# The Beginner's Guide to Layers

For those new to image editing, coming to grips with *layers* may seem a bit daunting at first. Layers are an important part of image editing, and once you master how to use them, it'll become clear how much easier they actually make things go. This supplemental is geared for those with no image editing experience. It will provide a thorough overview of layers, the Layers Palette, Layer (Blend) Modes, and layer masks. When completed, you'll have a firm understanding of how to work with layers in Autodesk® Pixlr Editor.

## What are Layers?

Layers can be compared to sheets of acetate or plastic containing graphical elements. Layers can be transparent with small elements, or contain complete images. When viewing the work, you're viewing the image as a whole, but the combination of all the layers containing graphical elements comprise the complete image. In Figure 1, the image composite contains an underwater background, a yellow submarine, and a sea creature.

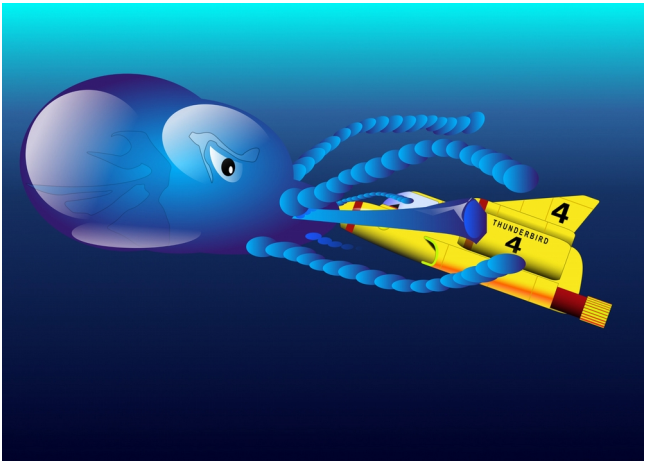


***Figure 1.*** *The composite image*

However, Figure 2 shows us that each graphical element is actually on it's own layer.

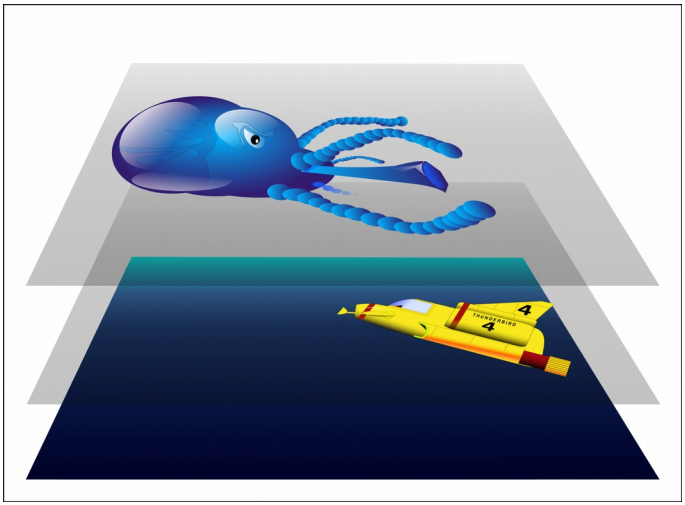


***Figure 2.*** *Each graphical element is on it's own layer*

## The Advantages of Using Layers

Using layers in your image editing projects offers a much greater degree of control. One distinct advantage is that if a modification in the image composite is necessary, the revision can be made in a specific layer without affecting the rest of the image. For example, let's say you decide you don't want the sea creature to be blue, but a reddish color instead. The change can be made to that specific layer, and the rest of the image is unaffected (Figure 3). Layers offer other advantages as well, such as controlling opacity, placement in the stacking order, or modes (how a layer interacts with the one beneath it).

