



## What you'll learn in this lesson:

- Working with filters
- Fading filter effects
- Using the Filter Gallery
- Taking advantage of Smart Filters
- Using Vanishing Point

# Using Adobe Photoshop Filters

*Filters allow you to apply artistic effects to your images. You can make images look as though they were sketched with chalk, drawn with a graphic pen, or even add perspective to them. In this lesson, you will learn how to use filters to apply interesting effects to your images.*

## Starting up

Before starting, make sure that your tools and panels are consistent by resetting your preferences. See “Resetting Adobe Photoshop CS6 preferences” in the Starting up section of this book.

You will work with several files from the ps11lessons folder in this lesson. Make sure that you have loaded the pslessons folder onto your hard drive from the supplied DVD. See “Loading lesson files” in the Starting up section of this book.



## See Lesson 11 in action!

Use the accompanying video to gain a better understanding of how to use some of the features shown in this lesson. You can find the video tutorial for this lesson on the included DVD.

### Filter basics

Filters are accessed using the Filter menu. When you select certain filters, the Filter Gallery opens. Other filters, when selected, open their own dedicated dialog box. Some, like the Clouds filter, don't even have a dialog box.

Filters are always applied to the layer you currently have selected and cannot be applied to Bitmap mode or indexed color images. Note that some filters, such as Brush Strokes and Sketch, work only in the RGB mode and are not available when working in the CMYK mode.

### Starting to use filters

Before starting, you may want to view the file that you are going to create.

- 1 Choose File > Browse in Bridge. Navigate to the ps11lessons folder and open the file ps1101\_done.psd.

A file including several monsters and a package design appears.



*The completed lesson file.*

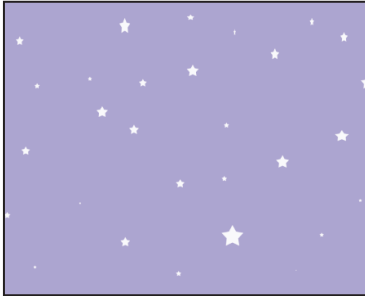
- 2 You can keep this file open for reference, or choose File > Close to close it.

### Using the Clouds filter

In this lesson, you will use the Clouds filter to build a smoke-like background. The Clouds filter generates a cloud pattern, using random values from the selected foreground and background colors.

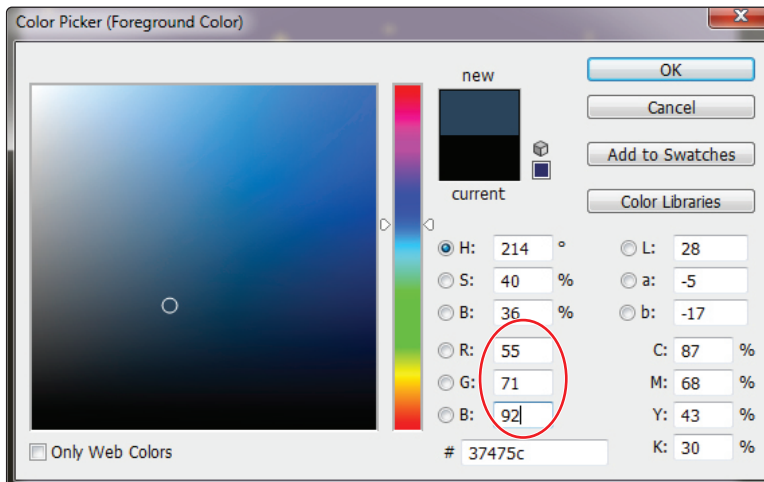
- 1 Choose File > Browse in Bridge, and navigate to the ps11lessons folder and open the file ps1101.psd.

- 2 Choose File > Save As. In the Save As dialog box, navigate to the ps11lessons folder and type **ps1101\_work** in the File name text field. Choose Photoshop from the format drop-down menu and click Save.
- 3 If the Layers panel is not visible, select Window > Layers. Click on the layer named *sky background* to activate this layer.
- 4 Many filters in Photoshop render differently, depending on your current foreground and background colors. Press **D** on your keyboard to return to the default colors of black and white.



Select the sky background layer.

- 5 At the bottom of the Tools panel, click the foreground color, black. The Color Picker opens.
- 6 In the RGB text fields, type the values, R: **55**, G: **71**, B: **92**. Then press OK. Your foreground color has been changed. You are now ready to apply the Clouds filter.



Enter custom values in the Color Picker.

- 7 Choose Filter > Render > Clouds.

A cloud pattern is generated, using random values of the foreground and background colors. Do not save your file, continue to the next part of this lesson.



*To achieve a more high-contrast effect, press the Shift keys (Windows) or the Option key (Mac OS) while selecting the Clouds filter.*

## Fading your filter

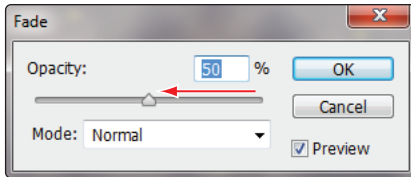
Now that you have made some clouds, you'll fade the effect of the Cloud filter. The Fade command gives you the opportunity to change the opacity and blending mode of a filter effect immediately after you have applied it. Fade also works with the erasing, painting, and color adjustment tools.

- 1 Choose Edit > Fade Clouds. The Fade dialog box appears. Check the Preview option to preview the effect if it is not already checked.

