

Luminosity Mask Triple Play and Advanced Masking

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Acknowledgement

[Lon Overacker](#) has provided valuable assistance to test and improve the actions as well as providing suggestions to enhance readability of the tutorial.

Forward

The "triple play" is an advanced Photoshop technique for improving an image's brightness (darker or lighter) and contrast in specific tones while simultaneously enhancing detail definition in these tones. The term "triple play" refers to this ability to affect the brightness, contrast, and detail in one process. Separate methods are needed for the light and dark tones in an image, but the process is similar for both tonal groups.

This tutorial describes the steps needed to complete the triple play on both light and dark tones in the image. While efforts have been made to be thorough in the discussion, some familiarity with adjustment layers, layer groups, luminosity masks, layer masks, and luminosity painting will be assumed. The *Luminosity Masks* and *Luminosity Painting* tutorials that were included in the download are helpful in explaining these concepts if you are unfamiliar with them.

At various places in the tutorial, there is text that says: [online rollover](#). Clicking on this text allows an Internet browser window to open with an image showing the current state of the image in the triple play process. The mouse rollover of the image shows the previous state before the current process was applied to the image. These online rollovers allow readers to better watch the triple play procedure as it progresses.

There are action sets included that perform all the steps needed to set up the triple play in either the light or dark tones in the image. Once the action finishes running, turning on the visibility of the desired layers completes the triple play in that set of tones. However, it would be useful to first understand the different layers created by the actions, and that's the role of the tutorial. Hopefully after reading it, the actions will make sense and you'll be able to quickly use them to improve your image. NOTE: The triple play action sets need the TK-LumMasks(Channels) action set in order to work, so the TK-LumMasks(Channels) action set needs to be loaded on the Actions panel prior to running any of the triple play actions.

Introduction

Layer masks are one of the most powerful tools in Photoshop. A layer mask can be added to any layer, and the different tones in the mask determine which parts of the layer are revealed in the image. The size of the mask and the number of pixels in the mask mirror that of the image. The default "color" for a mask in Photoshop is pure white, which reveals all corresponding parts of the layer. Masks, however, can be many different shades. Pure black in the mask completely conceals the corresponding parts of the layer. Shades of gray provide an intermediate amount of reveal proportional to the amount white in the tone. Light gray tones reveal more than dark gray tones.

Luminosity masks are a special type of layer mask based on and created from the actual image pixels. The shades of gray in the mask correspond to the brightness of the actual image pixels. As such, luminosity masks can be remarkably precise when selecting the pixels that get adjusted, and, when used to filter an adjustment on an adjustment layer, insure that the adjustment always blends perfectly into the overall image. Luminosity masks can be manipulated, combined, and altered and still retain the self-feathering quality that makes them so useful. Previous tutorials have provided information on how to create a variety of luminosity masks, how to use them on adjustment layers, how to combine them to form new masks, and how to paint through them.

This tutorial attempts to expand the ways of using luminosity masks. The primary focus is on describing a "triple play" technique. It uses closely coordinated masks to control three important image factors:

Brightness—making the image lighter or darker

Contrast –the degree of tonal separation between light and dark tones

Detail definition—the local contrast that can make image elements appear sharper and more detailed, although this should NOT be confused with image sharpening, which is an entirely different process.

In order to do this, information will be provided on the following techniques:

1. Using blending modes for image adjustment
2. Blurring masks
3. Using multiple masked layers to create specific effects
4. Adjusting opacity of masked layers
5. Adjusting masks using the Levels adjustment
6. Painting masks

It's important to keep in mind that these techniques are NOT restricted to the triple play procedure being described. These are simply different techniques for working with luminosity masks. They can be tried and applied in settings that differ from what's in this tutorial. So a secondary goal is to provide new ideas on ways to use luminosity masks and to encourage users to experiment with these techniques on their own images and in different situations.

A Quick Review of Luminosity Masks

In many places in this tutorial, reference is made to various luminosity masks. Luminosity masks and their creation are discussed at length in the *Luminosity Masks* tutorial contained in the download. There are also Photoshop actions in the ZIP folder to create all the masks.

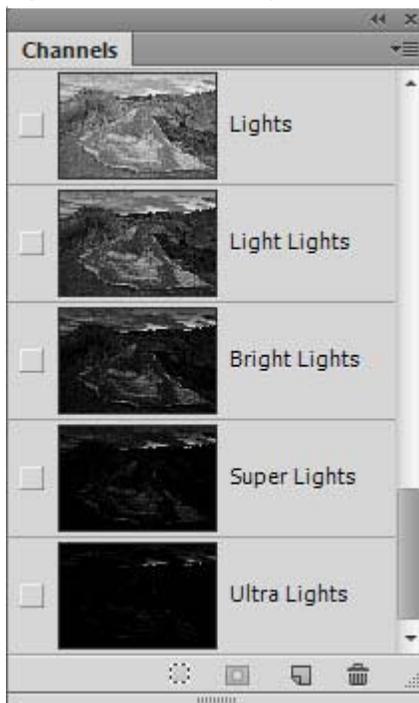
Masks in Photoshop are graphical representations of selected pixels. The masks show which pixels would be selected if the mask were loaded as a selection and the degree to which each pixel is selected. The lighter the tone of the pixel in the mask, the greater it is selected and the greater it reveals the corresponding pixel in the layer it is masking, up to a 100% reveal for pure white tones in the mask.

The luminosity masks used in this tutorial will follow the convention described in the *Luminosity Masks* tutorial. The *Lights-series luminosity mask* and *Darks-series luminosity masks* are shown below. Lights-series masks reveal the lighter tones in the image and are all positives of the actual image. The Darks-series masks reveal the darker tones in the image and are negatives of the actual image. In the illustrations below, the masks become more restrictive in the number of pixels selected as you move vertically lower in the displayed series. The Super Lights, for example, selects fewer pixels than the Light Lights, and the Ultra Darks selects fewer than the Shadow Darks. As expected, the masks become visibly darker as they become more restrictive; dark tones in the mask reveal fewer pixels than light tones. It's important to be somewhat familiar with these masks, their names, and their relative order in their respective series as they will appear frequently in the tutorial.

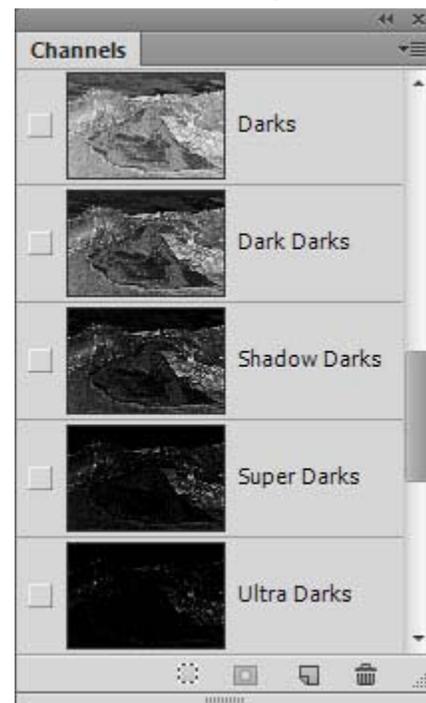
Image from which the masks were created



Lights-series luminosity masks



Darks-series luminosity masks



The Overall Adjustment

Figure 1a is an image I was working on where the light tones weren't looking quite right. I wanted them a bit darker but at the same time didn't want to lose textural detail. The triple play provided a method for doing this. *Figure 1b* shows the final image after the triple play (see [online rollover](#)). It worked nicely on the lighter tones so I decided to triple play the darker tones as well, mostly to bring out detail definition.

The difference between the two pictures is mostly in the highlights and shadows. The triple play darkened the highlights and increased their contrast. The brightness of the shadows didn't change much, but the contrast was again increased. Overall, this leads to better detail definition in the shadows and highlights and to some degree even in the mid-tones. While it might appear that the sharpness of the image improved, this really is not the case. Sharpness is usually thought of as the contrast at the edges where tones change. The triple play affects all tones and pixels that are included in its adjustment layers, not just those



Figure 1a—before triple play

Figure 1b—after triple play



at the edges. As such, local contrast is improved in all selected pixels (or partially selected pixels, as the case may be), not just in those along the edges. This has additional benefit later on since normal sharpening can still be applied to the image after the triple play resulting in exquisitely detailed prints.

It's worth noting that the improvements in brightness, contrast, and detail for this image did not come at the expense of overall dynamic range. *Figure 2a* shows the image's histogram before the triple play was applied and *Figure 2b* shows it afterwards. There is essentially no additional clipping at either end of the histogram, which means that all the improvements took place within the bounds of the image's dynamic range. This is important. It means that no pixels had to be sacrificed to being either pure black or pure white in order to achieve the benefits possible with the triple play.

Figure 2a—before triple play

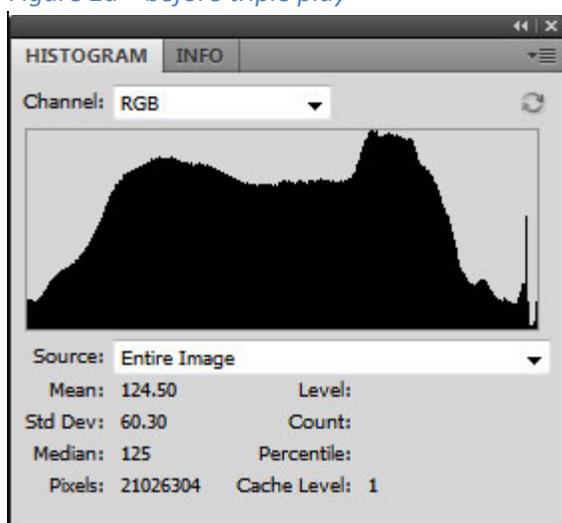
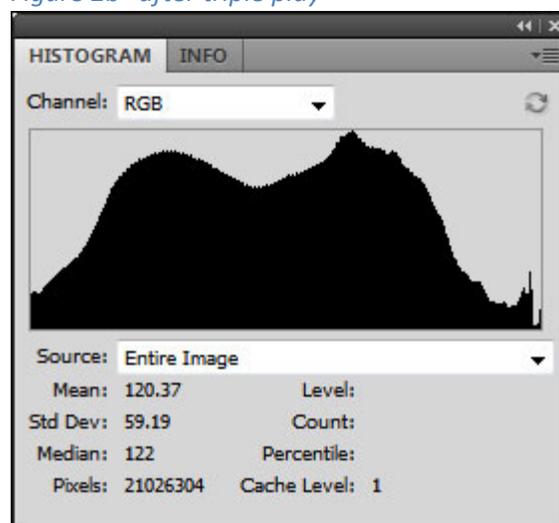


Figure 2b--after triple play



Blending Modes

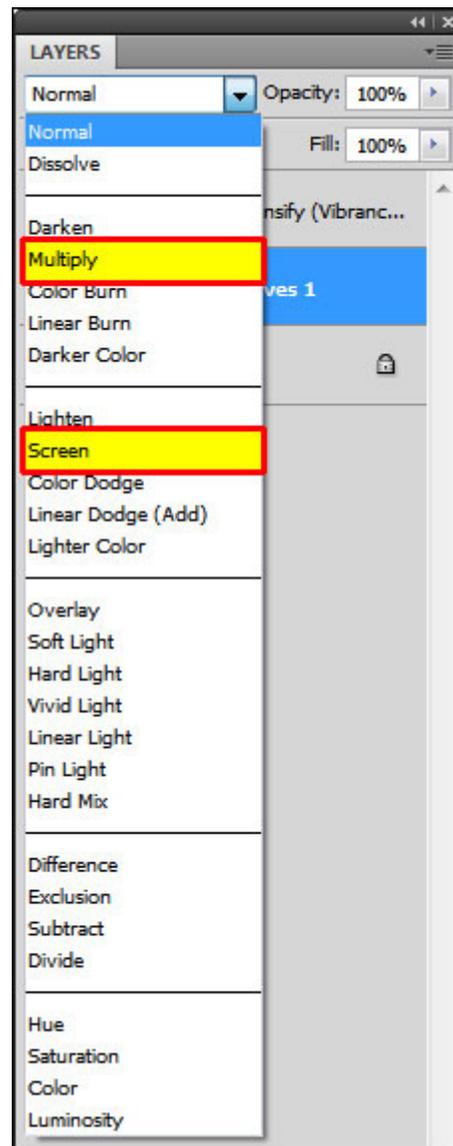
One of the main tools to facilitate the triple play involves changing the blending mode of the adjustment layers. Blending modes are accessed from the drop-down menu in the upper left corner of the Layers panel (*Figure 3*). While the drop-down menu shows a variety of blending modes, only two, Multiply and Screen, will be used.

