



Gemstone
Photo Editor



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Chapter 1: Getting Started



Welcome to ACDSee Gemstone Photo Editor 12

It's not every day that new software hits the ground running and makes an impactful difference to workflows. So congratulate yourself on choosing to be a integral part of ACDSee's newest ground-breaking product. We are immensely proud of ACDSee Gemstone for the work it represents and the work you will produce with this fast, powerful, and easy-to-use image editor that everyone from beginners to professionals can use and enjoy.

Gemstone includes a feature-rich host of image processing tools, robust RAW support for over 600 cameras, a full layered editor, and our first ever photo editor with a Multi Document Interface (MDI). From the Home Screen you can start new projects from templates, open RAW files in the dedicated ACDSee RAW window, or continue working on previously opened projects. New and exciting to Gemstone are the Color Wheel and Tone Wheels that allow for a finer grade of control over a wider range of colors and tones. For creative additions, Gemstone has added path text, and frame text to for an expanded dimension to image edits.

Attention to detail was not just added to new features, Gemstone has been optimized under the hood for big performance gains when working with large and complex documents. Gemstone also has a blindingly fast start-up and faster RAW decoding times. Some of the other improvements include non-destructive Move and Crop tools, the ability to Rotate to Crop, pan an image without needing to zoom in, less obtrusive watermarks with relative positioning, and a host of more lens correction profiles added to an already impressive list.

Multi Document Interface

With a Multi Document Interface, users can now have multiple documents open at one time, have two projects open on a split-screen for easy comparison, or have documents open in their own tab to move to another monitor. You can even keep your workspace tidy by easily hiding multiple open documents with the tab feature. Gemstone offers very flexible workflow options allowing customized workflows for each user.

RAW Development

Gemstone features ACDSee RAW, a dedicated interface for editing RAW files that includes a robust collection of Tune, Detail, Geometry, and Repair tools. Gemstone has optimized the performance of

RAW decoding for faster loading times and supports over 500 cameras. ACDSee RAW also features a Presets pane for saving customized adjustments and easily applying them to future image edits. Once completed, you can move your presets to a category or create a custom category for better organization. RAW also offers a History panel so you can see and access each adjustment made during the editing process.

Full Layered Editor

Gemstone also offers a full layered editor that allows you to add as many creative elements to your document as you would like such as color backgrounds, image files, masks, and so much more. Edit each layer to your liking to find the perfect outcome. A great way to use the layered editor is to find examples of repeated work, like making posters, and create a poster preset that you can re-use repeatedly and tweak on the fly where necessary. All new in Gemstone is the ability to link and unlink masks.

Overview of ACDSee Gemstone Photo Editor 12

ACDSee Gemstone Photo Editor 12 can be used to edit the overall look of images by changing the lighting and color, or Gemstone can crop, flip, resize, or rotate images. Special effects, shapes, text, and much more can be added to images. Selections can be used to fix specific parts of an images, and final touches, such as red eye removal can be added as well. Layers are a non-destructive tool for adding effects and shapes to photos, perform photo manipulations, create composite images, or work on a single element in an image without disturbing others, and much more.

Gemstone features include:

- Use the [Selection](#) tool or [Edit Brush](#) to apply edits to a specific part of the image.
- Use the [Layers pane](#) to create complex photo manipulations using layers, and add adjustment layers for non-destructive adjustments and effects.
- Use [Pixel Targeting](#) to selectively adjust pixels by color and tone.
- [Remove flaws](#), [red eye](#), or correct [skin tone](#) and [chromatic aberration](#).
- Add [watermarks](#), [vignettes](#), a [tilt-shift](#), [special effects](#), a [grain](#) effect, and [drawings](#).
- [Crop](#), [flip](#), [resize](#), [rotate](#), [liquify](#), and [correct perspective](#), [distortion](#), and [barrel and pincushion distortion automatically](#).
- Adjust lighting using the [Exposure](#), [Levels](#), [Auto Levels](#), [Tone Curves](#), [Light EQ™](#), [Dehaze](#), and [Dodge and Burn](#) tools.
- Adjust color using the [White Balance](#), [Color EQ](#), [Color Balance](#), [Convert to Black & White](#) or [Split Tone](#) tool.

- Add details to your image using [Sharpen](#), [Remove Noise](#), [Add Noise](#), the [Detail Brush](#), [Blur](#), or [Clarity](#) tools.

After saving a layered image, the **Save Image As** dialog opens with the file format set to *.acdc* by default. By saving in the *.acdc* file format, layers will remain accessible for future edits.

Features

Gemstone is an unparalleled Multi Document Interface photo editor featuring a robust layered editor for achieving complex adjustments and a dedicated interface for editing RAW files with support for 500 camera models. Here are just some of the outstanding features found in Gemstone.

Performance

- Big performance gains when working with large and complex documents.
- Faster application start-up.
- Faster RAW decoding performance.

Layers

- Achieve complex adjustments and effects and go back to tweak them at any time.
- Non-destructively adjust and add effects to adjustment layers stacked in a dedicated Layers pane.
- Target a particular part of a layer to hide or reveal portions of the layer, combine multiple images into a single image, or simply make localized adjustments.

ACDSee RAW

- Dedicated interface for editing RAW files using Tune, Detail, Geometry, and Repair tools.
- Optimized workflow with Presets and History panes.
- Support for over 500 camera models.

Photo Editing Power

- MDI (Multi Document Interface) interface allows for multiple documents open at once; view or edit in a split view or child view.
- Greater color and tone selection with new and improved Color Wheel and Tone Wheels.
- Redesigned canvas for greater editing flexibility.
- Added path text to write on a curve, and added frame text.

Chapter 2: Getting Help

About The Home Screen

The **Home Screen** is the initial screen displayed when Gemstone is opened. The **Home Screen** can also be accessed directly from the **Editor**.

To view the Home Screen from the Editor:

1. Click the **Home Screen** icon  above the toolbar to the left of the **Editor**.

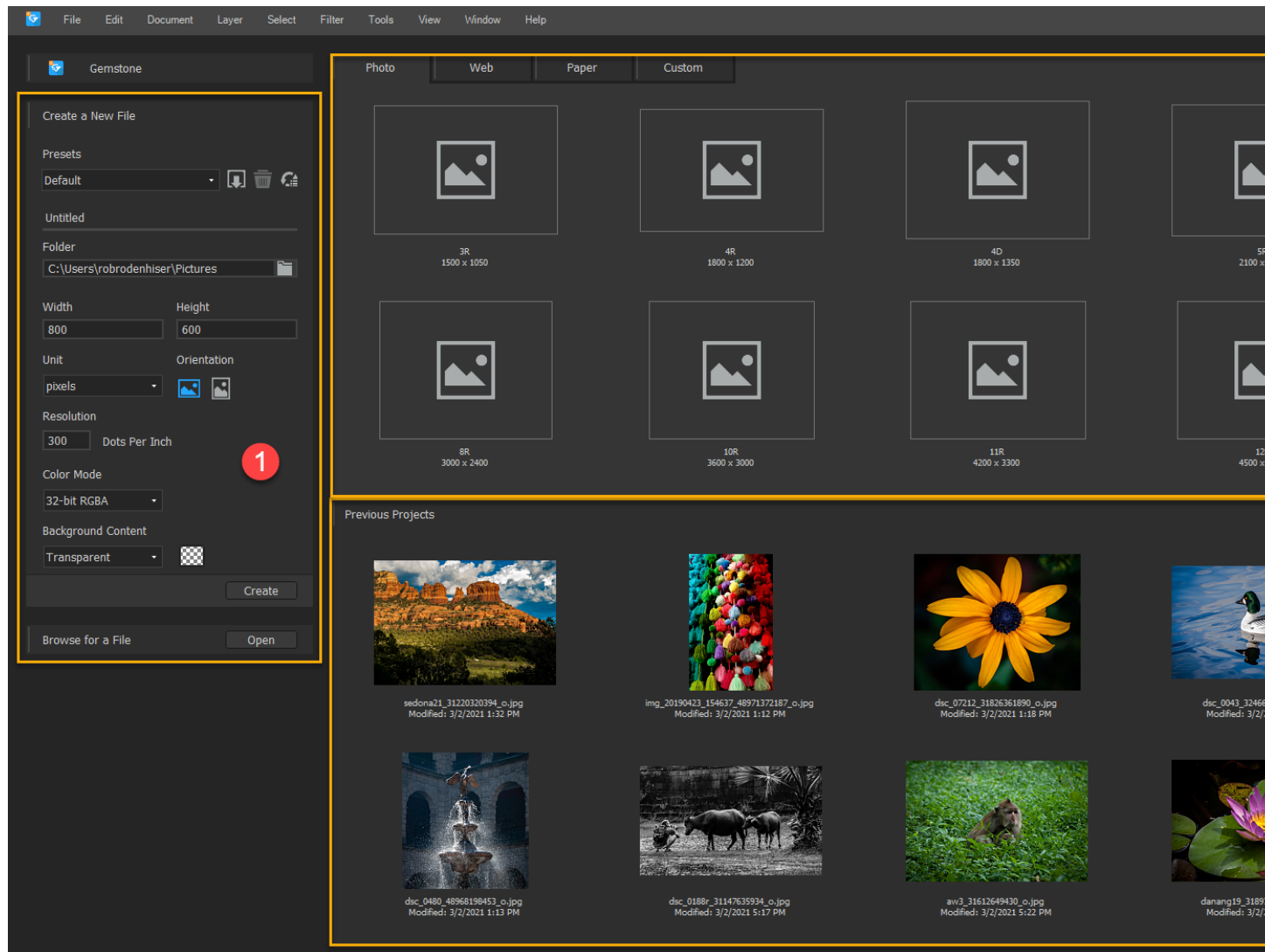


To return to the **Editor**, click the Home Screen's **Back to images** button.

From the **Home Screen**, new projects can be started, or pre-existing projects continued.

The **Home Screen** consists of three panes:

1. The [Create a New File](#) pane,
2. The [Template/Presets](#) pane, and
3. The [Previous Projects](#) pane.



Create a New File Pane

The **Create a New File** pane occupies the left side of the Home Screen.

To create a new image:

1. **Optional:** To populate the **Create a New File** pane with values based on templates, make a selection from the four tabs in the "Project Type" section: **Photo**, **Web**, **Paper**, and **Custom**.
2. In the **Create a New File** pane, do one of the following:
 - Use the default parameters,
 - Select a preset, or
 - Customize the image properties.
3. Click the **Create** button to open the new image in the new Display Area screen.



To open an existing image that does not appear in the **Previous Projects** section, click the **Open** button in the **Browse for a file** bar to browse and select a pre-existing project.

Create a New File Options

Presets

Presets

Leave the **Presets** drop-down list set to "Default" to keep all of the settings applied to the Image field set. Or, select a preset from the drop-down list to accept a customized set of image parameters.



Opens the **New Preset** dialog. Enter a name for the preset, then click the **OK** button to populate the new preset into the **Preset** drop-down list. The new preset will be constructed of the parameters set in the **Image** field set. It is recommended to complete any customizations in the **Image** field set before completing the **New Preset** dialog.



Deletes a preset from the **Preset** drop-down list.

Image Field Set

Width

Enter a value to determine the image width.

Height

Enter a value to determine the image height.

Unit

Make a selection from the drop-down menu to determine the unit of measurement for both the **Width** and **Height** fields. Options include: "Centimeters", "Inches", and "Pixels".

Orientation

Click the appropriate icon to specify the image's orientation, either Portrait or Landscape.

Resolution

Specifies the Dots Per Inch (DPI) of the image. The higher the DPI the better the image quality and the bigger the image's file size.

Color Mode

Specifies the image's color mode. Options include: "32-bit RGBA" and "64-bit RGBA". The higher the bit count the better the image quality and the bigger the image's file size.

Background Content

Make a selection from the drop-down menu to determine the composition of the image's background. Options include: "Black", "Custom", "Transparent", and "White". Another method for setting the background content is to use a Color Picker.

Template/Presets Section

The **Template/Presets** pane is located directly above the **Previous Projects** pane and to the right of the **Create a New File** pane.

The **Template/Presets** pane contains four tabs:

- [Photo](#)
- [Web](#)
- [Paper](#), and
- [Custom](#)

Photo Tab

The **Photos** tab contains 9 default options as detailed in the table below.

Photo Sizes	Resolution
3R	1500 x 1050
4R	1800 x 1200
4D	1800 x 1350
5R	2100 x 1500
6R	2400 x 1800
8R	3000 x 2400
10R	3600 x 3000
11R	4200 x 3300
12R	4500 x 3600

Web Tab

The **Web** tab contains 10 default options as detailed in the table below.

Output Type	Resolution
HD 1080p	1920 x 1080
UHD 4k	3840 x 2160
Instagram Square	1080 x 1080
Instagram Portrait	1080 x 1350
Instagram Landscape	1080 x 566
Instagram Story	1080 x 1920
Facebook cover photo	820 x 312
Facebook newsfeed photo	1200 x 1200
YouTube Channel Cover	2560 x 1440
YouTube Thumbnail	1280 x 720

Paper Tab


The **Paper** tab contains 23 default options as detailed in the table below.

Output Type	Dimensions
Letter	8.5 x 11 inches
Legal	8.5 x 14 inches
Poster	11 x 24 inches
A0 (letter)	841 x 1189 mm
A1	594 x 841 mm
A2	420 x 594 mm
A3	297 x 420 mm
A4	210 x 297 mm
A5	148 x 210 mm
A6	105 x 148 mm
A7	74 x 105 mm
A8	52 x 74 mm
A9	37 x 52 mm
A10	26 x 37 mm
B2	500 x 707 mm
B3	353 x 500 mm
B4	250 x 353 mm
B5	176 x 250 mm
B6	125 x 176 mm
B7	88 x 125 mm
B8	62 x 88 mm
B9	44 x 62 mm
B10	31 x 44 mm

Custom Tab

The **Custom** tab is populated with the Default setting, the Last Used (if different than the Default) and any custom designed presets created in the **Create a New File** pane's **Presets** field set.

To create a new Preset and populate it to the Custom tab:

1. From the **Home Screen**, navigate to the **Create a New File** pane.
2. Make adjustments to affect the file's storage location, dimensions, and resolution, color mode and background.
3. In the **Presets** field set, click the adjacent  icon to open the **New Preset** dialog.
4. Enter a name for the preset, then click the **OK** button. The new preset will populate to the **Custom** tab.

Previous Projects Section

The **Previous Projects** section is populated with files previously saved in Gemstone. Information related to the image resides below the image, including file name and last modified date and time.

To open an existing project:

To open an existing project, double-click the project thumbnail image to either open the file in **ACDSee RAW** or the **Editor**, depending on the file type.

To clear recent projects:

From the **Home Screen**, select **File | Open Recent... | Clear Recent File List** from the main menu.

Finding Other Resources and Support

The **Help** menu on the Gemstone menu bar contains links to open plug-in help files and options that link to the ACDSee website, which features updates, newsletters, and system requirements.

Other links open the support page, registration page, or the community home page where end-users can join our community and participate in ACDSee forums.

The **Help** menu is also used to convert a trial version of Gemstone to a full version by entering a license code.

Click **Help** to see the following menu options:

- Help Contents
- Provide Feedback on the Forum
- Release Notes
- [ACDSee Products](#)
- [ACDSee Community](#)
- [Facebook](#)
- [Twitter](#)
- About

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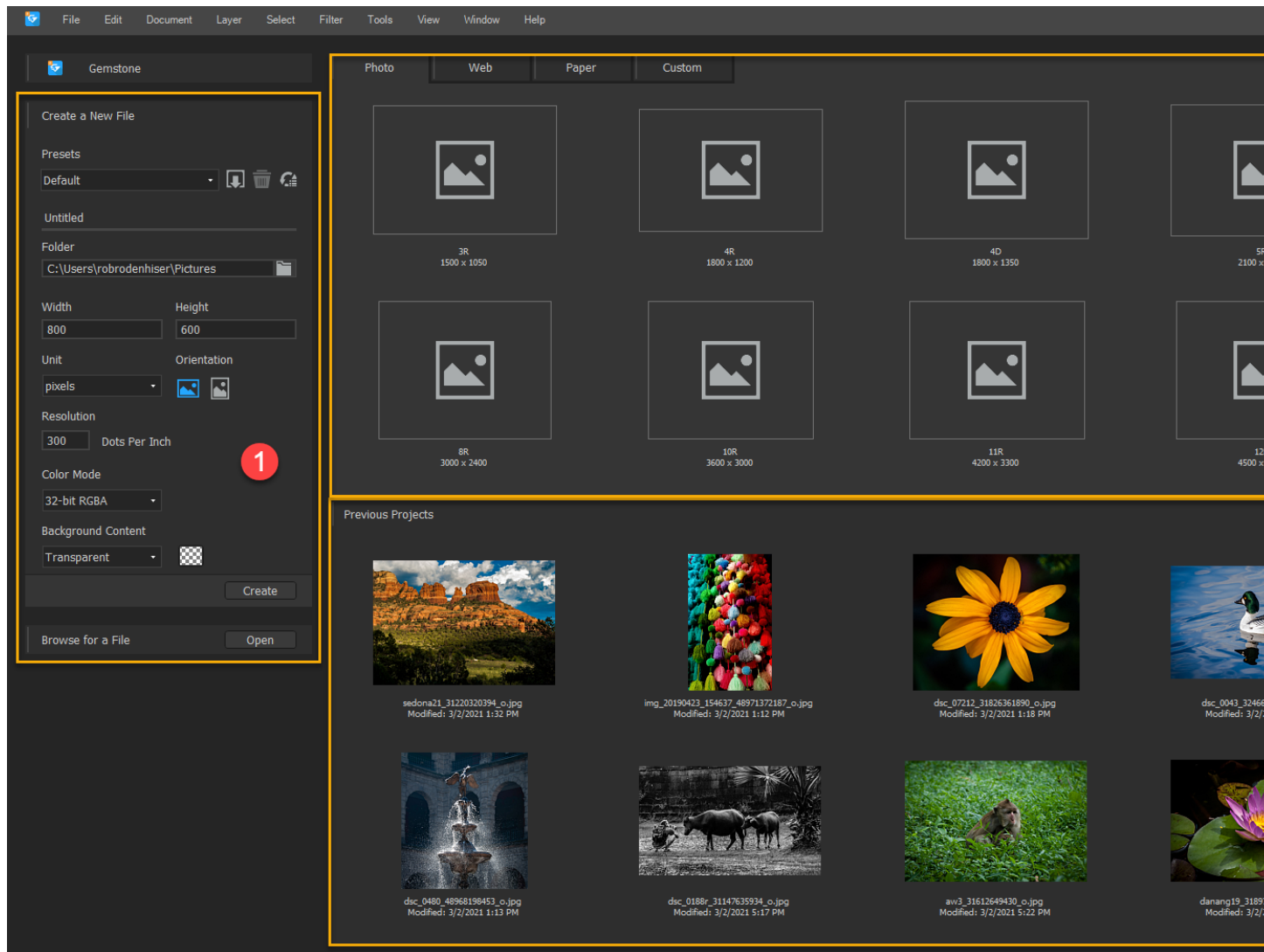


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Color Mode

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Background Content

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Output Type	Resolution
HD 1080p	1920 x 1080
UHD 4k	3840 x 2160
Instagram Square	1080 x 1080
Instagram Portrait	1080 x 1350
Instagram Landscape	1080 x 566
Instagram Story	1080 x 1920
Facebook cover photo	820 x 312
Facebook newsfeed photo	1200 x 1200
YouTube Channel Cover	2560 x 1440
YouTube Thumbnail	1280 x 720

Paper Tab


The **Paper** tab contains 23 default options as detailed in the table below.

Output Type	Dimensions
Letter	8.5 x 11 inches
Legal	8.5 x 14 inches
Poster	11 x 24 inches
A0 (letter)	841 x 1189 mm
A1	594 x 841 mm
A2	420 x 594 mm
A3	297 x 420 mm
A4	210 x 297 mm
A5	148 x 210 mm
A6	105 x 148 mm
A7	74 x 105 mm
A8	52 x 74 mm
A9	37 x 52 mm
A10	26 x 37 mm
B2	500 x 707 mm
B3	353 x 500 mm
B4	250 x 353 mm
B5	176 x 250 mm
B6	125 x 176 mm
B7	88 x 125 mm
B8	62 x 88 mm
B9	44 x 62 mm
B10	31 x 44 mm

Custom Tab

The **Custom** tab is populated with the Default setting, the Last Used (if different than the Default) and any custom designed presets created in the **Create a New File** pane's **Presets** field set.

To create a new Preset and populate it to the Custom tab:

1. From the **Home Screen**, navigate to the **Create a New File** pane.
2. Make adjustments to affect the file's storage location, dimensions, and resolution, color mode and background.
3. In the **Presets** field set, click the adjacent  icon to open the **New Preset** dialog.
4. Enter a name for the preset, then click the **OK** button. The new preset will populate to the **Custom** tab.

Previous Projects Section

The **Previous Projects** section is populated with files previously saved in Gemstone. Information related to the image resides below the image, including file name and last modified date and time.

To open an existing project:

To open an existing project, double-click the project thumbnail image to either open the file in **ACDSee RAW** or the **Editor**, depending on the file type.

To clear recent projects:

From the **Home Screen**, select **File | Open Recent... | Clear Recent File List** from the main menu.

About the Geometry Tab

The **Geometry** tab is used to correct lens distortion and perspective, or rotate and straighten images. It is also possible to use the **Crop** tool to change the composition of the image.



Settings can be set as a preset for future use.

To use the Geometry tab:

1. In the **Develop Tools** pane, select the **Geometry** tab.
2. Develop the image by expanding and editing any of the following:
 - [Lens Correction](#),
 - [Rotate & Straighten](#),
 - [Perspective](#),
 - [Crop](#), or
 - [Vignette Correction](#).

Saving and Canceling

After developing an image, choose from one of the many options for saving the image, depending on the next workflow step.

To save an image:

1. Click **Done**.
2. Select one of the following:
 - **Save**: Save any changes.
 - **Save as**: Save a copy of the developed image with a new name or format.
 - **Discard**: Discard any changes.
 - **Cancel**: Remain on the same image in Develop with all changes intact, without saving the image.

To discard changes to an image and return to the previous mode:

Click **Cancel**.



It is not possible to directly save changes to a RAW file. Changes to a RAW file must be saved as a different file type.



ACDSee will automatically apply geometry corrections to DNG files that include geometric distortion correction tags. DNG files created from the Adobe DNG Converter© will often generate geometric distortion tags for micro 4/3rds cameras.

Correcting Perspective

Perspective issues, which can occur if the camera is not held horizontal or perpendicular to the object of the photo, can be common in images taken with wide angle lenses. For example, if a photo of a tall building were taken looking up from street level, the building can appear to bend in the photo. Correct perspective issues using the tools in the **Perspective** group.



Settings can be [set as a preset](#) for future use.

To correct Perspective:

1. In the **Develop Tools** pane, select the **Geometry** tab.
2. In the **Perspective** group, set the options as described below.



Click the **Show Grid** button  to display a grid over the image. This tool is useful when fixing alignment in images. When the grid is not activated, it is gray .

Perspective Options

Vertical	Drag the slider to the left or right to identify the center of the image on the vertical axis.
Horizontal	Drag the slider to the left or right to identify the center of the image on the horizontal axis.
Vertical Shear	Drag the slider to the left or right to identify the center of the image on the vertical and diagonal axis.
Horizontal Shear	Drag the slider to the left or right to identify the center of the image on the horizontal and diagonal axis.



Right-click a slider to reset to the default value.

Cropping

Use the **Crop** tool to remove unwanted parts of images, or to reduce the image canvas to a particular size.



Settings can be [set as a preset](#) for future use.


To crop an image:

1. In the **Develop Tools** pane, select the **Geometry** tab.
2. In the **Crop** group, [resize](#) the crop window, and position it over the desired area of the image. See below for more details.



Click the **Preview Cropped Image** button  at the top of the **Geometry** tab or press **E** to preview the image when cropped.



Click the **Show Grid** button  to display a grid over the image. This tool is useful when fixing alignment in images. When the grid is not activated, it is gray .

Resizing the Crop Window

Resize the crop window in the following ways:

- Drag the edges of the crop window to the desired size.
- Specify an exact size for the crop window.
- Apply a ratio to constrain to the crop window proportions.
- Use the arrow keys to manipulate the size of the crop window.

To resize the crop window by dragging:

1. Position the cursor over the edge or corner of the crop window until it changes into a double-pointed arrow.
2. Drag the crop window's border to the desired size.

To maximize crop area:

1. Click the **Maximize crop area** button. The crop selection expands to the outer edges of the image.
2. Drag the crop window's border to the desired size.

To specify an exact size for the crop window:

1. Type the desired crop window proportions into the **Width** and **Height** spin boxes.
2. In the **Units** drop-down list, select a unit of measurement.
3. Use the **Dots per inch** spin box to specify a resolution.

To constrain the crop window to a ratio:

1. Enable the **Constrain proportion** checkbox.
2. Select a ratio from the drop-down list.
3. Position the cursor over the edge of the crop window until it changes into a double-pointed arrow, and then drag the edge of the crop window to the desired size.

To delete a proportion:

1. Select a proportion from the **Constrain proportion** drop-down list.
2. Click the down arrow button beside the drop-down list, and select **Delete**.
3. Click **Yes**.

To set a proportion as default:

1. Enable the **Constrain proportion** checkbox.
2. Select a ratio from the drop-down list.
3. Click the down arrow button beside the drop-down list, and select **Set as Default**.

Crop Options

Constrain proportion	Enable this option to constrain the crop area to a specified proportion. Select the proportion from the drop-down list.
Maximize crop area	Click to expand the crop area to the entire image, and then click and drag the crop borders. To redo your crop selection, click the Maximize crop area button to expand the selection to the entire image again, and make the crop adjustments.
Rotate the cropping area	Click to rotate the crop area.

Fixing Lens Distortion

Correct barrel and pincushion distortion in digital photographs. In barrel distortion, the photo appears to bulge outwards from the center. In pincushion distortion, the photo appears to shrink inwards toward the center. Barrel and pincushion distortion are common in photos taken with wide angle or zoom lenses.

ACDSee offers the option of using manual correction via the **Manual Correction** slider, or enabling lens correction via the lens profile. Select the make, model, and lens of the camera used to take the image. The **Lens Correction** tool can apply automatic adjustments based on the distortion inherent to the lens used, or enable lens correction for each image manually. After a lens profile has been mapped to an EXIF profile, the **Make** and **Model** drop-down menus will be pre-populated with the camera used to take the image based on its EXIF information. The **Lens Correction** tool contains a database of camera makes, models, and their possible lenses. The possible lenses for the selected camera will be available in the **Lens** drop-down menu, unless there is only one possible lens, in which case, that lens will be pre-selected.

The name of the lens used in the EXIF information of the image is usually accurate. However, the lens value displayed in the EXIF may not be reliable in the case of third-party lenses, as the camera itself may only recognize the third-party lens as an ID number. If possible, recover the correct lens value and select it from the **Lens** drop-down menu.

It is also possible to map the correction specific to the lens, (the lens profile), to the camera make, model, and lens combination. Mapping the lens profile will apply the correction to all images with the same camera-lens combination that opened in the **Develop** pane **Lens Correction** tool.

Use the **Manual Correction** slider for further adjustments after using automatic correction, or on its own.

Use the lens profile to correct chromatic aberration, if it is available.



Settings can be [set as a preset](#) for future use.



For quick viewing of the available lens profiles, [go to Lensfun](#).

To fix lens distortion using the lens profile:

1. In the **Develop Tools** pane, select the **Geometry** tab.
2. In the **Lens Correction** group, enable the **Enable Lens Profile** checkbox.
3. If the displayed camera make and model are not correct, select the correct options from the **Make** and **Model** drop-down menus.
4. From the **Lens** drop-down menu, select the lens used to take the image. Find this information displayed in the EXIF panel in the lower right corner of **Develop** pane. The correction will occur automatically.
5. For further adjustments, move the **Manual Correction** slider to the left for a bulge effect, or to the right to stretch the edges of the image.



Right-click a slider to reset to the default value.



Click the **Show Grid** button  to display a grid over the image. This tool is useful when fixing alignment in images. When the grid is not activated, it is gray .

To save lens profile as a default for future use:

Save the camera and lens combination's correction profile and use it as a default for other images taken with the same camera/lens combination. This will ensure that every time an image is opened from a particular camera make, model, and lens combination in the **Lens Correction** tool, the **Lens** field will be pre-populated with the lens mapped to that camera. It is also possible to automatically apply this lens profile to other images taken with the same camera/lens combination upon entering the **Develop** pane.



As this function relies on EXIF data, this can mainly be performed with JPEG, DNG, RAW, and TIFF images.

1. With the desired camera and lens combination selected in the **Make**, **Model**, and **Lens** drop-down menus, click the **Map Default** button.
2. Enable the **Auto-apply this mapped profile when entering Develop mode** checkbox to apply the mapped default to future images upon entering the **Develop** pane.
3. In the **Map Default** dialog box, click **OK** to save, or **Cancel** to abort.

To manage saved defaults:

1. Click the **Manage Defaults** button.
2. In the **Manage Mapped Defaults** dialog, do one of the following:
 - Select a default option and click the **Delete Mapped Default** button.
 - Enable the **Auto-apply the selected mapped profile when entering Develop mode** checkbox to apply the selected mapped default to future images taken with the same camera/lens combination upon entering the **Develop** pane.
3. Click **OK** to continue, or click **Cancel** to keep the mapped default.

To fix Chromatic Aberration using the lens profile:

Chromatic aberration occurs due to the properties of a given lens. Therefore, use the lens profile to automatically correct it. The **Chromatic Aberration** checkbox will be enabled if the selected lens has a corresponding chromatic aberration correction available.

1. In the **Develop** pane, select the **Geometry** tab.
2. In the **Lens Correction** group, enable the **Enable Lens Profile** checkbox.
3. Enable the **Chromatic Aberration** checkbox.
4. Navigate to the **Detail** tab to view the corrected image.



Save the lens profile with the Chromatic Aberration checkbox enabled to ensure that chromatic aberration will always be corrected.

Rotating and Straightening

Straighten a crooked photo in the **Develop Tools** pane by rotating the photo at a custom angle.



Settings can be set as a preset for future use.

To correct a crooked photo:

1. In the **Develop Tools** pane, select the **Geometry** tab.
2. In the **Rotate and Straighten** group, adjust the image as described below.





Right-click a slider to reset to the default value.






Click the **Show Grid** button  to display a grid over the image. This tool is useful when fixing alignment in images. When the grid is not activated, it is gray .

Rotate Options


90 degrees to the left		Rotates image 90 degrees to the left.
90 degrees to the right		Rotates image 90 degrees to the right.

Straighten Options

Slider		Adjusts the horizontal angle of the image. Move the slider left or right until the image appears straightened.
-5 Degrees left		Adjusts the image -5 degrees to the left.
+5 Degrees right		Adjusts the image +5 degrees to the right.
Straighten tool		Straightens the image. Use the cursor to draw a line along the crooked horizon. Release the cursor to automatically straighten the horizon.

Fixing Lens Vignetting

Vignetting, an unusual darkness in the corners of images, is the result of the inability of the lens to distribute light into the corners of the image. Fix lens vignetting in the **Develop Tools** pane by brightening the corners of the image.

 Settings can be [set as a preset](#) for future use.




To fix vignetting:

1. In the **Develop Tools** pane, select the **Geometry** tab.
2. In the **Vignette Correction** group, adjust the image as described below.

 Right-click a slider to reset to the default value.

Vignette Correction Options

Strength	Adjust how much the corners of the image will be brightened.
Radius	Adjust the distance from the corners of the image that pixels will be brightened. The higher the radius, the closer to the center of the image pixels will be brightened.

 Click the **Show Grid** button  to display a grid over the image. This tool is useful when fixing alignment in images. When the grid is not activated, it is gray .

About the Detail Tab

In the **Detail** tab, sharpen, reduce noise, or correct chromatic aberration in photos.

To use the Detail tab:

1. In the **Develop Tools** pane, select the **Detail** tab.
2. To develop the image, make changes in the following groups:
 - [Sharpening](#),
 - [Noise Reduction](#),
 - [Skin Tune](#), or
 - [Chromatic Aberration](#).

Saving and Canceling

After developing an image, choose from one of the many options for saving the image, depending on the next workflow step.

To save an image:

1. Click **Done**.
2. Select one of the following:
 - **Save:** Save any changes.
 - **Save as:** Save a copy of the developed image with a new name or format.
 - **Discard:** Discard any changes.
 - **Cancel:** Remain on the same image in Develop with all changes intact, without saving the image.

To discard changes to an image and return to the previous mode:

Click **Cancel**.

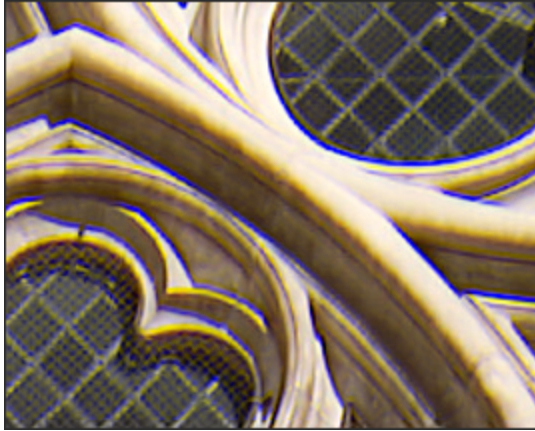


It is not possible to directly save changes to a RAW file. Changes to a RAW file must be saved as a different file type.

Correcting Chromatic Aberration

Chromatic aberration is a lens artifact that can result in fringes in high contrast areas of some photos. The camera lens can cause different wavelengths of light to focus differently, which appears in photos as colored fringing or colored lines on the borders of high contrast areas. Purple fringing can also occur when there is a bright spot of light in front of the lens.

This zoomed-in image shows an example of blue/yellow fringing.



Use the Defringe and Chromatic Aberration tools in the **Develop Tools** pane to reduce the appearance of colored fringes. Chromatic aberration can be especially useful for photos with architectural details. For best results, it's recommended to use the Chromatic Aberration sliders first, and then the Defringe sliders.



Settings can be [set as a preset](#) for future use.

To reduce fringing in an image:

1. In the **Develop Tools** pane, select the **Detail** tab.
2. In the **Chromatic Aberration** group, adjust the sliders as described below.



Right-click a slider to reset to the default value.

Chromatic Aberration Options

Fix Red/Cyan	Adjust the red and cyan channels to reduce red/cyan fringing.
Fix Blue/Yellow	Adjust the blue and yellow channels to reduce blue/yellow fringing.

Defringe Options

Defringe strength	Adjust the amount of fringe color you want to remove from high contrast edges. A setting of zero means that defringing is off.
Defringe radius	Adjust the number of pixels surrounding an edge that will be defringed.
Color	Adjust the color to remove from high contrast edges.



View the effects of the changes in the preview window, located at the top of the **Detail** pane. Move the overlay square on the image to change the area the preview window displays.

Reducing Noise

Reduce noise in images caused by high ISO settings or long exposure.



Settings can be [set as a preset](#) for future use.

To reduce noise in an image:

1. In the **Develop Tools** pane, select the **Detail** tab.
2. In the **Noise Reduction** group, adjust the sliders as described below.



Right-click a slider to reset to the default value.

Noise Reduction Options

Luminance	Drag the slider to the right to reduce the visibility of lighting noise. Apply a setting that is proportional to the noise in the image and refer to the preview window to ensure that you balance the level of noise reduction with loss of detail. Hold down the Alt key while using the slider to see the remaining noise in the image.
Strength	Drag the slider to the right to control how aggressively to reduce noise. Prevent the loss of detail by balancing Luminance with Strength.
Color Noise Reduction	Drag the slider to the right to remove color noise from the image. Hold down the Alt key while using the slider to see the remaining color noise in the image.
Preserve Detail	Restores details lost due to strong noise removal. Set the slider to adjust how much detail is restored.
Preserve Detail Threshold	Determines the level of detail necessary to be included in the Preserve Detail slider's adjustments.

Noise Reduction Applied With the Develop Brush

For targeting specific areas of noise reduction within an image, use the [Develop Brush](#) to apply the noise reduction.

To apply Noise Reduction with the Develop Brush:

1. Open an image in **ACDSee RAW**.
2. In the **Develop Tools** pane, select the **Detail** tab.
3. In the **Detail** tab, select the **Develop Brush**.
4. Adjust the noise reduction options as described below.

Develop Brush Noise Reduction Options

Sharpness	Move the slider to the right to brush on sharpness, or move the slider to the left to brush on blur.
Luminance Noise Reduction	Luminance noise is random variations of brightness, and particularly in gray areas, may appear spotted when there should be a solid color in the area of the image. Slide to the right to add Luminance Noise Reduction .
Color Noise Reduction	Color noise is random variations of color in the image. Slide to the right to add Color Noise Reduction .

Noise Reduction Applied With the Linear Gradient

For targeting specific areas of noise reduction within an image, use the [Linear Gradient](#) tool to apply the noise reduction.

To apply Noise Reduction with the Linear Gradient tool:

1. Open an image in **ACDSee RAW**.
2. In the **Develop Tools** pane, select the **Detail** tab.
3. In the **Detail** tab, select the **Linear Gradient** tool.
4. Adjust the noise reduction options as described below.

Linear Gradient Noise Reduction Options

Sharpness	Move the slider to the right to brush on sharpness, or move the slider to the left to brush on blur.
Luminance Noise Reduction	Luminance noise is random variations of brightness, and particularly in gray areas, may appear spotted when there should be a solid color in the area of the image. Slide to the right to add Luminance Noise Reduction .
Color Noise Reduction	Color noise is random variations of color in the image. Slide to the right to add Color Noise Reduction .

Noise Reduction Applied With the Radial Gradient

For targeting specific areas of noise reduction within an image, use the [Radial Gradient](#) tool to apply the noise reduction.

To apply Noise Reduction with the Radial Gradient tool:

1. Open an image in **ACDSee RAW**.
2. In the **Develop Tools** pane, select the **Detail** tab.
3. In the **Detail** tab, select the **Radial Gradient** tool.
4. Adjust the noise reduction options as described below.

Radial Gradient Noise Reduction Options

Sharpness	Move the slider to the right to brush on sharpness, or move the slider to the left to brush on blur.
Luminance Noise Reduction	Luminance noise is random variations of brightness, and particularly in gray areas, may appear spotted when there should be a solid color in the area of the image. Slide to the right to add Luminance Noise Reduction .
Color Noise Reduction	Color noise is random variations of color in the image. Slide to the right to add Color Noise Reduction .

Sharpening

Use the **Sharpening** tool to define details and fine-tune images.



Settings can be [set as a preset](#) for future use.

To sharpen an image:


1. In the **Develop Tools** pane, select the **Detail** tab.
2. In the **Sharpening** group, adjust the sliders as described below.





Right-click a slider to reset to the default value.

Sharpening Options

Amount	Specifies the amount of sharpening applied by increasing contrast around the edges.
Radius	Controls the number of pixels to adjust around each edge. Higher values increase the number of sharpened pixels and tend to bring out coarser detail, while lower values reduce the number of sharpened pixels and tend to bring out finer detail.
Mask	Allows the targeting of edges, while suppressing the sharpening of noise and texture. To view the areas the mask affects, press the Alt key when moving the mask slider. Areas affected by sharpening appear white.
Detail	Suppresses the halo, (the light border that forms around edges with extreme sharpening), by reducing its intensity. The higher the value, the stronger the reduction.
Threshold	Specifies how different the pixel lightness values within an edge must be before the pixels within the edge are sharpened. Higher values sharpen only stronger edges but minimize the appearance of noise. Lower values sharpen both strong and weaker edges, but can increase the appearance of noise. We recommend you set the threshold to enhance edges while keeping background noise to a minimum.

 View the effects of the changes in the preview window, located at the top of the **Detail** pane.
Move the overlay square on the image to change the area the preview window displays.

 Set the default sharpening for RAW files by clicking the **Adjust develop settings for this group** icon  in the **Sharpening** group and selecting **Save New Default**.

Fine-Tuning Skin Tone

Use the **Skin Tone** tool to even skin tone and smooth away blemishes and flaws.

 Settings can be set as a preset for future use.


To correct skin tone:

1. In the **Develop Tools** pane, select the **Detail** tab.
2. In the **Skin Tone** group, adjust the sliders as described below.

 Right-click a slider to reset to the default value.

Skin Tone Options

Smoothing	Drag the slider to the right to refine skin by suppressing texture detail.
Glow	Drag the slider to the right to increase the brightness of skin while subtly smoothing.
Radius	Specifies the scale of the texture detail that is affected by the effect. Drag the slider to the left to enhance small details. Drag the slider to the right to enhance larger details.

 View the effects of the changes in the preview window, located at the top of the **Detail** pane.
Move the overlay square on the image to change the area the preview window displays.

About the Repair Tab

Use the **Repair** tab to reduce red eye and repair images.

To use the Repair tab:

1. In the **Develop Tools** pane, select the **Repair** tab.
2. Select the Red Eye Reduction or Repair tool.

Saving and Canceling

After developing an image, choose from one of the many options for saving the image, depending on the next workflow step.

To save an image:

1. Click **Done**.
2. Select one of the following:
 - **Save**: Save any changes.
 - **Save as**: Save a copy of the developed image with a new name or format.
 - **Discard**: Discard any changes.
 - **Cancel**: Remain on the same image in Develop with all changes intact, without saving the image.

To discard changes to an image and return to the previous mode:

Click **Cancel**.



It is not possible to directly save changes to a RAW file. Changes to a RAW file must be saved as a different file type.

Reducing Red Eye

Use the **Red Eye Reduction** tool in the **Develop Tools** pane to correct red eye in digital photographs. The **Red Eye Reduction** tool specifically targets red pixels. Nearby pixels are unaffected.

To correct Red Eye:

1. In the **Develop Tools** pane, select the **Repair** tab.
2. Use the **Zoom** tools at the bottom right corner of the **Display Area** to enlarge and center the eye to be corrected.
3. Click within the red portion of the eye.
4. In the **Red Eye Reduction** group, adjust the sliders as described below.



Right-click a slider to reset to the default value.

Red Eye Reduction Options

Size	Drag the slider to the right to increase the size of the area being darkened, or to the left to decrease.
Darkening	Drag the slider to the right to darken the corrected portion of the eye.

Correct as many red eyes as necessary. Simply keep clicking the image to add a new eye-definition. Move the eye-definitions by clicking and dragging, or delete them by pressing **Delete**.



Scroll with the mouse to adjust the size of the area to darken at any time.



Show or hide the red eye outline by toggling On or Off the eye  icon, located at the top left corner of the **Red Eye** group.



Press **Delete** to remove the currently selected red eye adjustment.

Repairing an Image

Use the **Repair** tool to remove flaws, such as:

- Skin blemishes
- Telephone wires and other unwanted objects
- Flash flares from snowflakes or windows
- Lens scratches and water drops
- Shadows cast on the sensor by dust

There are three options available for the **Repair** tool: the **Heal** brush, the **Blended Cloning** tool, and the **Clone** brush.

When selecting the **Heal** brush, it copies pixels from one area of a photo to another, but analyzes the pixels in the source area before copying them. The **Heal** brush also analyzes the pixels in the target area, and then blends the pixels of both source and target, to match the surrounding area. This ensures that the lighting and color of the replacement pixels integrate with the surrounding area. The **Heal** brush works particularly well with photos that involve complicated textures like skin or fur.

When selecting the **Clone** brush, the tool copies the exact pixels from one area of a photo to another, creating an identical image area. The **Clone** brush is more effective for photos that have strong, simple textures or uniform colors, as it is more difficult to identify the copied pixels in the finished photo.

When selecting the **Blended Clone** tool, the **Repair** tool copies the exact pixels from one area of a photo to another, but analyzes the pixels in the target area and blends them with the copied pixels.



Settings can be [set as a preset](#) for future use.



To achieve the best results, perform any geometric operations on the image before using the **Heal** brush.

To remove flaws from a photo:

1. In the **Develop Tools** pane, in the **Repair** tab's **Repair** group, select one of the following:
 - **Heal**: Copies the pixels from the source area to the target area, and blends pixels into the surrounding image area.
 - **Clone**: Copies the pixels from the source area to the target area.
 - **Blended Clone**: Copies the pixels from the source area to the target area, then analyzes the pixels in the target area and blends them with the copied pixels.
2. Drag the **Nib Width** and **Feathering** sliders as described in the table below.
3. Right-click the image to set a source location. Pixels will be copied from this location and used in the target location.
4. Click and drag over the area to cover. If selecting the **Heal** brush, Gemstone analyzes and replaces the pixels when releasing the mouse button. If selecting the **Blended Clone** tool, Gemstone analyzes, replaces, and blends the pixels when releasing the mouse button.
5. Do one of the following:
 - Click **Done** to apply your changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.



Scroll to adjust the brush size, or press the **Shift** key while scrolling to adjust feathering.



For the most accurate preview, zoom the image to 100% while healing or cloning.



Red Eye Reduction and selective adjustments, such as the Develop Brush and gradients, are the only adjustments that cannot be healed or cloned.

Repair Tool Options

Nib Width	Sets the width of the brush. The maximum brush width is relative to the size of your image.
Feathering	<p>Sets the amount to feather on the edge of the brush to prevent sharp transitions between the original and healed part of the photo.</p> <p>Feathering is set as a percentage of the nib width, not as a specific number of pixels. This means that you do not have to adjust the feathering when you reset the Nib Width, as it automatically adjusts to a percentage of the new nib width. This option is not available with the Blended Clone tool.</p>



Right-click a slider to reset to the default value.