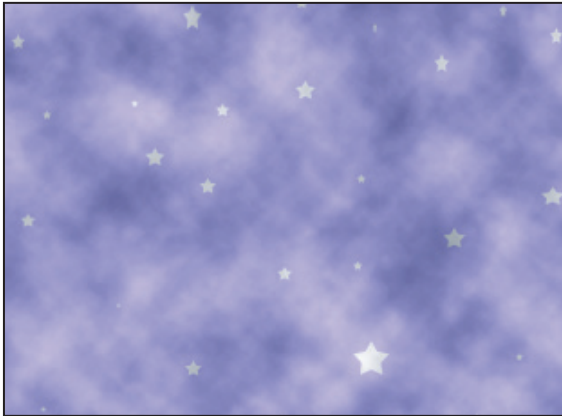


*If Fade Clouds is not available, you did something else with the file after using the Clouds filter. Use the Window > History panel to select the Clouds state, then select Edit > Fade Clouds again.*

- 2 Drag the slider to the left to adjust the opacity from 100 percent down to 50 percent. Leave the Mode drop-down menu set to Normal, then press OK. Keep this file open for the next part of this lesson.



*The Fade dialog box.*



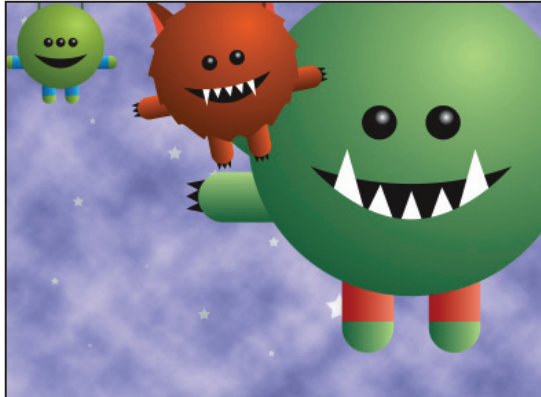
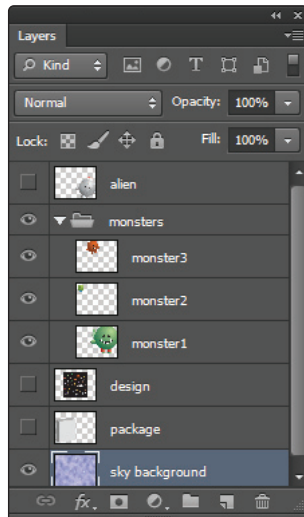
*Fading the effect of the Cloud filter.*

## Using the Filter Gallery

The Filter Gallery allows you to apply more than one filter to an image at a time, and rearrange the order in which the filters are applied.

Note that not all filters are available in the Filter Gallery, and that the Filter Gallery is not available in CMYK, Lab, or Bitmap mode.

- 1 With ps1101\_work.psd open, click the Visibility icon (👁) next to the layer group named monsters. Three monsters appear.
- 2 Expand the layer group by clicking on the triangle immediately to the left of the monsters layer group. This displays the monster1, monster2, and monster3 layers that are included in this group.



*Click on the arrow to the left of the monsters group.*

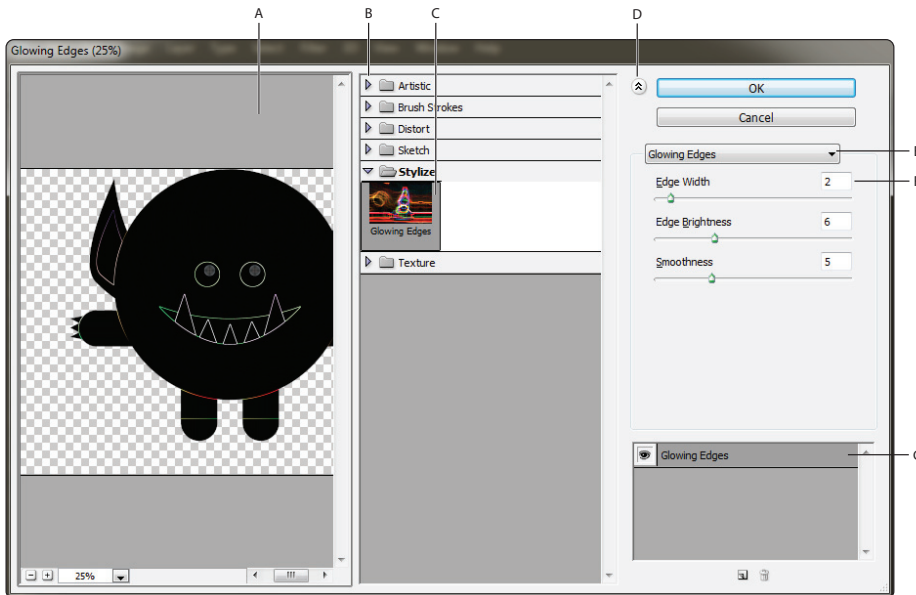
*The individual monster layers are revealed.*

- 3 Select the monster1 layer.
- 4 Press **D** on your keyboard to return to the default foreground and background colors of black and white.
- 5 Choose Filter > Filter Gallery. The Filter Gallery dialog box appears.
- 6 Press Ctrl+- (minus sign) (Windows) or Command+- (minus sign) (Mac OS) four times to zoom to 25%.

## Applying filters in the Gallery

You'll now apply several filters to create different versions of the monster image. When you apply a filter from the filter categories, located in the center portion of the window, a preview of the image with the filter applied is displayed in the Preview pane. Along the right side of the window, options for the selected filter are displayed.

- 1 In the filter categories section, expand the triangle next to the Stylize folder to reveal the Glowing Edges filter.



