” checkbox*: Select this checkbox to have Aperture display an initial proxy image if there is any delay when loading a full-size photo.
- *“Show tooltips on controls” checkbox*: Select this checkbox to have Aperture display the names of interface items when you place the pointer over them.
- *“Show number of versions for projects and albums” checkbox*: Select this checkbox to have Aperture display the number of versions in a project or album in the Library inspector.
- *“Badge referenced items” checkbox*: Select this checkbox to have Aperture display badges that identify referenced images, audio clips, and video clips.
- *“Show corkboard background for Faces” checkbox*: Select this checkbox to display a corkboard in the background of Faces view.

## Import preferences

Use the controls in the Import preference pane to specify what Aperture should do when a camera is connected, whether to import photos into a new project or into the item selected in the Library inspector, and the length of time used to determine when to automatically split projects.




The Import preference pane contains the following controls:

- *“When a camera is connected, open” pop-up menu:* Specify which application should open when a camera is connected to your computer.
- *“Default import location” pop-up menu:* Specify whether Aperture imports photos into a new project or into the item selected in the Library inspector.
- *“Autosplit into Projects” pop-up menu:* Choose an option for automatically grouping imported photos in projects according to the time the photos were captured.
- *Camera Previews button:* Click this button to set Aperture to use the JPEG version of the RAW image file produced by the camera, if available. The advantage of this setting is that a sharp, high-resolution preview is available immediately upon import, even before the RAW image file is done being copied from the memory card to the computer. A color shift may occur after the RAW file’s preview is processed within Aperture. However, the first time the RAW image is shown in the Viewer, Aperture generates its own fully rendered preview and there is no further shifting.

**Tip:** Use this Camera Previews setting in conjunction with the Quick Preview mode to review your newly imported images instantly, with sharp previews and no processing. For more information, see [Navigate through photos in Quick Preview mode](#) on page 82.

- *Standard Previews button:* Click this button to have Aperture generate a preview image for every image file immediately after import, using the settings in Previews preferences. When you select this option, Aperture uses its RAW decoding technology to create a fully rendered preview for every file in the import group, rather than waiting until the RAW image is selected and displayed in the Viewer. However, it may take a significant period of time to process the previews after importing a large group of RAW image files.

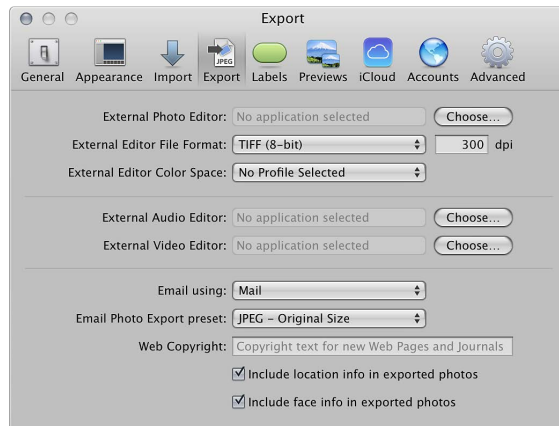
For more information, see [Previews preferences](#) on page 482.

**Important:** The Camera Previews and Standard Previews settings apply only when Maintain Previews is turned on in the Library Action pop-up menu  in the Library inspector.



## Export preferences

Use the controls in the Export preference pane to set the external editor, choose the email application used to email photos from within Aperture, and assign a copyright statement to webpages you create.



The Export preference pane contains the following controls:

- *External Photo Editor field:* You can use an external image editing application to make adjustments to your images. To identify an external editor, click Choose and select an application. To open a photo in the external editor, select the photo, then choose Photos > Edit with External Editor.
- *External Editor File Format pop-up menu:* Choose the file format in which to export a photo to an external editor. You can also specify the dot-per-inch (dpi) resolution of the photo in the dpi field.
- *External Editor Color Space pop-up menu:* Choose a color space in which to work with your photos in the external photo editor.
- *External Audio Editor field:* You can use an external audio editor to make adjustments to your audio clips. To identify an external editor, click Choose and select an application. To open an audio clip in the external editor, select the audio clip, then choose Photos > Edit with External Editor.
- *External Video Editor field:* You can use an external video editor to make adjustments to your video clips. To identify an external editor, click Choose and select an application. To open a video clip in the external editor, select the video clip, then choose Photos > Edit with External Editor.
- *“Email using” pop-up menu:* If you want to export items to an email client, choose the email application from this pop-up menu.
- *“Email Photo Export preset” pop-up menu:* Choose an export preset to use when exporting photos to your email client. If you want to create a custom export preset, choose Edit and create a new preset in the Image Export dialog.
- *Web Copyright field:* Enter copyright text for webpages and web journals here.
- *“Include location info in exported photos” checkbox:* Select this checkbox to include location metadata in exported photos.
- *“Include face info in exported photos” checkbox:* Select this checkbox to include Faces metadata (names you have assigned to people in your photos using Faces) in exported photos.

## Labels preferences

Use the text fields in the Labels preference pane to customize labels for each color.



## Previews preferences

Use the controls in the Previews preference pane to set how Aperture creates and displays preview images.



The Previews preference pane contains the following controls:

- *“New projects automatically generate previews” checkbox:* To set Aperture to create previews for the photos in all new projects and new libraries, select this checkbox. Deselect this checkbox if you don't want previews created for photos in new projects.
- *“Share XML with other applications” pop-up menu:* Choose whether to share JPEG preview images via XML as needed for other applications.  
**Note:** Some applications share preview images using the media browser, which does not require XML to access the Aperture library.
- *Photo Preview pop-up menu:* To set a maximum pixel size for your previews, choose a size from this pop-up menu.
- *“Photo Preview quality” slider:* To change the image quality of the previews, drag the slider. The higher the quality setting, the more disk space the previews require.

## iCloud preferences

Use the controls in the iCloud preference pane to turn My Photo Stream on or off for an Aperture library, as well as set options for automatically uploading and downloading photos between your photo stream and your Aperture library. You can also turn on iCloud Photo Sharing to share your photos with others. For more information about sharing photos, see [Sharing photos overview](#) on page 434.

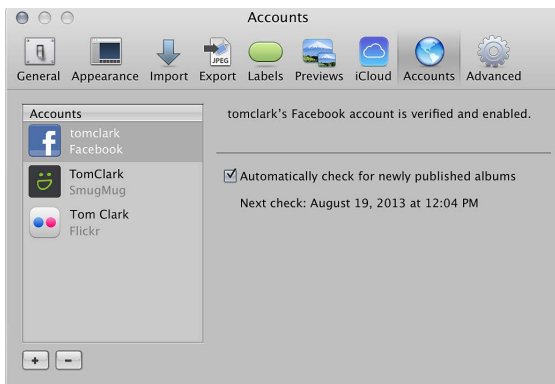


The iCloud preference pane contains the following controls:

- *My Photo Stream checkbox*: Select or deselect this checkbox to turn My Photo Stream on or off in the currently open Aperture library.
  - *Automatic Import checkbox*: Select this checkbox to have photos from My Photo Stream automatically imported into your Aperture library so that they appear in Projects view, Photos view, Faces view, and Places view. If you don't select this checkbox, you have to manually drag photos from My Photo Stream to projects in your Aperture library.
  - *Automatic Upload checkbox*: Select this checkbox to have all new photos that are imported into your Aperture library uploaded to My Photo Stream.
- *Photo Sharing checkbox*: Select this checkbox to share photo streams and view photo streams shared by others. Photos added to a shared stream are automatically pushed to the devices of people who subscribe to the shared stream.

## Accounts preferences

Use the controls in the Accounts preference pane to set options for reviewing and updating albums that you've published to your Flickr, Facebook, and SmugMug accounts, as well as add or remove these accounts within Aperture.

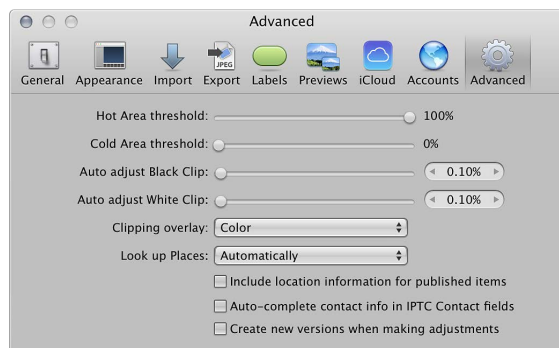


The Accounts preference pane contains the following controls:

- *Accounts column*: Select the account you want to modify in this column.
  - *Add button (+)*: Click this button to add one or more Flickr, Facebook, or SmugMug accounts.
  - *Remove button (-)*: Click this button to delete the selected account from Aperture.
- Important:** All albums associated with the deleted Flickr, Facebook, or SmugMug account are removed from Aperture. However, the albums, sets, or galleries and their photos still appear in the Flickr, Facebook, or SmugMug account.
- *“Automatically check for newly published albums” checkbox*: Choose whether you want Aperture to check regularly for new albums published outside of Aperture to your Flickr, Facebook, and SmugMug accounts or whether you want to update the accounts manually.

## Advanced preferences

Use the controls in the Advanced preference pane to specify the display threshold for hot and cold areas of images, add tolerance to Auto Levels adjustments, choose whether clipping overlays are displayed in color or monochrome, specify that Aperture look up photo location information when photos are imported, and specify that Aperture create a new version when you adjust an image.



The Advanced preference pane contains the following controls:

- *“Hot Area threshold” slider*: You can view an image’s hot areas (where highlight data in any color channel has been clipped) by choosing View > Highlight Hot & Cold Areas. To adjust the threshold used to determine an image’s hot areas, drag the slider.
- *“Cold Area threshold” slider*: You can view an image’s cold areas (where black data in any color channel has been clipped) by choosing View > Highlight Hot & Cold Areas. To adjust the threshold used to determine an image’s cold areas, drag the slider.
- *“Auto adjust Black Clip” slider*: Use the “Auto adjust Black Clip” slider and value slider to add tolerance to Auto Levels adjustments when evaluating colors beyond black.
- *“Auto adjust White Clip” slider*: Use the “Auto adjust White Clip” slider and value slider to add tolerance to Auto Levels adjustments when evaluating colors beyond white.
- *“Clipping overlay” pop-up menu*: Choose color or monochrome for the display of your clipping overlays.
- *“Look up Places” pop-up menu*: Specify that Aperture look up photo location information as the photos are imported.
- *“Include location information for published photos” checkbox*: Select this checkbox to have Aperture include any location information with the photos you share online.

- “Auto-complete contact info in IPTC Contact fields” checkbox: Select this checkbox to have Aperture automatically enter contact information in the IPTC Contact fields after you have entered the information the first time.
- “Create new versions when making adjustments” checkbox: Select this checkbox to have Aperture automatically create a new version when you adjust a selected photo. The adjustment is applied to the original version and the new one is left untouched.

## Customize the toolbar

The toolbar is shown by default, but you can choose to hide it. You can also add, delete, and rearrange toolbar buttons and controls

### Hide the toolbar

- Choose View > Hide Toolbar (or press Shift-T).

### Show a toolbar that has been hidden

- Choose View > Show Toolbar (or press Shift-T).

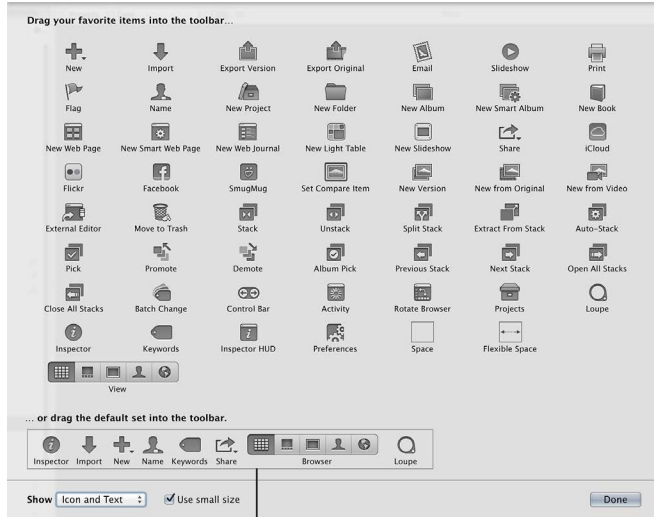
### Customize the toolbar

Aperture provides a simple drag-and-drop interface for adding, deleting, and rearranging the toolbar buttons and controls. You can also choose whether items in the toolbar appear as icons, as text, or as both.

#### 1 Do one of the following:

- Choose View > Customize Toolbar.
- Control-click the toolbar, then choose Customize Toolbar from the shortcut menu.

A dialog appears, showing icons for toolbar buttons and controls.



Default toolbar items are shown in the bottom section.

**Note:** Because you can customize the toolbar by adding and removing buttons and controls, your toolbar may look different from the one shown above.

2 Configure the toolbar by doing any of the following:

- *To add items to the toolbar:* Drag their icons from the dialog to the location where you want them to appear in the toolbar.
- *To remove items from the toolbar:* Drag items out of the toolbar, or Control-click the item you want to remove and choose Remove Item from the shortcut menu.
- *To change the order of the items in the toolbar:* Drag each item to its new position.
- *To control whether each item's icon and text appear in the toolbar:* Choose Text Only, Icon Only, or Icon & Text from the Show pop-up menu in the lower-left corner of the dialog, or Control-click the toolbar and choose Text Only, Icon Only, or Icon & Text from the shortcut menu.
- *To use small icons in the toolbar:* Select the "Use small size" checkbox.