Multiply blending mode darkens the image. When the blending mode is changed to Multiply, the color of each pixel in the new layer is "multiplied" by the color in the corresponding pixel of the original image and then divided by 255. The result is a darkening of all colors except pure white (255, 255, 255) and pure black (0, 0, 0), which do not change. An analogy for the Multiply blend mode is to look through two identical slides held in register up to a light source. Even though the individual slides may be properly exposed, stacking them and looking through both significantly darkens the image that is seen. Multiply blend mode can therefore be useful for darkening an image or specific parts of it. *Figure 4* shows the effect of changing the blending mode of an adjustment layer to Multiply. Creating the Multiply blending-mode adjustment layer was the first step in adjusting the light tones in this image (see [online rollover](#)).

Figure 4



Figure 3



Screen blending mode lightens the image. Using the slide analogy again, Screen blending mode is like projecting the same slide from two different projectors in register onto the same screen. This will make the image appear overexposed. Black and white once again remain unchanged. Screen blending mode is useful for lightening the image or specific parts of the image. [Figure 5](#) shows the effect of changing the blending mode to Screen.

[Figure 5](#)



Using Screen and Multiply blending modes to adjust an image has the advantage of providing the desired change in brightness—lighter or darker—without the change in color saturation that often accompanies similar brightness changes using Curves and Levels adjustments. While there can be some saturation change when adjusting using blending modes, these are usually small and easy to handle. Often the saturation change with a blending mode adjustment feels right for the brightness change, and no offsetting saturation adjustment is necessary.

Of course, the full-on blending mode adjustment is way too strong and needs to be filtered to just those tones in the image that need it. That's the role of luminosity masks. By selectively masking specific tones, luminosity masks allow just the desired tones from the Multiply or Screen blending-mode adjustment layer to be incorporated into the image. This is an important concept in the triple play.

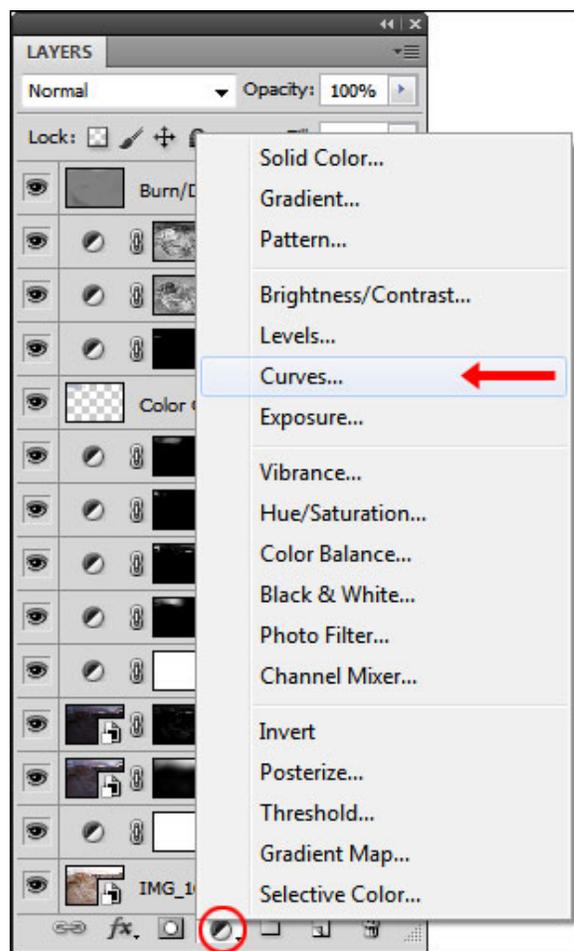
NOTE: If you are experimenting with the triple play technique by following along with the tutorial using your own image, it is helpful at this point to generate all the Lights-series masks and all the Darks-series masks on the Channels panel. There is a lot of experimentation possible using different combinations of masks, and making them and having them available on the Channels panel will make this experimentation much easier. To help, there is an "--All Lights masks" and "--All Darks masks" action in the TK-LumMasks(Channels) action set. Running these actions quickly creates the Light-series and Darks-series luminosity masks on the Channels panel. Having the masks on the Channels panel means you can quickly load one as a selection using Ctrl+click (Mac: Cmd+click) on the thumbnail of the mask and use that selection to create a layer mask. Another important reason to generate the masks now is that as the blending modes change, so does the image, as seen in [Figure 4](#) and [Figure 5](#). By creating the various luminosity masks now, they accurately reflect the light in your image at this time. Once the blending mode changes, so too does the light and hence the luminosity masks created by that light. It's best to work with masks that reflect your image at this point in time rather than after the blending mode changes have occurred.

Creating a Blending-Mode Adjustment Layer to Adjust Brightness

The most efficient way to create a layer with a changed blending mode is to first create an adjustment layer. Adjustment layers are usually used to apply a specific adjustment to an image by changing the parameters in the adjustment's dialog box. For example, a Curves adjustment layer bends a curve in the adjustment panel to facilitate a change and a Hue/Saturation adjustment uses sliders to make an adjustment. However, even without making an adjustment in the dialog box, an adjustment layer can still change an image if its blending mode is changed. That's the process that will be used for the triple play. Here are the steps for making a blending-mode adjustment layer:

1. Click the "Create new fill or adjustment layer" icon at the bottom of the Layers panel (red circle, [Figure 6](#)) and choose "Levels..." or "Curves..." (red arrow, [Figure 6](#)) from the pop-up menu. Other types of adjustment layers would also work, but Levels and Curves offer additional opportunities for refinement later on. Creating an adjustment layer can also be done using the menu command Layer > New Adjustment Layer... > Curves... If you are using Photoshop CS4 or CS5, the new adjustment layer will appear on the Layers panel and the Adjustment panel will open with the controls for making an adjustment. Since the purpose of this layer is to simply change the blending mode, don't make any adjustment on the Adjustments panel. If you are using CS3 or earlier, a dialog box will open with the controls for the adjustment. Click OK to simply close this dialog box without making an adjustment.
2. Go to the upper left of the Layers panel and click the drop-down menu for the blending mode. Choose either Screen or Multiply depending on what you want to do with the image—Multiply to darken it and Screen to lighten it (see [Figure 3](#) above).

Figure 6



As mentioned above, an unmasked change in blending mode is way too strong an adjustment to use alone, so a luminosity mask is used to direct the change to the appropriate pixels.

Masking the Blending-Mode Adjustment Layer to Control Which Tones Get Adjusted

Specific groups of luminosity masks can be used with the two blending modes to achieve a desired effect in an image. *Table 1* shows the relationship between the desired effect, the blending mode used on the unadjusted adjustment layer to achieve this effect, and the type of mask needed to filter the blending-mode adjustment layer to get the desired effect to pass to the image.

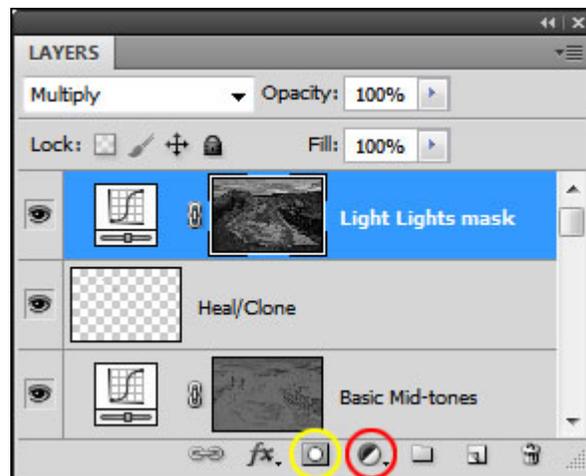
Table 1

Desired Effect	Blending Mode	Type of masks to use to filter the effect to the image
Darken the image's lighter tones and/or increase detail definition in the lighter tones.	Multiply (darkens the image)	Lights-series masks—Lights, Light Lights, Bright Lights, Super Lights, Ultra Lights (to make sure only the image's lighter tones are affected by the Multiply blending mode)
Lighten the image's darker tones and/or increase detail definition in the darker tones.	Screen (lightens the image)	Darks-series masks—Darks, Dark Darks, Shadow Darks, Super Darks, Ultra Darks (to make sure only the image's darker tones are affected by the Screen blending mode)

For the particular image being discussed here, the desired effect was to darken the image's lighter tones and increase detail definition in these same tones. This would require an adjustment layer in Multiply blending mode masked with a luminosity mask from the Lights-series. Here's the procedure I followed for this image:

1. Create all the Lights-series masks on the Channels panel.
2. Ctrl+click (Mac: Cmd+click) on one of the Lights-series masks to load it as a selection. (Light Lights worked for this image.) The marching ants appear.
3. Click the "Create new fill or adjustment layer" icon at the bottom of the Layers panel (red circle, *Figure 6* or *Figure 7*) and select Curves from the pop-up menu. This creates the adjustment layer with the mask in place as the layer mask.
4. Change the layer's blending mode from Normal to Multiply.

Figure 7



This procedure created the blue highlighted layer in *Figure 7*. Even though this is a Curves adjustment layer, no adjustment was added in the Curves dialog box/panel. The change to the image (darkening) is provided by changing the blending mode to Multiply. With the mask in place on the adjustment layer, only the lighter tones revealed by the mask are affected by the darkening effect of the Multiply blending mode.

If I didn't like the degree to which the darkening of the Multiply blending mode was revealed by the Light Lights mask and wanted to try a different Lights-series mask, I could change the layer mask in the following manner:

1. Right-click on the current layer mask and select "Delete Layer Mask" from the pop-up menu.
2. Load a new selection of a different Lights-series mask from the Channels panel using Ctrl+click (Mac: Cmd+click).
3. Click the "Add layer mask" button at the bottom of the Layers panel (yellow circle, [Figure 7](#)).

These steps can be repeated to try different masks to determine which one best reveals the blending mode adjustment to the desired level in the image. The goal should be to find which mask makes the image look best tonally, ignoring the fact that the image may look a little blurry when the mask is added.

[Figure 8](#) shows what happened when this procedure was applied to the layer with its blending mode set to Multiply ([Figure 1a](#)). Compared to [Figure 4](#) (see [online rollover](#)), the darkening that came from the Multiply blend mode can only be seen in the lighter tones of the image due to the Light Lights luminosity mask filtering the adjustment layer. One of the things that happens after the addition of the luminosity mask, is

[Figure 8](#)



that the image goes a little soft. The lighter colors in the image have been darkened as intended, but fine details, especially in the lighter colors, are less differentiated to the point that it appears that the image is no longer sharp. The luminosity mask is doing its job of properly selecting the correct tones for adjustment, but the strong effect of the blending mode itself has caused a significant graying-down of the light tones, which in turn has led to poor separation of the image's lighter values and an obvious loss of detail. This is best seen in the sky and the white areas of the rock.

Blurring the Mask to Improve Detail Definition

The way to correct this apparent image blurriness is to blur the layer's luminosity mask using Gaussian blur. If you've been following the discussions of luminosity masks in the other tutorials, you'll realize this is somewhat surprising. Usually it's the pixel-based nature of the luminosity masks and their ability to partially select corresponding image pixels that insures the excellent blending of the adjustment into the rest of the image. With a blending-mode adjustment, however, blurring the luminosity mask—essentially losing the tight correspondence between the image pixels and the luminosity mask—is, paradoxically, the key to restoring apparent sharpness and making the adjustment work. Even more surprising, it's necessary to properly match the correct mask series with the blending mode. For example, a blurred Lights-series mask always restores detail to a blending-mode adjustment layer set to Multiply. However, blurring a Light's series mask on a blending mode-adjustment layer set to Screen only makes the image look more blurry. Similarly, blurring a Darks-series mask on a blending-mode adjustment layer set to Screen restores image detail, but when set to Multiply the image becomes more blurry. [Table 2](#) summarizes these results.

Table 2

Blending-mode adjustment layer set to	Series of luminosity mask used to mask the layer and blurred	Result seen in the image
Multiply	Lights	Enhanced detail
Multiply	Darks	Increased blur
Screen	Lights	Increased blur
Screen	Darks	Enhanced detail

The yellow-highlighted rows in [Table 2](#) are a fortuitous result. They indicate that not only is it possible to use luminosity masks to properly filter the blending-mode adjustment to the correct the tones in the image to make a desired adjustment, but blurring the mask also enhances image detail. In other words, this one blending-mode adjustment layer with its blurred luminosity mask accomplishes two of the three goals in the triple play—correcting brightness and enhancing detail.