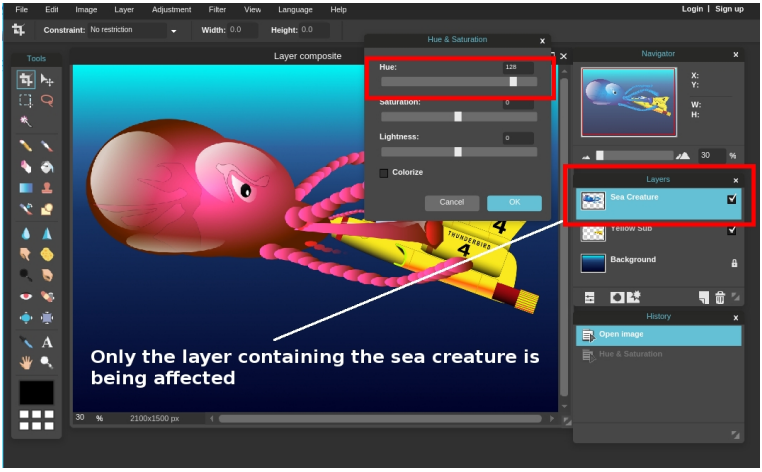


*Figure 3. Only the layer containing the sea creature is affected*

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**Note** Layers were first used in commercial image editing programs in the mid 1990's. Before that, revising a project could be difficult, and probably in some cases, impossible

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# The Layers Palette

This is one area where layer-related tasks are managed in Pixlr Editor (another is from the Menu Bar). Once you become accustomed to it, the Layers Palette offers a bit more speed and convenience in layer management. In the Layers Palette, layers are represented as thumbnail images. Here, they can be renamed, rearranged, duplicated, deleted, etc. The Layer Palette's functions are shown in Figure 4.

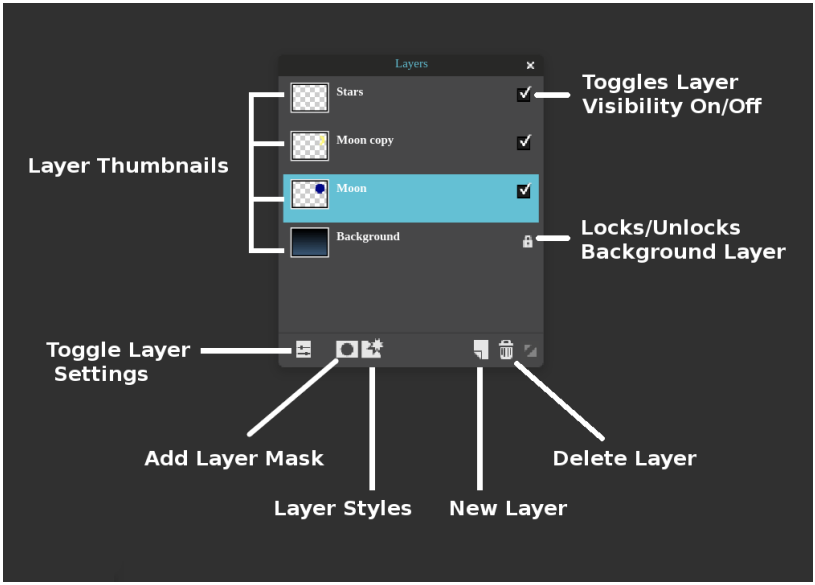


***Figure 4.*** *The Layer Palette's functions*

Most of the Layer Palette's functions are self explanatory, but there's a few that we'll examine more closely, as they may not be readily obvious to beginners.

## Renaming Layers

To rename a layer, double click on the existing name and a text box appears (Figure 5).

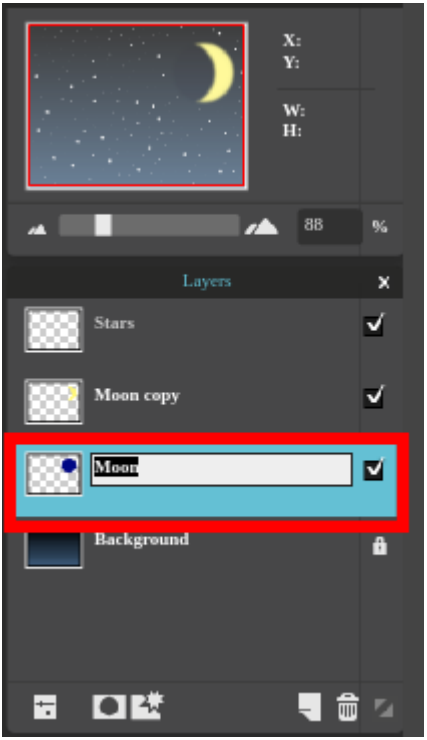


***Figure 5.*** *Double clicking the existing name activates the text box*

## Reordering Layers

The stacking order of the layers can be changed as needed by clicking and dragging the thumbnail of the layer you want to move. The thumbnail of the pink ball was moved upward, placing it at the top of the layer stack (Figure 6).

