Why replace a sky? One of the primary concerns while making an image is to not have competing bright elements distract from the viewer's perception of your intended subject. Bright gray and pure blue skies often detract from the color, and other compositional elements of your picture. These bright regions tend to washout the vibrancy of your foreground subject and are void of information. Take a picture you like that has good color or texture and mask out the sky with your hand or a card. Makes a big perceptual difference. This is a good way to select an image for this treatment.

Sky Replacement Steps

For LightRoom users. Bridge is functionally identical to Light room so you can do the Bridge steps in Light Room and then either in Library or Develop modules go to PHOTO/EDIT IN/PHOTOSHOP. This puts your images into Photoshop.

Initial setup steps in Bridge

1  Select foreground with a blah or distracting sky.
2  Select sky/cloud image with matching sun angle. The two images do not have to be the same size or the same format. A jpeg sky and a TIFF foreground works fine. If you select a small jpeg sky image make sure you run an aggressive noise filter on it before using it. When you rescale to a larger image, noise you never noticed will become apparent.
3  If the foreground image is mid day don't pick a sunset sky. If the foreground is in bright sun don't pick a sky that is overcast. Keep the two in sync (shadow angles and color )so the viewer doesn't consider it a weird image.
4  Open foreground and run a chromatic aberration action. CA is a very big problem during a sky replacement since the fringe is difficult to select out and will leave you with small halos. If the foreground contains a sky you want to replace run a good noise filter in it also so the extraction process doesn't pick up the noise as a part of the foreground.
5  Correct either sky or foreground color temp to match. In the case of adding a sunset to a mid day foreground you need to warm up the foreground so it looks like it is being illuminated by the sunset/ride sky.
6  Crop skies to eliminate horizons. This step is not always required because the horizon can be covered by the foreground image in later steps.
7  Possibly horizontally flip the sky so the sun is shining on the correct side. **Edit-Transform-Horizontal Flip**. Then click return to get out of the Transform mode.
8  Open the two images from Bridge as two layers of the same image. Select the two images in Bridge then **Tools-Photoshop-Open As Layers** and the two images will open in Photoshop as one image with two layers.

Now you are in Photoshop – you will need the current Photoshop version that has the Background Eraser Tool and Select Focus for the third and fourth examples.

1  The first thing in Photoshop is to make a duplicate layer of the foreground. Command/Alt j.
2  You need to select the right tool for the right job. There are at least four PS tools that can extract a sky from the foreground image.
   a.  **Quick Selection Tool** for simple images like a landscape with a well defined horizon line separating the sky. In conjunction with Refine Edge this is the most likely solution.
   b.  **Select-Color-Range** works well when a sky is just a few tones of blue or gray that contrast with the foreground subject's colors. Will work with more complex foregrounds like sky through trees. Remember that if the foreground contains a white object it will be partially selected no mater what color you are masking out. This will require so additional editing of the layer mask.

c. **Select-Focus-Area** works on foreground subjects that have clearly out of focus backgrounds. Can treat very complex backgrounds as long as they are out of focus. Good for portraits of people and animals. This is a new tool.

d. **Background Eraser Tool**. This new tool is with the other eraser tools and is good at selecting very complex elements. It works on sky through trees but also works to remove reflections from water so you can match a water reflection to your new sky.

3 The wrong tool. All of the methods described below can be screwed up by using the crop tool. Don't use it ever…

4 Simple replacement (simple means no trees in foreground and no reflections and a clean horizon line.)

a. Open the two images together as two layers and rescale the sky so its much larger then the foreground. This will allow you to move the sky around later to improve composition. **Edit-Transform-Scale**. After you have rescaled don't forget to click on the image to terminate the Transform process. Make sure the sky layer is below the foreground layer. Don't us the crop tool because it will eliminate the extra sky you want to keep.