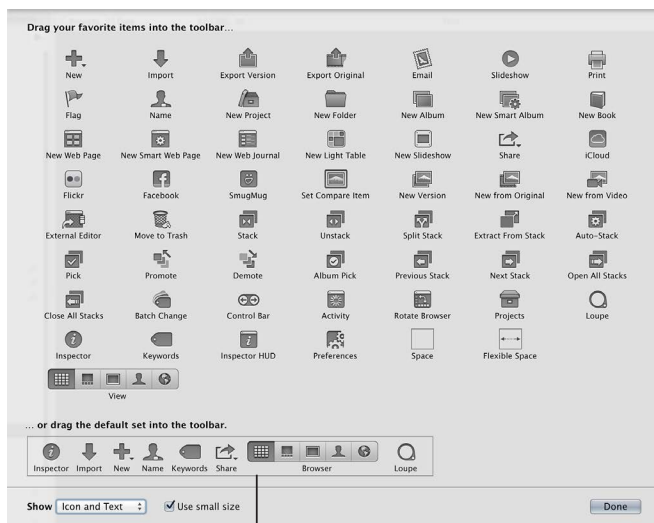
3 When you finish configuring the toolbar, click Done.

**Reset the toolbar to its default state**

1 Do one of the following:

- Choose View > Customize Toolbar.
- Control-click the toolbar, then choose Customize Toolbar from the shortcut menu.

A dialog appears, showing icons for toolbar buttons and controls.



Default toolbar items are shown in the bottom section.

2 Drag the default toolbar up from the bottom of the dialog into the toolbar area.

3 Click Done.

## Use gestures with Aperture

If your computer has a Multi-Touch trackpad or a Magic Mouse, you can use gestures when working with Aperture. For example, when working with photos in the Browser, you can use the rotate gesture to rotate images and the swipe gesture to select a different photo. In addition to the standard Multi-Touch trackpad gestures used with Mac portable computers, you can use Multi-Touch gestures with the following Aperture features.

**Note:** To use the following gestures, you must have Aperture 3.3.2 or later and OS X Mountain Lion v10.8 or later.

Feature	Multi-Touch trackpad gestures
Browser in grid view	<ul style="list-style-type: none"><li>• Use the pinch gesture to change the size of thumbnails in the Browser.</li><li>• Use the rotate gesture to rotate the photo beneath the pointer.</li><li>• Use the three-finger swipe gesture to select another photo when “Swipe with three fingers” is selected in the “Swipe between pages” pop-up menu in the More Gestures pane of Trackpad preferences. For more information about the swipe gesture, see Help Center.</li></ul>
Browser in list view	<ul style="list-style-type: none"><li>• Use the pinch gesture to change the size of thumbnails in the Browser.</li><li>• Use the three-finger swipe gesture to select another photo when “Swipe with three fingers” is selected in the “Swipe between pages” pop-up menu in the More Gestures pane of Trackpad preferences. For more information about the swipe gesture, see Help Center.</li></ul>
Browser in filmstrip view (Split View layout) and filmstrip in full-screen view (Viewer mode)	<ul style="list-style-type: none"><li>• Use the pinch gesture to change the size of thumbnails in the Browser or the filmstrip.</li><li>• Use the rotate gesture to rotate the image beneath the pointer.</li><li>• Use the three-finger swipe gesture to select another photo when “Swipe with three fingers” is selected in the “Swipe between pages” pop-up menu in the More Gestures pane of Trackpad preferences. For more information about the swipe gesture, see Help Center.</li></ul>
Viewer and full-screen view (Viewer mode)	<ul style="list-style-type: none"><li>• Use the pinch gesture to zoom in to or out of the photo, or double-tap with two fingers to zoom in to a specific part of the photo.</li><li>• Use the rotate gesture to rotate the photo beneath the pointer.</li><li>• Use the swipe gesture to select a different photo when “Scroll to navigate photos in the Viewer” is selected in the General pane of the Preferences window. For more information about the General pane of the Preferences window, see <a href="#">General preferences</a> on page 478. For more information about the swipe gesture, see Help Center.</li></ul>

Feature	Multi-Touch trackpad gestures
Faces	<ul style="list-style-type: none"> <li>Use the pinch gesture to change the size of the snapshots.</li> </ul>
Places	<ul style="list-style-type: none"> <li>Use two-finger scrolling to zoom in to or out of the map.</li> </ul>
Light Table	<ul style="list-style-type: none"> <li>Use the pinch gesture to zoom in to or out of the Light Table or to change the size of the photo beneath the pointer.</li> </ul>
Book Layout Editor	<ul style="list-style-type: none"> <li>Use the pinch gesture to zoom in to or out of the selected page or resize the object beneath the pointer on the page. (The Edit Layout button must be selected to resize objects on the page.)</li> <li>Use the rotate gesture to rotate objects. You can also hold down the Shift key as you use the rotate gesture to restrict rotation to 15-degree increments.</li> <li>Use the swipe gesture to change pages.</li> </ul>
Slideshows	<ul style="list-style-type: none"> <li>Use the swipe gesture to display the next or previous slide during a slideshow.</li> </ul>
Loupe tool	<ul style="list-style-type: none"> <li>Use the pinch gesture to change the Loupe size. (As with previous versions of Aperture, you can also use the scroll gesture to change the Loupe magnification.)</li> </ul>
Crop tool	<ul style="list-style-type: none"> <li>Use the pinch gesture to modify an existing crop selection and change its size.</li> </ul>
Straighten tool	<ul style="list-style-type: none"> <li>Use the rotate gesture to change the amount of image rotation.</li> </ul>
Print dialog (Preview area)	<ul style="list-style-type: none"> <li>Use the pinch gesture to zoom in to or out of the photo displayed in the Preview area of the Print dialog.</li> </ul>

For more information about working with gestures, see [Help Center](#).

## Customize keyboard shortcuts

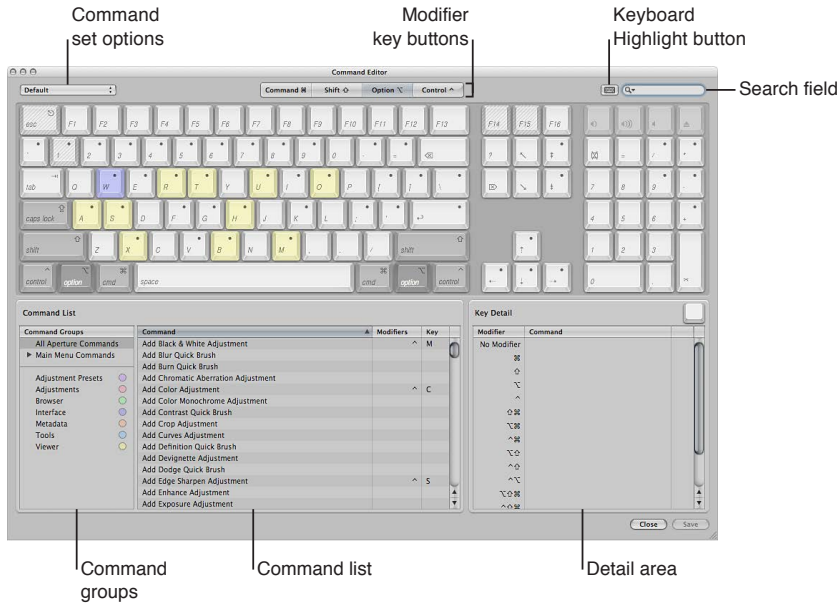
### Customizing keyboard shortcuts overview

Aperture provides a wide variety of menu commands and keyboard shortcuts to control almost every aspect of your workflow. The easiest way to search, browse, or customize the various commands and keyboard shortcuts is to use the Command Editor. The Command Editor lets you:

- Search for commands and view their descriptions and keyboard shortcuts.
- Preview key combinations in a visual representation of the keyboard.
- Modify existing keyboard shortcuts.
- Create new keyboard shortcuts.
- Save multiple sets of keyboard shortcuts as *command sets* that can be imported and exported for use by others.



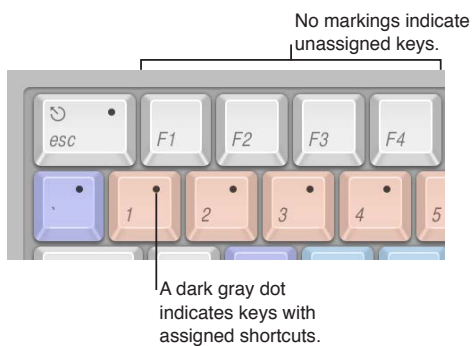
- Replace the default set of Aperture keyboard shortcuts with command sets from other applications.



The upper half of the Command Editor displays a virtual keyboard. The lower half contains a command list that sorts menu commands by group and offers a brief description of each command, along with its associated keyboard shortcut, if one exists.

The virtual keyboard is color-coded to help you identify the type of command each key performs. The Command Groups column on the left side of the Command List area includes a clickable color key for reference.

Keys that are assigned to shortcuts are marked on the virtual keyboard with a dark gray dot, whereas unassigned keys have no additional markings. Several keys are shaded with diagonal lines, indicating that they are reserved for OS X operating system use.



## Search for commands and keyboard shortcuts

You can search for and display commands and keyboard shortcuts in a number of ways.

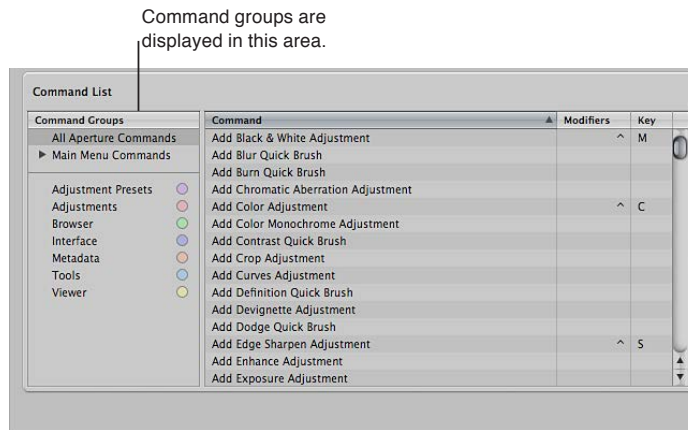
### View keyboard shortcuts by group

The Command Groups column of the Command Editor displays several groupings of commands, organized by Aperture menus as well as by type of command.

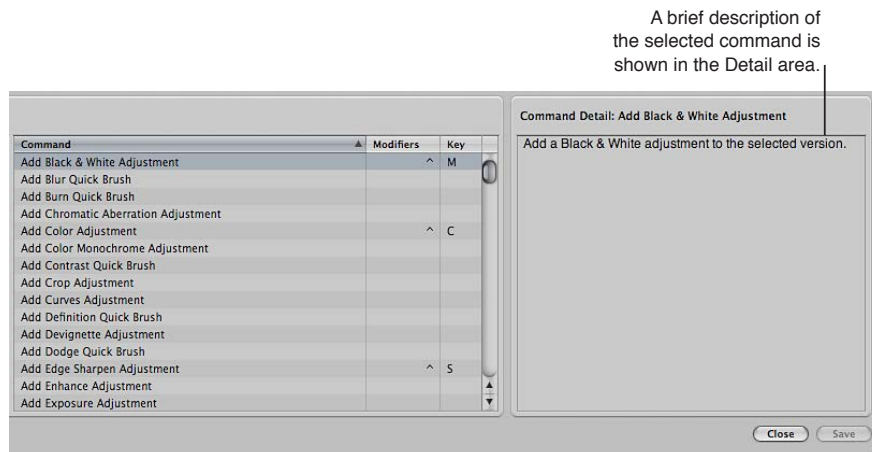
- 1 Choose Aperture > Commands > Customize.

The Command Editor appears.

- 2 Click a group in the Command Groups column to display only the commands and keyboard shortcuts in that group.



- 3 Select a command in the Command column to display a brief description in the Command Detail area.



## View all keyboard shortcuts associated with a specific key

- 1 Choose Aperture > Commands > Customize.

The Command Editor appears.

- 2 Select a key in the virtual keyboard.

The Key Detail area displays a list of all keyboard shortcuts associated with that key.



## Search for a keyboard shortcut

Use the search field in the upper-right corner of the Command Editor to quickly locate a command or its keyboard shortcut. You can search by command name, description, or keyboard shortcut.

- In the Command Editor, click in the search field and type a word that describes the keyboard shortcut you need, or type the key combination.

The Command list immediately displays the search results, listing all commands and keyboard shortcuts related to the search term. You can further narrow your search by choosing a category from the search field pop-up menu. The menu options include All, Command, Description, and Key Equivalent.

**Note:** Do not use the Shift key to capitalize letters when typing in the search field. The search field recognizes the Shift key as a modifier key in a keyboard shortcut.

## Search for and highlight a keyboard shortcut on the virtual keyboard

You can use the search field in combination with the virtual keyboard to highlight keyboard shortcuts.

- 1 In the Command Editor, click the Keyboard Highlight button to the left of the search field.

The keyboard is dimmed.

- 2 Click in the search field and begin typing.

The Command list changes as you type, highlighting the keys related to your search term.

**Note:** When you click the Keyboard Highlight button to turn on keyboard highlighting, modifier keys that may be part of the keyboard shortcut (Control, Option, Shift, and Command) are not highlighted.

### Filter a keyboard shortcut search by modifier keys

You can use the modifier key buttons (Control, Option, Shift, and Command) at the top of the Command Editor to quickly see which keys work in combination with the various modifier keys.

- 1 Click one of the four modifier key buttons at the top of the Command Editor (or click one of the modifier keys on the virtual keyboard).

Keys assigned to work in combination with the selected modifier key appear marked with a dark gray dot.

- 2 If necessary, click another modifier key button (or a modifier key on the virtual keyboard) to create a combination.

The virtual keyboard updates to show which keys are assigned to shortcuts that use the combined modifier keys.