About the Tune Tab

In the **Tune** tab, adjust exposure, white balance, saturation, brightness, hue, color profile and much more.

To use the Tune tab:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. To develop the image, make changes to any of the following groups:
 - [General](#),
 - [White Balance](#),
 - [Light EQ™](#),
 - [Color EQ](#),
 - [Color Wheel](#),
 - [Tone Wheels](#),
 - [Tone Curves](#),
 - [Soft Focus](#),
 - [Effects](#),
 - [Color LUTs](#),
 - [Split Tone](#),
 - [Post-Crop Vignette](#), or
 - [Output Color Space](#).

Saving and Canceling

After developing an image, choose from one of the many options for saving the image, depending on the next workflow step.

To save an image:

1. Click **Done**.
2. Select one of the following:
 - **Save**: Save any changes.
 - **Save as**: Save a copy of the developed image with a new name or format.
 - **Discard**: Discard any changes.
 - **Cancel**: Remain on the same image in Develop with all changes intact, without saving the image.

To discard changes to an image and return to the previous mode:

Click **Cancel**.



It is not possible to directly save changes to a RAW file. Changes to a RAW file must be saved as a different file type.

Adjusting Color With Color EQ

Color EQ makes color adjustments for **Saturation**, **Brightness**, **Hue**, and **Contrast**. Make adjustments to the entire image in **Standard** mode using the vertical slider, or adjust on a color by color basis in **Standard** or **High Quality** mode. For an explanation of the controls, see below.



Settings can be [set as a preset](#) for future use.

To adjust color:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **Color EQ** group, select the **Saturation**, **Brightness**, **Hue**, or **Contrast** tab, and adjust them according to the options described in the table below.

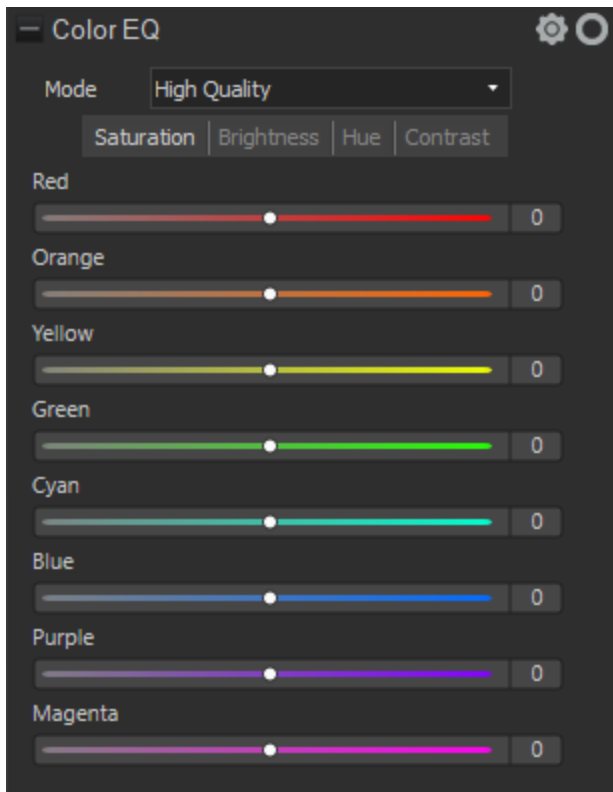


Right-click a slider to reset to the default value.

Color EQ Options

Select **High Quality** mode or **Standard** mode from the **Mode** drop-down menu. To adjust colors individually, left-click a color in the image and drag up or down to alter. The changes are reflected in the **Saturation**, **Brightness**, **Hue**, and **Contrast** tabs color sliders in **High Quality** mode and the graph in **Standard** mode, respectively. This works in the **Saturation**, **Brightness**, **Hue**, and **Contrast** tabs.

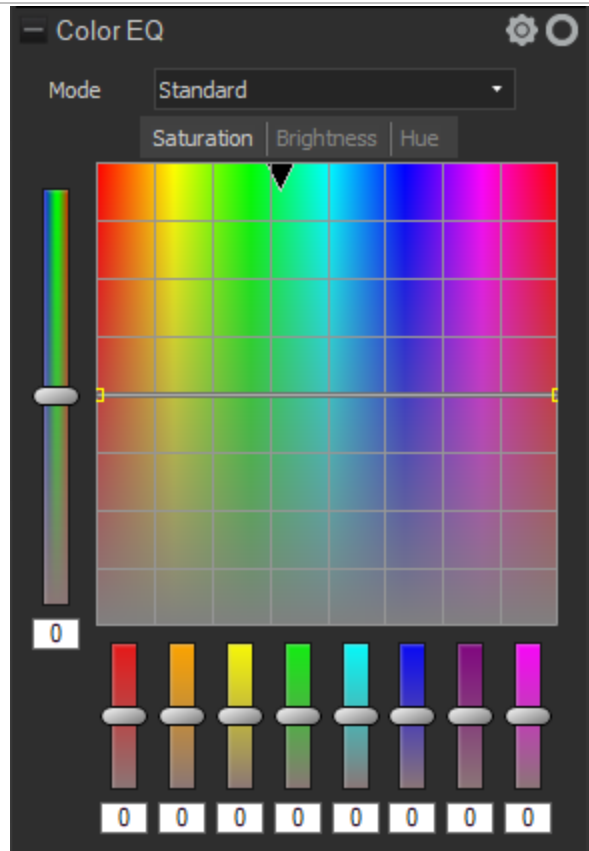
High Quality



Adjust image colors individually. High Quality uses the newer, more modern color models, allowing for a visually perceptive and higher quality adjustment.

Adjust each color individually by dragging sliders right for more intensity, or left for less intensity. Or, enter a number into the fields for precise adjustments. Select a precise color to adjust by placing the cursor on the image for the double arrow icon to appear. Then, click and drag up or down to adjust the colors beneath the double arrow icon. The affected color sliders automatically adjust as the cursor is moved.

Standard



Supports previously developed images. Adjust colors individually or make global adjustments.

Vertical slider

Apply adjustments to the entire image. A slider on the left has the following effects on the tabs:

- **Saturation:** Adjusts from saturation to grayscale.
- **Brightness:** Adjusts the light or dark tones in the image.
- **Hue:** Changes to a different color.

Or, enter a number into the field for precise adjustments.

Individual color sliders

Adjust each color with individual sliders. Select the color to adjust and click and drag the sliders. Or, enter a number into

Direct image adjustments

the fields for precise adjustments.

Place the cursor on the image for the double arrow icon to appear. Then click and drag up or down to adjust the colors beneath the double arrow icon. The curve control and the affected color sliders automatically adjust as the cursor is moved. The black down arrow on the graph indicates the color being adjusted in the image.

The curve appears black in the graph, and cannot be directly adjusted. To apply further adjustments, alter the white curve. When adjusting the white curve, the black curve automatically changes with

it. Or, enter a number into the fields for precise adjustments.

Adjusting Lighting

Use the Light EQ™ tool to adjust tone levels in images that are too dark or too light, without affecting other areas of the photo. Tone level is the average brightness of a pixel and its surrounding pixels.

It is also possible to simultaneously brighten dark areas that are too dark, and darken areas that are too bright. Examples would be a back-lit photo of a person silhouetted against a bright background, such as the sea, or a window. In fact, most photos taken on a dull day, or with a flash, can be improved in various ways with fine adjustments using the Light EQ™ tool.



Settings can be [set as a preset](#) for future use.

To reduce lighting in an image:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **Light EQ™** group, select **Basic** mode, **Standard** mode, or **Advanced** mode from the drop-down menu at the top of the pane and configure the settings as described below.



Right-click a slider to reset to the default value.

Basic Light EQ™

Basic is for very quick and easy adjustments using just three sliders. Click directly on an area of the image to generate automatic settings optimal for that area (usually the subject of the photo).

Do one of the following:

- Click on an area in the image to generate automatic settings optimal for that area.
- Manually adjust the lighting as described below.

Basic Light EQ™ Options

Shadows	Drag the slider to the right to brighten or drag the slider to the left to darken the shadows.
Midtones	Drag the slider to the right to brighten or drag the slider to the left to darken midtones.
Highlights	Drag the slider to the right to brighten or drag the slider to the left to darken highlights.
Auto	Click the Auto button for Gemstone to automatically adjust the lighting in your image.

Standard Light EQ™

Standard works like a sound equalizer but with light. Adjust the brightness and contrast of different tone bands (areas of relative brightness or darkness) independently using two sliders for each tone band — one for brightening and one for darkening. A graph shows the amount of brightening or darkening applied throughout the tonal range. The gray areas in the graph are suggested boundaries for adjustment to avoid clipping and loss of detail, and turn pink to indicate where you have adjusted the sliders far enough to cause clipping.

Do one of the following:

- Select an area of the image to adjust, left-click and drag up to brighten or right-click and drag down to darken.
- Manually adjust the lighting as described below.

Standard Light EQ™ Options

Brighten sliders (top)	<p>Drag the sliders up to increase the brightening in each tonal band. The sliders on the left affect dark tones. The sliders on the right affect bright tones. Moving a slider changes the amount of brightening only in that particular tonal band in the image.</p> <p>Or, type a number into the number boxes and increment them slowly to make precise adjustments.</p>	
Darken sliders (bottom)	<p>Drag the sliders down to increase the darkening in each tonal band. The sliders on the left affect dark tones. The sliders on the right affect bright tones. Moving a slider changes the amount of darkening only in that particular tonal band in the image.</p> <p>Or, type a number into the number boxes and increment them slowly to make precise adjustments.</p>	
Graph	<p>The graph indicates the amount of brightening and darkening applied throughout the tone range of the image. The portion of the graph above the horizontal axis corresponds to brightening, while the portion of the graph below the horizontal axis corresponds to darkening. When both brightening and darkening are applied within the same tonal band, contrast is increased. The area between the top of the brightening graph and the bottom of the darkening graph indicates the relative increase of contrast throughout the tone range of the image. Left-click on the graph or on the image and drag the double-pointed arrow up to brighten or right-click and drag down to darken.</p>	
# tone bands	<p>Set the number of tone bands you would like to adjust. A greater number of tone bands allows for more precise control, while fewer tone bands make it easier to smooth adjustments quickly.</p>	
On Image		
	Double-click with left mouse button	Automatically sets Brightening to optimum for that area of the image. A brighter area (e.g. a face) works best.
	Double-click with right mouse button (or Shift + double-click with left mouse button)	Automatically sets the Darkening to optimum for that area of the image.
	Ctrl + double-click with left mouse button	<p>Modifies the current brightening adjustment curve to optimize it for the area surrounding the tone level you clicked on. In most cases, this will result in increasing the amount of brightness applied to the area surrounding the tone level you clicked on, while decreasing the amount applied to other tone levels.</p> <p>Use this method to make a specific subject or area stand out by brightening.</p>

Ctrl + double-click with right mouse button	<p>Modifies the current darkening adjustment curve to optimize it for the area surrounding the tone level you clicked on. In most cases, this will result in increasing the amount of darkness applied to the area surrounding the tone level you clicked on, while decreasing the amount applied to other tone levels.</p> <p>Use this method to make a specific subject or area blend in by darkening.</p>
Scroll up or down with the mouse wheel over the image	Increases or decreases the amount of brightening applied at that tone level in the image. Both the image and the graph show the changes.
Shift + scroll with the mouse wheel over the image	Decreases or increases the amount of darkening applied at that tone level in the image.
Hold down "A" + scrolling or + dragging with the left mouse button	Adjusts all of the brighten sliders at once.
Hold down "A" + Shift + scrolling or + dragging with the right mouse button	Adjusts all of the darken sliders at once.
Click and drag up and down on the image (left mouse button)	<p>Increases or decreases the amount of Brightening applied at that tone level in the image. Both the image and the graph show the changes.</p> <p>(Only works if the image is actual size—no zooming.)</p>
Shift + click and drag up and down on the image (left or right mouse button)	<p>Decreases or increases the amount of Darkening applied at that tone level in the image.</p> <p>(Only works if the image is actual size—no zooming.)</p>
Auto	Click the Auto button for Gemstone to automatically adjust the lighting in your image.

Advanced Light EQ™

Advanced provides ultimate control of the brightness and contrast in an image. Adjustment curves can be constructed using four sliders, and can manually adjust the curves by clicking and dragging within the graph area or on the image itself.

Do one of the following:

- Select an area of the image to adjust, left-click and drag up to brighten or right-click and drag down to darken.
- Manually adjust the lighting as described below.

Graph

The top half of the graph corresponds to brightening, and the bottom half corresponds to darkening. Tone levels of the shadows are represented on the left, midtones in the middle, and highlights on the right.

The light gray in the graph shows the amount of brightening or darkening applied throughout the image. The dark gray areas in the graph are suggested boundaries for adjustment, and turn red to indicate where you have adjusted far enough to cause a loss in detail. When the cursor is over the image, the two vertical yellow lines correspond to the lower and upper bounds of the tone level of the area under the cursor and indicate the center of adjustment.

Adjustment Light EQ™ Options

Area	Action	Result
Sliders		
	Drag Brightening slider	<p>To the right: increases the light applied to the darker areas.</p> <p>To the left: applies brightening more uniformly to all areas of the image.</p>
	Drag Darkening slider	<p>To the right: increases the darkening applied to the brighter areas of the image.</p> <p>To the left: applies the darkening more uniformly to all areas of the image.</p>
	Drag Amplitude slider (Brightening)	<p>To the right: increases the intensity of the brightening across all areas of the image. The height of the curve increases.</p> <p>To the left: reduces the intensity of the brightening and the height of the curve.</p> <p>If the Amplitude slider is 0: no brightening is applied.</p> <p>If the Amplitude is 100-200: proportional amount of clipping increases.</p> <p>In most cases, 100 is the right amount of amplitude. For images with fine detail in the highlights, decreasing brighten amplitude preserves the detail.</p> <p>In most cases it is not necessary to adjust amplitude.</p>
	Drag Amplitude slider (Darkening)	<p>To the right: increases the intensity of the darkening across all areas of the image. The height of the bottom orange curve increases.</p> <p>To the left: reduces the intensity of the darkening and the height of the curve.</p>
On Graph		
	Drag the graph (top)	<p>The graph changes as you left-click and drag up on the graph itself. The graph represents the brightening adjustments you are making. The dark gray graph represents the maximum amount you can drag the graph before clipping (pink) begins.</p> <p>The height of the graph represents the level of brightening applied at each tone level. (Tone moves from black on left to white on the right.)</p> <p>When you make direct brightening or darkening adjustments on the graph or image, the corresponding Brightening or Darkening slider changes to Custom curve. If you adjust the position of the slider</p>

Area	Action	Result
		<p>after this, it discards all direct curve adjustments.</p> <p>When you make direct brightening or darkening adjustments on the graph or image, the corresponding Brightening or Darkening Amplitude slider changes to indicate the current curve amplitude. (An amplitude of 100 is the maximum amplitude a curve can have without causing clipping.)</p>
	Drag the graph (bottom)	The graph changes as you right-click and drag down on the graph itself. The graph represents the darken adjustments you are making. The dark gray graph represents the maximum amount you can drag the graph before clipping (pink) begins.
	You can use all the shortcuts below that apply to the image, directly to the Graph itself.	Changes the tonal band on the graph itself with a corresponding change in the image. This is useful for making fine adjustments to a specific tonal band.
On Image		
	Double-click with left mouse button	Automatically sets Brightening to optimum for that area of the image. A brighter area (e.g. a face) works best.
	Double-click with right mouse button (or Shift + double-click with left mouse button)	Automatically sets the Darkening to optimum for that area of the image.
	Ctrl + double-click with left mouse button	<p>Modifies the current brightening adjustment curve to optimize it for the area surrounding the tone level you clicked on. In most cases, this will result in increasing the amount of brightness applied to the area surrounding the tone level you clicked on, while decreasing the amount applied to other tone levels.</p> <p>Use this method to make a specific subject or area stand out by brightening.</p>
	Ctrl + double-click with right mouse button	<p>Modifies the current darkening adjustment curve to optimize it for the area surrounding the tone level you clicked on. In most cases, this will result in increasing the amount of darkness applied to the area surrounding the tone level you clicked on, while decreasing the amount applied to other tone levels.</p> <p>Use this method to make a specific subject or area blend in by darkening.</p>

Area	Action	Result
	Scroll up or down with the mouse wheel over the image	Increases or decreases the amount of brightening applied at that tone level in the image. Both the image and the graph show the changes.
	Shift + scroll with the mouse wheel over the image	Decreases or increases the amount of darkening applied at that tone level in the image.
	Hold down "A" + scrolling or + dragging with the left mouse button	Sets the brightening Amplitude slider directly.
	Hold down "A" + Shift + scrolling or + dragging with the right mouse button	Sets the darkening Amplitude slider directly.
	Click and drag up and down on the image (left mouse button)	Increases or decreases the amount of brightening applied at that tone level in the image. Both the image and the graph show the changes. (Only works if the image is actual size—no zooming.)
	Shift + click and drag up and down on the image (left or right mouse button)	Decreases or increases the amount of darkening applied at that tone level in the image. (Only works if the image is actual size—no zooming.)
Auto		
Click the Auto button for Gemstone to automatically adjust the lighting in your image.		

Adjusting Split Tone

Split toning is a powerful technique originating in film photography to tint the highlights and shadows. The **Split Tone** tool provides creative control over the **Hue** and **Saturation** of highlights and shadows. Use the sliders to adjust the balance of tones in the highlights and shadows of photos. Split toning allows for adding a creative element to RAW conversion and non-destructive editing in ACDSee.



Settings can be [set as a preset](#) for future use.

To adjust highlights and shadows:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. Navigate to the **Split Tone** group.
3. Drag the sliders to apply colored highlights and shadows as described in the table below.



Right-click a slider to reset to the default value.

Adjustment Options

Highlights

Hue

Drag the slider to the right to select a highlight color.

Saturation

Drag the slider to the right to increase saturation of the color in the highlights of the image.

Shadows

Hue

Drag the slider to the right to select a shadow color.

Saturation

Drag the slider to the right to increase saturation of the color in the shadows of the image.

Balance

Drag the slider to the right to emphasize the highlight color; drag the slider to the left to emphasize the shadow color. For example if the slider is set to the maximum at 50, then full emphasis is applied to the highlight color; if the slider is set to the minimum -50, then full emphasis is applied to the shadow color.



Create a Sepia tone effect by first reducing the saturation of the photo with the **Advanced Color** tool and then apply a reddish brown hue with the **Split Tone** tool. Or, create a monochromatic black and white photo with a slight tint of hue.

Adjusting Tone Curves

In the **Develop Tools** pane, use the **Tone Curves** tool to change the tonal range of an image. Select the RGB color channel to adjust the entire range of the image, or select a specific color.



Settings can be set as a preset for future use.

To adjust the brightness curves in an image:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **Tone Curves** group, adjust the curves as described below.



Right-click the number field or the arrow for Blacks, Midtones, or Whites to reset it to the default setting. Or, double-click the number field or on the arrows to use automatic settings.

Tone Curves Options

Curve	Select a curve to apply to an image. Standard curve is the default. Use Camera to use the curve generated by Gemstone to produce a curve suitable for the image. The Curve drop-down list is only available for RAW files.
Channel	Specify the color channels to adjust.
Histogram	Displays a graphic of the color information levels in the image, based on the selected channel. Click and drag the line to manipulate the curve. Each time the curve is clicked, a new point is added. Drag the points up and down the curve. To delete a point, right-click it and choose Delete point . Or, delete a point by dragging it off of the top or the bottom of the graph.
Blacks	Click and drag the black triangle or click it to automatically set the black point. Or, enter a number into the fields or use the up or down arrow buttons to set an exact black point.
Midtones	Click and drag the gray triangle or click it to automatically set the midtone point. Or, enter a number into the fields or use the up or down arrow buttons to set an exact midtone point.
Whites	Click and drag the white triangle or click it to automatically set the white point. Or, enter a number into the fields or use the up or down arrow buttons to set an exact white point.
Auto	Automatically sets the points for blacks, midtones, and whites.
Color Picker	A color picker is available when a point is selected on the histogram curve and the cursor dragged onto the image.

Adjusting White Balance

Use the **White Balance** group to remove unwanted color casts in images. A color cast is a visible color tint that affects an image. Color casts are usually due to the lighting present when the photo was taken. If taking photos indoors, remove the blue tint or remove the yellow tint that indoor lighting can often give.



Settings can be [set as a preset](#) for future use.

To adjust the White Balance in an image:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **White Balance** group, do one of the following:
 - Automatically adjust white balance by using the White Balance eyedropper to select a portion of the image with neutral gray pixels.
 - Manually adjust white balance with the sliders as described below.



Right-click a slider to reset to the default value.

White Balance Options

White Balance	<p>For RAW images, select one of the following white balance correction options:</p> <ul style="list-style-type: none"> • As Shot: selected automatically. Applies the camera's white balance setting as stored in the camera when the photo was taken. • Auto: adjusts the color temperature and tint to settings automatically determined by analyzing the image. • Sunny: adjusts the color temperature to 5500K, approximately that of the midday sun. • Cloudy: adjusts the color temperature to 6500K, approximately that of a lightly overcast sky. • Shade: adjusts the color temperature to 7500K, approximately that of a heavily overcast sky. • Tungsten: adjusts the color temperature to 2850K, approximately that of a household light bulb. • Fluorescent: adjusts the color temperature to 3800K, approximately that of a fluorescent light bulb. • Flash: adjusts the color temperature to 5500K, approximately that of a camera flash. • Custom: allows you to specify a specific white balance, by adjusting the Temperature and Tint sliders. You can also hover your mouse over the image until it turns into an eye dropper, and click an area of the image that is a neutral color (gray). <p>For encodable images, such as JPEGs, select one of the following white balance correction options:</p> <ul style="list-style-type: none"> • As Shot: selected automatically. Applies the camera's white balance setting as stored in the camera when the photo was taken. • Auto: adjusts the color temperature and tint to settings automatically determined by analyzing the image. • Custom: allows you to specify a specific white balance, by adjusting the Temperature and Tint sliders. You can also hover your mouse over the image until it turns into an eye dropper, and click an area of the image that is a neutral color (gray).
Temperature	Drag the Temperature slider to the left (more blue) or right (more yellow) to select a specific color temperature.
Tint	Drag the Tint slider to the left (more green) or right (more magenta) to match the white balance settings that you selected when you took the photo.
Strength	Drag the slider to the right to increase, or to the left to decrease the white balance adjustment.

Selecting an Output Color Space For RAW Files

Select the output color space to use when developing RAW files. This option is only available for RAW files.

To Set the Output Color Space for a RAW File:

1. In the **Develop Tools** pane, select the **Tune** tab.



Look to the **Histogram** to help determine the best Output Color Space for an image. The **Histogram** provides a graphical representation of the intensity level of pixels within each color channel. Spikes at either end of the graph indicate clipped colors. Aim for an output color space that provides the widest gamut of colors possible while minimizing spikes at either end of the graph.

2. In the **Output Color Space** group, select a color space.
3. Enable **Set as Default** to use this same color space as the default color space for developing RAW files from the **Develop Tools** pane.



When saving RAW images, the dialog box will have the **Embed Color Profile in Image** option selected by default. Deselecting this option will prevent the Output Color Space from being embedded in the file.

Color Grading with LUTs

"Color LUT" stands for Color Lookup Table. Color LUTs are lists that instruct ACDSee or related programs to map specific RGB values to other specific color values. LUTs can be imported to use as filters in ACDSee. LUTs can also be created in the [Editor](#) for use in the **Develop Tools** pane. Apply a Color LUT in the same way as using any other effect in the **Develop Tools** pane. Color LUT supported file types are .3DL and .CUBE.

To apply a Color LUT to an image:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **Color LUTs** group, do one of the following:
 - Select a LUT from the drop-down menu. The LUT is immediately applied.
 - Click the **Import LUTs** button. In the **Open** dialog, browse to the location of the LUT files, and click **Open**.



If an imported LUT file's location has changed, reload it using the Color LUTs panel.

To remove Color LUTs:

1. In the **Color LUTs** group, click the **Remove LUTs** button.
2. In the **Remove LUTs** dialog, enable/disable the checkboxes next to the LUTs to be deleted.
3. Click **Remove LUTs**.

To refresh the list of Color LUTs:

Refresh the list of available LUTs to reveal moved or deleted files.

In the **Color LUTs** group, click the **Refresh List** button.



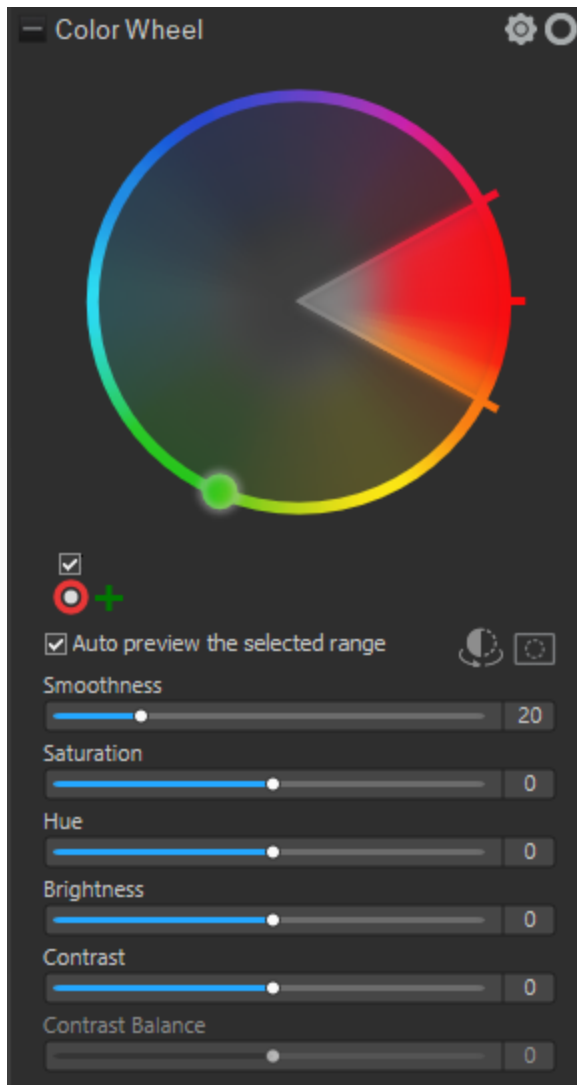
Color LUTs created in the Editor using adjustment layers will automatically become available in the **Color LUTs** group in the **Develop Tools** pane.



Adjusting Color With the Color Wheel

In the **Develop Tools** pane and the **Editor**, use the color wheel to adjust precise colors in an image. The Color Wheel changes a precise color's saturation, hue, brightness, contrast, and contrast balance. The Color Wheel also adjusts smoothness, which acts like a feathering tool to soften a color's edges. The Color Wheel is particularly useful for common requests like making a blue sky more blue, or brightening dark water that is meant to depict a bright lake.

To adjust color using the Color Wheel:

1. Open the Color Wheel using one of the following options:
 - In the **Develop Tools** pane, navigate to the **Color Wheel** group under the **Tune** tab.
Note: To use the Color Wheel in the **Develop Tools** pane, under the **Tune** tab expand the **Color EQ** group and set the **Mode** drop-down to "High Quality".
2. Choose a color to edit by clicking and dragging the section of the color wheel around, or by using the eyedropper on the image itself. In the eyedropper, a dot, known as the hue indicator, moves around the wheel to show where the color being hovered over sits on the wheel.
3. Refine the selection. Increase or decrease the color selection size by clicking and dragging the double arrows at the edge of the selection on the wheel. Also refine the color saturation of the selection by clicking and dragging the selection away from the edges of the wheel, or away from the center of the wheel. The less saturated colors are in the center of the wheel and the more saturated colors are towards the edge of the wheel.



 To invert the selected colors, click the **Invert the selected colors on the wheel** icon. 

 To view the selected colors, click and hold the **Preview selection mask** icon. 

4. Adjust the edge of the selection by using the **Smoothness** slider. This tool softens or sharpens the edges of selections, working similarly to feathering, to soften or sharpen the cut off point.
5. Use the sliders to adjust the selected colors in the image. The individual sliders will have the following effects:
 - **Saturation:** Slide left to decrease saturation and slide right to increase saturation.
 - **Hue:** Slide left or right to adjust hue.

- **Brightness:** Slide left to decrease brightness and slide right to increase brightness.
- **Contrast:** Slide left to decrease contrast and slide right to increase contrast.
- **Contrast Balance:** After adjusting the contrast, adjust the contrast balance, which changes whether the contrast is applied to the lighter or darker colors in the image.



To see the original image without the edit, click the **Show Previous** button in the **Editor**, or click the **Show Original** button below the image in **ACDSee RAW**.



To reset any changes, right-click on either the relevant slider, or the wheel to reset all changes.

6. Click **Done** to save any changes and exit the Color Wheel.

To adjust multiple colors using the Color Wheel:

After making the initial color wheel edits, make changes to other colors using additional color wheels.

To do this, click the green plus **+** symbol next to the Color Wheel icon.

To delete edits made using the Color Wheel:

Delete color wheel edits until saving the image as a new file in the **Develop Tools** pane, or until clicking the **Apply** or **Done** buttons in the **Editor**.

To do this, click the red **X** to the lower right of the Color Wheel.

See also:

- [Adjusting Tone Curves](#)
- [Adjusting Tones With the Tone Wheels](#)
- [Adjusting Color with Color EQ](#)

Applying Effects

A number of effects can be applied to images in the **Develop Tools** pane.



Settings can be set as a preset for future use.

Photo Effect

Use the **Photo Effect** drop-down menu to apply a variety of filters to images.

To apply a Photo Effect:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **Effects** group, enable the **Photo Effect** checkbox.
3. Select a filter from the **Photo Effect** drop-down menu.



Use the [Opacity slider and Blend Modes](#) drop-down menu to adjust how the selected effect blends with the image. To access these tools, click the arrow button to the right of the **Photo Effect** drop-down menu.

Color Overlay

Use the **Color Overlay** drop-down menu to apply a color over an image.

To apply a color to an image:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **Effects** group, enable the **Color Overlay** checkbox.
3. Select a color from the **Color Overlay** drop-down menu.



Use the [Opacity slider and Blend Modes](#) drop-down menu to adjust how the selected effect blends with the image. To access these tools, click the arrow button to the right of the **Photo Effect** drop-down menu.

Gradient Map

Use the **Gradient Map** effect to add colors to the dark and light parts of an images. The **Gradient Map** effect maps shadows to one color, and highlights to another based on the lightness value of each pixel. Give the darker parts of an image a completely different color from the lighter parts.

To apply a Gradient Map effect:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **Effects** group, enable the **Gradient Map** checkbox.
3. In the **Shadows** drop-down menu, specify a color to be added to the dark parts of the image. In the **Highlights** drop-down menu, specify a color to be added to the light parts of the image.



Use the [Opacity slider and Blend Modes](#) drop-down menu to adjust how the selected effect blends with the image. To access these tools, click the arrow button to the right of the **Photo Effect** drop-down menu.

Add Grain

Use the **Grain** effect to make images look like they were printed in a newspaper. It is also useful to use the **Grain** tool in combination with other effects to achieve a general vintage look.

To apply a Grain effect:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **Effects** group, adjust the **Add Grain** settings as described below.

Grain Options

Grain Amount	Specifies the strength of the grain.
Grain Smoothing	Specifies the smoothness of the grain.
Grain Size	Specifies the size of the grain.

Cross Process Effect and Lomo

A popular film photography technique in the '80s and '90s involved processing film in a solution that was intended for another type of film. This cross processing gave photos a boost in saturation and contrast, and shifted colors towards greenish-yellow highlights and bluish shadows. Simulate these retro-effects with the **Cross Process** tool. Using **Cross Process** along with **Post-Crop Vignette** creates an effect called **Lomo**.

To apply the Cross Process effect:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **Effects** group, drag the **Cross Process** slider to the right to increase the retro-effect.

 Right-click a slider to reset to the default value.


Using the Develop Brush

The **Develop Brush** makes a variety of edits to specific areas of a photo. Adjust the **Exposure**, **Saturation**, **Vibrance**, **Temperature**, **Tint**, **Fill Light**, **Contrast**, **Clarity**, and **Color Strength**, as well as **Color EQ**, **Tone Curves**, and **Sharpness** in a photo by brushing on the effects. For example, instead of adding fill light to an entire photo, only add it to certain areas, such as backlit subjects. Apply up to eight brushes to separate areas in an image and assign each with unique effect settings.

Develop Brush

The **Develop Brush** button is located at the top of the **Tune** and **Detail** tabs.

To use the Develop Brush:

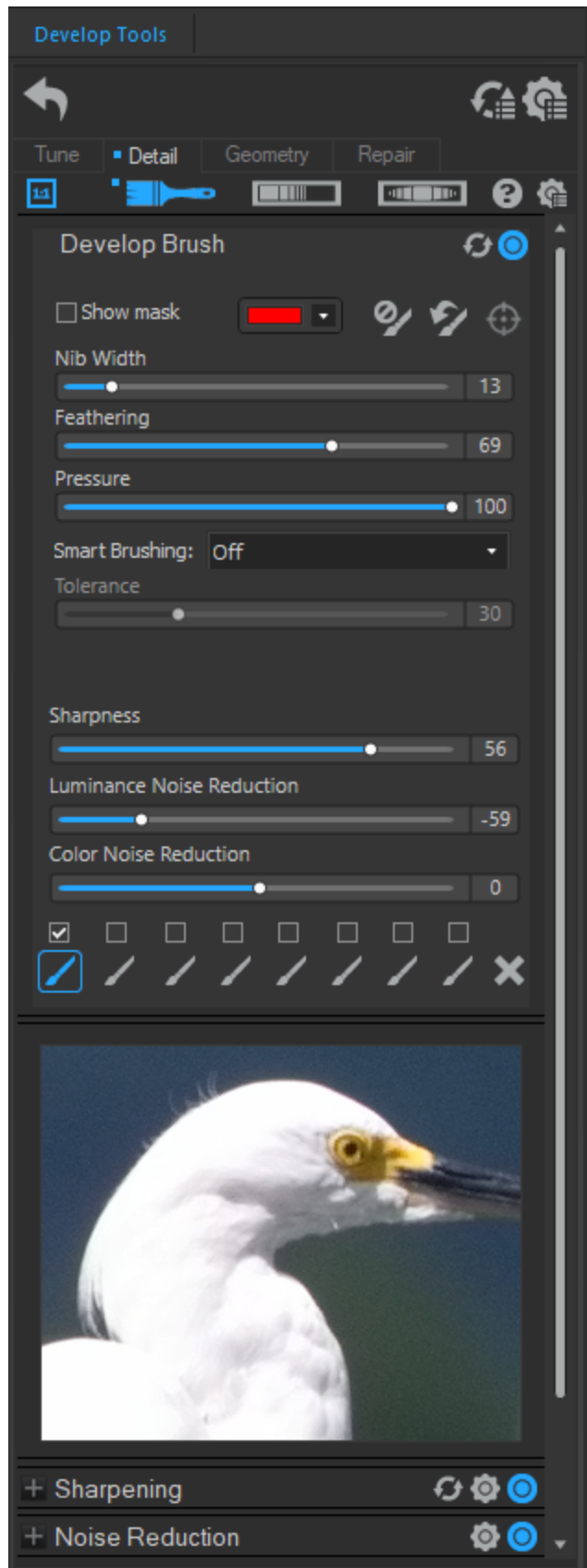
1. In the **Develop Tools** pane, in the **Tune** or **Detail** tab, click the **Brush** button  at the top of the pane to open the **Develop Brush** panel and enter Brushing mode. Or, toggle the **Develop Brush** panel open and closed with the **B** key.
2. Specify the brush settings in the panel, or while working, as described in the table below.

3. Start painting the effects onto a photo.
4. Adjust the sliders to get the desired effect.



To apply another brush, (up to eight are available), select the next brush in the sequence at the bottom of the panel. The box above the brush will become enabled. The checkmarks represent the activated brushes, while the selected brush icon (highlighted in blue) represents the currently enabled brush. Return to any of the brushes at any given time by selecting its respective brush icon. A blue brush represents a brush that has been used. Deactivate or re-activate any brush by disabling or re-enabling its respective checkbox.

5. Click **Apply** or **Done**.






Hovering over a brush button will reveal that specific brush's strokes on the image. The brush strokes will appear in the color selected in the drop-down next to the **Show mask** checkbox. (By default, the color is red.) Alternatively, hold down the **S** key to see the brush strokes on the image.






If all of the sliders are at zero, brush strokes will appear in color, (as selected in the drop-down next to the **Show mask** checkbox), as no changes have been made to the image.

To delete brush strokes:

To remove brush strokes, select the brush to be deleted and click the  icon. Note that disabling a brush checkbox will only remove the brush strokes until the box is re-checked.

Develop Brush Options

Show mask		When this option is enabled, the currently selected brush's strokes will be displayed in the color selected in the adjacent color selection tool. This is helpful when brushing a complex area with a subtle effect because it can be hard to tell which spots have been covered. The color of the brushed area can be changed to stand out from the colors of the image.
Mask Preview Color		Opens the Colors dialog used to select a color for brush strokes.
Clear all brush strokes		Removes all brush strokes of the currently selected brush from the image.
Invert all brush strokes		Toggle this option to invert the brush strokes of the currently selected brush. This makes brushed areas no longer brushed and untouched areas brushed. This is useful for instances where the majority of the image is brushed and a small section untouched. Simply brush only the small area to be left unbrushed, then invert the brush strokes.
Pixel Targeting		Opens the Pixel Targeting dialog for precise color selection. (see Pixel Targeting for more information)
Nib Width		Adjusts the size of the brush. Use the mouse wheel to adjust nib width or adjust the Nib Width slider.
Feathering		Adjust the slider to control the softness of the transition between the brush strokes and the image. Use Shift + mouse wheel to adjust the amount of feathering or adjust the Feathering slider.
Pressure		Adjust the slider to control the strength of the brush.
Smart Brushing		See the Smart Brushing section below.
Tolerance		Only enabled if a Smart Brushing option is selected, the Tolerance slider increases or decreases the range of pixels affected by the Smart Brush .
Add brush stroke		Brush while holding the left mouse button down.
Erase brush stroke		Brush while holding the right mouse button down.


Using the Develop Brush on the Tune Tab

General

Exposure	Drag the slider to the right to increase exposure, or drag to the left to decrease exposure. One eV is equivalent to one stop of exposure change. Brush on exposure.
Saturation	Drag the slider to the right to increase saturation, or to the left to decrease saturation. Brush on saturation.
Vibrance	Drag the slider to the right to increase vibrance, or to the left to decrease vibrance. Increasing the vibrance does not affect skin tone in an image. This is unlike saturation, which intensifies all colors equally. Brush on vibrance.
Temperature	Drag the Temperature slider to the left (more blue) or right (more yellow) to select a specific color temperature. Brush on white balance.
Tint	Drag the Tint slider to the left (more green) or right (more magenta) to match the white balance settings that you selected when you took the photo. Brush on white balance.
Fill Light	Drag the slider to the right to add light to the darkest areas of the image. Brush on fill light.
Contrast	Drag the slider to the right to increase contrast, or to the left to decrease contrast. Brush on contrast.
Clarity	The Clarity tool adds subtle definition to the details in your image. Use the Clarity slider to enhance the contrast of midtones, without overpowering the shadows and highlights. Drag the slider to the right to increase clarity, or to the left to reverse clarity. Brush on clarity.
Color Strength	Use the Color Overlay sliders to add tint to your image without affecting brightness levels. Set the Color Strength slider, then move the Color slider to the desired color band. With Color Strength set to 0, no color will be applied. Brush on color.

Color EQ

Drag the color sliders to adjust individual colors' saturation, brightness, hue, and contrast on their respective tabs. Drag the sliders right for more intensity, or left for less intensity. Or, enter a number into the fields for precise adjustments. Select one of the following icons:

	Saturation
	Brightness
	Hue
	Contrast
	Color Selection

Select a precise color to adjust by dragging directly on the image. In order to toggle the **Color Selector** on, click the **Color Selector** icon. Place your cursor on the image for the double arrow icon to appear. Then click and drag up or down to adjust the colors beneath the double arrow icon. The affected color sliders automatically adjust as you move your cursor. However, no change will occur to the image until you brush on the adjustment.

Brush on Color EQ.

Tone Curves

Move the curve and/or add points by clicking to adjust the tonal range of the image. Select any of the color icons on the right side of the graph to target the adjustment to one of the following color channels:

- **RGB**
- **Red**
- **Green**
- **Blue**

Brush on a tone curves adjustment.

Delete points on a curve by right-clicking and choosing **Delete point**. Or, delete a point by dragging it off of the graph.

Using the Develop Brush on the Detail Tab

Sharpness	Move the slider to the right to brush on sharpness, or move the slider to the left to brush on blur.
Luminance Noise Reduction	Luminance noise is random variations of brightness, and particularly in gray areas, may appear spotted when there should be a solid color in the area of the image. Slide to the right to add Luminance Noise Reduction .
Color Noise Reduction	Color noise is random variations of color in the image. Slide to the right to add Color Noise Reduction .



Right-click a slider to reset to the default value.




To exit the brushing panel, toggle the **Develop Brush** button.



Smart Brushing

Use the **Smart Brush** to target brushing to specific colors, brightness values, or a combination of color and brightness. The **Smart Brush** only affects pixels similar in value to the pixel in the center of the brush stroke, and allows you to apply adjustments to those pixels.

To use the Smart Brush:

1. In the **Develop Tools** pane, on the **Tune** or **Detail** tab, click the **Brush** button  at the top of the pane to open the control panel and enter Brushing mode. Or, toggle the Brush panel open and closed with the **B** key.
2. Select an option from the Smart Brushing drop-down menu:

Color	Uses the color of pixels similar in value to the pixel in the center of the brush stroke to determine if they should be brushed on, depending on the Tolerance slider setting.
Brightness	Uses the brightness of pixels similar in value to the pixel in the center of the brush stroke to determine if they should be brushed on, depending on the Tolerance slider setting.
Magic	Uses a combination of the color and brightness values similar to the pixel in the center of the brush stroke to determine which pixels should be brushed on, depending on the Tolerance slider setting.

3. Use the **Tolerance** slider to increase or decrease the range of pixels affected by the **Smart Brush**.
4. Place the cursor over the color or brightness to be selected and begin painting on the effect.
5. Adjust the sliders to get the desired effect.



To apply another brush, (up to eight are available), select the next brush in the sequence at the bottom of the panel. The box above the brush will become enabled. The checkmarks represent the activated smart brushes, while the selected brush icon (highlighted in blue) represents the currently enabled smart brush. Return to any of the brushes at any given time by selecting its respective brush icon. A blue brush represents a smart brush that has been used. Deactivate or re-activate any brush by disabling or re-enabling its respective checkbox.

6. Click **Apply** or **Done**.



Hold down **Shift** prior to making a brush stroke to temporarily disable the **Smart Brush**. Use this keyboard shortcut on a stroke by stroke basis.



Erase brush strokes by right-clicking and brushing over the strokes.

To Turn off Smart Brushing:

Select "Off" from the **Smart Brushing** drop-down menu.

Using Blend Modes and Opacity

When using a tool from the **Effects** group in the **Develop Tools** pane, adjust the Blend Mode and Opacity tools to customize how the effect blends with the image.

Opacity

The **Opacity** slider changes the opacity of the effect being applied to the image and provides control over how much of the effect should be visible on the image. Access the **Opacity** slider by clicking the arrow button to the right of the effect's drop-down menu.

Blend Modes

The ability to control how the effects and the image merge means that other blend modes besides opacity can be used to affect the final image.

Blend Mode Types

Normal	Pixels in the developed image are combined with those in the original. Only opacity affects this blend.
Screen	Combines the developed image color with the inverse of the original photo color, resulting in a color that is the same or lighter.
Multiply	Combines the developed image color with the original photo to produce a darker color. Multiplying any color with black produces black; multiplying any color with white leaves the color unchanged.
Dodge	Combines the developed image color with the original pixels in the photo to produce a lighter color.
Burn	Combines the developed image color with the original pixels in the photo to produce a darker color.
Overlay	Preserves the shadows and highlights of the lower layers while applying either Multiply or Screen blend mode based on the original image area's color values.
Difference	Subtracts the developed image color from the color of the original photo. Any white in the developed image produces a true negative of the color in the image, while black produces no effect.
Darken	Applies pixels in the developed image that are darker than the original image. Pixels in the developed image that are lighter than the original image disappear (based on RGB values).
Lighten	Applies pixels in the developed image that are lighter than the original image. Pixels in the developed image that are darker than the original image disappear (based on RGB values).
Hard Light	Adds strong highlights or shadows by applying Multiply or Screen based on the original image area's color values.
Soft Light	Adds soft highlights or shadows by darkening or lightening based on the original image area's color values.
Hue	Applies the hue value of colors in the developed image to the color of the original image areas.
Saturation	Applies the saturation value of colors in the developed image to the color of the original image areas.
Color	Applies the hue and saturation of the developed image to the image. This blend does not affect the luminance of the original image.
Luminosity	Applies the lightness value of colors in the developed image to the color of the original image areas.
Dissolve	Applies some pixels from the developed image layer onto the original image, resulting in specks of color. The Opacity slider controls the amount of speckling.