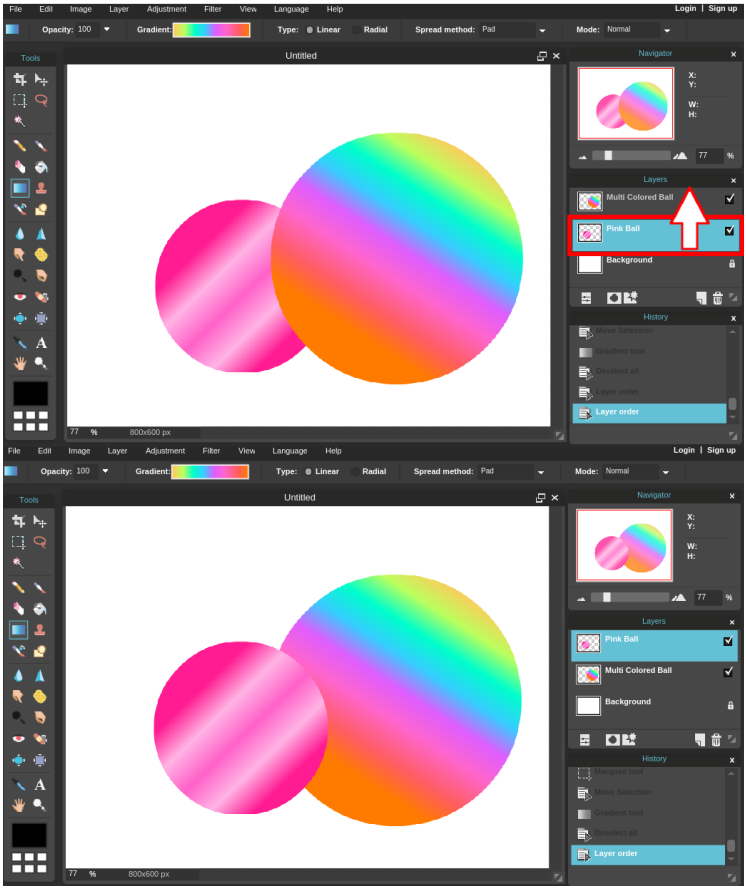


***Figure 6.*** *Moving the layer to the top of the layer stack*

## Toggle Layer Settings

This allows you to control the opacity of the layer(s), and to change the *Mode* (also known as *Blend Mode in other image editors*). Layer Modes will be looked at more closely a little later in this guide. Figure 6 shows the Toggle Layer Settings.

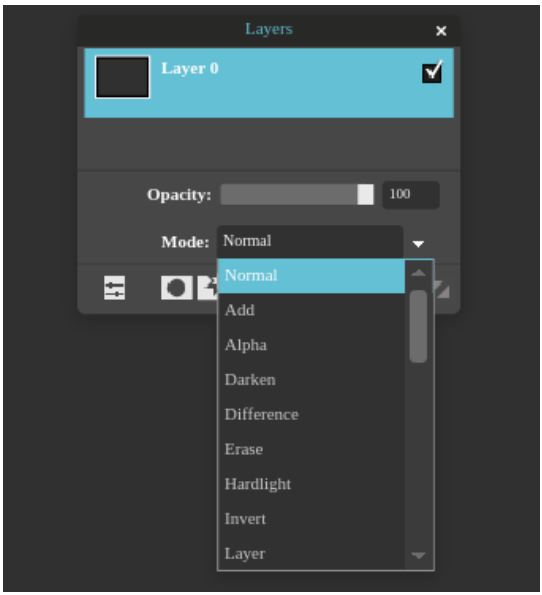


***Figure 6.*** *Toggle Layer Settings controls the layer opacity and mode*

## Add Layer Mask

This function (Figure 7) allows you to add a Layer Mask, which is used to hide and reveal certain portions of the layer. Layer Masks will be covered in greater detail a little later in this guide.