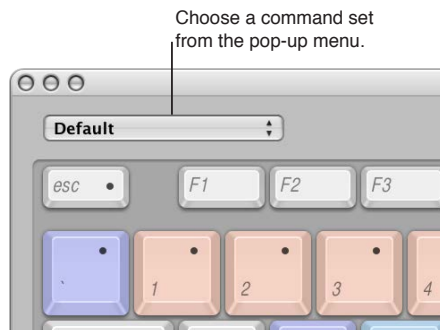
### Modify keyboard shortcuts and command sets

Customizing keyboard shortcuts in the Command Editor is fast and easy. By default, Aperture uses a standard set of commands and keyboard shortcuts. To modify the keyboard shortcuts assigned to those commands, you must first make a copy of the default command set. After you've duplicated and saved a new custom command set, you can export it to create a backup or to share your personalized keyboard shortcuts with others. You can also import command sets created by other users or applications.

#### Choose a command set

Do one of the following:

- Choose Aperture > Commands, then choose a command set from the submenu.
- If the Command Editor is already open, choose a command set from the pop-up menu in the upper-left corner.



After you choose a command set, the keyboard shortcuts in the set become active in Aperture.

#### Add or modify a keyboard shortcut

You can customize a command set by adding, modifying, or reassigning specific keyboard shortcuts.

- 1 Using the search field (or browsing the Command list) of the Command Editor, select the command you want to assign a new keyboard shortcut to.
- 2 Using your physical keyboard, press the combination of keys you want to use as a shortcut for the command (for example, Option-Shift-T).

If the key combination is already assigned to a command, an alert prompts you to confirm the change. If you're using the default command set, an alert prompts you to make a copy of the default set.

3 Do any of the following:

- If the key combination is already assigned to a command, and you want to reassign the key combination, click Reassign in the alert that appears.
- If you are using the default command set, click Make Copy in the alert that appears, then enter a name for the new command set and click OK

The new keyboard shortcut is added to the new command set and appears in the Key column of the Command list. The virtual keyboard updates to show the new key assignment, labeled with a gray dot and a color if the command belongs to a color-coded command group.

**Note:** When you assign a key combination to a command, the Delete key becomes an assignable key when one of the modifier keys (Control, Option, Shift, or Command) is held down. For information about deleting a command set, see “Delete a command set” below.

**Manually duplicate the currently active command set**

You can manually duplicate any command set that’s available in the Command Editor.

1 Choose Duplicate from the pop-up menu at the top of the Command Editor.

A dialog appears and prompts you to name the new command set.

2 Type a name for the new command set in the dialog, then click OK.

The new duplicate command set is saved and appears as an item in both the pop-up menu in the Command Editor and the Commands submenu of the Aperture menu.

To modify individual key assignments in the duplicate set of keyboard shortcuts, see the following steps.

**Save a command set**

- Click the Save button in the lower-right corner of the Command Editor.

If you close the Command Editor with unsaved changes, Aperture prompts you to save the command set.

**Delete a command set**

1 Make sure the command set you want to delete is the active command set, then choose Delete from the pop-up menu at the top of the Command Editor.

A dialog appears.

2 Click Delete.

The command set is removed, and the default command set becomes the active set of commands.

**Export a command set**

1 Make the command set you want to export the active set by choosing it from the pop-up menu in the top-left corner of the Command Editor.

2 Do one of the following:

- Choose Aperture > Commands > Export.
- In the Command Editor, choose Export from the pop-up menu.

3 In the dialog that appears, navigate to the location where you want to save the exported command set, then type a name in the Save As field.

4 Click Save.

The file is saved in the location you chose, with an .apcommands file extension.

### Import a command set

- 1 Do one of the following:
  - Choose Aperture > Commands > Import.
  - In the Command Editor, choose Import from the pop-up menu.
- 2 In the dialog that appears, navigate to the location where you have stored a command set file, select it, then click Open.

The imported command set is added to the Commands submenu of the Aperture menu and to the pop-up menu in the Command Editor.

If you are already using a command set with the same name, a dialog appears and prompts you to rename the imported command set.

## Work with preview images

### Preview images overview

Aperture allows you to create and use JPEG previews of versions in the library. Previews are JPEG images generated by Aperture that represent the original photo with any applied adjustments. Previews speed up the display of photos in Aperture and also allow you to easily use your photos in other applications.

Aperture is preset to create previews for photos in the library. Previews are built as a background activity after photos are imported. You can set Aperture to create and maintain previews automatically as you add or modify versions, or you can create previews manually whenever you need them. To maintain an efficient use of disk space and adequate display speed, you can control the size of previews, from a preview image that has the full-size dimensions of the original down to a preview image that is 1280 pixels in the longest dimension. You can also control the JPEG compression quality of the previews. If your workflows do not benefit from previews, you can configure Aperture not to create them at all.

You can control the creation and maintenance of preview images for an entire library, as well as on a project-by-project or photo-by-photo basis.

When a version has a preview built for it, you can drag the photos directly from the Browser to any application that accepts JPEG files, including the Finder, Mail, and most other applications. If you are dragging multiple photos, but only some of them have previews, only the versions with previews are dragged out.

You can use previews to distribute your Aperture photos in movies, on the web, on DVDs, in slideshows, and in podcasts. You can also download your Aperture photos to devices such as iPod, import your Aperture photos into iPhoto, or use them to create Pages documents. The Media Browsers in the iLife and iWork applications support browsing Aperture libraries. If a version has no preview, the photo is not made available to the Media Browser.

**Note:** When photos are within stacks, only stack picks and album picks are shared. If you want iLife to have access to a photo in a stack and it's not the pick, you need to extract it from the stack or make it the pick.

Like photos in iPhoto libraries, photos in Aperture libraries can be used for your screen saver, desktop picture, and Mail, through the same mechanism the Media Browser uses.

## How Aperture displays photos in the Viewer

When a version needs to be displayed in the Viewer, Aperture does the following:

- Aperture draws the thumbnail image (a JPEG image that is 1280 pixels in the longest dimension).
- Aperture draws the JPEG preview, if present.
- Aperture decodes the original and applies any adjustments to it.

Once the last step is completed, the adjustment controls become available. Because the JPEG preview is created with all the adjustments for that version, it appears onscreen faster than the adjusted original would. The result is a sharp preview image that appears quickly in the Viewer.

## Set preview preferences

Aperture provides four preference settings for controlling previews. These settings apply to all libraries.

### Open Aperture preferences

- Choose Aperture > Preferences, then click Previews.

The Previews pane appears.




For more information about the Previews pane, see [Previews preferences](#) on page 482.

## Automatically manage previews

You turn automatic preview maintenance on or off on a project-by-project basis.

### Have Aperture automatically update previews for selected projects

- 1 In the Library inspector, select the projects whose photos you want to maintain previews for.
- 2 Choose Maintain Previews For Project from the Library Action pop-up menu .

A checkmark appears next to the Maintain Previews For Project menu command. Aperture will now automatically update previews when photos are imported into the projects, as well as when versions are created or adjusted.

**Note:** Turning on automatic preview maintenance does not generate the previews. It only tells Aperture what to do the next time a photo is imported or a version is created or adjusted. To generate previews, you can use the commands described in [Manually manage previews](#) on page 496.

## Manually manage previews

You can delete previews or update previews to regenerate them when you want.

### Delete all the JPEG previews for a project

- In the Library inspector, select the project whose JPEG previews you want to delete, then choose Photos > Delete Previews for Project.

### Update all the JPEG previews in a project

- In the Library inspector, select the project whose JPEG previews you want to update, then choose Photos > Update Previews for Project.

If previews are already up to date and you choose Update Previews, Aperture alerts you that no work is required. However, you can force the rebuilding of previews (see the following steps).

### Force the rebuilding of JPEG previews in a project

- In the Library inspector, select the project whose JPEG previews you want to force Aperture to update, hold down the Option key, then choose Photos > Generate Previews for Project.

### Delete JPEG previews for a photo selection

In the Browser, you can select one or more photos and either delete or update the JPEG previews.

- 1 In the Browser, select a photo or group of photos whose JPEG previews you want to delete.
- 2 Choose Photos > Delete Previews.

### Update JPEG previews for a photo selection

- 1 In the Browser, select a photo or group of photos whose JPEG previews you want to update.
- 2 Choose Photos > Update Previews.

### Force the rebuilding of JPEG previews for a photo selection

- 1 In the Browser, select a photo or group of photos whose JPEG previews you want to force Aperture to update.
- 2 Hold down the Option key, then choose Photos > Generate Previews.

## Reschedule JPEG preview maintenance

Preview maintenance can be rescheduled for projects in which automatic preview maintenance is turned off.

### Reschedule JPEG preview maintenance


- In the Library inspector, select the project whose JPEG previews you want to start updating again, then choose Photos > Update Previews for Project.

**Note:** Each time you open Aperture, it checks for out-of-date previews in those projects whose automatic preview maintenance option is turned on and then schedules the previews for regeneration. If you don't want previews updated automatically, turn off automatic preview maintenance for your projects. For more information, see [Automatically manage previews](#) on page 495.



## Render preview images

Aperture renders preview images in four situations:

- When a library is upgraded—provided that the “Create previews for existing images” checkbox is selected in the Welcome to Aperture dialog
- When a photo is imported, or a version is created, rotated, or adjusted—provided that the Maintain Previews item is selected in the Library Action pop-up menu 
- When you select the library, a project, or a photo selection and choose Photos > Update Previews
- Immediately before a slideshow, if the previews are not up to date, and the slideshow preset uses the Best quality setting

When rendering a group of preview images, Aperture uses the current application preference settings for compression quality and picture size, not the settings that were specified when preview rendering began. For example, if you have the quality set to 6, and then halfway through rendering you change the setting to 8, the previews that have not yet been rendered will be compressed at setting 8. Previously rendered previews are unaffected.

### Update previews to use new size and compression settings

- 1 In the Browser, select the photos you want to update.
- 2 Hold down the Option key, then choose Photos > Generate Previews.

If you encounter performance issues, you can check the Activity window to see if Aperture is doing work in the background (choose Window > Show Activity). If you think that preview processing may be degrading performance, you can turn off automatic preview maintenance for that project and cancel the preview processing task underway. You can then generate the previews at a more convenient time.

### Suppress preview generation

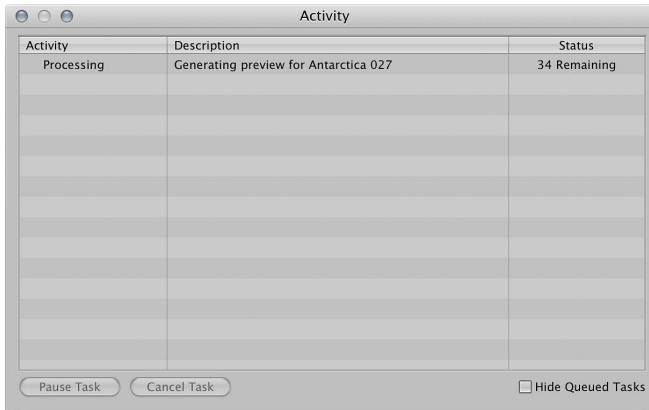
When Aperture opens, it begins updating previews for those projects whose Maintain Previews For Project setting is turned on. (For more information about maintaining previews, see [Automatically manage previews](#) on page 495.) This can cause problems if a project contains damaged files or images in unsupported file formats. You can suppress preview generation when opening Aperture, allowing you to more easily identify the damaged image files. To do this, press the Shift key while opening Aperture. You can also cancel the current preview maintenance operation using the Activity window.

**Note:** If you have canceled a preview maintenance operation, the previews are not updated until another change is made to the photo. To force Aperture to update the preview for a photo, see [Manually manage previews](#) on page 496. The next time you open Aperture, automatic preview maintenance resumes.

While Aperture is open it renders preview images in the background; however, there may be times when you want to stop this operation. You can view the progress of the preview render operation, as well as cancel the operation, in the Activity window.

## Stop preview generation

- 1 Choose Window > Show Activity.




- 2 In the Activity window, select the “Generating preview” task, then click the Cancel Task button.
- 3 Close the Activity window.

**Note:** Because slideshows that use the Best quality setting cannot begin until all preview images are up to date, preview generation is done in the foreground with a Cancel button to stop the operation. In all other cases, previews are created in the background.

### Turn off previews

If your workflow does not benefit from previews, you can turn them off completely.

- 1 Choose Aperture > Preferences, then click Previews.
- 2 Deselect the “New projects automatically generate previews” checkbox.  
This turns off automatic preview maintenance for any new projects that you create.
- 3 In the Library inspector, select all the projects, then choose Maintain Previews For Projects from the Library Action pop-up menu , so there is no checkmark next to it.  
This turns off automatic preview maintenance for your existing projects.  
**Note:** You need to perform steps 1 through 3 for each of your libraries.
- 4 If you have already generated previews for some projects and do not want them, select all the projects in the Library inspector, then choose Photos > Delete Previews for Items.  
This deletes all previews that have been generated previously. You need to do this for each library in which you have already generated previews.

## Sample workflows for using previews effectively

There are several methods for using preview images efficiently and effectively:

- *Generate previews for projects you intend to keep offline:* A JPEG preview is displayed when a referenced image’s original is offline or cannot be found. This makes previews a great way of maintaining high picture quality while conserving the disk space that originals (especially RAW files) require.
- *Generate previews for photos based on rating:* Another way to use previews is to create a search that displays only low-rated photos. You can then build previews just for those photos and take their originals offline (for example, burn them to a DVD). That way you still have good-quality images for all of your photos, without using a lot of disk space.

You can also create a search that displays only highly rated photos and then build previews for those photos only. This is a useful alternative for workflows in which the default thumbnail resolution is sufficient for low-rated photos. For more information about searching for photos, see [Searching overview](#) on page 150.

