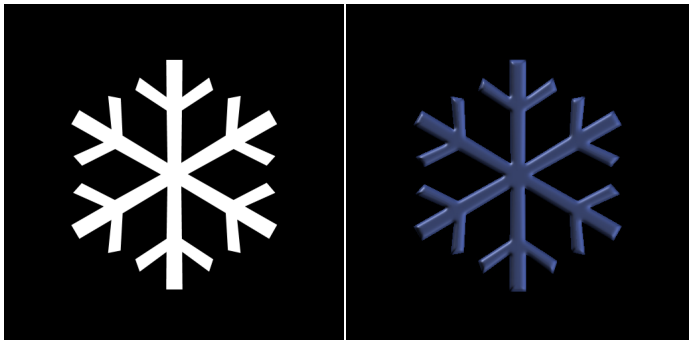
KPT SHAPESHIFTER

What's in this section:

Overview

KPT ShapeShifter is the ideal tool for creating text effects, Web or software buttons and 3D artwork.

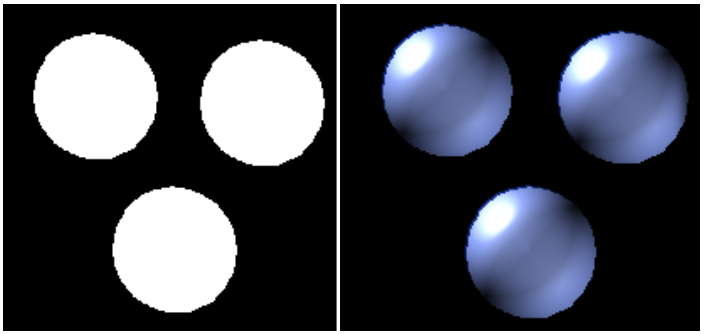
By applying bevels to your shape, KPT ShapeShifter gives it that 3D look. The filter provides incredible control over the shape and size of the bevels. You can even design your own bevel profile. The filter also lets you add a second layer to a shape for adding things like graphics or text. In addition, you can add environment maps for reflections and bump maps for surface texture.



A mask and the object created using KPT ShapeShifter.

One of KPT ShapeShifter's most impressive features is its ability to make hundreds of objects simultaneously. For example, if you load a mask that looks like swiss cheese, each hole forms it's own shape. Each shape has exactly the same settings.

Using this feature, you can load a mask that has shapes for each letter in a font set, and instantly turn them all into 3D objects, or you can load a mask with all shapes for each of the buttons in your website and instantly create all the 3D buttons you'll need.



A mask with three discrete shapes and the objects created using KPT ShapeShifter.

Creating a Shape

KPT ShapeShifter makes 3D shapes from masks. It takes the outline of the mask and adds a bevel, making it look 3D.

The mask can be either an imported mask or a selection created in the host application.

If you use a mask image, it has to be black and white. The black areas of the mask are considered the background, while the white areas are used to make the shape.

KPT ShapeShifter creates an object for each discrete shape in the mask. So if you use a mask with two circles in it, you'll get two objects. Shapes created from a single mask all have exactly the same properties.

If you're using a selection, your 3D object is the same shape as the selection.

To import a shape mask:

1 In the Main Shape panel, click the triangle icon in the title bar to open the options menu and choose Load Mask.

or

Click the thumbnail preview window.

2 Locate the file you want to use as a mask and click OK.

The mask appears in the preview window as a 3D shape.

You can also use the Load Preset option to load a preset mask. Refer to "Working with the Presets Library" on page 38 for more on the Presets Library.

Working with Bevels

A bevel is the profile of your shape. It's what makes it look 3D. The size of the bevel determines how thick your shape is, while the shape of the bevel can produce ridges and creases in the shape's surface. Bevels are controlled using the Main Shape panel.

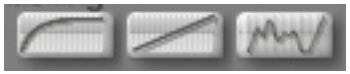
Use the Main Shape panel to import a shape mask or set up bevels.

Bevel Modes

KPT ShapeShifter has three bevel modes you can use when applying a bevel to your shapes. The first two, Arc and Diagonal, are presets, while the third lets you create your own bevel profile.

