

## EXERCISE PREVIEW



## EXERCISE OVERVIEW

In this exercise you'll create a title slide for a client presentation. The concepts will not only be useful for this project, but can be used in other types of work. You'll learn about adjustment layers, blending modes, layer masks, selections, and more.

This exercise is designed for people with a working-knowledge of Photoshop. It is not for total beginners.

## DOWNLOADING THE FILES

These instructions were written for **Photoshop CC 2015.5**.

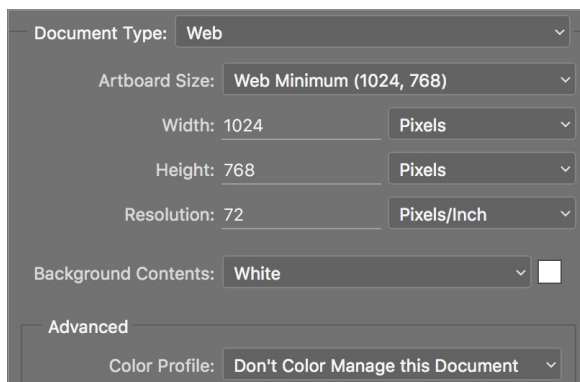
1. To download the files you'll use in this exercise, please visit: [nobledesktop.com/goodies](http://nobledesktop.com/goodies)
2. Under **Creative Compositing with Photoshop**, click the **Class Files for CC2015** button to download the files.
3. Once the zip file is downloaded and uncompressed, you should have a folder named **CreativeCompositingFiles** containing six images.
4. Launch **Photoshop**.
5. Go to **File > Open**.
6. Navigate to the **CreativeCompositingFiles** folder and open **final-composite.jpg**.
7. This is the finished version of what you'll learn to create in this exercise. After you've had a good look at the file, close it.

**SETTING PREFERENCES**

1. Go into the **Photoshop CC** menu (MAC) or **Edit** menu (WINDOWS) and choose **Preferences > Units & Rulers**.
2. Under **Units**, set the following two options:
  - Rulers: **Pixels**
  - Type: **Pixels**
3. On the left, click on the **Type** category.
4. Check on **Use ESC key to commit text**.
5. Click **OK**.

**CREATING A NEW FILE TO WORK IN**

1. Go to **File > New**.
2. From the **Document Type** menu choose **Web**.
3. From the **Artboard Size** menu choose **Web Minimum (1024, 768)**.
4. Make sure you have all the following settings:



5. Click **OK**.

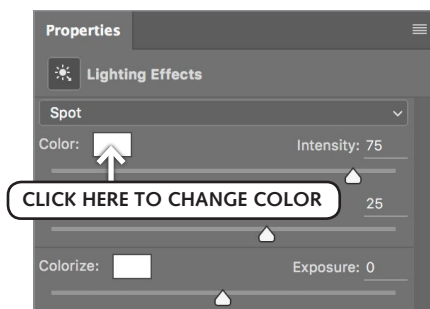
**CREATING THE COLORED BACKGROUND**

1. Let's start by creating a solid color background. At the bottom of the **Layers** panel (**Window > Layers**) click the **Create new fill or adjustment layer** button ( ).
2. From the menu that appears choose **Solid Color**.
3. In the dialog that opens, enter the following RGB values: **R: 52 G: 54 B: 93**
4. Click **OK**.
5. In the **Layers** panel, the only layer should be the **Color Fill 1** layer you just created. Double-click on the name and change it to **bg color**.

6. Go to **File > Save As** and set the following:
  - Under **Format** (MAC) or **Save as type** (WINDOWS) choose **Photoshop**.
  - Name it **yourname-composite.psd**, saving it into the **CreativeCompositingFiles** folder.
  - After saving, if it asks you if you want to **Maximize Compatibility**, leave it checked and click **OK**.
7. We're going to use a lighting filter to add some color and variety to the background. We'll do so using a Smart Filter so we can fine tune the filter's settings later if needed. With the **bg color** layer still selected, go into **Filter > Convert for Smart Filters**.
8. If you get a message about it converting the layer into a smart object, just click **OK**.
9. Go to **Filter > Render > Lighting Effects**. If this is grayed out, you don't have a supported video card, so you'll have to skip ahead to the next section.
10. In the **Options** bar at the top of the screen, go into the **Presets** menu and choose **Default**.

