KoolMoves

User Guide

Blending Modes

Lucky Monkey Designs, LLC
South Carolina, USA
www.koolmoves.com

PRINTING HISTORY

February 2006   Version 0.1

Table of Contents

Introduction

About This User Guide

This user guide is an adjunct to the KoolMoves manual, and is not intended as a stand alone document. The sole purpose of this user guide is to illustrate a narrow area of functionality in the KoolMoves application. Users of this guide are expected to have reasonable access to the KoolMoves user manual, as this guide contains references to the operation of KoolMoves and its interface, both of which are covered extensively in the manual. This user guide has been composed and typeset in Windows™ Word®, and exported to the Adobe™ Portable Data File (PDF®) format.

Any questions about or comments on this user guide can be Private Messaged to pherbrick via the KoolMoves support forum at http://www.flashkit.com/board/forumdisplay.php?forumid=24.

Flash 8 Blend Mode Effect

Blend modes involve combining the colors of one image (the base or destination image) with the colors of another image (the blend or source image) to produce the final image on the screen. Each pixel value in an image is processed with the corresponding pixel value of the other image to produce a pixel value for that same position in the result.
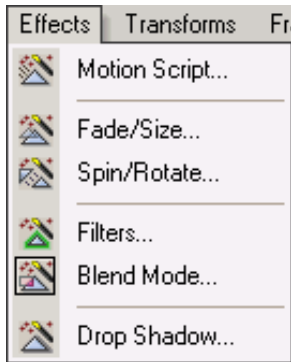
Blend modes can only be applied to movie clips or buttons, either through ActionScript or through the Blend Mode window (accessed via the Effects menu or through the Properties Data View).

Active effects on the selected object have a square around their icon.
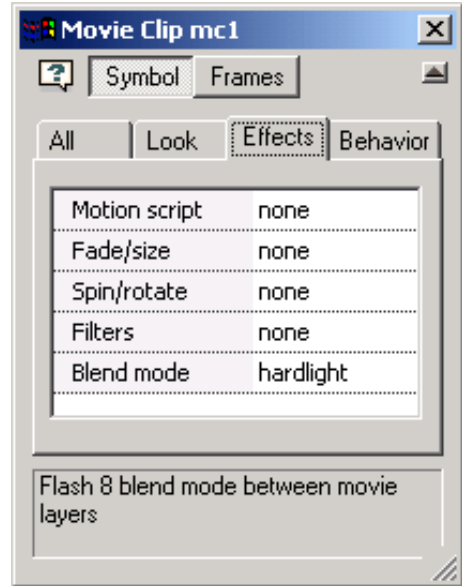
Regular Blend Modes

To apply a blend mode: 1) select a movie clip or button, 2) open the Blend Mode window, 3) select a mode and 4) click on OK. Within the Blend Mode window there is a list of available modes as well as a preview pane.
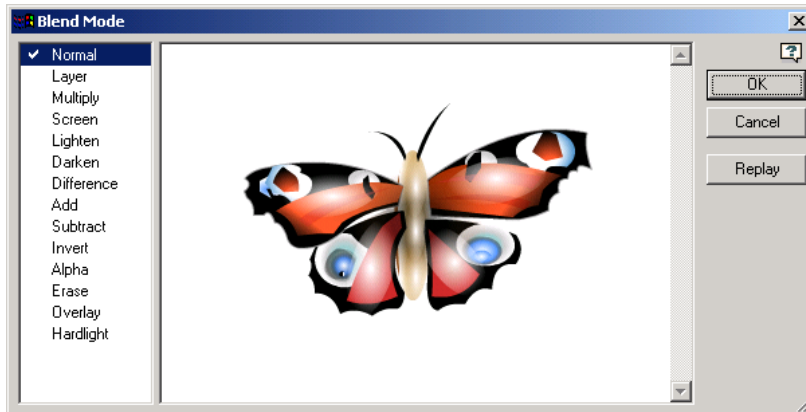
Normal means that no blend mode effect has been applied.

When a blend mode has been applied, the authoring time movie clip / button is surrounded by blue dashes.

