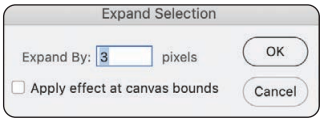
The Magic of Content Aware

Content Aware Fill – the old version

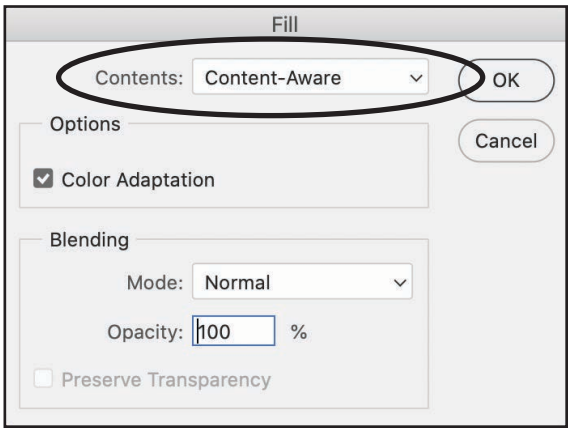
Choose File > Open > Gold Cat.jpg.

Click on the background layer. Hold down the Cmd/Cntrl key to duplicate the layer. Turn off the visibility icon on the background layer and select Layer 1.



Using the Quick Selection Tool, make a selection of the white tag.

With the selection active (marching ants), go the menu on top and choose Select > Modify > Expand. Enter 3 pixels in the dialog box and click OK.



With the selection in place, go to the menu on top and choose Edit > Fill. The Fill dialog box will appear. From the Contents drop down menu, choose Content Aware.

Click OK and almost instantly the Content Aware fill will appear. Please note: This is a destructive edit.

Files used in these examples:

Gold Cat-ContentAware.JPG

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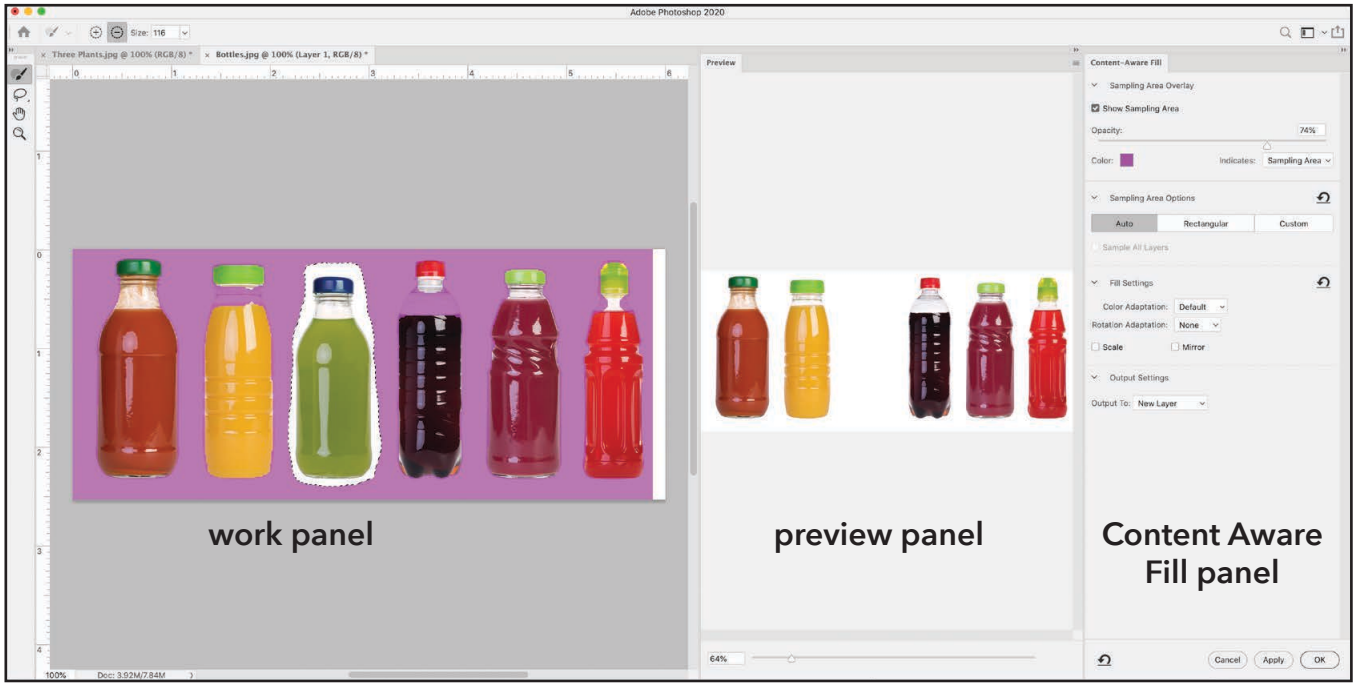
Content Aware Fill