The yellow-highlighted relationships are what dictate the entries in [Table 1](#) on page 11 where specific masks and blending modes create specific effects. It's these special relationships between blending modes and blurred luminosity masks that make the triple play adjustment so effective. One last thing to mention, mostly from a theoretical standpoint, is that the blending-mode/mask-series relationships in [Table 2](#) are so strong that even with contrived luminosity masks, they hold true. As an example, any inverted Lights-series mask is essentially a Darks-series mask and vice versa. Inverted masks aren't commonly created and used, but they can be created and Gaussian blurred to see their effect when masking blending-mode adjustment layers. The results in terms of enhancing detail or increasing image blur are entirely predicted by the entries in [Table 2](#). While I'm at a loss to explain why a certain series of luminosity masks only works with certain blending modes to enhance detail, the association between these two variables can certainly be beneficial to many images.

The procedure for blurring the luminosity mask is as follows:

1. Click on the luminosity mask on the blending-mode adjustment layer to make sure the framing brackets are around the thumbnail mask image.
2. From the menu bar choose Filter > Blur > Gaussian Blur...
3. Enter an appropriate pixel radius and click OK to blur the mask.

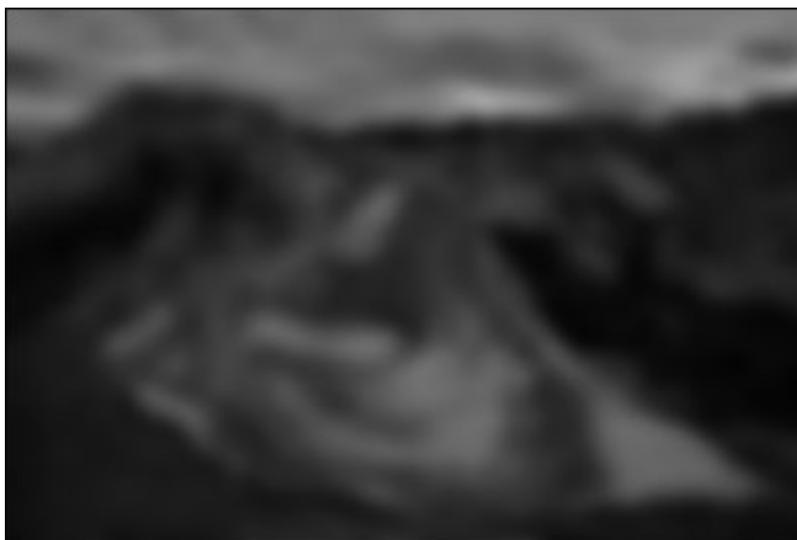
The amount of blur added to the mask will depend on the size of the image and the level of detail enhancement desired. A simple rule of thumb for images from digital cameras is to set the Gaussian blur pixel radius to one-half to one times the megapixel size of the camera's sensor. For a 21-megapixel camera, that would roughly be a 10- to 20-pixel Gaussian blur pixel radius. Higher numbers create more texture in the images than lower numbers.

Figure 10a



So if the goal is to significantly improve image detail, go with a higher number, even 30 to 50 pixels. To simply manage the light and moderately enhance detail, settings of 10-20 pixels, and sometimes less, are adequate. Again, it's a bit surprising that the larger the pixel radius for the blur the more texture that becomes visible in the image, but such is the nature of this relationship between luminosity masks and blending modes. On this particular image I used

Figure 10b



a 72-pixel radius for the Gaussian blur. In retrospect, that seems a bit much, but it seemed to work here to significantly enhance detail. *Figure 10a* shows the original Light Lights mask and *Figure 10b* show the mask after the 72-pixel blur.

To evaluate the effect of the blur on the image, make sure that Preview is checked in the Gaussian blur dialog box (red ellipse, *Figure 11*). Have the image fill the monitor as much as possible and decide what looks best. Also, give the computer time to refresh the preview in Photoshop's main image window after different radius numbers are entered.

Figure 11



Blurring the mask is a very important step and does much more than expected. It reverses the loss of detail that came from adding the luminosity layer mask and, depending on one's personal preference, can also greatly enhance image details and texture.

Figure 12 shows the results of the 72-pixel Gaussian blur on this image (see [online rollover](#)), which has considerably more detail than *Figure 8*. Light areas

have been darkened as intended and overall texture has been improved, though the latter is a little hard to see in the small size shown here. Overall contrast could still be increased; the whites are still a bit too gray. Fixing the contrast is the next step.

Figure 12



Adding a Second Blending-Mode Adjustment Layer to Enhance Contrast

The first blending-mode adjustment layer which was just completed does two important things.

1. It adjusts the brightness of specific tones in the image—making them lighter or darker—depending on which blending mode and which luminosity mask is chosen, and
2. It retains or enhances detail definition depending on the pixel radius used to blur the mask.

This layer alone, if properly constructed, can make a substantial improvement in the image. Unfortunately, this first blending-mode adjustment layer can also flatten overall image contrast. When the highlights are darkened in this manner, the light tones may become too gray, or, when the shadows are lightened using this type of adjustment (Darks-series mask with the blending mode set to Screen), the blacks may also move toward gray instead of staying black. The solution to this is to use a second blending-mode adjustment layer to restore, and often improve, the lost contrast. Here's how to do it:

1. Using Ctrl+click (Mac: Cmd+click), load another luminosity mask as a selection from the same series that was used on the first blending-mode adjustment layer (Lights-series in this case).
2. With the selection active, create a second blending-mode adjustment layer above the first one. This time, however, choose the opposite blending mode as that of the first layer. If the first layer used Multiply to darken the image, change the blending mode on this new layer to Screen. If the first layer was set to Screen, the new layer will be Multiply.
3. DO NOT blur the mask on this second blending-mode adjustment layer. Remember, blurring the mask on this layer with the opposite blending mode as the first layer would cause the image to blur, which is not desired.

Figure 13 shows how this layer looks on the Layers panel for the image in this example. The second blending-mode adjustment layer is set to Screen and masked with the Bright Lights luminosity mask.

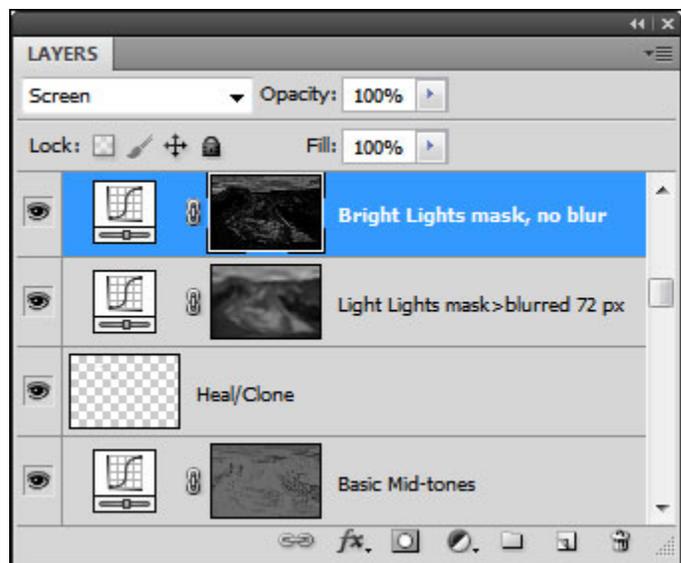


Figure 13

The nice thing about this second blending-mode adjustment layer is that as it restores contrast to the image, it also builds on the enhanced detail definition created by the first blending-mode adjustment layer. As a result, the light values are more crisp and textured than would be expected if just lightening them through the same luminosity mask.

Contrast is the third element in the triple play, (the first two being brightness and detail adjustments on the previous layer), and this second blending-mode adjustment layer manages that element. *Figure 14* shows how the image looks with the contrast-correcting layer in place (see [online rollover](#)). Compared to *Figure 12*, the white rocks are now brighter as is the sky, and the textural detail is also enhanced in these areas.

Figure 14

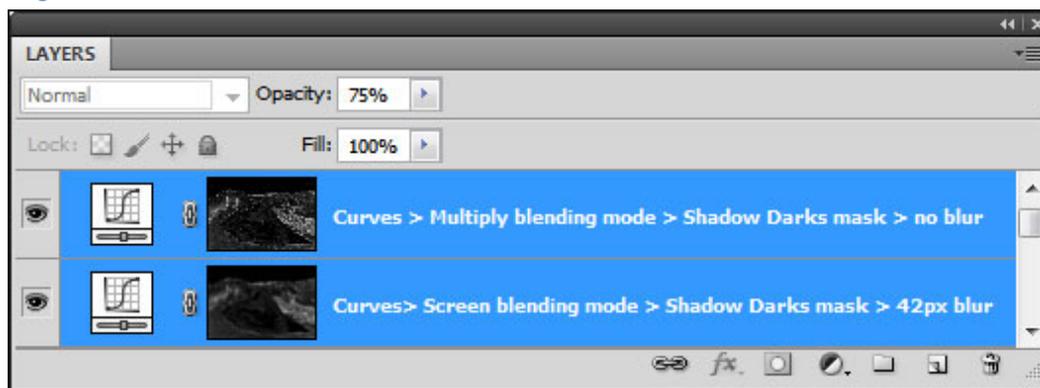


NOTE: While it's taken many words to describe this procedure and explain some of the details, the actions that accompany this tutorial essentially do all this with a couple mouse clicks. Different masks, different combinations of masks, and different blending modes can all be tried using the recorded steps.

The Procedure for the Dark Tones

The example image used to illustrate the triple play has shown how to perform the procedure to improve the lighter tones in the image. The method works equally well on the darker tones. The muddy shadows that sometimes occur in left-shifted histograms can be significantly opened up to result in better brightness, contrast, and detail definition in these tones. The concept and steps are essentially the same as for improving the lighter tones except it's important to flip things around a bit to target the dark tones instead. *Figure 15* shows of how the layers look after running the triple play process on the darks.

Figure 15



The first layer to be added for the dark tones triple play was the bottom layer of *Figure 15*. It is a Curves adjustment layer with no adjustment to the Curve. Instead, the adjustment came from changing blending mode to Screen, which lightened the image. A Shadow Darks luminosity mask was used to filter the lightening effect of the Screen blending mode to just the darker pixels of the image. A Gaussian blur was then added to the layer mask using a 42-pixel blur radius. This blur properly distributed the Screen blending mode's lightening effect across the pixels that needed it, removing blurriness and enhancing detail in the process.

The top layer was added next as the contrast-enhancing layer. Again, it consists of an unadjusted Curves adjustment layer, but this time it's set to Multiply blending mode. A Shadow Darks mask was again used to filter the adjustment, but no Gaussian blur was applied to this mask. The effect of this layer was to return the tones of the darkest shadows to their original depth while at the same time enhancing shadow detail still more. This layer was also set to 75% opacity, which will be discussed more a bit later.

There are, of course, many choices that could be made with regard to this darks triple play. Which Darks-series masks to use is probably the most important. The dark tones in this image didn't need to change much in terms of brightness, so a more restrictive mask (Shadow Darks) on the bottom layer was appropriate. The pixel radius for the blur is also an important consideration. Since I was after a bit more textural pop in the dark tones, I opted for something higher than my standard 10- to 20-pixel Gaussian blur (42 pixels in this case) for the Shadow Darks mask .

Finally, the choice of the mask for the contrast-enhancing layer was also considered. Since I was not looking for a big change in the overall brightness of the dark tones in the image, the same Shadow Darks mask was chosen. This choice actually points out an interesting characteristic of the triple play process. If these two layers were created with identical, unblurred masks but opposite blending modes—one Screen and other Multiply—the effect on the image would be nearly imperceptible. They would, in essence, cancel each other out. Blurring the bottom layer, however, disperses its Screen blending mode lightening effect beyond the confines of the original mask. The contrast-enhancing layer, with its unblurred mask is, by comparison, a more restricted mask. It isn't able to mask the dispersed brightness of the previous layer's Screen blending mode. As a result, it only darkens the mask's selected pixels, and not those that were additionally lightened by blurring the same mask in the layer below it. This is actually the basis of the contrast-enhancing effect of the second layer and why using the same mask on both layers, but with the bottom one blurred, still works. It also points out the importance of creating the required luminosity masks before starting the triple play procedure. If the mask for the second layer is created after the first layer with the blurred mask is in place, the new mask would take into account the changed luminosity that resulted from the blurred-mask layer. It would thus be less effective in restoring contrast because the dark pixels have all been lightened by the first layer. That's why there is a note on page 9 to make the required masks using the "--All Lights masks" and "--All Darks masks" actions before experimenting with the procedure. This insures having masks with tonal selections that will be more useful throughout the process.