A butterfly (provided by Propeller-Head Graphix - www.propellerhead-graphix.com/) will be used as the blend image …
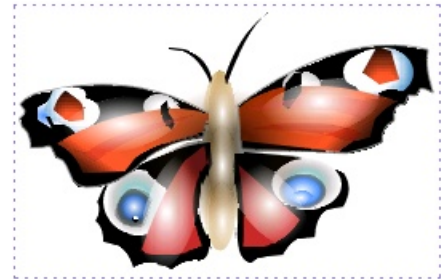
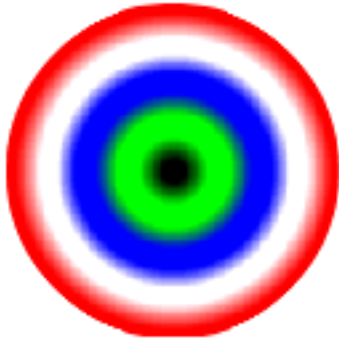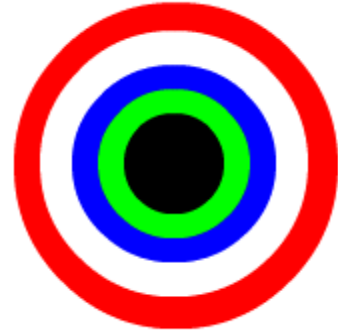… while two different images, a radial gradient circle and flat hue circles with the primary colors, will be the base image. The two bases allow comparison of the impact on the blend modes of diffuse versus sharp color transitions, respectively.

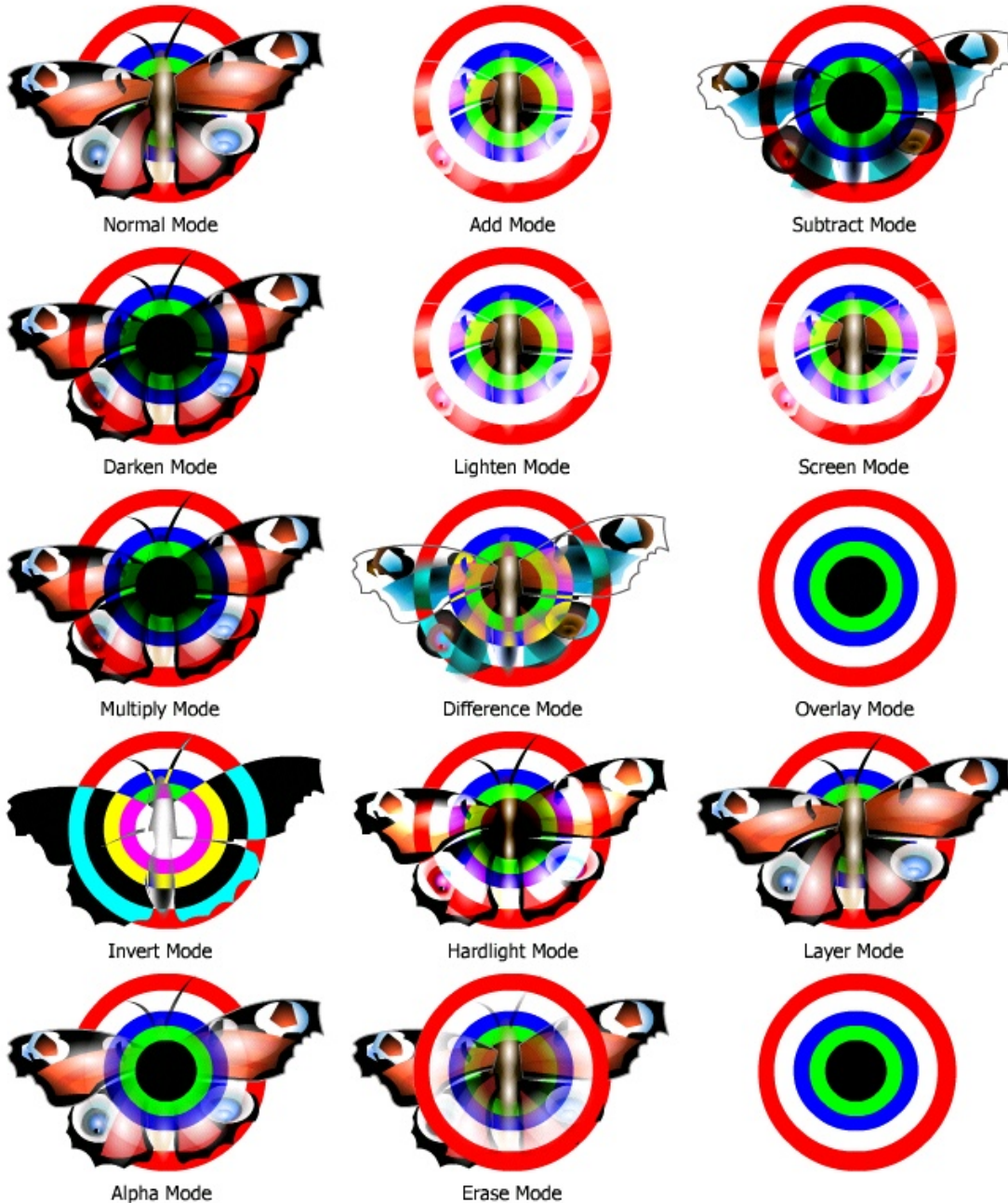Blend modes will sometimes appear to have duplicate results. This is due entirely to the fact that different algorithms will occasionally come to the same conclusion given a certain set of data – with a different set of source and base images, the two blend modes would have arrived at different results.