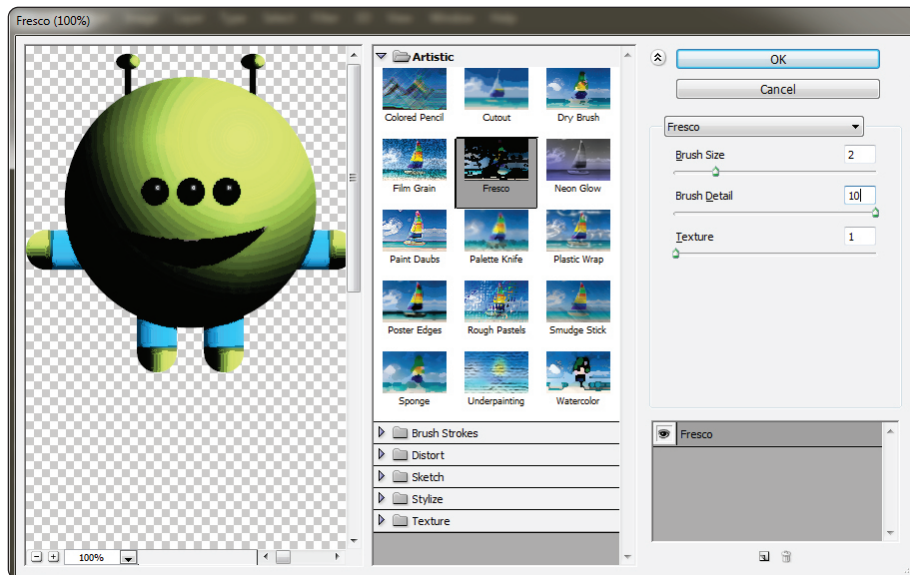
A. The Preview pane. B. Filter categories. C. Thumbnail of filter. D. Show/Hide filter thumbnails.  
E. Filters drop-down menu. F. Options for the selected filter. G. List of filter effects.

- 2 Click the Glowing Edges thumbnail to add a glow to the edges of areas with color; the monster now has bright neon, glowing edges. Press OK to apply the filter.



The monster with the Glowing Edges filter applied.

- 3 To make the monster slightly transparent click and drag the Opacity slider in the Layers panel until you reach 50%.  
You'll now apply additional filters to the other monster layers.
  - 4 Select the monster2 layer in the Layers panel.
  - 5 Choose Filter > Filter Gallery to apply a filter to this layer. Do not select the Filter Gallery menu item that appears first under the Filter menu. That is where your last-used filter appears, and it does not allow you to change options. Choose the second Filter Gallery menu item that appears further down in the menu.
  - 6 Click on the triangle to the left of Artistic to expand and show the artistic filters, and then click on the Fresco thumbnail. The Fresco filter is applied to the image in the Preview pane.
- Fresco is an Italian term for a mural painting done on a wet, freshly plastered wall. It creates an interesting abstract effect. The Fresco filter adds a good deal of black to the image in the process of abstracting it, so you will tone it down a bit with another filter.
- 7 In the Fresco filter options pane make sure the Brush size is set to **2**, the Brush Detail to **10**, and the Texture to **1**. Do not press OK, as you will add another filter.



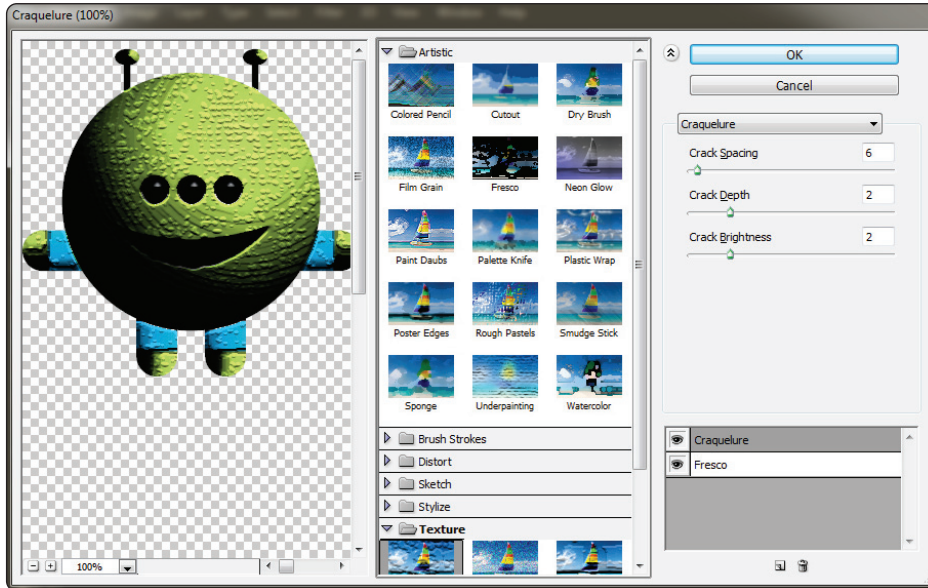
*Applying the Fresco filter effect.*

Now you'll apply a second filter to this layer.

- 8 Click the New Effect Layer button (≡) located at the bottom of the filter effects area. This adds a new filter instance above the previous filter effect. There are now two instances of the Fresco filter applied.
- 9 Click the triangle to the left of Artistic to close that filter category, and then click the triangle to the left of Texture to expand that category.



- 10 In the filter categories section, select Craquelure. Craquelure is a term used for the network of fine cracks that can appear on a painting, either over the whole painting or just in parts. You will use the Craquelure filter to add some texture to the monster.
- 11 In the Craquelure filter options pane use the sliders to change the Crack Spacing to **6**, the Crack Depth to **2** and the Crack Brightness to **2**. Press OK to apply the filter.



*Two filters are applied in the Filter Gallery.*

- 12 Choose File > Save. Keep this file open.