Figure 16 shows what the image looks like after the triple play on the dark tones (see [online rollover](#)). While at this size and in this format it may be difficult to see the difference, the triple play did an excellent job of enhancing detail in the plants on the desert floor and in the large rock face in the background on the left.

Figure 16

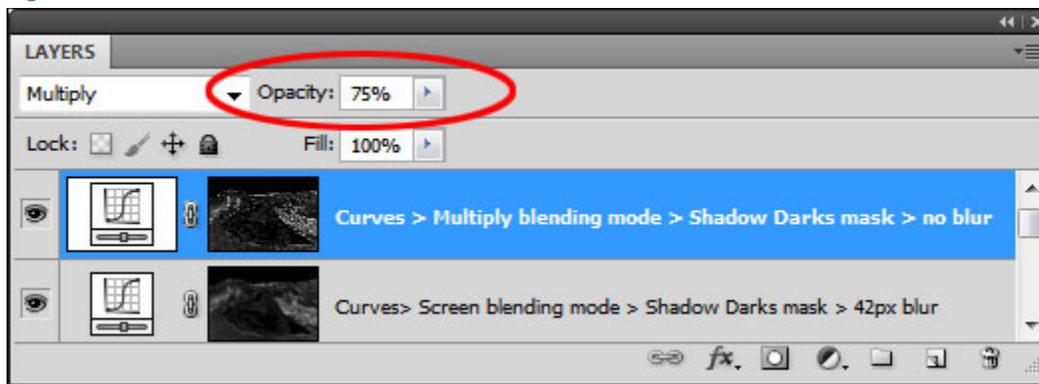


Fine-Tuning: Adjusting Layer Opacity

Once the two layers for the triple play are in place, it's possible, and sometimes necessary, to tweak how these adjustment layers affect the image. Like much of what is done in Photoshop, the degree of fine-tuning applied at this point is strictly personal preference. It is a way to impart individual style to the image that an action or preset can't, and is entirely at the discretion of the photographer. The fine-tuning adjustments described here can be applied to any adjustment layer using luminosity masks; they are not specific to the triple play. So like the luminosity masks themselves, these adjustments should be seen as tools that might be useful in a variety of situations.

There are several ways to fine-tune adjustment layers and layer masks. The first and easiest is to change the opacity of the layer. By default, all layers are created with 100% opacity, meaning that the effect produced by the layer is full-on. While it's not possible to increase the layer's effect by turning up the opacity, it's very easy to turn it down when the effect is too strong. This is what was done for the top layer in [Figure 17](#), the opacity was turned down to 75%. This is a contrast-enhancing layer set to Multiply blending mode, and I felt that at 100% it darkened the image too much. I tried a more restrictive mask, Super Darks, to confine the darkening effect to fewer pixels, but its darkening effect on the overall image turned out to be too weak. The best option then was to use the Shadow Darks as the layer mask, but turn down its opacity to lessen its darkening effect somewhat.

Figure 17



Adjusting layer opacity with the triple play is particularly convenient since there are two layers doing opposite things with regard to brightness. The layer in Screen blending mode is lightening the image and the layer in Multiply blending mode is darkening it. So it's possible to adjust overall image brightness, either darker or lighter, simply by turning down the opacity of the layer whose effect is too strong. A little care needs to be exercised, however. Lowering the opacity of the layer with the blurred luminosity mask also means turning down the detail enhancement that this layer facilitates, so it's somewhat of a balancing act to find what works best. If opacity of either layer needs to be turned down significantly—more than 50%— it's probably best to think about trying a different luminosity mask or combination of masks.

Fine-Tuning: Adjusting the Mask with a Levels Adjustment

Another possibility to consider for fine-tuning the effect of an adjustment layer is to adjust the tones in the mask itself. Remembering that black conceals and white reveals with layer masks, the layer's adjustment will be more pronounced if the mask is made whiter and will be less pronounced if the mask is made blacker.

The menu command Image > Adjustments allows the mask to be adjusted using Curves, Levels, or Brightness/Contrast dialogs. I generally prefer to use Levels for adjusting the mask as it's relatively straightforward. *Figure 18* shows the Levels dialog box. Moving either the shadows or mid-tones sliders to the right darkens the mask thereby concealing the layer's adjustment. Moving either the mid-tones or highlight sliders to the left lightens the mask, revealing the adjustment.

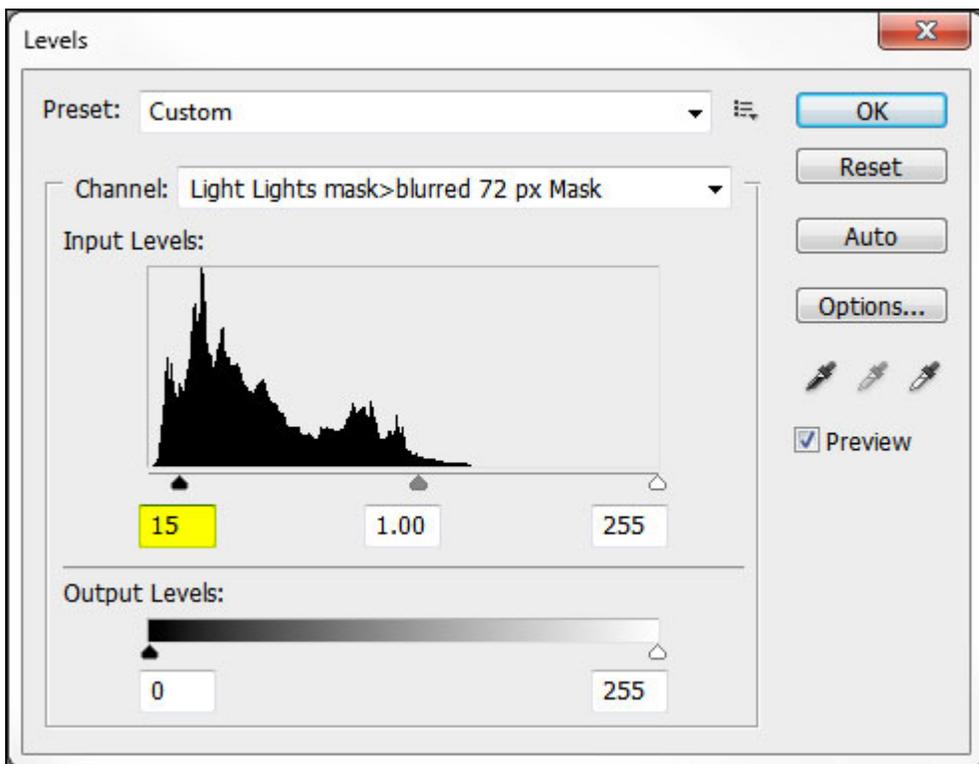
In the triple play for the lighter tones, I felt that the darkening from the Multiply blend mode was affecting the dark values in the image a bit too much; they became too dark. To counteract this, I used a Levels adjustment as follows to darken the mask's dark tones thereby revealing less of the Multiply blending mode in the dark tones in the image.

1. Click on the mask to make sure it's surrounded by the framing brackets.
2. From the menu bar, select Image > Adjustments > Levels...
3. The shadows slider was moved from 0 to 15 (yellow highlight, *Figure 18*). This had the effect of making all dark gray tones in the mask with a value of 15 or less pure black.

NOTE: These mask adjustments aren't done on adjustment layers, so they're essentially irreversible, except by going back to a previous history state before the adjustment occurred.

The real benefit of performing a Levels adjustment on a layer mask is that, unlike with changing layer opacity, the effect of the adjustment can target specific tones. Here I excluded just the darkest tones from the Multiply blending-mode adjustment. The

Figure 18



adjustment to the lighter tones was essentially unchanged since the lighter tones in mask, which were revealing the lighter tones in the image, were not affected by moving the shadows slider. *Figure 19a* shows the mask before the Levels adjustment and *Figure 19b* shows the mask after the adjustment. The darkening of the dark tones is evident while the lighter values are barely affected. Therefore the darkening associated with the Multiply blend mode in the dark values of the image is decreased while the darkening remains intact in the image's lighter tones. To be really fancy with this adjustment, it would be possible to move the shadow slider right and the mid-tones slider left to make the lights-sparing quality of the adjustment even more pronounced.

Being able to adjust a layer mask in this manner is another benefit of using luminosity masks as layer masks. By having the characteristic luminosity mask gradation of tones in the mask, a Levels adjustment can effectively change which tones in the image are adjusted by the adjustment layer. If this were a typical layer mask with just pure white and pure black tones, the Levels adjustment would be completely unable to change these two tones and thereby shift the adjustment. In other words, a mask with shades of gray is what makes a Levels adjustment on the mask possible.

It should be noted that Photoshop CS4 and CS5 have the Masks panel for adjusting masks. However, its main purpose is to better control the edges of the mask to facilitate blending the adjustment into the image. When using luminosity masks as layer masks, its utility is somewhat limited since luminosity masks inherently create self-blending adjustments. The Levels adjustment described here makes changes that are significantly more useful to the light and dark areas of the mask than can be made using the Masks panel.

Figure 19a

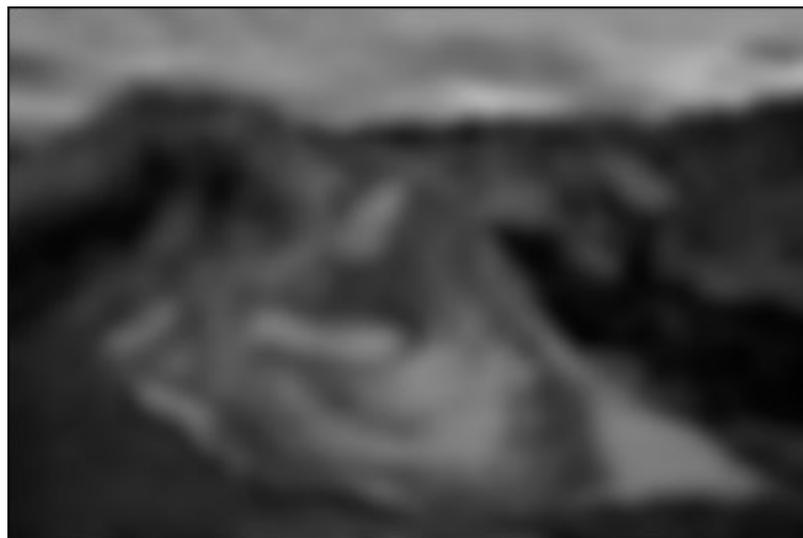
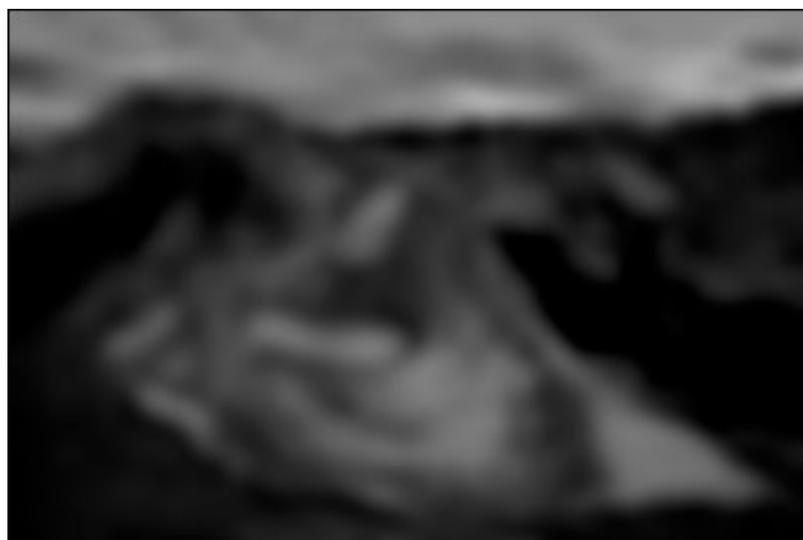


Figure 19b



Fine-Tuning: Luminosity Painting the Mask

Another option for fine-tuning the layer mask is to luminosity paint the mask itself. Luminosity painting is the process of applying black or white paint through a luminosity selection to selectively darken or lighten an image. The luminosity selection determines exactly which pixels receive paint, how much, and effectively blends the painted adjustment into the image via the self-feathering quality of the luminosity selection painted through. It is done on a special Burn/Dodge layer that effectively darkens or lightens the image below depending on which color is used.