- *Generate previews for new or active projects:* Because previews are used by the iLife and iWork Media Browsers as well as by the OS X screen saver, you can use previews as a way to distribute your Aperture photos in movies, on the web, on DVDs, in slideshows, and in podcasts using the applications in iLife. You can also download your Aperture photos to devices such as iPad, iPhone, and iPod touch; import your Aperture photos into iPhoto; or use them to create Pages documents.
- *Generate previews for Smart Albums:* You can create previews for photos collected in Smart Albums. For example, you can create previews for highly rated photos only. For more information about working with Smart Albums, see [Collect photos in a new Smart Album](#) on page 156.

### Use previews for offline referenced images


- 1 Make sure the external hard disk containing the referenced originals you want to keep offline is connected to your computer.

If the originals you want to keep offline are currently stored on your computer, you must convert the images to referenced images and move the originals to an external hard disk. You can do this by selecting the project containing the photos whose originals you want to keep offline, choosing File > Relocate Originals, selecting an external hard disk location for the originals, and then clicking Relocate Originals.

- 2 Select the project containing the photos whose originals you want to keep offline, then choose Photos > Update Previews.
- 3 When the previews are built (you can check the status by choosing Window > Show Activity), you can disconnect the hard disk containing the originals.

Even though the originals are offline, you can browse, search, and assign metadata to preview images. You can even use the Loupe to zoom in on preview images, because they are high-quality JPEG files.

### Share previews with other applications

- 1 Select the project whose photos you want to share with other applications, then choose Maintain Previews For Project from the Library Action pop-up menu .
- 2 Choose Aperture > Preferences, then click Previews.
- 3 Choose Always or “When quitting Aperture” in the “Share XML with other applications” pop-up menu.
- 4 In the Library inspector, select the project and choose Photos > Update Previews for Project.

When the previews are built, you can open any of the iLife and iWork applications and use your Aperture photos.

### Generate previews for Smart Albums

- 1 Create a Smart Album and specify criteria for it using the Smart Album's Smart Settings HUD.
- 2 Click in the Browser, then press Command-A to select all the photos.
- 3 Choose Photos > Update Previews.

**Note:** Previews for Smart Albums are not automatically maintained—automatic preview maintenance is a project-level setting only. In this workflow, you need to update the previews yourself periodically, by following the steps in [Manually manage previews](#) on page 496. Aperture builds previews only for the versions that have changed, so you don't need to determine which ones to update.

# Glossary

**additive color** Images with color elements derived from the light source itself. RGB is a common form of additive color. See also *RGB*.

**adjustment** Any change to the appearance of an image. See also *brushed adjustment*.

**Adobe RGB (1998)** A color profile commonly used for printing. See also *color space*.

**album** A type of container in the Aperture library that holds only versions. You can create albums at either the project level or within a project. There are specialized types of albums, including book, Light Table, webpage, web journal, and slideshow albums. See also *folder, library, project, Smart Album, version*.

**alternate** The photo immediately next to the pick in a stack. Alternate photos are useful when more than one photo in a stack merits the pick position. See also *image, pick, stack*.

**Alternate setting** A secondary Viewer setting that presents the currently selected photo on the secondary Viewer display. See also *display, image, main Viewer, primary selection, secondary Viewer*.

**ambient light** The lighting characteristics that already exist in the scene (indoor or outdoor) without any additional light supplied by the photographer.

**analog-to-digital conversion** The process of transforming light energy voltage values captured by the camera's digital image sensor into binary (digital numbers) for processing and storage. See also *digitization, quantization*.

**angle of view** The area of the scene displayed within the frame. Determined by the focal length of the lens.

**aperture** An adjustable iris or diaphragm in the lens through which light passes. Measured in f-stops. See also *f-stop*.

**aperture priority** A setting on certain cameras that automatically sets the shutter speed for a correct exposure based on the aperture setting provided by the photographer. See also *exposure, shutter priority*.

**archive** The process of storing image data on a permanent medium, such as optical media (CD or DVD).

**aspect ratio** The ratio of height to width of the dimensions of a photograph. Common North American aspect ratios are 3.5 x 5, 4 x 6, 5 x 7, 11 x 14, and 16 x 20 inches.

**audio attachment** An audio file that has been attached to a photo, either in the camera that captured the photo or within Aperture. Audio attachments are often audio notations recorded by the photographer while shooting a photo.

**audio clip** An instance of a segment of audio in Aperture; an audio file's version. See also *audio file, version*.

**audio file** The source media file on disk to which an audio clip in Aperture refers; the audio clip's original. See also *audio clip, original*.

**autofocus** The system within the camera that automatically focuses the lens on a specific portion of the subject or scene. See also *autofocus point overlays*.

**autofocus point overlays** Overlays displayed over photos in the Viewer that show which autofocus mode was used by the camera and which focal point was used to focus the photo when it was captured. You turn on autofocus point overlays by clicking the Autofocus Points button in the Camera Info pane of the Info inspector. You can also temporarily view autofocus point overlays by placing the pointer over the Autofocus Points button. See also *autofocus*.

**automatic bracketing** A setting on many professional cameras that automatically brackets the exposure of the photo. See also *bracketing*.

**background** The area in the rear of the image that appears behind the subject. See also *depth of field, foreground*.

**backlighting** A light source that faces toward the lens of the camera, emanating from behind the subject. Backlighting makes the outline of the subject stand out from the background, often resulting in a silhouette. See also *frontlighting, sidelighting, silhouette*.

**badge overlay** A small icon Aperture places on a photo to indicate that an adjustment, keyword, or other change has been applied to it. See also *adjustment, keywords, offline*.

**Bayer pattern color filter array** A specific arrangement of red, green, and blue lenses attached to the surface of a digital image sensor. There are roughly twice as many green lenses as blue and red to accommodate how the human eye perceives color. See also *charge-coupled device (CCD), complementary metal oxide semiconductor (CMOS), digital image sensor*.

**bit depth** The number of tonal values or shades of a color each channel in a pixel is capable of displaying. Increasing the bit depth of color channels in an image's pixels exponentially increases the number of colors each pixel can express. See also *color channels, color depth*.

**Black & White adjustment** An adjustment in Aperture that allows you to selectively control the source red, green, and blue color channels when a color image is converted to grayscale. See also *adjustment, grayscale, image, monochrome*.

**black point compensation** Black point compensation ensures that black and white luminance values are appropriately scaled to fit within the range or gamut of the destination device (printer, paper, and ink). Using black point compensation helps prevent clipping in shadows because the blacks are scaled to fit within the gamut of the printer, paper, and ink.

**Black Point parameter** An Exposure adjustment parameter in Aperture used to set the blacks in the image. See also *Exposure adjustment*.

**Black setting** A secondary Viewer setting that sets the secondary Viewer display to be a blank screen. See also *display, secondary Viewer*.

**Blur Quick Brush** A type of Quick Brush adjustment that softens the area of the image the adjustment is brushed on. See also *adjustment, Brush HUD, Quick Brushes*.

**bounce lighting** Natural and unnatural light sources (flash and tungsten) redirected toward the subject using a reflective surface to give the effect of natural light as well as fill-in shadows. See also *color temperature, fill-in lighting, White Balance adjustment*.

**bracketing** The process of taking three shots of the same photo based on the aperture and shutter values recommended by the light meter: a shot one stop under the recommended exposure, a shot at the recommended exposure, and a shot one stop over the recommended exposure. You can also narrow the bracketing range to fractions of a stop. Bracketing is used in difficult lighting situations to ensure that the scene is captured with the correct exposure. See also *automatic bracketing*.

**Brightness parameter** An Exposure adjustment parameter in Aperture used to lighten or darken an image. The adjustment affects the brightness values of the image's midtones the most. See also *adjustment, Exposure adjustment, midtones*.

**Browser** The part of the Aperture interface that displays the contents of the library, folders, projects, or albums. The Browser displays photos as a row of thumbnails (filmstrip view), a grid of thumbnails (grid view), or by file information (list view). See also *filmstrip view, grid view, list view, Viewer*.

**Browser layout** A main window layout in Aperture in which the Viewer is hidden. See also *Browser, full-screen view, Split View layout, Viewer, Viewer layout*.

**Browser mode (full-screen view)** A view mode in full-screen view, similar to the Browser in the Aperture main window. When full-screen view is set to Browser mode, photos are presented as thumbnails against a black background. Aperture provides controls for searching for and sorting the thumbnails in this mode. See also *Browser, full-screen view, Library Path Navigator pop-up menus, Projects mode (full-screen view), Viewer mode (full-screen view)*.

**brushed adjustment** A type of adjustment in Aperture that is brushed on the image rather than applied to it all at once. Most adjustments can be brushed on an image. See also *adjustment, brushed adjustment overlay, Quick Brushes*.

**brushed adjustment overlay** A masking tool in Aperture used to identify brush strokes that have already been applied to an image. See also *Brush HUD, Quick Brushes*.

**Brush HUD** A floating window used to set the size of the brush, the softness of the brush's edges, and the strength of the brush stroke for the selected adjustment. The Brush HUD also contains controls for deleting brush strokes, working with overlays, limiting the adjustment to specific tonal ranges, and edge detection. See also *brushed adjustment overlay, Detect Edges, Quick Brushes*.

**Bulb (B)** A manual shutter speed setting on many cameras used for timed exposures. When the shutter is set to B, the shutter stays open until the photographer presses the shutter release button. See also *shutter, shutter speed*.

**Burn Quick Brush** A type of Quick Brush adjustment that darkens the area of the image the adjustment is brushed on. See also *adjustment, Brush HUD, Dodge Quick Brush, Quick Brushes*.

**calibration** The process of creating an accurate color profile for a device. Calibrating a device ensures accurate color translation from device to device. See also *device characterization*.

**camera** A photographic device usually consisting of a lightproof box with a lens at one end and either light-sensitive film or a digital image sensor at the other. See also *digital point-and-shoot camera, digital single-lens reflex (DSLR) camera*.

**camera shake** Blurring of the image caused by the combination of a slow shutter speed, a small aperture, and a long focal length. See also *aperture, shutter speed, tripod, unipod*.

**candid shot** Refers to a photograph of a person that appears to have been taken informally and unposed, without the subject's knowledge. See also *composition*.

**capture** a. The process of taking the image received by the digital image sensor and camera processor and storing that information on the memory card in the camera. b. The process of recording a photo in Aperture at the moment it is shot via a tethered camera. See also *camera, digital image sensor, image, memory card, tethered shooting*.

**center-weighted metering** A type of metering that measures the light in the entire viewfinder but gives extra emphasis to the center of the frame. Center-weighted metering is the most common type of metering in consumer cameras. See also *evaluative metering, light meter, spot metering*.

**charge-coupled device (CCD)** A type of digital image sensor that records the pixel information row by row. See also *complementary metal oxide semiconductor (CMOS), digital image sensor*.

**Chromatic Aberration adjustment** An adjustment in Aperture that corrects chromatic aberration, produced by certain lenses when the photo was shot. Some lenses refract light at specific focal lengths, resulting in a rainbow effect in the image. See also *adjustment, image, light*.

**chromatic spread** The extent of colors affected by the Hue, Saturation, and Luminance parameters in the Color adjustment. See also *adjustment, Color adjustment*.

**Clone brush** A type of Retouch brush in Aperture used to correct and obscure imperfections in an image by copying pixels from a similar-looking area of an image and pasting them over the area with the pixels you want to replace. See also *image, pixel, Repair brush, Retouch adjustment, retouching*.

**close-up** A photo in which the subject usually appears within 3 feet of the camera. For example, head shots are often referred to as close-ups. A shot of an ant on a flower's petal, where the ant fills a majority of the frame, is also a close-up.

**CMYK** A working space used for print pieces combining cyan, magenta, and yellow inks in different combinations to create a color that reflects the proper color of light. Black ink (K) is added to the photo last to generate pure black on the page. See also *subtractive color, working space*.

**codec** Short for *compressor/decompressor* or *encode/decode*. A software component used to translate video or audio from its analog uncompressed form to the digital compressed form in which it is stored on a computer's hard disk. Also referred to as a *compressor*. See also *audio file, video file*.

**Color adjustment** An adjustment in Aperture used to adjust hue, saturation, and luminance on a color-by-color basis, as well as chromatic range. See also *adjustment, chromatic spread, hue, luminance, saturation*.

**color cast** An unnatural tint in an image due to a lack of color balance. Color casts are often caused by artificial light sources such as interior lighting. Color casts in images are commonly removed by adjusting levels, tint, or white balance. See also *White Balance adjustment*.

**color channels** The individual channels into which color information for digital images is divided. Each individual color channel represents one of the three individual primary colors that combine to represent the final image. Each channel has a bit depth; most digital image files have 8 bits per channel, meaning that there are 256 levels of color for each channel. See also *bit depth, color depth*.



**color depth** The possible range of colors that can be used in an image. There are generally three choices with digital images: grayscale, 8-bit, and 16-bit. Higher color depths provide a wider range of colors but require more storage space. See also *bit depth*, *color channels*, *grayscale*.

**colorimeter** An instrument capable of measuring the color value of a sample, using color filters. A colorimeter is used to determine if two colors are the same. However, it does not take into account the light under which a sample is measured. Colorimeters are often used to calibrate displays and printers. See also *calibration*.

**colorimetry** The science of measuring color both objectively and perceptively.

**color interpolation** The process of calculating additional color values from light captured via the red, green, and blue elements on the digital image sensor.

**color label** A type of metadata that can be assigned in Aperture to help organize and filter photos. You can assign one of five color labels to a photo, as well as assign a specific meaning to each type of color label. See also *metadata*.

**color management system (CMS)** An application that controls and interprets the reproduction of color between devices and imaging software for accuracy. See also *ColorSync*.

**color matching method (CMM)** A software algorithm designed to translate color information from one device profile to another, such as from your display to your printer. ColorSync is a thoroughly integrated CMM used by OS X. See also *ColorSync*.