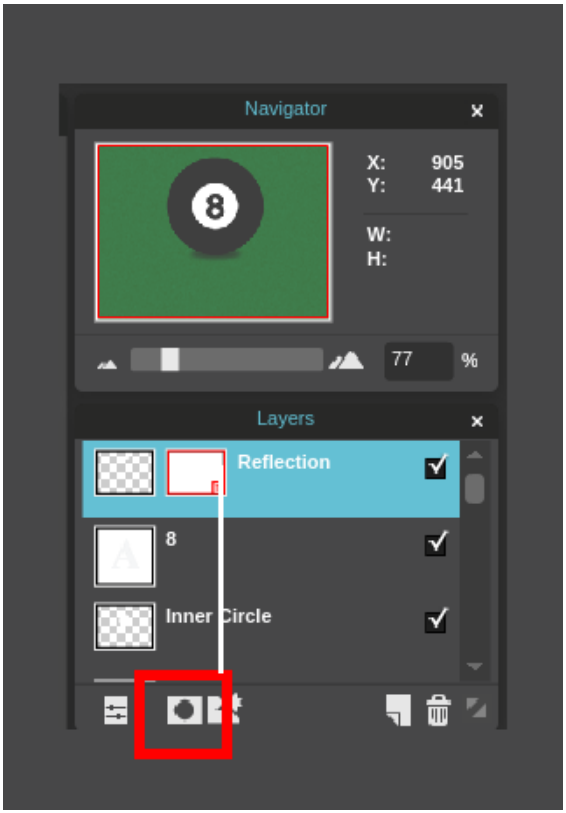


***Figure 7.*** *The Add Layer Mask function*

## Layer Styles

This function is used to add effects to graphical elements. Figure 8 shows a drop shadow added to the image. Clicking the Layer Style name activates a dialog box that allows you to adjust the drop shadow.

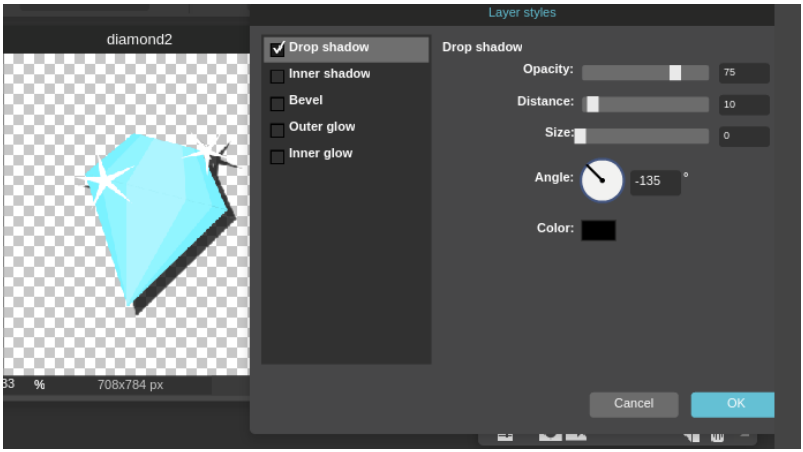


***Figure 8.*** *The Drop shadow style*

The remaining layer styles are as follows:

- Inner shadow
- Bevel
- Outer glow
- Inner glow

Figure 9 shows these styles applied to the same image.

***Figure 9.*** *The inner shadow, bevel, outer glow, and inner glow layer styles*

# Modes

Modes (also known as blend modes) affect the way layers interact with each other. Normal is the default setting, which means it has no interaction with the layer below it (Figure 10).