Exclusion	Like Difference, but with less contrast, Exclusion subtracts the blend color from the color of the underlying photo. Any white in the blend color produces a true negative of the color in the image, while black produces no effect.
Vivid Light	Combines the blend color with the underlying pixels in the photo by increasing or decreasing contrast to produce a lighter or darker color, as determined by the blend color.
Pin Light	When the light source is lighter than 50% gray, the pixels darker than the light source are replaced. Pixels lighter than the light source remain the same. When the light source is darker than 50% gray, the pixels lighter than the light source are replaced. Pixels darker than the light source remain the same.
Linear Light	Dodges or burns by lightening or darkening the brightness value, depending on the blend color.
Hard Mix	Applies red, green, and blue channel values of the blend color to the RGB values of the image.
Subtract	Subtracts the blend color from the image (base) color in each channel.
Divide	Divides the blend color from the image (base) color.
Darker Color	From the blend color and the image (base) color, the lower channel values are chosen.
Lighter Color	From the blend color and the image (base) color, the higher channel values are chosen.


Using the Linear Gradient Tool

While the Develop tools allow for a variety of adjustments to be made to photos, sometimes it is desirable to have these effects gradually progress across a photo. Adjust the **Exposure**, **Saturation**, **Vibrance**, **Temperature**, **Tint**, **Fill Light**, **Contrast**, **Clarity**, and **Color Strength**, as well as **Color EQ**, **Tone Curves**, and **Sharpness** in one or a series of gradients over a photo. For example, instead of applying exposure adjustments across an entire photo, use the **Linear Gradient** tool to have them be stronger in some areas and weaker or absent from others.

Linear Gradient Tool

The **Linear Gradient** tool button is located at the top of **Tune** and **Detail** tabs.

To use the Linear Gradient tool:

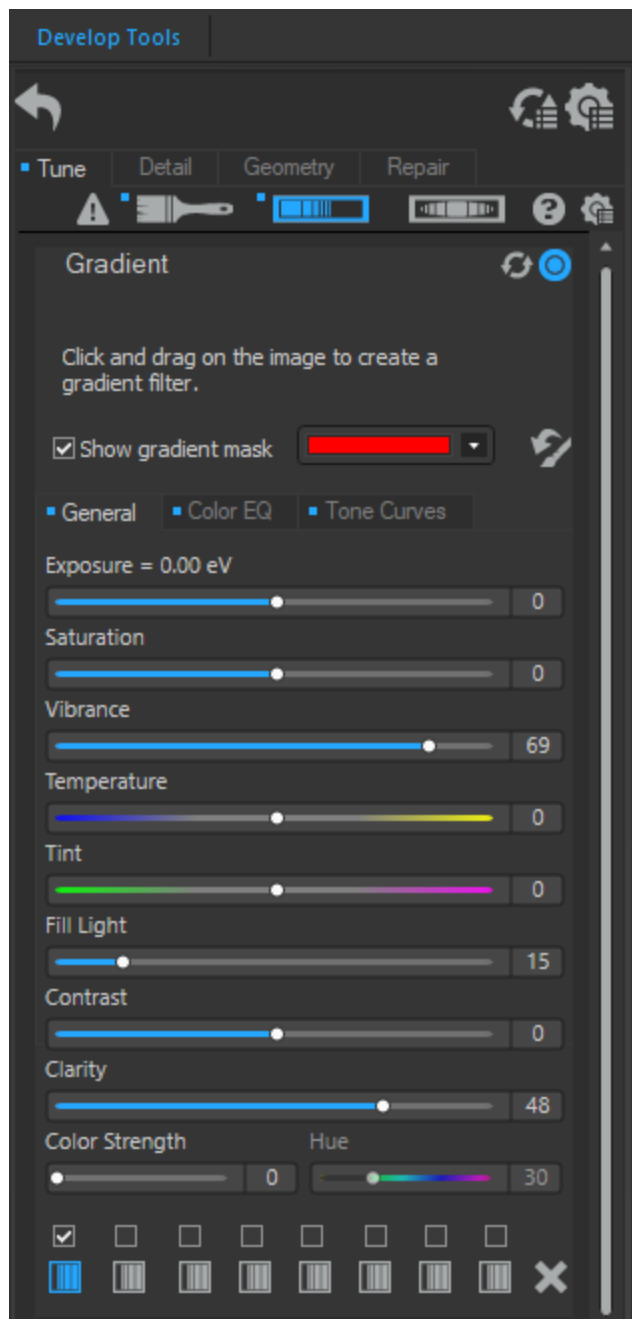
1. In the **Develop Tools** pane, in the **Tune** or **Detail** tab, click the **Gradient** button  at the top of the pane to open the **Gradient** panel and enter Gradient mode. Or, toggle the **Gradient** panel open and closed with the **G** key.
2. Specify the gradient settings in the panel as described in the table below.

3. Position the guides on the photo. Inside the guide boxes, the gradient is transitioning. On either side of the boxes, the effect being applied by the **Linear Gradient** tool is at full strength or not applied at all. To make this clearer, enable the **Show gradient mask** checkbox. Move the boxes to define where the effect will begin or end. Hold down the **Shift** key while positioning the effect to lock to the nearest 45° angle, for straightness.
4. Adjust the sliders to get the desired effect.





To apply another gradient, (up to eight are available), select the next gradient in the sequence at the bottom of the panel. The box above the gradient will become enabled. The checkmarks represent the activated gradients, while the selected gradient icon (highlighted in blue) represents the currently enabled gradient. Return to any of the gradients at any given time by selecting its respective gradient icon. A blue gradient represents a gradient that has been used. Disable or re-enable any gradient by disabling or re-enabling its respective checkbox.

5. Click **Apply** or **Done**.



Linear Gradient Tool Options

Pixel Targeting		Opens the Pixel Targeting dialog (see Pixel Targeting for more details).
Show gradient mask		When this option is enabled, the gradient mask will be displayed in the color shown. Alternatively, hold down the S key to see the mask on the image. Click the drop-down arrow to select another display color.
Invert gradient		Toggle this option to invert the gradient. By clicking the Invert button after applying a gradient beginning at the top of the image, the gradient would instead begin at the bottom, and vice versa.

Using the Linear Gradient Tool on the Detail Tab

Sharpness	Move the slider to the right to brush on sharpness, or move the slider to the left to brush on blur.
Luminance Noise Reduction	Luminance noise is random variations of brightness, and particularly in gray areas, may appear spotted when there should be a solid color in the area of the image. Slide to the right to add Luminance Noise Reduction .
Color Noise Reduction	Color noise is random variations of color in the image. Slide to the right to add Color Noise Reduction .



To exit Gradient mode, toggle the **Linear Gradient** tool button.



Making General Adjustments

In the **General** group, make global adjustments to an image.



Settings can be [set as a preset](#) for future use.

To develop an image in General:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **General** group, make adjustments as described below.



Right-click a slider to reset to the default value.

General Group Adjustment Options

Exposure	Drag the slider to the right to increase exposure, or drag to the left to decrease exposure. One eV is equivalent to one stop of exposure change.
Highlight Enhancement	Drag the slider to the right to recover detail in overexposed areas of the image.
Fill Light	Drag the slider to the right to add light to the darkest areas of the image.
Contrast	Drag the slider to the right to increase contrast, or to the left to decrease contrast.
Saturation	Drag the slider to the right to increase saturation, or to the left to decrease saturation.
Vibrance	Drag the slider to the right to increase vibrance, or to the left to decrease vibrance. Increasing the vibrance does not affect skin tone in an image. This is unlike saturation, which intensifies all colors equally.
Clarity	The Clarity tool adds subtle definition to image details. Use the Clarity slider to enhance the contrast of midtones, without overpowering the shadows and highlights. Drag the slider to the right to increase clarity, or to the left to reverse clarity.
Dehaze	The Dehaze tool restores contrast, detail, and lost color to images. This is especially useful for images that have been captured through a haze. A haze can occur when dust, smoke, or other particles obscure the clarity of the image, particularly the sky. Drag the slider to the right to reduce haze.



Use the **Adjust develop settings** button  to reset sliders to Last Saved or Last Used settings. Also, save your settings as a preset, copy, or paste them.

A Brief Technical Explanation of eV

eV stands for **Exposure Value**. When an image is captured, the exposure is determined by several factors — the f-stop (or aperture) shutter speed, and ISO. Typically, the camera automatically determines the optimal exposure based on a built-in light meter and then sets the f-stop and shutter speed accordingly. However, the light meter can be fooled by a bright sky or dark surroundings, leading it to choose an incorrect f-stop and shutter speed. This results in an underexposed or overexposed image. With the **Exposure** slider it is possible to compensate for exposure problems caused by incorrect settings when the image was captured.

Adding a Post-Crop Vignette

Use the **Post-Crop Vignette** effect to add a frame around a subject, or control the appearance of the border. Use the **Post-Crop Vignette** tool after an image is cropped to give more control over the focal point of the image.



Settings can be set as a preset for future use.

To apply a Vignette Effect:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **Post-Crop Vignette** group, make adjustments as described below.



Right-click a slider to reset to the default value.

Post-Crop Vignette Options

Strength	Drag the slider to the right to add a white vignette, or drag to the left to add a black vignette.
Radius	Adjusts the distance from the corners of the image where the pixels will be softened. The higher the radius, the further from the center the pixels will be before the softening begins.
Feathering	Feathering controls how soft or hard the edge of the vignette is. Drag the slider to the right to increase the softness of the vignette transition.
Roundness	Drag the slider to the right to increase the roundness of the vignette, or to the left to make it more rectangular.


Using the Radial Gradient Tool

While the Develop tools can make a variety of adjustments to photos, sometimes it is preferred to have these effects draw attention to a specific area of a photo. Adjust the **Exposure**, **Saturation**, **Vibrance**, **Temperature**, **Tint**, **Fill Light**, **Contrast**, **Clarity**, and **Color Strength**, as well as **Color EQ**, **Tone Curves**, and **Sharpness** in one or a series of gradients over the photo. For example, instead of applying sharpening across an entire photo, only sharpen the center subject.

Radial Gradient Tool

The **Radial Gradient** tool button is located at the top of **Tune** and **Detail** tabs.

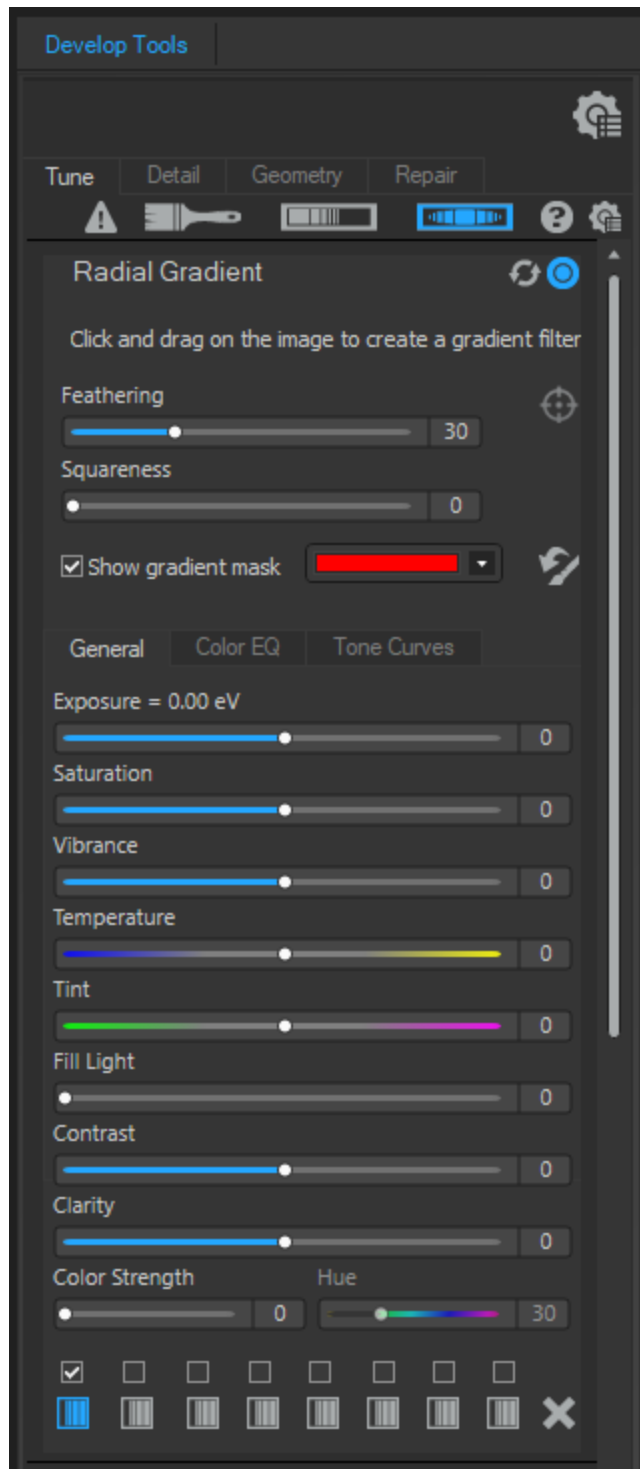
To use the Radial Gradient tool:

1. In the **Develop Tools** pane, in the **Tune** or **Detail** tab, click the **Radial Gradient** button  at the top of the pane to open the **Radial Gradient** panel and enter Radial Gradient mode. Or, toggle the **Radial Gradient** panel open and closed with the **R** key.
2. Specify the **Radial Gradient** panel settings as described in the table below.
3. Position the guides on a photo. Inside the circle, the image is unaltered. At the perimeter of the circle, the effect being applied by the **Radial Gradient** tool is transitioning between not applied at all (inside), and full strength (outside). To make this clearer, enable the **Show gradient mask** checkbox. Move the guides to define where the effect will begin or end. Hold down the **Shift** key while positioning the effect to change the radial gradient to a perfect circle.
4. Adjust the sliders to get the desired effect.





To apply another gradient, (up to eight are available), select the next gradient in the sequence at the bottom of the panel. The box above the gradient will become enabled. The checkmarks represent the activated gradients, while the selected gradient icon (highlighted in blue) represents the currently enabled gradient. Return to any of the gradients at any given time by selecting its respective gradient icon. A blue gradient represents a gradient that has been used. You can deactivate or re-activate any gradient by disabling or re-enabling its respective checkbox.

5. Click **Apply** or **Done**.



Gradient Tool Options

Feathering		Adjust the slider to control how gradual the transition of the edge of the gradient will be.
Pixel Targeting		Opens the Pixel Targeting dialog (see Pixel Targeting for more details).
Squareness		Adjust the slider to the right to change the shape of the gradient tool from an oval to a square.
Show gradient mask		When this option is enabled, the gradient mask will be displayed in the color shown. Alternatively, hold down the S key to see the mask on the image.
Invert gradient		Toggle this option to invert the gradient. By pressing the Invert button, the effects will be applied to the center of the image (inside the circular guides), and outside of the radial gradient will be unaltered.

Using the Radial Gradient Tool on the Detail Tab

Sharpness	Move the slider to the right to brush on sharpness, or move the slider to the left to brush on blur.
Luminance Noise Reduction	Luminance noise is random variations of brightness, and particularly in gray areas, may appear spotted when there should be a solid color in the area of the image. Slide to the right to add Luminance Noise Reduction .
Color Noise Reduction	Color noise is random variations of color in the image. Slide to the right to add Color Noise Reduction .



Double-click the + at center of the guides to expand the radial gradient to fill the entire width of the image.



To exit Gradient mode, toggle the **Radial Gradient** tool button.



Adjusting Soft Focus

Use the **Soft Focus** tool to add a dreamy quality to an image. This softening can be applied across the entire tonal range or limited to the image's midtones. To target the **Soft Focus** effect to a specific tonal range within your image or the entire tonal range, use the **Tonal Width** slider.



Settings can be [set as a preset](#) for future use.

To add Soft Focus to an image:

1. In the **Develop Tools** pane, select the **Tune** tab.
2. In the **Soft Focus** group, make adjustments as described below.

Soft Focus Options

Strength	Adjusts the amount of soft focus. Move the slider to the right to intensify the effect.
Brightness	Drag the slider to the right to increase brightness.
Contrast	Drag the slider to the right to increase contrast.
Tonal Width	Drag the slider to the right to increase the tonal width of the soft focus and affect a wider range of shadows, midtones and highlights, or to the left to decrease the tonal width by limiting the soft focus' affect to a smaller range of shadows, midtones and highlights.



Right-click a slider to reset to the default value.

Adjusting Tones With the Tone Wheels

Colors in every image are split into highlights, midtones, and shadows. Use the tone wheels in the Develop Tools pane and the Editor to add color tints to certain tones in an image. There are two curved sliders with each tone wheel. The curved slider on the left is the saturation slider, the slider on the right is the brightness slider. The tone wheels themselves allow pinpointing hues to adjust.

To adjust color using the Tone Wheels:

1. Open the Tone Wheels using one of the following options:
 - In the **Develop Tools** pane, choose **Tone Wheels** in the **Tune** tab.
Note: to use the **Tone Wheels** in the **Develop Tools** pane, the **Color EQ** must be set to "High Quality". To ensure this, open **Color EQ** and select "High Quality" from the drop down menu.
2. Choose a hue to edit by clicking and dragging the target point within the tone wheel, or by using the relevant eyedropper on the image itself. Move the eyedropper around the image and take note of a dot, known as the hue indicator, then move around the wheel to show where the color being hovered over sits on the wheel. The three eyedroppers relate to the relevant tone wheels. Refine the saturation of the selection by clicking and dragging a selection away from the edges of the wheel, or away from the center of the wheel. The less saturated colors are in the center of the wheel and the more saturated colors are towards the edge of the wheel.



Moving the target point towards the outside of the wheel increases tone saturation. Moving it towards the inside of the wheel decreases tone saturation.

3. With a hue selected, increase saturation and/or brightness for the selected tones.
4. Click **Done** to exit the Color Wheel.



To reset any changes, right-click on either the relevant slider, or the wheel to reset all changes.

See also:

- [Adjusting Tone Curves](#)
- [Adjusting Color with the Color Wheel](#)
- [Adjusting Color with Color EQ](#)

ACDSee RAW Interface

ACDSee RAW Interface

The **ACDSee RAW** interface is comprised of 5 panes:







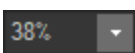


1. [Display Area](#),
2. [Histogram](#),
3. [Develop Pane](#),
4. [Tool Bar](#), and
5. [Button Bar](#).



Display Area



Located in the large central portion of the screen, the **Display Area** is used to display the current state of the opened image.

Display Area Options

Show Original		Click and hold to view the original image. Release the button to return to the edited image.
Full Screen		Click to display a full screen preview of the final image.
Previous Image		Click to return to the previous image.
Next Image		Click to advance to the next image.
Show Filmstrip		Click to show the filmstrip.
Hide Filmstrip		Click to hide the filmstrip.
Zoom Slide		Move the slide to the right to zoom into the image. Move the slide to the left to zoom out of the image.
Zoom Percentage		Enter a numerical value or select a number from the drop down list to set the zoom level.
Actual Size		Click to return the image to its actual size.
Fit Image		Click to fit the image to the Display Area.

Histogram

The **Histogram** is a graph that represents the distribution of color intensity for each color channel in an image. The **Histogram**, when enabled, resides at the top of the right-side column of tools.

To enable the **Histogram**, click the  icon in the [Tool Bar](#) or press **H**. To disable the **Histogram** and remove it from view, click the  icon in the [Tool Bar](#).



A proportion of clipped pixels is reported as a percentage value directly below the **Histogram** graph.


Develop Pane

The **Develop** pane is home to the main body of functionality for **ACDSee RAW**. Residing to the right of the **Display Area**, and directly below the **Histogram**, if enabled, the tools available in the **Develop** pane are driven from selections made in the [Tool Bar](#).

The **Develop** pane has 4 sets of tools:

- [Develop Tools](#),
- [History](#),
- [Develop Presets](#), and
- [Snapshots](#).





Develop Tools

The **Develop Tools** pane is enabled by clicking the crown  icon in the [Tool Bar](#) or pressing **Ctrl + Shift + T**.

The **Develop Tools** pane consists of 4 tabs,

- [Tune](#),
- [Detail](#),
- [Geometry](#), and
- [Repair](#).

Develop Tools Options

Undo		Removes the last action.
Redo		Reinstates the last action removed by an Undo.
Reset to Defaults		
Expand All Groups		Expand all groups under the selected tab.
Collapse All Groups		Collapse all groups under the selected tab.
Auto-Collapse Groups		If enabled, all groups in all tabs will open in a collapsed state.
Adjust develop settings		
Reset to Last Saved		Reset the fields in the selected group to match the last saved settings.
Reset to Defaults		Reset the fields in the selected group to their defaults.
Apply Last Used		Apply the last used field settings to the current image
Presets		Select to view an extensive list of preset image configurations.
Save Preset...		Select to open the Save Develop Settings Preset dialog and select the settings to save in a preset.
Manage Presets...		Select to open the Manage Presets dialog where existing pre-sets can be deleted or named.
Copy Settings...		Select to open the Copy settings dialog where develop settings can be selected and copied to the clipboard.
Paste Settings		Pastes the develop settings selected in the Copy settings dialog into their respective groups.

History

The **History** pane is enabled by clicking the  icon in the [Tool Bar](#) or pressing **F9**.

The **History** pane is used to view the sequence of changes made to an image, jump around in the editing sequence, or revert back to a previously-applied adjustment. For example, if a series of adjustments were applied to an image, such as color adjustments, followed by sharpening, and exposure tweaking, but you want to revert back several steps to the state the photo was in with just the color adjustment, use the **History** pane to travel back to that point in the edit sequence.


To return to a specific adjustment, select and double-click the desired adjustment in the **History** pane, or click the **Undo All** button at the bottom of the pane to undo all adjustments.

Develop Presets

The **Develop Presets** pane is enabled by clicking the  icon in the [Tool Bar](#) or pressing **Ctrl + Shift + P**.



To make the Develop process easier, use the **Develop Preset** pane to create, delete, manage, and categorize global presets. (See [Develop Presets](#) for more information).

Snapshots

The **Snapshots** pane is enabled by clicking the  icon in the [Tool Bar](#) or pressing **P**.

Snapshots allow adjustments to be made at any point during the development workflow. As new adjustments are made, take a snapshot to save the work up to that point. Continue to edit as desired but return to a previous version of the edits by selecting the snapshot. Unlike presets, snapshots save directly to the image and automatically re-enter the Develop workflow where snapshots can be interchanged and further edits applied.

To take a Snapshot:

1. Make adjustments to an image.
2. Click the **Snapshots** icon. 
3. At the bottom of the **Snapshots** pane, click the  icon.
4. In the **New Snapshot** dialog, enter a name for the snapshot and click **OK**. The saved snapshot will be listed in the **Snapshot** pane.

Snapshot Options

Update to Current Settings	Applies the currently saved image settings into the snapshot, erasing all previously held settings in the snapshot.
Apply Selected	Applies the snapshot's settings into the image.
Delete Selected	Deletes the snapshot from the Snapshots pane.
Rename Selected	Renames the selected snapshot.

Tool Bar

The **Tool Bar** resides at the extreme right of the **ACDSee RAW** interface.

The **Tool Bar** contains 5 icons for populating the **Develop** pane:

- [Histogram](#),
- [Tools](#),
- [History](#),
- [Presets](#), and
- [Snapshots](#)

Button Bar

The **Button Bar** resides at the bottom of the **ACDSee RAW** interface.

The **Button Bar** contains 3 buttons for file management in the **Develop** pane:

- **Open:** Saves changes made to the image and opens the image in the **Editor**.
- **Cancel:** Cancels any changes made to the image and closes **ACDSee RAW**.
- **Done:** Saves any changes and exits **ACDSee RAW**.

Using the Undo/Redo Button

Undo and redo changes when editing an image.

To undo a change:

In the **Develop Tools** pane, do one of the following:

- Click the **Undo** button found near the top of the right pane.
- Use the keyboard shortcut **Ctrl + Z**.

To redo a change:

In the **Develop Tools** pane, do one of the following:

- Click the **Redo** button found near the top of the right pane.
- Use the keyboard shortcut **Ctrl + Y**.

The **History** pane can also be used to Undo/Redo changes. (see [History](#) pane).

Copying and Pasting


In the **Develop Tools** pane, perform complex adjustments once and have them benefit an unlimited number of images by copying the precise adjustments and apply them to other images.





Settings can be [set as a preset](#) for future use.


To copy develop settings from an image and apply them to other images:

1. After adjusting an image in the **Develop Tools** pane, click the **Adjust develop settings** button.
2. Select **Copy Settings...** from the drop-down menu.
3. In the **Copy settings** dialog, select the settings to copy.
4. Click **OK**.
5. In the filmstrip, right-click an image and select **Paste Settings...** from the context menu.
6. Or, switch to another image from the filmstrip and click the **Adjust develop settings** button.
7. Select **Paste Settings...** from the drop-down menu.

 A blue square icon appears at the top of the **Tune**, **Detail**, **Geometry**, and **Repair** tabs to indicate that changes have been made.

 When copying settings from one image and pasting them to a second image with different dimensions, the settings will be automatically scaled to fit the target image.

 A blue square icon appears at the top of the **Tune**, **Detail**, **Geometry**, and **Repair** tabs to indicate that changes have been made.

 When copying settings from one image and pasting them to a second image with different dimensions, the settings will be automatically scaled to fit the target image.

RAW Processing

When adjusting images in the **Develop Tools** pane, the original file is never changed. The changes are saved in a separate file and are applied each time the image is opened to allow for non-destructive developing. It is recommended to do most of an image's adjustments in the **Develop Tools** pane.

When opening a developed image in the **Develop Tools** pane, the image is displayed with its previous edits applied. Revisit the image at any time to adjust the previous settings.

For more information on how develop settings are saved, see [How ACDSee Saves Changes to Images](#).

Developing an Image

To develop an image:

1. Select the **Develop Tools** pane.
2. In the **Tune** tab, make develop adjustments in the following groups:
 - [General](#),
 - [White Balance](#),
 - [Light EQ™](#),
 - [Color EQ](#),
 - [Tone Curves](#),
 - [Soft Focus](#),
 - [Effects](#),
 - [Color LUTs](#),
 - [Split Tone](#),
 - [Post-Crop Vignette](#),
 - or for RAW files, [Output Color Space](#).
2. In the **Detail** tab, make develop adjustments in the following groups:
 - [Sharpening](#),
 - [Noise Reduction](#),
 - [Skin Tune](#), or
 - [Chromatic Aberration](#).
3. In the **Geometry** tab, make develop adjustments in the following groups:

- [Lens Correction](#),
 - [Rotate & Straighten](#),
 - [Perspective](#),
 - [Crop](#), and
 - [Vignette Correction](#).
4. In the **Repair** tab, make develop adjustments in the following groups:
- [Repair](#), or
 - [Red Eye Reduction](#).

Saving and Canceling

After developing an image, choose from one of the many options for saving the image, depending on the next workflow step.

To save an image:

1. Click **Done**.
2. Select one of the following:
 - **Save**: Save any changes.
 - **Save as**: Save a copy of the developed image with a new name or format.
 - **Discard**: Discard any changes.
 - **Cancel**: Remain on the same image in Develop with all changes intact, without saving the image.

To discard changes to an image and return to the previous mode:

Click **Cancel**.










It is not possible to directly save changes to a RAW file. Changes to a RAW file must be saved as a different file type.










Histogram and Image Viewing Controls


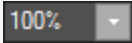
While developing an image, adjust the magnification with the zoom controls, located in the bottom right corner.



It is extremely useful to have access to both the **Exposure Warning**  and **Histogram** while adjusting exposure. Below the **Histogram**, the percentage of the pixels underexposed and overexposed is shown.

Histogram pane		<p>Displays the histogram preview for the current image. The histogram pane shows the red, green, and blue color channels of the photo. Keeping the histogram open is particularly useful when adjusting exposure, as the histogram reflects all adjustments as you make them.</p> <p>At the bottom of the histogram, icons appear to notify you if there is a loss in details in the highlights , or loss in details in the dark areas  of the image. Numbers beside these two icons represents the percent of pixels that have lost details in either the shadows or the highlights.</p>
Clipped Shadows and Highlights		<p>Displays clipped shadows and highlights. Click the icon or press E on the keyboard, to highlight over- and under-exposed areas of the image. When the shadows and highlights tool is enabled the icon is blue, and gray when disabled.</p>
Undo/Redo		<p>Use the Undo button to discard changes, slider by slider, adjustment by adjustment. Use the Redo button to return to the options that you had selected prior to clicking Undo.</p>
Reset Group		<p>Discards the selected settings within a group and reverts the group to its default settings. If changes are applied to an image using an individual group, the dedicated Reset Group button for the edited group turns blue. Click the associated Reset Group button to reset the image to its default settings.</p>
Reset All Groups		<p>Discards the selected settings for all groups and reverts all groups to their default settings. If changes are applied to an image using any individual group, the Reset All Groups button turns blue. Click the Reset All Groups button to reset the image to its default settings.</p>

Preview		Turns on or off changes you have made within the group. This button is available in each group, so you can view the effects of each group's develop settings. When the icon is green the group's changes are visible. A gray icon indicates that the changes are hidden.
Develop Settings		Resets Develop Settings for an individual group to "Last Saved", "Default", or "Last Used". Or, save the settings as a preset , copy, or paste them.
Develop Settings All		Resets Develop All Settings for the image to "Last Saved", "Default", or "Last Used". Or, save the settings as a preset , copy, or paste them.
Show Filmstrip		Toggles the Filmstrip view on or off.
Show Original		Toggles the changes on or off, to compare changes to the original.
Display Full Screen		Displays the image on a full screen. Press F to view full screen. Press any key to return to Develop.
Previous Image		Displays the previous image in the Filmstrip view.
Next Image		Displays the next image in the Filmstrip view.
Actual Size		Returns the current image to its actual size.
Navigator		The Navigator icon only appears when the image is magnified or if the Actual Size icon has been clicked. Click the Navigator icon to display a small duplicate of your image. Then drag your cursor to the section of the image you would like to see magnified. Release the cursor to settle on an area of the image.
Fit Image		Reduces the image to fit within the Develop mode area.

Show Original		Toggles the changes on or off, to compare your changes to the original.
Zoom slider		Increases the size of the image if you drag it to the right, decreases the size if you drag to the left.
Zoom drop-down list		Displays a list of zoom sizes to select.

Filmstrip

View other images by clicking the Filmstrip at the bottom of the screen.

To view the Filmstrip, click the Show Filmstrip icon . Navigate through the Filmstrip images by using the Previous Image  and Next Image  icons.

If there are no other images in the Filmstrip, click the **Done** button to return to the **Home Screen** and select another image to develop.

To populate multiple images into the Filmstrip, in the **Home Screen** select multiple images and press the **Enter** key. All selected images will be populated to the Filmstrip.

Filmstrip Right-Click Menu Items

Restore to Original	Removes any changes to the image and restores the image to it's original state.
Copy Settings...	Opens the Copy Settings dialog, used to select develop settings to copy.
Paste Settings	Pastes into the selected image the settings selected in the Copy Settings dialog.
Apply Preset	Click to produce a list of available Presets to be applied to the image.
Select All	Select all images in the Filmstrip.

Customizing the View

Right-click the body of the **Develop Tools** pane to customize how the groups expand and collapse within the pane by selecting either of the following:

- **Expand all groups:** Expands all the groups in pane.
- **Collapse all groups:** Collapses all the groups that are open.
- **Auto-collapse groups:** Useful for keeping groups in one pane without having to scroll, this default setting automatically collapses groups and keeps the working group open.

Undo and Redoing

Using the History Pane:

Use the **History** pane to view the sequence of changes made to the image. Also, use the **History** pane to jump around in the editing sequence and revert back to a previously-applied adjustment. For example, if a series of adjustments were made to the image, such as color adjustments, followed by sharpening, and exposure tweaking, to revert back several steps to the state the photo was in with just the color adjustment applied, use the **History** pane to navigate to that point in time.

To open the **History** pane, click the  icon in the [Tool Bar](#) or press **F9**.

To return to a specific adjustment, select the desired adjustment in the **History** pane and double-click it. Or, use the **Undo/Redo** buttons to step back through the edits. For a more comprehensive correction, select **Undo All** to undo all of your adjustments.

Using Color Pickers

When using the color pickers in the **Develop Tools** pane, the RGB values beside the color picker relate to the original image before any edits.

Saving Images

In the Develop Tools pane, changes are non-destructive, so that every time a previously developed image is opened, the adjustments are exactly like they were saved. This allows for a return to the image to undo or further tweak adjustments.

To permanently save any changes made to a RAW file, save the changes as a separate file, in a different file format (JPEG or TIFF, for example).

Saving Images

After developing an image, choose from one of the many options for saving an image, depending on workflow.

To save an image:

1. Click **Done**.
2. Select one of the following:

Save	Save any changes.
Save as	<p>Save a copy of the developed image with a new name or format.</p> <p>Depending on the file type, any of the following checkboxes appear in the bottom left corner of the Save as dialog box:</p> <ul style="list-style-type: none"> • Preserve Metadata: Retains metadata with the new image. • Embed Color Profile in Image: Retains color profile selected in Color Management with the new image.
Discard	Discard any changes.
Cancel	Remain on the same image in Develop with any changes intact, without saving the image.

To discard changes to the image and return to the previous mode:

Click **Cancel**.



It is not possible to directly save changes to a RAW file. Changes to a RAW file must be saved as a different file type.

Auto Save

Enable **AutoSave** in order to avoid selecting a saving option each time an image is finished being developed. When **AutoSave** is enabled, clicking **Done**, or selecting another image from the Filmstrip will prompt ACDSee to automatically save any changes. The **Save Changes** dialog will no longer be displayed.

To disable AutoSave

1. Select **Tools | Options...** from the main menu.
2. In the **Options** dialog, click **ACDSee RAW**.
3. Disable the **AutoSave all ACDSee RAW adjustments** checkbox.



AutoSave is not available for RAW images.


Develop Presets

Save Develop settings as presets to apply the same adjustments to additional images. Presets are used to quickly apply changes to an image without having to repeat the steps each time to apply the same change. For example, if images are always corrected using the **Contrast** tool with the value of 25 and the **Midtones** tool with the value of -8, save these settings as a preset and quickly apply them to change future contrast and midtone settings.

Presets ensure that settings are applied consistently to images and can be created with one or multiple develop settings. It is possible to save presets from all Develop settings across the Tune,



Detail, Geometry, and Repair tabs. Or, save presets from the settings from all of the groups within a single tab, such as all of the settings on the **Tune** tab. Or, save presets by individual group only, such as the **Color EQ** group.

To make the Develop experience easier, use the **Develops Preset** pane to create, delete, manage, and categorize global presets.

 Apply multiple presets to an image. Each time a preset is added, the settings are applied on top of the previous settings.

Using the Develop Presets Pane

To create a Preset using the Develop Presets pane:

1. Click the **Develop Presets** icon. 
2. Select a tab, and within a group make corrections to the image.
3. Click the **Create new Preset** button at the bottom of the **Develop Presets** pane. 
4. In the **Save Develop Settings Preset** dialog, select the settings to save to the preset and enter a name for the preset.
5. Click **OK**.

To rename a Preset using the Develop Presets pane:

1. In the **Develop Presets** pane, right-click on the preset to rename, and select **Rename Preset** from the context menu.
2. In the **Rename Preset** dialog, enter a new name for the preset.
3. Click **OK**.

To delete a Preset using the Develop Presets pane:

1. In the **Develop Presets** pane, right-click on the preset to delete, and select **Delete Preset** from the context menu.
2. In the **Delete Preset** dialog, click **Yes** to the prompt.

To apply a Preset to an image using the Develop Presets pane:

With an image open in **ACDSee RAW**, click any preset in the **Develop Presets** list. The image is updated with the selected preset.

Using Categories in the Develop Presets Pane


Categories in the **Develop Presets** pane are used to organize and manage presets. When first opening ACDSee Gemstone Photo Editor 12, the Develop Presets pane is comprised of a series of organized default categories containing default presets.

To create a Category:

1. Right-click on a Category header in the **Develop Presets** pane and select **New Category**.
2. In the **Add a new Category** dialog, enter a **Category name** and click **OK**.

To delete a Category:

Do one of the following:

- Right-click an existing category in the **Develop Presets** pane and select **Delete Category**.
- Click the delete icon associated with the category. 

To add a Preset to a Category:


1. In the **Develop Presets** pane, right-click a preset.
2. Select **Set Category**.
3. Make a selection from the list of categories to add the preset to the selected category.

To remove a Preset from a Category:

1. In the **Develop Presets** pane, right-click a preset.
2. Select **Delete Preset**.


Other Ways to Create and Apply Presets

To create a Preset from a Tab:

1. In the **Develop Tools** pane, select either the **Tune**, **Detail**, **Geometry**, or **Repair** tab.
2. Make edits to an image.
3. Click the **Adjust develop settings** icon  located at the top right of the tab.
4. Select **Save Preset...** from the menu.
5. Select the group settings to save into the preset.
6. In the **Save Develop Settings Presets** dialog, enter a name for the preset.
7. Click **OK**.


To create a Preset from a Group:

1. In the **Develop Tools** pane, select either the **Tune**, **Detail**, **Geometry**, or **Repair** tab.
2. Select a group and make edits to an image.

3. Click the **Adjust develop settings for this group** icon  located at the top right of the group.
4. Select **Save Preset...** from the menu.
5. In the **Save Develop Settings Presets** dialog, enter a name for the preset.
6. Click **OK**.

Applying a Preset to a Single Image

To apply a Preset to a Single Image:

1. Click the **Adjust develop settings for this group** icon  at the top of either a pane, tab, or group.
2. Make a selection from the **Presets** menu. The image is updated with the selected preset.




Presets can also be applied to an image in the Filmstrip. Select an image in the Filmstrip, right-click and select **Apply Preset**. Then select the preset to apply to the image. The image is updated with the selected preset.

Renaming Presets

Presets can be renamed at any time.

To rename a Preset:

1. Click the **Adjust develop settings** icon  located at the top right of the **Develop Tools** pane.
2. Select **Manage Presets....**
3. In the **Manage Presets** dialog, select a preset and click **Rename**.
4. Enter a new name for the preset.
5. Click **OK** to save and close the dialog.

Deleting Presets

Delete presets that are no longer needed. Deleting a preset does not affect images that already have the preset applied.

To delete a Preset:


1. Click the **Adjust develop settings** icon  located at the top right of the **Develop Tools** pane.
2. Select **Manage Presets....**

3. In the **Manage Presets** dialog, select a preset and click **Delete**.
4. Click **OK** to save and close the dialog.

Importing and Exporting Presets

Share presets with other users by exporting them. Presets made by other users or residing on an old computer can also be imported.

To export Presets:


1. In the **Develop Presets** pane, navigate to the bottom of the **Develop Presets** pane and click the **Export Presets** icon. 
2. In the **Export Presets** dialog, select which Develop presets to export by clicking the plus + signs to expand the tree, and enable/disable the checkboxes to select which presets to export. Global, tab, or group presets can be exported.



Choose to export only specific presets under the branches by checking/unchecking their checkboxes. A gray checkbox indicates that some presets under the branches are selected, but not all.

3. To export ACDSee RAW presets, enable the **Include ACDSee presets** checkbox.
4. Click **Export**.
5. In the **Save As** dialog, browse to specify the destination for the exported presets.
6. Enter a name in the field, and click **Save**.

To Import Presets:

1. In the **Develop Presets** pane, navigate to the bottom of the **Develop Presets** pane and click the **Import Presets** icon. 
2. In the **Open** dialog, navigate to the location of the presets.
3. Select the presets for import and click **Open**.
4. In the **Import Presets** dialog, click the plus + signs to expand the tree, and enable/disable the checkboxes to select which presets to import. Global, tab, or group presets can be imported.



Choose to import only specific presets under the branches by enabling/disabling their checkboxes. A gray checkbox indicates that some presets under the branches are selected, but not all.

5. Click **Import**. Find the imported presets in the presets menus in their respective groups.

About ACDSee RAW

ACDSee RAW allows non-destructive processing of RAW, JPEG and other file types. Non-destructive means the changes you make do not permanently change the original image, so they are reversible.

In ACDSee RAW you can:

- Tune the image using [exposure](#), [white balance](#), [lighting](#), [color](#), [tone curves](#), [soft focus](#), [effects](#), [split tone](#), and [post-crop vignette](#) tools, or set the [output color space of a RAW image](#).
- Adjust details in your image using the [sharpening](#), [noise reduction](#), [skin tune](#), and [chromatic aberration](#) tools.
- Fix geometry in your image using the [lens distortion](#), [rotate and straighten](#), [perspective](#), [vignette correction](#), and [cropping](#) tools.
- Repair your image with the [Red Eye Reduction](#) tool or [remove flaws](#).

Opening files in ACDSee RAW

ACDSee RAW opens automatically whenever a RAW photo file is selected to be opened. A RAW file is like a negative. RAW files contain all of the data collected by the digital camera's sensor when capturing a photo.

The following options open Raw images in ACDSee RAW:

- Select **File | Open...** from the main menu and select a RAW file to open.
- In the **Home Screen** select a previously opened RAW file in the **Previous Projects** pane

To open images that are in a different format in ACDSee RAW:

Select **File | Open in ACDSee Raw...** from the main menu.



ACDSee will automatically apply geometry corrections to DNG files that include geometric distortion correction tags. DNG files created from the Adobe DNG Converter© will often generate geometric distortion tags for micro 4/3rds cameras.

To permanently save changes made to a RAW file, save the changes as a separate file, in a different file format (JPEG, PNG, or TIFF, for example).

Chapter 3: Editing

Creating an HDR Image

High-dynamic-range imaging (HDR) is a technique used in digital image processing to combine a series of images with different exposures to produce one image with an optimal overall range. Use the **HDR** tool to create a new image with a greater dynamic range of luminosity. Ideally, the images you use with the HDR tool will include a well-balanced range of highlights and shadows. See below for additional tips on achieving the best results.

Shooting Photos for HDR

For a higher chance of generating quality results, follow these instructions when shooting images for HDR:

- Use the shutter speed to vary exposures. That said, varying the aperture setting changes the depth of field, leading to poor quality results. Similarly, varying the ISO or aperture may generate noise or vignettes. Set your ISO to its lowest value.
- Generally, do not use your camera's auto-bracket feature as the exposure changes are not significant enough.
- Ensure the scene does not include features in motion. HDR is meant for photos of the same scene with exposure variances.
- Keep the camera stable using a tripod.
- Use your camera's timer to avoid camera shake.
- Keep the focus and zoom constant between images.
- Shoot in RAW rather than JPEG. This will provide for greater range and flexibility.
- Ensure there is detail in the deep shadows of your darkest exposure.
- Ensure no area of the image is blown out in your lightest exposure.
- Ensure the set of images is "balanced" (i.e. the middle image of the set has well-exposed midtones).
- Using a quantity of photos higher than suggested in the table below can result in unwanted artifacts due to improper alignment and ghosting.

Camera Bracket Settings	Optimum Number of Exposures for Creating HDR Images
-1.0 to +1.0	3
-2.0 to +2.0	5
-3.0 to +3.0	7

To create an HDR image:

1. Select **File | New HDR Merge...** from the main menu.

 Selected images must have the same dimensions.

2. In the **HDR** open dialog, select images to merge and click **Open**.
3. In the **HDR** dialog, select a preset from the **Presets** drop-down menu and click the **OK** button.

 Running **HDR** on large images will require a significant amount of memory.

 There is a 50 image limit when performing **HDR**.

Merging with Focus Stacking

Focus Stacking merges a series of images with different focal distances. By combining multiple images with different areas in focus, a new image is created with a greater depth of field.

To use Focus Stacking:

1. Select **File | New Focus Merge...** from the main menu.

 Selected images must have the same dimensions.

2. In the **Focus Stack** dialog, select images to merge.
3. Click the **Open** button.

 Running the **Focus Stack** command on large images will require a significant amount of memory.

 There is a 50 image limit when **Focus Stacking**.

 **Focus Stacking** cannot be performed on a single image.

Loading Files into a Stack

To load multiple files into one image and have each image in the stack be assigned to a separate layer, use the **Stacking** command.

To load files into a Stack:

1. Select **File | New Stack...** from the main menu.
2. In the **New Stack** dialog, select images to include in the stack.
3. Click the **Open** button.

 Running the **Stack** command on large images will require a significant amount of memory.

 There is a 50 image limit when Stacking.

Resize, Rotate, or Flip

Resize

Resizing can be applied to both the Document and the Canvas.

To resize the Document:

1. Select **Document | Resize Document...** from the main menu.
2. In the **Resize Document** dialog, navigate to the **New Dimensions** field set and adjust the options as described below.
3. Click the **OK** button.



Resize Document is a non-destructive scaling operation.

To resize the Canvas:

1. Select **Document | Resize Canvas...** from the main menu.
2. In the **Resize Canvas** dialog, navigate to the **New Dimensions** field set and adjust the options as described below.
3. Click the **OK** button.

Resizing Options

Width	Enter a numerical value for the image width.
Units	Select a unit of measurement. Options include "pixels", "inches", "cm", and "percent".
Anchor	For resizing the canvas only, select an anchor point for the resizing.
Height	Enter a numerical value for the image height.
Aspect Ratio	Make a selection from the drop down to either keep the image's original aspect ratio, to not preserve the aspect ratio, select a pre-defined ratio, or create a custom ratio.

Rotate

The document can be rotated to predefined angles or rotated to custom settings.