**Color Monochrome adjustment** An adjustment in Aperture that desaturates the image and applies a color tint of your choosing to the midtones. See also *adjustment*, *desaturate*, *image*, *midtones*, *monochrome*, *Tint adjustment*.

**color space** A mathematical model used to describe part of the visible spectrum. Color from one device is mapped from the device-dependent value to a device-independent value in a color space. Once in an independent space, the color can be mapped to another device-dependent space. See also *device dependent*, *device independent*.

**ColorSync** A color management system that is part of the Mac operating system. In OS X, ColorSync is thoroughly integrated with the entire operating system and is available to all native OS X applications. See also *color management system (CMS)*, *color matching method (CMM)*, *ColorSync Utility*.

**ColorSync Utility** A centralized application for setting preferences, viewing installed profiles, assigning profiles to devices, and repairing profiles that do not conform to the current ICC specification. See also *ColorSync*, *International Color Consortium (ICC)*, *profile*.

**color temperature** Describes the color quality of light. Color temperature is measured in units called *kelvins* (K). See also *kelvin (K)*, *White Balance adjustment*.

**Commission Internationale de l'Éclairage (CIE)** An organization established in 1931 to create standards for a series of color spaces representing the visible spectrum of light. See also *color space*, *device dependent*, *device independent*, *lab plot*.

**compare photo** In Aperture, a photo set to remain onscreen while other photos are viewed against it. The compare photo is indicated by a green border. See also *image*.

**complementary metal oxide semiconductor (CMOS)** A type of digital image sensor that is capable of recording the entire image provided by the light-sensitive elements in parallel (essentially all at once), resulting in a higher rate of data transfer to the storage device. Tiny colored microlenses are fitted on each light-sensitive element in a CMOS sensor to increase its ability to interpret light. See also *charge-coupled device (CCD)*, *digital image sensor*.

**compositing** A process in which two or more digital images are combined into one. See also *effects*.

**composition** The arrangement of visual elements in a scene.

**compression** The process by which digital image files are reduced in size. Lossy compression is the process of reducing digital image file sizes through the removal of redundant or less important image data. Lossless compression reduces file sizes by mathematically consolidating redundant image data without discarding it. See also *decompression*, *LZW compression*.

**cones** A type of receptor in the eye capable of perceiving color. There are three types of cone cells, each sensitive to a particular frequency range in the visible spectrum. Cone cells are capable of seeing either red, green, or blue colors. See also *rods*.

**contact sheet** Based on a print preset in Aperture, a printed selection of thumbnail-sized photos with or without associated metadata. Contact sheets in Aperture are similar in appearance to contact prints made by exposing negatives or transparencies against photographic paper.

**contrast** The difference between the brightness and color values in an image that allows the viewer to distinguish between objects in an image. High-contrast images have a large range of values, from the darkest shadow to the lightest highlight. Low-contrast images have a more narrow range of values, resulting in a “flatter” look. See also *Contrast parameter*, *Curves adjustment*, *density*, *flat*.

**Contrast parameter** An Enhance adjustment parameter in Aperture used to adjust the contrast in an image. See also *adjustment*, *contrast*, *Exposure adjustment*.

**Contrast Quick Brush** A type of Quick Brush adjustment that applies additional contrast to the area of the image the adjustment is brushed on. See also *adjustment*, *Brush HUD*, *contrast*, *Quick Brushes*.

**control bar** The control bar contains buttons and controls you can use to rate and navigate through images, as well as apply keywords to them. See also *keywords*, *rating*.

**copyright** The legal right to exclusive publication, production, sale, or distribution of a literary, musical, or artistic work. Typically, these rights are in effect for a specific period of time.

**crop** The process of printing or distributing only part of the original image. The general purpose of cropping an image is to create a more effective composition. Another reason for cropping an image is to make it fit a particular aspect ratio, such as 4 x 6. See also *adjustment*, *aspect ratio*, *composition*, *Crop adjustment*, *effects*.

**Crop adjustment** An adjustment in Aperture that trims the image for the purpose of changing the composition or modifying the aspect ratio. The Crop adjustment is used in conjunction with the Crop tool. See also *adjustment*, *aspect ratio*, *composition*, *crop*.

**Curves adjustment** An adjustment in Aperture that selectively remaps the tonal range of the image by applying a curve from input to output. Manipulating the curve modifies the tonal values in the image. See also *adjustment*, *contrast*.

**decompression** The process of creating a viewable image from a compressed digital image file. See also *compression*.

**definition** The clarity of details in an image. See also *resolution*.

**Definition parameter** An Enhance adjustment parameter in Aperture used to adjust the clarity of details in an image. See also *Enhance adjustment*.

**Definition Quick Brush** A type of Quick Brush adjustment that adds clarity and reduces haze without adding too much contrast to the area of the image the adjustment is brushed on. See also *adjustment, Brush HUD, definition, Quick Brushes*.

**demote** In Aperture, the process of moving a photo in a stack away from the pick position. See also *full-screen view toolbar, image, pick, promote, stack*.

**densitometer** An instrument designed to measure the optical density of photographs. See also *device characterization*.

**density** The ability of an image to reproduce distinct dark colors. An image with high definition in the darker colors is referred to as *dense*. See also *contrast, flat*.

**depth of field** The area of the photo that appears in focus from the foreground to the background. Depth of field is determined by a combination of the opening of the aperture and the focal length of the lens. See also *aperture, background, focal length, foreground*.

**desaturate** To remove color from an image. Complete desaturation results in a grayscale image. See also *Black & White adjustment, grayscale, saturation*.

**destination profile** The working-space profile that defines the results of a color conversion from a source profile. See also *profile*.

**Detect Edges** A Brush HUD setting in Aperture that examines differences in pixel values to determine possible hard edges and then restricts the brush from affecting pixels beyond those edges, making it easier to paint adjustments into specific areas of the photo. See also *Brush HUD*.

**device characterization** The process of creating a unique, custom profile for a device such as a display or printer. Characterizing a device involves specialized dedicated hardware and software to determine the exact gamut of the device. See also *calibration, gamut*.

**device dependent** Describes color values that are contingent upon the ability of a device to reproduce those colors. For example, some colors produced by displays cannot be reproduced on paper by a printer. The colors produced by the display are outside the gamut of the printer. Therefore, those colors are considered to be device dependent. See also *gamut*.

**device independent** Describes standard color spaces, such as CIE Lab and XYZ, where the interpretation of a color is not dependent on a specific device. See also *color space, Commission Internationale de l'Eclairage (CIE)*.

**Devignette adjustment** An adjustment in Aperture used to correct unwanted vignetting applied to the image at the time it was captured. See also *Vignette adjustment, vignetting*.

**diffused lighting** A type of light that is scattered across the subject or scene. Diffused lighting results in a photo with low contrast and detail, as seen in photos shot outdoors on an overcast day. See also *contrast, flat*.

**digital** A description of data that is stored or transmitted as a sequence of ones and zeros. Most commonly, refers to binary data represented using electronic or electromagnetic signals. JPEG, PNG, RAW, and TIFF files are all digital. See also *digitization*.

**digital image sensor** The computer chip located at the image plane inside the camera that consists of millions of individual light-sensitive elements capable of capturing light. See also *camera, charge-coupled device (CCD), complementary metal oxide semiconductor (CMOS), megapixel*.

**digital noise** Misinterpreted pixels occurring as the result of high ISO settings; also known as *chrominance signal-to-noise ratio*. Random bright pixels, especially in solid colors, are the result of digital noise. See also *ISO speed, noise reduction*.

**digital original file** See *original*.

**digital point-and-shoot camera** A lightweight digital camera with a built-in autofocus feature, aptly named for the two steps required of the photographer to shoot a photo. The lens, aperture, and shutter are one assembly that is usually irremovable from the camera. See also *camera, digital single-lens reflex (DSLR) camera*.

**digital single-lens reflex (DSLR) camera** An interchangeable-lens camera where the image created by the lens is transmitted via a reflexing mirror through a prism to the viewfinder, and the viewfinder image corresponds to the actual image area. The mirror reflexes, or moves up, so as not to block the digital image sensor when the shutter is open. See also *camera, digital point-and-shoot camera*.

**digitization** The process of converting an analog voltage value to a digital value.

**digitize** A term often used by photographers for converting photos captured on film to a digital format, such as TIFF, using a film scanner.

**disclosure triangle** A small triangle you click to show or hide details in the Aperture interface.

**display** The computer's monitor.

**distort** Performing an adjustment that changes the shape or composition of an image. See also *effects*.

**DNG** A royalty-free RAW image format designed by Adobe Systems Incorporated. See also *format, RAW*.

**Dodge Quick Brush** A type of Quick Brush adjustment that lightens the area of the image the adjustment is brushed on. See also *adjustment, Brush HUD, Burn Quick Brush, Quick Brushes*.

**dot gain** A printing term used to describe the enlargement of halftone dots as ink is absorbed into paper. Dot gain can affect the quality of an image's appearance by reducing the amount of white reflected off the paper.

**dots per inch (dpi)** A printer resolution measurement that refers to the maximum number of dots within a square inch. See also *print, resolution*.

**drift** Changes in the way a device reproduces color over time. For example, the age of inks and the type of paper can cause a printer's color output to drift. See also *device characterization, gamut*.

**drop shadow** An effect that creates an artificial shadow behind an image. Typically used on websites and in photo albums to create the illusion of three dimensions.

**Duplicate Version command** A command in the Photos menu that duplicates the selected photo version with all applied metadata and adjustments. See also *adjustment, image, metadata, version*.

**dust and scratch removal** The process of digitally removing the blemishes caused by dust and scratches on film scans. See also *Retouch adjustment*.

**dye sublimation** A type of printer that creates images by heating colored ribbon to a gaseous state, bonding the ink to the paper. See also *inkjet printer, photo printer, print, RA-4*.

**Edge Sharpen adjustment** An adjustment in Aperture that sharpens the image based on luminance using multiple sharpening passes. See also *adjustment, image, Sharpen adjustment*.

**editing** The process of arranging and eliminating photos. See also *photo edit*.

**effect preset** A set of saved adjustment parameter settings. You can create new effect presets and rename, rearrange the order of, and delete existing effect presets. Effect presets appear in the Effects pop-up menu in the Adjustments inspector and the Adjustments pane of the Inspector HUD, and you can also access them by choosing Photos > Add Effect. See also *adjustment, effects*.

**effects** A general term used to describe the introduction of unnatural visual elements to enhance an image. See also *compositing, effect preset, filters*.

**electromagnetic radiation** A type of energy ranging from gamma rays to radio waves that also includes visible light. See also *light*.

**embedded profile** The source profile saved in the digital image file. JPEG, TIFF, PNG, and PDF file formats support embedded profiles. See also *device characterization, profile*.

**emulsion** The tiny layers of gelatin, consisting of light-sensitive elements, found in film. When the emulsion is exposed to light, a chemical reaction occurs. After the film is developed, an image appears. See also *dust and scratch removal, film*.

**Enhance adjustment** An adjustment in Aperture that adjusts contrast, definition, saturation, and vibrancy, as well as black, gray, and white tints in an image. See also *adjustment, contrast, Contrast parameter, definition, Definition parameter, saturation, Saturation parameter, tint, Tint adjustment, Vibrancy parameter*.

**evaluative metering** A type of metering that operates by dividing the frame into several small segments, taking a reading from each individual segment, and processing the average of the total segments to recommend the best exposure value for the overall photo. See also *center-weighted metering, light meter, spot metering*.

**EXIF** Short for *Exchangeable Image File*. The standard format for storing information—such as shutter speed, aperture, white balance, exposure compensation, metering setting, ISO setting, date, and time—about how a photo was shot. See also *IPTC, metadata*.

**export** The process of formatting data in such a way that it can be understood by other applications. In Aperture, photos can be exported in their native RAW format, as well as in JPEG, TIFF, PNG, and PSD formats. The EXIF and IPTC metadata associated with a photo can be exported as well.

**exposure** The amount of light in a photo. Exposure is controlled by limiting the intensity of light (controlled by the aperture) and the length of time light comes into contact with the digital image sensor (controlled by the shutter). Exposure affects the overall brightness of the photo as well as its perceived contrast. See also *adjustment, aperture, contrast, digital image sensor, Exposure adjustment, shutter*.

**Exposure adjustment** An adjustment in Aperture that adjusts exposure, recovery, black point, and brightness. See also *adjustment, Black Point parameter, Brightness parameter, exposure, Recovery parameter*.

**exposure meter** See *light meter*.

**extended desktop mode** A setting in System Preferences that allows the OS X desktop to span multiple displays. See also *display, mirroring*.

**external editor** An application used in tandem with Aperture to perform advanced adjustments, such as compositing. Aperture creates a new original when an image is sent to an external editor and automatically retrieves the original when the image is saved. See also *compositing, original*.

**external flash** A type of flash connected to the camera via the hot-shoe bracket or PC terminal. Using an external flash is the best technique for avoiding the red-eye effect in your subject's eyes. See also *flash, red-eye*.

**face detection** The process Aperture uses to determine if a face appears in a photo. See also *Faces view*.

**face recognition** The process Aperture uses to keep track of faces you have identified in your photos and suggest other possible matching faces in the same Aperture library. See also *Faces view*.

**Faces view** An Aperture view that displays snapshots of people in photos in the library or in an item selected in the Library inspector that have been assigned names. See also *face detection, face recognition, Flagged view, Photos view, Places view, Projects view, skimming*.

**fill-in lighting** The use of an artificial light source, such as daylight lamps or flash, to soften a subject or fill in shadows. See also *bounce lighting, color temperature, White Balance adjustment*.

**film** A flexible transparent base coated with a light-sensitive emulsion capable of recording photos. See also *dust and scratch removal, emulsion*.

**filmstrip** An interface element in full-screen view that allows you to scroll through and search for photos. See also *full-screen view*.

