

Intro to Adobe Photoshop

Basic Functions Level 2

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Intro to Adobe Photoshop Basic Functions Level 2

OVERVIEW

This chapter covers a variety of intermediate to advanced tool and functions that are very important for fashion/surface designers to practice and master beginning with the section titled, "Vector Tools." Understanding the concept of the Path is the heart of all vector development, stroked and unstroked paths as well as the functionality of the Path Palette is explained. Any investment in understanding how the Pen Tool functions will be well rewarded when the user moves to working in Illustrator where the functionality of the Pen Tool is expanded. Shape Layers create vector shapes on layers and vector shapes can easily be transformed and their paths can be edited using the Path Selection Tool and the Direct Selection Tools. The Clone Tool and the Healing Brush Tools are very versatile for image editing. The "Custom Tool" section has information about creating your own customized brushes, patterns, shapes, and gradients to use in your image development.

Because layers are such a multipurpose development tool in Photoshop, the "More About Layers" section adds to the initial Layer information covered in Chapter Four. Adjustment/Fill Layers, Layer Groups and Layer Styles are covered in this chapter. Masks are another versatile and creative tool for designers. Quick Masks, Alpha Channels, Layer & Vector Masks and Clipping Mask groups are presented. A knowledge of how Channels function can greatly expand your creative skill level and ability to develop multiple custom color separations as well as colorways. Spot color separations and selections can be saved in channels as well as creative editing and image modifications of the alpha channel selections.

Color Range and Blending Mode are presented in the “Color Selection” section in addition to the Replace Color function that was presented in Chapter Four. The section titled “Effects/Filters” expands on the initial filters that were presented in Chapter Four. The Fade, Dodge, Sponge and Burn Tool are listed as well as the Brush Stroke Effects, Liquefy, Extract and Texturizer Filters. The final section titled “Time Savers,” contains information about Tool Presets and the Action Palette. The Pattern Maker filter is listed in Chapter Ten: Textures.


VECTOR TOOLS



Path

In Photoshop, a path is created with the Pen Tool or if you use the Shape Tool you could select the Shape Layers or Path (*or Pen*) Option button in the Shape Tool Bar. Once a path is created, it can easily be accessed through the Path Palette. Any path can be saved and accessed at any time to be transformed, stroked, filled or turned into selections. When you create a path, it is highlighted in the Path Palette. When you create another path, the first path is automatically deleted if it was not saved. To deactivate an active path, click just below the path layer in the gray area of the Path Palette. Custom shapes can be defined as paths or shape layers (*Vector Mask*). Paths can easily be discarded by dragging them into the Trash Icon on the bottom of the Path Palette.

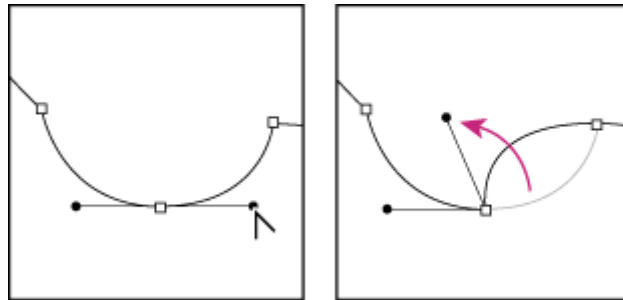
Pen Tool



If you select the Pen Tool and click-drag, click-drag you will get curved points that create a path, if you just click-click-click you will get straight points that create a path.

- The Pen Tool has a submenu that has several additional options.
- The Pen with the + sign  allows you to add a point to a line.

- The Pen with the – sign  allows you to delete an existing point from a line.
- The upside down “V” symbol  is the Convert Anchor Point tool. When you use this tool and click and drag on a straight point – it converts to a curve point. When you click on a curve point with this tool it converts to a straight point.

A curve point has handles on each side that work in unison to modify the curve shape. If you want the handles to work independent of each other, use the Convert Point Tool directly on the handle point.



The Black Arrow is the Path Selection Tool and the White Arrow is the Direct Selection Tool. The Path Selection Arrow  selects an entire object. The points on the object are solid. The Direct Selection Tool  selects a point – if the points on the line are hollow (*and handles may appear on curved lines*) you are able to select and move individual points. If the points are solid – the entire object will move.

Shape Layer

A Shape Layer is a filled vector shape. It is created with the Pen Tool and it is automatically filled with the foreground color. If you want to change the shape color after the shape was create, changing the foreground color will not do it, you need to click on the color box chip on the Shape Tool Option Bar. The outline of the shape is stored in a vector mask that is linked to the layer. The Shape Tool Options Bar has icons for adding to, subtraction from the shape area. The shape can easily be edited with the Path or Direct

Selection Arrows. To quickly convert the Shape Layer to a raster shape, right mouse click on the right side of the active shape layer (*not on the icons*) and select Rasterize. Another option is Layer>Rasterize>Layer.