To rotate the document:

1. Select **Document | Rotate** from the main menu.
2. Make selection from options described below.

Rotating Options

180°	Rotates the image 180 degrees.
90°Clockwise	Rotates the image 90 degrees in a clockwise direction.
90°Counter Clockwise	Rotates the image 90 degrees in a counter clockwise direction.
Arbitrary...	Opens the Rotate Canvas dialog where a custom angle for rotation can be entered and a rotation direction set.

Flip

Image's canvas can be flipped along the horizontal or vertical axis.

To Flip a canvas:

Depending on the type of flip desired, do one of the following,

- Select **Document | Flip Canvas Horizontal** from the main menu, or
- Select **Document | Flip Canvas Vertical** from the main menu.

Chapter 4: Editing - Using Layers

Layer Editor

The **Layers** pane is used to add effects and shapes to photos in layers, perform photo manipulations, create composite images, and much more. Layers allow work to be performed on a single element of an image without disturbing other layers. Layer attributes such as transparency and opacity are adjustable, and when layers are stacked, the desired level of visibility can be achieved in a non-destructive arrangement.

Layers can also be hidden or employed in conjunction with image effects and adjustment tools, drawing tools, text, and more. Effects and adjustments are applied to the layer selected in the **Layers** pane. For better visibility of difficult elements, create a blank image and layer the transparencies or elements of a similar color range on top of the blank.



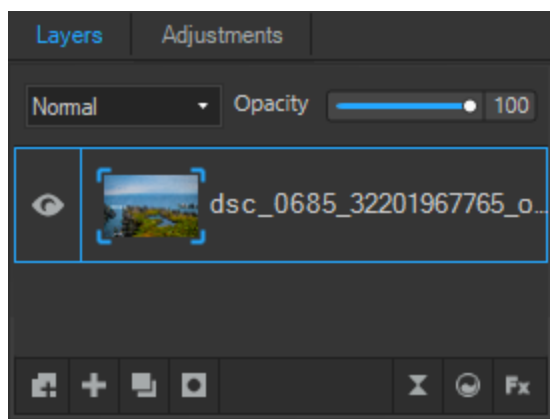
Geometry adjustments are applied only to the selected layer.



Watermarks can be added to new layers.

To open the Layers pane:

1. With an image open, select **Window | Layers** from the main menu.
2. In the **Layers** pane, the opened image is represented as "Layer 1".
3. Either edit the original photo, or add additional layers containing other photos or drawing elements, such as shapes.
4. Optionally, create a [mask](#) to hide or reveal portions of the layers below.



Adding Layers

To add a layer:

1. Do one of the following:

- Click the **Add blank layer** button at the bottom of the **Layers** pane.
- Select **Layer | New Blank Layer** from the main menu.



2. Edit a layer by first selecting the layer in the **Layers** pane.

To add another image to the Layers pane:

Do one of the following:

- Click the **Add a File as a Layer** button at the bottom of the **Layers** pane.
- Select **Layer | Add a File as a Layer...** from the main menu.
- Select an image thumbnail from the Filmstrip and drag it into the **Layers** pane.
- Right-click an image thumbnail from the Filmstrip and select **Add Image as a New Layer** from the context menu.



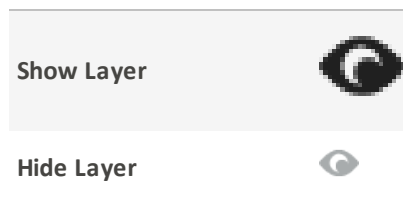
Layer Visibility

To set layer visibility:

To show or hide all layers, do one of the following:

- Select **Layer | Show All Layers** from the main menu, or press **Shift + J**.
- Select **Layer | Hide All Layers** from the main menu, or press **Ctrl + Shift + Y**.

To show or hide individual layers, select the layer and click the **Show/Hide Layer** button.



Layer Manipulation

To delete a layer:

Select the layer and click the **Delete Layer** button.



To duplicate a layer:

Select the layer to be duplicated and click the **Duplicate** button.



To move a layer:

In the **Layers** pane, select the layer and drag it up or down.

To name a layer:

1. To rename a layer from "Layer 1", etc, select the layer and right-click.
2. Select **Rename Layer** from the context menu.
3. In the **Rename Layer** dialog, enter a layer name.
4. Click **OK**.

Layer Merge and Flatten

To merge a layer:

Merge a layer with the layer below.

1. Select the top layer, or a layer above another.

2. Click the **Merge Layer Down** button.



To flatten an image:

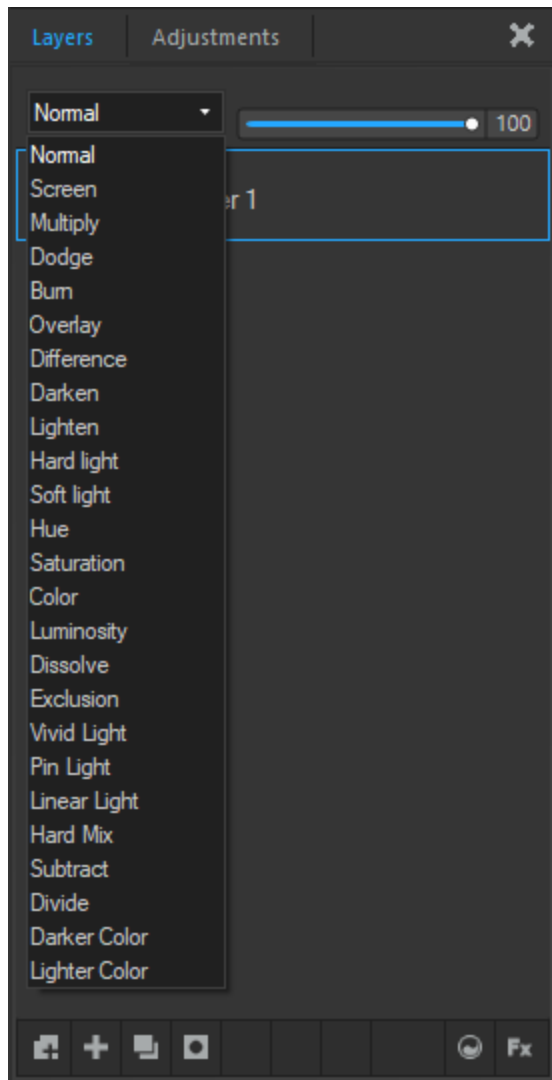
To merge all layers into a single image, do the following:

- Select **Layer | Flatten Image** from the main menu.

Layer Blend Mode and Opacity

To change a layer's Blend Mode and Opacity:

Blend modes determine how the layers blend together. Blending is assigned to the layer it is applied to, regardless of the layer order being changed. Opacity determines the layer's transparency.



1. Select a layer.
2. Select a **Blend Mode** from the drop-down menu at the top of the **Layers** pane.
3. Move the **Opacity** slider at the top of the **Layers** pane.

Saving Layered Images

When saving a layered image, the **Save Image As** dialog opens with the file format set to *.gsd* by default. By saving in the *.gsd* file format, layers will remain accessible if re-opening the image in Gemstone in the future.



The *.gsd* file format will not be displayed in the **Save Image As** dialog by default if the image has been flattened or all layers merged.

The *.gsd* file format saves in 8 bits per channel by default for all bit depth images. Save in 16 bits per channel for images that already have 16 bits per channel data, such as RAW files, 64-bit TIFF files, etc. This will allow for a higher quality image, but will also create a larger file size. To save in 16 bit, enable the **16 bit per channel data** checkbox in the **Save Image As** dialog box. When using the 16-bit option to save images that have lower than 16 bits per channel data, the image will be saved as 8 bits per channel.

To add a layer mask, see [Layer Masks](#).

Using Adjustment Layers

You can use the Adjustment Layers section of the Layers pane to non-destructively adjust and add effects to your images. Adjustment layers stack in the Layers pane, allowing you to return to individual layers at any time and continue making adjustments to each effect. Each adjustment layer includes a mask by default.


By saving an image with adjustment layers as a *.acdc* file, you can re-open it and still adjust each effect individually at any time.



For best results, make all global adjustments prior to adding adjustment layers.

To Add an Adjustment Layer:

With an image open, do one of the following:

- Select an adjustment layer icon from the bottom of the Layers pane.
- Select an adjustment layer from the Add adjustment layer menu at the bottom of the Layers pane. 

The adjustment layer will be added above your image in the Layers pane. The settings for your adjustment layer will appear at the bottom of the panel. Configure the settings as described below.

To Apply an Adjustment Layer to a Particular Image:

If you have multiple images in the Layers pane, you can restrict adjustment layers to a specific image.

To apply an adjustment layer only to the closest image layer below it, enable the **Clipping** button.



Clipping off



Clipping on

You can apply multiple adjustment layers to one particular image layer by enabling all of their Clipping buttons.

Adjustment Layers and Settings

Exposure Adjustment Layer Options

Exposure Drag the slider to the right to increase exposure, or drag to the left to decrease exposure.

Contrast Drag the slider to the right to increase contrast, or drag to the left to decrease contrast.

Levels Adjustment Layer Options

- Use the buttons on the right of the Levels panel to select Luminance, Red, Green, or Blue as the channel to adjust.
- Use the arrows at the bottom of the panel to adjust the shadows, midtones, and highlights. Move the shadows arrow to define the blackest area of the image. Move the midtones arrow to define the midtone. Move the highlights arrow to define the whitest area of the image.

Curves Adjustment Layer Options

Use the buttons on the right of the Curves panel to select the RGB, Red, Green, or Blue color channel to adjust.

See [Adjusting Tone Curves](#).

Light EQ™ Adjustment Layer Options

Brighten Drag the slider to increase the brightness of dark areas in your image.

Darken Drag the slider to decrease the brightness of light areas in your image.

White Balance Adjustment Layer Options

Temperature Adjusts the warmth of the correction, from blue to yellow.

Tint Adjusts the tint of the correction, from magenta to green.

Vibrance Adjustment Layer Options

Vibrance	Drag the slider to the right to increase vibrance, or to the left to decrease vibrance. Increasing vibrance does not affect skin tone in an image. This is unlike saturation, which intensifies all colors equally.
Saturation	Drag the slider to the right to increase saturation, or to the left to decrease saturation.
Hue	Adjusts the hue of the image. Drag the slider to the right to increase or drag to the left to decrease hue.
Lightness	Adjusts the image brightness. Drag the slider to the right to increase or drag to the left to decrease the image's brightness.

Color EQ Adjustment Layer Options

Choose the Saturation, Hue, or Brightness tab and adjust colors individually by dragging the sliders.

Vibrance	Drag the slider to adjust the vibrance of the image without affecting skin tones.
Saturation	Adjusts from saturation to grayscale.
Hue	Changes the color's hue.
Brightness	Adjusts the light or dark tones in the image.

RGB Adjustment Layer Options

Adjust the Red, Green, or Blue sliders to balance or heighten the RGB channels in the image.

Split Tone Adjustment Layer Options

Highlights Hue	Drag the slider to the right to select a highlight color.
Highlights Saturation	Drag the slider to the right to increase saturation of the specified color in the highlights of the image.
Shadows Hue	Drag the slider to the right to select a shadow color.
Shadows Saturation	Drag the slider to the right to increase saturation of the specified color in the shadows of the image.
Balance	Drag the slider to the right to emphasize the highlight color; drag the slider to the left to emphasize the shadow color. For example if the slider is set to the maximum at 50, then full emphasis is applied to the highlight color; if the slider is set to the minimum -50, then full emphasis is applied to the shadow color.

Add Color Adjustment Layer Options

- Select a color to add to your image.
- Use the Density slider to specify the strength of the added color.

Black & White Adjustment Layer Options

Adjust the Red, Green, or Blue sliders to add color back into the black and white image.

Brightness

Adjusts the brightness of the colors in the image.

Negative Adjustment Layer

The Negative adjustment layer creates a negative out of your image. There are no settings for this adjustment layer.

Photo Effect Adjustment Layer Options

Select a photo effect from the drop-down menu to change the look and feel of your image.



You can use your mouse wheel to quickly scroll through the photo effects.



Skin Tune Adjustment Layer Options

Smoothing	Refines skin by suppressing texture detail.
Glow	Increases the brightness of skin while subtly smoothing.
Radius	Specifies the scale of the texture detail that is affected by the effect. A lower value enhances small details, while a large value enhances larger details.

Sharpen Adjustment Layer Options

Strength	Specifies the strength of the sharpening applied by increasing contrast around edges.
Radius	Controls the number of pixels to adjust around each edge. Higher values increase the number of sharpened pixels and tend to bring out coarser detail, while lower values reduce the number of sharpened pixels and tend to bring out finer detail.
Detail	Suppresses the halo, (the light border that forms around edges with extreme sharpening), by reducing its intensity. The higher the value, the stronger the reduction.
Threshold	Specifies how different the pixel lightness values within an edge must be before the pixels within the edge are sharpened. Higher values sharpen only stronger edges but minimize the appearance of noise. Lower values sharpen both strong and weaker edges, but can increase the appearance of noise. We recommend you set the threshold to enhance edges while keeping background noise to a minimum.

Blur Adjustment Layer Options

Select the Gaussian or Directional button to select the type of blur.  

Gaussian	Produces an even, smooth blur.
Strength	Specifies the strength of the blur. Move the slider to the right to intensify the effect.
Directional	Produces a blurring effect that gives the illusion of movement.
Strength	Specifies the strength of the blur. Move the slider to the right to intensify the effect.
Angle	Specifies the direction of the blur effect.

Noise Reduction Adjustment Layer Options

Luminance	Removes the random variations of brightness in the noise.
Color	Reduces the random variations of color in the noise.

Clarity Adjustment Layer Options

Clarity	Drag the slider to the right to enhance texture in the image. Drag the slider to the left to smooth out texture in the image.
Orton	Drag the slider to enhance local contrast while subtly smoothing texture.
Soft Light	Drag the slider to increase brightness while subtly smoothing texture.
Tonal Width	Drag the slider to control the amount shadow and highlights are affected by the Clarity, Orton, and Soft Light sliders. Choose a value of 0 to restrict the adjustments to midtones. Choose a value of 100 to apply the adjustments equally in all tones.
Radius	Drag the slider to control the scale of the texture detail being affected. Choose a value of 0 to enhance small details, or a value of 100 to enhance larger details.
Enhanced edge processing	Select this checkbox to reduce the appearance of halos around edges with enhanced texture, and to minimize the softening of edges when texture is smoothed.

Dehaze Adjustment Layer Options

Drag the slider to adjust the strength of the contrast, detail, and color correction.

Gradient Map Adjustment Layer Options

Shadows	Specify the color to be added to the dark parts of your image.
Highlights	Specifies the color to be added to the light parts of your image.

Vignette Adjustment Layer Options

Strength	Specifies the size and intensity of the vignette.
Distance	Specifies the size of the clear area around the focal point in the portrait. Drag the slider to the left to reduce the size of the clear area. Drag the slider to the right to increase the size of the clear area.
Shape	Specifies the shape of the frame.

Posterize Adjustment Layer Options

See [Applying a Posterize Effect](#).

Threshold Adjustment Layer Options

Use the slider to select a brightness level. All pixels brighter than that brightness will become white, and every darker pixel will become black.

Color LUTs Layer Options

Select a Color LUT from the drop-down menu. Or press the **Import LUTs** button to import a new LUT to your list.

Using Masks with Layers


Layer masks allow you to control a layer's level of transparency. While it is easy to control the opacity of a layer globally using the Opacity slider, layer masks are useful when you want to target a particular part of a layer. Use layer masks to hide or reveal portions of the layer beneath. Layer masks are effective for combining multiple images into a single image or for making localized adjustments.

The easiest way to understand layer masks may be to think of them in the following ways:

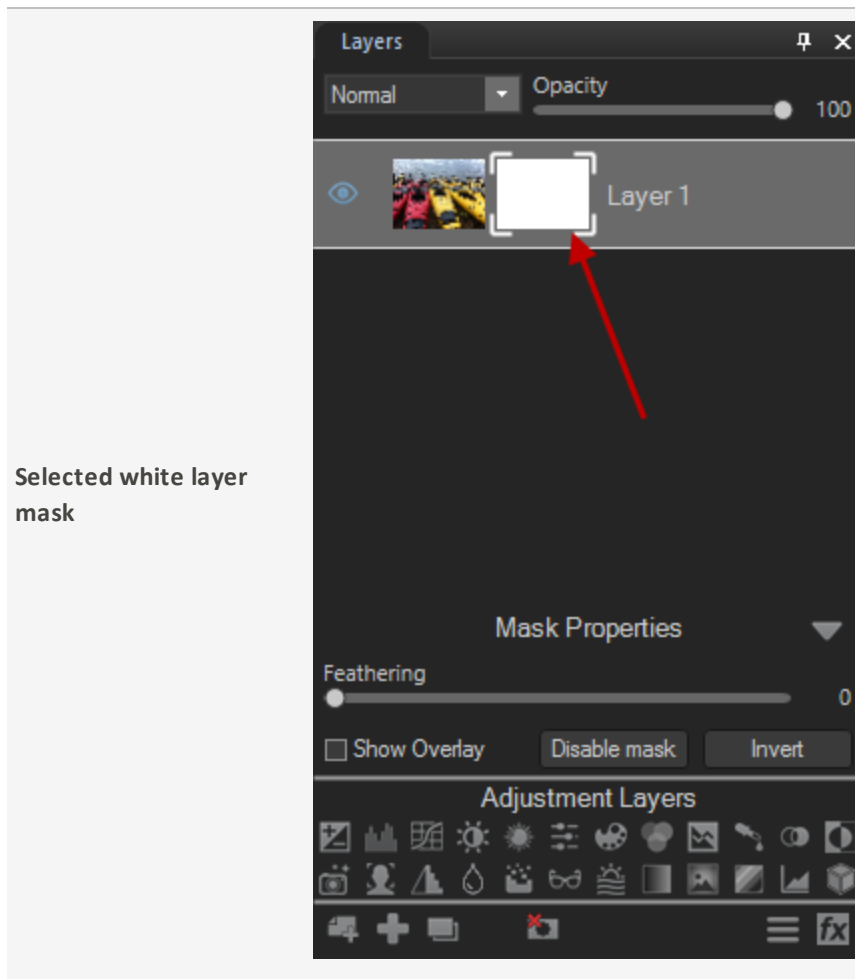
A black layer mask completely covers the layer below it. As you paint on the black layer mask with a white brush, you are brushing "holes" through the mask, allowing you to see through to the layer below. Conversely, a white layer mask is transparent and completely displays the layer below it. As you paint on the white layer mask with a black brush, you are masking the image, covering the layer below.

To Create a Layer Mask:

Do one of the following:

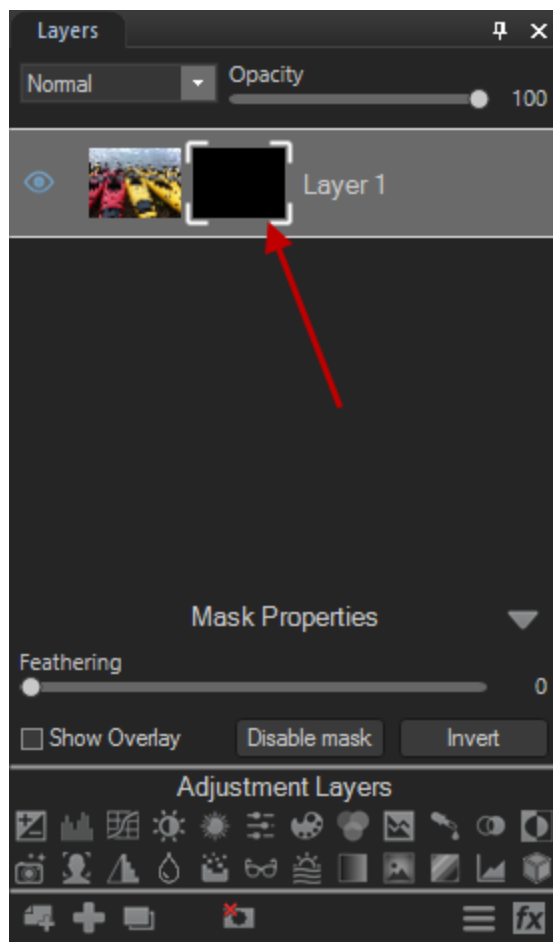
- In the Layers pane, right-click the layer you want to add a layer mask to and select **Set Mask White** or **Set Mask Black**.
- Go to **Layer | Mask | Set Mask White** or **Set Mask Black**.
- At the bottom of the Layers pane, press the **Add layer mask** button. 

The layer mask will appear as a white or black box in the Layers pane next to the thumbnail of the image on the layer you selected. To perform actions to the layer mask, you must select it in the Layers pane. You can alter the opacity of the layer mask by dragging the Opacity slider at the top of the Layers pane. You can apply any adjustment to the layer mask by selecting it and entering the tool.



Selected white layer mask

Selected black layer
mask



To Disable a Mask:

You can disable a mask without deleting it. You can even disable it, save your layers as a .acdc file and exit Photo Editor, then reopen it at a later date and enable your mask again.

1. Select the mask in the Layers pane.
2. Do one of the following:
 - Right-click on the mask and choose **Disable mask** from the context menu.
 - In the Layers pane, press the **Disable mask** button.
 - Choose **Layer | Mask | Disable Mask**.
 - Press **Ctrl + Shift + M**.

To Enable a Mask:

1. Select the mask in the Layers pane.
2. Do one of the following:
 - Right-click on the mask and choose **Enable mask** from the context menu.
 - In the Layers pane, press the **Enable mask** button.
 - Choose **Layer | Mask | Enable Mask**.
 - Press **Ctrl + Shift + M**.

Mask Properties

You can adjust the properties of each layer mask on each layer individually using the Mask Properties panel. The adjustments you make are non-destructive, meaning that you can adjust them at any time throughout the editing process.

To Access the Mask Properties Panel:

Select the mask in the Layers pane. The Mask Properties will appear at the bottom of the pane, above Adjustment Layers.

You can make the following adjustments to your layer mask:

Feathering	You can non-destructively feather your mask to avoid sharp edges or a stark contrast between the mask and the layer. Move the slider to blur the edges of the mask.
Invert	You can non-destructively invert your mask. This will turn a white mask black, and a black mask white.

Displaying a Mask Overlay:

You can make your mask easier to see by enabling the **Show Overlay** checkbox in the Mask Properties panel.

To Customize the Mask Overlay:

1. Right-click on the mask in the Layers pane and choose **Mask Overlay Options...** from the context menu.
2. In the Mask Overlay Options dialog, select one of the following overlay options:

Mask Highlighted	This option highlights your mask in the color of your choosing. Select a color from the drop-down menu. You can customize the transparency of the mask overlay by using the Opacity slider.
Mask Exposed	This option highlights the non-masked areas of your layer in the color of your choosing. Select a color from the drop-down menu. You can customize the transparency of the unmasked area by using the Opacity slider.

3. Press **OK**.



The mask overlay is only visible when the layer is selected.

To Edit a Layer Mask:

Select the layer mask in the Layers pane, then choose any adjustment, or drawing or selection tool.

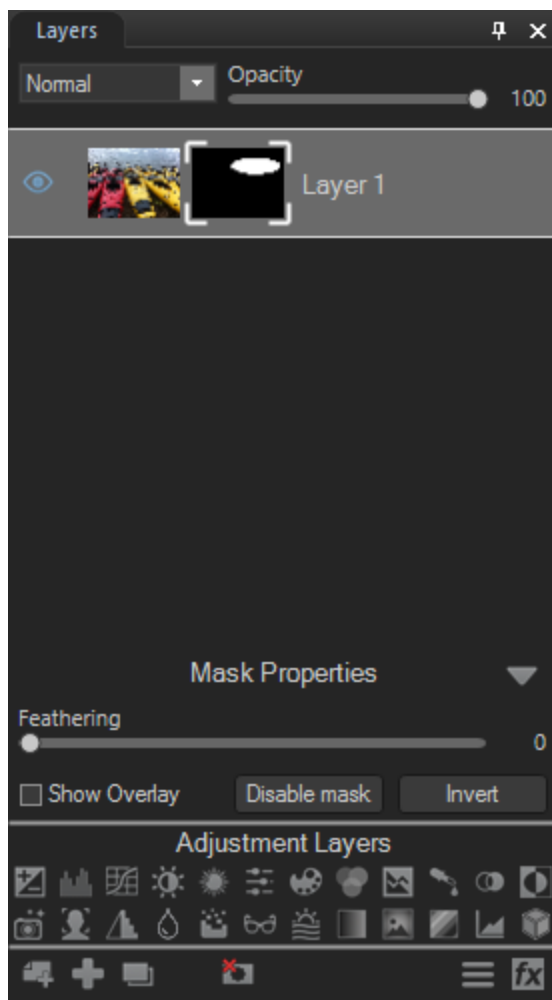
Mask Flexibility

You can create or modify selections from masks.

To Create a Layer Mask From a Selection:

You can make a layer mask from a selection.

1. Make a selection.
2. Go to **Layer | Mask | From Selection**.



Or:

1. Make a selection.
2. Press the **Add layer mask** button. Or add any adjustment layer by selecting one of the icons from the bottom of the Layers pane. A mask will automatically be made from the selection.

Or:

1. Make a selection.
2. Right-click the layer and choose **Mask From Selection** from the context menu.

To Add a Mask to a Selection:

1. With the mask selected in the Layers pane, make a selection.
2. Right-click the mask and choose **Add Mask To Selection**.

To Subtract a Mask from a Selection:

1. With the mask selected in the Layers pane, make a selection.
2. Right-click the mask and choose **Subtract Mask From Selection**.

To Select the Area Common to the Mask and the Selection:

1. With the mask selected in the Layers pane, make a selection.
2. Right-click the mask and choose **Intersect Mask With Selection**.

To Delete Selected Mask Pixels:

See [Using Selections](#).

Creating Layer Masks From Specific Colors and Tones

You can create masks from specific targeted colors and/or tones—and even skin tones.

To Create a Layer Mask by Targeting Colors or Tones:

1. Select your layer and set a white or black mask, as described above.
2. Right-click the mask and choose **Pixel Targeting...** from the context menu.
3. On the Pixel Targeting panel, configure the settings as described below.
4. Press **OK**. The mask will be created from the targeted color(s) and/or tone(s).

The Pixel Targeting Panel

The Pixel Targeting panel consists of four sections: Targeted Tones, Targeted Colors, Skin Targeting, and the Target Mask.

Target Mask:

The Target Mask allows you to see the areas in the image that are targeted by displaying them in white. When no pixels are targeted, the Target Mask will appear completely black. Conversely, when all pixels are targeted, as is the case before any sliders have been altered on the Pixel Targeting panel, the entire Target Mask will appear completely white.

Targeted Tones:

The Targeted Tones sliders allow you to target tones of brightness for the mask. To target one or more tones, you may find it easiest to press the Min button under the Targeted Tones section. This deselects all tones, and you can then select specific tones to target for the mask by moving their sliders up between 0 and 100, depending on your desired intensity.

Targeted Colors:

The Targeted Colors sliders allow you to target specific colors for the mask. To target one or more colors, you may find it easiest to press the Min button under the Targeted Colors section. This deselects all colors, and you can then select specific colors to target for the mask by moving their sliders up between 0 and 100, depending on your desired intensity.

Skin Targeting:

The Target Skin slider allows you to specifically target skin tones for the mask. To target skin tones, move the slider to the right between 0 and 100, depending on your desired intensity.

When you move the Skin Targeting slider, all other colors (except for skin tones), are excluded. You cannot then alter the green color slider, for instance.

To exclude skin tones from your mask, move the slider to the left between 0 and -100.

Creating Layer Masks From Images

You can copy color images and paste them as grayscale (luminance) masks on other layers, including adjustment layers.

To Create a Mask from an Image:

1. Do one of the following:
 - Right-click an image in the Layers pane and choose **Copy** from the context menu.
 - With an image selected in the Layers pane, choose **Edit | Copy**.
2. Select a layer in the Layers pane and do one of the following:
 - Right-click the layer and choose **Paste as Mask** from the context menu.
 - Choose **Edit | Paste as Mask**.
 - Choose **Layer | Mask | Paste as Mask**.

Text Layers


Add text as a layer by using the **Text** tool. Adjusting the opacity of the text creates a watermark effect, which is useful for placing copyright information on photos.

Images with text layers can be saved as *.gsd* files, which allow layers to remain editable for future work on the image using Gemstone.



[Layer effects](#) can be added to text layers.

To add text as a layer:

1. Select the **Text** tool from the Toolbar. 
2. Click a text destination area in the image. A text box is added to the image and a text layer appears at the top of the **Layers** pane.
3. Click and drag the text marquee to reposition the text anywhere on the image, or drag the marquee's handles to resize the text. In the **Context** bar above the image, select or enter a specific point size in the **Size** field.



Press the **Shift** key while resizing to transform the text without maintaining aspect ratio.

4. Type a text message in the text box. Each time another text box is added, a new text layer is added to the **Layers** pane. Selecting a text layer on an image also selects the layer in the **Layers** pane.
5. In the **Context** bar, use the drop-down menus to specify the font and formatting options, such as italics or justification, and the color of the text.
6. At the top of the **Layers** pane, drag the **Opacity** slider to specify the transparency of the text.
7. At the top of the **Layers** pane, select an option from the [Blend Mode](#) drop-down list to specify the amount of blend between the text and the underlying image.



Filters cannot be entered while a text layer is selected. Trying to enter a filter will prompt a warning asking to rasterize the text layer. The text layer will no longer be editable after rasterizing.



While text layers cannot be merged with other text layers, text can be merged with regular image layers, which rasterizes the text. The text layer will no longer be editable after rasterizing.



Adjustment layers can be added above text layers and clipped directly to text layers. See [Using Adjustment Layers](#).



It is possible to add a [mask](#) to a text layer, but if the text layer is moved, only the text layer will be moved.



Select the text layer to modify a text layer, including customizing style settings.

Typical keyboard shortcuts, such as **Ctrl + C**, **Ctrl + V**, **Ctrl + A**, etc, will work in text boxes. It is also possible to use **Home**, **End**, **Ctrl + Home**, and **Ctrl + End** to move the cursor to the beginning or end of the text.

Use **Ctrl + Z** to undo recent changes when editing within a text box. However, using the **Undo/Redo** buttons will undo and redo entire text actions, such as adding a text box.

Apply **Alt** codes in text boxes using the following keyboard shortcuts to add copyright information to your images:

® (Registration symbol)	Alt + 0174
© (Copyright symbol)	Alt + 0169
™ (Trademark Symbol)	Alt + 0153

Rasterizing Text

It is good practice to select multiple text layers and rasterize once, rather than rasterizing layer by layer.

To rasterize text:

With a text layer selected, do one of the following:

- Select **Layer | Rasterize Text Layer** from the main menu.
- Press **Ctrl + Shift + T**.
- Right-click a text layer in the **Layers** pane and select **Rasterize Layer** from the context menu.

Resizing the Canvas

The **Resize Canvas** tool crops or expands the size of a canvas to fit layered content.




Changes made to the canvas are non-destructive.

Resizing by Dragging

The Resizing and Dragging method resizes the canvas in the following ways:

- By dragging the edges of a photo to expand the canvas to a desired size.
- By specifying an exact size for the canvas using pixels, inches, centimeters, or a percentage.
- By applying a ratio to constrain the canvas proportions.

To resize the canvas by dragging:

1. Select the **Crop** tool from the Toolbar. 
2. Position the cursor over the edge or corner of an image until the corner changes into a double-pointed arrow.
3. Drag the canvas' border to the desired size.
4. In the Tool Properties bar, click the **OK** button.

For more information on the **Crop** tool's options available in the Tool Properties bar, see [Crop Tool](#).



Use the Arrow keys to move the canvas around pixel by pixel.

Resizing and Positioning

The Resizing and Positioning method resizes the canvas in the following ways:

- By specifying an exact size for the canvas using pixels, inches, centimeters, or a percentage.
- By applying a ratio to constrain the canvas proportions.

To resize and position the canvas:

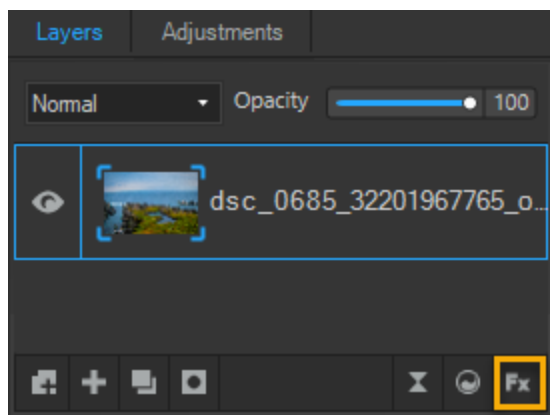
1. Select **Document | Resize Canvas...** from the main menu.
2. In the **Resize Canvas** dialog, configure the settings as described below.
3. Click **OK**.

Resize Canvas Options

Current Dimensions	Displays the current file size and dimensions of the layer.
New Dimensions	Enter the desired canvas size in the Width and Height fields, or customize the unit of measurement with the drop-down menu. As the canvas size is altered, the file size is updated adjacent to New Dimensions .
Anchor	Anchor buttons lock layers to a specific region, such as the top left corner. The canvas will expand around the anchor.
Aspect Ratio	Select a ratio from the drop-down list or define a custom ratio using the Custom option. Ratios can be deleted by selecting them in the drop-down and clicking the Delete button.
Resolution	Use the Dots Per Inch field to specify a resolution.

Layer Effects

Layer effects added to either regular images or text layers appear between layers. Layer effects cannot be added to any adjustment layer, regardless of the layer type. Saving a images with layer effects as .gsd files allows the images to remain editable for future work using Gemstone.



To add layer effects:

1. In the **Layers** pane, select the layer to add effects.
2. Do one of the following:
 - At the bottom of the **Layers** pane, click the **Layer Effects** button. **Fx**
 - In the **Layers** pane, right-click the layer and select **Layer Effects...** from the context menu.
 - Select **Layer | Layer Effects...** from the main menu.
 - Press **Ctrl + Alt + X**.
3. In the **Layer Effects** dialog, enable the checkboxes of desired effects. Configure the settings as described below.
4. Click the **Close** button. Closing the **Layer Effects** dialog does not remove or disable layer effects. By saving a layered image as an .gsd file, the image can be re-opened in Gemstone for future work.

Layer Effects Options

Inner Glow

Thickness	Specifies the thickness of the glow effect. Drag the slider to set the thickness.
Blur	Blurs the edges of the glow. Drag the slider to determine how much blur is applied.
Opacity	Specifies the opacity of the glow. Type a number from 1 to 99 or drag the slider to adjust the opacity of the glow. The higher the opacity, the more visible the glow is.
Blend Mode	Specifies how the effect blends with the layer. Select a blend mode from the drop-down menu.
Color	Specifies the color of the glow. Click the color picker to select a different color. See Using the Color Dialog Box .

Inner Shadow


Blur	Blurs the edges of the shadow. Drag the slider to determine how much blur is applied.
Distance	Specifies the size of the shadow according to the angle setting. Drag the slider to adjust how far the shadow encroaches on the layer.
Opacity	Specifies the opacity of the shadow. Type a number from 1 to 99 or drag the slider to adjust the opacity of the shadow. The higher the opacity, the more visible the shadow is.
Blend Mode	Specifies how the effect blends with the layer. Select a blend mode from the drop-down menu.
Angle	Specifies the angle of the shadow. Type a number from 1 to 360 or drag the arrow to adjust the angle.
Color	Specifies the color of the shadow. Click the color picker to select a different color. See Using the Color Dialog Box .


Bevel

Elevation	Specifies the visibility of the bevel effect. As the Elevation slider is reduced, the layer darkens, making the effect stand out more.
Radius	Specifies how spread out the bevel is.
Light Source	Specifies an imaginary light source. Click and drag the glow on the ball to reposition the imaginary light source.

Outline

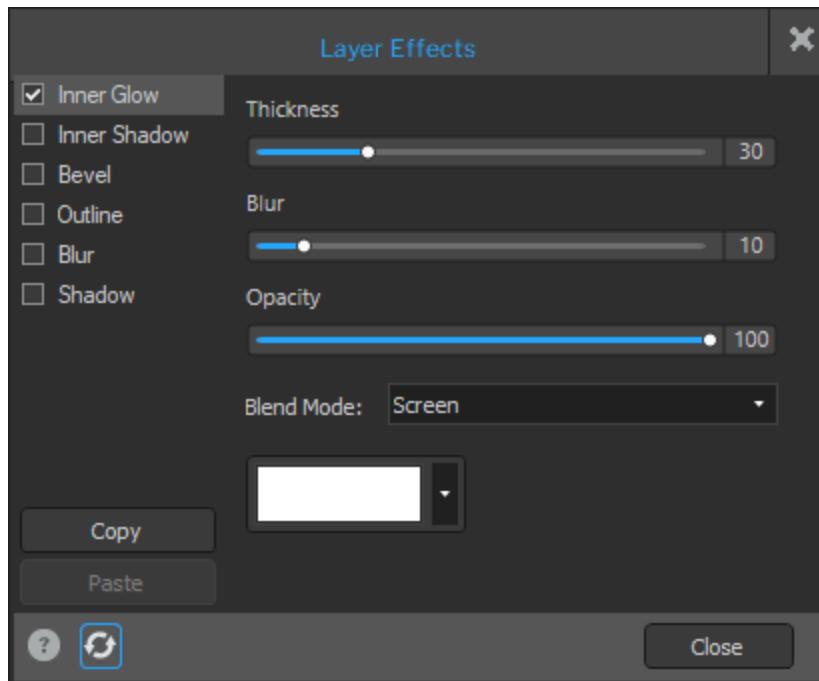
Thickness	Specifies the thickness of the outline effect. Drag the slider to set the thickness.
Blur	Blurs the edges of the outline. Drag the slider to determine how much blur is applied.
Opacity	Specifies the opacity of the outline. Type a number from 1 to 99 or drag the slider to adjust the opacity of the outline. The higher the opacity, the more visible the outline is.
Color	Specifies the color of the outline. Click the color picker to select a different color. See Using the Color Dialog Box .
Blur	
Strength	Specifies the strength of the blur. Move the slider to the right to intensify the effect.
Shadow	
Blur	Blurs the edges of the shadow. Drag the slider to determine how much blur is applied.
Distance	Specifies the size of the shadow according to the angle setting. Drag the slider to adjust how far the shadow encroaches on the layer.
Opacity	Specifies the opacity of the shadow. Type a number from 1 to 99 or drag the slider to adjust the opacity of the shadow. The higher the opacity, the more visible the shadow is.
Angle	Specifies the angle of the shadow. Type a number from 1 to 360 or drag the arrow to adjust the angle.
Color	Specifies the color of the shadow. Click the color picker to select a different color. See Using the Color Dialog Box .

 When clipping an [Adjustment Layer](#) to a text or image layer with layer effects applied to it, the layer effects will not be affected.

 To continue to edit an image's Layer Effects at a future date, when rasterizing a text layer with layer effects applied, do not rasterize its layer effects.

To copy and paste layer effects:

1. Configure the desired layer effects settings in the **Layer Effects** dialog.
2. Click the **Copy** button.
3. Select another image or text layer. (The bottom layer cannot be selected.)
4. In the **Layer Effects** dialog, click the **Paste** button.



To reset all layer effects settings:

In the **Layer Effects** dialog, click the **Reset** button. 

Frequency Separation

By separating images into high frequency and low frequency layers, Frequency Separation negates image imperfections while retaining detail and texture.

To Apply Frequency Separation:

1. With an image selected in the **Layers** pane, do one of the following:
 - Right-click the layer and select **Frequency Separation**.
 - Select **Layer | Frequency Separation** from the main menu.
 - Press **Ctrl + Shift + F**.
2. In the **Frequency Separation** pane, adjust the **Blur Radius** slider to determine how much detail is visible in the high frequency layer, and, by contrast, to determine the blur level of the low frequency layer.

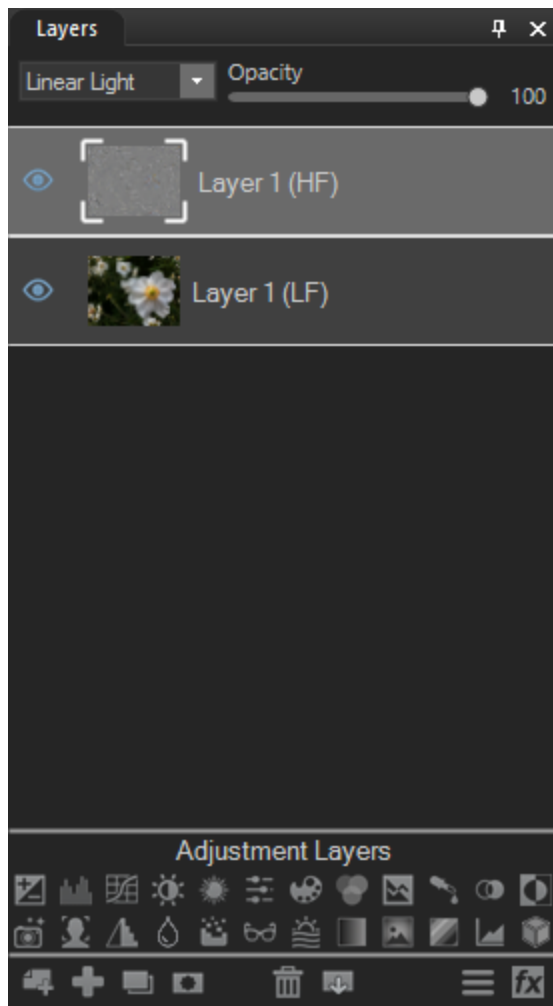
Toggle the view of each layer using the **High Frequency** and **Low Frequency** radio buttons. Please note that these buttons do not impact the **Blur Radius** setting.



It is recommended to select a setting in which the details just become visible in the high frequency layer.

3. Click **Done**.

A frequency separated image is separated into two layers: High Frequency (HF) and Low Frequency (LF). The Low Frequency layer contains the tones, colors, and shadows of the image, and will appear blurry on its own. This is because the texture information is stored on the High Frequency layer.



Retouching Images

By isolating adjustments to one layer or the other, it is possible to repair flaws while maintaining a natural look.

Approach retouching with Frequency Separation in two ways:

- Low Frequency Layers, and
- High Frequency Layers.

Low Frequency Layer

Use blurring on the Low Frequency layer to smooth out lighting inconsistencies and splotchiness. With the Low Frequency layer selected, use the **Detail Brush** or **Blur** tool, or apply blurring to specific areas by using a selection tool or brush.

High Frequency Layer

Use cloning on the High Frequency Layer to even texture and correct detail-related flaws. With the High Frequency layer selected, use the **Repair** tool to apply cloning.



Increase sharpening by duplicating the high frequency layer one or more times.


Focus Stacking

You can use focus stacking to merge a series of images with different focal distances. By combining multiple images with different areas in focus, you can create a new image with a greater depth of field.

To Use Focus Stacking:



Your selected images must have the same dimensions.

1. Open the first image in your series.
2. At the bottom of the Layers pane, press the **Add a File as a Layer** button. 
3. In the Import image as layer dialog, select the remaining images in your series. Ensure that you do not select the first image a second time.
4. In the top left corner, press the **Commit** button.





You must arrange the images according to the order of their focal distance. This means that the area that is in focus in each photo must move consistently in one direction, be it from front to back, or back to front, or right to left, or left to right. Use rearranging in the Layers pane, culling, renaming, or Ctrl + click to achieve this order of selection, as necessary.

5. Choose **Layer | Focus Stack...**
6. A warning dialog will pop up. In the Layers pane, your layers must be arranged according to their focal distance. If the layers are arranged according to focal distance, press **Proceed**. If the layers are not arranged properly, press **Cancel**, and rearrange the order in the Layers pane.
7. In the Focus Stack dialog, configure the settings as described below.

8. Press **OK**. If you have disabled **Keep Layer Stack**, all other layers will be removed and the focus stack layer will be the only remaining layer in the Layers pane. If you have enabled **Keep Layer Stack**, the focus stack layer will appear as the top layer in the Layers pane.

Focus Stacking Options


Merge	<p>All Layers: Performs focus stacking using all layers in the Layers pane.</p> <p>Selected Layers: Performs focus stacking on the selected layers in the Layers pane.</p> <p> Focus stacking cannot be performed on a single layer.</p>
Auto-Align Layers	Aligns the images in the stack. For best results, keep this option enabled.
Keep Layer Stack	<p>Disable this option to delete all other layers, keeping only the resulting focus stack layer.</p> <p> If you have accidentally disabled this option and deleted all other layers, press Ctrl + Z after the command has run.</p>

 The Focus Stack command will ignore all masks, text layers, and adjustment layers.

 Running the Focus Stack command on large images will require a significant amount of memory.

HDR Images

High-dynamic-range imaging (HDR) is a technique used in digital image processing to combine a series of images with different exposures to produce one image with an optimal overall range. You can use the HDR tool to create a new image with a greater dynamic range of luminosity. Ideally, the images you use with the HDR tool will include a well-balanced range of highlights and shadows. See below for additional tips on achieving the best results.

 In some cases, the HDR dialog's preview may not accurately reflect the HDR image it creates. This is because the image is scaled down for the preview.