Choose File > Open > Bottles.jpg

Click on the background layer. Hold down the Cmd/Cntrl key to duplicate the layer. Turn off the visibility icon on the background layer and select Layer 1.

Using the Lasso tool, make a loose selection of one of the bottles.

From the menu on top and choose Edit > Content-Aware Fill. This will open the Content Aware Fill workspace.



In the **Work panel** on the left, the color that covers part of the image is the Sampling Area Overlay and represents the area from which Photoshop can create content. This can be adjusted as needed.

The center **Preview** panel shows a live editing result.

The **Content Aware Fill panel** on the right allows adjustments to the sampling areas, the fill settings and the output choices.

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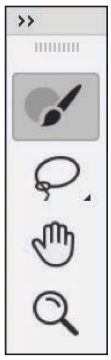


Content Aware Fill Toolbar

Sampling Brush

Lasso

Polygonal Lasso

Hand

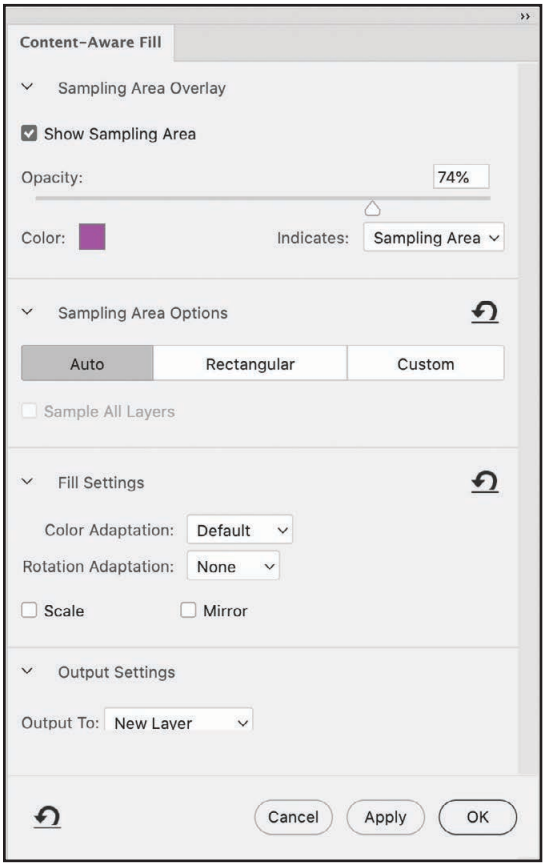
Zoom

The **Sampling Brush Tool** is used to adjust the sampling area as represented by the color overlay.

The **Lasso** tools can be used to refine the sampling area.

The **Hand & Zoom** tools are used the navigate the workspace.

The Content Aware Fill Panel



Sampling Area Overlay

The **Show Sampling Area** checkbox toggles the overlay on and off.

The **Opacity slider** adjusts the transparency of the overlay. The default opacity is 50%.

Click the **color box** to change the color of the overlay. The default color is green.

The **Indicates** option changes the overlay to the sampling area (default) or the excluded area.

The Sampling Area options

Auto: The default setting. Photoshop analyzes the image and sets the sampling area.

Rectangular: Photoshop uses a rectangle selection around the sampling area.