b. Select the **Quick Selection** tool (fourth down on the left) and select all the sky parts. The tool should be set to plus so you can add noncontiguous components. Don't worry if the tool doesn't do a perfect job. When you've added all the sky parts…

c. Select **Refine Mask** (the button at the top of the image) and paint along the selection boundaries. Blow up the image to 100 or 200 percent so you can see the little details missed by the Quick Selection Tool. Set the refine mask to **Decontaminate Colors** 70%, smart radius, and output to **New Layer with Layer Mask**. Click OK

d. You now have a layer mask attached to a new foreground image, but it may be the opposite of what you want ie you see sky and no foreground. No worry. Just select the mask (black and white box next to the foreground layer) and type Command I to invert the mask black becomes white and white become black. This means select become deselect.

e. You now have a masked out sky. You need to blow up the image and inspect the boundary of the mask to make sure there are no hallows, missed regions or fringes on the foreground. If there are here is how you correct it.

f. Select the foreground layer and then the **Healing Brush Tool** from the left side tool bar. Set it to Current layer and Replace. Now mouse to an adjacent location on the foreground that matches the problem area and paint over the problem areas. Don't be careful. When you finished you have completed the masking.

g. Now click on the sky layer and select the **Move Tool**. That's the top tool on the left with the two crossed arrows. Holding down the tool on the image, move the mouse around. This will move your sky so you can put it right in the correct place. This is why you made the sky layer much bigger then the foreground. Make sure that the sky's horizon doesn't come into view.

h. Now you can select either the sky or the foreground and go to the **Image-Adjustments-Color Balance** and adjust the warmth of the one layer to match the other if necessary.

i. You can fiddle with the image and change the foreground brightness, contract, or any other attribute independent of the sky or the sky independent of the foreground as long as you maintain the layers you just created.

5 You are done and should probably save the image as a PS document so you save all the layers. This allows you to change the sky to some other sky and to adjust color balance for the two layers independently. If you are sure the image totally done for all time you can go to **layer merge** and save as a TIFF. Never save directly to a jpeg.

The step that is the secret tool that makes the job easy and accurate is step 3 f above. This step will be used for all methods of selection in editing.

Now we do a complex image. This usually means trees. Don't select an image where the tree's leaves are moving in the breeze.

1 Perform the first 7 steps in the Initial Replacement Steps Bridge section.
2 Scale the sky and foreground layers to match and once again make the sky larger then the foreground.
3 Now select the foreground image and go to the **Select-Color Range**. This will give you a black and white image of what has been selected. Turn on the plus eye dropper. Set the Fuzziness to about 50 and the Range to about 30. Fuzziness selects to range of color either side of the color you select with the dropper while range gives you radius of influence for each click of the dropper. Repeatedly click with the dropper to add all the sky tones in the image. You can adjust Range and Fuzziness. Your goal is the have the sky turn black and the wanted foreground to be white (selected). Make sure you select sky in all the corners of the image and amongst the leaves.  Now click done.
4 Now click on the mask icon at the bottom of the layers pallet. That's the White square with the black circle. You should now see a black and white layer mask next to the foreground layer that matches the Color Range tool selection you just made. Once again you might need to invert to see the foreground and not the sky.
5 Now select the black and white layer mask and then an Option click on the layer mask. You will now see a full sized mask. Note we have a problem. The mask is NOT black and white. It has parts that are gray. Gray means that the final image will show some of both images (sky and foreground mixed together…that's bad) So we will correct that.
6 Go to **Image-Adjustments-Levels** from the top tool bar. Move the right triangle to the left till all the light grays turn to white for the foreground. You may also want to move the left tringle (blacks) to the right to turn all the dark grays to black if the background needs it. If the result still doesn't give you pure black and white, then repeat the levels adjustment a second time.
7 If you still have a few problems, then use the secret sauce in 3f above.
8 Once again you can move the sky around behind the foreground to improve the composition.