To create an HDR image, your set of images must have the following attributes defined in their EXIF data:

- an f-stop/number
- an ISO value
- a shutter speed/exposure value


Shooting Photos for HDR

You will have a higher chance of generating quality results if you follow these instructions when shooting your images for HDR:

- Use the shutter speed to vary exposures. That said, varying the aperture setting changes the depth of field, leading to poor quality results. Similarly, varying the ISO or aperture may generate noise or vignettes. Set your ISO to its lowest value.
- Generally, do not use your camera's auto-bracket feature as the exposure changes are not significant enough.
- Ensure that the scene you are shooting does not include features in motion. HDR is meant for photos of the same scene with exposure variances.
- Keep the camera stable using a tripod.
- Use your camera's timer to avoid camera shake.
- Keep the focus and zoom constant between images.
- Shoot in RAW rather than JPEG. This will provide for greater range and flexibility.
- Ensure there is detail in the deep shadows of your darkest exposure.
- Ensure no area of the image is blown out in your lightest exposure.
- Ensure the set of images is "balanced" (i.e. the middle image of the set has well-exposed midtones).
- Using a quantity of photos higher than suggested in the table below can result in unwanted artifacts due to improper alignment and ghosting.


Camera Bracket Settings	Optimum Number of Exposures for Creating HDR Images
-1.0 to +1.0	3
-2.0 to +2.0	5
-3.0 to +3.0	7

To Create an HDR Image:

1. Open the first image in your series.
2. At the bottom of the Layers pane, press the **Add a File as a Layer** button. 
3. In the Import image as layer dialog, select the remaining images in your series. Ensure that you do not select the first image a second time.
4. In the top left corner, press the **Commit** button.
5. Choose **Layer | HDR...** or press **Ctrl + Shift + D**.

6. In the HDR dialog, configure the settings as described below.
7. Press **OK**. If you have disabled **Keep Layer Stack**, all other layers will be removed and the HDR layer will be the only remaining layer in the Layers pane. If you have enabled **Keep Layer Stack**, the HDR layer will appear as the top layer in the Layers pane.

HDR Options

	All Layers: Merges all layers in the Layers pane.
Merge	Selected Layers: Merges the selected layers in the Layers pane. If only one layer is selected, ACDSee will perform the command on that one layer, which will not generate any results.
Auto-Align Layers	Aligns the images in the stack. For best results, keep this option enabled.
Keep Layer Stack	<p>Disable this option to delete all other layers, keeping only the resulting HDR layer.</p> <p> If you have accidentally disabled this option and deleted all other layers, press Ctrl + Z after the command has run.</p>

 The HDR command will ignore all masks, text layers, and adjustment layers.

 Running HDR on large images will require a significant amount of memory.

Using Auto-Align

You can use Auto-Align to align layers for the purpose of creating composites. By stacking, aligning, and masking sets of nearly-identical images in the Layers pane, you can omit unwanted areas while exposing select areas to create one optimal version of the image.

After aligning, you can use [layer masks](#) to create an ideal composite.

To Align Multiple Layers:

1. **Shift-click** or **Ctrl-click** to select multiple images in the Layers pane.
2. Choose **Layer | Auto-Align Layers**.

 The Auto-Align command will only align vertically. Therefore, attempting to align panoramas or dissimilarly-sized images will yield undefined results.

 Running the Auto-Align command on large images will require a significant amount of memory.

Using Auto-Blend

You can use Auto-Blend to merge stacks of images in two different ways:

Focus Stack: You can blend using [focus stacking](#). This will merge images with different focal distances to create a new image with a greater depth of field.

HDR: You can blend using [HDR](#). This will merge images with different exposures to create a new image with an optimal dynamic range.

 Focus Stacking and HDR will ignore all masks, text layers, and adjustment layers.

 Running HDR or Focus Stacking on large images will require a significant amount of memory.

To Auto-Blend Using Focus Stacking:

1. Open images in the [Layers pane](#).
2. In the Layers pane, **Ctrl + click** to select specific layers or **Shift + click** to select a range of layers.
3. Choose **Layer | Auto-Blend Layers...**
4. In the Auto-Blend dialog, select **Focus Blend**.
5. Press **OK**.
6. A warning dialog will pop up. If you have selected your images according to the order of their focal distance, press **Proceed**. If your image selection is not in order, press **Cancel** and change your order of selection, whether by culling, renaming, or ctrl-clicking. The focus blended layer will appear as the top layer in the Layers pane.

To Auto-Blend Using HDR:

1. Open images in the [Layers pane](#).
2. In the Layers pane, **Ctrl + click** to select specific layers or **Shift + click** to select a range of layers.
3. Choose **Layer | Auto-Blend Layers...**
4. In the Auto-Blend dialog, choose **HDR Blend**.
5. Press **OK**. The HDR blended layer will appear as the top layer in the Layers pane.

Chapter 5: Editing - Selection Tools

Using Selections

Use selections to isolate an area of a photo in order to apply edits or filters to only that area, rather than the whole photo. Selection tools are enabled from the toolbar.

There are six Selection tools, each for selecting an area of a photo in a unique way:







- [Brush](#) selection tool,
- [Polygon](#) selection tool,
- [Rectangle](#) selection tool,
- [Ellipse](#) selection tool,
- [Lasso](#) selection tool, and
- [Magic Wand](#) selection tool.

The controls available for each Selection tool change depending on the selected tool.

Selection tools can be used with the following Edit tools:

- **Repair:** Skin Tune, Chromatic Aberration
- **Add:** Vignette, Special Effects, Tilt-Shift, Drawing tools, Grain
- **Exposure/Lighting:** Exposure, Levels, Auto Levels, Tone Curves, Light EQ™, Dehaze, Dodge and Burn
- **Color:** White Balance, Color EQ, Color Balance, Convert to Black and White, Split Tone
- **Detail:** Sharpen, Blur, Noise, Clarity, Detail Brush

Selection Tools

Lasso		Click the left mouse button and drag the cursor to draw around the area to select. While drawing, a line appears showing drawn areas. Release the mouse, the end of the line automatically joins to the start of the line to complete the selection. The entire selection animates with a marching ants treatment.
Magic Wand		Click any area of an image and all of the pixels of the same color are included in the selection. Choose whether to select only the same color pixels that are actually touching the clicked pixel, or select all the pixels in the photo that are similar. Increase the threshold to include more pixels in the selection. The lower the threshold, the more similar a pixel has to be to the one clicked in order to be included. The greater the threshold, the more different a pixel can be and still be in the selection.
Rectangle		Click and drag either a rectangle that begins at the point of first click and ends where the mouse is released.
Ellipse		Click and drag either an ellipse that begins at the point of first click and ends where the mouse is released.
Polygon		Click any area of the image to begin the selection. As the mouse is moved, the selection will follow the cursor. To change the direction of the selection line, click the left mouse button. Double-click to complete the selection.
Brush		Use the Brush selection tool to target a selection based on color, brightness, or a combination of both color and brightness. Select "Color", "Brightness", or "Magic" from the drop-down menu in the context bar to define the selection. Then, align the center of the brush with the color, brightness, or combination to be targeted, and begin brushing. Increase the Tolerance slider to include a wider range of pixels in the selection. The lower the Tolerance slider value, the more similar a pixel has to be to the one clicked in order to be included. You can erase the selection by right-clicking.

Overlay Options

The visual representation of a selection, known as an overlay, can be customized to find a visualization best suited to the selection task.

To customize the selection overlay:


1. Select from the main menu **Select | Overlay Options...**
2. In the **Overlay Options** dialog, select one of the following overlay options:

Marching Ants	This option outlines the selection with animated dashes.
Selection Highlighted	This option highlights the selection area in the color selected from the drop-down menu. Customize the transparency of the color overlay by adjusting the Opacity slider.
Selection Exposed	This option highlights the non-selected area of an image in the color selected from the drop-down menu. Customize the transparency of the non-selected area by adjusting the Opacity slider.


3. Click **OK**.

Using the Selection Tools

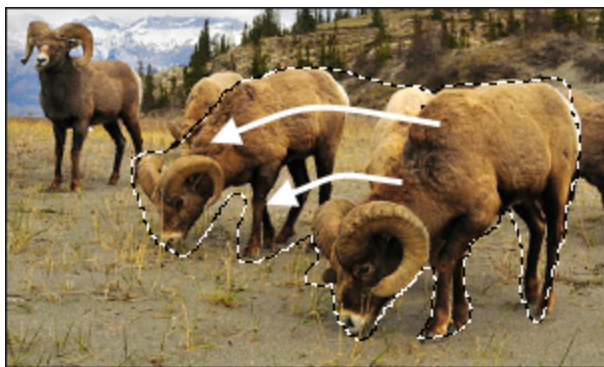
To use the Lasso:


1. Select the **Lasso** button from the toolbar. 
2. On the image, click and hold down the left mouse button, then draw around the area to select.
3. Release the mouse button to complete the selection.



4. To clear the selection, click anywhere on the unselected part of the image (for the Lasso , Rectangle, or Ellipse selection).
5. To add to an existing selection, hold down **Shift**, or click the  **Add to selection** icon in the [Tool Properties](#) bar above the image, then draw a shape that includes any part of the original selection line.


After releasing the mouse, the original selection expands to include the outer edge of the addition.



6. To add to an existing selection, hold down **Shift**, or click the  **Add to selection** icon in the [Tool Properties](#) bar above the image, and draw around any part of the image.

As long as the original selection is avoided, several separate additions can be added to an original selection.



7. To subtract from a selection, hold down **Ctrl**, or click the  **Subtract from selection** icon in the [Tool Properties](#) bar above the image, and draw a shape that includes part of the original selection, or encircles it completely.
8. To apply edits or effects to the outside areas of the image, select from the main menu **Select | Inverse** to reverse the selected area.

Inverse selection includes all of the area outside of the initial selection.






Preview the selection mask by holding down the **Preview** button.



Editing tools or special effects can be [applied to the selection](#).

To use the Magic Wand:

1. Select the **Magic Wand** button in the toolbar. 
2. Click any color in the image.
3. Do any of the following:
 - In the Tool Properties bar above the image, slide the **Threshold** slider to adjust the number of pixels to be included or excluded. The Threshold slider sets how similar a pixel needs to be to the one originally clicked in order to be included in the selection.
 - In the Tool Properties bar above the image, enable the **Connected** checkbox to include only pixels touching the initially clicked pixel.
 - Hold down **Shift** and click around the selection to include more pixels.
 - Hold down **Ctrl** and click around the selection to remove pixels from the selection.
4. From the **Wand type** drop-down list in the Tool Properties bar, select one of the following:
 - **Brightness**: Selects pixels similar in brightness to the clicked area of the image.
 - **Color**: Selects pixels similar in hue and brightness to the clicked area of the image.



Color is generally the best option for the **Magic Wand** tool.

- **RGB**: Selects pixels with a red, green, and blue combination similar to the clicked area of the image





Preview the selection mask by holding down the **Preview** button.






Editing tools or special effects can be [applied to the selection](#).

To use the Rectangle or Ellipse selection tool:

1. Select either the **Rectangle** or **Ellipse** button from the toolbar.  or 
2. Click and drag to draw the selection on the image.

3. Do any of the following:


- To add to an existing selection, hold down **Shift**, or click the  **Add to selection** icon in the [Tool Properties](#) bar above the image, then draw a shape that includes any part of the original selection line. After releasing the mouse, the original selection expands to include the outer edge of the addition.
- To add multiple areas to a selection, hold down **Shift**, or click the  **Add to selection** icon in the [Tool Properties](#) bar above the image, and draw around any part of the image.
- To subtract from a selection, hold down **Ctrl**, or click the  **Subtract from selection** icon in the [Tool Properties](#) bar above the image, and draw a shape that includes part of the original selection, or encircles it completely.






Preview the selection mask by holding down the **Preview** button. 

Editing tools or special effects can be [applied to the selection](#).

To use the Polygon selection tool:

1. Select the **Polygon** button from the toolbar. 
2. Click anywhere on the image to start a selection.
3. Click again to change the direction of the selection line.
4. Double-click to complete the selection.
5. Do any of the following:

- To add to an existing selection, hold down **Shift**, or click the  **Add to selection** icon in the [Tool Properties](#) bar above the image, then draw a shape that includes any part of the original selection line. After releasing the mouse, the original selection expands to include the outer edge of the addition.
- To add multiple areas to a selection, hold down **Shift**, or click the  **Add to selection** icon in the [Tool Properties](#) bar above the image, and draw around any part of the image.
- To subtract from a selection, hold down **Ctrl**, or click the  **Subtract from selection** icon in the [Tool Properties](#) bar above the image, and draw a shape that includes part of the original selection, or encircles it completely.



Preview the selection mask by holding down the **Preview** button. 

Editing tools or special effects can be [applied to the selection](#).

To use the Brush selection tool:

1. Select the **Brush Selection** button from the toolbar.
2. In the [Tool Properties](#) bar above the image, select an option from the **Smart Brushing** drop-down list:

Color	Selects pixels based on how similar they are to the color value of the pixel in the center of the brush, depending on the Tolerance setting.
Brightness	Selects pixels based on how similar they are to the brightness value of the pixel in the center of the brush, depending on the Tolerance setting.
Magic	Selects pixels based on how similar they are to the combination of the color and brightness values in the center of the brush, depending on the Tolerance setting.

3. Adjust the **Tolerance** slider to increase or decrease the range of pixels selected.
4. Place the cursor over the desired color or brightness, and click and/or drag on the image to create a selection.



To remove areas from the selection, right-click and drag over the area to deselect.



To use the brush as a regular selection tool, hold down **Shift** while brushing.

You can select an editing tool or a special effect to [apply to the selection](#).




Right-click a slider to reset to the default value.

Combining the Tools

Selection tools can be used separately or in combination. For example, use the **Magic Wand** to select most of a particular color, then switch to the **Lasso** to add to, or subtract from, the selection. Or, use the **Rectangle** selection to select a large general area, then refine it using the **Lasso**.

To combine selection tools:

1. Select a tool from the toolbar and perform a selection on the image.
2. Select a second tool from the toolbar.
3. Click the **Add to selection** icon. 
4. Perform additional selections on the image.

Saving selections as presets:

Save customized settings as a preset for future use. After making a selection, select from the main menu **Select | Save Selection....**

To use a previously saved selection, select from the main menu **Select | Load Selection....**

To delete a saved selection, select from the main menu **Select | Manage Selections....**

To cut and paste selections:

1. Make a selection on an image.
2. Do one of the following:
 - Press **Ctrl + C**.
 - Select **Edit | Copy** from the main menu.
3. Do one of the following:
 - Press **Ctrl + P**.
 - Select **Edit | Paste** from the main menu.

The selection pastes onto a new layer above the selected (active) layer in the **Layer Editor** pane.

To delete selected pixels:

1. Make a selection on the image.
2. Select from the main menu **Select | Delete Selected Pixels**, or press **Alt + Delete**.



To retrieve deleted pixels, use the **Undo** button.

To create a layer mask from a selection:

See [Layer Masks](#).

To add or subtract a mask from a selection:

See [Layer Masks](#).

To intersect a mask with a selection:

See [Layer Masks](#).

Targeting Selections

Selections can be targeted to specific color tones and brightness values, as well as skin tones.

To select pixels by color or tone:

1. Select from the main menu **Select | Luminance/Color Range....**
2. In the **Luminance/Color Range** dialog, configure the settings as described below.
3. Press **OK**. Your targeted color(s) or tone(s) will be selected.

Pixel Targeting Dialog

Presets	Select a saved preset from the drop-down list, or click the Save icon to save the settings as a new preset.
Luminance Range	The Luminance Range sliders target tones of brightness for selection.
Color Range	The Color Range wheel targets specific colors for selection.
Smoothness	Refines skin by suppressing texture detail.
Skin Targeting	<p>The Skin Targeting slider is used to specifically target skin tones for selection. To target skin tones, move the slider to the right to values between 0 and 100, depending on the desired intensity.</p> <p>When moving the Skin Targeting slider, all other colors (except for skin tones) are excluded and cannot be altered.</p> <p>To exclude unwanted skin tones from the selection, move the slider to the left to values between 0 and -100.</p>

Luminosity Selection

Create a selection based on the brightness in the image. The brighter a pixel is, the stronger the selection will be on that pixel.

To select pixels by brightness:

Select from the main menu **Select | Luminosity Selection**.

Subject Selection

Isolates and selects the subject from the image's background.

To select an image subject:

Select from the main menu **Select | Select Subject**.

Edits and Effects

After an area of an image is selected with one of the Selection tools, apply any of the editing tools, such as color and exposure, or any of the special effects filters, to the selected area. An active selection in an image looks like a line of marching ants.

To apply an edit or effect to a selection:

1. Use a [Selection tool](#) to make a selection.
2. From the **Filter** main menu item, select a tool to use from any of the following groups:
 - Exposure/Lighting
 - Color
 - Detail
 - Add (Special Effects)
3. Use the tool to edit the image.

For the above filters, special selection options are available right-justified in the [Tool Properties Bar](#).

Special Selection Options

Use Selection	Click to use the selection or apply the edit or effect to the whole image. Edit just the selection, then deselect Use Selection and apply another edit to the whole image without clearing the selection.
Invert Selection	Click to invert the selection.
Feathering	<p>Drag to increase or decrease the blurring between the edge of the selection and the edit or effect.</p> <p>Feathering prevents an unnatural or sharp transition between the selection and the rest of the image as it blends the edges. This control also makes it unnecessary for the selection to be perfectly on the edge of the area you want to select.</p>

Smart Eraser

Remove unwanted objects from images by selecting or brushing them and using the **Smart Erase** tool. Smart Erase will analyze the image and predict how to best fill in the brushed or selected area. The Smart Erase prediction is based on what the image would most likely look like without the selected or brushed object(s).


 Smart Erase will not work as intended if more than 25% of the image is selected or brushed.

To erase and fill a selection:

1. Select a Selection tool from the toolbar.
2. Select the area of the image to be filled by the Smart Eraser.
3. Select from the main menu **Select | Smart Erase** to apply the Smart Eraser.
4. Repeat until the desired look is achieved.

 When using the **Brush selection tool**, the **Strength** slider must be set to 50 or more.

To erase and fill using the Smart Erase brush:

1. Select the **Smart Erase brush** from the toolbar. 
2. Brush over the area to be filled.
3. Release the mouse button to apply the fill.
4. Repeat until the desired look is achieved.

Chapter 6: Editing - Repair Tools

Red Eye

The **Red Eye Reduction** filter corrects red eye in digital photographs.

To correct red eye:

1. Select **Filter | Repair | Red Eye Reduction** from the main menu.
2. Use the **Zoom** tools in the bottom left corner to enlarge and center the eye to be corrected.
3. Click within the red portion of the eye.
4. In the **Red Eye Reduction** group, adjust the sliders as described below.

Red Eye Reduction Options

Crown Icon	
Size	Drag the slider to the right to increase the size of the area being darkened, or to the left to decrease.
Darkening	Drag the slider to the right to intensify the fill color, or to the left to lighten.
Show outline	Shows or hides the outline of the darkened area.



Right-click a slider to reset to the default value.



Scroll with the mouse to adjust the size of the area to darken.



Show or hide the outline of the darkened area by toggling the **Show Outline** checkbox.



Use the **Delete** key to remove the currently selected red eye adjustment.

Removing Flaws

Use **Repair Filters** to remove flaws, such as:

- Skin blemishes,
- Telephone wires and other unwanted objects,
- Flash flares from snowflakes or windows, and
- Lens scratches and water drops.

There are four types of repairs available:

- Heal,
- Clone,
- Blended Clone, and
- Smart Erase.

Repair Tool Types

Heal	Enabling the Heal radio button evokes the Healing Brush. The Healing Brush copies pixels from one area of a photo to another, but analyzes the pixels in the source area before copying. The Healing Brush also analyzes the pixels in the target area, and then blends the pixels of both source and target to match the surrounding area, ensuring that the lighting and color of the replacement pixels integrate with the surrounding area. The Healing Brush works particularly well with photos that involve complicated textures, like skin or fur.
Clone	Enabling the Clone radio button evokes the Cloning Brush. The Cloning Brush copies the exact pixels from one area of a photo to another, creating an identical image area. The Cloning Brush is more effective for photos that have strong, simple textures or uniform colors, as it is more difficult to identify the copied pixels in the finished photo.
Blended Clone	The Blended Clone tool copies the exact pixels from one area of a photo to another, but it analyzes the pixels in the target area and blends them with the copied pixels.
Smart Erase	For information on Smart Erase, see the Smart Erase section below.



Repair settings can be saved as presets for future use.

To remove flaws from a photo:

1. Select **Filter** | **Repair** | **Repair Tools** from the main menu.
2. Select one of the following:
 - **Heal**: Copies the pixels from the source area to the target area, and blends pixels into the surrounding image area.
 - **Clone**: Copies the pixels from the source area to the target area.
 - **Blended Clone**: Copies the pixels from the source area to the target area, then analyzes the pixels in the target area and blends them with the copied pixels.

- **Smart Erase:** Analyzes pixels and fills in the brushed area based on what the image would most likely look like without the brushed object. See the "Smart Erase" on page 157 section below.
3. Drag the **Nib Width** and **Feathering** sliders as described in the table below.
 4. Right-click the image to set a source location. Pixels will be copied from this location and used in the target location.
 5. Click and drag over the area that you want to cover. If you selected the healing brush, Gemstone analyzes and replaces the pixels when you release the mouse button. If you selected the blended clone tool, Gemstone analyzes, replaces, and blends the pixels when you release the mouse button.
 6. Do one of the following:
 - Click **OK** to apply your changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.



Click **Reset** to reset the sliders. If you saved your changes, you cannot reset your settings.



Scroll with your mouse to adjust the brush size on the fly, or press the **Shift** key while you scroll to adjust feathering.

Repair Options

Nib Width	Sets the width of the brush. The maximum brush width is relative to the size of your image.
Feathering	<p>Sets the amount to feather on the edge of the brush to prevent sharp transitions between the original and healed part of the photo.</p> <p>Feathering is set as a percentage of the nib width, not as a specific number of pixels. This means that you do not have to adjust the feathering when you reset the Nib Width, as it automatically adjusts to a percentage of the new nib width. This option is not available with the Blended Clone tool.</p>
Show preview in cursor	Enable this checkbox to display a preview of your selected source point in the cursor.



Right-click a slider to reset to the default value.

Smart Erase

Remove unwanted objects from images by brushing an image area while using the **Smart Erase** filter. The **Smart Erase** filter analyzes the image and predicts how to best fill in the brushed area. This is

based on what the image would most likely look like without the brushed object(s).

1. Select **Filter | Repair | Repair Tools** from the main menu.
2. In the **Repair** dialog, enable the **Smart Erase** radio button.
3. Drag the **Nib Width** slider or adjust the mouse wheel to set the width of the brush.
4. Brush over the area to be filled with the mouse button depressed. After releasing the mouse button, the fill will be applied. Repeat until the desired look is achieved.

Skin Tune

Use the **Skin Tune** filter to even skin tone and smooth away blemishes and flaws.

To correct Skin Tone:

1. Do one of the following:
 - Click **Filter | Repair | Skin Tune**.
 - Press **K**.
2. In the **Skin Tune** dialog, adjust the settings as described below.
3. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Skin Tune Options

Smoothing	Refines skin by suppressing texture detail.
Glow	Increases the brightness of skin while subtly smoothing.
Radius	Specifies the scale of the texture detail that is affected by the effect. A lower value enhances small details, while a large value enhances larger details.



This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details).



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.





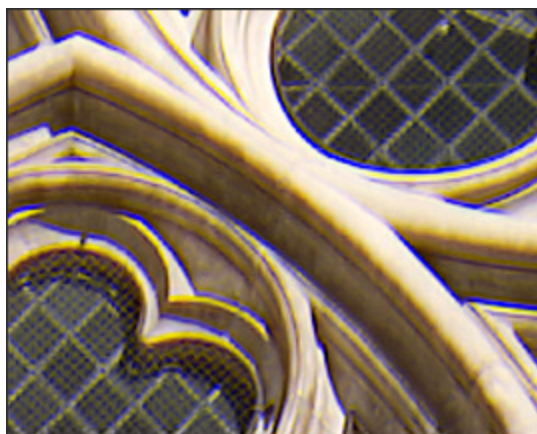
Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Chromatic Aberration

Chromatic aberration is a lens artifact that can result in fringes in high contrast areas of some photos. The camera lens can cause some wavelengths of light to focus differently, which appear in photos as colored fringing or colored lines on the borders of high contrast areas. Purple fringing can also occur when there is a bright spot of light in front of the lens.

This zoomed-in image shows an example of blue/yellow fringing.



The **Chromatic Aberration** filter is used to reduce the appearance of colored fringes, which can be especially useful for photos with architectural details. For best results, it's recommended to use the Chromatic Aberration sliders first, and then the Defringe sliders.

To reduce fringing in an image:

1. Select **Filter | Repair | Chromatic Aberration** from the main menu.
2. Adjust the sliders as described below.
3. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Right-click a slider to reset to the default value.

Chromatic Aberration Options

Fix Red/Cyan	Adjust the red and cyan channels to reduce red/cyan fringing.
Fix Blue/Yellow	Adjust the blue and yellow channels to reduce blue/yellow fringing.
Defringe strength	Adjust the amount of fringe color to be removed from high contrast edges. A setting of zero means that defringing is off.
Defringe radius	Adjust the number of pixels surrounding an edge that will be defringed.
Fringe color	Adjust the color to remove from high contrast edges.



This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details).



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.







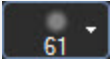
Chapter 7: Editing - Add Tools

Drawing Tools

Use the Drawing Tools to add lines and shapes, such as squares, circles, and arrows to an image. Other options include adjusting the width, feathering, and blending of your brush, which is useful for creating subtle and dramatic drawings.

To draw on an image:

1. Select a drawing tool on the Toolbar (see [Toolbar and Tool Properties Bar](#)).
2. **Optional:** Select from one or more of the following options (**Note:** Options vary depending on the tool selected):

	Option	Instructions
	Color	<p>Select a color by clicking the color boxes at the top right of the panel to open the Foreground or Background Color dialog, which displays a dialog of swatches to choose from. If you are drawing a solid shape, such as a rectangle, the top (foreground) color box defines the color for the outline of the shape. The bottom (background) color box defines the color that fills the center of the shape. If you want your shape to be a solid color, set both color boxes to match.</p> <p> You can reset to black and white by pressing the reset button directly next to the color boxes.</p> <p> You can also access the color palette on the fly by using the Color pane at the top of the Layered Editor.</p>
		
	Nib Width	<p>Drag the Nib Width slider to set the diameter of the brush measured in pixels.</p>
	Feathering	<p>Select the Nib Width button to reveal the Feathering slider. Drag the Feathering slider to set the blurring radius of the brush. Hold down Shift while using the mouse wheel to adjust the feather radius, represented by the dotted circle.</p>
	Spacing	<p>Drag the Spacing slider to set how far apart each brush segment will be. This slider specifies the percentage of the size of the nib width, which determines how smooth or choppy the strokes will appear.</p> <p>Use Auto Spacing: Select the Use Auto Spacing checkbox to allow ACDSee to choose a spacing percentage based on the nib width and feathering settings, which will create a smooth-looking stroke.</p>
	Fill	<p>Select the Fill checkbox to fill the shapes you draw with the selected color.</p>
	Opacity	<p>Drag the Opacity slider to specify the transparency of the brush strokes.</p>

Blending

Select an option from the Blending drop-down menu to affect how your brush strokes blend with your image as you draw.

3. Drag over the image to draw.



Right-click a slider to reset to the default value.

Watermark

The **Watermark** filter adds a watermark to a photo. The watermark can be moved to any position on the photo, or the blend mode and opacity of the watermark can be changed.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent **Save** icon.

A watermark image will need to be created before adding a watermark to a photo.

To add a watermark to an image:

1. Select **Filter | Add | Watermark** from the main menu to open the **Watermark** dialog and display a default watermark on the image.
2. In the dialog's **Watermark** field set, select a watermark from the drop-down list, or click the **+ Add** button and browse to open a new watermark.
3. Click and drag the watermark to reposition it anywhere on the image, or in the **Positioning** field set, make a selection from the **Anchor Point** field to use a pre-defined location, or enter customized values in the **Horizontal** and **Vertical** fields.
4. Drag the marquee handles to resize the watermark image.
5. Select **Maintain aspect ratio when resizing** to resize the watermark image without distorting it.
6. Select an option from the **Blend Mode** drop-down list to specify how you want the watermark to blend into the underlying image.
7. Drag the **Opacity** slider to specify the transparency of the watermark.
8. Enable **Add watermark as new layer** to have the watermark added to the image as a new, separate layer in the **Layer Editor**.
9. Enable **Apply Alpha Channel** to apply the alpha channel if it is present in the watermark. (Only TIF and ICO watermark files can have an alpha channel.)
10. Select **Apply Transparency** to make a color in the watermark transparent.

The default color is black. Use the color picker to select a customized color.

11. Do one of the following:

- Click **Apply** to add the watermark to the image, and keep the Watermark tool open.
- Click **OK** to add the watermark to the image, and leave the tool.
- Click **Cancel** to discard any changes and leave the tool.



Right-click a slider to reset to the default value.

Borders

You can use the Borders tool to add one or more borders and edge effects to your images. You can set the size of each side of the border, change the color and texture of the border or pick up a color from within the image by clicking on that color in the image.

There are libraries of edges and textures to get you started, but you can save your own textures or edges to the ACDSee folder so that they appear in the library for you to use.

You can also use Edge blur to soften the edges or blend the image into the background texture. You can also add a third dimension to your images using the Drop Shadow and Raised edge effects.

Using combinations of multiple borders and edge effects can add to the mood and atmosphere of a photo, emphasize contrast, and enhance color.

You can save your settings as a preset for future use.

To Add a Border to an Image:

1. Do one of the following:

- Click **Filter | Add | Borders**.
- On the Toolbar, click the Add icon and choose **Borders** from the menu.

2. Create the border by selecting its size, color, texture, edge, or edge effects as described in the Borders options below.

3. Do one of the following:

- Click **Done** to apply your changes and close the Border tool.
- Click **Cancel** to discard all changes and close the tool.

4. To add another border, restart the border tool and repeat these steps.

Border Options

Eyedropper

Picks up the color beneath the cursor when you click on the image. The border changes to the clicked color, which also appears in the Color box on the Borders pane so that you can adjust it if you open the Color dialog box.



The eyedropper is not available when you are using a texture.

Border**Size**

Sets the size of all the sides of the border simultaneously. Drag the slider left and right to adjust the width of the border. You can also type in a different number or use the up and down arrows to change the size of the border.

The text below the Size field shows the final size of your image with the border added. The final size changes dynamically as you adjust the size of the border.

**Advanced size controls**

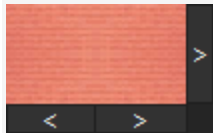
Opens a fly-out of advanced size controls. Use the sliders, up- and down-arrow keys, or type in a number, to set the size of each side of the border individually. For example, you can set the bottom border to be larger to include a space for copyright information. Click on the arrow beside the Size slider to open the advanced size controls menu.

**Color box**

Activates when you select the **Color** radio button.

Do any of the following:

- Click on a color in the image to make the border that color. The clicked color appears in the Color box.
- Click on the color in the middle of the Color box to open the Colors dialog, where you can adjust the color in multiple ways.
- Click the down-arrow beside the box and hover over the quick-color box until you find a color you like. When you click inside the quick color box, the picked color appears in the Color box and the border changes to the selected color.



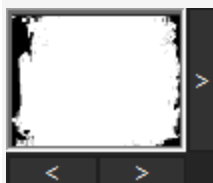
Texture box

Activates when you select the **Texture** radio button.

Do any of the following:

- Click the side arrow to open the texture library and view thumbnails of textures to select.
- Click the forward and back arrows to browse through the textures one at a time, without opening the library.

Edge



Straight

Sets the edge of the border to be a straight line.

Irregular

Activates when you select the **Irregular** radio button.

Do any of the following:

- Click the side arrow beside the edge box to open the edge library and view thumbnails of edges to select.
- Click the forward and back arrows to browse through the edges one at a time, without opening the library.

Edge blur

Blurs the edges of the edge of the image into the border. Drag the slider to the right to increase the blur, or to the left to decrease the blur.

Edge effects

Drop shadow

Adds a drop shadow to the image that appears to lift it off the page. The drop shadow appears behind the image, between it and the border. You can adjust the depth of the blur on the edge of the shadow, and the transparency of the shadow, which affects how much of the border shows through the shadow. You can also change the direction of the imaginary source of light by dragging the glow on the Light Source ball.

- **Blur:** Adjusts the blur on the edge of the shadow when you drag the slider.
- **Opacity:** Adjusts the transparency of the drop shadow when you drag the slider.

	<p>Raised</p> <p>Adds a raised edge to the image that appears to raise it above the border, giving it a 3D look. The raised effect is applied to the image, between it and the border. You can change the direction of the imaginary source of light of the raised edge by dragging the glow on the Light Source ball. You can also adjust the size, strength, and color of the raised edge in the following ways:</p> <ul style="list-style-type: none"> • Size: Drag the slider to the right to increase the size of the raised edge so that it appears higher. The greater the size the more rounded the effect. • Strength: Drag the slider to the right to increase the 3D effect of the raised edge. • Colored: Select this option to apply the border color to the raised edge.
<p>Light Source</p>	<p>Activates when you click either the Drop shadow or Raised checkboxes. Click and drag the glow on the ball to reposition the imaginary light source for the 3D effect of the Drop shadow or Raised edge effects.</p>



Right-click a slider to reset to the default value.

Adding Your Own Textures or Edges

It is possible to add custom textures and edges to the libraries in the Borders tool. If you make your own edges or textures, or own a collection from the Internet, you can add them to the texture and edge libraries. You can also delete existing files from the libraries to make room for others.

The textures or edges have to be in the following file formats with these extensions:

- BMP
- EMF
- GIF
- JPG
- GIF
- PNG
- TIF

Textures

As the textures are tiled, it is important to use an image that can be seamlessly repeated. The files are used at their full resolution, not scaled up or down. For example, if your texture image is 100 x 100 pixels and you are creating a bordered image that is 1000 x 1000 pixels, then your texture file will be tiled 10 times. If you use a texture file that is 1000 x 1000 pixels, then there would just be the one texture tile for the whole border.

To Add Your Own Textures to the Texture Library:

1. In Photo Editor, close the Borders tool if it is open.
2. Copy and paste your texture files into this folder:
C:\Program Files\Common Files\ACD Systems\borders\textures
3. Do one of the following:
 - Click **Filter | Add | Borders**.
 - On the Toolbar, click the Add icon and choose **Borders** from the menu.
4. Select the Texture radio button and then click the arrow on the right side of the texture box to open the texture library.

Thumbnails of the textures display for you to select.

Edges

Edge files are grayscale images that are resized to fit the image. The image file shows through any areas in the edge file that are white, and does not show through any black areas. Pixels that are tones of gray in the edge file show through with relative opacity depending on how close the pixels are to black or white (in other words, the darker the gray pixel, the less it shows through).

To Add Your Own Edges to the Edges Library:

1. In Photo Editor, close the Borders tool if it is open.
2. Copy and paste your edge files into this folder:
C:\Program Files\Common Files\ACD Systems\borders\edges
3. Do one of the following:
 - Click **Filter | Add | Borders**.
 - On the Toolbar, click the Add icon and choose **Borders** from the menu.
4. Select the **Irregular** radio button and then click the arrow on the right side of the edge box to open the edge library.

Thumbnails of the edges display for you to select.



If you open an image with borders already applied, another border will be applied to the image.

Vignette

The **Vignette** filter adds a frame around a subject, such as a person or a bouquet of flowers, which can help to enhance the focal point of the portrait. The appearance of the Vignette border is customizable.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a vignette filter:

1. Select **Filter | Add | Vignette** from the main menu, or press **Shift + Alt + V**.
2. Set the options as described below.
3. Do one of the following:
 - Click **OK** to apply any changes and close the tab.
 - Click **Cancel** to discard all changes and close the tab.

Vignette Options

Horizontal	Specifies the focal point of the portrait on the horizontal axis. A value of 500 places the center in the middle of the photo.
Vertical	Specifies the focal point of the portrait on the vertical axis. A value of 500 places the center in the middle of the photo.
Clear zone	Specifies the size of the clear area around the focal point in the portrait. Drag the slider to the left to reduce the size of the clear area. Drag the slider to the right to increase the size of the clear area.
Transition zone	Specifies the width of the transition area between the clear zone and the frame. Drag the slider to the left to narrow the transition area. Drag the slider to the right to widen the transition area.
Stretch	Stretches the vignette horizontally to make the shape elliptical rather than round.
Shape	Specifies the shape of the frame: <ul style="list-style-type: none"> • Round: Select "Round" for a round frame. • Rectangular: Select "Rectangular" for a rectangular frame.
Show outline	Select Show outline to display an outline that shows the outside edge of the clear zone and the inside edge of the frame.
Frame	Applies the following special effects to the vignette frame area around the focal point: <ul style="list-style-type: none"> • Color: Changes the color of the frame area to the color selected in the color picker. • Saturation: Removes color from the people or objects in the vignette frame so they are gray scale. • Blur: Blurs the vignette frame area. • Clouds: Applies a Clouds effect to the frame area. • Edges: Applies an Edges effect by tracing the lines and details of people or objects with neon colors. • Radial Waves: Creates the appearance of waves radiating from the focal point into the frame area. • Radial Blur: Creates a Radial Blur that rotates and stretches the frame area. • Zoom Blur: Applies a Zoom Blur to the frame area. • Crayon Edges: Applies the Crayon Edges effect by tracing the lines and details around people or objects with crayon. • Dauber: Creates the impression that the people or objects around the focal point were painted with a brush.

- **Pixelate:** Applies a pixel effect to the frame.
- **Old:** Applies an aging effect to the frame to make it look like an old photo.
- **Glowing Edges:** Applies glowing edges to all the strong lines in the frame area.
- **Ripple:** Adds ripples to the frame so that it looks like liquid ripples moving outwards from the focal area.

Color Settings

Select a color from the drop-down list to produce a Color Picker for selecting the vignette color.



Right-click a slider to reset to the default value.



This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details). 

Grain

The **Grain** filter gives images a stylized look, like old film grain. The **Grain** filter can also be used in combination with other filters to achieve a generic vintage look.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a grain filter:

1. Select **Filter** | **Add** | **Grain** from the main menu, or press **Alt + G**.
2. Set the options as described below.
3. Do one of the following:
 - Click **OK** to apply any changes and close the tab.
 - Click **Cancel** to discard any changes and close the tab.

Grain Options

Amount	Specifies the strength of the grain.
Smoothing	Specifies the smoothness of the grain.
Size	Specifies the size of the grain.



Right-click a slider to reset to the default value.



This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details).



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Tilt-Shift

The **Tilt-Shift** filter creates emphasis on specific subjects in a photo, or makes photos look like miniature landscapes.

To use the Tilt-Shift filter:

1. Select **Filter | Add | Tilt-Shift** from the main menu, or press **Shift + Alt + X**.
2. In the **Tilt-Shift** dialog, set the options as described below.
3. Do one of the following:
 - Click **OK** to accept any changes and close the panel.
 - Click **Cancel** to discard any changes and close the panel.

Tilt-Shift Options

Use the guides on the image to place the effect. The inside boxes represent the points where the focus is transitioning to blur. Complete blur occurs at the outside boxes. Move the boxes to define where the effect will begin or end. Hold down the **Shift** key while positioning the effect to lock to the nearest 45° angle, for straightness.

Tilt-Shift Options

Blurring**Blurring**

Use the drop-down list to select the type of blur. Options include:

- Lens Blur, and
- Gaussian Blur.

See [Blur Types](#) for more information.

Amount

Specifies the amount of blur applied.

Bokeh Frequency

Specifies how often the bokeh shapes occur.

Bokeh Brightness

Specifies how bright the bokeh shapes appear.

Bokeh Sides

Defines the number of sides the bokeh shape will have.

Saturation

Drag the slider to the right to intensify the effect.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.




About Special Effect Filters

Gemstone includes more than 40 special effect filters, such as Crosshatch, Pencil Drawing, and Solarize to add unique effects to images.

To access the Special Effects filters:

1. Select **Filters | Add | Special Effects** from the main menu.
2. Make a Special Effects selection in the **Effects** dialog. Special Effects are grouped under the following headings:
 - Artistic
 - Color
 - Distort
 - Edges
 - Light

- Nature
- Painting
- Retro
- User Defined

 For more information about each effect, click the Help menu item to view a Help file page specific to that effect.

 This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details). 


 Use the [Edit Brush](#) to paint this effect onto specific areas of the image. 

 Use the [Gradient](#) tool to transition this effect across specific areas of the image. 

 Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point. 

Bathroom Window

The **Bathroom Window** effect divides images into bars, transforming them to resemble the view through privacy glass often found in bathroom windows. Select or customize the **Bathroom Window** effect options to apply to the image.

 Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Bathroom Window effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Distort** group.
3. Select **Bathroom Window**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Bathroom Window Options

Bar width	Slide to dictate the width of the individual image slates.
Bar direction	Enable either the Horizontal or Vertical radio buttons to specify the orientation of the image bars.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Blinds

The **Blinds** effect divides an image into bars that look like venetian or vertical window blinds. The characteristics of the blinds can be customized.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Blinds effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Blinds**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Blinds Options

Width	Specifies the width of the blinds. Enter a number from 1 to 1000 or drag the slider to adjust the width of each blind. As the value increases, the width of the blind also increases.
Opacity	Specifies the opacity of the blinds. Enter a number from 1 to 99 or drag the slider to adjust the opacity of the blinds. The higher the opacity, the more the image is obscured.
Angle	Specifies the angle of the blinds. Enter a number from 1 to 360 or drag the arrow to adjust the angle.
Blind color	Specifies the color of the blinds.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Blue Steel

The **Blue Steel** effect gives images a stylish blue tint.

To apply the Blue Steel effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Retro** group.
3. Select **Blue Steel**.
4. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.





Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Bob Ross

The **Bob Ross** effect gives images a painted look in the style of Bob Ross, an American painter and host of the PBS TV show *The Joy of Painting*.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply the Bob Ross effect to an image:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Painting** group.
3. Select **Bob Ross**.
4. Set the options as described below.
5. Do one of the following:
 - Click **Done** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Bob Ross Options

Brush size	Drag the Brush size slider to specify the width of the brush strokes in the effect. The higher value, the wider the brush stroke.
Coverage	Drag the Coverage slider to specify the amount or density of paint on the canvas.
Paint thickness	Drag the Paint thickness slider to specify how three dimensional the paint appears.
Colorfulness	Drag the Colorfulness slider to specify the amount of color in the image.
Background color	Enable the Image checkbox to use the color in the image as the background color behind the brush strokes added to the photo. To use a different color for the background, disable the Image checkbox and select a new color from the color picker.
Randomize	Indicates the random placement of the paint daubs. When applying the Bob Ross effect to an image, Gemstone places the daubs randomly to make the paint daubs appear different every time the filter is applied. To generate a new random placement of the paint daubs, click the Randomize button.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Bulge

Use the **Bulge** effect to stretch or shrink areas of an image, horizontally and vertically. Customizing the **Bulge** effect includes the strength, radius, and position of the distortion.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent **Save** icon.

To apply a Bulge effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Distort** group.
3. Select **Bulge**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Bulge and Shrink Options

Horizontal position	Specifies the center of the distortion along the horizontal axis. A lower value moves the distortion towards the left side of the image, while a higher value moves it towards the right side of the image.
Vertical position	Specifies the center of the distortion along the vertical axis. A lower value moves the distortion towards the bottom of the image, while a higher value moves it towards the top of the image.
Radius	Specifies the radius of the distorted area. A lower value decreases the radius of the distortion, while a higher value increases the radius of the distortion.
Strength	Specifies the strength of the distortion. A negative value shrinks the center of the distortion, while a higher value bulges the distortion.
Background color	Specifies the background color for the filtered image. Select the Image checkbox to use the original image color, or click the color picker to select a different color.
Bulge direction	Specifies the direction of the distortion. Select one or both of the following options: <ul style="list-style-type: none"> • Horizontal: Moves the distortion horizontally. • Vertical: Moves the distortion vertically.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.





Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Cartoon

The **Cartoon** effect gives images a sketched appearance.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Cartoon effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Painting** group.
3. Select **Cartoon**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Cartoon Options

Shading strength	Specifies the strength of the shading in the image. The higher the setting, the more intense the shading that is applied to the image.
Shading radius	Specifies how spread out the shading is.
Shading threshold	Specifies how sharp an edge must be in the image before shading is applied. If a higher value is specified, more edges in the photo will be shaded.
Smoothness	Controls how smooth the transitions between similar colors are.
Outline detail	Specifies how much the details are outlined in black.
Outline strength	Specifies how strong the black outlines are applied.
Artifact suppression	Enable the Remove small details checkbox to prevent small details from being outlined in black, allowing the image to appear more cartoon-like.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Childhood

The **Childhood** effect gives an image a dreamy, nostalgic look.

To apply the Childhood effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Retro** group.
3. Select **Childhood**.
4. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Clouds

The **Clouds** effect makes graphical content out of an images, such as backgrounds and more.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent **Save** icon.