Luminosity painting the layer mask employees the concept of painting through a luminosity selection, but instead of painting onto the Burn/Dodge layer, paint is applied directly to the layer mask. White paint on the mask reveals the layer's adjustment more in the image and black conceals it more. By applying the paint through a luminosity selection, great precision is possible as to which pixels receive paint and are changed. This takes adjusting the mask another step beyond the Levels adjustment discussed above. Luminosity painting the mask not only targets specific tones in the mask, it also targets these tones in specific areas of the mask. Even more, the degree to which tones are changed can be highly variable depending on how many brushstrokes are applied in the selected areas. Painted mask adjustments, therefore, can occur in a very local and precise manner.

This method of adjusting the mask was also used in this example image. In the triple play for the light tones, the Bright Lights mask on the contrast-enhancing layer set to Screen blending mode over-lightened some areas in the sky. While I liked the brightness and detail this layer brought to the rocks, in parts of the sky I felt it went a bit too far. I therefore needed to conceal the excess lightening by painting black on the mask. Here are the steps I followed:

1. Select the brush tool (B).
2. Click on the layer mask to be painted and make sure it's surrounded by the framing brackets.
3. Ctrl+click (Mac: Cmd+click) on the luminosity mask I want to paint through. In this case, it was the same mask (Bright Lights) that was masking the layer, so I simply did the Ctrl+click on the layer mask.
4. Hide the marching ants by typing Ctrl+H (Mac: Cmd+H). This makes it so the ants don't interfere with evaluating the painting's effect on the image.
5. Make sure that the foreground colors is set to black. This is the painting color I'll need in order to conceal the layer's Screen blending mode in the areas I paint.
6. Set brush opacity to around 20% to start.
7. Paint over areas on the mask where I want to hide the Screen blending mode, which will in turn make these areas in the image darker.
8. Type Ctrl+D (Mac: Cmd+D) to turn off the selection when finished painting.

A couple of things are worth noting when luminosity painting a layer mask. The first is that while any selection that properly selects the tones that need adjusting in the mask could be used, often it's the mask already in place on the adjustment

layer that is the right mask (selection) to paint through. Simply Ctrl+click (Mac: Cmd+click) on the layer mask to load it as a selection.

The second thing to keep in mind is to watch the image while painting, not the mask. Even though Alt+click (Mac: Opt+click) on the mask will show it in Photoshop's main viewing window, the amount of paint applied to the mask will be determined by how the image looks, and viewing the actual composite image is the best way to determine how much paint to apply to the layer mask.

Figure 20a



The original mask is shown in Figure 20a and the painted mask is shown in Figure 20b.

Figure 20b



By painting through the Bright Lights selection on to the Bright Lights layer mask, the paint strokes were confined to the exact areas where I wanted the Screen blending mode more concealed (the lower part of the sky). Also, on the left side of the image, I decided I wanted the sky a little brighter, so I used a couple of strokes of white paint to lighten this area just a bit to let the Screen blending mode show through more. The excellent blending of the painted areas resulting from painting through a luminosity mask means that the blending-mode adjustment will continue to blend perfectly into the image as well.

Fine-Tuning: Adjusting the Adjustment Layer's Adjustment

While not used on this particular image, it should also be possible to provide some fine-tuning of the triple play by making an adjustment in the layer's dialog box. The triple play was performed on an unadjusted Curves adjustment layer, and there's nothing preventing an actual adjustment of this layer if it benefits the image.

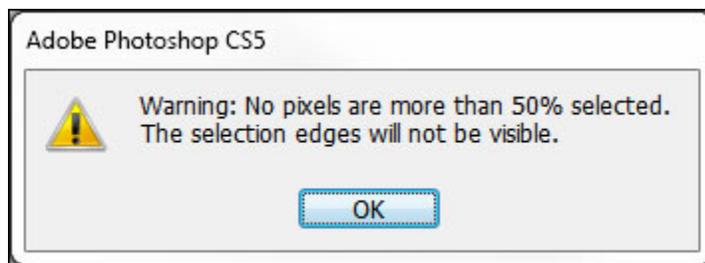
The Triple Play Actions

While this tutorial is somewhat lengthy, hopefully the information provides readers enough understanding to use the technique with their images. Since the results of the triply play can be very pleasing, hopefully the complexity won't discourage photographers from trying it. As with most things in Photoshop, having a shortcut key or an action to do the various steps greatly improves the ease of use. That's the idea behind the triple play actions, which were included in the download you received. They take all the steps described above, except fine-tuning, and create the necessary blending-mode adjustment layers and luminosity mask to produce the triple play effect on an image. To load the action sets into Photoshop, first open Photoshop, then double-click each action set in the ZIP folder. It should automatically load into Photoshop's Actions panel. Sometimes it's necessary to move the action files out of the ZIP folder to have them load properly.

There are several important things to know about using the triple play actions.

1. These actions rely on the TK-LumMasks(Channels) action set to create the various luminosity masks needed for the triple play. This action set was also included in the downloaded ZIP file, so be sure it is also loaded into Photoshop's Actions panel before running any of the triple play actions.
2. Depending on the tonal values in the image, as the triple play actions execute, you may occasionally get the message in [Figure 21](#). The warning box is essentially saying that since no pixels are greater than 50% selected, the marching ants will not appear. This is not a problem. Simply click "OK" and let the action continue to run. The marching ants aren't going to be a factor with these actions. The luminosity masks will still be created correctly despite this warning, so just click "OK" and let the action keep going.

Figure 21



3. When an action finishes running, the image will appear unchanged. As explained below, there will be lots of new layers on the Layers panel when the action finishes its run, but the visibility of all the new layers is turned off, hiding their effect. It's up to the user to decide which layers to turn on to finish the triple play on the image. So after the action finishes, go to the Layers panel to see the new layers and follow the directions below to actually create the triple play effect on the image.

As described above, there are two different ways to run the triple play—one way affects the light values in the image and the other the dark values. As such, there are two sets of actions (*Figure 22a and 22b*).

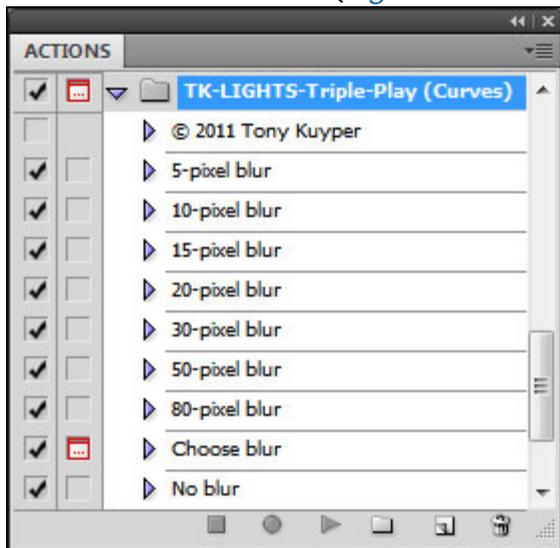


Figure 22a

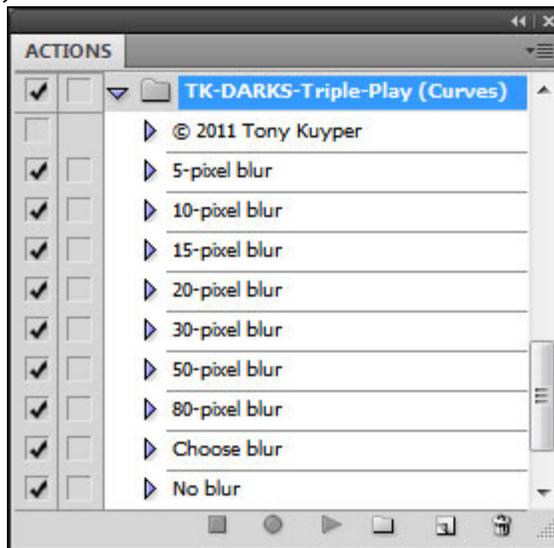


Figure 22b

TK-LIGHTS-Triple-Play runs all the steps using various luminosity masks to improve brightness, contrast, and detail definition *in the lighter tones* in the image. These actions will use the Lights-series of luminosity masks and create the necessary adjustment layers and blending modes for running the triple play on the light tones in the image.

TK-DARKS-Triple-Play runs all the steps using various luminosity masks to improve brightness, contrast, and detail definition *in the darker tones* in the image. These actions will use the Darks-series of luminosity masks and create the necessary adjustment layers and blending modes for running the triple play on the dark tones in the image.

NOTE: The triple play actions have been further divided into Curves and Levels. If you're preferred adjustment layers are Curves, use the two sets with "(Curves)" in the title. If you prefer Levels adjustments, use the sets with "(Levels)" in the title.

The "pixel blur" in the action names refers to the pixel radius of the Gaussian blur used in the triple play. Remember, the rule of thumb is to start off choosing a pixel radius of one-half to one times number of megapixels of the camera's sensor that took the image. A picture captured by a 21-megapixel camera could start off using a 10- or 20-pixel blur action. An image from an 18-megapixel camera could try the 10- or 15-pixel blur actions. Also remember that the blur helps to enhance detail. Larger pixel blur values provide detail enhancement plus increased texture, which works with some images, so there are a variety of choices for the pixel radius blur in the actions. As with all things in Photoshop, it's good to experiment a little and see what works best. It's easy to turn off the resulting layers after the actions run and try another action with a different blur to see what you like.

Using an Action from the TK-LIGHTS-Triple-Play Action Set

Figure 23

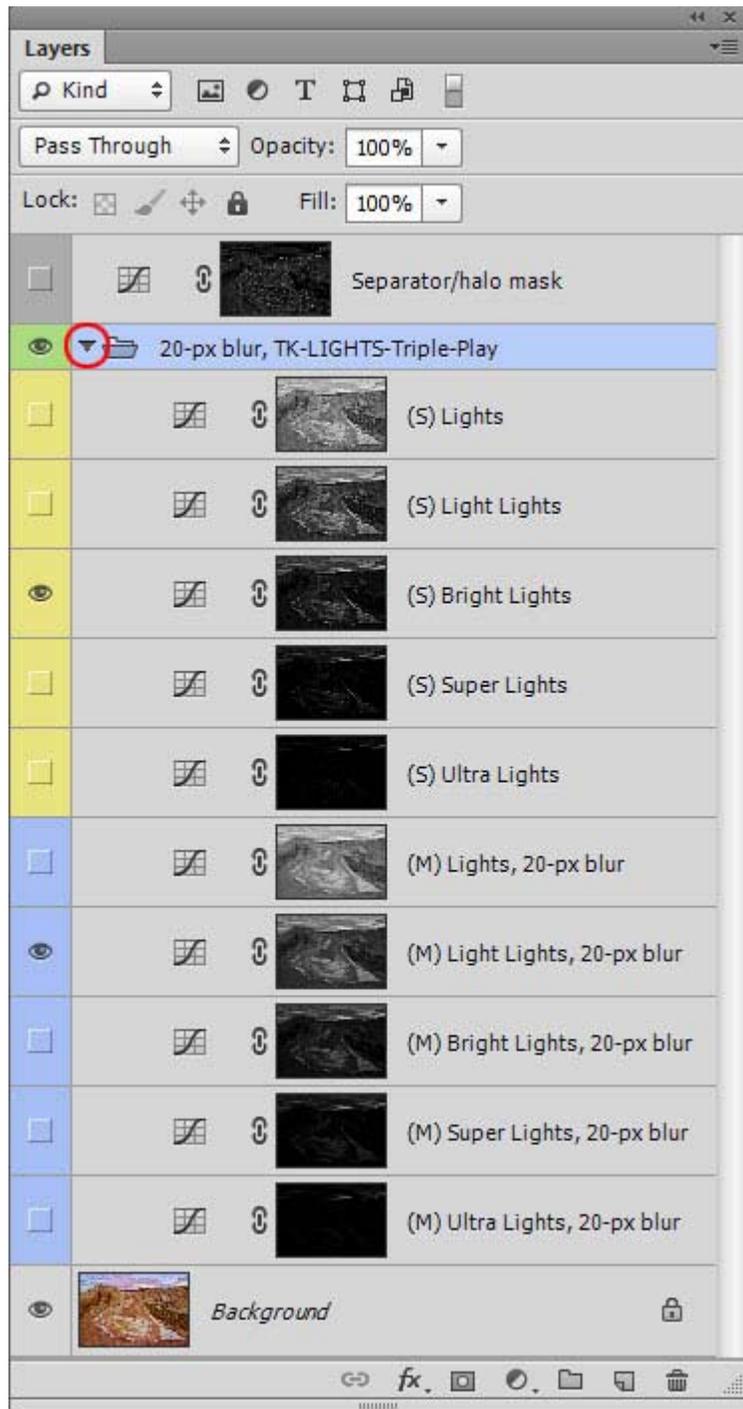


Figure 23 shows the layers that will be created in the Layers panel after running any one of the actions in the TK-LIGHTS-Triple-Play action set. While this looks a bit complex, the reality is that you only need to turn on the visibility of two layers—a blue one and a yellow one—to complete a triple play on the lighter tones in the image. This will make more sense once you understand these layers

First, the layer with the green eyeball is designating a layer group, and the ten (10) indented layers below it (the ones with the yellow and blue colored sides) are all part of this group. The group name "20-px blur, TK-LIGHTS-Triple-Play" is stating that the group contains the necessary layers for a triple play on the lighter tones in the image and that a 20-pixel radius was used for the Gaussian blur on the Multiply blending-mode adjustment layers.