*You can add more effect layers and experiment with different orders to produce new effects. You can also show and hide the visibility of each filter effect by clicking on the Visibility icon next to each effect.*

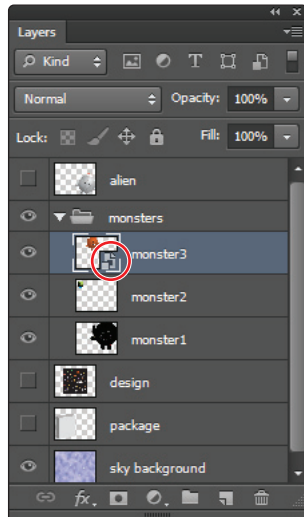
## Taking advantage of Smart Filters

The filters you applied in the last section were destructive, meaning that any changes you made using these filters affected your original image data. As you discovered in Lesson 10, “Getting Smart in Photoshop,” Smart Filters are a non-destructive way to apply filters to an image. In this lesson, you will practice applying filters using the Smart Filter feature.

### Applying a Smart Filter

- 1 Select the monster3 layer in the Layers panel.
- 2 Choose Filter > Convert for Smart Filters. A warning dialog box may appear, advising you that the layer will be made into a Smart Object. Press OK.

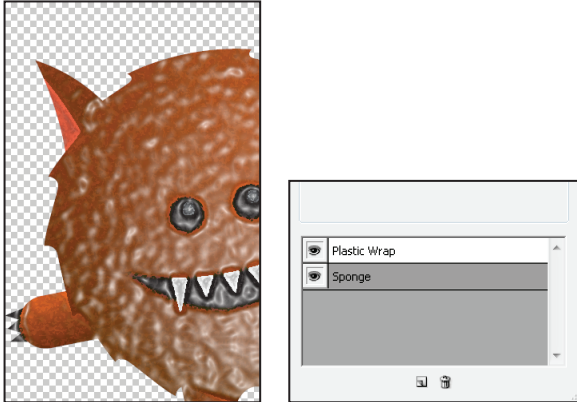
A Smart Object icon appears in the lower-right corner of the monster 3 layer thumbnail. This indicates that this layer is now converted for use with Smart Filters. Next, you will apply some filters in the Filter Gallery, and then update and change the way the filters are applied to the image.



*The Smart Object icon on the layer thumbnail.*

- 3 Make sure that the monster3 layer is still selected, and then choose Filter > Filter Gallery. Make sure you do not select the Filter Gallery listed first in the Filter menu. Note that the last filters you used are applied to the layer by default, although these can be changed.
- 4 Click on the Craquelure filter effect in the list of filter effects in the lower-right side of the Filter Gallery dialog box.
- 5 In the filter categories section, expand the Artistic category and select Plastic Wrap. The Plastic Wrap filter replaces the Craquelure filter.
- 6 Click on the Fresco filter effect and then select the Sponge filter effect from the Artistic category. The Sponge effect replaces the Fresco effect.
- 7 Using the sliders, in the filter effects options, change the Brush size to **0**, the Definition to **6** and the Smoothness to **2**. Press OK.

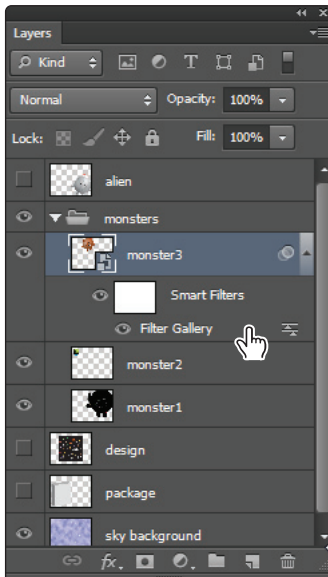
A thumbnail appears underneath your monster3 layer named Smart Filters.



The image now has texture applied. Two filters have been applied.

You have just applied filters from the Filter Gallery to the monster3 layer, much the same way you applied filters to the monster1 and monster2 layers. The difference is that you converted monster3 to a smart object before applying the filters. This offers you the opportunity to make changes, or even delete the filters at a later time.

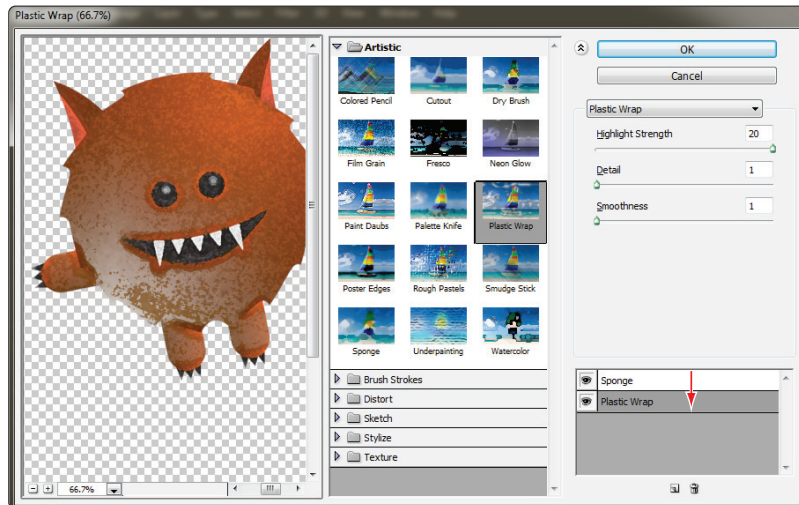
- 8 In the Layers panel, double-click on Filter Gallery located underneath the monster3 layer. The Filter Gallery dialog box opens again.



Editing a Smart Filter.

- 9 In the filter effects area, select Plastic Wrap from the list of applied filters.
- 10 Using the sliders in the Plastic Wrap effect options, change the Highlight Strength to 20, the Detail to 1 and the Smoothness to 1.

- 11 In the filter effects area of the Filter Gallery, drag Plastic Wrap below Sponge. This changes the filter order, and creates a different effect. Press OK.