Custom: This option removes an existing selection and allows you to select the sampling area by painting over the image with the Sampling Brush Tool.

Sample All Layers: Select this checkbox to let Photoshop sample image detail from all visible layers.

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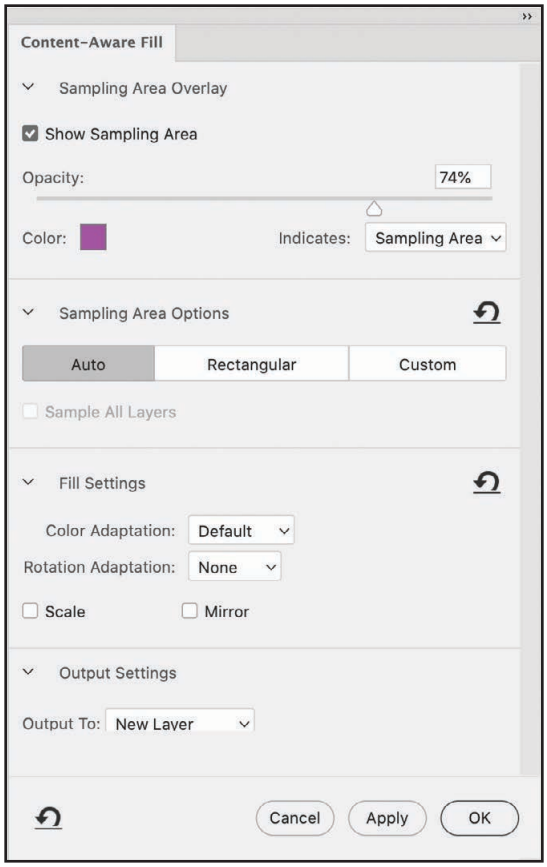
Fill Settings



Color Adaptation adjusts the brightness and contrast of the filled area to better match its surroundings. Works well when removing objects in areas of gradual color or brightness transitions.

Rotation Adaptation allows Photoshop to rotate the content to better match the angle and direction. Works well for curved or rotated patterns.

Scale lets Photoshop adjust the size of the content when removing objects in perspective.

Mirror will flip the contents horizontally for symmetrical images or patterns.

Output Setttings

New Layer (the default setting) will output the filled area to its own layer.

Duplicate Layer will place a copy of the entire image, including the filled area, on a new layer.

Current Layer will output the result onto the same layer you're working on. This creates a destructive edit.

Files names used in this example:

Bottles-ContentAware-01.jpg
Gold Cat-ContentAware.JPG
Photo by Filipe de Rodrigues on Unsplash
Photo by Carl Nenzen Loven on Unsplash.jpg

The Magic of Content Aware

Content Aware with the Crop Tool #1

This is the most frequent use for this feature.

From the top menu, choose File > Open > AdobeStock.jpg.

Click on the background layer. Hold down the Cmd/Cntrl key to duplicate the layer. Turn off the visibility icon on the background layer and select Layer 1.

Select the Crop Tool and on the Options bar, place a check mark next to Content Aware.

Click once to set the crop frame.

Select the Straighten icon on the Options bar and drag out a line to level the image.

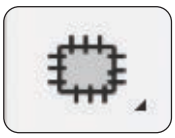
When satisfied with the crop, Click OK.

Watch the magic happen.

Content Aware with the Crop Tool #2

From the top menu, choose File > Open > Add Sky.jpg

Before using the Crop feature to add sky to the top of this photo, on the top right of the image are parts of two trees. These should be "patched" before adding sky.



Select the Patch tool. On the Option bar, under the Patch dropdown menu, choose Content-Aware.

Using the Patch tool, make a loose selection around the tree on the left. Place the Patch tool inside the selection and move it to another area that matches and let go of the mouse. Repeat these steps on the second tree.

After moving the Patch, adjusting the Structure and Color will help blend the patch into the image.

Click once to set the crop frame. Drag the top center handle up about the width of the sky and click OK. If you wish to add more sky, repeat this step.