There are five blue-sided layers and five yellow-sided layers in the group. Each set of five similarly colored layers is masked by a specific luminosity mask. The name of the luminosity mask is part of the layer name.

Also, part of the layer name is an (S) or an (M) that means the following:

- (S)** = blending mode set to Screen
- (M)** = blending mode set to Multiply

All the blue-sided layers are set to Multiply blending mode, which darkens the image in the pixels revealed by the mask, and, in this case, have had a 20-pixel Gaussian blur applied to the luminosity layer mask.

All the yellow-sided layers are set to Screen blending mode, which lightens the image in pixels revealed by the mask. No blur is applied to the luminosity layer masks on the yellow-sided layers.

Remember, the triple play for lighter tones consists of two unadjusted curves adjustment layers. The bottom layer is set to Multiply blending mode and the top layer is set to Screen blending mode. Let's review the bottom layer first. A luminosity mask from the Lights-series of luminosity masks is added to the bottom layer so that just lighter tones are darkened by the Multiply blending mode. The result is that the image looks a bit soft and blurry. Gaussian blur is added to the mask on the bottom layer which not only removes the blurriness, but also enhances detail definition. So, hopefully you can see that any of the blue-sided layers created by the action can serve as the bottom layer for the LIGHTS triple play—they are all an unadjusted Curves adjustment layer set to Multiply blending mode, with a Lights-series luminosity mask that has been Gaussian blurred (20-pixels in this example).

The top layer in the triple play for the light tones is also an unadjusted Curves adjustment layer. It is set to Screen blending mode, which lightens the image, and has a Light-series luminosity mask to determine which pixels get lightened. No blur is applied to the mask on the top layer. All the yellow-sided layers match this description, so any one could serve as the top layer for the LIGHTS triple play.

So instead of having to think through the process of creating the layers in the right order with the right blending mode with the right luminosity mask and the right blur (or no blur), all the possibilities are contained in this one group. ***It's just necessary to choose a blue-sided layer for the bottom layer and a yellow-sided layer for the top layer, and the LIGHTS triple play is complete.***

You choose the bottom and top layers for the triple play simply by making a blue-sided layer and yellow-sided layer visible by clicking in the box on the left to turn on the eyeball icon. In this example, I choose the Light Lights for the bottom layer and the Bright Lights for the top layer. Obviously there are many possible combinations so here are a few rules to guide you:

1. If the image can handle a lot of darkening in its lighter tones, then the Lights or Light Lights blue layer should be tried.
2. If the light tones don't need to be darkened much and the goal is mainly to enhance detail, the Bright Lights or Super Lights would be good starting choices for the blue layer.
3. Once the blue layer is chosen, the yellow layer can be chosen. Again there are some general guidelines. If the goal is to only enhance detail, then the mask on the blue layer and yellow layer should match. So if the Light Lights was chosen as the blue layer, then the Light Lights yellow layer should also be made visible.
4. If the goal is to darken the highlights while increasing contrast, then the next more-restrictive yellow layer mask should be made visible. That's what was

done in this example. Light Lights was the blue layer and Bright Lights was the yellow layer. This will cause the highlights to darken some.

5. If the goal is to lighten the highlights, then the adjacent less-restrictive mask can be chosen for the yellow visible layer, example—Light Lights blue layer and Lights yellow layer.

The eyeball in the green box at the top of the group toggles the visibility of the entire group on and off. As different combinations of blue and yellow layers are tried, it's helpful to look back to the original image to get a better idea of how the particular combination is affecting the image. Clicking the eyeball in the green box on the layer identifying the group turns the entire triple play off, and clicking the green box turns it back on. The triple play affects brightness, contrast, and detail definition, and toggling the triple play on and off using the green eyeball/green box is a good way to see how this is happening with the various layer combinations in the group.

Once the layers are chosen, don't forget about fine-tuning the triple play. Layer opacity, a Levels adjustment to the masks, luminosity painting the masks, and adjusting the adjustment discussed above are possible ways to do this. When adjusting layer opacity, don't forget that there is an opacity slider associated with the group as well as with the individual adjustment layers in the group. Clicking on the green-sided group layer, the one with the file folder icon, allows the opacity adjustment to be applied to the entire group.

After you have made your layer choices, you can compact the entire group by clicking the triangle on the left side of the layer (red circle, *Figure 23*). At a later time if you want to return and change the blue and yellow layer choices, you can click the triangle again to open the group.

It is important to note that the group, even though it's made up entirely of unadjusted adjustment layers, will increase file size. Once you're satisfied with your layer choices, it's a good idea to discard the layers that aren't being used in order to reduce files size. It's also possible to simply drag the chosen layers outside the group and then discard the group and the unused layers inside.

The last thing to mention with regard to the TK-LIGHTS-Triple-Play actions is that a "Separator/halo mask" layer is placed above the group containing the layers for the triple play. This is another unadjusted Curves adjustment layer with Normal blending mode, so it has no effect on the image. If new layers are added to the Layers panel after the triple play group has been installed, Photoshop often puts them inside the group instead of above the group. This is usually not desired and can be confusing. So if additional layers are added to the Layers panel after the triple play group is in place, click on the "Separator/halo mask" layer first before creating the new layer. This way the new layer will always be added above the triple play group. (The halo mask will be discussed in the "Painting Away Halos" section later.)

Using an Action from the TK-DARKS-Triple-Play Action Set

Once you understand how to use the TK-LIGHTS-Triple-Play action set described above, the TK-DARKS-Triple-Play actions will be quite familiar. *Figure 24* shows the layers that are added to the Layers panel after running one of the actions in the TK-DARKS-Triple-Play action set.

The layer with the purple box on the left side once again names a group composed of ten (10) luminosity-masked Curves adjustment layers. The blending modes of the layers are the only adjustment to these layers. The blending mode corresponds to the (S) and (M) in the layers' names.

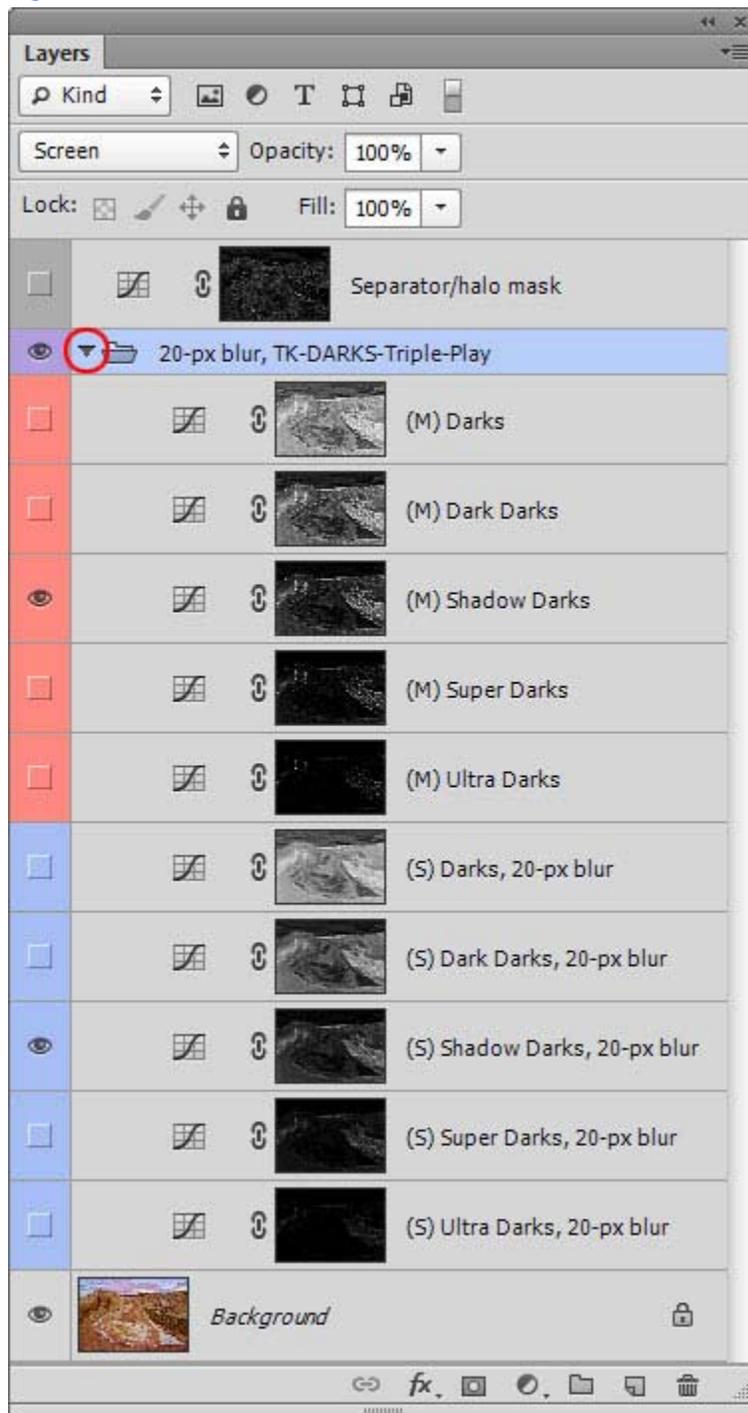
- (S)** = blending mode set to Screen
- (M)** = blending mode set to Multiply

The names of the layers include the name of the luminosity mask masking the layer, and, for the blue-sided layers, the name also tells the pixel radius of the Gaussian blur applied to the mask. So the blue-sided layers have had their masks blurred and the red-sided layers have not. The masks used on these layers all come from the Darks-series, which means that mostly the darker tones in the image will be affected when visibility of these layers is turned on.

All the blue layers have a blurred Darks-series luminosity mask and a blending mode set to Screen, which lightens the image in the pixels revealed by the mask. As such, any of the blue layers can serve as the bottom layer for a triple play on the dark tones.

All the red layers are set to Multiply blending mode, which darkens the image, and are filtered by an unblurred Darks-series luminosity mask. So any of the red layers can serve as the top layer in a triple play on the dark tones.

Figure 24



Therefore, in order to complete a triple play on the dark tones, it's only necessary to turn on the visibility of one blue layer and one red layer. The action creates all the different possibilities for the two layers needed for a triple play on the dark tones, and it's just a matter of choosing which two, a blue one and a red one, work best and are preferred.

When choosing which layers to turn on, similar rules apply that were used for the LIGHTS triple play.

1. Turning on the blue Darks or Dark Darks layers will provide more pronounced lightening of the dark tones. Turning on the Shadow Darks or Super Darks will provide a more subtle effect. The effect of turning on the blue Ultra Darks layer varies. The images need to have some very dark tones to see an effect of turning on the Ultra Darks blue layer.
2. Turning on a red layer that matches the blue layer, for example Shadow Darks (blue) and Shadow Darks (red), as seen in [Figure 24](#), enhances detail but doesn't change the overall balance of light in the image much.
3. Turning on a red layer that is less restrictive (includes more pixels its mask) compared to the blue layer—Shadow Darks (blue) and Dark Darks (red), for example—means that the image will experience net darkening from the triple play. In this case, the Multiply-mode red layer has more pixels selected than the Screen-mode blue layer, so darkening predominates.
4. Turning on a red layer that is more-restrictive (selects fewer pixels) compared to the blue layer—Shadow Darks (blue) and Super Darks (red), for example—will lead to net lightening since there are more pixels selected by the blue layer's Screen blending mode than by the red layer's Multiply blending mode.

Fine-tuning the triple play can alter these brightness changes somewhat if needed. It's always a good idea to experiment a bit to see what combination of masks is preferred and if fine-tuning can enhance the effect further.