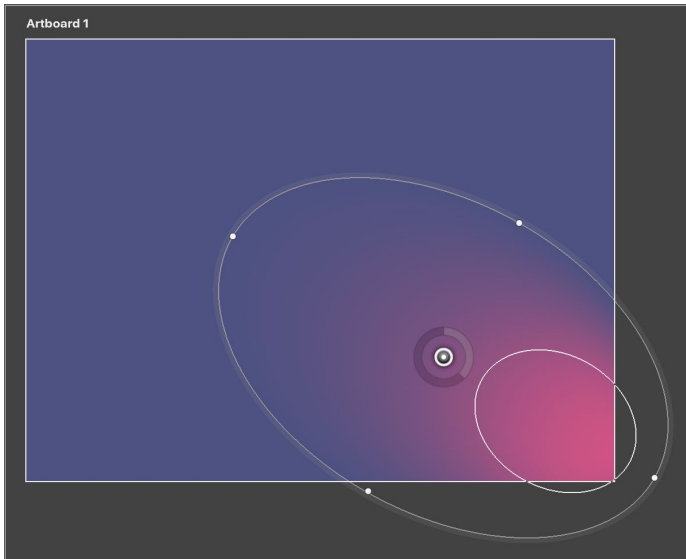
The image should now have a single spotlight illuminating part of the background, and everything around it is now darker. In this filter we'll change the current spotlight and add another. We want a fairly diffuse spotlight shining up from the bottom right (which we'll do first). Then we'll add another spotlight shining down from the top left.


11. We don't want the background to be so dark. In the **Properties** panel on the right, increase **Ambience** to **90**.
12. Also in the **Properties** panel set **Intensity** to **75** (to brighten the spotlight).
13. Reduce **Hotspot** to **25** (to shrink the size of the bright area).
14. To change the color of the spotlight, in the **Properties** panel click on the box next to **Color** (which should currently be white).

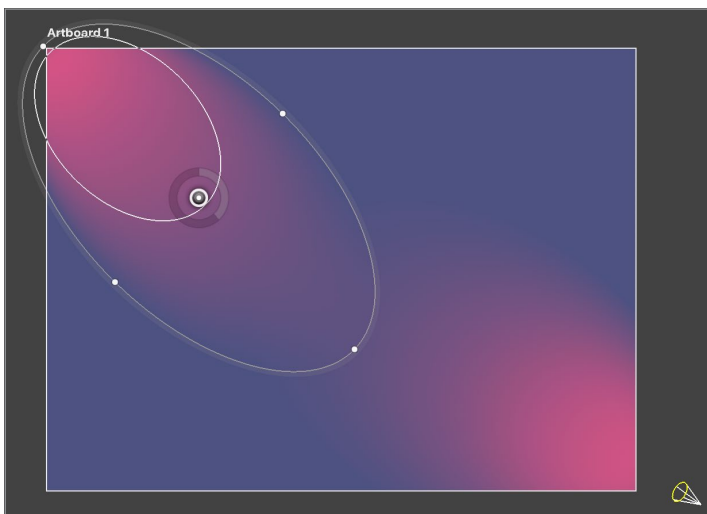


15. Set the color to **R: 170 G: 0 B: 0**
16. Click **OK**.

17. Move and resize the spotlight so it looks similar to what's shown below. Use the center dot to move it and the outer dots to resize/reshape it.




18. We need another spot light. In the **Options** bar at the top of the screen, next to **Lights** click the **Add new Spot Light** button (  ).
19. In the **Lights** panel, **Spot Light 2** should be the only one selected.
20. In the **Properties** panel:
- Set **Intensity** to **75**.
  - Set **Hotspot** to **65**.
  - Click on the box next to **Color** (which should currently be white).
  - Set the color to **R: 170 G: 0 B: 0** and click **OK** to close the **Color Picker**.
21. Move and resize the spotlight so it looks similar to what's shown below.