Files used in this example:

AdobeStock_54109893.jpg
Add Sky-ContentAware-Crop.jpg

The Magic of Content Aware

Content Aware Move Tool

From the top menu, choose File > Open > Balloons.jpg

Click on the background layer. Hold down the Cmd/Cntrl key to duplicate the layer. Turn off the visibility icon on the background layer and select Layer 1.

Select the Background layer and press Cmd/Cntrl J to duplicate the layer. Rename Layer 1 to "content aware move."

Make a selection of the hot air balloon on the left.

Choose the Content Aware Move Tool and place the cursor INSIDE THE SELECTION and move it to a new location in the document.

A transformation box will appear around the object. Click on the Confirmation Checkmark on the Options bar to commit the transformation. Deselect (Cmd/Cntrl D).

Content Aware Extend

From the top menu, choose File > Open > Bench.jpg

Select the Background layer and press Cmd/Cntrl J to duplicate the layer. Rename Layer 1 to "content aware."

Using the Content Aware Move Tool, make a selection of the left side of the bench.

Choose the Content Aware Move Tool and on the Options menu, from the **MODE** drop down menu, choose **Extend**.

Place the cursor INSIDE THE SELECTION and move it to the left. Try to keep the horizontal lines even.

A transformation box will appear around the object. Click on the Confirmation Checkmark on the Options bar to commit the transformation. Deselect (Cmd/Cntrl D).

For both Move and Extend, the structure and color settings can be changed after commiting the adjustment to the image as long as the selection is still in place.

Files used in these examples:

Balloons-ContentAwareMove-01.jpg
Bench-ContentAwareExtend.jpeg

The Magic of Content Aware

Content Aware Scale

Choose File > Open > Dock.psd

Click on the background layer. Hold down the Cmd/Cntrl key to duplicate the layer. Turn off the visibility icon on the background layer and select Layer 1.

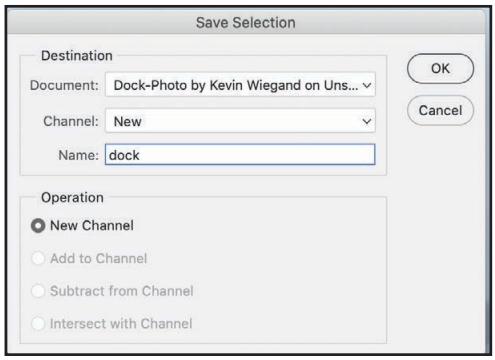
We want to extend both sides of the image without distorting the dock with the fence or the sign.

First add canvas to both sides of the image. Using the crop tool, click once to set the frame and drag out the each side to add 2 inches to the canvas.

Tip: If you hold down the option/alt key as you drag one side, the opposite side will mirror the adjustment.

Make a selection of the image. From the menu on top choose, Edit > Content Aware Scale. When the handles appear on the selection, disable proportional scaling by holding the Shift key and drag the left middle handle to the margin.

How to protect the main subject of the image



Make a selection of the portion of the image you wish to protect. With marching ants in place, go to the menu on top and choose Select > Save Selection. Give it a name and click OK.

Deselect and make a new selection of the entire image.

From the menu on top, choose Edit > Content Aware Scale.

From the Options bar, from the Protect drop down menu, choose the name of the saved selection.

When the handles appear on the selection, disable proportional scaling by holding the Shift key and drag the left middle handle to the margin.

Tip: If you hold down the option/alt key as you drag one side, the opposite side will mirror the adjustment.

Files used in these examples:

Dock-Photo by Kevin Wiegand on Unsplash.psd

Content Aware with the Spot Healing BrushTool & the Patch Tool

Choose File > Open > Millie.jpg

Click on the background layer. Hold down the Cmd/Cntrl key to duplicate the layer. Turn off the visibility icon on the background layer and select Layer 1.

Notice that the Spot Healing BrushTtool now defaults to Content Aware in the options bar.

Select the Spot Healing Brush Tool. Choose a soft brush at about 100 pixels and paint over the boo-boo on her nose.

Select the Patch Tool and make a loose selection around the name tag.

Place your cursor INSIDE THE SELECTION and move it to a new location.

Deselect.