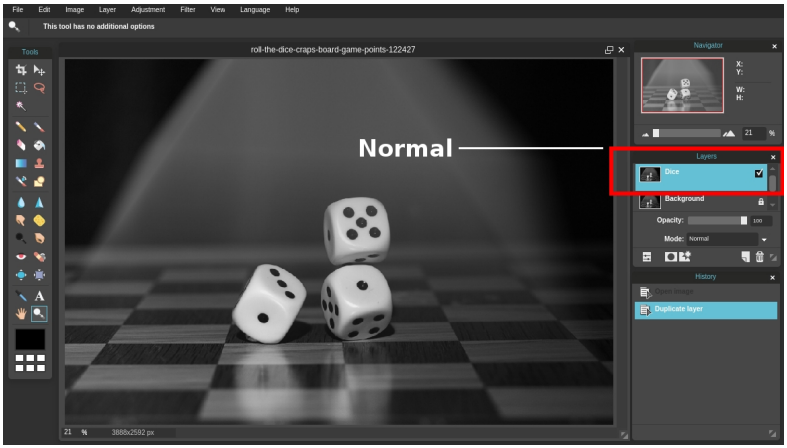


***Figure 10.*** *The Normal mode doesn't interact with the layer below.*

When the layer's mode is changed to Add, pixel values are added, resulting in increased brightness values in all but pure black or white (Figure 11).

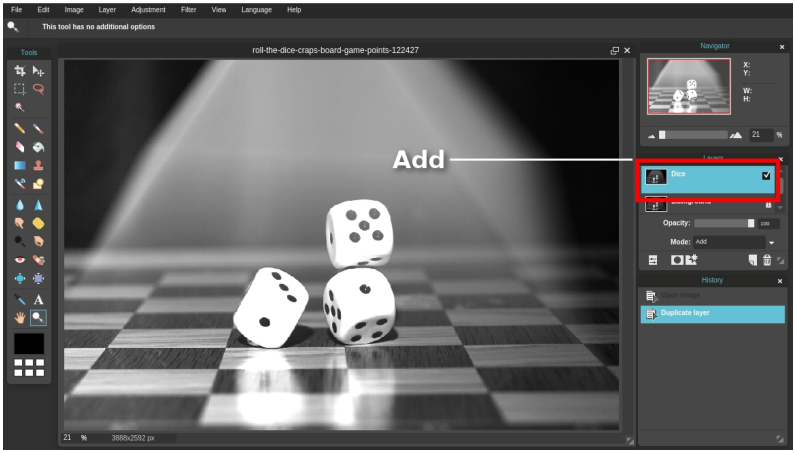


***Figure 11.*** *The Add mode adds pixel values to the layer below, increasing the brightness in all but pure black or white pixels.*

Pixlr Editor's other modes are:

- **Alpha** (Figure 12)—saves the contents of the layer as an invisible selection (similar to an alpha channel used in professional programs like Photoshop). By turning off the background layer's visibility, then clicking the top layer with the Wand tool a selection is formed around the layer contents.

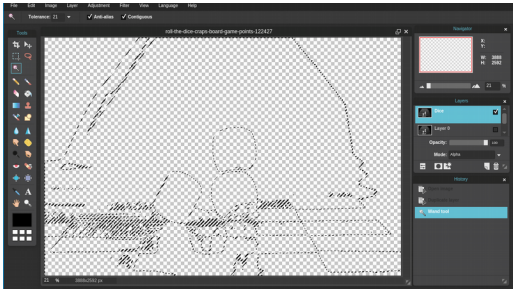

***Figure 12.*** *The Alpha mode simulates the function of an alpha channel.*

- **Darken** (Figure 13)—This mode compares each pixel value of the upper layer to its opposite's value of the lower layer and displays the darker of the two.

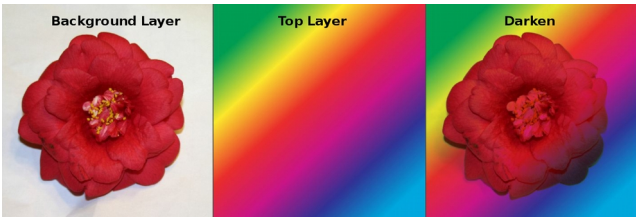


***Figure 13.*** *The Darken mode.*

- **Difference** (Figure 14)—This mode responds to the differences between the pixels in the upper and lower layers. Colors are lightened by large differences, and darkened by small ones.