**filmstrip view** A Browser view that allows you to quickly scroll through thumbnail images horizontally. See also *Browser*.

**Filter HUD** A floating window used to quickly locate photos in the Browser based on a combination of criteria, such as adjustments, keywords, ratings, and EXIF metadata. See also *EXIF, image, keywords, rating*.

**filters** a. Modifiable search criteria used in the Filter HUD to return a specific selection of photos. b. Effects applied in Photoshop that affect the visual quality of the image to which they're applied. c. A colored piece of glass or plastic designed to be placed in front of a camera lens to change, emphasize, or eliminate density, reflections, or areas within the scene. See also *compositing, density, effects*.

**Finder** The part of the Mac operating system software that keeps track of files, applications, and folders and displays the desktop.

**finishing** The process of applying the final adjustments to a digital image just before presentation. Finishing may involve applying an additional gamma adjustment upon export, or using an external editor to either burn or dodge a portion of the image before sending it to the printer. See also *export*, *external editor*.

**FireWire** The trademarked Apple name for the IEEE 1394 standard, a fast and versatile interface used to connect external devices to computers. FireWire is well suited to transferring large amounts of data, and FireWire devices such as hard drives are often used to provide additional storage space. Aperture vaults are commonly stored on external FireWire hard drives. See also *tethered shooting*, *USB*, *vault*.

**fixed lens** See *prime lens*.

**flag** A type of metadata assigned in Aperture used to help filter photos. You can flag photos and then search for and display photos in Aperture based on whether they are flagged or not. See also *Flagged view*, *metadata*.

**Flagged view** An Aperture view that displays all photos, audio clips, and video clips in the library that have been flagged. See also *Faces view*, *flag*, *Photos view*, *Places view*, *Projects view*.

**flash** A device either on or attached to the camera that emits a brief, intense burst of light when the shutter release button is pressed. Flashes, synchronized with the shutter, are used to obtain a correctly exposed photo in low-light situations. See also *exposure*, *external flash*, *fill-in lighting*, *hot shoe*.

**flat** The lack of density in a photo when the contrast is too low. See also *contrast*, *density*.

**Flip adjustment** An adjustment in Aperture that inverts the composition of the image horizontally, vertically, or both. See also *adjustment*.

**focal length** The distance from the rear nodal point of the lens to the point where the light rays passing through the lens are focused onto the image plane—the digital image sensor. Focal lengths are measured in millimeters (mm).

**focus point overlays** See *autofocus point overlays*.

**folder** A type of container in the Aperture library used to organize projects and albums within projects. Folders do not contain photos, video clips, or audio clips. See also *album*, *library*, *project*.

**foreground** The area of the image between the subject and the camera. See also *background*, *depth of field*.

**format** a. *File format*: A specific method of encoding information. Most well-known file formats, such as TIFF and PNG, have published specifications. b. *Disk formatting*: The preparation of a hard disk or other storage medium for use with a file system. See also *JPEG*, *PNG*, *PSD*, *TIFF*, *vault*.

**frame** The border of an image. *Frame* can also be used as a verb to describe the process of constructing a composition within a specific image area. See also *crop*.

**frontlighting** A light source, emanating from the direction of the camera, that faces toward the subject. See also *backlighting*, *sidelighting*.

**f-stop** The ratio of the focal length of the lens to the diameter of the opening of the aperture. See also *aperture*.

**full-screen view** A workspace view in Aperture with minimal user interface, used to view full-screen photos in high resolution with the least amount of light and color interference. See also *Browser layout, filmstrip, HUD, Split View layout, Viewer layout*.

**full-screen view toolbar** A collection of buttons and tools, grouped by function, located at the top of the screen in full-screen view. See also *toolbar*.

**gamma** A curve that describes how the middle tones of an image appear. Gamma is a nonlinear function often confused with brightness or contrast. Changing the value of the gamma affects middle tones while leaving the whites and blacks of the image unaltered. Gamma adjustment is often used to compensate for differences between Mac and Windows video cards and displays. The Mac Standard gamma is 1.8; the PC Standard is 2.2.

**gamut** The range of colors an individual color device is capable of reproducing. Each device capable of reproducing color has a unique gamut determined by age, frequency of use, and other elements such as inks and paper. See also *device characterization, device dependent, gamut mapping, ICC profile*.

**gamut mapping** The process of identifying colors outside a device's gamut and then calculating the nearest color within its gamut. Gamut mapping is used when receiving color information from another color space. See also *color space, gamut*.

**Global Positioning System (GPS)** A U.S. space-based navigation system that provides reliable positioning, navigation, and timing services for civilian users on a continuous, worldwide basis. Aperture uses photo location information provided by GPS-enabled cameras to plot where each image was shot on a map in Places view. See also *GPS track log, Places view*.

**GPS track log** A file consisting of digital bread crumbs that are used to define a path or route ("track") using precise coordinates saved by a GPS device or GPS tracking iOS application. If you have a GPS-enabled camera or iOS device or another GPS device that you use to create track files and save waypoints, you can import the track files into Aperture and work with them in Places view. See also *Global Positioning System (GPS), Places view, waypoint*.

**grayscale** Describes an image whose only colors are shades of gray. Usually grayscale images have smaller file sizes because less information is required to display a gray pixel, in which the red, green, and blue pixel elements all emit an equal intensity. See also *Black & White adjustment, monochrome, pixel*.

**grid view** A Browser view that displays photos as a grid of thumbnails. Grid view is the Browser's default view. See also *Browser, filmstrip view, list view*.

**Halo Reduction Quick Brush** A type of Quick Brush adjustment used to remove the blue and purple fringes that are occasionally produced with certain lenses when the image is overexposed. See also *adjustment, Brush HUD, Quick Brushes*.

**high-definition video** Generally refers to video that is 720 progressive scan lines or better, also known as *HD video*.

**highlights** The brightest areas of the subject or scene. See also *contrast, density, shadows*.

**Highlights & Shadows adjustment** An adjustment in Aperture used to selectively adjust the highlights and shadows in an image. See also *adjustment, highlights, shadows*.

**hot shoe** An apparatus at the top of a camera designed to hold a portable flash. When the shutter release button is pressed, an electric signal is transmitted through a connection in the hot shoe to activate the portable flash. See also *external flash, flash*.



**HUD** Short for *heads-up display*. In Aperture, HUDs are floating windows that allow you to work on your image. You can open and then move a HUD wherever you wish, based on your display setup. See also *full-screen view*.

**hue** An attribute of color perception; also known as *color phase*. For example, red and blue are different hues. See also *Color adjustment*.

**ICC profile** Created as a result of device characterization, the ICC profile contains the data about the device's exact gamut. See also *device characterization, gamut, International Color Consortium (ICC)*.

**image** An artifact that reproduces the likeness of some subject, usually a physical object or person, also known as a *picture*. See also *photograph, photo selection, picture, subject*.

**importing** The process of bringing digital image files, audio files, and video files of various types into a project in Aperture. Imported files can be created in another application, downloaded from a camera or card reader, or brought in from another Aperture project. See also *project*.

**inkjet printer** A type of printer that creates images by spraying little ink droplets onto the paper. See also *dye sublimation, photo printer, print, RA-4*.

**Inspector HUD** A floating window that contains the Library, Metadata, and Adjustments panes. See also *Inspector pane*.

**Inspector pane** An element of the Aperture main window that contains the Library, Info, and Adjustments inspectors. See also *Inspector HUD*.

**Intensify Contrast Quick Brush** A type of Quick Brush adjustment that corrects the shadow areas of the image that appear washed out by intensifying the contrast between pure black and 50 percent gray in the area of the image the adjustment is brushed on. The Intensify Contrast Quick Brush adjustment is equivalent to applying an Overlay blend. See also *adjustment, Brush HUD, contrast, Polarize Quick Brush, Quick Brushes, shadows*.

**International Color Consortium (ICC)** An organization established to create the color management standard known as the *ICC profile*. ICC profiles are universally accepted by hardware and software vendors because they're based on an open standard. See also *ICC profile*.

**IPTC** Short for *International Press Telecommunications Council*. IPTC metadata is used by photographers and media organizations to embed keywords (words describing the characteristics of the image, including the photographer's name) in the image files themselves. Large publishers typically use image management systems to quickly identify photos based on the IPTC information embedded in the image file. See also *EXIF, metadata*.

**IPTC Core** A defined set of metadata fields, primarily used by photographers and news media, built on Adobe's XMP technology. See also *IPTC, metadata, XMP sidecar file*.

**iris** See *pupil*.

**ISO speed** The relative sensitivity of film provided as a benchmark by the International Standards Organization (ISO). In digital cameras, the minimum ISO rating is defined by the sensitivity of the digital image sensor. When the ISO setting on the camera is increased, allowing the photographer to shoot in low-light situations, the camera amplifies the voltage received from the light-sensitive elements on the digital image sensor prior to converting the voltage signals to digital values. See also *digital image sensor, digital noise*.

**JPEG** Short for *Joint Photographic Experts Group*, JPEG is a popular image file format that lets you create highly compressed graphics files. The amount of compression used varies. Less compression results in a higher-quality image. JPEG files usually have a .jpg extension. See also *format, RAW + JPEG image pair*.

**kelvin (K)** A unit of measurement used to describe color values of light sources, based on a temperature scale that begins at absolute zero. See also *color temperature, White Balance adjustment*.

**keywords** Descriptive words about the subject in the photo that are added to photo versions and saved as metadata. See also *control bar, Keywords HUD, metadata, version*.

**Keywords HUD** A floating window containing a library of keywords that can be applied to a photo selection. See also *keywords, metadata, photo selection*.

**lab plot** A visual three-dimensional representation of the CIE Lab color space. See also *color space, ColorSync*.

**lens** A series of sophisticated elements—usually glass—constructed to refract and focus the reflective light from a scene at a specific point: the digital image sensor in a camera. See also *camera, digital image sensor, macro lens, prime lens, telephoto lens, wide-angle lens, zoom lens*.

**Levels adjustment** An adjustment in Aperture that provides controls to selectively adjust the tonal range of an image. See also *adjustment, image*.

**library** In Aperture, a container file that holds projects, folders, albums, originals, and versions. You organize items in the library, rename items, sort items, and so on using the Library inspector. By default, the Aperture Library file is located in your Pictures folder. See also *album, folder, merging libraries, original, project, version*.

**Library Path Navigator pop-up menus** A set of pop-up menus at the top-left corner of the screen in the full-screen view Browser mode that are used to provide access to all the items in the Library inspector. See also *Browser mode (full-screen view), full-screen view, library*.

**Lift & Stamp HUD** A floating window that displays the attributes lifted from a photo. You can choose which attributes are stamped on a photo selection by deselecting the attributes you don't want to apply. See also *HUD, Lift and Stamp tools, photo selection*.

**Lift and Stamp tools** A pair of tools used in conjunction with the Lift & Stamp HUD to copy (lift) attributes, such as metadata and adjustments, from one photo and paste (stamp) them on a photo selection. See also *adjustment, Lift & Stamp HUD, metadata, photo selection*.

**light** Visible energy in the electromagnetic spectrum with wavelengths ranging between 400 and 720 nanometers. See also *electromagnetic radiation*.

**light meter** A device capable of measuring the intensity of reflective light. Light meters are used as an aid for selecting the correct exposure settings on the camera. Most cameras have internal light meters. See also *center-weighted metering, evaluative metering, meter, spot metering*.

**Light Table** An area in the Aperture main window that appears when you select a Light Table album. The Light Table provides a large open space where you can place a selection of photos for review and drag them to new positions, group them in different combinations, and resize them as needed. See also *album, Navigator button*.

**list view** A Browser view that displays photos in a list by name, icon, and accompanying metadata, such as rating, image dimensions, file size, and date, rather than as a row or grid of thumbnails. See also *Browser, filmstrip view, grid view, metadata, rating*.

**Loupe** A tool in Aperture used to magnify the area of the photo you place it over.

**luminance** A value describing the brightness of all color channels combined in a pixel.

**LZW compression** A lossless data-compression algorithm developed by Abraham Lempel, Jakob Ziv, and Terry Welch in 1984. LZW compression algorithms are typically used with JPEG and TIFF graphics files to reduce the file size for archiving and transmission at a ratio of 2.8:1. See also *compression, JPEG, TIFF*.

**macro lens** A type of lens used for extreme close-up photography. See also *camera, lens, prime lens, telephoto lens, wide-angle lens, zoom lens*.

**main Viewer** For systems with multiple displays, the main Viewer is used for displaying the Aperture application. See also *display, secondary Viewer*.

**managed images** Images whose originals are stored in the Aperture library. The locations of the originals are managed by the Aperture database. Managed image files are always online. See also *library, offline, online, original, referenced images*.

**megapixel** One million pixels. For example, 1,500,000 pixels equals 1.5 megapixels. See also *digital image sensor, pixel*.

**memory card** The device in the camera where digital image files are stored. See also *camera, capture*.

**merging libraries** The process of importing an Aperture library file and merging its contents into the library that is currently open in Aperture. See also *library*.

**metadata** Data about data; metadata describes how data was collected and formatted. Databases use metadata to track specific forms of data. Aperture supports both EXIF and IPTC metadata. See also *EXIF, IPTC*.

**meter** The process of using a light meter to calculate the appropriate exposure. See also *light meter*.

**midtone** The color values in an image between the highlights and shadows. See also *contrast, highlights, Highlights & Shadows adjustment, Levels adjustment, shadows*.

**mirroring** The process of showing the same photo on two or more displays. See also *extended desktop mode*.

**Mirror setting** A secondary Viewer setting that sets Aperture to present the same photo selection on the main and secondary Viewer displays. See also *display, mirroring, main Viewer, photo selection, secondary Viewer*.