To apply the Clouds effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Nature** group.
3. Select **Clouds**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Clouds Options

Size	Specifies the size of the clouds. Drag the slider to the right to increase the size.
Detail	Specifies the detail's fineness. Enter a number from 0 to 10 or drag the slider to adjust the details of the clouds.
Randomize	<p>Indicates the random placement of the clouds.</p> <p>When applying the Clouds effect to an image, Gemstone places the fragments randomly to make the effect different every time the filter is applied. Define a specific random seed to generate identical fragment patterns.</p> <p>To generate a new random seed, click the Randomize button.</p>



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Collage

The **Collage** effect creatively breaks up a photo into a number of photos.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To use the Collage effect:

1. Select **Filter | Add | Special Effects** from the main menu bar.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Collage**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Collage Options

Number of photos	Sets the number of photos to include in the collage.
Size	Sets the size of the photos to include in the collage.
Background color	Selects a background color by clicking the drop-down arrow to display color gradients
Randomize	Reshuffles the photos.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Colored Edges

The **Colored Edges** effect traces the lines and details of people or objects in an image.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Colored Edges effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Colored Edges**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Colored Edges Options

Intensity	Specifies the amount of color added to the edges within the image. The higher the setting, the thicker the color that is applied to the image.
Edge color	Specifies the color of the edges.
Edge detection	Specifies the edge detection algorithm. The algorithm controls the formula used to detect the edges and the direction of the edge indicators.
Blurring	Blurs the edges in the image. Enable the Use blurring checkbox, then select a blur setting from the drop-down to determine how much blur is applied.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Contours

The **Contours** effect draws contour lines on an image to create a cartoon effect. Customization includes rounding, line frequency, color, and strength.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Contours effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Contours**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Contours Options

Rounding	Specifies the amount of curve in the contour lines. The higher the value, the rounder the lines.
Line frequency	Specifies the amount of space between the contour lines. The higher the value, the closer the lines move together.
Strength	Specifies the strength of the line. The higher the value, the darker the line.
Line color	Specifies the color of the contour lines.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Crayon Drawing

The **Crayon Drawing** effect gives photos the appearance of a crayon drawing.

To use the Crayon Drawing effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Painting** group.
3. Select **Crayon Drawing**.
4. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Crosshatch

The **Crosshatch** effect adds crosshatching to an image.

To use the Crosshatch effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Crosshatch**.
4. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.





Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Dauber

The **Dauber** effect makes images look like they were painted with a paint dauber. Customization options include intensity, frequency, and randomizing.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent **Save** icon.

To use the Dauber effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Painting** group.
3. Select **Dauber**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Dauber Options

Intensity	Specifies the amount of color applied with each daub.
Frequency	Specifies the number of daubs added to the image.
Background color	Specifies the background color of the filtered image. Select the Image checkbox to use the original image colors or click the color picker to select a different color.
Randomize	Indicates the random placement of the paint daubs. When applying the Dauber effect to an image, Gemstone places the daubs randomly to make the paint daubs different every time the filter is applied. To generate a new random seed, click the Randomize button.



Right-click a slider to reset to the default value.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Dramatic

The **Dramatic** effect makes images look dramatic and moody by drastically changing the contrast in specific areas.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Dramatic effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Dramatic**.
4. Set the options as described below.
5. Do one of the following:
 - Click **Done** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Dramatic Options

Strength	Specifies the strength of the contrast being applied.
Spread	Specifies how far the effect spreads over the details in the photo.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.





Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Edge Detect

The **Edge Detect** effect creates a highlighted outline of an image. After creating a black image, the **Edge Detect** effect uses colored lines to outline the detail of an image where significant color differences exist. Greater differences between colors in the original image produce brighter outline colors. (The **Sobel** effect is similar to the **Edge Detect** effect, but produces sharper and brighter outlines.)

To use the Edge Detect effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Edges** group.
3. Select **Edge Detect**.
4. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Emboss

The **Emboss** effect adds a grayscale relief to an image.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To Emboss an image:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.

3. Select **Emboss**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Emboss Options

Elevation	Specifies the light source's elevation on the image. Lower values produce more shadows and a darker image. Higher values produce fewer shadows and a lighter image.
Weight	Specifies the amount of relief added to the image. Higher values increase the relief depth.
Azimuth	Specifies the angle of shadows that extend from the edges of image details. A value of 0 adds shadows to the left side, while a value of 180 adds shadows to the right side.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Furry Edges

The **Furry Edges** effect adds fur and bristles to the lines and details of people or objects in an image.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To use the Furry Edges effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.

3. Select **Furry Edges**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Furry Edges Options

Frequency	Specifies how much fur is added to the image. The higher the setting, the more dense the fur that is applied to the image.
Threshold	Specifies how sharp an edge must be before fur is applied to it. As the value decreases, the area of the image that fur is added to increases.
Fur length	Specifies the length of each strand of fur. As the value increases, the length of each fur strand also increases.
Variance	Specifies how much of the fur grows in the direction indicated by the Hair direction setting. The higher the value, the more random the fur direction will be.
Hair direction	Specifies the general direction in which fur appears to grow.
Edge detection	Specifies the edge detection algorithm. The algorithm controls the formula used to detect the edges and the direction of the edge indicators.
Background color	Specifies the background color of the filtered image. Select the Image checkbox to use the original image colors, or click the color picker to select a different color.
Fur color	Specifies the color of the fur. Select the Image checkbox to use the original image colors, or click the color picker to select a different color.
Randomize	<p>Indicates the random placement of the fur strands.</p> <p>When applying the Furry Edges effect to an image, Gemstone places the fur randomly to make the fur strands different every time the filter is applied. You can define a specific random seed to generate identical fur patterns.</p> <p>To generate a new random seed, click the Randomize button.</p>



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.





Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Gloom

The **Gloom** effect gives an images a dark, gloomy appearance.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Gloom effect:

1. Select **Filter** | **Add** | **Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Gloom**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Gloom Options

Color

Slide to add a color tint to the image.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Glowing Edges

The **Glowing Edges** effect adds color to the lines and details of people or objects in an image. The colored lines and details appear to glow.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Glowing Edges effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Glowing Edges**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Glowing Edges Options

Intensity	Specifies the amount of color added to the edges within the image. The higher the setting, the more intense the color that is applied to the image.
Color	Specifies the color of the edges.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Gradient Map

The **Gradient Map** effect adds colors to the dark and light parts of an image. The **Gradient Map** effect maps shadows to one color, and highlights to another based on the lightness value of each pixel. Give

the darker parts of an image a completely different color from the lighter parts.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Gradient Map effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Color** group.
3. Select **Gradient Map**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Gradient Map Options

Dark	Specify the color to be added to the dark parts of an image.
Light	Specifies the color to be added to the light parts of an image.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Granite

The **Granite** effect gives images the appearance of being painted on a rock wall.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To use the Granite effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Nature** group.
3. Select **Granite**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Granite Options

Light Angle	Specifies the direction from which an imaginary light source is shining on the image. Drag the arrow to adjust the angle. Different light angles will change the highlights and shadows in the peaks and valleys on the rock.
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Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Grunge

The **Grunge** effect gives an image a moody, dark look.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Grunge effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Grunge**.
4. Set the options as described below.

5. Do one of the following:

- Click **OK** to accept your changes and close the panel.
- Click **Cancel** to discard your changes and close the panel.

Grunge Options

Color	Slide to add a color tint to the image. When the Color slider is set to 0, no tint has been added.
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Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Jiggle

The **Jiggle** effect adds jiggly distortions to an image. Customize distortion characteristics to be added to an image. Some distortions will change the shape of the outside edges of the image, revealing a transparent background.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Jiggle effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Distort** group.
3. Select **Jiggle**.
4. Set the options as described below.

5. Do one of the following:

- Click **OK** to accept your changes and close the panel.
- Click **Cancel** to discard your changes and close the panel.

Jiggle Options

Size	Specifies the size of the jiggle distortion. Type a number from 1 to 100 or drag the slider to adjust the width of the distortions. As the value increases, the width of the wave also increases.
Detail	Specifies how jagged the distortion becomes. Type a number from 1 to 10 or drag the slider to adjust the detail.
Strength	Specifies the intensity of the distortion. Type a number from 1 to 100 or drag the slider to adjust the strength.
Randomize	Indicates the random placement of the distortions. When applying the Jiggle effect to an image, Gemstone places the fragments randomly to make the effect different every time the filter is applied. To generate a new random seed, click the Randomize button.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Lomo

The **Lomo** effect simulates the retro-effects of a lomo camera. Photos taken with a lomo camera are high contrast, with a golden hue and a noticeable vignette.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To use the Lomo effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Lomo**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Lomo Options

Color Distortion	Slide to the right to increase the color distortion.
Vignette Strength	Slide to the right to increase the vignette strength.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Mirror

The **Mirror** effect reflects an image along the horizontal or vertical axis. Select or change the **Mirror** effect options to apply mirroring to an image, including mirror axis and direction.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Mirror effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Distort** group.
3. Select **Mirror**.

4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Mirror Options

Mirror axis	Slide to adjust the position of the mirror. A value of 500 places the mirror in the center of the image.
Mirror direction	Enable either the Horizontal or Vertical radio buttons to specify the orientation of the image bars.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Negative

The **Negative** effect creates a negative of the image. The **Negative** effect can also be applied to a negative scanned from a roll of film to produce a positive image.

To create an image negative:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Color** group.
3. Select **Negative**.
4. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Oil Paint

The **Oil Paint** effect give an image a painted with oils appearance.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To create an Oil Paint effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Painting** group.
3. Select **Oil Paint**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Oil Paint Options

Brush Width	Drag the Brush width slider to specify the width of the brush strokes in the effect. The higher the value, the wider the brush stroke.
Variance	Drag the Variance slider to specify the color variance in each brush stroke. Higher values increase the number of colors used in each stroke.
Vibrance	Drag the Vibrance slider to adjust the intensity of the colors in the image.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Old

The **Old** effect gives an image an antique look. (The **Old** effect is similar to the **Sepia** effect, but produces a more realistic appearance of age.)



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply the Old effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Retro** group.
3. Select **Old**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Old Options

Age	Specifies the intensity or degree of the effect. (The numbers do not correspond to how old the photo should appear.)
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Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.





Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Orton

The **Orton** effect creates beautiful impressionistic images. The **Orton** effect mimics a darkroom technique created by sandwiching two images together, one of which is slightly out of focus, and both of which are slightly overexposed.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To use the Orton effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Orton**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Orton Options

Blur	Slide to the right to increase the blur.
Contrast	Slide to the right to increase the contrast.
Brightness	Slide to the right to increase the brightness.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.





Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Outline

Use the **Outline** effect to create a highlighted outline of an image, similar to the **Edge Detect** effect. However, with the **Outline** effect, the thickness of the outline can be controlled, whether an edge is outlined or not, and the color that displays behind the outlined image.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To use the Outline effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Edges** group.
3. Select **Outline**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Outline Options

Line width	Specifies the width of the outline in the effect. The higher the value, the wider the outline.
Threshold	Specifies how sharp an edge must be in order to be outlined. If a higher value is specified, more edges in the photo will be outlined.
Background color	Specifies the background color of the filtered image. Click the color picker to select a different color.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.





Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Pencil Drawing

The **Pencil Drawing** effect creates a pencil drawing from an image.

To create a Pencil Drawing from an image:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Painting** group.
3. Select **Pencil Drawing**.
4. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Photo Effect

The **Photo Effect** applies a variety of filters to an image.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Photo Effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Photo Effect**.
4. Select an option from the **Filter Type** drop-down menu.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Right-click a slider to reset to the default value.



Use the Edit Brush to paint this effect onto specific areas of the image.



Use the Gradient tool to transition this effect across specific areas of the image.



Use the Radial Gradient tool to apply effects around, or directly to, a center point.



Pixel Explosion

The **Pixel Explosion** effect explodes pixels from a center point in an image. The **Pixel Explosion** effect settings can be customized, such as intensity and direction.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To use the Pixel Explosion effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Pixel Explosion**.
4. Set the options as described below.

5. Do one of the following:

- Click **OK** to accept your changes and close the panel.
- Click **Cancel** to discard your changes and close the panel.

Pixel Explosion Options

Horizontal center	Specifies the center point of the explosion on the horizontal axis. A value of 500 places the explosion at the middle of the image.
Vertical center	Specifies the center point of the explosion on the vertical axis. A value of 500 places the explosion at the middle of the image.
Intensity	Specifies the intensity of the explosion. A higher value creates a larger, more brilliant spread of the pixels in the image.
Explosion direction	Specifies the direction of the explosion. Select one or both of the following: <ul style="list-style-type: none"> • Explode horizontally: Explodes the pixels towards the right and left sides of the image. • Explode vertically: Explodes the pixels towards the top and bottom of the image.
Randomize	Indicates the random placement of the pixels. When applying the Pixel Explosion effect to an image, Gemstone places the pixels randomly to make the pixels different every time the filter is applied. To generate a new random seed, click the Randomize button.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Pixelate

A pixel is the smallest piece of a digital image, arranged in rows and columns. When the resolution of an image is reduced, the size of the pixel increases and produces blurring. The **Pixelate** effect increases

the size of the pixels in an image.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent **Save** icon.

To apply a Pixelate effect:

1. Select **Filter** | **Add** | **Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Distort** group.
3. Select **Pixelate**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Pixelate Options

Width	Slide to the right to increase the width of the pixels in an image.
Height	Slide to the right to increase the height of the pixels in an image.
Square	Enable the Square checkbox to make the width and height equal.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Posterize

The **Posterize** effect reduces the number of brightness levels in an image.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Posterize effect:

1. Select **Filter** | **Add** | **Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Color** group.
3. Select **Posterize**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Posterize Options

Brightness levels

Slide to adjust the variance of colors in the image. The lower the value, the fewer colors used in the image.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Purple Haze

The **Purple Haze** effect gives an image a hyper-retro, purple tint.

To apply the Purple Haze effect:

1. Select **Filter** | **Add** | **Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Color** group.
3. Select **Purple Haze**.

4. Do one of the following:

- Click **OK** to accept your changes and close the panel.
- Click **Cancel** to discard your changes and close the panel.

 Right-click a slider to reset to the default value.


 Use the **Edit Brush** to paint this effect onto specific areas of the image. 

 Use the **Gradient** tool to transition this effect across specific areas of the image. 

 Use the **Radial Gradient** tool to apply effects around, or directly to, a center point. 

Radial Waves

The **Radial Waves** effect displays waves radiating from a center point in the photo. The center point of the photo and the appearance of the waves can be customized.

 Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Radial Waves effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Distort** group.
3. Select **Radial Waves**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Radial Waves Options

Horizontal position	Specifies the center of the waves on the horizontal axis. A value of 500 places the waves in the middle of the image.
Vertical position	Specifies the center of the waves on the vertical axis. A value of 500 places the waves in the middle of the image.
Amplitude	Specifies the depth and height of each wave.
Wavelength	Specifies the amount of space between waves.
Light strength	Specifies the amount of light contrast between the top and bottom of each wave.
Background color	Specifies the background color of the filtered image. Select the Image checkbox to use the original image colors, or click the color picker to select a different color.
Wave direction	Specifies the direction of the waves. Select one, or both, of the following: <ul style="list-style-type: none"> • Wave horizontally: Makes the waves move towards the right and left sides of the image. • Wave vertically: Makes the waves move towards the top and bottom of the image.

 Right-click a slider to reset to the default value.


 Use the [Edit Brush](#) to paint this effect onto specific areas of the image. 

 Use the [Gradient](#) tool to transition this effect across specific areas of the image. 

 Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point. 

Rain

The **Rain** effect makes it look like it was raining when you took a photo. Customize the amount of rain, the angle, strength and other characteristics.

 Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply the Rain effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Nature** group.
3. Select **Rain**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Rain Options

Strength	Specifies the length of the rain drops. Drag the slider to the right to increase the length.
Opacity	Specifies the opacity of the rain drops. Type a number from 0 to 100 or drag the slider to adjust the opacity of the rain drops. The higher the opacity, the more the image is obscured.
Amount	Specifies the number of rain drops.
Angle variance	Specifies the angle of the rain drops. Type a number from 0 to 50 or drag the arrow to adjust the angle.
Strength variance	Specifies how much variety there should be in the length of the rain drops. Drag the slider to the left to have a similar length. Drag the slider to the right to vary the length of rain drops. The more varied the length of the rain drops, the more natural they will appear.
Background blur	Specifies the amount of blur in the photo. Since heavy rainfall reduces visibility, use the blur option to make the rain effect look more natural.
Angle	Specifies the angle at which the rain drops are falling.
Color	Specifies the color of the rain drops.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.





Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Ripple

The **Ripple** effect divides images into concentric circles that resemble ripples from a pebble dropped into water. Customization includes position and strength.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Ripple effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Distort** group.
3. Select **Ripple**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Ripple Options

Horizontal position	Specifies the center of the ripples on the horizontal axis. A value of 500 places the ripples in the middle of the image.
Vertical position	Specifies the center of the ripples on the vertical axis. A value of 500 places the ripples in the middle of the image.
Amplitude	Specifies the depth and height of each ripple.
Wavelength	Specifies the amount of space between ripples.
Light strength	Specifies the amount of light contrast between the top and bottom of each ripple.
Background color	Specifies the background color of the filtered image. Enable the Image checkbox to use the original image colors, or click the color picker to select a different color.
Ripple direction	Specifies the direction of the ripples. Enable one or both of the following: <ul style="list-style-type: none"> • Ripple vertically: Makes the ripples move towards the top and bottom of the image. • Ripple horizontally: Makes the ripples move towards the right and left sides of the image.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Scattered Tiles

The **Scattered Tiles** effect divides an images into rectangular tiles, and scatters and stacks the tiles.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Scattered Tiles effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Distort** group.
3. Select **Scattered Tiles**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Scattered Tiles Options

Tile size	Specifies the size of the tiles.
Scatter amount	Specifies how much the tiles will move from their original positions.
Background color	Specifies the color of the background. Click the color picker to select a different color.
Randomize	<p>Indicates the random placement of the tiles.</p> <p>When applying the Scattered Tiles effect to an image, Gemstone places the tiles randomly to make the effect different every time the filter is applied. To generate a new random seed, click the Randomize button.</p>

 Right-click a slider to reset to the default value.

 Use the [Edit Brush](#) to paint this effect onto specific areas of the image. 

 Use the [Gradient](#) tool to transition this effect across specific areas of the image. 

 Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point. 

Sepia

The **Sepia** effect gives images an antique look. (The **Old** effect is similar to the **Sepia** effect, but produces a more realistic appearance of age.)

To add a Sepia treatment to an image:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Retro** group.
3. Select **Sepia**.
4. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

 Use the [Edit Brush](#) to paint this effect onto specific areas of the image. 



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Seventies

The **Seventies** effect gives images a retro look based on the styles of the 1970s.

To apply the Seventies effect:

1. Select **Filter** | **Add** | **Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Retro** group.
3. Select **Seventies**.
4. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Sheet Metal

The **Sheet Metal** effect turns an images into sheet metal impressions.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Sheet Metal effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Sheet Metal**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Sheet Metal Options

Rounding	Specifies the amount of curve in the edges of the impressions.
Detail	Specifies the amount of detail in the impression.
Angle	Specifies the angle of the grain in the sheet metal.
Metal color	Specifies the color of the sheet metal.
Direction	Specifies the direction in which the sheet metal was manipulated. Select one of the following: <ul style="list-style-type: none"> • Indented: Stamps the metal from the top side of the image. • Pushed out: Stamps the metal from underneath the image.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Shift

The **Shift** effect divides images into bars and shifts the bars in random directions.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Shift effect:

1. Select **Filter** | **Add** | **Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Distort** group.
3. Select **Shift**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Shift Options

Strength	Specifies the amount of shift between the bars.
Width	Specifies the width of each bar.
Angle	Specifies the angle of the bars.
Background color	Specifies the background color of the filtered image. Enable the Image checkbox to use the original image colors, or click the color picker to select a different color.



Right-click a slider to reset to the default value.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Slant

The **Slant** effect makes a photo appear slanted. For example, use the **Slant** effect to distort a photo by pushing the top of the photo to the left and the bottom of the photo to the right. Similarly, use the slant effect to push the left side of the photo upwards and the right side of the photo downwards.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Slant effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Distort** group.
3. Select **Slant**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Slant Options

Amount	Specifies the degree of the slant.
Fulcrum	Specifies the center of the slant. Drag the slider to the left to place the center of the slant near the bottom of the photo. Drag the slider to the right to place the center of the slant near the top of the photo.
Background color	Specifies the background color of the filtered image. Click the color picker to select a different color.
Slant Direction	Specifies the angle of the slant: <ul style="list-style-type: none"> • Horizontal: Select Horizontal to push the top or bottom of the photo to the left or right. • Vertical: Select Vertical to push the left or right side of the photo up or down.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Sobel

The **Sobel** effect creates a highlighted outline of an image. After creating a black image, the **Sobel** effect uses colored lines to outline the detail of an image where significant color differences exist. Greater differences between colors in the original image produce brighter outline colors. (The **Sobel** effect is similar to the **Edge Detect** effect, but produces sharper and brighter outlines.)

To use the Sobel effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Edges** group.
3. Select **Sobel**.
4. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Solarize

The **Solarize** effect simulates the effect of overexposing an image, as though the film was exposed to light before developing.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Solarize effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Color** group.
3. Select **Solarize**.
4. Set the options as described below.

5. Do one of the following:

- Click **OK** to accept your changes and close the panel.
- Click **Cancel** to discard your changes and close the panel.

Solarize Options

Threshold	Specifies the brightness threshold of the image.
Effect	<p>Specify which pixels to adjust by selecting one of the following options.</p> <p>Solarize: Adjusts pixels located above the specified threshold option. The effect takes any pixels above the threshold and replaces them with their negative value. When solarizing an image, a higher threshold value sets a brighter threshold, and colors need to be brighter to be overexposed.</p> <p>Lunarize: Adjusts pixels located below the specified threshold option. The effect takes any pixels below the threshold and replaces them with their negative value. When lunarizing an image, a higher threshold value sets a darker threshold, and colors do not have to be as bright to be overexposed.</p>



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Somber

The **Somber** effect gives an image an austere or sleek look.

To apply the Somber effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Retro** group.
3. Select **Somber**.

4. Do one of the following:

- Click **OK** to accept your changes and close the panel.
- Click **Cancel** to discard your changes and close the panel.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Stained Glass

The **Stained Glass** effect divides images into fragments of a random size and shape, to give the photo the appearance of a stained glass window.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.



To apply a Stained Glass effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Stained Glass**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Stained Glass Options

Fragment size	Specifies the size of the fragments.
Randomize	<p>Indicates the random placement of the fragments.</p> <p>When applying the Stained Glass effect to an image, Gemstone places the fragments randomly to make the effect different every time the filter is applied. To generate a new random seed, click the Randomize button.</p>

 Right-click a slider to reset to the default value.


 Use the **Edit Brush** to paint this effect onto specific areas of the image. 

 Use the **Gradient** tool to transition this effect across specific areas of the image. 

 Use the **Radial Gradient** tool to apply effects around, or directly to, a center point. 

Sunspot

The **Sunspot** effect adds a bright spot to images.

 Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Sunspot effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Light** group.
3. Select **Sunspot**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Sunspot Options

Horizontal position	Specifies the horizontal position of the sunspot.
Vertical position	Specifies the vertical position of the sunspot.
Brightness	Specifies the intensity of the sunspot.

 Right-click a slider to reset to the default value.

Swirl

The **Swirl** effect rotates and stretches people and objects in an image.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Swirl effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Distort** group.
3. Select **Swirl**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Swirl Options

Horizontal position	Specifies the center of the swirl on the horizontal axis. A value of 500 places the swirl in the middle of the image.
Vertical position	Specifies the center of the swirl on the vertical axis. A value of 500 places the swirl in the middle of the image.
Radius	Specifies the size of the swirl effect.
Strength	Specifies the strength and direction of the swirl. Higher values create a clockwise swirl, while negative values create a counter-clockwise swirl.
Focus	Specifies the concentration of the swirl. Higher values concentrate the effect on the center of the swirl, while lower values spread the swirl across the image.
Background color	Specifies the background color of the filtered image. Select the Image checkbox to use the original image colors, or click the color picker to select a different color.
Swirl direction	Specifies the direction of the swirl. Select one or both of the following: <ul style="list-style-type: none"> • Swirl horizontally: Moves the swirl towards the top and bottom of the image. • Swirl vertically: Moves the swirl towards the right and left sides of the image.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Threshold

The **Threshold** effect creates a black and white image.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply the Threshold effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Threshold**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Threshold Options

Threshold

The **Threshold** slider determines which pixels become black and which ones become white in a black and white rendering of the image. Any pixels that are brighter than the selected threshold will become white and any pixels that are darker than the threshold will become black.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.





Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Topography

The **Topography** effect changes the details of an images into contour lines.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Topography effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Topography**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Threshold Options

Rounding	Adjusts the amount of curve in the contour lines.
Number of lines	Specifies how many contour lines to add.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Water

The **Water** effect inserts an expanse of water below the subject of a photo to display a reflection of the subject in the water. The position of the water below the subject can be customized. For example, position the water below a person's chin, below their waist, or control the appearance of ripples in the water and how dark or light the water appears.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Water effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Nature** group.
3. Select **Water**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Water Options

Position	Specifies the position of the water below the subject of the photo.
Amplitude	Specifies the height of the ripples in the water. Drag the slider to the left to reduce the height of the ripples and the distortion caused by the ripples. Drag the slider to the right to increase the height of the ripples and the distortion caused by the ripples.
Wavelength	Specifies the distance between ripples. Drag the slider to the left to reduce the distance between ripples and increase the distortion caused by the ripples. Drag the slider to the right to increase the distance between ripples and reduce the distortion caused by the ripples.
Perspective	Changes the size of the waves as they get farther from the subject. Drag the slider to the left to increase the size of the waves farthest from the subject and to increase the illusion of distance.
Lighting	Specifies the amount of light in the water.



Right-click a slider to reset to the default value.



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Water Drops

The **Water Drops** effect displays water drops on the surface of the photo. The number and size of water drops, and their position on the photo are customizable.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply the Water Drops effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Nature** group.
3. Select **Water Drops**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Water Drops Options

Density	Specifies the number of water drops on the photo. Drag the slider to the left to remove water drops. Drag the slider to the right to add water drops.
Radius	Specifies the size of the water drops. Drag the slider to the left to make the water drops smaller. Drag the slider to the right to make the water drops larger.
Height	Specifies the height of the water drops above the photo surface. Drag the slider to the left to reduce the height of the water drops and the distortion caused by the water drops. Drag the slider to the right to increase the height of the water drops and the distortion caused by the water drops.
Randomize	Indicates the random placement of the water drops. When applying the Water Drops effect to an image, Gemstone places the water drops randomly to make the effect different every time the filter is applied. To generate a new random seed, click the Randomize button.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Waves

The **Waves** effect displays waves across a photo. Change the distance between waves, called "wavelength", or change the height of the waves, and the angle at which the waves cross the photo.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Waves effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Distort** group.
3. Select **Waves**.
4. Set the options as described below.

5. Do one of the following:

- Click **OK** to accept your changes and close the panel.
- Click **Cancel** to discard your changes and close the panel.

Waves Options

Wavelength	Specifies the distance between waves. Drag the slider to the left to reduce the distance between waves and increase the distortion caused by the waves. Drag the slider to the right to increase the distance between waves and reduce the distortion caused by the waves.
Amplitude	Specifies the height of the waves. Drag the slider to the left to reduce the height of the waves and the distortion caused by the waves. Drag the slider to the right to increase the height of the waves and the distortion caused by the waves.
Angle	Specifies the angle of the waves. Type a number from 1 to 360 or drag the arrow to adjust the angle.
Background color	Specifies the background color. Enable the Image checkbox to use the original image colors, or click the color picker to select a different color.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Weave

The **Weave** effect gives a photo the appearance of being woven into a tapestry or basket. Control the width of the vertical and horizontal strips, the width of the gap between the strips, and the background color that displays through the gap.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To apply a Weave effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.
3. Select **Weave**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Weave Options

Strip width	Specifies the width of the vertical and horizontal strips.
Gap width	Specifies the width of the gap between the strips.
Background color	Specifies the color of the background. Click the color picker to select a different color.



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



Wind

The **Wind** effect adds wind lines that make stationary objects in an image look like they are moving.



Customized settings can be saved as a preset for future use. Presets can be selected from the [Presets](#) drop-down, or saved by clicking the adjacent [Save](#) icon.

To apply a Wind effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **Artistic** group.

3. Select **Wind**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Wind Options

Strength	Determines how strong the wind lines are in the image. The higher the value, the stronger the wind lines.
Threshold	Determines how sharp an edge must be before the filter will apply wind. The higher the value, the sharper the edge needs to be.
Chance of wind	Determines the amount of wind lines to place in the image.
Edge detection	Specifies the edge detection algorithm. The algorithm controls the formula used to detect the edges and the direction of the edge indicators.
Background color	Specifies the background color. Enable the Image checkbox to use the original image colors, or click the color picker to select a different color.
Wind color	Specifies the color of the wind lines. Enable the Image checkbox to use the original image colors, or click the color picker to select a different color.
Wind angle	Specifies the angle of the wind lines.
Randomize	<p>Indicates the random placement of the wind lines.</p> <p>When applying the Wind effect to an image, Gemstone places the wind lines randomly to make the wind lines different every time the filter is applied. To generate a new random seed, click the Randomize button.</p>



Right-click a slider to reset to the default value.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.



Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



User Defined Convolution

The **User Defined Convolution** effect creates a customized special effect.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To create a User Defined Convolution effect:

1. Select **Filter | Add | Special Effects** from the main menu.
2. In the **Effects** dialog, navigate to the **User Defined** group.
3. Select **User Defined Convolution**.
4. Set the options as described below.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

User Defined Convolution Options

Convolution Matrix	<p>Specifies the formula to use when altering the image.</p> <p>Enter numbers in the matrix fields to change the pixels in the image. Using a mathematical formula, the color value of each pixel in an image is multiplied by the numbers in the matrix to produce an effect.</p>
Division factor	<p>Specifies the fractional coefficient of the matrix.</p> <p>Enter a number into the Division factor field to use fractional coefficients in the matrix. The product of the convolution matrix is divided by the division factor before being applied to a pixel.</p>
Bias	<p>Specifies the brightness of the image.</p> <p>Enter a number into the Bias field to change the brightness of the image. The bias number is added to the RGB values of each pixel. A positive number brightens the image, while a negative number darkens the image.</p>
Clear Matrix	Resets the matrix.
This matrix is	Loads a sample effect to use as a starting point for creating a personalized effect.



Use the [Edit Brush](#) to paint this effect onto specific areas of the image.





Use the [Gradient](#) tool to transition this effect across specific areas of the image.



Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point.



About Blend Modes

Blend modes are filters that change the appearance of the text added to images. The following table lists the blend modes available at the top of the **Layers** pane, and gives a brief explanation of their effects.

Blend Modes

Normal	Applies the text to the underlying image with the specified color. Only opacity affects this blend.
Screen	Combines the text color with the inverse of the underlying photo color, resulting in a color that is the same or lighter.
Multiply	Combines the text color with the underlying photo to produce a darker color. Multiplying any color with black produces black; multiplying any color with white leaves the color unchanged.
Dodge	Combines the text color with the underlying pixels in the photo to produce a lighter color.
Burn	Combines the text color with the underlying pixels in the photo to produce a darker color.
Overlay	Preserves the shadows and highlights of the lower layers while applying either Multiply or Screen blend mode based on the underlying image area's color values.
Difference	Subtracts the text color from the color of the underlying photo. Any white in the text produces a true negative of the color in the image, while black produces no effect.
Darken	Applies pixels in the text that are darker than the underlying image. Pixels in the text that are lighter than the underlying image disappear (based on RGB values).
Lighten	Applies pixels in the text that are lighter than the underlying image. Pixels in the text that are darker than the underlying image disappear (based on RGB values).
Hard Light	Adds strong highlights or shadows by applying Multiply or Screen based on the underlying image area's color values.
Soft Light	Adds soft highlights or shadows by darkening or lightening based on the underlying image area's color values.
Hue	Applies the hue value of colors in the text to the color of the underlying image areas.
Saturation	Applies the saturation value of colors in the text to the color of the underlying image areas.
Color	Applies the hue and saturation of the text to the image. This blend does not affect the luminance of the underlying image.
Luminosity	Applies the lightness value of colors in the text to the color of the underlying image areas.
Dissolve	Randomly replaces the pixels with the image (base) or text (blend) color, depending on the opacity at any pixel location.

Exclusion	Like Difference, but with less contrast, Exclusion subtracts the text (blend) color from the color of the underlying photo. Any white in the text produces a true negative of the color in the image, while black produces no effect.
Vivid Light	Combines the text (blend) color with the underlying pixels in the photo by increasing or decreasing contrast to produce a lighter or darker color, as determined by the blend color.
Pin Light	When the light source is lighter than 50% gray, the pixels darker than the light source are replaced. Pixels lighter than the light source remain the same. When the light source is darker than 50% gray, the pixels lighter than the light source are replaced. Pixels darker than the light source remain the same.
Linear Light	Dodges or burns by lightening or darkening the brightness value, depending on the text (blend) color.
Hard Mix	Applies red, green, and blue channel values of the text (blend) color to the RGB values of the image.
Subtract	Subtracts the text color from the image (base) color in each channel.
Divide	Divides the text color from the image (base) color.
Darker Color	From the text color and the image (base) color, the lower channel values are chosen.
Lighter Color	From the text color and the image (base) color, the higher channel values are chosen.



You can use the **Edit Brush**



to paint an effect onto specific areas of your image, and then set the blend mode and opacity slider to change the way the effect is applied.

Chapter 8: Editing - Geometry Tools

Rotating an Image

Images can be rotated at common preset angles or custom angles.

To rotate an image:

1. Select **Document** | **Rotate** from the main menu.
2. Select one of the following:
 - **180°**: Rotates the image 180 degrees so that the image appears upside-down compared to the original.
 - **90° Clockwise**: Rotates the image 90 degrees to the right.
 - **90° Counter Clockwise**: Rotates the image 90 degrees to the left.
 - **Arbitrary...**: Opens the **Rotate Canvas** dialog. Enter a numeric value in the **Angle** field, then select either the **°Clockwise** or **°Counterclockwise** radio button. Click the **OK** button to proceed.

Flipping an Image

Images can be flipped vertically and horizontally.

To flip an image horizontally:

1. Select **Document** | **Flip Canvas Horizontal** from the main menu.

To flip an image vertically:

1. Select **Document** | **Flip Canvas Vertical** from the main menu.

Cropping an Image

The **Crop** tool is used to remove portions of a photo to create focus on a subject or strengthen the overall composition by removing distractions. Besides cropping, the **Crop** tool can be used to straighten photos.

To crop an image:

1. Select the **Crop** tool from the toolbar.
2. Customize the crop by manipulating the options in the **Tool Properties** bar, directly above the image (see [Crop Tool](#)).

3. Do one of the following in the **Tool Properties** bar:
 - Click **OK** to crop the image and close the tool.
 - Click **Cancel** to exit the tool without cropping the image.

Resizing the Crop Window

There are three options for resizing the crop window:

- Drag the edges of the crop window to the desired size.
- Specify an exact size for the crop window in pixels, inches, centimeters, or millimeters.
- Apply a ratio to constrain the crop window proportions.

To resize the crop window by dragging:

1. Position the cursor over one of the yellow squares residing on the edge or corner of the crop window.
2. After the cursor changes into a double-pointed arrow, drag the crop window's border to the desired size.

To specify an exact size for the crop window:

1. In the **Tool Properties** bar, select "Aspect ratio not preserved" from the drop-down list.
2. Enter the desired crop window proportions into the two numeric fields.
3. In the **Units** drop-down list, select a unit of measurement.
4. Click the **OK** button.

To constrain the crop window to a ratio:

1. In the **Tool Properties** bar, select any option other than "Aspect ratio not preserved" from the drop-down list.
2. If selecting "Custom", in the resultant **Custom Aspect Ratio** dialog, enter values in the **Width** and **Height** fields and click the **OK** button.
3. If selecting a value other than "Custom", click the **OK** button in the **Tool Properties** bar.

Perspective Correction

The **Perspective Correction** filter corrects perspective distortion in digital photographs. Perspective distortion is caused by wide-angle and telephoto lenses, which distort the perspective of large or far-away objects. For example, when taking a photo of a tall building, the building may appear to be narrower at the top even though the building is the same width from top to bottom.

To correct Perspective Distortion:

1. Select **Filter | Geometry | Perspective Correction** from the main menu, or press **Ctrl + Alt + D**.
2. An outline displays around the image. The outline has yellow handles at all four corners, and in the middle of all sides. Drag the handles to change the perspective.
3. Set the options as described below.
4. Do one of the following:
 - Click **OK** to apply any changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.

Perspective Correction Options

Background color	When correcting distortion in a photo, the edges of the photo may bulge outwards or shrink inwards. Use the Background color color picker to select a color for filling-in gaps in the corners or sides of a corrected photo. Enable the Transparent checkbox to use transparency to fill-in gaps in the corners or sides of a corrected photo.
Show Grid	Enable the Show Grid checkbox to display a grid over the photo, which is useful for assessing whether objects in the photo are straight.

Distortion Correction

The **Distortion Correction** filter corrects barrel, pincushion, and fisheye distortion in digital photographs. In barrel distortion, the photo appears to bulge outwards from the center. In pincushion distortion, the photo appears to shrink inwards toward the center. In fisheye distortion, the photo appears to bulge outwards from the center, as if the photo were wrapped around a sphere.

Barrel, pincushion, and fisheye distortions are common in photos taken with wide angle or zoom lenses.

Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To correct distortion:

1. Select **Filter | Geometry | Distortion Correction** from the main menu, or press **Alt + Z**.
2. In the **Distortion Correction** dialog, make a selection from the **Presets** drop-down list, or set the options as described below
3. Optional: Save any customized settings as a new preset.

4. Do one of the following:

- Click **OK** to apply any changes and close the tool.
- Click **Cancel** to discard all changes and close the tool.

Distortion Correction Options

Horizontal Center	Drag the slider to the left or right to identify the center of the image on the horizontal axis.
Vertical Center	Drag the slider to the left or right to identify the center of the image on the vertical axis.
Correction Strength	Drag the slider to the right until the objects in the photo appear to be straight.
Scale	Drag the slider to the left or right to change the scale of the photo.
Background Color	When correcting distortion in a photo, the edges of the photo may bulge outwards or shrink inwards. Use the Background color color picker to select a color for filling-in gaps in the corners or sides of a corrected photo. Enable the Transparent checkbox to use transparency to fill-in gaps in the corners or sides of a corrected photo.
Type of Distortion	Enable either the Barrel , the Pincushion , or Fisheye radio buttons to change the distortion type effect on the image.
Show Grid	Enable the Show Grid checkbox to display a grid over the photo, which is useful for assessing whether objects in the photo are straight.



Right-click a slider to reset to the default value.

Lens Correction

In Gemstone, lens distortion can be managed by using manual correction via the **Manual Correction** slider, or corrected based on the lens profile by selecting the make, model, and lens of the camera used to take the image.

The **Lens Correction** filter contains a database of camera makes, models, and their possible lenses. The possible lenses for the selected camera will be available to choose from the **Lens** drop-down menu, unless there is only one possible lens, in which case, that lens will be pre-selected.

The name of the lens used to take the photo can be found in the **Current Lens Information** section.

The lens profile can also be used to correct chromatic aberration, if it is available.


Use the **Manual Correction** slider for further adjustments after using automatic correction, or on its own.

 For quick viewing of the available lens profiles, go [here](#).

To fix lens distortion using lens profile:

1. Select **Filter | Geometry | Lens Correction** from the main menu, or press **Ctrl + Shift + C**.
2. In the **Lens Correction** dialog, enable the **Enable Lens Profile** checkbox.
3. If the displayed camera make and model are not correct, select the correct options from the **Make** and **Model** drop-down menus.
4. From the **Lens** drop-down menu, select the lens used to take the image. This information is displayed in the **Current Lens Information** section. The correction will occur automatically.
5. To make further adjustments, move the **Strength** slider in the **Manual Correction** section to the left for a bulge effect, or to the right to stretch the edges of the image.

 Right-click a slider to reset to the default value.

 Enable the **Show Grid** checkbox to display a grid over the image, useful for fixing alignment issues in an image.

To fix chromatic aberration using lens profile:

Chromatic aberration occurs due to the properties of a given lens. Therefore, use the lens profile to automatically correct it. The **Chromatic Aberration** checkbox will be enabled if the selected lens has a corresponding chromatic aberration correction available.


1. Select **Filter | Geometry | Lens Correction** from the main menu, or press **Ctrl + Shift + C**.
2. Enable the **Enable Lens Profile** checkbox.
3. Enable the **Chromatic Aberration** checkbox.

To fill-in the edges of a manually corrected image:

Some manual adjustments may affect the edges of the image. Choose the color to be used to fill the discrepancies created by the lens correction. Alternatively, opt for transparency in the fill-in area by enabling the **Transparency** checkbox.

Resizing an Image

Resize an image by adjusting its dimensions in pixels, percentage, or actual/print size. While resizing, choose an aspect ratio and a resampling filter to adjust the resized image's appearance.

 Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To resize an image:

1. Select **Document | Resize Canvas...** from the main menu.
2. In the **Resize Canvas** dialog, enter values in the **Width** and **Height** fields then navigate to the **New Dimensions** field set and select one of the following measurement unit options from the drop-down:
 - **Pixels**: Resizes the image to specific dimensions in pixels.
 - **Inches**: Resizes the image to specific dimensions in inches.
 - **Centimeters**: Resizes the image to specific dimensions in centimeters.
 - **Percent**: Resizes the image to a percentage of the original.
3. To maintain a specific width to height ratio, navigate to the **Aspect Ratio** drop-down and select any value other than "Aspect ratio not preserved". The following options from the **Aspect Ratio** drop-down list will preserve or set an aspect ratio:
 - **Original**: Maintains the original image's width to height ratio.
 - **1 x 1**: Forces the width and height to be equal.
 - **2 x 3**: Forces a width to height ratio of 2:3.
 - **3 x 2**: Forces a width to height ratio of 3:2.
 - **3 x 5**: Forces a width to height ratio of 3:5.
 - **5 x 3**: Forces a width to height ratio of 5:3.
 - **Custom...**: Applies a custom ratio. Enter a width to height ratio in the **Custom Aspect Ratio** dialog box. Custom ratios are automatically saved to the **Aspect Ratio** drop-down list after clicking the **OK** button in the **Custom Aspect Ratio** dialog box.
4. Optional: From the **Anchor** field, select an anchor to dictate the resizing starting point.
5. In the **Resolution** field, enter a Dots Per Inch value to set image quality (the lower the number, the less quality).
6. Do one of the following:
 - Click **OK** to apply any changes and close the Resize tool.
 - Click **Cancel** to discard all changes and close the tool.

Resizing Tips

- Maintain image quality by reducing images only by 33%, 50%, or 66%. Other percentages can distort the aspect ratio.
- Avoid resizing an image repeatedly. Each resizing places image pixels using a slightly different orientation. As a result, multiple resizes can change the overall color and appearance of the image. If a first resize attempt does not produce the desired result, click the **Undo** button.
- Avoid increasing the size of an image. Increasing image size makes the image's pixels more apparent, causing a grainy effect.

Liquify

Distorting and Retouching with the Liquify Tool

The **Liquify** filter moves pixels without altering them.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To liquify an image:

1. Select **Filter** | **Geometry** | **Liquify** from the main menu.
2. In the **Distortion Tools** section of the **Liquify** dialog, select the type of distortion to apply.
3. Set the options as described below.
4. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Liquify Options

Distortion Tools Distort images by moving the cursor, essentially brushing on the effect by pushing and pulling pixels around the image.



Use the **Shift** tool to push pixels in images.



Use the **Pinch** tool to condense pixels towards a center point.



Use the **Bulge** tool to expand pixels outward.



Use the **Restore** tool to brush the pixels back to their original position.



Hold down the right mouse button to activate the **Restore** tool while using any of the other Distortion tools.

Nib Width Adjusts the size of the brush. Use the mouse wheel to adjust nib width or adjust with the **Nib Width** slider.

Density Adjusts the size of the area affected. Within the inner circle of the nib, the effect is being applied at 90% or more. The area between the inner and outer circle, the effect is transitioning between 90%-0% at the outer edge.



Use **Shift + mouse wheel** to adjust the density.

Strength Adjusts the intensity of the overall effect. Move the slider to the right to intensify the effect.

Fill color When distorting the image to the point where its edges are pulled in past the canvas line, use the **Fill color** picker to select the background color.

Transparent When distorting the image to the point where its edges are pulled in past the canvas line, enable the **Transparent** checkbox to make the bare canvas portions transparent.

Chapter 9: Editing - Exposure and Lighting Tools

Exposure

The **Exposure** filter adjusts an image's exposure, contrast, and fill light.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To adjust an image's exposure:

1. Select **Filter | Exposure / Lighting | Exposure** from the main menu, or press **Alt + X**.
2. Set the options as described below.
3. Do one of the following:
 - Click **Apply** to apply any changes and set options on another tab.
 - Click **OK** to apply any changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.

Exposure Options

Exposure	Drag the slider to the right to increase the exposure, or drag to the left to decrease exposure.
Auto	Click the Auto button to automatically adjust the exposure level.
Contrast	Drag the slider to the right to increase contrast, or drag to the left to decrease contrast.
Fill Light	Drag slider to the right to increase the amount of light in the darkest areas of the image, or drag to the left to decrease fill light. Fill light brightens dark areas of the image.



Right-click a slider to reset to the default value.