MORE EDITING TOOLS

The CLONE tool

The Clone Stamp Tool takes a sample of an image, which you can then apply over another image or part of the same image. Each stroke of the tool paints on more of the sample. The brush type and size can be adjusted as well as the color mode, opacity and rate of flow in the tool bar. If you activate the “use all layers box” you can create our cloned area on a new layer that is separate from the source.

Select the Clone Tool hold down the ALT key and left mouse click the source you want to copy. Adjust your tool options and begin to draw in the destination area.

Healing Brush Tool

The  Healing Brush tool lets you correct imperfections, causing them to disappear into the surrounding image. Like the cloning tools, you use the healing brush tool to paint with sampled pixels from an image or pattern. However, the Healing Brush Tool also matches the texture, lighting, and shading of the sampled pixels to the source pixels. As a result, the repaired pixels blend seamlessly into the rest of the image. The Healing Brush along with the Clone Tool are very good for creating seamless edges on texturized or true color repeats.

CUSTOM TOOLS

Custom Brushes

Create your own brush with Define a Brush: Use any of the raster tools to create an interesting form, you can adjust the opacity when you are making your brush. When you are done use the selection marquee and go to Edit>Define a Brush. Then select the Brush Tool and open the drop down box to locate your new custom brush. To modify the size of your brush just sift the master diameter slide bar in the brush drop down menu.

Define Patterns

Create your own patterns with Define a Pattern: Use the selection marquee and go to Edit>Define Pattern. Create a new file (*make sure it's large enough to fit several repeats of the pattern*) and fill it with your new pattern. You can load, save or delete your custom patterns by selecting the submenu arrow icon on the upper right.

Custom Shapes

Create your own custom shapes with Define a Custom Shape – select the Shape Tool, activate the Shape Layer Option and the Pen Tool in the Shape Tool Option bar. Select the color you want in the foreground color chip and then draw a path on the Shape Layer with the Pen Tool, use the Path Selection Arrow to select the path and then go to Edit>Define Custom Shape. Now select the Custom Shape Tool activating either the Shape Layer (*vector*) or the fill pixels (*raster*) option, open the drop down menu and select your new custom shape. You can load, save or delete your custom shapes by selecting the submenu arrow icon on the upper right.

Custom Gradient

Create your own custom gradient, select the Gradient Tool and double left click on the gradient icon on the Tool Option Bar to open the gradient editor. You can easily control the opacity location of the gradient on the sliders over the gradient color strip. To add another Opacity Button, just click your mouse over the gradient color strip. To delete an Opacity Button just drag and drop it into the gradient color strip or click on the Delete Button when the Opacity Button is active.

If you double click on the color boxes below the gradient you can customize the colors. If you want to add another color just left click anywhere under the gradient strip. If you want to delete a color click on the delete button when the color is selected or drag and drop it into the gradient color strip. There is a field for you to type the name and SAVE your custom gradient.

MORE ABOUT LAYERS

The number of additional layers, layer sets, and layer effects you can add to an image is limited only by your computer's memory.

Adjustment/Fill Layers

Adjustment Layers and Fill Layers have the same opacity and blending mode options as image layers and can be rearranged, deleted, hidden, and duplicated in the same manner as image layers. By default, adjustment layers and fill layers have layer masks, as indicated by the mask icon to the left of the layer thumbnail. The Layer Mask can be edited with all the painting tools. To isolate the black and white layer mask for editing activate the mask icon and use the ALT key, to isolate the rubylith hit the ALT-SHIFT while the mask icon is active. The foreground/background color chips will

either add to or remove the mask. Press the ALT or ALT-SHIFT a second time to make the mask invisible again.

If a path is active when you create the Adjustment or Fill Layer, a Vector Mask is created instead of a Layer Mask. The black and White Path Arrow Tools can be used to move or edit the Vector Mask.

Adjustment Layers are great tools, they let you experiment with color and tonal adjustments to an image without actually modifying the pixels in the image. The color and tonal changes reside within the Adjustment Layer, which acts as a veil through which the underlying image layers appear. Keep in mind that an Adjustment Layer affects all the layers below it. This means that you can correct multiple layers by making a single adjustment, rather than making the adjustment to each layer separately. The Adjustment Layer mask can easily be edited to modify the area to be adjusted. Adjustment Layers are a very convenient tool for creating multiple custom colorways while keeping the file size at a minimum.