**moire pattern** Refers to the type of visual pattern that is created by the interference of two grids overlaid on top of one another. Moire patterns can occur in photos taken with digital cameras when the linear pattern in the photo interferes with the linear pattern of the digital image sensor pixel array. The moire pattern often results from a weak anti-aliasing filter employed by the camera's image processor. See also *digital image sensor, RAW Fine Tuning adjustment*.

**monitor** See *display*.

**monochrome** An image presented in shades of a single color, such as the shades of gray in a black-and-white photograph. See also *Black & White adjustment, Color Monochrome adjustment, grayscale, image, photograph*.

**My Photo Stream** An iCloud feature that uploads and stores the last 30 days of your photos and automatically pushes them to all your iOS devices and computers. Also a view in Aperture that displays all the photos that have been uploaded to My Photo Stream from your iOS devices and the Aperture library. See also *Faces view, Flagged view, Photos view, Places view, Projects view*.

**Navigator button** A button in the Light Table used to reposition the view when the contents of the Light Table are larger than your screen. See also *Light Table*.

**negative** Developed film with a reverse-tone image of the subject or scene. See also *dust and scratch removal, emulsion, film, positive*.

**New Version From Original command** A command in the Photos menu that creates a new version from the original corresponding to a selected photo, audio clip, or video clip. See also *original, version*.

**noise** See *digital noise*.

**noise reduction** The process of removing digital noise in a photo. See also *adjustment, digital noise, image, Noise Reduction adjustment, Noise Reduction Quick Brush*.

**Noise Reduction adjustment** An adjustment in Aperture that reduces digital noise in an image. See also *adjustment, digital noise, image, noise reduction*.

**Noise Reduction Quick Brush** A type of Quick Brush adjustment that removes digital noise in the area of the image the adjustment is brushed on. See also *adjustment, Brush HUD, digital noise, noise reduction, Quick Brushes*.

**N-up printing** The process of consolidating a multiple-page document on a single sheet of paper. See also *print*.

**offline** Describes photos whose originals are currently unavailable to Aperture. Offline photos appear in the Viewer and Browser with badge overlays displaying a red slash through them. Photos may be offline because the device containing the originals, such as a CD, DVD, FireWire drive, or server, is not connected to your computer or the original filenames have been modified in some way. To bring the photos online, you must reconnect them to their corresponding originals. See also *Browser, FireWire, online, original, preview images, Viewer*.

**offset press** A type of professional printer used for high-volume printing for items such as magazines and brochures. Offset printing presses deposit ink in lines of halftone dots to produce images on the page. See also *photo printer*.

**Off setting** A secondary Viewer setting that turns off the dual-display function. See also *display, secondary Viewer*.

**online** Describes photos whose originals are currently available to Aperture. See also *offline*.

**opacity** The level of an image's transparency.

**optical zoom lens** See *zoom lens*.

**original** The source media file that was copied from either your computer's file system or your camera's memory card. In Aperture, the original is never modified. Whenever a change is made to a photo, a video clip, or an audio clip, that change is applied to the version. Formerly known as the *master*. See also *memory card*, *project*, *version*.

**overexposure** The result of exposing a scene too long. Overexposed scenes appear too bright and lack adequate details in the shadows. See also *exposure*, *underexposed*.

**panning** a. Moving the camera along with a moving subject in order to keep the subject in the frame. Panning a fast-moving subject with a slow shutter speed usually causes the subject to remain relatively in focus, while the remaining areas of the scene are blurred or stretched in the direction of the camera movement. b. In Aperture, pressing the Space bar and dragging within an image to see other parts of the image when it is displayed at 100 percent size. See also *camera*, *image*, *Viewer*.

**panorama** Usually refers to a scenic landscape photo with a wide aspect ratio. Photographers often digitally combine, or "stitch," multiple photos of the same scene to create a continuous panoramic photo. See also *aspect ratio*.

**perceptual** A type of render intent that compresses the total gamut from one device's color space into the gamut of another device's color space when one or more colors in the original image are out of the gamut of the destination color space. This preserves the visual relationship between colors by shrinking the entire color space and shifting all colors. However, colors that were in gamut also shift. See also *gamut*, *relative colorimetric*, *rendering intent*.

**phase** An attribute of color perception; also known as *hue*. See also *hue*.

**photo edit** The process of choosing selects from a group of photos, as well as rejecting photos that you don't plan to use or publish. The more aggressively you cull undesirable photos from your working group of photos, the more time you save when you process the photos for display. See also *rating*, *Reject rating*, *Select rating*.

**photograph** An image created using a camera as a result of light interacting with a light-sensitive surface, usually film or a digital image sensor. See also *camera*, *digital image sensor*, *film*, *image*, *picture*.

**photo printer** A type of printer capable of producing photo-quality images. See also *dye sublimation*, *gamut*, *inkjet printer*, *offset press*, *print*, *RA-4*.

**photo selection** Refers to a photo or group of photos selected in the Browser or the full-screen view filmstrip. A white rectangle surrounding a photo indicates it is selected. See also *Browser*, *full-screen view*, *photograph*.

**Photos view** An Aperture view that displays all the photos, audio clips, and video clips in the library. See also *Faces view*, *Flagged view*, *My Photo Stream*, *Places view*, *Projects view*.

**pick** The photo that represents a stack. The pick is usually the best photo in the stack. See also *alternate*, *stack*.

**picture** A visual representation rendered on a flat surface or screen, such as a photograph. See also *image*, *photograph*.

**Pictures folder** Located in the Home folder, the Pictures folder is the default location for Aperture and iPhoto libraries. See also *library*.

**pixel** The smallest discernible visual element of a digital image. See also *megapixel*.

**Places Path Navigator pop-up menus** A set of pop-up menus located at the top-left corner of the screen in Places view that are used to navigate to locations on the map. See also *Places view*.

**Places view** A view in Aperture that allows you to apply location information to photos and track the location of each shot. Photos captured with GPS-enabled cameras provide their location information automatically. See also *Faces view, Flagged view, Global Positioning System (GPS), photo selection, Photos view, Places Path Navigator pop-up menus, Projects view, waypoint*.

**PNG** Short for *Portable Network Graphics*. PNG is a bitmapped graphics file format that has been approved by the World Wide Web Consortium to replace patented GIF files. PNG files are patent and royalty free. See also *format*.

**Polarize Quick Brush** A type of Quick Brush adjustment that deepens the colors in the image by darkening the shadows and midtones while preserving the highlights in the area of the image the adjustment is brushed on. The Polarize Quick Brush adjustment is equivalent to applying a Multiply blend. See also *adjustment, Brush HUD, contrast, highlights, Intensify Contrast Quick Brush, midtones, Quick Brushes, shadows*.

**polarizing filter** A filter placed on the front of the camera lens that selectively transmits light traveling on one plane while absorbing light traveling on other planes. Polarizing filters are capable of reducing unwanted reflections on windows and shiny surfaces. Polarizing filters are also used to darken the sky. See also *filters*.

**positive** Developed film, where the tonal relationship of the subject or scene is the same on film as when viewed by the eye; also known as a *slide*. See also *dust and scratch removal, emulsion, negative*.

**presets** A saved group of settings, such as export, naming, print, and web export settings. Presets determine properties such as file format, file compression, filename construction, paper size, and ColorSync profile. Presets are usually defined for particular workflows and can be tailored to client specifications. See also *ColorSync*.

**pressure-sensitive tablet** An input device used in place of a mouse that consists of two parts: a flat surface for drawing (the interface that is connected to the computer) and a pen or stylus. The harder you press the stylus against the surface of the tablet, the thicker the line or brush stroke is. See also *Brush HUD, Quick Brushes*.

**preview images** JPEG images generated by Aperture that represent the original with any applied adjustments and associated metadata. Preview images are designed to be shared with other applications, such as iWork and iLife applications, and used in place of the high-resolution originals when they are offline. See also *adjustment, JPEG, metadata, offline, original*.

**primary selection** The most important photo in a photo selection. Adjustments are applied only to the primary selection in a photo selection. The primary selection is identified by a thicker white border. There can be only one primary selection in a photo selection. See also *adjustment, photo selection, Primary setting*.

**Primary setting** A Viewer setting in Aperture that limits metadata changes to only the primary selection in a multiple-photo selection. See also *filmstrip, metadata, photo selection, primary selection*.

**prime lens** A lens with a fixed focal length that cannot be changed.

**print** An image, such as a photograph, printed on paper. See also *dye sublimation, inkjet printer, N-up printing, photograph, RA-4*.

**profile** A compilation of data on a specific device's color information, including its gamut, color space, and modes of operation. A profile represents a device's color-reproduction capabilities and is essential to effective color management. See also *device characterization, gamut*.

**program exposure** An exposure mode on many automatic cameras in which the camera automatically sets the aperture and shutter values for a correct exposure. See also *exposure*.

**project** In Aperture, the top-level container that holds all the originals, versions, and metadata associated with your shoot. In the case of referenced images, the originals are stored in their current location rather than in the project within the library file. See also *album, folder, library, original, Projects mode (full-screen view), Projects view, referenced images, version*.

**Projects mode (full-screen view)** A view mode in full-screen view, similar to the Projects view in the Aperture main window. All projects are displayed, and each project is represented by one large thumbnail of a photo within the project. You can position the pointer over a project thumbnail and drag to quickly skim the photos in the project. See also *Browser mode (full-screen view), full-screen view, project, Projects view, Viewer mode (full-screen view)*.

**Projects view** An Aperture view that displays all the projects in the library. Each project is represented by one large thumbnail of a photo within the project. You can position the pointer over a project thumbnail and drag to quickly skim the photos in the project. See also *Faces view, Flagged view, Photos view, Places view, project, Projects mode (full-screen view), skimming*.

**promote** The process of moving a photo in a stack closer to the pick position. See also *demote, pick, stack*.

**PSD** Short for *Photoshop Document*. PSD files are proprietary graphics files for Adobe Systems Incorporated. See also *format*.

**pupil** The part of the eye that contracts and expands depending on the amount of light; also known as the *iris*.

**quantization** The process of converting a value derived from an analog source to a discrete digital value. See also *digitization*.

**Quick Brushes** Used to apply selective adjustments to an image by brushing the adjustment over a portion of the image. See also *adjustment, brushed adjustment, brushed adjustment overlay, Brush HUD*.

**QuickTime** A cross-platform multimedia technology developed by Apple. Widely used for editing, compositing, web video, and more.

**RA-4** A type of professional printer capable of printing digital files on traditional photographic paper. RA-4 printers use a series of colored lights to expose the paper; the colors blend together to produce continuous-tone prints. See also *dye sublimation, inkjet printer, photo printer, print*.

**RAID** Short for *Redundant Array of Independent Disks*. A method of providing photographers who have large photo libraries many gigabytes of high-performance data storage by formatting a group of hard disks to act as a single volume. The performance of a group of hard disks striped together as a RAID can be much higher than that of the individual disks.

**RAM** Short for *random-access memory*. A computer's memory capacity, measured in megabytes (MB) or gigabytes (GB), which determines the amount of data the computer can process and temporarily store at any moment.

**rangefinder** An apparatus found on many cameras that is used to help focus the image. See also *camera, viewfinder*.

**raster image processor (RIP)** A specialized printer driver that replaces the driver that comes with your printer. The RIP takes input from applications and converts, or rasterizes, the information to data that the printer understands so that it can put dots on a page. Software RIPs typically offer features not found in standard printer drivers.

**rating** In Aperture, the process of adding a value to a photo to indicate its quality in relation to other photos in a selection. See also *photo edit, Reject rating, Select rating*.

**RAW** The original bit-for-bit digital image file captured by the camera. See also *RAW + JPEG image pair*.

**RAW Fine Tuning adjustment** A set of adjustment parameters in Aperture used to control how Aperture decodes RAW image files. See also *moire pattern*.

**RAW + JPEG image pair** A photo captured by a professional digital camera and saved as both an individual RAW file and an individual JPEG file. You can set Aperture to import one file type or both file types in the pair. See also *JPEG, RAW*.

**reciprocity** The relationship between the aperture and the shutter that allows for correct exposures as a result of multiple shutter speed and aperture setting combinations. An increase in aperture and a decrease in shutter speed creates the same exposure as the previous aperture and shutter combination, and vice versa. See also *aperture, shutter*.

**Recovery parameter** An Exposure adjustment parameter in Aperture used to recover highlight detail. See also *Exposure adjustment*.

**red-eye** The phenomenon that gives people glowing red eyes in photographs. Red-eye is caused by the close proximity of the flash to the lens (especially built-in flash). See also *external flash, Red Eye Correction adjustment*.

**Red Eye Correction adjustment** An adjustment in Aperture that replaces red pixels with black, eliminating the red-eye effect. Used in conjunction with the Red Eye tool. See also *adjustment, pixel, red-eye*.

**referenced images** Images whose originals are stored outside of the Aperture library. See also *library, managed images, offline, online, original*.

**Reject rating** In Aperture, a negative rating applied to a photo as part of the photo editing process. See also *photo edit, rating, Select rating*.

**relative colorimetric** A rendering intent suitable for printing photographic images. It compares the highlight values of the source color space to that of the destination color space and shifts out-of-gamut colors to the closest reproducible color in the destination color space. This rendering intent can cause two colors, which appear different in the source color space, to be the same in the target color space, which is known as *clipping*. See also *gamut, perceptual, rendering intent*.

**rendering intent** The method by which colors that are out of gamut for a selected output device are mapped to that device's reproducible gamut. See also *gamut, perceptual, relative colorimetric*.



**Repair brush** A type of Retouch brush in Aperture used to correct and obscure imperfections in an image by copying pixels from a similar-looking area of an image and pasting them over the area with the pixels you want to replace. In addition to overwriting the pixels, the Repair brush resamples the pasted pixels to match the color, texture, and luminance of the pixels you replaced. See also *Clone brush, Retouch adjustment, retouching*.