To switch Bevel Modes:

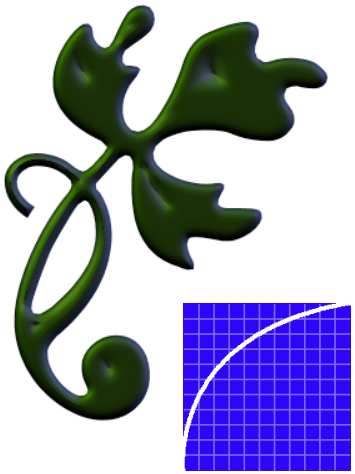
- In the Main Shape panel, enable one of the bevel options.



Bevel option buttons.

Arc

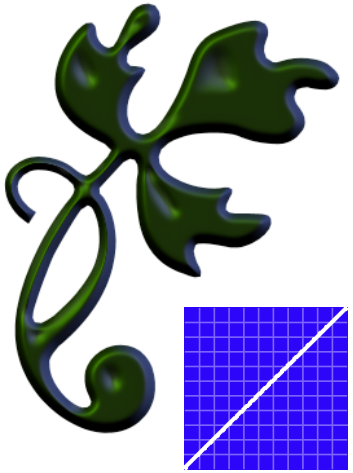
When you use the Arc profile, your shapes have a smooth rounded edge.



A bevel created using Arc mode.

Diagonal

This profile creates smooth angled plateaus along the edges of your shape.

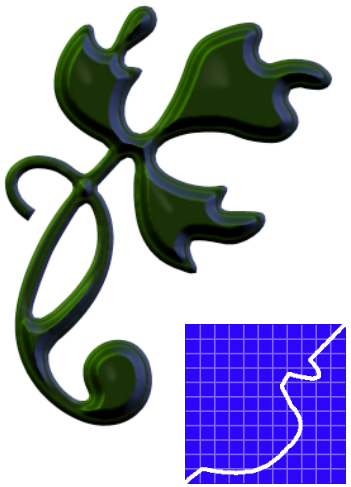


A bevel created using Diagonal mode.

User-Defined Profile

This bevel option lets you create your own bevel profile by editing the graphic representation of a bevel.

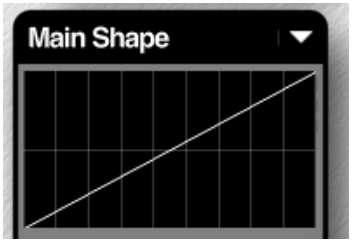
Think of the graph as a side view of the bevel. A straight line results in a flat bevel. An arc results in a rounded bevel. A profile shaped like a wave results in a bevel with grooves in it and so on.



A bevel created using a user-defined profile.

To edit the bevel profile:

1 In the Main Shape panel, click the User Defined button. The panel preview displays the current bevel.



Drag inside the preview to change the bevel profile.

2 Drag any point on the graph up or down.

3 Once you have a shape you like, use the smoothing tools to soften the curve.

Sharp points in the graph produce hard ridges in the bevel. The Smoothing option lets you make the bevel more rounded, while maintaining the ridges you created.

As you adjust the graph, your changes are applied to the shape in the Main Preview window so you can see what it looks like.

To smooth a user-defined bevel:

- Press the Option/Alt key while your bevel is displayed in the Main Shape preview window.

  The longer you hold down the key, the more smoothing is applied.

To magnetize the bevel curve:

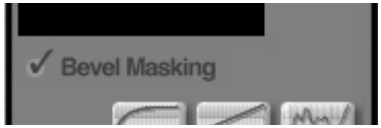
- Shift-click a point on the curve to draw the curve to the point where clicked.

To reset the bevel curve:

- Control-drag to reset the curve to a flat line.

Using Bevel Masking

The Bevel masking options let you control how the bevel is applied to the object in relation to the original mask.



Drag inside the preview to change the bevel profile.

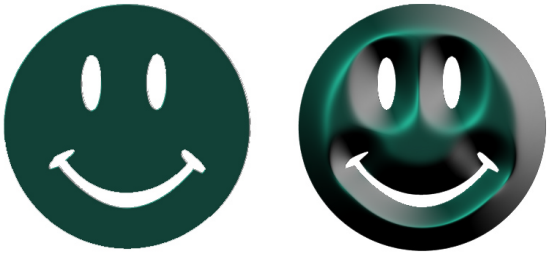
Normally, KPT ShapeShifter uses the mask to generate the bevel contour. Depending on your Bevel Profile and Size settings, the bevel may extend outside the area of the original mask. This helps create a smoother drop-off.

However, when you enable the Bevel Masking option, the final 3D shape will be exactly the same size as the mask.