Because blend modes depend on both the source and base object colors, on a pixel by pixel basis, a certain degree of experimentation is required to achieve a level of expertise in predicting what combination of colors and blend mode will give the desired results. So you can get started quickly, here is a list of common uses for the modes:

- Add - create an animated lightening dissolve effect between two images.
- Alpha - apply the transparency of the foreground on the background.
- Darken - superimpose type.
- Difference - create more vibrant colors.
- Erase - cut out (erase) part of the background using the foreground alpha.
- Hardlight - create shading effects.
- Invert - invert the background.
- Layer – used in conjunction with Alpha and Erase modes.
- Lighten   superimpose type.
- Multiply - create shadows and depth effects.
- Overlay Commonly used to create shading effects.
- Screen Commonly used to create highlights and lens flares.
- Subtract - create an animated darkening dissolve effect between two images.
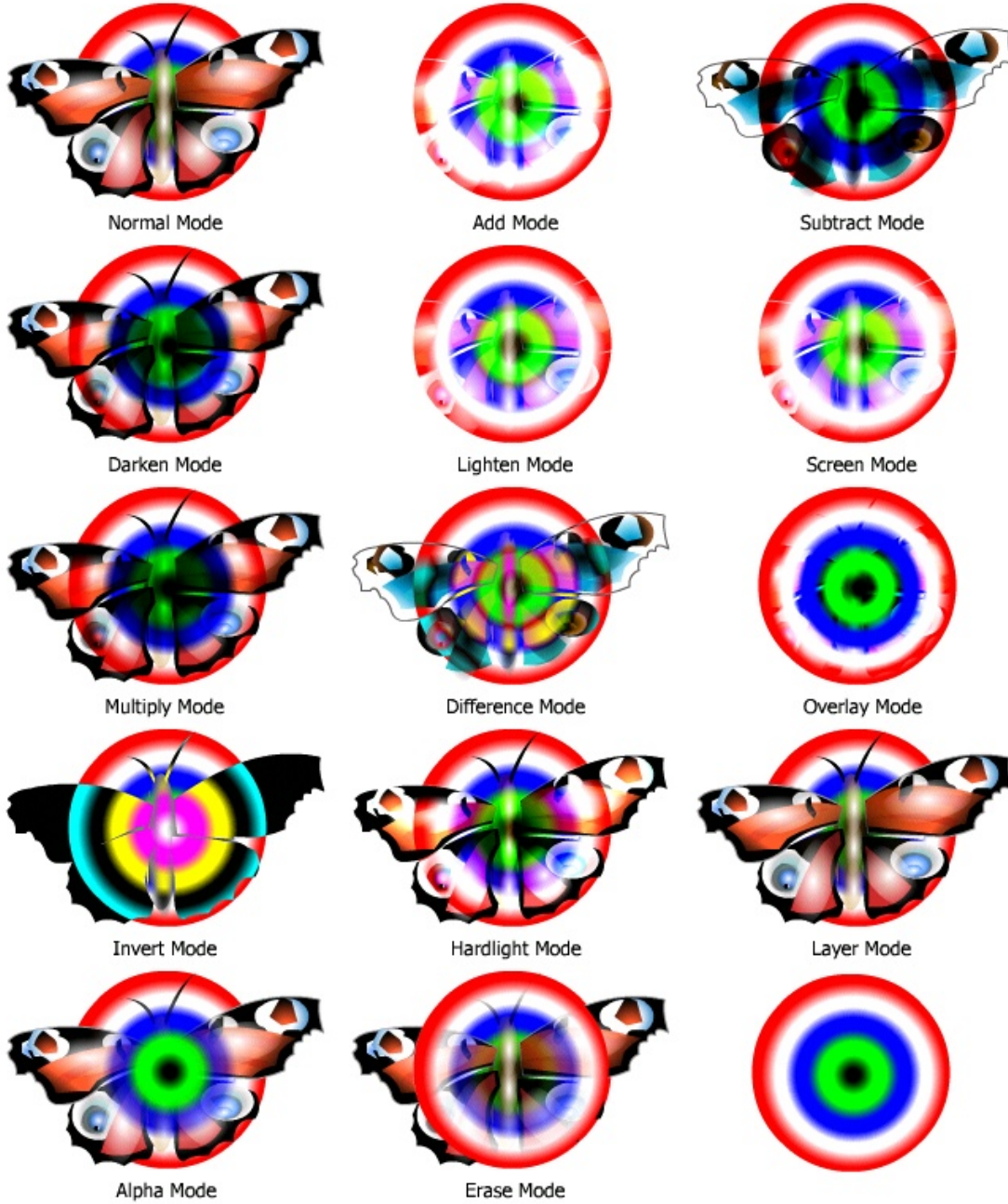
Sample Blend Mode Effects