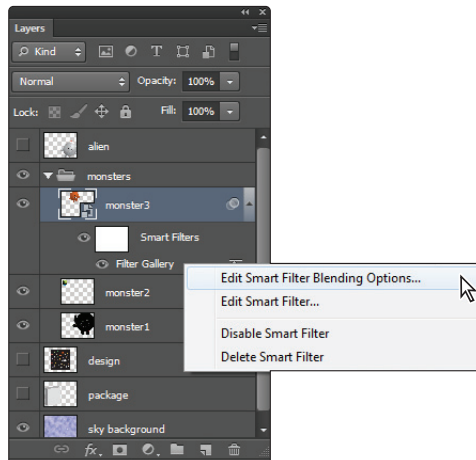
*Changing the order of the filters.*

- 12 Choose File > Save.

### Smart Filter options

Next, you will explore additional filter options. You'll start by fading the filters and by editing the Smart Filter Blending Options. You will then discover how to disable a filter and how to take advantage of the Filter effects mask thumbnail.

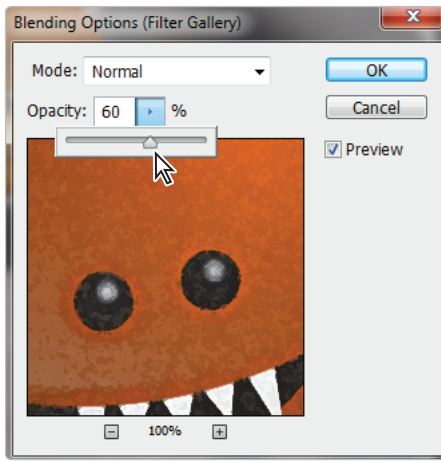
- 1 In the Layers panel, right-click (Windows) or Ctrl+click (Mac OS) on Filter Gallery, located under the monster3 layer Smart Filter. Select Edit Smart Filter Blending Options from the contextual menu.



*Editing the Blending options.*

Like the Fade option used earlier in this lesson, the Smart Filter blending options allow you to control the intensity of a filter. However, this method is non-destructive. You can change the Fade settings multiple times and not impact the original image. You can also access the Blending Options at any time, unlike the Fade dialog box, which had to be accessed immediately after applying a filter to a regular (non-smart) layer.

- 2 In the Blending Options dialog box, click and drag the opacity slider to the left, lowering the opacity to 60 percent. Click the Preview checkbox, and then off, to see the change that has been applied to the image, then press OK.



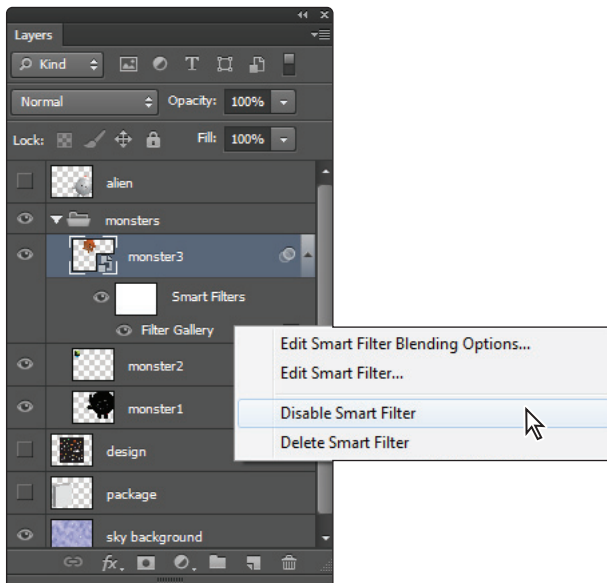
*Smart Filter Blending Options with the specified opacity.*

- 3 Choose File > Save.

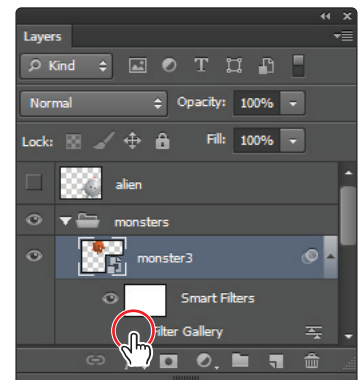
## Enabling and disabling effects

Because you used a Smart Filter, you can turn the filter on or off.

- 1 In the Layers panel, right-click (Windows) or Ctrl+click (Mac OS) on Filter Gallery under Smart Filters in the monster3 layer, and choose Disable Smart Filter to hide the filter's effect.
- 2 You can also turn off the visibility of the filter by clicking the Visibility icon (👁) to the left of the filter name in the Layers panel; click again on the Visibility icon to make the filter visible.
- 3 Right-click again on the Filter Gallery filter and choose Enable Smart Filter to turn the filter back on.



Selecting Disable Smart Filter.

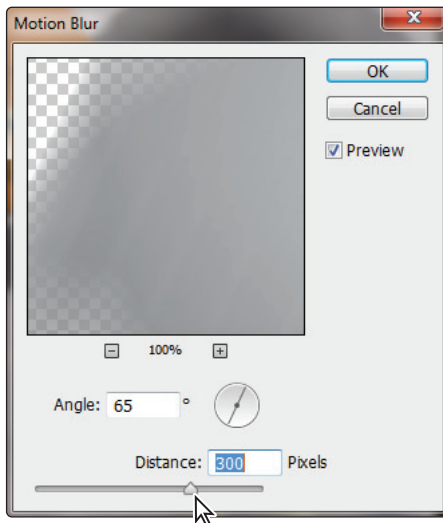


The visibility of the Smart Filter turned off.