Focus extraction method. If you have an in-focus subject and an out of focus background you want to replace such as a portrait or flower this is a neat new method.
1. Perform the steps in the Bridge section once again.
2. Make duplicate of image Cmd/Control j
3. Select the top foreground image and **Select-Focus area**.
4. Use the plus and minus droppers to edit the selection. Use the In-focus slider bar to auto edit.
5. Set Output to New Layer and Mask and Hit OK.
6. If you still have some missing or too much in the layer mask edit it with the black and white paint brush while looking at the actual layer's image. (Mask active but the layer visible)


Now the really hard example where we will add a reflection in water to complement the new sky. The major difference between this and the first two methods is that it allows gray scale so the two images don't always replace each other but blend into each other.

1. Again prepare your two images per the Bridge section. Make duplicate of your foreground layer.
2. Scale your sky larger then the foreground
3. Duplicate you sky and flip it vertically. Cntl J to duplicate and **Edit-Transform-Flip Vertical**. This will be the sky reflected in the water.
4. Your foreground layer should be on top. If it isn't just drag it up. Also if your layer wont move and its labeled background you need to double click on the name and rename so it can be moved and edited. Anything called background is locked in Photoshop.
5. Select your foreground layer and duplicate it. (Second time I've said this so do it!) This is very important because you are going to throw away the top one later.
6. Select the background eraser tool (on the right 7 down right mouse click to see it.)
7. Your cursor is now a circle with a dot in the middle. The dot location defines what color range that will be erased. The Tolerance gives the range of color from what's under the dot that will be erased.
8. Select a spot in the sky that defines a color. Hold down the mouse button and move it over the entire sky so you see it erase out the underlying sky. Do NOT let go to get to get the little sky elements

hidden in the trees etc. Just plow over them. Since the trees are a different color then what you had selected when you first pushed the mouse down they will not be erased.

9. You may need to repeat this step several times picking a different portion of the sky as the sky changes color or you want to get clouds etc erased. Typically skys are darker blue at the top and lighter towards the horizon. You will also need to get those clouds in the sky you want erased.

10. Look at the selection under high magnification and see how the trees look. If they have halos around them, you need to increase the Tolerance and begin again.

11. Now lower the Tolerance to 25 (just a start) and get ready to do the water.  Look at the water carefully. You only want to erase the water color that reflects the sky colors that will change. A lower tolerance will save the structure of the water itself. Its important to save the waves and ripples in the water to maintain realism.

12. Go over all the water that has even a hint of the selected color.

13. Now you are going to make a mask from the selection created by the Background Eraser Tool. Hold the Cntl (Option) key down and click on the top layer. Now click on the layer mask icon at the bottom of the layer panel.  Magically a layer mask will appear next to the layer you were working on.

14. Now Cmd klick on the mask to make a large version of it. We will be editing the mask.

15. What you see is the result of the two Background Eraser Tool passes you just made. The top black and dark gray needs to be all black. Start by selecting a black paint brush. Paint all the areas that are not black in the sky part of the mask. This includes any clouds that were in the original sky. DO NOT touch the bottom part that represents the reflections on the water..

16. Take the lasso tool and circle the sky part of the mask. This will select just that part of the image so we can do further edits on just the sky portion of the mask.

17. **Image-Adjustment-Levels** once more. Move the left (black slider) to the right until all the grays turn to black. Hit OK.

18. Go to **Select-Deselect** to deselect the sky part you selected with the lasso tool.

19. Now move that copy of the foreground you put at the bottom of the layers pile to the top. Now this layer should be just above the layer with the mask you just built.

20. Click and drag the black and white layer mask up and place it to the right of the layer you just moved to the top. It should stick when you release the mouse. Now throw away the layer you just stole the mask from. That's the second one on the layers stack. You do this because that layer contains all the erased areas you no longer need.  Drag it down to the little trash can just below all the layers.

21. Now turn off the eyeball on the foreground (now top) layer (eyeballs just clich on and off) and turn on the eyeballs for the two sky images.

22. Select the inverted sky and with the move tool active move that layer down so its just in the lower part of the image.

23. Select the regular sky and with the move tool active move this layer up so its just in the top sky part of the image.