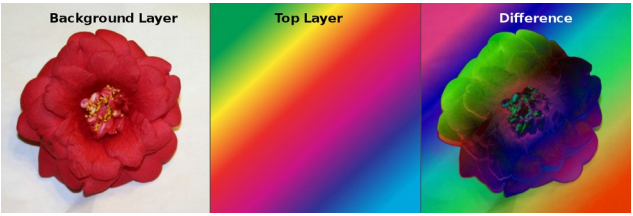


***Figure 14.*** *The Difference mode.*

- **Hard Light** (Figure 15)—This mode intensifies dark colors and brightens the lighter ones.

***Figure 15.*** *The Hard Light mode.*

- **Invert** (Figure 16)—This mode changes the colors and tonal values to their opposites (similar to a color film negative).

***Figure 16.*** *The Invert mode.*

- **Layer**—This mode is essentially the same as the Normal mode.
- **Lighten** (Figure 17)—This mode uses the lightest pixel values between the two layers.

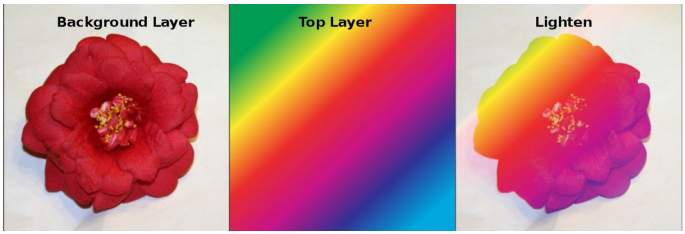


***Figure 17.*** *The Lighten mode.*

- **Multiply** (Figure 18)—This mode multiplies the darkness value of each pixel from the upper layer with the corresponding pixel of the lower layer, resulting in a darker image.

***Figure 18.*** *The Multiply mode.*

- **Overlay** (Figure 19)— This mode combines the Multiply and Screen modes, increasing image contrast.

***Figure 19.*** *The Overlay mode.*

- **Screen** (Figure 20)— This mode is the opposite of Multiply, resulting in a lighter image.

***Figure 20.*** *The Screen mode.*

- **Subtract**—This mode subtracts the values of pixels of one layer from another (usually, only black is displayed).

# The Layers Mask

The purpose of the layer mask is to reveal or hide portions of a layer. When a layer mask is added to a layer, the layer's contents become invisible (even though the contents are still there).

By painting in the layer mask, a green overlay is applied. When the mouse button is released, the contents are revealed (Figure 21).

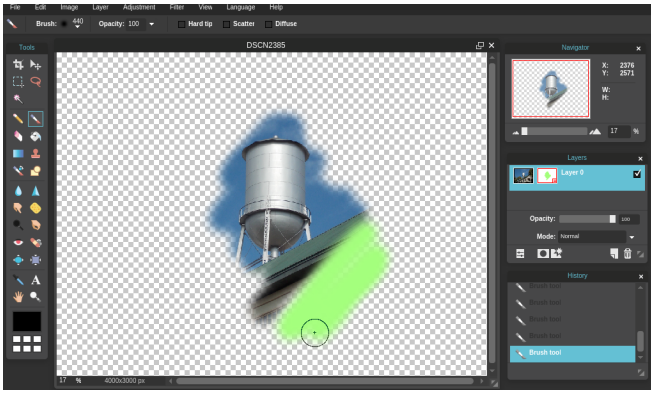


***Figure 21.*** *Painting in the layer mask reveals portions of the image.*

The layer mask is useful for combining images or adding elements to an image. The layer mask is used in Chapter 8 (Tutorial 18) to add the image of a cockatoo to the image of the macaw.

# Conclusion

The best way to become familiar with how layers function is to experiment with the various functions. If you'd like, open some of the PXD (layered Pixlr Editor files) in the Practice Images folder and try adding layers, changing modes, etc. The more you experiment, the more proficient you'll become.

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