**resolution** The amount of information a digital image is capable of conveying. Resolution is determined by the combination of file size (number of pixels), bit depth (pixel depth), and dots per inch (dpi). See also *bit depth, dots per inch (dpi), pixel*.

**Retouch adjustment** In Aperture, an adjustment used to correct or obscure imperfections in an image. Used in conjunction with the Retouch HUD, which provides a Clone brush and a Repair brush. See also *adjustment, Clone brush, Repair brush*.

**retouching** The process of altering an image to add or remove details. See also *Clone brush, compositing, effects, filters, Repair brush, Retouch adjustment*.

**RGB** Short for *Red, Green, Blue*. A color space commonly used on computers, in which each color is described by the strength of its red, green, and blue components. This color space directly translates to the red, green, and blue elements used in computer displays. The RGB color space has a very large gamut, meaning it can reproduce a wide range of colors. This range is typically larger than the range that printers can reproduce. See also *additive color*.

**rods** A type of receptor in the eye capable of perceiving luminance. Rods do not perceive color, but only levels of brightness. See also *cones*.

**saturation** The intensity of color in an image. Saturated colors are perceived to have a “purer” look, resulting from the absence of the color gray. See also *adjustment, desaturate*.

**Saturation parameter** An Enhance adjustment parameter in Aperture used to adjust saturation in an image. See also *adjustment, desaturate, Enhance adjustment, saturation*.

**Saturation Quick Brush** A type of Quick Brush adjustment that adds saturation to or removes it from the area of the image the adjustment is brushed on. See also *adjustment, Brush HUD, Quick Brushes, saturation*.

**secondary Viewer** The secondary Viewer is used to present photos on a second display, separate from the application workspace. The secondary Viewer has five settings: Mirror, Alternate, Span, Black, and Off. See also *Alternate setting, Black setting, display, main Viewer, Mirror setting, Off setting, Span setting*.

**selective focus** The process of isolating a subject by using an f-stop that produces a shallow depth of field. See also *depth of field*.

**Select rating** In Aperture, the highest rating that can be applied to a photo as part of the photo editing process. A Select rating is applied when you intend to display or distribute the photo. See also *photo edit, rating, Reject rating*.

**sepia** Describes a photograph with a brown tint. See also *photograph, Sepia Tone adjustment, Tint adjustment*.

**Sepia Tone adjustment** An adjustment in Aperture that changes a color image to sepia—allowing you to desaturate the color image to the level of sepia coloring you want. See also *adjustment, desaturate, image, sepia, Tint adjustment*.

**shadows** The darkest areas of a subject or scene. See also *contrast, density, highlights*.

**Sharpen adjustment** An adjustment in Aperture used to sharpen images. See also *adjustment*, *Edge Sharpen adjustment*, *image*.

**Sharpen Quick Brush** A type of Quick Brush adjustment that sharpens the area of the image the adjustment is brushed on. See also *adjustment*, *Brush HUD*, *Quick Brushes*.

**shortcut menu** A menu you access by holding down the Control key and clicking an area of the interface, or by pressing the right mouse button.

**shutter** A complicated mechanism, usually consisting of a blade or a curtain, that precisely controls the duration of time light passing through the lens remains in contact with the digital image sensor. See also *shutter speed*.

**shutter priority** A setting on certain cameras that automatically sets the aperture for a correct exposure based on the shutter speed set by the photographer. See also *aperture priority*, *exposure*.

**shutter speed** The length of time the shutter is open or the digital image sensor is activated or charged. Shutter speeds appear as fractions of a second, such as 1/8 or 1/250. See also *shutter*.

**sidelighting** Light that hits the subject from the side, perpendicular to the angle of the camera. See also *backlighting*, *frontlighting*.

**silhouette** A photo in which the subject is a solid dark shape against a bright background. Extreme backlighting, such as a sunset, can cause the silhouette effect when your subject is placed in the foreground. See also *backlighting*, *foreground*.

**skimming** The act of quickly navigating through photos of a person in Faces view or photos within a project in Projects view by slowly dragging over the thumbnail representing the person in Faces view or the project in Projects view. See also *Faces view*, *Projects view*.

**Skin Smoothing Quick Brush** A type of Quick Brush adjustment used to smooth a person's skin by subtly blurring wrinkles and skin pores in the area of the image the adjustment is brushed on. See also *adjustment*, *Brush HUD*, *Quick Brushes*.

**slide** See *positive*.

**slider** In Aperture, a control that can be dragged forward or backward to make an adjustment. Sliders can be found in the Adjustments inspector and the Adjustments pane of the Inspector HUD. See also *adjustment*, *HUD*, *Inspector HUD*.

**slideshow** An animated presentation of a series of photos. In Aperture, you can combine photos with music and video to create multimedia slideshows that you can play on your computer (using one or two displays) or export as slideshow movies.

**Smart Album** Dynamic albums in Aperture used to organize photos, audio clips, and video clips by gathering versions based on search criteria. See also *album*, *Smart Settings HUD*, *version*.

**Smart Settings HUD** A floating window used to specify search criteria, such as adjustments, keywords, ratings, and EXIF metadata, for the purpose of gathering photos that match into a Smart Album. See also *EXIF*, *keywords*, *rating*, *Smart Album*.

**soft lighting** See *diffused lighting*.

**soft proof** The onscreen simulation by a display of the expected output from a printer or press.

**Sorting pop-up menu** Used to arrange photos in the Browser based on a variety of sort properties or custom sort criteria. See also *Browser*.

**source image file** See *original*.

**source profile** The profile of an image file before it undergoes color conversion.

**Span setting** A secondary Viewer setting that splits the presentation of the current photo selection between the main and secondary Viewer displays. See also *main Viewer, photo selection, secondary Viewer*.

**spectrophotometer** An instrument that measures the wavelength of color across an entire spectrum of colors. Because it can be used to profile both displays and printers, the spectrophotometer is preferred for device profiling.

**Split View layout** A main window layout in Aperture that displays the Viewer and Browser at the same time. See also *Browser, Browser layout, Viewer, Viewer layout*.

**Spot & Patch adjustment** An adjustment in Aperture used to retouch imperfections in an image, such as sensor dust. See also *adjustment*.

**spot metering** A type of metering that operates by metering within a small target that is usually in the center of the frame. See also *center-weighted metering, evaluative metering, light meter*.

**sRGB** A common working space designed to represent the average PC monitor. Because of its small gamut, it is suitable for web graphics but not for print production. See also *working space*.

**stack** In Aperture, a set of similar photos, of which only one photo is intended for use. See also *alternate, pick*.

**stopping down** The process of changing the aperture, or f-stop, to a smaller opening. See also *aperture, f-stop*.

**Straighten adjustment** An adjustment in Aperture that levels the image's horizon. Used in conjunction with the Straighten tool. See also *adjustment*.

**subject** The main object, person, scene, or incident chosen by the photographer to be represented in a photo. See also *candid shot, photograph*.

**subtractive color** Images with color elements derived from the light reflected off the surface of an object. CMYK is a common form of subtractive color. See also *CMYK*.

**SWOP** Short for *Specifications for Web Offset Publications*, a standard printing-press profile. *Web* here refers to a web press, not to the Internet.

**tabs** In Aperture, elements that delineate projects, folders, or albums in the Browser when more than one is selected in the Library inspector. You click a tab to view the contents of a currently open project, folder, or album. See also *album, folder, project*.

**target** A reference file used to profile a device such as a scanner or digital camera. It often contains patches whose color values have been measured. The output from a device is then compared with the target. See also *device characterization*.

**telephoto lens** A lens with a long focal length that magnifies the subject. See also *lens*.

**tethered shooting** Refers to the process of connecting a digital camera to your Mac via a FireWire or USB cable, shooting photographs, and having Aperture capture and store the image files at the moment they are shot. See also *camera, FireWire*.

**theme** Professionally designed layouts in Aperture used for books, webpages, and slideshows. See also *slideshow*.

**TIFF** Short for *Tagged Image File Format*. TIFF is a widely used bitmapped graphics file format, developed by Aldus and Microsoft, that handles monochrome, grayscale images. See also *format, grayscale, monochrome*.

**tint** The shade of a color. See also *color cast*.

**Tint adjustment** An adjustment parameter in Aperture used to selectively remove color casts in the shadows, midtones, and highlights in an image. See also *adjustment, color cast, exposure*.

**Tint Quick Brush** A type of Quick Brush adjustment that shifts the tint in the area of the image the adjustment is brushed on. See also *adjustment, Brush HUD, Quick Brushes, tint*.

**toolbar** A collection of buttons and controls, grouped by function, located at the top of the Aperture main window. See also *full-screen view*.

**transition** A visual effect applied between photos in a slideshow. In Aperture, you can choose the type and duration of the transition between photos. See also *slideshow*.

**travel maps** You can create travel maps using the Book Layout Editor if you select a book theme that includes travel maps. See also *Places view*.

**tripod** A stand with three legs used to keep a camera steady. The use of a tripod is especially necessary when shooting long exposures. See also *camera shake, exposure*.

**tungsten light** A type of light with a low color temperature. Tungsten light sources usually include household lamps but should not be confused with fluorescent lights. See also *color temperature, White Balance adjustment*.

**underexposed** The result of not exposing a scene long enough. Underexposed scenes appear dark. See also *exposure, overexposure*.

**unipod** Similar to a tripod; a stand with one leg used as an aid in keeping a camera steady. See also *camera shake, exposure*.

**untagged** A document or an image that lacks an embedded profile.

**USB** Short for *Universal Serial Bus*. A versatile interface used to connect external devices to computers. USB cables are often used to connect computers to computer peripherals, such as keyboards and digital cameras, as well as transfer large amounts of data. See also *camera, FireWire, tethered shooting*.

**vault** A designated storage space that contains an exact copy of the Aperture library (from the last time you backed up), usually saved on an external FireWire drive. See also *FireWire, library*.

**version** The file containing all the metadata and adjustment information for an image, a video clip, or an audio clip. In Aperture, only versions are changed. Aperture never changes originals. See also *original*.

**Vibrancy parameter** An Enhance adjustment parameter in Aperture used to add saturation in an image in a nonlinear manner. Saturated colors are left alone while saturation is added to all other colors. However, skin tones are not modified. See also *adjustment, desaturate, Enhance adjustment, saturation*.

**Vibrancy Quick Brush** A type of Quick Brush adjustment that adds saturation to or removes it from just the desaturated colors in the area of the image the adjustment is brushed on. Skin tones are not affected. See also *adjustment, Brush HUD, Quick Brushes, saturation*.

**video clip** An instance of a segment of video in Aperture; a video file's version. See also *version, video file*.

**video file** The source media file on disk to which a video clip in Aperture refers; the video clip's original. See also *original, video clip*.

**Viewer** An area in Aperture that displays the photos currently selected in the Browser. You can use the Viewer to perform adjustments on images as well as compare them with each other. See also *Browser*.

**Viewer layout** A main window layout in Aperture in which the Browser is hidden. See also *Browser, Browser layout, full-screen view, Split View layout, Viewer*.

**Viewer mode (full-screen view)** A view mode in full-screen view, similar to the Viewer in the Aperture main window. When full-screen view is set to Viewer mode, photos are presented at high resolution over a solid-color background. Viewer mode is ideal for performing image adjustments. See also *Browser mode (full-screen view), full-screen view, Projects mode (full-screen view), Viewer*.

**viewfinder** The part of the camera designed to preview the area of the scene that will be captured by the digital image sensor. See also *camera, digital image sensor*.

**Vignette adjustment** An adjustment in Aperture designed to add a vignette effect to an image. See also *Devignette adjustment, vignetting*.

**vignetting** a. Darkening, also known as *falloff*, at the corners of an image as a result of too many filters attached to the lens, a large lens hood, or poor lens design. b. The process of applying a vignette to an image for artistic effect. See also *Devignette adjustment, filters, lens, Vignette adjustment*.

**watermark** A visible graphic or text overlay applied to a photo to indicate that the photo is protected by a copyright. Watermarks are applied to discourage the use of photos without the copyright holder's explicit permission.

**waypoint** A coordinate saved in a GPS track log representing a specific geographic location. In Aperture, waypoints can be assigned to photos in Places view. See also *GPS track log, Places view*.

**White Balance adjustment** An adjustment in Aperture that changes the color temperature and tint of a digital image. The goal of adjusting an image's white balance is to neutralize color casts in the image. For example, if the white in an image is too yellow because of incandescent lighting, white balancing adds enough blue to make the white appear neutral. The White Balance adjustment can also be used to neutralize color casts by identifying skin tones in the image. See also *color cast, color temperature, kelvin (K)*.

**white point** The color temperature of a display, measured in kelvins. The higher the white point, the bluer the white is; the lower the white point, the redder the white. The native white point for a Mac computer is D50 (5000 kelvins); for a Windows PC, it is D65 (6500 kelvins). See also *color temperature, kelvin (K)*.

**wide-angle lens** A lens with a short focal length that takes in a wide view. The focal length of a wide-angle lens is smaller than the film plane or digital image sensor. See also *digital image sensor, lens*.

**working space** The color space in which you edit a file. Working spaces are based either on color space profiles such as Apple RGB or on device profiles.

**XMP sidecar file** An extensible markup language designed by Adobe Systems Incorporated that is used for defining metadata sets for photo editing applications. Resources, such as adjustment parameters, can be saved in this file and passed on to other applications. See also *adjustment, IPTC, IPTC Core, metadata*.

**zoom lens** A lens that has the mechanical capacity to change its focal length; also known as an *optical zoom lens*. See also *lens*.

**Zoom Viewer button** A button in the Viewer and the full-screen view toolbar that alternates the display of the photo selection between fitting the photos within the Viewer and presenting the photos at 100 percent size. See also *control bar, filmstrip, photo selection, Viewer*.