24. So now you are blindly placing the two sky parts and we can do better.  Click on the top layer (the foreground) and look just above the layers and you will see an Opacity slider. Select an opacity of 50 percent. Now you can see where the sky and the reflection are with respect to your image.

25. Move the sky and reflection to wherever you want but remember to keep the two vertically aligned because reflections are below the original elements being reflected.

26. You may have to adjust the intensity of the reflection to make it a little less clear. Select the reflection layer and go to **Edit-Adjustment-Brightness and Contrast**. Adjust these two sliders till you get the desired effect.

27. Return your opacity of the top layer to 100%.

28. If you don't like the effect, you can get another sky and delete the one you don't like. Also the problem may be the Tolerance level for the reflection erasure. Less is probably better.


After you are done with all the methods inspect the edges using about 200% magnification and perform the same work flow I described in the simple method…

a. Secret sauce again >>>>Select the foreground layer and then the **Healing Brush Tool** from the left side tool bar. Set it to **Current layer** and **Replace**. Now mouse to an adjacent location on the foreground that matches the problem area and paint over the problem areas. Don't be careful. When you finished you have completed the masking.

b. Now click on the sky layer and select the **Move Tool**. That's the top tool on the right with the two crossed arrows. Holding down the tool on the image, move the mouse around. This will move your sky so you can put it right in the correct place. This is why you made the sky layer much bigger then the foreground.

c. Now you can select either the sky or the foreground and go to the **Image-Adjustments-Color Balance** and adjust the warmth of the one layer to match the other if necessary.

d. You can fiddle with the image and change the foreground brightness, contract, or any other attribute independent of the sky or the sky independent of the foreground as long as you maintain the layers you just created.

e. You may want to crop the entire project when your done but remember that if you crop you will lose the ability to move the sky because you have cropped it so if you move it you will get a white no-image background move under your foreground.

f. You can save the entire thing as a PSD document which will include all the layers.

g. You can try various other skies by adding them as a layer again under the foreground …The sky's the limit!

Frequently Used Commands

1. Make a layer mask after selection has been made
   a. With Option Mac or Alt PC button held down click on the layer with the selection.
   b. Go to the bottom of the layers pallet and press the mask button. That's the rectangular button with the circle inside. This will create a mask with the selection converted from a selection to a mask.

2. Clean and Inspection the layer mask
   a. Hold the Option Mac Alt PC button down and click on the layer mask. This will make the layer mask full screen and active.
   b. You can use the black and white paint brush to edit the mask for large areas.
   c. Go to Image/Adjustments/Levels
   d. You move the far left and right sliders to increase the contrast. Typically a layer mask is only black and white…no grays. The sliders will turn dark grays black and light grays white.
   e. If you are editing a layer mask that includes water reflections, then gray is OK. In this case BEFORE you edit the mask use the lasso tool to select the sky portion and do steps a to d above. When done use the lasso tool again and select the reflections part of the layer mask and edit but DON'T remove the grays. Some Brightness/Contrast can be done on the reflections to make the stronger or more subtle.

3. Layer basic functions.
   a. Mask duplication Command/Alt j and Mask inversion Command/Alt i.
   b. The eyeball next to a layer tells you its going to be visible if it's the top eyeball. You can click the eyeball on and off to select what is visible.
   c. VISIBLE DOES NOT MEAN ACTIVE. To make a layer active (that means you can work on it) you click on the layer and the layer will appear with a box around it. If you are working on a layer and nothing is happening it probably because you have a layer active, but the visible layer is some other layer. The layer or the mask for that layer can become active…not both at the same time.

4. **Don't use the crop tool**…ever. It removes the sky outside the image just as it clips the edges of the picture. If you use it you are done adjusting sky backgrounds.
5. You can move layers up and down of the stack by just click and dragging them up and down. If a layer can't be moved or edited look at its name. If the name in Background that's the reason. Double click on the word Background and change the name. The default given is Layer 0 which is just fine. Now you can edit.