In the pure hue base image table below the Add, Lighten and Screen Modes look identical, and the Overlay mode completely failed to do any blending. The base image used is completely lacking in tints, tones, highlights and shadows, elements which some of the blend modes emphasize, de-emphasize, or use to select areas to mask or filter. However, the sharp lines and contrasts worked well for the Invert and Alpha modes.

Normal Mode	Add Mode	Subtract Mode
Darken Mode	Lighten Mode	Screen Mode
Multiply Mode	Difference Mode	Overlay Mode
Invert Mode	Hardlight Mode	Layer Mode
Alpha Mode	Erase Mode	

The Layer and the Normal modes are in fact identical in appearance. The Layer mode by itself doesn't do anything. Instead it is used in conjunction with the Alpha and Erase modes.

In the radial gradient base image table below the Add, Lighten and Screen Modes do not look quite as identical as before, and the Overlay mode did some blending along the circle interfaces (cut it some slack – I didn't use a typical gradient but instead used double nodes for each color to create sharp circles, thus the very small diffusion zones).

Normal Mode	Add Mode	Subtract Mode
Darken Mode	Lighten Mode	Screen Mode
Multiply Mode	Difference Mode	Overlay Mode
Invert Mode	Hardlight Mode	Layer Mode
Alpha Mode	Erase Mode	

Alpha and Erase Modes

I've saved the Alpha and Erase modes for last because I didn't want to scare anyone away. They require some extra work, and there are plenty of great blend modes without them. However, if you can bring yourself to follow the simple steps below you will be pleasantly surprised.
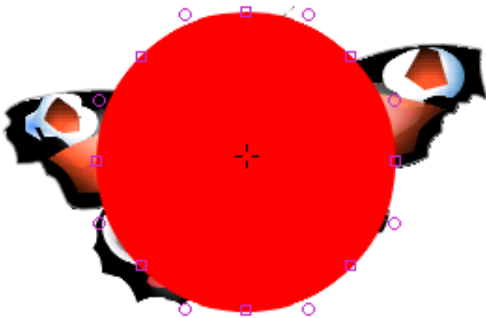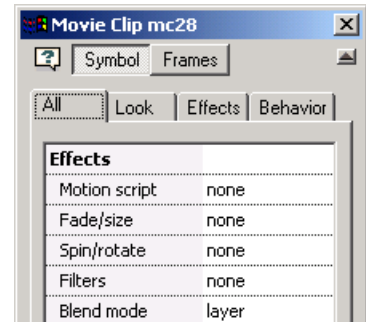
Alpha and Erase mode effects start out just like the rest. Opening the Blend Mode window, apply the Layer mode to the source image.
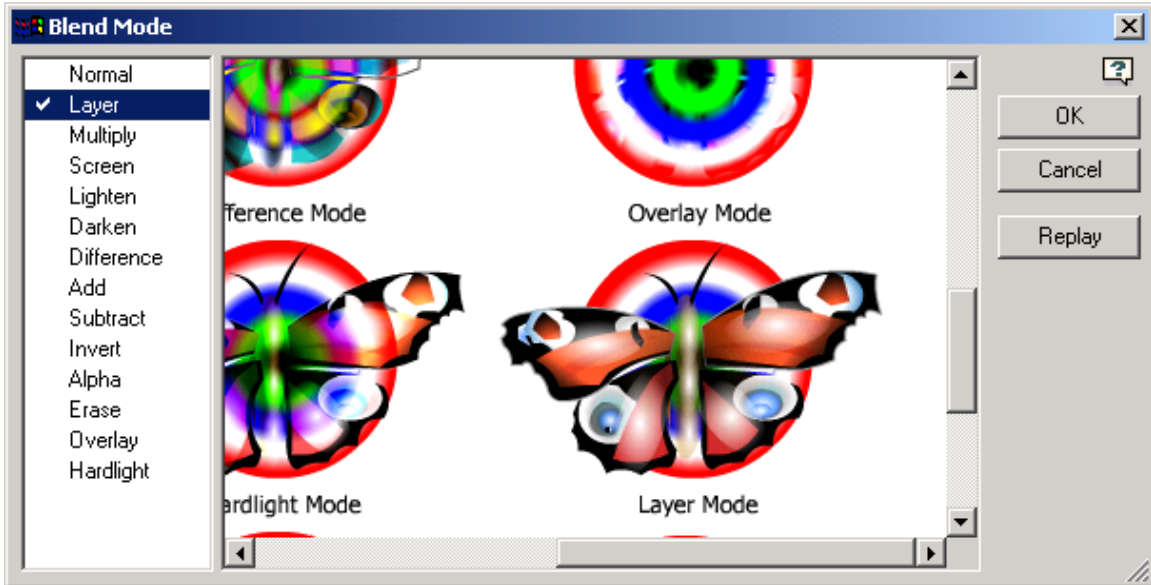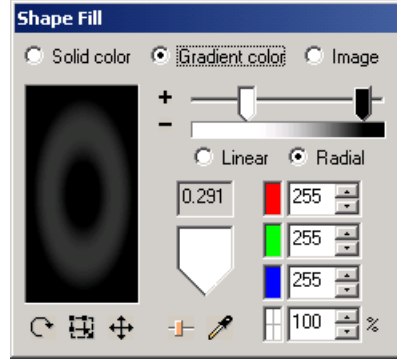