Toggling the purple eyeball of the group layer on and off also toggles the visible layers in the group on and off so a comparison with the unadjusted image is readily available.

The opacity of the entire group can be adjusted by first clicking on the purple layer and then lowering the group's opacity as desired.

The "Separator/halo mask" layer at the very top once again insures that future layers added to the Layers panel can easily be added to the top of the panel. By first clicking on the "Separator/halo mask" layer before adding the new layer, the new layer automatically sits on top of the "Separator/halo mask" layer instead of accidentally ending up inside the group.

Painting Away Halos

One consequence of using blurred luminosity masks is the possibility that the blending-mode adjustment layer with the blurred mask can sometimes spill its tonal change into areas of the image where it's not wanted. For example, in the LIGHTS triple play, the blurred luminosity mask is on an adjustment layer set to Multiply blending mode (blue-sided layer). Any part of the image revealed by this blurred mask will be darkened to some degree. This may or may not be desired depending on the image and where the darkening occurs. An undesired change would be a noticeably dark halo in areas that weren't meant to be darkened. Similarly, the DARKS triple play can sometimes cause a lightening halo when the blurred luminosity mask on its Screen blending-mode adjustment layer (blue-sided layer, again) leaks its lightening effect outside the normally fixed luminosity mask boundaries. Light halos are usually more obvious than the dark ones and either can occur where there is a strong tonal change or in areas where halos tend to be obvious, like in a mono-colored areas of the image, such as the sky.

The way to correct these halos is to paint black onto the blurred luminosity mask, which caused the halos, in the areas where the halos occur. Black paint on the mask will prevent the tonal change of the blending mode that's causing the halo from being transmitted to the image. The trick, however, is add the paint black in a way that only blocks the halo while at the same time preserving the beneficial effects that the layer and its blurred mask are producing for the image. In other words, apply paint black just in the halo area, make sure it blends perfectly into the mask, and, except for removing the halo, don't leave any trace of the mask-painting on the image itself.

"Luminosity Painting the Mask," as described above in the fine-tuning section, is the way to do this, and with the right selection to paint through and a little care, this is actually a pretty straightforward procedure. The hard part is creating the right mask, so the actions are configured to create the necessary halo-defining mask (red rectangle, [Figure 25](#)) as the layer mask on the "Separator/halo mask" layer.

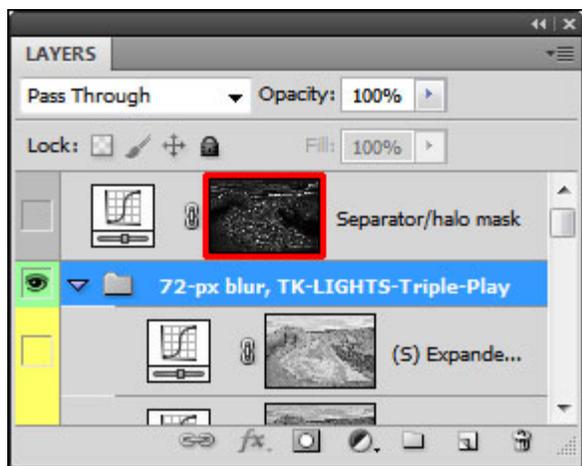


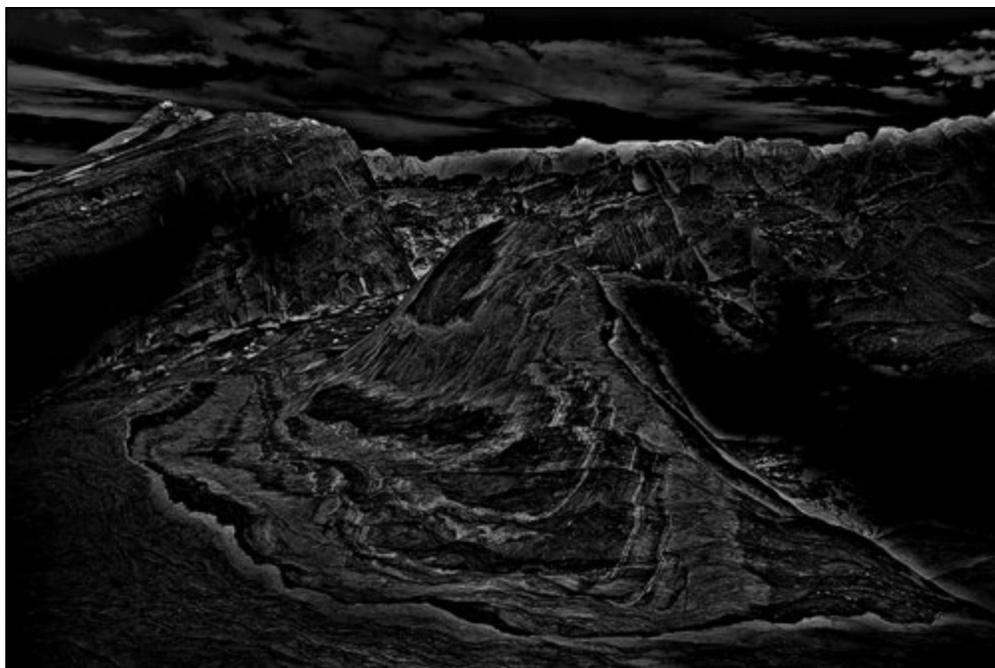
Figure 25

To see this mask, Alt+click (Mac: Opt+click) on the mask itself (inside the red rectangle) to make it visible in Photoshop's main viewing window. This mask selects the pixel differences between the blurred and unblurred masks and takes into account the pixel radius of the Gaussian blur applied to the blurred mask. White in the mask shows potential halo areas in the image. (NOTE: The mask shows where halos may occur, but not the tonal change associated with the halo. Tonal change is determined by the type of triple play: light halos occur with the DARKS triple play and dark halos with the LIGHTS triple play.) Remember, though, not all white

areas in the mask represent halo problems in the image. More often than not, the white areas in the halo mask actually contribute to the increased detail seen in the image, and they are an important feature in why the triple play is so effective at improving the image. The only halos that need to be corrected are those that seem unnatural or out of place in the image. While it's instructive to be able to view the halo mask and to see where halos may appear in the image, if the image looks good, no halo-reducing action is necessary, even if the mask has a lot of white in it.

Figure 26 shows the halo mask for the image used in this tutorial. It was created for a "Choose-blur" LIGHTS triple play which used a 72-pixel Gaussian blur. This is a significant amount of blur and it created a darkening halo that was just perceptible in the image along the tops of the background rocks adjacent to the sky. The white areas of the halo mask show where this darkening would be expected in the image, and indeed, comparing *Figure 12* to *Figure 8* (see [online rollover](#)), this is visible. While dark halos are generally less problematic than light ones, I opted to remove this halo from the final version of the image (see [online rollover](#)) using the following procedure:

Figure 26



1. Ctrl+click (Mac: Cmd+click) on the thumbnail of the halo mask on the "Separator/halo mask" layer.
2. Type Ctrl+H (Mac: Cmd+H) to hide the marching ants.
3. Click on the blurred layer mask on the visible blue-sided layer, the one that's causing the halo to occur. Framing brackets should appear around the mask.
4. Type "B" to select the brush tool. Set opacity to 100% and hardness to zero. Adjust brush size with the brackets, left bracket ([)=smaller and right bracket (])=larger, so the brush circle is about the size of the halo.
5. Type "D" to select the default painting colors and then type "X" to invert them. The foreground color should be black.
6. While looking at the image, paint over the halo with the brush using the brush's circle to guide where the paint is applied. Usually one to three passes with a 100% opacity brush is enough to remove the halo.
7. Type Ctrl+D (Mac: Cmd+D) to deselect the selection.

The halo mask is a second-generation luminosity mask. It was made from the luminosity masks created as part of the triple play, which were themselves made from the original image. The outlines of the image are clearly visible in the mask. Loading this mask as a selection and painting through it is the "Luminosity Painting the Mask" technique discussed above. The tones in the mask are dictating where paint gets applied, in this case to the halo-creating pixels of the blurred mask. White tones in the mask indicate selected pixels, so painting through the mask's corresponding selection applies black paint just to the halo, effectively eliminating it on the blurred layer by blocking that layer's blending-mode adjustment. Black areas on the mask are non-selected pixels and block paint from being applied, so the non-halo areas continue to reveal the blending mode adjustment.

That said, it's important to be a bit careful when using luminosity painting to remove halos. While the halo mask clearly shows white in the halo area of the image, which needs to be painted away, there may also be white and light gray in other nearby parts of the mask. Careless brushstrokes could affect these areas as well. Choosing an appropriately sized brush and being a bit conscientious where the paint is applied makes removing the halo a fairly easy procedure with a predictably good outcome.

IMPORTANT NOTE: Using this halo reduction method effectively removes halos encountered with the triple play. It will not, however, remove halos caused by other Photoshop techniques, such as sharpening. The halo mask is created from the actual masks on the triple play layers, and as such, will only work properly on the blurred masks (blue-sided layers) in the group below it.

The halo mask is actually quite easy to make. The key to getting the necessary contrast to separate the halo from the image's other elements is to use the "Adjusting the Mask with a Levels Adjustment" technique, also described above. Here's how to do it:

1. Load the blurred mask on the "Lights" layer in the LIGHTS triple play or the "Darks" layer in the DARKS triple play as a selection (Ctrl+click, Mac: Cmd+click). Reminder: Blurred masks are on the blue-sided layers.
2. Subtract (Alt+click, Mac: Opt+click) the corresponding unblurred mask higher in the same group, which will be on a red- or yellow-sided layer.
3. Save this new selection on the Channels panel.
4. Deselect the selection; turn off the marching ants (Ctrl+D, Mac: Cmd+D).
5. Click on the thumbnail of the mask on the Channels panel. The mask should now be visible in Photoshop's main viewing window.
6. On the menu bar, click through Image > Adjustments > Levels... to open the Levels dialog box.
7. In the Input Levels section of the dialog box type "50" for the shadows, "0.9" for the mid-tones, and "128" for the highlights and click OK. This Levels-adjusted mask is the halo mask created by the actions.

Following this procedure and changing the numbers in the Levels dialog box would allow the creation of a slightly different halo mask if that is necessary.

Workflow Considerations

Like the techniques discussed in most of the other tutorials, the triple play is not a one-click solution to image processing. It's an advanced technique that allows users new ways to control the light in their images and hopefully improve them to a significant degree. The actions greatly simplify the steps to make the various layers, but it will, as always, be the photographer that decides which layers to use and whether or not the layers or their masks are modified.

In terms of brightness changes, the triple play was devised to work best to darken light tones and lighten dark tones. However, depending on which non-blurred (non-blue) mask is chosen in the layer group, the image can actually be lightened or darkened regardless of which triple play, LIGHTS or DARKS, is being used. There is, unexpectedly, a lot more latitude in the layer groups than first imagined.

The triple play can be run on both the light and dark ends of the tonal spectrum. Different layers, blending modes, and masks are needed for the two ends, but the actions easily take care of this. It's usually worth running the action on both ends to see what might be accomplished. Even if the tonal values don't need to change, the triple play can still enhance detail by choosing the two layers in the group masked by the same luminosity mask.

Running the triple play for both the Lights and the Darks creates many extra layers on the Layers panel, but the groups can be easily collapsed with the triangle on the left side of the group layer (red circle, [Figure 23](#) and [24](#)). Once collapsed, the groups require considerably less space on the Layers panel ([Figure 27](#)). Additionally, once you've decided which layers are to be visible in the triple play, dragging them out of the group and deleting the group reduces file size. If a group is deleted, its "Separator/halo mask" layer can be deleted too.

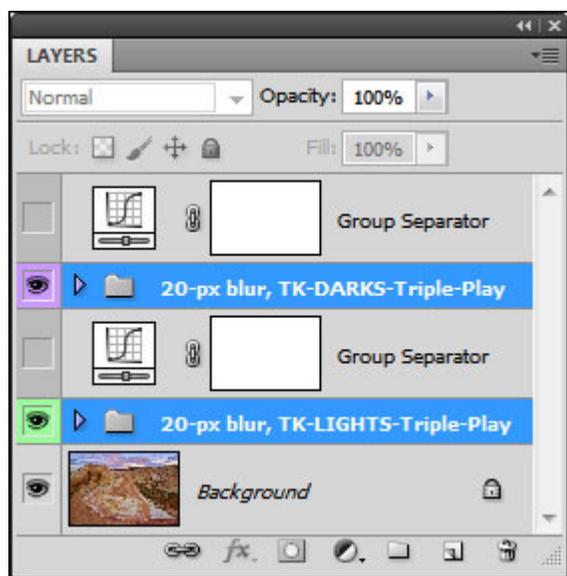


Figure 27

A good place to start in experimenting with the triple play actions is on a "finished" image. This will provide a sense for how the actions work, what the triple play can do, and will make it easier to apply the technique to other images and at different points in development.