You'll want to enable this option if you're creating a shape that's going to be composited precisely with another image. You'll also want to enable masking when you're designing elements on a web page that need to be an exact size.

Setting Bevel Scale

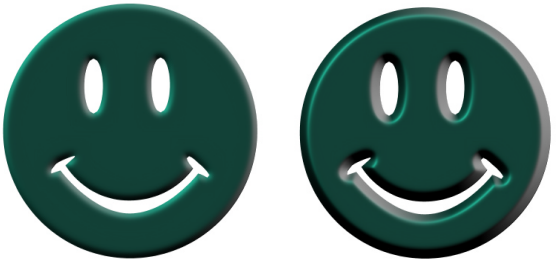
The scale of the bevel determines your shape's 3D depth. The larger the bevel, the smaller the flat plateau on the top of your shape and the more 3D it looks.



The effects of low and high Bevel Scale settings.

Setting Bevel Height

The Bevel Height control determines the sharpness of the bevel angle. The higher the setting, the more pronounced the bevel becomes.



Low and high Bevel Height values.

Lighting your Shape

Since the shapes created by the filter are 3D, they can be lit from any angle. You can have as many lights as your system's memory allows. Each light can be positioned separately and can have its own color.

The lighting you apply to the object can greatly enhance its 3D look. Lighting is controlled using the 3D Lighting panel. Refer to "3D Lighting Panel" on page 30 for more on this panel.

Adding Texture to your Shape

By default, your shape has a smooth surface. That may be fine for some purposes, but you can create much more interesting effects by adding some texture to your shape's surface.

Texture is controlled using the Bump Map panel.

Texture can be added in one of two ways:

- By using a noise algorithm, which creates a texture by applying mathematically generated bumps and dents. Algorithmic noise creates a more grainy surface with random bump patterns.
- By using a bump map which adds bumps and dents to a surface based on the light and dark values in the map image. Maps are good for creating specific patterns on your object.

To choose a preset noise as a bump map:

- In the Bump Map panel, click the text label beneath the preview window and choose a noise from the menu that appears.

Importing a Bump Map

A bump map is a black and white image that is used as a height map to create bumps in the surface of your shape. A height map creates bumps based on the light and dark values in an image. Light values create bumps and dark values create dents.

To import a bump map:

1. In the Bump Map panel, click the triangle icon in the title bar to open the options menu and choose Load Mask.

   or

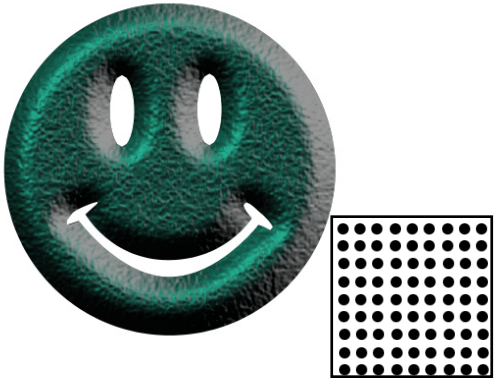
   Click the thumbnail preview window.
2. Locate the file you want to use as a map and click OK.

   The image appears in the preview window.

   You can also use the Load Preset option to load a preset mask. Refer to "Working with the Presets Library" on page 38 for more on presets.

Setting Bump Scale

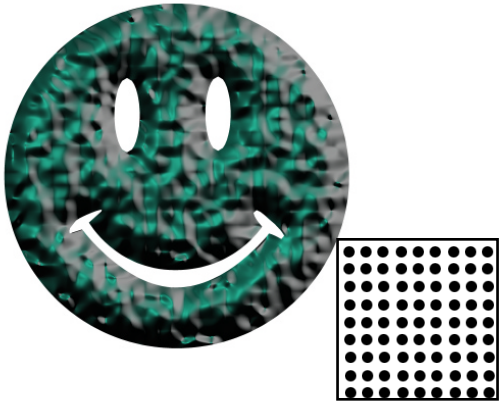
The scale of your bump map can greatly alter the texture you finally create. A larger bump map creates a smoother texture. A smaller map creates a very grainy texture since the map is repeated more frequently to cover the surface of your shape.



Texture created using a low Bump Scale value and the bump map used to create the texture.