## Using a filter effects mask

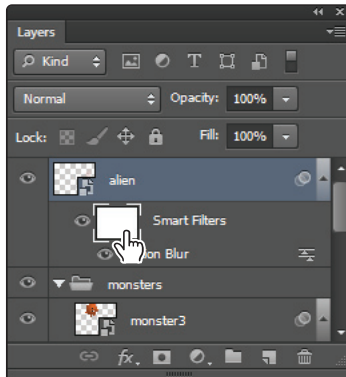
When you apply a filter to a layer that has been converted for Smart Filters, a mask, called the Filter effects mask thumbnail, is created. This provides the ability to selectively modify a filter effect. The thumbnail appears on the smart object layer as a white box labeled Smart Filters. You can click on the mask to activate it, and then paint with shades of black or white to hide or show the filter's effect on the layer. You'll now convert a layer for Smart Filters, apply a few filters, reduce the opacity of those filter effects, and then mask the effects to appear on only portions of the image.

- 1 To give you more room to work in the Layers panel, click the triangle next to the monsters layer group to collapse the monster layers into the folder.
- 2 Click the Visibility icon next to the alien layer to show the alien image, and then click on the alien layer to select it.
- 3 Select Filter > Convert for Smart Filters; if a warning dialog box appears, press OK. You will now apply a motion blur to this layer. It may appear drastic at first, but you will customize the application of the filter using the Filter effects mask thumbnail.
- 4 Choose Filter > Blur > Motion Blur. The Motion Blur dialog box appears. Type **65** into the Angle text field, and then use the slider to set the distance for approximately 300 pixels. Press OK.



*Apply the motion blur filter to the alien layer.*

- Click on the white thumbnail that appears to the left of Smart Filters in the Layers panel. This is the Filter effects mask thumbnail.



Click on the Filter effects mask thumbnail.

- Select the Gradient tool from the Tools panel and press **D** to reset the foreground and background colors back to the default of black and white.
- With the Gradient tool selected, review the settings in the Options bar to make sure that Linear gradient is selected, the Blending mode is Normal, and the Opacity is 100%.



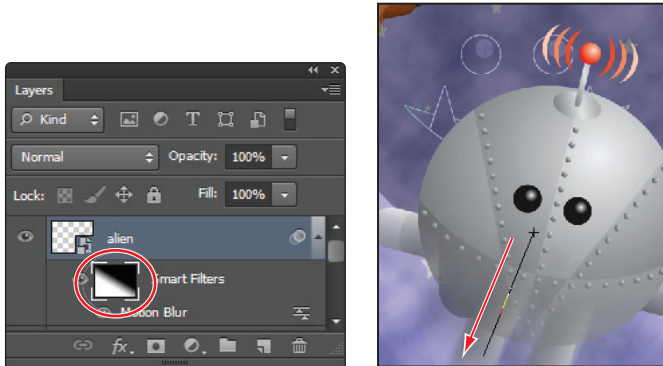
Verify the Gradient tool settings.

- Click and drag across the alien image. Notice that the motion blur filter now fades into the original image. Click and drag multiple times to see the different results you achieve by selecting new start and end points.

Notice how the dark to light gradient on the Filter effects mask affects the application of the filter. Where it is dark, the filter is less visible. Where it is light, the filter is more visible.




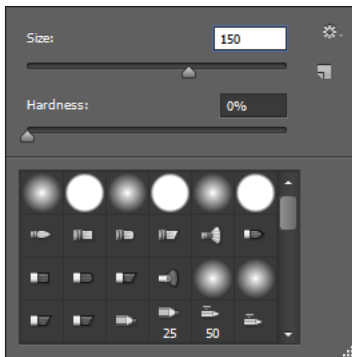
- 9 When you are finished experimenting, press **X** on the keyboard to switch the Foreground and Background colors so that black is the Foreground. With the Gradient tool active, click beneath the eyes and drag downward toward the alien's feet and then release. The motion blur is now only occurring at the bottom of the alien.



Selecting the Smart Filters mask thumbnail. Click and drag with the Gradient tool.

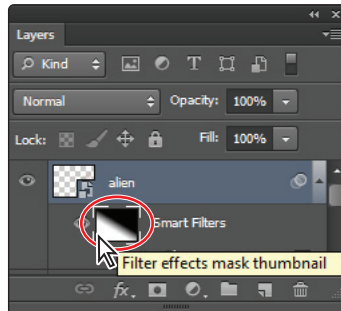
You will now use painting tools to control the mask more precisely.

- 10 Select the Brush tool () .
- 11 With the Brush tool selected, right-click (Windows) or Ctrl+click (Mac OS) anywhere in your image area to open the Brush Preset picker. Type **150** into the Size text field and **0 (zero)** into the Hardness text field. Press Enter (Windows) or Return (Mac OS) to close the Brush Preset Picker.

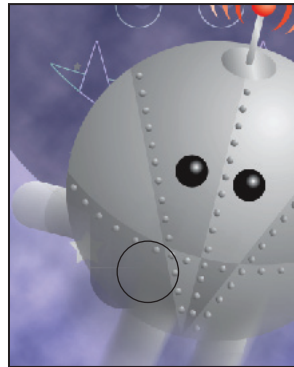


Access the Brush Preset picker contextually.

- 12 Press **D** on the keyboard to make sure you are at the default colors of black and white.
- 13 Press **X** on the keyboard to switch the foreground and background colors. Your foreground color should be black.
- 14 Using the Brush tool, paint directly on the image at the bottom of the alien's body, notice that as you paint on a region affected by the filter, that the filter is not applied. Continue experimenting with painting out the filter effect on the alien's body, leaving the effect on the legs.