Layer Groups

Layers can easily be placed into Layer Groups (*sets in CS1*), it's a great organizational feature. Layers in a layer set can be moved as a group. To create a Layer Set click on the right pointing arrowhead on the upper right side of the layer palette and select new layer set or else go to Layer>New>Layer Set. To place an individual layer into a layer set just left click and drag the layer into the layer set. You can open or close a layer set by clicking on the small arrowhead icon to the left to the folder icon on the layer set.

Layer Styles

There are a variety of effects under Layer>Layer Style. The user can create a new custom style from a combination of effects applied to a layer. Layer>Layer Style>Blending Options will open the layer style menu. You can

select and adjust a variety of effects to apply and then create a new custom style that you name.

The combination of effects that make up the particular style are attached to the layer. There is a layer style icon and a downward pointing arrow on the right side of the layer to indicate a layer style or individual effects are active on that layer. Clicking on the downward pointing arrow displays the individual effects. An entire style can be removed by selecting the default style (*none*) box on the upper left side of the style palette. You also can remove parts of a style by right clicking the effect on the layer palette, selecting the checked effect you want to change and deactivating it in the layer style menu that opens. Another way to remove the style is to right click the effects in the layer palette and select clear style from the submenu.

MASKS

Masks let you save and reuse time-consuming selections as alpha channels. (*Alpha channels can be converted to selections and then used for image editing.*) Because masks are stored as 8-bit grayscale channels, you can refine and edit them using the full array of painting and editing tools. Quick Masks, layer masks and vector masks offer the user a variety of creative options while developing a design. Clipping Groups link several masks.

- **Quick Mask Mode** lets you create and view a temporary mask for an image, you can convert these into Channels or Layer Masks or Layers.
- **Alpha Channels** let you save and load a selection to be used as a mask.
- **Layer Masks and Vector Masks** let you produce a mix of soft and hard masking edges on the same layer.

- **Clipping Groups (masks)** enable the user to develop multi-layer temporary masks.

Quick Masks

Quick Mask is the easiest and most versatile and practical type of mask – it's very good for creating tonal separations.



"Quick mask mode lets you edit any selection as a mask without using the channels palette and while viewing your image. The advantage of editing your selection as a mask is that you can use almost any Photoshop tool or filter to modify the mask (*Photoshop Help*)"



Near the bottom of the Tool Palette are two Quick Mask icons. If you click the right Quick Mask icon you can edit in Quick Mask mode, you can use all the editing tools to shape your mask selection. You can use brush, pencil, marquee (*feathered if you like*) and you can also adjust the opacity while creating your quick mask. When you click on the left quick mask icon your mask converts into a selection. You can deselect to turn off the Quick Mask. If you go to the Channel Palette you can save your Quick Mask by converting your Quick Mask into a channel.

Layer Masks

Understanding and using the full features of a Layer Mask takes some practice but you will be well rewarded for the time investment.



"You can obscure an entire layer or layer set, or just a selected part of it, using a layer mask. You can also edit a layer mask to add or subtract from the masked region. A layer mask is a grayscale image, so what you paint in black will be hidden, what you paint in white will show, and what you paint in gray shades will show in various levels of transparency. (*Photoshop Help*)"

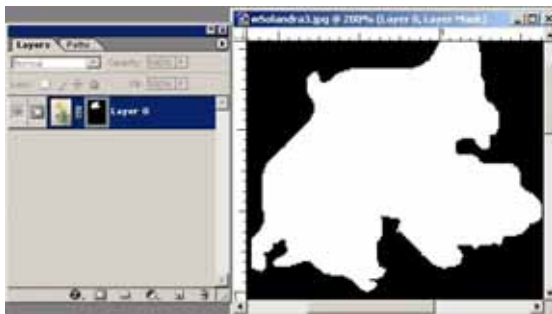
You can add a mask that shows or hides the entire layer, you can select an area and convert it to a mask and reveal or hide the selected area.

If you want to edit a channel you click on the eye icon on the left side of the selected channel.




If you deactivate the original image channel by clicking off eye, only your channel will be visible.

You can use the paint or editing tools to modify the mask or channel selection. If you want to edit a Layer Mask you have three options; if you click on the ALT key and the mask you can edit the mask using the black and white color chips, if you hit the ALT + SHIFT key and the mask icon - the rubbery lasso appears to edit the mask on; and if you click on the image you can directly edit the image. Be careful to observe if the Brush icon or the Mask icon is activated next (to the right) to the eye on the layers palette. If you click on the CTRL key and the MASK it converts to a selection. You will notice a little link between the Image icon and the Mask icon on the Layer Palette. If you click on the link you break it and you can move the mask or image independent or each other. You can easily restore the link by clicking between the two icons.