Setting Bump Height

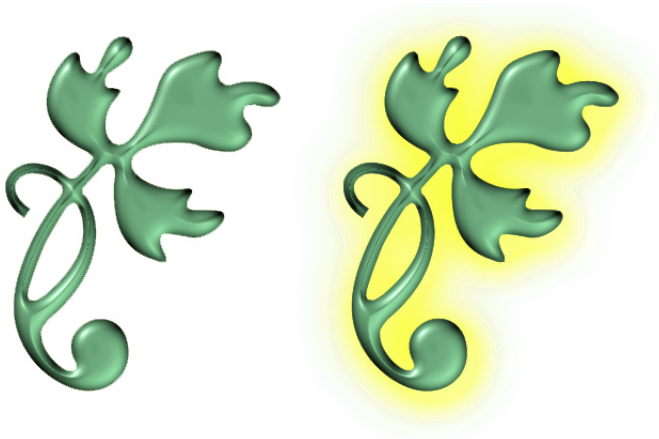
The Bump Height slider determines how pronounced the bumps in the bump map appear on the shape's surface. Positive values create bumps. Negative values create dents.



Texture created using a high Bump Height value and the bump map used to create the texture.

Adding a Glow

The Glow controls let you place a colored highlight around your shape. This feature is great for creating highlight states on buttons.



A shape with a glow applied.

To turn the glow on/off:

- In the Glow panel, click the eye icon. When the eye's open, the glow is enabled.

Glow properties are controlled using the Glow panel.

Setting Glow Color

You can pick a glow color using the Color Picker. The color you choose won't affect the color of the shape, but it should compliment it. Refer to "Using the Color Picker" on page 29 for more on choosing colors.

To choose a glow color:

- In the Glow panel, click the Glow Color dot and choose a color from the Color Picker.

Setting Transparency

The Transparency slider controls how opaque your glow appears. The higher the setting, the stronger the glow effect.

Setting Glow Size

The Glow Softness slider controls the size of the glow around the shape. Higher settings make the glow grow larger and fuzzier.

Setting Glow Position

The Glow X Offset and Y Offset let you control the glow's position along the X and Y planes.

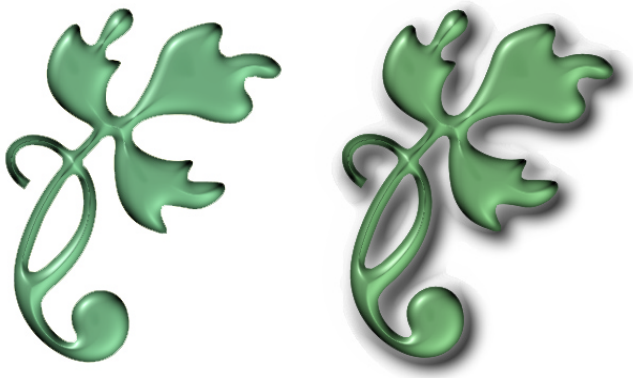
TiPS

You can also position the glow by dragging inside the panel's preview window.

If you hold down Shift, there's a 1:1 correlation between your movements in the preview and the position of the glow in the Main Preview window. If you move your glow 5 pixels in the preview, the glow in the Main Preview also moves 5 pixels.

Working with Shadows

The Shadow controls let you set the attributes for the shape's drop shadow. Using these controls, you can set the shadow's position, size and opacity. Shadows are controlled using the Shadow panel.



A shape with a shadow.

To turn a shadow on/off:

- In the Shadow panel, click the eye icon. When the eye's open, the shadow is enabled.

Setting Shadow Color

You can pick a shadow color using the Color Picker. The color you choose only applies to the shadow. Refer to "Using the Color Picker" on page 29 for more on choosing colors.

Shadow properties are controlled by the Shadow panel.

To choose a shadow color:

- In the Shadow panel, click the Shadow Color dot and choose a color from the Color Picker.

Setting Shadow Position

The Shadow X Offset and Y Offset let you control the drop-shadow's position along the X and Y planes.

TiPS

You can also position the shadow by dragging inside the panel's preview window.

If you hold down Shift, there's a 1:1 correlation between your movements in the preview and the position of the shadow in the Main Preview window. If you move your shadow 5 pixels in the preview, the glow in the Main Preview also moves 5 pixels.

Setting Shadow Size

The Shadow Softness slider lets you control the size of the shadow. Higher values increase the radius of the shadow, making it more blurred. Lower values decrease its size.

Setting Shadow Transparency

The Shadow Transparency control sets how opaque your shadow appears. Lower values make your shadow more transparent.