*Paint black while the Filter effects mask is active.*



*The filter is not applied in those regions.*

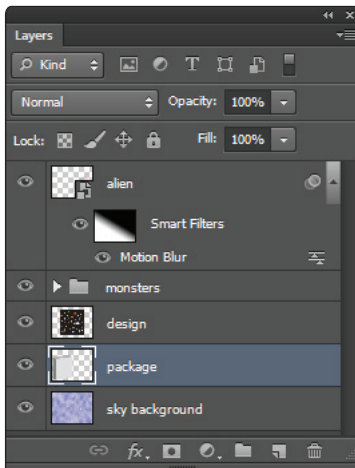
- 15 Press **X** to switch to white as a foreground color. Paint over some of the areas where the filter effect is not occurring. Notice that the effect is again revealed. Experiment with this technique, pressing **X** to switch between painting the effect and covering it up, also experiment with changing the Brush tool's opacity (in the Options bar) to create more subtle effects.
- 16 Choose File > Save. Keep this file open for the next part of this lesson.

## Using the Vanishing Point filter

The Vanishing Point filter simplifies the task of editing images that are in perspective, such as the sides of a box. With the Vanishing Point filter, you can easily add additional elements to any type of artwork that is composed of flat planes. With this filter, you first define the planes in an image, and then apply edits by painting, cloning, copying, pasting, and transforming your image. The planes you define control the perspective of the edits you make, giving your image a realistic perspective effect.

In this exercise, you'll map a pre-made design to a box so that three sides of the box are showing.

- 1 Turn on the Visibility icon (👁) next to the design and package layers to make them visible. Using the Layers panel, turn off the visibility of both the monsters layer group and the alien layer.



*Showing the design and package layers.*

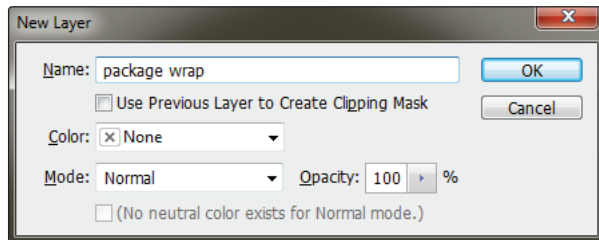
You will now cut the image on the design layer so that it can be pasted into the Vanishing Point dialog box.

- 2 Hold down the Ctrl (Windows) or the Command (Mac OS) key, and click on the design layer thumbnail in the Layers panel. A selection is now visible around the package design.

- 3 Click on the design layer to make sure it is the active layer, then choose Edit > Cut. The package design is now on your clipboard.

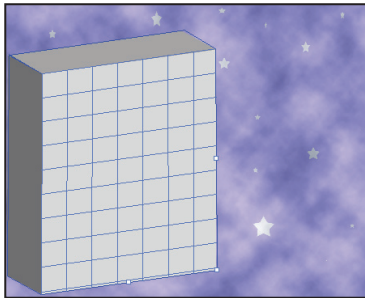
Before using the Vanishing Point filter you will want to create a blank layer. By creating a blank layer, you can have the effects of the vanishing point separated from the rest of your image, allowing you to turn off or on the results of the filter.

- 4 Click on the package layer and then Alt+click (Windows) or Option+click (Mac OS) on the Create a New Layer icon (≡) in the Layers panel. The New Layer dialog box appears.
- 5 Type package wrap into the Name text field and press OK. Make sure that the package wrap layer is active.



Create a new layer for the Vanishing Point results.

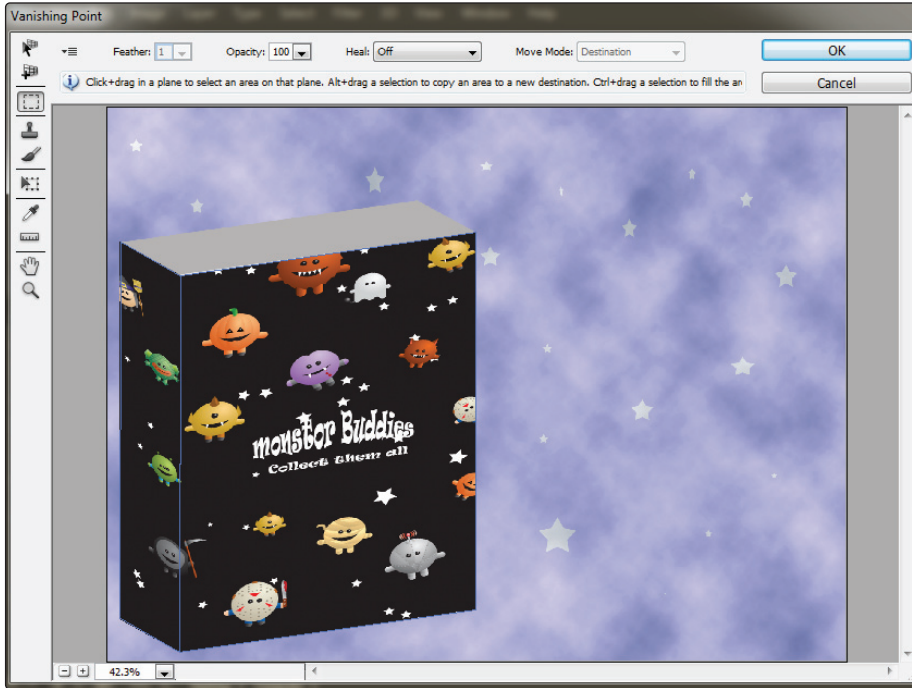
- 6 Choose Filter > Vanishing Point. The Vanishing Point dialog box appears. In the first part of this exercise, the perspective planes are made for you. You will create one yourself later.



This file has a pre-built perspective plane.

- 7 With the Vanishing Point dialog box open, press Ctrl+V (Windows) or Command+V (Mac OS) to paste the package design you cut in step 3. When you paste, the tool changes to the Marquee selection tool.

- 8 Click and drag the pasted design over the perspective plane. The design artwork maps to the perspective plane. Keep the Vanishing Point dialog box open for the next part.