22. The lights are done. In the **Options** bar at the top of the screen, click **OK**.

### ADDING NUMBERS TO THE BACKGROUND

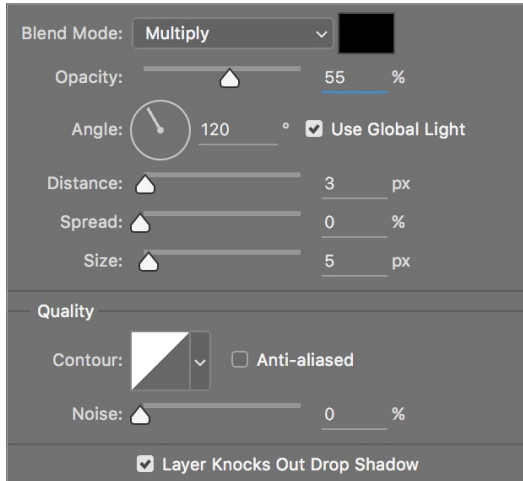
1. Go to **File > Open**.
2. In the **CreativeCompositingFiles** folder, open **binary numbers.psd**.  

This file contains columns of binary numbers in a monospaced font, with no anti-aliasing. (We converted the type layer to pixels in case you wouldn't have the same font, but normally you'd keep it a type layer.)
3. In the **Layers** panel, select the **binary numbers** layer.
4. Go to **Window > Arrange > 2-up Vertical**.
5. Choose the **Move** tool (  ).
6. Drag and drop the **binary numbers** layer onto your main image while holding down the **Shift** key (to keep it centered).
7. Close **binary numbers.psd**.
8. In your main image, adjust the opacity of the new layer to **15%** (at the top right of the **Layers** panel).

### ADDING THE MAIN TEXT ELEMENTS

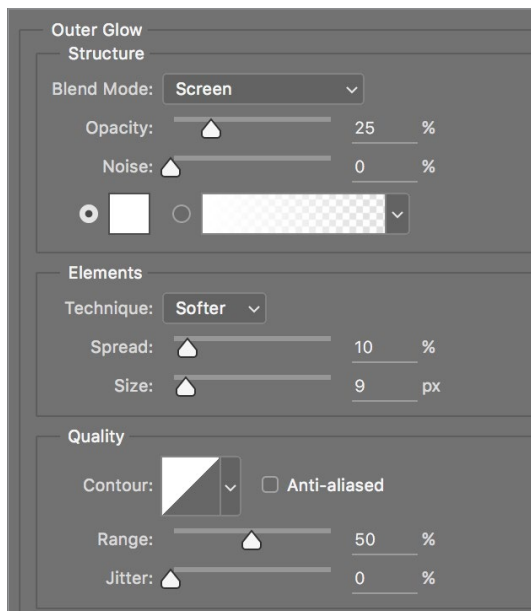
1. Choose the **Type** tool (  ).
2. In the **Character** panel (**Window > Character**) set the following:
  - Font: **Futura Bold** (or a similar sans serif bold font)
  - Size (  ): **26 px**
  - Tracking (  ): **915**
  - Color: **white**
  - Anti-aliasing (  ): **Smooth**
3. In the **Paragraph** panel (**Window > Paragraph**) make it **Left aligned** (  ).
4. At the top left of the image, click once and type the following text (in ALL CAPS):  
**CREATING A WORLD-CLASS**
5. Highlight the "O" in **WORLD**.
6. Near the bottom of the Tools panel, double-click the **Foreground** color.
7. Change the RGB values to: **R: 233 G: 24 B: 25**
8. Click **OK**.
9. To commit the text changes, hit the **Esc** key. (If you see a dialog asking if you want to commit or cancel, click **Commit Text**.)
10. To position the text precisely, open the **Properties** panel (**Window > Properties**).