Adding an Embossing Layer to your Shape

KPT ShapeShifter lets you add a second layer to your shape that can be used to create an engraving effect. Using this second layer, called the Top Mask, you can add shapes on top of your shape or text onto a button. The embossing effects can make your second layer look like it's been engraved into the shape.

The second layer is controlled by the Top Mask panel.

To turn the top mask on/off:

- In the Top Mask panel, click the eye icon. When the eye's open, the top mask is enabled.

To load a top mask:

1. In the Top Mask panel, click the preview window. The Open dialog appears.
2. Locate the mask you want to use and click Open.

You can also load a mask from the Presets Library. Refer to "Working with the Presets Library" on page 38 for more on presets.

To position the top mask:

- Shift-drag the mask in the Main Preview window.

Using a Tint Color with the Top Mask

Tint applies a uniform color to the shape. This tint color only affects the shapes on the top mask.

To choose a tint color:

- Click the color dot and choose a color from the Color Picker. Refer to "Using the Color Picker" on page 29 for more on choosing colors.

Noise Masking

Noise masking protects your top mask from the texture below it. This helps make text more readable since it won't have any texture applied to it.

To turn noise masking on:

- In the Top Mask panel, click the Noise Masking toggle button.

Adjusting Transparency

The Transparency control lets you set the opacity of the second layer. The higher the setting, the more transparent the layer.

To adjust transparency:

- In the Top Mask panel, drag the Transparency slider.

Emboss Scale

Emboss Scale controls the radius of the embossing effect. The higher the value, the softer the effect.

Emboss Height

The Emboss Height slider controls the intensity of the embossing effect. Positive values create bumps in the shape of the mask. Negative values create dents in the surface.

Adding an Environment Map to your Shape

An environment map is used to create a pattern in the reflections of your shape.

Environment maps are controlled by the Environment panel.

To understand how an environment map works, imagine that your shape is made out of a shiny material. It would reflect everything around it. So, if it was in the middle of a park, you

would be able to see a reflected view of the trees and grass. The environment map simulates this effect. It's used to project a surrounding environment onto the surface of your shape.

An object before and after an environment map was applied.

You can load any RGB or grayscale image as an environment map, or you can use a preset from the library. Refer to "Working with the Presets Library" on page 38 for more on presets.

Once you've loaded an environment map, you can control how much it affects the shape by using the Mix Environment slider.

To load an environment map:

1. Click the thumbnail preview window. The Open dialog appears.
2. Locate an image you want to use as a map and click Open.

   Choose a photo-realistic image if you want to reflect a natural environment.

Blending an Environment Map

The Mix Environment slider lets you control how much of the map is visible in the shape's reflection. The higher the setting, the more of the map you can see. At lower settings, the map appears faded.

Using a Tint Color

Tint applies a uniform color to the shape. This color is in addition to any color the shape picked up from a background image.

When you apply a metallic surface to your shape, the tint color is used to color all the reflections that come off its surface.

Once you have a tint color you can control how much it affects the base color of your shape. The higher the tint value, the more the colors shift toward the tint color.

To choose a tint color:

- Click the color dot and choose a color from the Color Picker. Refer to "Using the Color Picker" on page 29 for more on choosing colors.

To set tint value:

- Drag the Mix Tinting Color slider. At higher values you'll see more of the tint color and less of the base colors.

Applying Glass Refraction

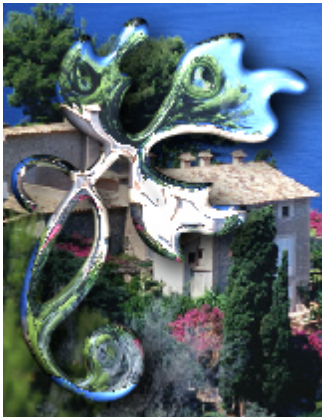
The Glass Refraction control can be used to create a glass-type effect. When you apply refraction, the shape's surface bends light causing distortions in the reflections.

An example of Glass Refraction.

The control can have both positive and negative values.

Setting Internal Reflections

Internal Reflections cause the inside of the object to reflect light, making it look brighter.



An example of Internal Reflections.

Previewing Your Shape

The render options in the Main Preview window let you control the quality and speed of the preview. The options are a trade-off between speed and quality. Faster previews have lower quality and higher quality previews take longer to render.

To choose a render preview option:

- Click the triangle icon at the top of the Main Preview window and choose an option from the menu.