ALT click on the Mask icon in the Layer Palette to see the mask. If you want to create a channel from your Layer Mask you can easily convert it to a selection and convert the Selection to a channel.

- If you double-click on the Layer mask icon you can change the color and/or opacity level of the mask.
- You can go to Layer>Remove Layer Mask or Layer>Disable Layer Mask or Layer Mask>Apply if your want the changes permanent.

- If you click on the Mask icon and you see a tiny mask to the left of the icon you can edit the mask with any of the editing tools.
- ALT click on the Mask icon and you get the black and white channel the editing tools work and the foreground and background color chips are used to modify. Hold down ALT+shift on the mask to change the display to rubylith.
- CTRL-click on the mask and the mask will convert to an active selection.
- If you click on the Image icon and you see the  paint brush to the left of the icon you can edit the image with any of the editing tools.

Vector Masks

A Vector Mask is created from a path. It creates a sharp-edged shape on a layer and is useful any time you want to add a design element with clean, defined edges. When you create a Shape Layer or have an active path before you create an adjustment layer, a Vector Mask is created. This path can be easily moved or modified with the Black and White Path Selection Arrows.

Clipping Groups (Masks)

Clipping Groups are great tools for surface pattern designers, They can be a great tool for creating instant screen separations. The bottom layer of the Clipping Group functions as the mask for the entire group. You can have one or more upper layers “clipped” to the lower layer that serves as a mask for the upper layers. To create a Clipping Group, hold down the ALT key as you slowly move the left mouse button between the layers. You will notice that the mouse cursor turns in to a clipping icon on the horizontal line between layers, click the left mouse button when the clipping icon appears and the upper layer will be clipped to the layer below. You can do this with several layers. Remember, the bottommost layer of the clipping group

serves as the mask for the upper layers. When a layer is clipped, a little downward point arrow appears on the left side of the layer. Individual layers in the clipping group can be moved independently. The clipped layer can be unclipped the same way it was clipped, it works like a toggle switch.

CHANNELS

Channels are grayscale images that store different types of information: channels are wonderful. A thorough knowledge of channels and how they work will insure successful and creative color separations. All selections can be easily converted into a channel and saved.



"An image can have up to 24 channels. By default, Bitmap-mode, grayscale, duotone, and indexed-color images have one channel; RGB and Lab images have three; and CMYK images have four. You can add alpha or spot channels to all image types except bitmap-mode images. (Photoshop Help)"

Alpha channels are preserved only when you save a file in Adobe Photoshop, PDF, PICT, TIFF, or raw formats. DCS 2.0 format only preserves spot channels.

Selection

On the base of the Channel Palette is a round dashed selection icon. If you click on your channel and then click on the selection icon your channel becomes activated as a selection. If you click on your channel while your holding down the CTRL key your channel will become active also, CTRL-D will deselect your channel.

Grayscale

The channels are grayscale images that can be modified using the foreground and background color chips. All selection, paint and draw tools work while in the Channels Palette so channels can be easily edited. Paint

with white to add the selected channel's color at 100% intensity. Paint with a value of gray to add the channel's color at a lower intensity. Paint with black to fully remove the channel's color.

Spot Color

Spot Color channels can provide the surface designer custom screen separations for each color in your design. This method works well with crisp, clear and relatively simple designs. You can vary the opacity or solidity of the color. The order of the spot channels affect the image, they are overprinted in the order they appear in the channels palette. The default (*RGB, CMYK, Grayscale, etc*) color channels remain at the top of the Channel Palette followed by the Alpha and Spot Color channels. Multichannel is the only color mode that allows the user to move Alpha and/or Spot Color channel over the default color channels. The Alpha and Spot Color channels can easily be moved, just left click and drag with your mouse and when the line between the channels is highlighted, drop the channel in the new location. Converting a CMYK image to Multichannel creates cyan, magenta, yellow, and black Spot Color channels. Converting an RGB image to multichannel creates cyan, magenta, and yellow Spot Color channels.