Although it was mentioned above, it's worth reiterating that fine-tuning the triple play is something to consider if the effect isn't just right. Despite their overall flexibility, on any given layer, the luminosity masks mask specific tones that may not correspond exactly with the desired adjustment. The fine-tuning procedures (opacity changes, Levels adjustments of masks, luminosity painting masks, and adjusting the layer's adjustment dialog) can usually make things look even better.

In each action set there is a "Choose blur" action that allows the user to input the Gaussian blur pixel radius as the action executes. This option allows experiments with the Gaussian blur while the action is running. Also in each action set there is a "No blur" action. This creates all the same layers with the same color-coding as the other actions in the group, except that no Gaussian blur is added to the blue layers. This option is still another way to experiment, this time with layer visibility when there is no Gaussian blur (Yes, it works in some combinations!) or to add a Gaussian blur to the blue masks in different amounts and undo it and try again if it's not quite right. Because this action doesn't create blurred masks, no halo mask is created either. Don't forget though, that until the mask on the blue layer is blurred, the triple play may not be as effective, and, if layers with the same masks are made visible, they may simply cancel each other out with no change to the image.

Finally, be careful to not overuse the technique. Enhancing detail can also bring out grain and noise, and repeated use could exaggerate these elements. I've found that using the triple play once on the light tones and once on the dark tones and then using other techniques as needed works pretty well. In fact, as discussed below, when used early in the development process, the triple play finishes much of the image's development and only small changes are necessary afterwards.

Sharpening Implications

It's important to remember that the triple play is not a sharpening technique. It does NOT work only on the tonal edges, like with sharpening algorithms. It affects all tones revealed by the masks. While the image will certainly look sharper after running the triple play on the light and dark tones, it's only the improvement in the internal contrast that is making the image look this way. So even though the triple play makes the image appear sharper, it really hasn't been sharpened, at least not in the traditional definition of sharpening. As such, sharpening procedures for a print usually do not need to be altered. However, realize that after triple playing the light and dark tones, the amount of apparent detail seen in the prints may be greatly increased. Some people may find this excessive, but many will like the added definition this gives when viewing the prints up close. I personally like seeing this level of crisp detail in my images, but if it feels like it's too much, less image sharpening can always be applied when sharpening for the final print.

In JPEG images destined for web viewing, dialing back the amount of sharpness applied to the web version of the image is usually necessary as the enhanced detail generally can't be accommodated in the smaller JPEG format. For my own mages using my "Less Halos" sharpening action, I usually cut the opacity of the #2 Sharpen Layer to 30-50 percent to keep the JPEG from looking over-sharpened, and sometimes even turn off the visibility of the #2 Sharpen Layer entirely. It will depend on how much texture and detail were added with the triple play and this in turn depends on the pixel radius used for the Gaussian blur. A layer's opacity setting is easy to adjust, so as long as the JPEG is sharpened on a duplicate layer, it's easy to lower that layer's opacity in order to decrease the sharpening.

Updates Based on Experience

Writing this tutorial and experimenting with the triple play technique have gone hand-in-hand. It's taken a couple of months to complete the writing and illustrations, and during this time I've had the chance to try the technique and work with the actions on more images, mostly with success, gaining new insights into the process. Since most of what I've learned involves enhanced ways to use the triple play, I've decided to include the information in this updates section so as not to confuse readers in the main tutorial and as a way to provide easier editing in the future. So here are some additional thoughts and ways to experiment.

It's OK to turn on the visibility of multiple layers in the group.

This was perhaps the biggest surprise I found when using the actions. The triple play was thought to simply be a two-layer process. However, as I was toggling the visibility of adjustment layers on and off, figuring out the best combination of two (a blue-sided one and a yellow- or red-sided one) for the image, I would sometimes find, for example, that I had two blue-sided layers or two yellow-sided layers turned on, and the image looked better as a result. Obviously, this wasn't the original intent in recording the actions or setting up the groups in the manner in which the layers are situated, but it does work quite frequently to have at least three layers visible. What I'm finding is that if I have a layer turned on that isn't quite getting the image to where it needs to go and the next higher layer in the stack takes the adjustment too far, turning on the visibility of another like-colored layer below the first layer often gently pushes the adjustment to the right level. This makes sense since lower layers in the group mask fewer pixels than the upper layers, so they can tweak the adjustment just a bit more, if that's what's needed. Another option, and one I haven't tried yet, would be to duplicate the layer that almost works and simply reduce the opacity of the duplicate layer. While the tutorial is meant to provide practical knowledge about the triple play, the numerous layers in the triple play groups invite experimentation with tonal changes using more than just two visible layers. Do try something different!

Thoughts on choosing the pixel radius for the Gaussian blur.

For images from my 21-megapixel camera, a radius for the Gaussian blur of 10-20 pixels has been a good starting point. Smaller numbers can help to lessen halos, though this isn't an overriding concern since it's relatively easy to remove them using the halo mask created with the actions. There are many times that I like the enhanced detail and texture created by the larger radius blur, and depending on the image, halos don't even show up. In general, I'm finding that using a smaller blur radius with the LIGHTS triple play works well. Ten to fifteen pixels for my images files is about right. For the DARKS triple play, a larger pixel radius (20-30 or more) does a really nice job of enhancing detail in the dark areas of the image. Enhanced detail seems to work better with the dark tones than the light tones, so a large pixel radius for the DARKS triple play can be useful in accomplishing this. These are, however, just some general guidelines. Each image is its own creation, and I would encourage using the actions to quickly experiment to see what a different blur radius might do and to be open to what works best for a particular image.

Masking the group.

So what to do if different areas need different triple play results, like different textures? The answer is to use a layer mask on the group's layer. Run an action with a high pixel blur radius to increase texture in areas that need it and then add a layer mask to the group layer to reveal the texture in specific areas. Then run an action with a low blur radius and mask it with the inverse selection of the first layer for the other areas. This inverse mask is important, otherwise the triple play from the second group will be added to that revealed for the first group. [Figure 28](#) shows how this looks. The blue-highlighted layers (green eyeballs) are compacted groups for triple plays on the light tones. Layer masks have been added to the group layers, which essentially mask all the layers in the group to only reveal areas permitted by the group layer mask. The triple play with the 50-pixel blur increases texture in a specific part of the image. Highlights in the rest of the image only needed a 10-pixel blur triple play. To keep the 10-pixel triple play from adding to the 50-pixel triple play, the 10-pixel group was masked with the inverse mask of the 50-pixel group.

Early use of the triple play when developing the image in Photoshop simplifies workflow.

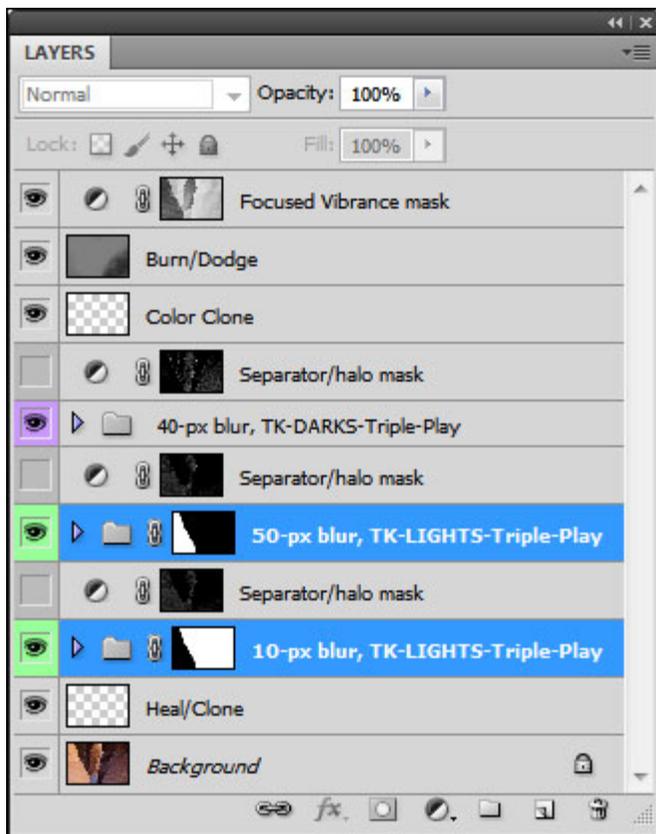


Figure 28

[Figure 28](#) is the complete Photoshop workflow for an image. In the RAW converter, the only adjustments were to hit "Auto," adjust color balance, turn off sharpening, and remove chromatic aberration. The rest was all done in Photoshop, with the triple plays taking care of the majority of the developing tasks. While the triple play frequently improves a finished image, it's also proving to be surprisingly useful early on, right after cloning and healing the converted RAW file. To a large extent, it simplifies the whole development process. The layer group offers many possible combinations, and it's unexpectedly easy to find just the right one for each image. Afterwards, only relatively minor details in image need additional attention. A small-size PSD file for [Figure 28](#) can be downloaded [here](#) for a closer look at the triple play layers for this image.

Another way to adjust halos.

The Separator/halo mask layer was originally intended to make adding additional layers to the layer stack more convenient and to provide a storage place for the halo mask, which could be used to paint away halos as described above. However, this layer has actually become quite useful as a halo-mitigation device on its own. The mask on this layer specifically targets the halo that can be created by turning on the visibility of at least one blurred and one un-blurred layer in the triple play group. If a triple play creates visible halos, it's easy to turn on the visibility of the Separator/halo mask layer and adjust the layer's adjustment to remove the halo. For example, the LIGHTS triple play can create dark halos. Turning on the visibility of the Separator/halo mask layer and pulling the layer's adjustment lighter effectively removes the dark halo.

There is little effect from the adjustment on the rest of the image since non-halo areas are concealed by the layer's mask. For a DARKS triple play, the adjustment would be to create a darkening adjustment for the Separator/halo mask layer to remove light halos. The amount of adjustment needed depends on many factors, but usually a small correction will suffice, especially if it's targeted to the area of greatest pixel concentration on the adjustment layer histogram. *Figure 29* shows a Curves adjustment for a Separator/halo mask layer for lightening a dark halo after a LIGHTS triple play. It's worth noting that removing halos in this manner can also slightly decrease the enhanced detail that comes from using the triple play, but it's usually easy to find the right balance in the adjustment to remove the halo while maintaining the desired effect from the triple play.

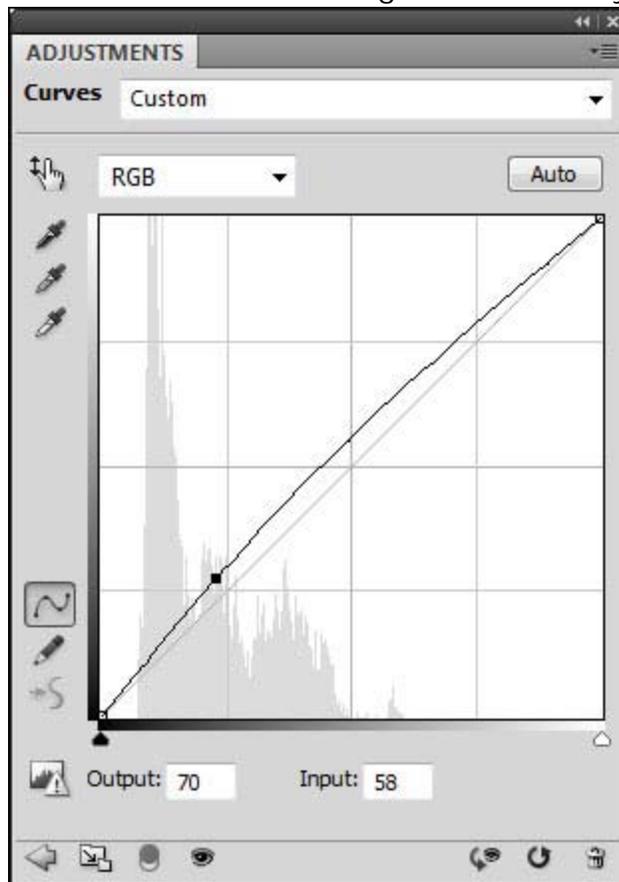


Figure 29