11. In the **Properties** panel, set the following coordinates:
  - X: **21 px**
  - Y: **110 px**
12. Choose **Layer > Layer Style > Drop Shadow** and set the following:



13. Click **OK**.
14. Using the **Type** tool ( **T** ), click under the **C** in **CREATING** to make a new type layer.
15. Type in: **TECHNOLOGY ORGANIZATION**
16. Select the new line of text and reformat as follows:
  - Font: **Futura Book** (or a similar sans serif regular/thin font)
  - Size ( **T** ): **58 px**
  - Tracking ( **VA** ): **100**
  - Color: **white**
17. Highlight the first “**O**” in **ORGANIZATION**.
18. Near the bottom of the Tools panel, double-click the **Foreground** color.
19. You should still have the previous red. If not, click on the red **O** in **WORLD** to sample its color (or manually set the RGB values to **R: 233 G: 24 B: 25**).
20. Click **OK**.
21. Hit **Esc** to commit the text changes.
22. Select the **Move** tool ( **+** ).
23. Move the text so the **O** in **ORGANIZATION** is positioned below the **O** in **WORLD**.
  - Adjust the font size and tracking of each text layer if necessary so they fit.
  - As needed, use the **Arrow** keys to nudge in small increments.


24. In the **Layers** panel, find the **Technology Organization** layer.
25. Double-click to the right of the **Technology Organization** layer's name to bring up the **Layer Style** dialog.
26. On the left side of the window, click on the words **Outer Glow** so it's checked on and selected. Click directly on the words. Do not just check the checkbox, or else you won't see its options on the right.
27. Set the following options:  
(The color swatch should already be set to the default **white**.)



28. Click **OK**.



### CREATING A BANNER BEHIND THE MAIN TEXT

1. Go to **File > Place Embedded**.
2. In the **CreativeCompositingFiles** folder, double-click on **solarpanel-iStock-copyright-mbbirdy-Image10867072.jpg** to choose it.
3. Hit **Return** (MAC) or **Enter** (WINDOWS) to accept the size and placement.
4. In the **Layers** panel:
  - Rename the new layer to: **solar panel**
  - Drag the **solar panel** layer **below** the two type layers.
5. Select **Edit > Free Transform** (or press **Cmd-T** (MAC) or **Ctrl-T** (WINDOWS)) to start a **Free Transform**.

6. Reduce the height of the the solar panels to about **235 px** tall (watch the cursor's tooltip as you resize) and move it to be vertically centered behind the text.
7. When done, press **Return** (MAC) or **Enter** (WINDOWS) to apply the transformation.
8. In the **Layers** panel:
  - At the top left, change the blending mode from **Normal** to **Luminosity**. This makes it blend into the color scheme of the background more effectively.
  - Set **Opacity** to **40%**.
9. We want to crop off part of the solar panel. To do that, we'll mask away the parts we don't want. Choose the **Rectangular Marquee** tool (  ).
10. Select an area of the solar panel that's vertically centered around the main text. (The selection should be about **1024 x 152** pixels.)
11. Make sure the **solar panel** layer is the currently selected layer and choose **Layer > Layer Mask > Reveal Selection** to hide the parts of the solar panel outside the selection.

#### ADDING A BEVEL TO THE BANNER

Let's make the banner area stand out with a three-dimensional bevel. Instead of using the bevel layer style, we'll create something more original and interesting!

1. With the **solar panel** layer selected, **zoom in** closely on the top of the banner.
2. Select the **Single Row Marquee** tool (  ), which is typically hidden under the **Rectangular Marquee** tool (  ).
3. Click just above the top of the solar panel banner to select a single row of pixels.
4. At the bottom of the banner, **Shift-click** on the second pixel below the banner to add another row to the selection (so there's an empty pixel between your selection and the bottom of the banner).
5. Choose **Layer > New Adjustment Layer > Curves** and:
  - Name the adjustment **banner bevel highlights**.
  - Set the blending mode to **Screen** (to brighten the selected area).
  - Make sure **Use Previous Layer to Create Clipping Mask** is **NOT** checked.
  - Click **OK**.
6. In the **Properties** panel, adjust the curve if you want to alter the brightening effect.
7. If you'd like, experiment with other blending modes like **Linear Dodge (Add)** or **Exclusion** for other brightening looks.
8. Hit **Cmd-J** (MAC) or **Ctrl-J** (WINDOWS) to duplicate the **banner bevel highlights** layer.