COLOR SELECTION

Color Range Go to Select > Color Range

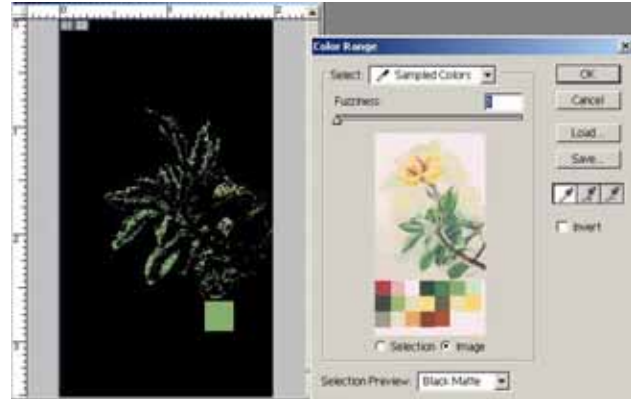
This is an excellent tool for selecting a group of colors from the entire image.






This function works more efficiently for reduced color designs after the colors in the image are separated.

The Fuzziness tolerance slider increases or decreases the number of similar colors selected.

The selection preview drop down menu controls how the original image document is displayed.



The grayscale displays black and white, The black matte displays black background with the color (or colors) selected, White matte displays white background with the color (or colors) selected, and quick mask covers the selected color or colors with the Quick Mask.







The selection or image buttons control the appearance of the image in the Color Range Preview box. The user can increase [+ ] or decrease [- ] the number of colors selected with the eyedropper tool [].

Blending Mode Setting in Tool Bar

There are a variety of blending modes to affect the color but the most important one for working with reduced color is the dissolve mode. When you select the dissolve blend mode only the foreground color will appear with the Airbrush Tool without soft edges. You can adjust the reduced color airbrush by reducing the flow, opacity and changing the size of the brush. This blending mode is very useful for creating faux tonal effects with a limited number of reduced colors. This method works well while in indexed color mode.

FILTERS/EFFECTS

The following four filter effect tools are located on the tool bar:

- **Fade** - The Fade command changes the opacity and blending mode of any filter, painting tool, erasing tool, or color adjustment, Edit>Fade.
- **Dodge Tool**  - The  Dodge Tool works with the range and exposure settings in the tool bar. It's a handy tool for lightening areas of the image.
- **Sponge Tool**  - The  Sponge Tool works with the saturate and desaturate settings in the Sponge Tool Option Bar.
- **Burn Tool**  - The  Burn Tool works with the range and exposure settings in the tool bar. It's a handy tool for darkening areas of the image.

There is a range of interesting filters available in Photoshop and a variety of specialized filter add-ons programs are available. The following list some of the more common filters. Some of my favorite filters under the Artistic Filter category are the Cutout, the Paint Daubs and Palette Knife and Sponge effects. Multiple layered effect filters are great experimental tools for developing new imagery from the existing original.

Brush Stroke Effects

The Brush Stroke filters give a painterly or fine-arts look using different brush and ink stroke effects. Some of the filters add grain, paint, noise, edge detail, or texture to an image for a pointillist effect.

Extract Filter

The Extract command provides a sophisticated way to isolate a foreground object and erase its background on a layer. Even objects with wispy, intricate, or indefinable edges may be clipped from their backgrounds with a minimum of manual work.

Liquefy Filter

The Liquefy filter makes it easy to manipulate areas of an image, as if those areas had been melted. You work with a preview image of the current layer, using special tools to warp, twirl, expand, contract, shift, and reflect areas of the image. An optional warp mesh shows distortions from the original making them editable. You can also use several reconstruction modes to fully or partially reverse the distortions - or to extend the distortions or redo them in new areas. When you're finished, you can apply the changes to the actual image.

Texturizer

If you would like to add a fabric structure effect to your pattern in repeat for your client presentation, you can use the Texturizer Filter. The Texturizer Filter applies a texture you select or create to an image. There are controls to adjust the scaling, the relief and the light effect.

TIME SAVERS

Tool Presets

Tool Presets let you save and reuse tool settings. You can load, edit, and create libraries of tool presets using the Tool Preset Picker in the Tool Options Bar, the Tool Presets Palette, and the Preset Manager. For example you can set up a custom brush with all the size, opacity and specialized effect settings you want, then open your Tool Preset submenu on the left side of your Tool Option Bar and select New Tool Preset. Once you do this you can always go back to the custom brush effects that you have created for yourself. This works with any tool.

Action Palette

If you have a series of individual functions that you repeatedly use to complete your tasks, you can save precious time by setting those tasks up to run automatically with the click of your mouse. The Actions Palette will allow you to record, play, edit, and delete individual actions. This palette also lets you save and load action files. To see the Action Palette go to Window>Actions, or click the Actions Palette tab if the palette is visible but not active. You can create your own custom actions but Photoshop already has some default actions included listed under "production" that you may be interested in using. For example there already are actions for converting an RGB image to grayscale or index mode. Just select the action and click on the "play" icon at the base of the Action Palette. It's a very handy feature for reducing development time for repetitive tasks.