This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details).



Use the **Edit Brush** to paint this effect onto specific areas of the image.





Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Levels

The **Levels** filter precisely adjusts an image's contrast and light levels.






Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To adjust an image's levels:

1. Select **Filter | Exposure / Lighting | Levels** from the main menu, or press **L**.
2. Do one of the following:
 - Set the options as described below to adjust the contrast and light levels manually.
 - Click **Auto...** and select a menu option to automatically adjust image properties.
3. Do one of the following:
 - Click **Apply** to apply any changes.
 - Click **OK** to apply any changes and close the **Levels** tool.
 - Click **Cancel** to discard all changes and close the tool.

Levels Options


Channel	Specifies the brightness or color channel to adjust.
Shadows	<p>Specifies the black point of an image.</p> <p>Move the slider or type a number from 0 to 255 into the spin box to define the blackest area of an image. As the value increases, the dark colored areas of the image become darker. As an alternative to using the spin box, click the arrows to manually set it to where the black point starts in the image.</p>
Midtones	<p>Specifies the midtones in an image.</p> <p>Move the slider or type a number into the spin box to set the midtone. Higher values make the image appear brighter, while lower values make the image appear darker. As an alternative to using the spin box, click the arrows to manually set it to the midtone of the image.</p>
Highlights	<p>Specifies the white point of an image.</p> <p>Move the slider or type a number from 0 to 255 into the spin box to define the whitest area of an image. As the value increases, the light colored areas of the image become lighter. As an alternative to using the spin box, click the arrows to manually set it to where the highlights start in the image.</p>
Auto	<p>Select one of the following options:</p> <ul style="list-style-type: none"> • Adjust Contrast: Automatically analyzes and adjusts image contrast. • Adjust Color and Contrast: Automatically analyzes and adjusts each color channel independently, and then adjusts the contrast. • Adjust Color and Brightness: Automatically analyzes and adjusts image color and brightness. • Tolerance: Opens the Tolerance settings dialog box. Specify the maximum clipping percentage for black and white levels, and click OK. Gemstone adjusts the image levels automatically.
Black Point picker 	Click the Black Point picker, and then click the image area to set as the black point.
Mid Point picker 	Click the Mid Point picker, and then click the image area to set as the mid point.
White Point picker 	Click the White Point picker, and then click the image area to set as the white point.



When clicking the image with a selected eye dropper the RGB numbers change to reflect the RGB values of the pixel under the eye dropper. The RGB values represent the source pixel (unprocessed) and the current pixel as it appears on the screen.

 This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details). 


 Use the **Edit Brush** to paint this effect onto specific areas of the image. 

 Use the **Gradient** tool to transition this effect across specific areas of the image. 

 Use the **Radial Gradient** tool to apply effects around, or directly to, a center point. 

Auto Levels


The **Auto Levels** filter automatically corrects the exposure levels of an images. Using the **Auto Levels** filter makes the darkest image pixels darker, and the brightest pixels brighter.

 Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To automatically correct image levels:

1. Select **Filter | Exposure / Lighting | Auto Levels** from the main menu, or press **Alt + J**.
2. Select one of the following options:
 - **Auto Contrast and Color**: Adjusts color differences, brightness, and balances RGB channels.
 - **Auto Contrast**: Adjusts the color differences and brightness only.
 - **Auto Color**: Balances the RGB channels in the image, without changing the brightness or contrast.
3. Use the **Strength** slider to fine tune the amount of exposure to apply.
4. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

 Right-click a slider to reset to the default value.

 This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details). 



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Tone Curves

The **Tone Curves** filter changes the tonal range of an image. Select the RGB color channel to adjust the entire range of the image, or select a specific color.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To adjust image curves:

1. Select **Filter | Exposure / Lighting | Tone Curves** from the main menu, or press **Ctrl + Shift + A**.
2. Set the options as described below.
3. Do one of the following:
 - Click **Apply** to apply any changes.
 - Click **OK** to apply any changes and close the **Tone Curves** tool.
 - Click **Cancel** to discard all changes and close the tool.

Tone Curves Options

Channel	Specifies the color channels to adjust.
Show Histogram	Toggles the histogram display on and off.
Histogram	Displays a graphic of the color information levels in the image, based on the selected channel. Click and drag the line to manipulate the curve. A new node is added each time the curve is clicked. Drag the nodes up and down the curve to change the settings. To remove a node, drag the node up and out of the graph, or down and out of the graph.
Color Picker	Drag the cursor onto the image to change the cursor to a color picker that provides the RGB value of the picker's current location. Click the image at a desired tone to add a corresponding point to the adjustment curve.



This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details).



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Light EQ

The **Light EQ™** filter adjusts areas in an image that are too dark or too light, without affecting other areas of the photo. An effective benefit of the **Light EQ™** filter is the ability to simultaneously lighten dark areas that are too dark, and darken areas that are too bright. Examples would be a photo of a person silhouetted against a bright background like the sea, or a window. In fact, most photos taken on a dull day, or with a flash, can be improved in various ways with fine adjustments.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

The **Light EQ™** filter features four tabs — each tab is associated with an adjustment technique that achieves results in different ways. In addition, there are several keyboard and mouse shortcuts for making adjustments on specific areas of the photo itself.

The four **Light EQ™** tabs include:

- **1-Step** tab: For an instant, effortless exposure adjustment.
- **Basic** tab: Is for very quick and easy adjustments using three sliders. Gemstone analyzes the photo and varies the adjustment throughout the image automatically. For example, darker images are brightened more. By clicking the **Auto** button, Gemstone fully analyzes the photo and sets the slider positions automatically. It is also possible to directly click an area of the image to generate automatic settings optimal for that area, (usually the subject of the photo).
- **Standard** tab: Works like a sound equalizer but with light. Adjust the brightness and contrast of different tone bands (areas of relative brightness or darkness) of the image independently using a slider for each tone band. A graph shows the amount of brightening or darkening applied throughout the tonal range. The gray areas in the graph are suggested boundaries for adjustment to avoid clipping and loss of detail, and turn red to indicate where the sliders have been adjusted far enough to cause clipping.

- **Advanced** tab: Provides ultimate control of the brightness and contrast in an image. Basic adjustment curves can be constructed using four sliders, and the curves can be manually adjusted by clicking and dragging within the graph area or on the image itself.

To open the Light EQ™ filter:

Select **Filter** | **Exposure / Lighting** | **Light EQ™** from the main menu, or press **Q**.

The 1-Step Tab

When opening an image in the **Light EQ™** filter, the **1-Step** tab is set by default and automatically adjusts the image's exposure. Further adjusts can be made using the **Amount** slider.

The Basic Tab

To darken areas that are too bright:

1. Drag the **Shadows** slider to the right to lighten and return detail to areas that are too dark.
2. Adjust the settings using any of the controls in the table below.

To adjust midtones that are too light or dark:

1. Drag the **Midtones** slider to the right to lighten and return detail to areas that are too dark.
2. Adjust the settings using any of the controls in the table below.

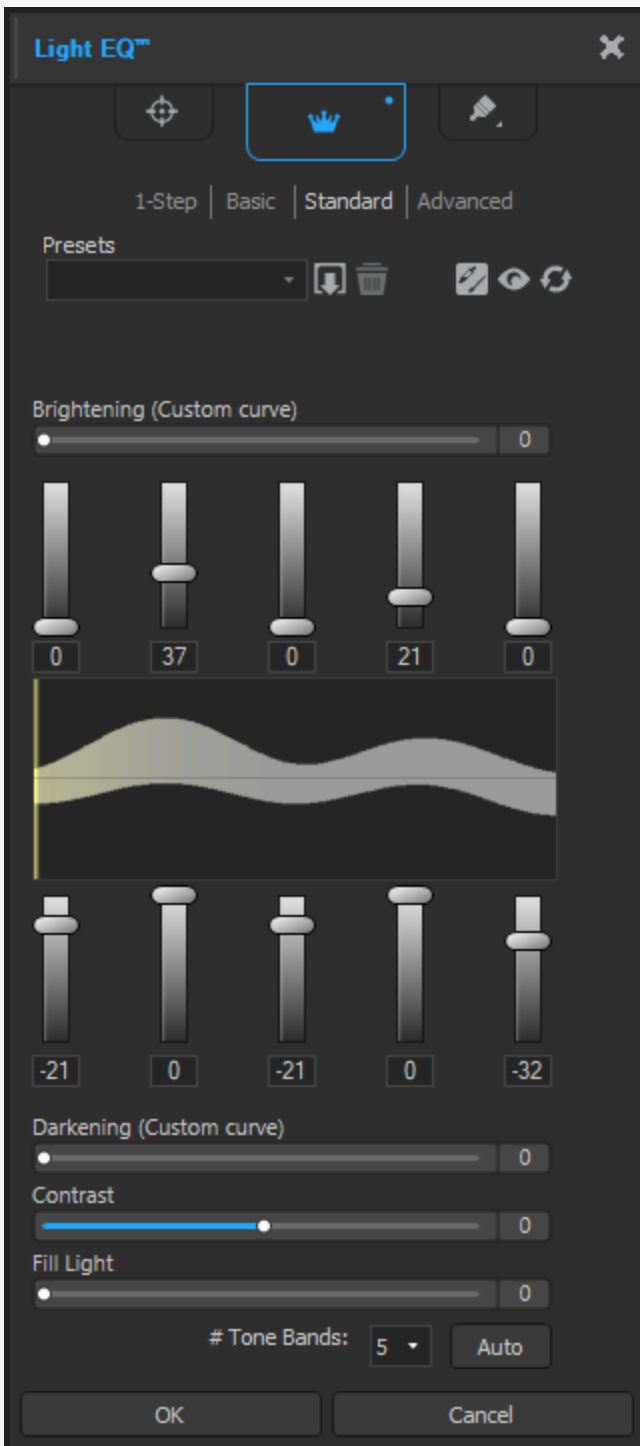
To add light to dark areas:

1. Drag the **Highlights** slider to the right to add light to the dark parts of the photo.
2. Adjust the settings using any of the controls in the table below.

Light EQ™ Controls

Right-click on a slider	Right-click on a slider to reset it.
Auto	Click to allow the software to analyze the photo and apply optimal settings based on the amount of light and dark pixels in the photo. Darker photos are brightened more than photos that are already bright.
OK	Click to apply any changes and close the tool.
Cancel	Click to discard all changes and close the tool.

The Standard Tab



The **Standard** tab has two sets of sliders. The top set is for brightening. The lower set is for darkening. The dark-to-light gradient on each slider indicates which tone band will brighten when the slider is moved up (top row of sliders) or tone band will darken when the slider is moved down (bottom row).

Between the two sets of sliders are two horizontal bars graded from black to white. These bars indicate that sliders on the far left affect the dark tonal bands. The sliders on the right affect light tonal bands. Moving a slider changes the light in that particular tonal band.

In the middle of the bands are two graphs that change as the sliders are adjusted to represent the amount of darkening and lightening throughout the tonal range of the image. The two gray graphs show the maximum amount of brightening or darkening that can be applied before clipping begins. If a slider is pushed too far, the clipping is shown in bright pink.

To increase contrast within a tonal band, apply brightening and darkening simultaneously in equal amounts by dragging the upper and lower sliders up and down, respectively. The area between the

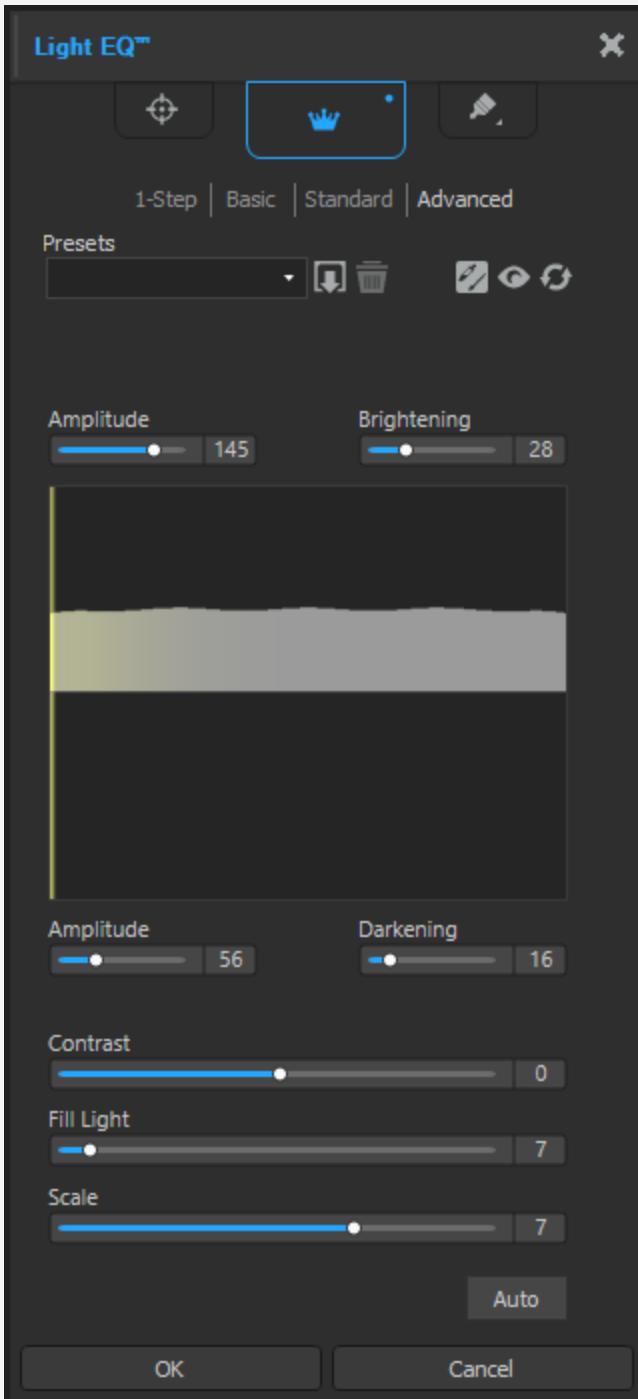
top of the upper graph and the bottom of the lower graph indicates the amount by which contrast is increased.

To use the Standard tab:

1. Do one of the following:
 - Drag the tone band sliders up or down depending on which light bands you want to adjust.
 - Type the exact number into the number boxes or increment the numbers to make precise adjustments.
 - Click the **# Tone Bands** drop-down list to increase or decrease the number of tone band sliders.
 - Click the **Auto** button to apply settings automatically.
 - Drag the **Brightening** slider to lighten the dark areas of the image.
 - Drag the **Darkening** slider to darken the light areas of the image.
 - Drag the **Contrast** slider to increase the contrast in the image.
 - Drag the **Fill Light** slider to lighten dark areas of the image.
 - Left-click and drag upwards to brighten the dark areas of the photo. Try to prevent clipping (shown in pink on the graph).
 - Right-click and drag downwards to darken the bright areas of the photo. Try to prevent clipping (shown in pink on the graph).
2. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

The Advanced Tab

Sliders



The **Advanced** tab has two sliders for brightening (**Amplitude** and **Custom curve**) and two for darkening (**Amplitude** and **Custom curve**). The **Custom curve** sliders control the shape of the adjustment curves, while the **Amplitude** sliders control the height of the curves.

The more brightening or darkening, the more the balance of the dark against the light areas is increased in the image. The **Amplitude** sliders increase the intensity of the effects of brightening or darkening.

The **Scale** slider at the bottom of the tool adjusts the overall adjustment sensitivity to local variation in brightness. Moving this slider to the left makes the adjustment more sensitive to smaller areas of brightness variation, which may be beneficial in some images. For most images, however, leaving the slider in the default position gives the best result. Adjust the **Contrast** slider to decrease or increase contrast, or use the **Fill Light** slider to lighten dark areas of the image.

Graphs

Between the Brightening and Darkening controls are two gray graphs that indicate the maximum amount of lightening or darkening that can be applied before clipping begins (shown as bright pink).

Two colored curves appear and change when dragging the Brightening, Darkening and Amplitude sliders — these curves indicate the amount of brightening and darkening applied throughout the tonal range of the image. Darker tonal areas are on the left, and brighter tonal areas are on the right. Moving the cursor over the image, a vertical line in the graph indicates the tone level of the area under the cursor within the tonal range. At times there are two lines because the tone levels for brightening and darkening are not necessarily the same. This is because brightening is sensitive to maximum color values while darkening is sensitive to minimum color values.

The **Advanced** tab is unique in that you can adjust the curves manually, either on the graph itself, or on the actual photo. Adjustments made on the photo are reflected in the curve on the graph. Adjustments made on the graph are reflected on the photo.

To increase contrast within a tonal range without changing the brightness, apply brightening and darkening simultaneously in equal amounts by dragging the upper and lower curves up and down, respectively. The area between the top of the upper graph and the bottom of the lower graph indicates the amount by which contrast is increased.

To use the Advanced tab:

1. Do one of the following:
 - Drag the Brightening or Darkening sliders to adjust the bright or dark pixels. While dragging, a gray curve appears to indicate the adjustments.
 - Left-click and drag upwards to brighten the dark areas of the photo. Try to prevent clipping (shown in pink on the graph).
 - Right-click and drag downwards to darken the bright areas of the photo. Try to prevent clipping (shown in pink on the graph).
 - Drag the **Scale** slider to the right to make your adjustments more sensitive to smaller areas of brightness variation.
 - Drag the **Contrast** slider to increase or decrease contrast in your image.
 - Drag the **Fill Light** slider to add light to the dark areas in your image.
 - Make adjustments using any of the options in the table below, including on the image itself.
2. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

Adjustment Options - Advanced Tab

Area	Action	Result
Sliders		
	Drag Brightening	<p>To the right: Increases the lightening applied to the darker areas.</p> <p>To the left: Applies brightening more uniformly to all areas of the image.</p> <p>(The name of the slider changes to Custom curve when changing the curve manually or making adjustments on the image.)</p>
	Drag Darkening	<p>To the right: Increases the darkening applied to the brighter areas of the image.</p> <p>To the left: Applies the darkening more uniformly to all areas of the image.</p>
	Drag Amplitude (Brightening)	<p>To the right: Increases the intensity of the brightening across all areas of the image. The height of the curve increases.</p> <p>To the left: Reduces the intensity of the brightening and the height of the curve.</p> <p>If the Amplitude slider is 0, no brightening is applied.</p> <p>If the Amplitude is 100 - 200, the proportional amount of clipping increases.</p> <p>In most cases it is not necessary to adjust amplitude.</p>
	Drag Amplitude (Darkening)	<p>To the right: Increases the intensity of the darkening across all areas of the image. The height of the bottom curve increases.</p> <p>To the left: Reduces the intensity of the darkening and the height of the curve.</p>
	Drag Scale	<p>To the left: Makes the tool more sensitive to smaller areas of brightness variation.</p> <p>This means that smaller areas can be adjusted independently. Generally the default scale of 10 gives the best result, but if an image contains small details that need brightening, a lower scale might give better results.</p>
On Graph		
	Drag the graph (top)	Clicking and dragging up on the graph itself changes the graph. The graph represents brightening adjustments. The dark gray graph represents the maximum amount the

Area	Action	Result
		<p>graph can be dragged before clipping begins (displayed as pink).</p> <p>The height of the graph represents the level of brightening applied at each tone level. (Tone moves from black on the left to white on the right.)</p> <p>When you make direct brightening or darkening adjustments on the graph or image, the corresponding Brightening or Darkening slider changes to Custom curve. Adjusting the position of the slider after changing to Custom curve, discards all direct curve adjustments.</p> <p>When make direct brightening or darkening adjustments on the graph or image, the corresponding Brightening or Darkening Amplitude slider changes to indicate the current curve amplitude.</p>
	Drag the graph (bottom)	<p>The graph changes as you right-click and drag down on the graph itself. The graph represents the darken adjustments you are making. The dark gray graph represents the maximum amount you can drag the graph before clipping (pink) begins.</p>
	Use all the shortcuts below that apply to the image, directly to the graph itself.	Changes the tonal band on the graph itself with a corresponding change in the image. This is useful for making fine adjustments to a specific tonal band.
On Image		
	Double-click with left mouse button	Automatically sets Brightening to optimum for that area of the image. A brighter area (e.g. a face) works best.
	Double-click with right mouse button (or Shift + double-click with left mouse button)	Automatically sets the Darkening to optimum for that area of the image.
	Ctrl + double-click with left mouse button	<p>Increases the amount of brightening around that tone level while decreasing the brightening in the rest of the image.</p> <p>Use this method to quickly brighten a specific subject or area to bring it out of the image.</p>
	Ctrl + double-click with right mouse button	Increases the amount of darkening around that tone level while decreasing the amount of darkening in the rest of the image.

Area	Action	Result
	Scroll up or down with the mouse wheel above the image	Increases or decreases the amount of brightening applied at that tone level in the image. Both the image and the graph show the changes.
	Shift+ scroll with the mouse wheel above the image	Decreases or increases the amount of darkening applied at that tone level in the image.
	Hold down "A" + scrolling or + dragging with the left mouse button	Sets the brightening Amplitude slider directly.
	Hold down "A" + Shift + scrolling or + dragging with the right mouse button	Sets the darkening Amplitude slider directly.
	Click and drag up and down on the image (left mouse button)	Increases or decreases the amount of brightening applied at that tone level in the image. Both the image and the graph show the changes. (Only works if the image is actual size - no zooming.)
	Shift + click and drag up and down on the image (left mouse button)	Decreases or increases the amount of darkening applied at that tone level in the image. (Only works if the image is actual size - no zooming.)

 Right-click a slider to reset to the default value.

 This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details). 

 Use the [Edit Brush](#) to paint this effect onto specific areas of the image. 

 Use the [Gradient](#) tool to transition this effect across specific areas of the image. 

 Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point. 

Dehaze

The **Dehaze** filter restores contrast, detail, and lost color to images. This tool is especially useful for images that have been captured through a haze. A haze can occur when dust, smoke, or other particles obscure the clarity of the image, particularly the sky.

To dehaze an image:

1. Select **Filter** | **Exposure / Lighting** | **Dehaze** from the main menu, or press **Ctrl + Alt + H**.
2. Drag the **Amount** slider to adjust the strength of the correction.
3. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Right-click a slider to reset to the default value.



This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details).



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Dodge and Burn

Enhance photos and improve contrast by controlling the light and intensity of color in select areas. Dodge, burn, saturate and desaturate photos to accentuate and define shapes, magnify and fade color, and add shadows and highlights.

The **Dodge and Burn** tool lightens or darkens areas in a photo without affecting other areas. The tool is often used to lighten underexposed areas or darken overexposed areas.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

Dodging and Burning Parts of an Image

To open the Dodge and Burn tool:

Select **Filter** | **Exposure / Lighting** | **Dodge and Burn** from the main menu, or press **D**.

To Lighten or Darken Areas of a Photo:

1. In the **Operation** field set, enable the **Dodge** tool to lighten areas, or the **Burn** tool to darken areas.
2. In the **Tool settings** field set, enable the area to adjust: **Shadows**, **Midtones**, or **Highlights**.
3. Drag the **Range** slider to fine-tune targeted areas within the shadows or highlights. Increasing the range broadens the affected range of tones, while decreasing the range narrows the affected range of tones.
4. In the **Brush settings** field set, select from the following preference settings:
 - Drag the **Nib Width** slider to select a brush size.
 - Drag the **Feathering** slider to soften stroke edges.
 - Drag the **Strength** slider to adjust the stroke intensity.
5. Draw over the areas of the image to lighten or darken.
6. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



When adjusting the **Range** slider, a preview of the areas of the image that will be affected by brushing will be shown as a grayscale image. The brighter the pixels are in the preview image, the more they will be affected by brush strokes. Areas that are pure white will be affected with full strength, and areas that are black will be completely unaffected. For best results, move the **Range** slider until the pixels to dodge or burn are white, and areas to be left unaffected are black.



Scroll with your mouse to adjust the brush size on the fly, or use **Shift + mouse scroll** to adjust feathering.

To saturate or desaturate areas of a photo:

1. Enable the **Saturate** tool to intensify colors, or the **Desaturate** tool to fade colors.
2. In the **Tool settings** field set, enable the **Vibrance** checkbox to target the less saturated colors and to prevent skin tones from becoming over-saturated.

3. In the **Brush settings** field set, enable from the following preference settings:
 - Drag the **Nib Width** slider to select a brush size.
 - Drag the **Feathering** slider to soften the edges of your strokes.
 - Drag the **Strength** slider to adjust the intensity of your strokes.
4. Draw over the areas of the image to lighten or darken.
5. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.



Right-click a slider to reset to the default value.

Chapter 10: Editing - Color Tools

White Balance

The **White Balance** filter removes unwanted hue from an image. For example, if a sunset photo has an unwanted reddish hue, use the **White Balance** tool to remove it.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To remove a color cast from an image:

1. Select **Filter | Color | White Balance** from the main menu, or press **A**.
2. Set the options as described below.
3. Do one of the following:
 - Click **OK** to accept your changes and close the panel.
 - Click **Cancel** to discard your changes and close the panel.

White Balance Options

Temperature	Drag the Temperature slider to the left (more blue) or right (more yellow) to select a specific color temperature.
Tint	Drag the Tint slider to the left (more green) or right (more magenta) to match the white balance settings that you selected when you took the photo.
Strength	To specify the strength of the white balance adjustment, move the Strength slider. Higher settings remove more of the unwanted color.
Auto	Click the Auto button to allow Gemstone to analyze and correct the image.



Right-click a slider to reset to the default value.



This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details). 



Use the **Edit Brush** to paint this effect onto specific areas of the image. 



If the desired effect is not forthcoming, try clicking an image area that is a different shade of white or gray.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Color EQ

The **Color EQ** filter (hue, saturation, contrast, and brightness) is used to adjust overall colors in an image or each color individually. The advanced tools can subtly fine-tune and enhance colors, or completely change individual colors in an image.

For instance, if an image has a yellow car, use the **Saturation** tab to saturate the yellow, or use the **Brightness** tab to brighten the yellow. In the **Hue** tab, change the color of the car from yellow to pink. In the **Contrast** tab, adjust the contrast of the yellow and use the **Balance** slider to target the brightness range for that contrast adjustment.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.



If an image contains a yellow car with a yellow building in the background, change just the car by using the **Selections** tool. Select the car using the **Selections** tool and then apply color adjustments.

To adjust color:

1. Select **Filter** | **Color** | **Color EQ** from the main menu, or press **O**.
2. Set the options as described below.
3. Do one of the following:
 - Click **Apply** to apply any changes.
 - Click **OK** to apply any changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.

Color EQ™ Options

Select **High Quality** mode or **Standard** mode from the top of the **Color EQ** dialog. To adjust colors individually, click a color on the image and drag up or down to alter. Changes are reflected in the color sliders in **High Quality** mode, and the graph in **Standard** mode respectively. This works in the **Saturation**, **Brightness**, **Hue**, and **Contrast** tabs.

High Quality	Adjust image colors individually. High Quality uses the newer, more modern color models, allowing for a visually perceptive and higher quality adjustment.
Color EQ	Adjust each color individually by dragging sliders right for more intensity, or left for less intensity. You can also enter a number into the fields for precise adjustments. Or select a precise color to adjust by placing your cursor on the image for the double arrow icon to appear. Then click and drag up or down to adjust the colors beneath the double arrow icon. The affected color sliders automatically adjust as you move your cursor.
Saturation	Color saturation adjustments can be made in the Red, Orange, Yellow, Green, Cyan, Blue, Purple, and Magenta bands. Drag sliders to the right for more intensity, or to the left for less intensity of color. Levels can also be entered numerically to the right of the slider on a scale of 0 - 100.
Brightness	Color brightness adjustments can be made in the Red, Orange, Yellow, Green, Cyan, Blue, Purple, and Magenta bands. Drag sliders to the right for more intensity, or to the left for less intensity of color. Levels can also be entered numerically to the right of the slider on a scale of 0 - 100.
Hue	Color hue adjustments can be made in the Red, Orange, Yellow, Green, Cyan, Blue, Purple, and Magenta bands. Drag sliders to the right for more intensity, or to the left for less intensity of color. Levels can also be entered numerically to the right of the slider on a scale of 0 - 100.
Contrast	Contrast adjustments can be made in the Red, Orange, Yellow, Green, Cyan, Blue, Purple, and Magenta bands. Drag sliders to the right for more intensity, or to the left for less intensity of color. Each color band also has an adjacent Balance slider with a range of -100 to +100. Levels can also be entered numerically to the right of the sliders.

Global Adjustments		
	Vibrance	Drag the slider to adjust the vibrance of the image without affecting skin tones.
	Saturation	Drag the slider to adjust the saturation of the image.
	Color Shift	Drag the slider to adjust the amount of color shift in the image.
	Hue	Drag the slider to adjust the hue of the image.
	Lightness	Drag the slider to adjust the lightness of the image.
	Red	Drag the slider to adjust the amount of red in the image.
	Green	Drag the slider to adjust the amount of green in the image.
	Blue	Drag the slider to adjust the amount of blue in the image.
Standard	Adjust colors individually or make global adjustments.	
	Vibrance	Drag the slider to adjust the vibrance of the image without affecting skin tones.
	Vertical Slider	<p>Apply adjustments to the entire image. The main slider on the left has the following effects on the tabs:</p> <ul style="list-style-type: none"> • Saturation: Adjusts from saturation to grayscale. • Brightness: Adjusts the light or dark tones in the image. • Hue: Changes to a different color. <p>It is also possible to enter a number into the field for precise adjustments.</p>
	Individual Color Sliders	Adjust each color with individual sliders. Select the color to adjust and click and drag the sliders. It is also possible to enter a number into the fields

Direct Image Adjustments

for precise adjustments.

Place the cursor on the image for the double arrow icon to appear. Then click and drag up or down to adjust the colors beneath the double arrow icon. The curve control and the affected color sliders automatically adjust as the cursor is moved. The black down arrow on the graph indicates which color is being adjusted in the image.

The curve appears black in the graph and is not directly adjustable. To apply further adjustments, alter the white curve. When adjusting the white curve, the black curve automatically changes with it. It is also possible to enter a number into the fields for precise adjustments.

 Right-click a slider to reset to the default value.

 This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details). 

 Use the [Edit Brush](#) to paint this effect onto specific areas of the image. 

 Use the [Gradient](#) tool to transition this effect across specific areas of the image. 

 Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point. 

Split Tone

Split toning is a powerful technique originating in film photography to tint highlights and shadows.

The **Split Tone** filter provides creative control over the hue and saturation of highlights and shadows. Use the sliders to adjust the balance of tones in photo highlights and shadows. Split toning allows for adding a creative element to RAW conversion and non-destructive editing in Gemstone.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To adjust highlights and shadows:

1. Select **Filter | Color | Split Tone** from the main menu, or press **Shift + Alt + T**.
2. Set the options as described below.
3. Do one of the following:
 - Click **OK** to apply any changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.

Split Tone Options

Highlights

Hue	Drag the slider to the right to select a highlight color.
Saturation	Drag the slider to the right to increase saturation of the specified color in the highlights of the image.

Shadows

Hue	Drag the slider to the right to select a shadow color.
Saturation	Drag the slider to the right to increase saturation of the specified color in the shadows of the image.

Balance

Drag the slider to the right to emphasize the highlight color; drag the slider to the left to emphasize the shadow color. For example if the slider is set to the maximum at 50, then full emphasis is applied to the highlight color; if the slider is set to the minimum -50, then full emphasis is applied to the shadow color.



Create a sepia tone effect by first reducing the saturation of your photo with the **Advanced Color** tool and then applying a reddish brown hue with the **Split Tone** tool. Or create a monochromatic black and white photo with a slight tint of hue.



Right-click a slider to reset to the default value.



This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details).



Use the **Edit Brush** to paint this effect onto specific areas of the image.





Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Color Balance

Adjust an image's color values using the **Color Balance** filter.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To adjust an image's color:

1. Select **Filter | Color | Color Balance** from the main menu.
2. Adjust the sliders as described in the table below.
3. Do one of the following:
 - Click **Apply** to apply any changes.
 - Click **OK** to apply any changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.


Color Balance Options

Vibrance	Boosts color in the image, and avoids affecting skin tones.
Saturation	Adjusts the saturation of the image. Drag the slider to the right to increase or drag to the left to decrease saturation.
Hue	Adjusts the hue of the image. Drag the slider to the right to increase or drag to the left to decrease hue.
Lightness	Adjusts the image brightness. Drag the slider to the right to increase or drag to the left to decrease the image's brightness.
Red	Adjusts the red channel in the image. Drag the slider to the right to increase or drag to the left to decrease the red tone in your image.
Green	Adjusts the green channel in the image. Drag the slider to the right to increase or drag to the left to decrease the green tone in your image.
Blue	Adjusts the blue channel in the image. Drag the slider to the right to increase or drag to the left to decrease the blue tone in your image.

 Right-click a slider to reset to the default value.

 This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details). 

 Use the **Edit Brush** to paint this effect onto specific areas of the image. 


 Use the **Gradient** tool to transition this effect across specific areas of the image. 

 Use the **Radial Gradient** tool to apply effects around, or directly to, a center point. 

Convert to Black & White

Create rich grayscale images by controlling the brightness of the red, green, and blue channels, as well as the overall brightness. Use the **Convert to Black & White** filter to emphasize different areas or aspects of a photo, as well as alter its mood and tone.

Hover the mouse over each slider and watch the effect on the small preview to view which parts of the image will be affected by each channel. This helps to gauge the effect of each slider on the image.

 Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To create a grayscale image:

1. Select **Filter** | **Color** | **Convert to Black & White** from the main menu, or press **W**.
2. Set the options as described below.
3. Do one of the following:
 - Click **OK** to apply any changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.

Grayscale Options

The preview window inside the **Convert to Black & White** dialog will reflect changes made with the current slider.

Brightness Tab

In the **Brightness** tab, do any of the following:

- Drag individual color sliders, or left-click on the image (where a color previously occurred) and drag up or down to alter the brightness of specific tones. For instance, drag the cursor on sky areas to alter the brightness of the blue.
- Drag the **Percent Red** slider to the left or right.
The more red there is in a pixel, the more effect the red slider has on that pixel. The area of red in the picture is brightened or darkened more than other areas.
- Drag the **Percent Green** slider the left or right.
The more green there is in a pixel, the more effect the green slider has on that pixel. The area of green in the picture is brightened or darkened more than other areas.
- Drag the **Percent Blue** slider to the left or right.
The more blue there is in a pixel, the more effect the blue slider has on that pixel. The area of blue in the picture is brightened or darkened more than other areas.
- Drag the **Percent Brightness** slider to the right or left to brighten or darken the whole image.



Right-click the slider to reset the value to zero.

Contrast Tab

Increase or decrease the contrast of each individual color. In addition, specify the brightness range that the contrast adjustment will target for each color.

On the **Contrast** tab, do the following:

Strength: To adjust the contrast in specific color tones, drag individual color sliders, or left-click on the image (where a color previously occurred) and drag up or down.

Balance: To set the targeted brightness range for the contrast adjustment, adjust the slider to bring details out of highlights or shadows. To bring details out of the midtones, leave the Balance sliders set to 0.



Hold down **Shift** while clicking and dragging on the image to target the color's corresponding **Balance** slider.



Right-click the slider to reset the value to zero.

At the bottom of the **Convert to Black & White** panel, use the **Amount** and **Hue** sliders to add color back into the image. Choose the color using the **Hue** slider. The saturation of the color added back to any given pixel is scaled based on both the amount of color/saturation that existed in the original image and the **Amount** slider.



This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details).





Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.

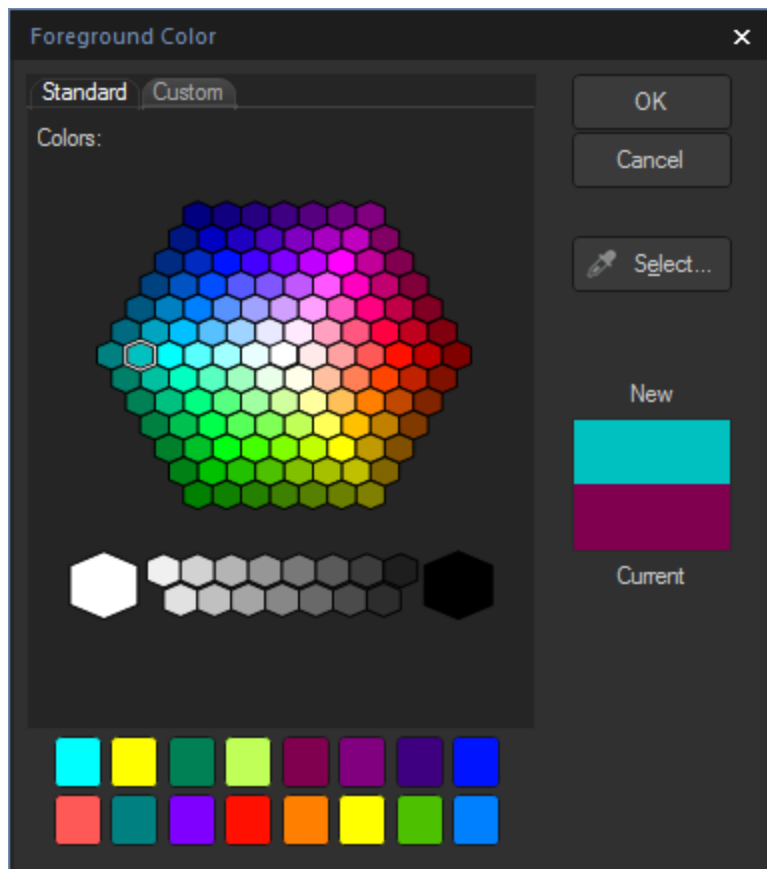


Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Color Picker

The Colors dialog box appears in several places in Gemstone when you select or apply a color. You can use the Color dialog box to select a color in multiple ways and to adjust a color using several different tools.



The Standard Tab

On the first tab, there is a fixed honeycomb of Basic colors to choose from, including gray, black, and white at the bottom. Below it is a grid of Custom or Favorite colors that you can fill in by selecting a

color and then right-clicking a box in the grid. To create a custom color, click the Custom tab.

The Custom Tab

On the second tab, there is a color palette. On the far right is a color slider, which you can use to navigate to a color group and gain access to any or all colors of the spectrum. Add colors to your Custom colors by selecting the color in the palette and then right-clicking a box in the grid.

Selecting and Adjusting Colors

To select a color, click on a square in the grid of custom colors, or on the color palette. You can also drag over the color palette. When you click a color, that color appears in the New box and all of its numerical values, (Hue, Saturation, Luminosity, as well as Red, Green, and Blue), appear in the fields on the Custom tab.

You can also adjust a color by changing the Hue, Saturation, and Luminosity values. To select a precise color, type in the values for that color. You can do the same using the Red, Green, and Blue values.

Histogram

The Histogram displays a graphical representation of the distribution of intensity levels of pixels for each color channel in an image.

To Display and Use the Histogram:

1. Click **Panes | Histogram**.
2. On the Histogram, select or clear the following checkboxes:
 - **R**: Shows or hides the red color channel.
 - **G**: Shows or hides the green color channel.
 - **B**: Shows or hides the blue color channel.
 - **L**: Shows or hides the lightness of the image.

Chapter 11: Editing - Detail Tools

Sharpen

The **Sharpen** filter sharpens an image by enhancing medium and high contrast edges.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To sharpen an image using the Sharpen tool:

1. Select **Filter | Detail | Sharpen** from the main menu, or press **Alt + N**.
2. Set the image as described below.
3. Do one of the following:
 - Click **OK** to apply any changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.

Sharpen Options

Amount	Specifies the amount of sharpening applied by increasing contrast around the edges.
Radius	Controls the number of pixels to adjust around each edge. Higher values increase the number of sharpened pixels and tend to bring out coarser detail, while lower values reduce the number of sharpened pixels and tend to bring out finer detail.
Mask	Allows the targeting of edges, while suppressing the sharpening of noise and texture. To view the areas the mask affects, press the Alt key when moving the mask slider. Areas affected by sharpening appear white.
Detail	Suppresses the halo, (the light border that forms around edges with extreme sharpening), by reducing its intensity. The higher the value, the stronger the reduction.
Threshold	Specifies how different the pixel lightness values within an edge must be before the pixels within the edge are sharpened. Higher values sharpen only stronger edges but minimize the appearance of noise. Lower values sharpen both strong and weaker edges, but can increase the appearance of noise. It is recommend to set the threshold to enhance edges while keeping background noise to a minimum.
100% Preview	Click the preview image in the 100% Preview box to compare the image before and after filtering.

 Right-click a slider to reset to the default value.

 This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details). 


 Use the **Edit Brush** to paint this effect onto specific areas of the image. 

 Use the **Gradient** tool to transition this effect across specific areas of the image. 

 Use the **Radial Gradient** tool to apply effects around, or directly to, a center point. 

Blur

The **Blur** filter applies various types of blur to an image.


 Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.


To blur an image:

1. Select **Filter** | **Detail** | **Blur** from the main menu, or press **Alt + U**.
2. In the **Blur** dialog, navigate to the **Blur type** section and select the type of blur to apply.
3. Set the options as described below.
4. Do one of the following:
 - Click **OK** to apply any changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.

Blur Types

	Gaussian	Produces an even, smooth blur.	
		Amount	Specifies the amount of blur. Move the slider to the right to intensify the effect.
	Linear	Produces a blurring effect that gives the illusion of movement.	
		Amount	Specifies the amount of blur. Move the slider to the right to intensify the effect.
		Angle	Specifies the direction of the blur effect.
	Radial	Produces blur around a center point. Click the image to set the center point.	
		Amount	Specifies the amount of blur.

		Move the slider to the right to intensify the effect.
	Clockwise	Specifies clockwise blur.
	Counter-clockwise	Specifies counter-clockwise blur.
	Horizontal position	Specifies the blur's center point on the horizontal axis.
	Vertical position	Specifies the blur's center point on the vertical axis.
	Spread	Produces a smeared or frosted blur.
	Amount	Specifies the amount of blur. Move the slider to the right

		to intensify the effect.
	Zoom	Produces inward or outward blur to or from a center point.
Amount		Specifies the amount of blur. Move the slider to the right to intensify the effect.
Zoom in		Creates a blur that zooms in to the image's center.
Zoom out		Creates a blur that zooms out from the image's center.
Horizontal position		Specifies the blur's center point on the horizontal axis.
Vertical position		Specifies the

blur's center point on the vertical axis.



Smart Blur

Produces blur by detecting and avoiding edges, and preserves detail based on the threshold setting. This effect is usually used to smooth out skin.

Amount

Specifies the amount of blur. Move the slider to the right to intensify the effect.

Threshold

Specifies how little detail an area must have before the blur will apply to it.



Lens

Produces a blur that mimics the blurring effect of a camera aperture.

Select a bokeh shape from the options on the Blur panel. These shapes concentrate in highlights.

Amount

Specifies the strength of the blur.

	Move the slider to the right to intensify the effect.
Bokeh Frequency	Specifies how often the bokeh shapes show up.
Bokeh Brightness	Specifies how much the bokeh shapes stand out.

 Right-click a slider to reset to the default value.

 This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details). 

 Use the **Edit Brush** to paint this effect onto specific areas of the image. 

 Use the **Gradient** tool to transition this effect across specific areas of the image. 

 Use the **Radial Gradient** tool to apply effects around, or directly to, a center point. 

About Noise and Noise Reduction

Image noise looks like random black, white, or colored pixels in an area of a photo where there should be solid color, such as a dark night sky. In digital photography, noise is typically more visible in the

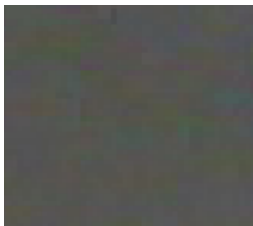
dark areas of a photo.

There are many causes of image noise. The amount of image noise will be increased if a high ISO setting is used (such as ISO 800) to capture a photo, or if the exposure time is extended. (Typically, a high ISO setting and extend exposure times are used to take photos in low light.) However, image noise can also be caused by dead or stuck pixels in a digital camera's image sensor. Similarly, dust on a camera lens or scanner bed can cause noise by blocking or reflecting light.

Images generally have two types of noise: luminance and color. Luminance noise is random variations of brightness, and particularly in gray areas, may appear spotted when there should be a solid color in the area of the image.



Color noise is random variations of color in the image.



Noise is visually distracting and in most cases will need to be reduced. However, if noise is reduced too much, the image sharpness may be unintentionally reduced. Use the **Noise** tool to remove both luminance and color noise in your images.

Remove Noise

The **Remove Noise** filter removes noise from images while preserving the image details.



Use the **Remove Noise** filter to remove hot image pixels caused by digital cameras with malfunctioning CCD array sensors, or the unwanted pixels caused by a dusty scanner or camera lens.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To remove noise from an image:

1. Select **Filter** | **Detail** | **Noise** from the main menu, or press **N**.
2. Select the **Remove Noise** tab.

3. Make a selection from the **Noise Type** section.
4. Set the options as described below.



Hold down the **Alt** key while adjusting a slider to view a preview of its effect on the image.

5. Do one of the following:
 - Click **OK** to apply any changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.

Remove Noise | Noise Type Options



Camera Noise Removal

Removes digital camera noise. Adjust the associated following sliders to further remove noise.