Next, open the Properties Data View and click on Frames.

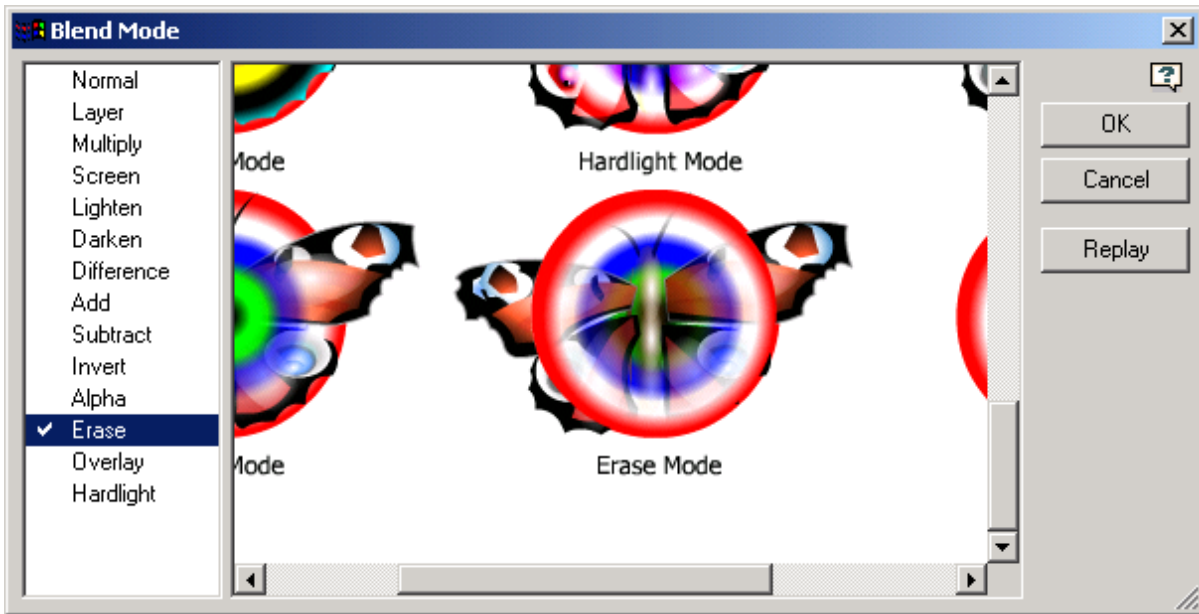At this point, open a shape tool and create a shape over the source image.

Apply a gradient to the shape.

 And place the shape in a movie clip.

Now apply either the Alpha or Erase blend mode to the gradient movie clip.

Click OK. Exit the source image movie clip and you're back at the authoring environment.