*Click and drag the pasted artwork on the plane.*

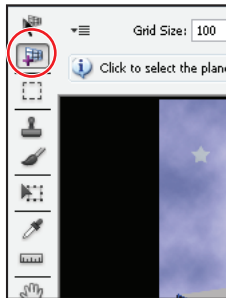
## Building your own perspective planes

A grid defines the four corner points of a perspective plane. When building a perspective plane, it helps to have objects in your image that can define your plane. In this example, the package itself offers a good source from which you can create your perspective plane.

Now that you know the capabilities of the Vanishing Point filter, you'll delete the existing plane and create your own.

- 1 Press and hold down the Alt (Windows) or Option (Mac OS) key. This turns the Cancel button into a Reset button. Click Reset.
- 2 Select the Edit Plane tool () , then click on the existing planes and press the Delete key. The perspective planes are deleted.

- 3 Select the Create Plane tool () . You'll now create a new plane by defining each corner of the plane.



The Create Plane tool.

- 4 Click on the top left of the front of the box, then on the top right, then on the bottom right, and once more on the bottom left. Notice that a blue grid indicates a valid plane. If your plane is red or yellow, it is invalid; use your Edit Plane tool to readjust your corners until the grid is blue.



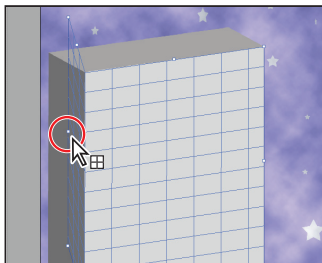
When drawing a plane, you can temporarily hold down the **X** key on your keyboard to magnify an area for more precise drawing of the plane.

For a plane to be valid, two sides of the plane should be parallel, while the other two sides show the perspective.

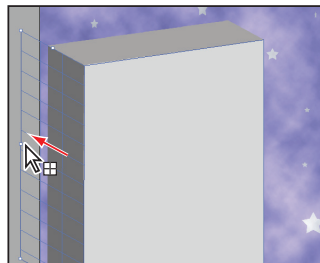
### Building an attached plane

You can control the angle of a plane, and you are not restricted to 90 degree angles.

- 1 Make sure that the Create Plane Tool is selected. Press and hold down the Ctrl (Windows) or Command (Mac OS) key, and drag the left-middle edge node toward the back edge of the box. This creates a perpendicular plane that will be used for the left side of the box. Don't worry if it is not aligning at the exact angle. You will fix that in the next step.



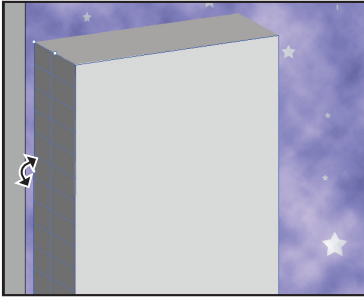
Ctrl/Command+click.



Drag out a new perpendicular plane.

- 2 Press and hold the Alt (Windows) or Option (Mac OS) key, and position your cursor over the left-middle edge node; a double-headed curved cursor appears. Click and drag either up or down to adjust the angle of the plane. You may need to zoom in to get this just right. Press **X** on the keyboard to temporarily zoom in for a better view. If you are on the Mac OS, it might be easier to hold down the Option key and drag the upper-left corner into place, and then Option drag the lower-left corner into place.

You are adjusting the plane so that it follows the left side of the box. As you adjust the plane, you may find that you need to release the Alt/Option key and adjust the middle edge node so that it is not extending beyond the left edge of the box.



*Alt/Option+click and drag to change the angle of a plane.*

- 3 Choose Edit > Paste to paste the package design in the Vanishing Point dialog box, or use the keyboard shortcut Ctrl+V (Windows) or Command+V (Mac OS).
- 4 Click and drag the design over the box. As it appears over the grid, the sides of the design conform to the sides of the grid. Notice how the image automatically adjusts itself to the contours of the perspective planes.
- 5 Make sure the image is exactly where you want it positioned on the plane, then press OK.
- 6 Make the monsters layer group visible by clicking to the left of the monsters folder in the Layers panel. The Visibility icon appears, and you see the contents of the group. Then click to the left of the alien layer to reveal the entire design.
- 7 Choose File > Save. Congratulations! You have finished this lesson.

## Self study

Using ps1102.psd, in your pslessons folder, convert various layers to smart objects and then stylize the monster layers.

Note that you can take multiple layers and convert them into one smart object to apply a filter to many layers at a time. If you want to experiment with this feature, Right-click (Windows) or Ctrl+click (Mac OS) on the layers you wish to convert to a smart object and choose Convert to Smart Object, then apply filters as you normally would.

You can double-click on the smart object layer to open the original (separated layers) at any time.

## Review

### Questions

- 1 When is the Fade option available for a filter that you have applied?
- 2 If you want to apply a filter in a non-destructive way, what is your best option?
- 3 How do you add a new perpendicular plane to an existing perspective plane and then control the angle of a new plane in the Vanishing Point dialog box?

### Answers

- 1 Unless you are using the Smart Filter feature, you must apply the Fade feature as the next step after applying a filter, or right-click on the filter listed under Smart Filters in the Layers panel. If you are using a Smart Filter, you can right-click (Windows) or Ctrl+click (Mac OS) on the applied Smart Filter (listed in the Layers panel) and select Edit Smart Filter Blending Options to access the same fade options.
- 2 Convert the layer for Smart Filters, then apply the filter.
- 3 To create a perpendicular plane from an existing perspective plane, click and hold down the Ctrl (Windows) or Command (Mac OS) key on an edge node (not a corner node) and drag out a new plane. You can control the angle of the plane by holding the Alt (Windows) or Option (Mac OS) key and dragging an edge node (not a corner node) until the new plane is at the correct angle.