Luminance	Reduces the random variations of brightness in the noise.
Strength	Controls the strength of the Luminance slider.
Color	Reduces the random variations of color in the noise.
Tonal Range	<p>Tonal Range refers to a range of average brightness values in an image. For example, the tonal range of a photo taken in a dark cavern it would be low, whereas a sunny sky would be high.</p> <p>The Tonal Range slider increases in value from left to right, increasing from a low tonal range on the left to a high tonal range on the right. The Tonal Range slider is used to focus noise reduction to areas of the image that have a corresponding tonal range. For example, the left-most position would reduce the noise in a cavern more than a sky.</p> <p>Tonal Range only affects luminance noise reduction.</p>
Frequency Range	<p>The Frequency Range slider adjusts the noise pattern. High frequency noise looks like fine static while low frequency noise looks like coarse grain or "splotches". Move the Frequency Range slider to the left to limit noise reduction to high frequency noise.</p> <p>Frequency Range affects both luminance and color noise reduction.</p>



Median Noise Removal

Square

Removes noise using a 3 x 3 pixel square.

X

Removes noise using a 3 x 3 pixel X shape. Use this option when you want to preserve an image's thin and diagonal lines.

Plus

Removes noise using a 3 x 3 pixel plus (+) shape. Use this option to preserve an image's thin, vertical, and horizontal lines.



Despeckle

Removes noise.



Right-click a slider to reset to the default value.



This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details).



Use the **Edit Brush** to paint this effect onto specific areas of the image.



Use the **Gradient** tool to transition this effect across specific areas of the image.



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Add Noise

The **Add Noise** filter adds a grainy texture to an image. Adding small amounts of noise can reduce the appearance of minor imperfections in the original image.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.



To add noise to an image:

1. Select **Filter | Detail | Noise** from the main menu, or press **N**.
2. Select the **Add Noise** tab.
3. Set the options as described below.
4. Do one of the following:
 - Click **OK** to apply any changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.

Add Noise Options

Intensity	Specifies the amount of noise to add to the image. A higher intensity increases the chance that a noise pixel will replace a pixel in the original image.
Color proximity	Specifies the color of noise pixels to add to the image. A lower value gives each noise pixel a color similar to the pixel it replaces. Higher values result in a random selection of the noise pixel color.
Noise color	<p>Select one of the following options to specify noise pixel color:</p> <ul style="list-style-type: none"> • Random: Randomly selects the color. • Monochrome: Produces black and white noise pixels. • Adjustable: Randomly selects the color of each noise pixel, but more pixels match a defined color. To define a color, click the color picker and select a color.
Noise placement	Adds noise to image areas that closely match a defined color. Select the Set color checkbox to enable noise placement, and click the color picker to specify a color.
Randomize	<p>Indicates the random placement of noise in an image.</p> <p>When using the Add Noise tool, Gemstone places the noise pixels based on a random seed to make the image noise different each time the Add Noise tool is used. To generate a new random seed, click the Randomize button.</p>

 Right-click a slider to reset to the default value.

 This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details). 

 Use the [Edit Brush](#) to paint this effect onto specific areas of the image. 

 Use the [Gradient](#) tool to transition this effect across specific areas of the image. 



Use the **Radial Gradient** tool to apply effects around, or directly to, a center point.



Detail Brush

To highlight important photo details and remove the emphasis off others, use the **Detail Brush** filter. The impact of the **Detail Brush** filter is cumulative, meaning the more the tool is brushed in a particular area using the blur option, for example, the more blurry the area will become.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To adjust details:

1. Select **Filter** | **Detail** | **Detail Brush** from the main menu, or press **I**.
2. Set the options as described below.
3. Do one of the following:
 - Click **OK** to apply any changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.

Detail Brush Options

Operation

Select the operation to perform:

- **Blur**
- **Sharpen**

Tool settings

Blur does not have any tool settings. If **Sharpen** is selected, set the following:

Radius	Controls the number of pixels to adjust around each edge. Higher values increase the number of sharpened pixels and tend to bring out coarser detail, while lower values reduce the number of sharpened pixels and tend to bring out finer detail.
Threshold	Specifies how different the pixel lightness values within an edge must be before the pixels within the edge are sharpened. Higher values sharpen only stronger edges but minimize the appearance of noise. Lower values sharpen both strong and weaker edges, but can increase the appearance of noise . It is recommended to set the Threshold value to enhance edges while keeping background noise to a minimum.

Brush settings

Nib Width	Drag the slider to select a brush size.
Feathering	Drag the slider to soften the stroke edges.
Strength	Drag the slider to determine the strength of the sharpening or blurring.



Enter a numerical value into the number box to incrementally make precise adjustments.



Right-click a slider to reset to the default value.

Clarity

The **Clarity** filter adds subtle definition to an image's details. Use the **Clarity** filter to enhance the contrast of image midtones, without overpowering the shadows and highlights.



Customized settings can be saved as a preset for future use. Presets can be selected from the **Presets** drop-down, or saved by clicking the adjacent Save icon.

To adjust image clarity:

1. Select **Filter** | **Detail** | **Clarity** from the main menu, or press **Alt + C**.
2. Drag the **Strength** slider to the right for greater clarity, or to the left for reverse clarity.
3. Do one of the following:
 - Click **OK** to apply any changes and close the tool.
 - Click **Cancel** to discard all changes and close the tool.

 Enter a numerical value into the number box to incrementally make precise adjustments.

 Right-click a slider to reset to the default value.

 This filter features a **Pixel Targeting** tab (see [Pixel Targeting](#) for more details). 

 Use the [Edit Brush](#) to paint this effect onto specific areas of the image. 

 Use the [Gradient](#) tool to transition this effect across specific areas of the image. 

 Use the [Radial Gradient](#) tool to apply effects around, or directly to, a center point. 

Chapter 12: Options and Configuration

ACDSee Gemstone Photo Editor Options

The **Options** dialog box can be used to configure settings for Gemstone.

To set the Editor Options:

1. Select **Tools | Options...** from the menu.
2. In the **Options** dialog box, select **General**.
3. Configure the options as described below.
4. Click **OK** to apply any changes.

GPU selection

In order to ensure optimum performance, parts of Gemstone run off the GPU. Gemstone automatically chooses the best GPU in the system. The **Let ACDSee Gemstone Photo Editor decide** option is enabled by default. When **Let ACDSee Gemstone Photo Editor decide** is enabled, the GPU model text displays next to the option, specifying whether Gemstone is running off of the primary GPU or another, more superior GPU that Gemstone has detected. In most cases, the GPU detected and identified as the best by Gemstone will be one and the same: the primary GPU.

- **Use primary:** Enable this option to use the primary GPU over the GPU Gemstone has chosen.
- **Let ACDSee Gemstone Photo Editor decide:** Enable this option to use the superior GPU found by Gemstone.

Adobe® Photoshop® Plug-in Paths

Displays the paths of the hard drive locations of any Photoshop® plug-ins (This will tell Gemstone where to find the plug-in.). Direct the path to the location where Photoshop® plug-ins are already stored.

To change or add a location, click the **Add...** button, then browse to the location, select it, and click **Select Folder**.

To remove a location, select it and click **Remove**.

To move plug-ins to a listed location, select the location, and click **Open Folder**, then drag any plug-ins into the folder.

ACDSee RAW Options

The **ACDSee Gemstone Options** dialog box can be used to change the ACDSee RAW options.

To set the ACDSee RAW options:

1. Select **Tools | Options...** from the main menu.
2. In the **ACDSee Gemstone Options** dialog box, select **ACDSee RAW**.
3. Set or change the options described below.
4. Click **OK** to accept any changes.

ACDSee RAW Options

Field	Description
Enable fast image switching for RAW files in ACDSee RAW	Displays a JPEG version of the RAW file while the RAW file loads.
AutoSave all ACDSee RAW adjustments	All changes made to a RAW image are kept in an XMP sidecar file until the RAW file changes are saved as a JPEG.

Color Management

The Gemstone color management options help reduce color matching problems between devices, such as a computer, a monitor, and a printer. Gemstone automatically detects the color profile assigned to a monitor (if the monitor is setup correctly within the operating system). It is recommended to regularly profile a monitor with color management hardware and software.

Before changing the color management settings, make sure to have accurate color profiles for each of the devices to be used. Color profiles can be obtained from device manufacturers if the profiles were not included in the device's software, or from the professional printers.



Color management can be a complex process. If you are not familiar with color management systems, it is recommended to accept the default color management settings in Gemstone.

To Set the Color Management Options:

1. Select **Tools | Options...** from the menu.
2. In the **Options** dialog box, select **Color Management**.
3. In the **Color Management** page, set or change any of the options as described below.
4. Click **OK** to accept any changes.

Color Management Options

Field Set	Field	Description
Enable		
	Enable Color Management	Activates the color management system in Gemstone and the fields in this dialog box.
	Color Management Engine	Select from the drop-down list of color management engines.
Input		
	Default Input Profile	Specifies the default color profile to use when the image is not tagged with an ICC profile.
Soft Proofing		
	Enable soft proofing	Choose from a selection of device profiles for monitor simulation proofing. Choose a connected printer profile to be the emulated device and then preview what the printer's output would look like on your monitor (soft proofing).
	Emulated Device Profile	Choose the device to be emulated.
	Rendering Intent	<p>A strategy for handling situations where not all colors will fit in the output device's color space. Strategy options consist of:</p> <ul style="list-style-type: none"> • Perceptual: Remaps colors outside of the target color space by compressing all colors for the entire image. Colors may become less saturated as everything condenses towards neutral and away from the saturated colors at the edges of the target color space. • Relative Colorimetric: Maps all out-of-gamut colors to the closest in-gamut color. Colors that fall outside the range of what the output device can render are adjusted to the closest color the device is capable of displaying. • Saturation: Preserves the saturation of colors, potentially at the cost of hue and lightness. This intent is most valuable for business applications, such as graphics, where images need to be vibrant and contrast distinctly from one another.

Field Set	Field	Description
		<ul style="list-style-type: none"> • Absolute Colorimetric: Colors that fall outside the range of what the output device can render are adjusted to the closest color that can be rendered. However, the white point does not move, which may result in the distance of the colors to the white point changing.
	Profile Details	For a detailed account of the profile list, click the Profile Details button.



There are soft proofing items available from the **View | Soft Proofing** menu, including "Enable", "Perceptual", "Relative Colorimetric", "Saturation", and "Absolute Colorimetric".

Display

The **Display** dialog box can be used to change the window background.

To set the Display:

1. Select **Tools | Options...** from the menu.
2. In the **Options** dialog box, select **Display**.
3. In the **Display** page, set or change the options described below.
4. Click **OK** to accept any changes.

Display Options

Field Set	Field	Description
Background		
	Default color	Uses the default Gemstone color for the background.
	Custom color	Specifies a color to use as the background.
Tab Tooltips		
	File Name	Includes a File Name in the tooltip.
	File Location	Includes a File Location in the tooltip.
	None	Tooltips are not displayed.

Ruler and Guideline Options

The **Options** dialog box can be used to configure settings for rulers and guidelines.

To set the Rulers and Guidelines Options:

1. Select **Tools | Options...** from the menu.
2. In the **Options** dialog box, select **Rulers and Guidelines**.
3. Set the options as described below.
4. Click **OK** to apply any changes.

Rulers and Guidelines Options

Field Set	Field	Description
Guidelines		
	Color	Select a guideline color.
Rulers		
	DPI	Determines the ruler scale by dividing the layer's pixel value by Dots Per Inch (DPI).
	Load resolution from EXIF metadata	When this checkbox is enabled, the EXIF metadata value will override the value in the DPI field.
Units		
	Select a unit of measure for the rulers:	
	<ul style="list-style-type: none">• Inches• Centimeters• Pixels• Percent	

Chapter 13: Printing

Printing Images

With the Gemstone print utility, you can print your images on any size of paper, in any orientation, and at any resolution your printer can support. You can also use the print utility to create and print contact sheets, complete with headers, footers, and captions specific to each image.

As you change the options in the Print dialog box, you can view a dynamically updated preview of the image and its position on the page. You can adjust the output size, print multiple copies of each image, and change the orientation of the images on each page.

To Print a Single Image:

1. Select the image you want to print.
2. Click **File | Print Image**.
3. Under **Format**, choose a print size.
4. On the **Printer Options** tab, [specify the printer](#) you want to use, the paper size, the number of copies you want, the range of pages that you want to print, and image resolution.
5. On the **Page Settings** tab, [specify the image position](#) on the paper and the margin widths, and specify the number of prints of each photo.
6. Add [captions, headers, or footers](#).
7. Click **Print**.

Printer Options

When printing images with ACDSee, be sure to specify which printer to use, and set the printer options on the **Printer Options** tab in the **Print** dialog box. Select **File | Print...** from the main menu to open the **Print** dialog box.

Printer Options

Printer	Specifies the printer to use. Select a printer from the drop-down list and click the Properties button to set its options. Refer to the printer manufacturer's Help file or manual for more information.
Paper size	Specifies the size of the paper, e.g. Letter, Legal, A4.
Orientation	Specifies "Portrait" or "Landscape" page orientation.
Copies	Specifies the number of copies to print.
Print range	<p>Select one of the following options:</p> <ul style="list-style-type: none"> • All: Prints all of the pages in the document. • Pages from: Prints a range of pages. Specify the first and last pages of the range in the fields.
Resolution	Specifies a resolution in pixels-per-inch (PPI) for the image. The higher the value, the more dots per inch, and the higher the resolution of the printed image. For example, 600 PPI is 360,000 (600 x 600) pixels per square inch.
Filter	<p>Specifies the resampling filter to use when printing images. Click the drop-down list and select one of the following:</p> <ul style="list-style-type: none"> • Box: Displays considerable tiling or jaggies when resizing an image. • Triangle: Produces good results for image reduction and enlargement, but displays sharp transition lines. • Bicubic: Produces good results with photo-realistic images and with images that are irregular or complex. Uses interpolation to minimize the raggedness normally associated with image expansion. • Bell: Smooths the image. • B-Spline: Produces smooth transitions, but may cause excessive blurring. • Lanczos: Produces the sharpest images, but may also introduce some ringing artifacts. • Mitchell: Produces smooth transitions when enlarging photo-realistic images. This filter is good compromise between the ringing effect of Lanczos and the blurring effect of other filters.
Color Management	<p>From the drop-down menu, choose between allowing the printer to manage colors, or managing colors with ACDSee.</p> <p>Manage colors using ACDSee:</p> <ul style="list-style-type: none"> • Printer Profile: Select from all printer profiles currently stored on the computer. Scroll down to find the profile cor-

responding to the currently selected printer.

- **Rendering Intent:** A strategy for handling situations where not all colors will fit in the output device's color space.
- **Soft Proof:** Preview what the printed output would look like with the currently selected printer profile.
- **Gamut Warning:** Displays colors that cannot be reproduced by the printer in the preview. In such cases, the closest available color is selected. The rendering intent describes the method used to select another color.

For more information, see [Color Management](#).

Use EXIF 2.2 printing (if available)

Some cameras may capture EXIF information that can be shared with a designated printer to optimize printing results. Select this option if your camera and printer support EXIF 2.2 printing.

Image Size and Positioning



The **Page Settings** tab in the **Print** dialog box can be used to adjust and control the size of the images for printing, and the positioning of images on each page. Select **File | Print...** from the main menu to open the **Print** dialog box.

Page Settings Options

Page position	Specifies where to place the image on each page.
Margins	Specifies the size of the margins. Type a value or click the arrows in the Top , Bottom , Left , and Right spin boxes.
Number of prints	Specifies how many copies of each image to print. The print utility adds pages as required.
Automatically rotate picture based on print format	Specifies whether the print utility will automatically determine which orientation to use for each image. With the Automatically rotate picture based on print format checkbox enabled, the print utility changes each page's orientation to best suit the image to be printed.
Maintain aspect ratio	<p>Specifies whether the print utility will maintain the original image's aspect ratio.</p> <p>Select one of the following options to indicate how the print utility should handle the aspect ratio for oversized images:</p> <ul style="list-style-type: none"> • Crop image to fit print format: Prints only the part of the image that fits within the print format. • Shrink image to fit print format: Prints the entire image, reduced to fit inside the print format.

Print Adjustments

The settings on the **Adjustments** tab of the **Print** dialog can be used to compensate for quirks specific to a connected printer, such as the way the printer handles exposure.

-  It is recommended to adjust these settings only after printing to better determine any corrections the printer may require.
-  Please note that any adjustments made on the **Adjustments** tab will not be reflected in the **Preview** window.

To Apply Adjustments to Images Prior to Printing:

1. Select **File | Print** from the menu.
2. In the **Print** dialog's **Adjustments** tab, adjust the **Exposure**, **Contrast**, or **Sharpness** sliders as desired.
3. Click **Print**.

Adding Text to Pages

From the **Print** dialog box, headers and footers can be added to printed pages, and captions added beneath images.

To Add Captions to Printed Images:

1. Select **File | Print...** from the main menu.
2. In the **Print** dialog box, select the **Caption** tab.
3. Enable the **Use caption text** checkbox.
4. Click the **Font...** button to open the **Font** dialog box and set the font options.
5. In the text box, type the caption text to be displayed.
6. Click **Insert Metadata** to insert file-specific information into the caption for each image.
7. In the **Text alignment** drop-down list, select the caption positioning.
8. To set the maximum number of text lines for each caption to display, select the **Number of lines** checkbox, and then specify a number in the field.

To Add Headers and Footers to Printed Pages:

1. Do one of the following:
 - Select the **Header** tab and enable the **Use header text** checkbox.
 - Select the **Footer** tab and enable the **Use footer text** checkbox.

2. Click the **Font...** button to open the **Font** dialog box and set the font options.
3. In the text box, type the text to be displayed.
4. To insert the current page number or the total number of pages into the text, click **Insert Page Number**, and then select an option from the menu.
5. In the **Text alignment** drop-down list, select the header or footer positioning.
6. To set a maximum number of text lines, select the **Number of lines** checkbox, and then specify a number in the field.

Custom Print Layouts

In the **Print** dialog custom print layouts can be created and stored as print options.

To Create a Custom Print Format:

1. Select **File | Print...** from the main menu.
2. In the **Print** dialog box, enable the **Full page** radio button.
3. In the Print format area, click the **Add...** button.
4. In the **Add Custom Format** dialog box, select a measurement unit from the **Measurement units** drop-down list.
5. Enter the dimensions for the new format in the **Format width** and **Format height** fields.
6. Click **Add**.

Chapter 14: Shortcuts

Keyboard Shortcuts

Gemstone Shortcuts

Use the following keyboard shortcuts.



To define custom keyboard shortcuts, see [Customizing Keyboard Shortcuts](#).

Shortcut	Resulting Action
General	
Alt + F4	Closes Photo Editor.
Shift + Esc	Minimizes Photo Editor.
Ctrl + Shift + Alt + S	Opens the Customize Shortcuts dialog box, in which you can customize keyboard shortcuts.
Alt + O	Opens the Options dialog box.
F1	Opens the Help file.
` (grave accent)	Toggles the display of the full file path in the Status bar.
Ctrl + Q	Exit
File Menu	
Page Arrow Right	Opens the next image.
Page Down	
3 (numeric keypad)	
Page Arrow Left	Opens the previous image.
Page Up	
9 (numeric keypad)	
Ctrl + S	Saves the image.
Ctrl + Alt + S	Saves a copy.
Ctrl + O	Opens the Open Files dialog.
Ctrl + Q	Closes the image.
Ctrl + Shift + Q	Closes all images.
Ctrl + P	Opens the current image in the ACDSee Print utility.
End	Switches to the last image in the Filmstrip.
Home	Switches to the first image in the Filmstrip.
Edit Menu	

Shortcut	Resulting Action
Ctrl + Y	Redo.
Ctrl + Z	Undo.
Ctrl + Shift + Z	Undo all.
Ctrl + C	Copy.
Ctrl + V	Paste.
Delete	Delete.

Viewing

Ctrl + Page Arrow Right	Toggles the right pane open and closed.
Ctrl + Page Arrow Left	Toggles the left pane open and closed.
Ctrl + Page Arrow Down	Toggles the bottom pane open and closed.
/ (forward slash)	Zooms the image to its actual size.
Shift + 8	Fits the image to the viewing area.
* (numeric keypad asterisk)	
+ (plus)	Zooms in.
- (minus)	Zoomed out.
F	Displays the image full screen.
'	Toggles Navigator open and closed when zoomed into the image.
[Enables soft proofing.
Z	Displays saved version of the image.
Page Arrow Right	Pans right when zoomed into the image.
Page Arrow Left	Pans left when zoomed into the image.
Page Down	Pans down when zoomed into the image.

Shortcut	Resulting Action
Page Up	Pans up when zoomed into the image.
Customizing the Interface	
Ctrl + Shift + H	Toggles the Histogram open and closed.
Ctrl + Shift + U	Toggles the Undo History pane open and closed.
Ctrl + T	Toggles rulers on and off.
Ctrl + Shift + G	Enables/disables snapping to guidelines.
Ctrl + Shift + ;	Clears all guidelines.
Ctrl + Alt + ;	Locks guidelines in place.
Ctrl + ;	Toggles guidelines on and off.
Selecting	
Alt + A	Selects all.
Alt + D	Deselects.
Alt + I	Inverts selection.
Alt + Del	Deletes selected pixels.
Alt + Shift + F	Applies Smart Erase to a selection.
Alt + Shift + P	Opens the Pixel Targeting panel for targeting the selection to specific colors and/or tones.
Alt + Shift + S	Saves the selection.
Ctrl + Alt + L	Creates a selection based on brightness in the image.
Alt + Shift + L	Opens the Load Selection dialog box.
Alt + Shift + M	Opens the Manage Selections dialog box
Alt + Shift + O	Opens the Overlay Options dialog box.
Filters	

Shortcut	Resulting Action
F2	Opens the Red Eye Reduction tool.

Shortcut	Resulting Action
F3	Opens the Repair tool.

Shortcut	Resulting Action
F4	Opens the Skin Tune tool.

Shortcut	Resulting Action
F5	Opens the Chromatic Aberration tool.

Shortcut	Resulting Action
F6	Opens the Watermark tool.

Shortcut	Resulting Action
F7	Opens the Border tool.

Shortcut	Resulting Action
F8	Opens the Vignette tool.

Shortcut	Resulting Action
F9	Opens the Special Effects panel.

Shortcut	Resulting Action
F10	Opens the Tilt-Shift tool.

Shortcut	Resulting Action
F11	Opens the Grain tool.

Shortcut	Resulting Action
F12	Opens the Rotate tool.

Shortcut	Resulting Action
Alt + F1	Opens the Flip tool.

Shortcut	Resulting Action
Alt + F2	Opens the Crop tool.
Alt + F3	Opens the Perspective Correction tool.
Alt + F5	Opens the Distortion Correction tool.
Alt + F6	Opens the Lens Correction tool.
Alt + F7	Opens the Resize tool.
Alt + F8	Opens the Liquify tool.
Alt + F9	Opens the Exposure tool.
Alt + F10	Opens the Levels tool.
Alt + F11	Opens the Auto Levels tool.
Alt + F12	Opens the Tones Curves tool.
Ctrl + F1	Opens the Light EQ™ tool.
Ctrl + F2	Opens the Dehaze tool.
Ctrl + F3	Opens the Dodge and Burn tool.
Ctrl + F4	Opens the White Balance tool.
Ctrl + F5	Opens the Color EQ tool.
Ctrl + F6	Opens the Color Balance tool.
Ctrl + F7	Opens the Convert to Black & White tool.
Ctrl + F8	Opens the Split Tone tool.
Ctrl + F9	Opens the Color LUTs tool.
Ctrl + F10	Opens the Sharpen tool.
Ctrl + F11	Opens the Blur tool.
Ctrl + F12	Opens the Noise Reduction tool.
Shift + F1	Opens the Clarity tool.
Shift + F2	Opens the Detail Brush tool.

Working Inside Filters

Shortcut	Resulting Action
B	Toggles Brush controls open and closed.
S	Toggles the brush stroke display when working inside a filter.
G	Toggles Gradient controls open and closed.
R	Toggles Radial Gradient controls open and closed.
Spacebar	Switches to the Hand tool when working with the Brush or Gradients inside a filter.
E	Toggles the exposure warning on and off in the Exposure tool.

Layered Editor

Ctrl + Alt + I	Opens the Import image as layer dialog box.
Ctrl + Alt + N	Adds a new blank layer.
Ctrl + Alt + D	Duplicates the selected layer.
Ctrl + Delete	Deletes the selected layer.
Ctrl + Alt + R	Opens the Rename Layer dialog box.
Ctrl + Alt + V	Toggles the Show/Hide Layer button on and off.
Ctrl + Alt + C	Toggles the Clipping button on and off.
Ctrl + Shift + Down	Merges the selected layer with the layer below it.
Ctrl + Alt + F	Merges all layers into a single image.
Shift + J	Shows all layers.
Shift + Y	Hides all layers.
Ctrl + Shift + F	Applies Frequency Separation.
Ctrl + Shift + T	Rasterizes the selected text layer.
Ctrl + Shift + D	Opens the HDR dialog.
Ctrl + Shift + O	Opens the Focus Stack dialog.
Shift + Alt + A	Auto-aligns the selected images.
Shift + Alt + B	Opens the Auto-Blend dialog.

Shortcut	Resulting Action
Layer Masks	
Ctrl + Alt + W	Adds a white layer mask.
Ctrl + Alt + B	Adds a black layer mask.
Ctrl + Alt + ,	Adds the mask to a selection.
Ctrl + Alt + -	Subtracts the mask from a selection.
Ctrl + Alt + =	Selects the area common to the mask and the selection.
Ctrl + Alt + .	Creates a mask from the selection.
Ctrl + Alt + J	Inverts the mask.
Ctrl + Shift + Delete	Deletes the mask.
Ctrl + Alt + P	Opens the Pixel Targeting panel, allowing you to mask specific colors and/or tones.
Ctrl + Shift + V	Pastes the image layer as a luminance mask.
Ctrl + Shift + M	Disables/enables the selected mask.
Adjustment Layers	

Shortcut	Resulting Action
Shift + E	Adds an Exposure Adjustment Layer.
Shift + B	Adds a Blur Adjustment Layer.
Shift + Z	Adds a Posterize Adjustment Layer.
Shift + U	Adds a Curves Adjustment Layer.
Shift + I	Adds a Negative Adjustment Layer.
Shift + F	Adds a Color Adjustment Layer.
Shift + W	Adds a Black and White Adjustment Layer.
Shift + T	Adds a Threshold Adjustment Layer.
Shift + G	Adds a RGB Adjustment Layer.
Shift + R	Adds a Clarity Adjustment Layer.
Shift + L	Adds a Levels Adjustment Layer.
Shift + X	Adds a Vibrance Adjustment Layer.
Shift + V	Adds a Vignette Adjustment Layer.
Shift + S	Adds a Sharpen Adjustment Layer.
Shift + O	Adds a Color EQ Adjustment Layer.
Shift + Q	Adds a Light EQ Adjustment Layer.
Shift + M	Adds a Gradient Map Adjustment Layer.
Shift + K	Adds a Skin Tune Adjustment Layer.
Shift + P	Adds a Photo Effect Adjustment Layer.
Shift + A	Adds a White Balance Adjustment Layer.
Shift + H	Adds a Dehaze Adjustment Layer.
Shift + C	Adds a Split Tone Adjustment Layer.
Shift + N	Adds a Noise Reduction Adjustment Layer.
Shift + D	Adds a Color LUT Adjustment Layer.

Tools

Shortcut	Resulting Action
M	Activates the Move tool.
Ctrl + Shift + C	Activates the Resize Canvas tool.
T	Activates the Text tool.
Ctrl + Shift + R	Activates the Rectangle tool.
Ctrl + Shift + E	Activates the Elliptical tool.
Ctrl + Shift + L	Activates the Line tool.
Ctrl + A	Activates the Arrow tool.
Ctrl + Shift + P	Activates the Polygon tool.
Ctrl + Shift + B	Activates the Curve tool.
B	Activates the Brush tool.
Ctrl + F	Activates the Fill tool.
Ctrl + G	Activates the Gradient tool.
Alt + E	Activates the Eraser tool.
Ctrl + E	Activates the Smart Erase tool.
Ctrl + Shift + I	Activates the Eyedropper tool.

Color Tools

Ctrl + [Opens the Foreground Color dialog box.
Ctrl +]	Opens the Background Color dialog box.
Ctrl + X	Switches the foreground and background color.

Selection Tools

Shortcut	Resulting Action
Ctrl + R	Activates the Rectangle Selection tool.
Ctrl + I	Activates the Ellipse Selection tool.
Ctrl + L	Activates the Lasso Selection tool.
Ctrl + W	Activates the Magic Wand Selection tool.
Ctrl + B	Activates the Brush Selection tool.

Actions

Ctrl + Shift + S	Stops recording.
Alt + Shift + R	Starts recording.

ACDSee RAW Shortcuts

Use the following keyboard shortcuts in ACDSee RAW.



To define custom keyboard shortcuts, see [Customizing Keyboard Shortcuts](#).

Shortcut	Resulting Action
General	
Alt + F4	Closes ACDSee in all modes.
Ctrl + Shift + Alt + K	Opens the Customize Shortcuts dialog box, in which you can customize keyboard shortcuts.
F1	Opens the Help file.
File Menu	
Page Arrow Right	Opens the next image.
Page Down	
3 (numeric keypad)	
Page Arrow Left	Opens the previous image.
Page Up	
9 (numeric keypad)	
End	Switches to the last image in the Filmstrip.
Edit Menu	
Ctrl + Y	Redo.
Ctrl + Z	Undo.
Delete	Delete.
Viewing	
Shift + 8 * (numeric keypad asterisk)	Fits the image to the viewing area.
Alt + Arrow Right	Fits image width to the display area.
Alt + Arrow Down	Fits image height to the display area.

Shortcut	Resulting Action
+ (plus)	Zooms in.
- (minus)	Zooms out.
F	Displays the image full screen.
H	Toggles the Histogram open and closed.
Ctrl + Shift + I	Toggles the Info palette open and closed.
P	Toggles the Snapshots pane open and closed.
Ctrl + Shift + P	Opens the Develop Presets pane.
Ctrl + Shift + U F9	Opens the History pane.
Ctrl + Shift + H F7 H	Opens the Histogram pane.

Mode Switching

Ctrl + E	Opens the image in Edit mode.
Shift + E	
Ctrl + F5	

Using Develop Mode

B	Toggles Brush controls open and closed.
G	Toggles Gradient controls open and closed.
R	Toggles Radial Gradient controls open and closed.
Spacebar	Switches to the Hand tool when working with the Brush or Gradients while zoomed in. You can then use the Hand tool to pan the image.
E	Toggles the exposure warning on and off when using the Exposure tool.

Mouse Shortcuts

Use the following mouse shortcuts to make quick image adjustments.



To print this page for easy reference, right-click and select **Print...**

Shortcut	Resulting Action
Shift + click	Turns off the auto-collapse feature in the pane as you open groups.
Shift + mouse wheel	Makes large adjustments to the sliders.
Spacebar + click + drag	Scrolls the image by dragging the mouse. Use when you have the image zoomed in.
Right-click	Resets any slider to its default value.
Mouse wheel over slider	Makes fine adjustments to a slider. Place your cursor over the slider and scroll up or down.
Mouse wheel over image	Adjusts brush size. Place your cursor over the image and scroll up or down to adjust nib width.
Shift + mouse wheel	Adjusts feathering. Place your cursor over the image and scroll up or down to adjust feathering.

Chapter 15: Plug-ins

Working with Plug-ins

A plug-in is a software module that adds functionality to a larger program. Gemstone comes standard with many different plug-ins.

Types of Plug-ins

Plug-in	Description
Image Decode	Converts a file from a binary format to the image displayed in Gemstone. Decode plug-ins allow Gemstone to display images of many different file formats. The files that can be viewed with Gemstone depend on which decoding plug-ins are installed on the host computer.
Image Encode	Converts the image displayed in Gemstone to a binary file format. Encode plug-ins allow Gemstone to save (or convert) images to many different file formats. The files that can be edited and saved with Gemstone depend on which encoding plug-ins are installed on the host computer.
Archive	Allows Gemstone to display and save archives of many different file formats. The archives that can be viewed and created with Gemstone depend on which archive plug-ins are installed on the host computer.
Camera	Allows Gemstone to browse images on a digital camera and transfer them to a hard drive.
Command Extension	Adds functionality to Gemstone. For example, there is a plug-in used to share images over the Internet.
Pane Extension	Adds a pane to Gemstone where tasks can be performed such as order prints of digital images.



ACDSee cannot ensure the quality of plug-ins that are not certified by ACD Systems. As with any other piece of software, you are trusting that the plug-in is free of viruses and that the company that produced the plug-in is trustworthy.

Managing Plug-ins

The **Plug-in Settings** dialog box displays a list of all the ACDSee plug-ins installed on the host computer and can also be used to control which plug-ins Gemstone uses.

To Access the Plug-in Settings Dialog Box:

Select **Tools | Plug-in Settings...** from the menu.

Disabling a Plug-in

A plug-in listed in the **Plug-in Settings** dialog box can be disabled so that Gemstone no longer uses it.

To Disable a plug-in:

1. In the **Plug-in Settings** dialog box, select one of the Plug-in tabs.
2. Disable the checkbox adjacent to the name of the plug-in that is no longer required.
3. Click **OK**.

Changing the Plug-in Order

Some file formats can be supported by more than one plug-in. However, when this happens, Gemstone allows for the control of which plug-in is used to read or write a file format. The order that plug-ins appear in the **Plug-in Settings** dialog box is the order that Gemstone uses to determine which plug-ins read or write to a file.

To Change the Plug-in Order:

1. In the **Plug-in Settings** dialog box, select one of the Plug-in tabs.
2. Select a plug-in in the **Plug-ins** list.
3. Do one of the following:
 - Click the **Move up** button to move the plug-in higher in the list.
 - Click the **Move down** button to move the plug-in lower in the list.
4. Click **OK**.

Viewing Plug-in Properties and Getting Help

Certain plug-ins can be viewed and their properties set.

To View Plug-in Properties:

1. In the **Plug-in Settings** dialog box, select one of the Plug-in tabs.
2. Select a plug-in in the Plug-ins list.
3. Click the **Properties** button.

To View a Plug-in's Help File:

1. In the **Plug-in Settings** dialog box, select one of the Plug-in tabs.
2. Select a plug-in in the **Plug-ins** list.
3. Click the **Plug-in Help** button.

Chapter 16: File Information

Glossary

A

Absolute Colorimetric

Rendering intent, generally used for proofing. Based on a device-independent color space, reproducing colors within the available gamut perfectly, and reducing colors outside of the gamut to the nearest reproducible hue (at the expense of saturation).

Acquire

Often used term to describe the process of locating images on peripheral devices (such as scanners and digital cameras) and adding the images to your hard drive. Can also refer to taking screen captures. See [import](#).

Aliasing

Jagged edges caused by pixels. Occurs most often in low resolution images or images that have been enlarged. See [jaggies](#).

Anchor

Method of fixing an object such as a selection to a screen, page, or image location.

Antialiasing, Anti-Aliasing

Software technique for reducing jagged lines, or 'jaggies'. Uses shades of gray and color to smooth out the contrast between adjacent pixels.

Aspect Ratio

An image's width-to-height ratio. For example, an image with an aspect ratio of 3:1 has a width 3 times larger than its height.

Azimuth

Angle of shadows that extend from the edges of image details. In Gemstone you can control azimuth when applying the Emboss effect to an image.

B

Background Processing

Tasks or programs that function without user interaction.

Bandwidth

Amount of data that can be sent through a network connection in a fixed amount of time. Bandwidth is measured in kilobits per second (Kbps).

Barrel Distortion

In barrel distortion the photo appears to bulge outwards from the center.

Bit

Bits are small units of computer memory. The color depth of your image is constrained by the number of bits available to store color information. For example, it is possible to store 256 different color values per color channel in 8-bit RGB images. Similarly, it is possible to store 65,536 different color values per color channel in 18-bit images.

Blackpoint

An image's darkest area. You can control the intensity of the black in an image by adjusting its blackpoint.

Blend Modes

Filters that change the effect of a tool or the appearance of a selected object.

Brightness

Light intensity of an image. You can make an image appear brighter or darker by adjusting its brightness.

Brush

A tool that you can use to isolate or indicate pixels you want to apply effects or adjustments to. The Brush in Drawing Tools can be used to draw in color on your image. See [Smart Brushing](#).

C

Chromatic Aberration

A lens artifact that can result in fringes in high contrast areas of some photos.

CMYK

Color model that uses cyan, magenta, yellow, and black (key) as its primary colors.

Color Cast

Changes the hue of an image while keeping the saturation and brightness intact. For example, many digital cameras produce pictures with a slightly blue color cast. Gemstone includes a tool that removes an unwanted color cast.

Color Channel Value

Contains all pixel information for a single color. A grayscale image has one channel, while an RGB image has three channels. You can adjust RGB values when editing a color.

Color Gamut

Range of colors that a device such as a printer or monitor can produce or display.

Color Management

Process of adjusting your computer settings so that the color output from your printer matches the colors you see on your monitor.

Color Space

There are two types of color spaces: device-independent or device-dependent. A device-independent color space, such as RGB, describes all possible colors. A device-dependent color space describes the subset of colors (from the device-independent color space) that a particular device can reproduce. Device-dependent color spaces are used to map colors between devices (for example, from a monitor to a printer) to ensure that colors are reproduced accurately.

Compression

Process that converts data to a storage format requiring less space than the original data.

Contact Sheet

Physical or digital page that contains a series of small images, usually in a grid format.

Contrast

Measure of an image's color and brightness differences.

Convert

Change a file from one format to another. For example, you might convert a file from a bitmap (.bmp) to a JPEG (.jpg) to reduce the file size.

Cropping

Removing unwanted image areas.

D

Dock

Attaching a toolbar, window, or pane to different screen areas.

DPI (dots per inch)

Measurement of an image's resolution. For example, 92 DPI means 92 dots horizontally and 92 dots vertically, which equals 8,464 dots per square inch. More dots per inch result in higher resolution and image quality.

Dynamic Range

The dynamic range of an image is directly related to the dynamic range of your digital camera's sensor. If your digital camera's sensor has a large dynamic range it can capture the darkest shadows and brightest highlights at the same time, without clipping the shadows or highlights. (RAW images preserve the dynamic range of your digital camera's sensor.) Adjusting the tonal range of the image changes how the dynamic range of the image is represented on a monitor or in a photo.

E

Elevation

Height of an imaginary light source over an image. The elevation of the light source works in conjunction with azimuth to generate a three-dimensional emboss effect.

Encode

Writing (or saving) a file format.

Encryption

Method of converting data into a secure format. You need a digital password or key to read an encrypted file.

EXIF (Exchangeable Image File)

Standard for storing information, primarily with images that use JPEG compression. Most digital cameras create EXIF information and embed it in the image file. For example, EXIF information can include details about shutter speed and whether a flash was used.

Export

Moving data from one application to another. The exporting application places the data in a format that the other application understands.

Exposure

Exposure is the amount of time that your digital camera's sensor is exposed to light.

F

Feather

Softening image edges to blend them into the background.

File Format

Medium for encoding information in a file. Each type of file has a different file format that specifies how it organizes the information it contains.

Filter

Program that can apply an effect to an image, such as an embossed appearance or a sepia tone.

Fisheye Distortion

In fisheye distortion, the photo appears to bulge outwards from the center, as if the photo were wrapped around a sphere.

G

Gamma

Range of color values a monitor, scanner, or printer can display. Adjusting this value increases or decreases the intensity of the light spectrum.

Grayscale Image

Image composed of different shades of gray.

H

Highlights

Highlights are the brightest or whitest parts of an image.

Histogram

A histogram is a graph that displays the dynamic range of shadows and highlights in an image.

HSL

An acronym for hue, saturation, and lightness.

Hue

Predominant color in an image.

I

Image Resolution

Quality of image details and colors. Also used to describe the quality of monitors and printer output.

Interpolation

Process that uses nearby pixels to estimate the color of new pixels added to the larger image. For example, interpolation might be used when enlarging a digital image.

J-K

Jaggies

Individual pixels displayed in an image with low resolution. The appearance of pixels in an image causes lines and curves to appear jagged.

L

Lens Vignetting

Unusual darkness in the corners of images as a result of an inability of the lens to distribute light into the corners of the image.

Lossless Compression

Form of compression that retains all image data and quality.

Lossless Rotation and Flipping

Rotation of a JPEG image without loss of image quality. This works best on images with dimensions that are a multiple of 8 or 16.

Lossy Compression

Form of compression that attempts to remove unnecessary data. This data loss can affect image quality.

M

Marquee

Dashed-line frame that identifies a selected portion of an image. Depending on the tool, you can resize or move a marquee with or without changing the underlying image.

Metadata

Information about an image and how it was taken. For example, the metadata of digital camera images can contain the date and time the picture was taken, the shutter speed, the exposure settings of the camera, and whether a flash was used.

Monochrome Image

Image containing a single color.

N

Noise

Effect produced when a variety of pixel colors are used in the same color region. Noise often occurs in images with high ISO setting or slow shutter speed.

O

Opacity

Determines how visible an effect is when applied to an image or a selection. High opacity produces a more solid effect, while low opacity results in a nearly invisible effect.

Overexposed

Images that are overexposed have too many highlights, and tend to look faded. You typically overexpose images by exposing your digital camera's sensor to light for too long.

P-Q

Panning

Moving zoomed images vertically, horizontally, and diagonally across the display area to view specific areas of the image.

Perceptual

Rendering intent that scales all of the colors within one gamut to fit within another gamut. Best used for photographic images, as it maintains the relationship between the colors more accurately than the colors themselves.

Perspective Distortion

Perspective distortion is caused by wide angle and telephoto lenses, which distort the perspective of large or far-away objects. For example, if you take a photo of a tall building, the building may appear to be narrower at the top even though the building is the same width from top to bottom.

Pincushion Distortion

In pincushion distortion the photo appears to shrink inwards toward the center.

Pixel (PICTure ELeMENT)

Smallest visible portion of a digital image, arranged in rows and columns.

Plug-in

Software module that adds functionality to a larger program.

PPI (pixels per inch)

Measurement of how an image is displayed. More pixels per inch result in higher image quality.

Presets

A preset contains image correction settings. You can create and use presets to ensure that settings you apply are the same and consistent across all images.

Primary Colors

Colors that can produce other colors when blended. For example, in the RGB color model, red, green, and blue are primary colors.

R

Raster Image

Image composed of a rectangular grid of pixels. Each pixel contains a defined value about its color, size, and location in the image. As a result, resizing the image can affect its quality.

RAW

An image file format. RAW files contain all of the image data that was captured by your digital camera's sensor. RAW files are not processed by your camera.

Red Eye

Red eye occurs when the light from your digital camera's flash reflects off the retinas in the subject's eyes. The subject's eyes look red instead of their normal color.

Relative Colorimetric

Rendering intent that maps the colors that fall exactly within the color gamuts of both the input and output devices. Best used for single- or limited-color images as colors outside of both gamuts may be mapped to a single color.

Render

Drawing images to your screen.

Rendering Intent

Approach used to map colors from one color gamut to another. There are four rendering intents available: [Perceptual](#), [Relative Colorimetric](#), [Saturation](#), and [Absolute Colorimetric](#).

Resolution

Quality and clarity of an image, measured in pixels, dots per inch, or pixels per inch.

RGB

Color model that uses red, green, and blue as its primary colors.

Ringling Artifacts

Distortion around the edges of image subjects, caused by compressing or resizing an image.

S

Saturation

Purity of a color. Higher color saturation results in more gray.

Saturation (rendering intent)

Rendering intent that maintains color saturation from one gamut to another. Best suited for images in which the actual color represented is less important than the color's vividness.

Selection

Portion of an image that you define with a selection tool. A marquee surrounds a selection. ACDSee Gemstone Photo Editor includes selection tools.

Sepia

Sepia-toned images are composed of shades of brown. Many old photographs have a sepia tone.

Sharpen

The sharpen tool is for sharpening images. The original image is blurred slightly. This blurred version of the image is subtracted from the original image, revealing the edges in the original image. These edges can then be sharpened by increasing contrast.

Sharpness

The sharpness in an image is determined, primarily, by your digital camera's lens and sensor. You can also create the illusion of sharpness by increasing the contrast between edges within an image.

Shortcut Menu

Menu that appears when you right-click within a program. Sometimes referred to as a context menu.

Smart Brushing

Brushing targeted to specific colors, brightness values, or combination of color and brightness. The Smart Brush only affects pixels similar in value to the pixel in the center of the brush stroke, and allows you to apply adjustments to those pixels.

Soft Proofing

Using your computer's monitor as a proofing device. The monitor displays a simulation of how colors will appear when rendered by the printer.

T

Thumbnails

Small preview of a full-sized image.

U

Underexposed

Images that are underexposed have too many shadows. Images typically become underexposed if you don't expose your digital camera's sensor to light long enough.

V

Vector Image

Image consisting of individual objects rather than pixels. Mathematical equations define the objects. You can adjust the size of a vector image and the image will retain its clarity and quality.

W

Watermark

Background text or graphics added to an image, usually to provide copyright protection.

White Balance

Removes color cast to create a photo that is correctly lit. You can use your camera settings to apply the correct white balance before taking an image, or correct the white balance in Gemstone.

Whitepoint

Lightest image area. You can control the intensity of the white in an image by adjusting its whitepoint.

Z

Zoom

In Gemstone, zoom refers to the process of increasing or decreasing the display scale for an image. Increase the display scale to view a portion of an image or a specific image detail. Decrease the display scale to view more or all of the image.

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