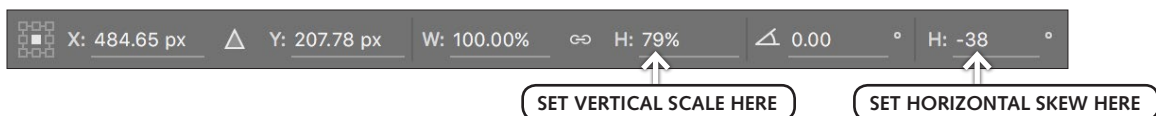



9. Rename the new layer **banner bevel shadows**.
10. Change its blending mode to **Multiply** to darken the image.
11. Select the **Move** tool ( ).
12. Hit the **Up Arrow** key once to move the adjustment layer's mask up by one pixel.
13. You should have a beveled dark/light edge above and below the banner. Edit the adjustment curve or layer opacity to adjust the effect if desired.

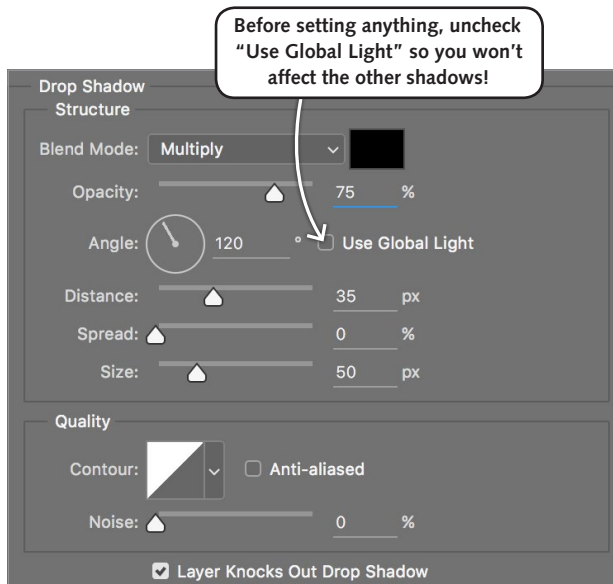
## CREATING THE BIG "O" SHAPES






1. In the **Layers** panel, select the **binary numbers** layer.
2. Select the **Type** tool ( ).
3. In the **Character** panel (**Window > Character**) set the following:
  - Font: **Futura Bold** (or similar)
  - Size ( ): **250 px**
  - Tracking ( ): **0**
  - Color: **R: 233 G: 24 B: 25**
4. Type a lowercase "o" near the right side of the document. Make sure you're creating a new text layer and not editing an existing one.
5. Use the **Move** tool ( ) to **vertically** center it between the banner and bottom of the canvas (keeping it on the right side of the image).
6. In the **Layers** panel, set the opacity of this layer to **20%**.
7. Rename the layer **right small o**.
8. Use the **Type** tool ( ) to type a capital "O" as a new type layer in the middle of the image.
9. Give the new capital "O" the following specs:
  - Font: **Futura Bold** (or similar)
  - Size ( ): **650 px**
  - Color: **R: 165 G: 173 B: 246**
10. Hit **Esc** to commit the text changes.
11. Choose **Edit > Free Transform** (**Cmd-T** (MAC) or **Ctrl-T** (WINDOWS)).
12. As shown below in the **Options** bar, set the following transformations:

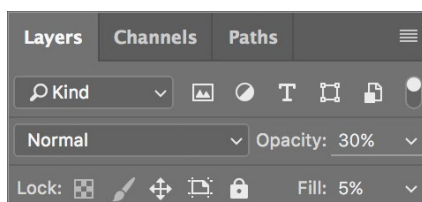
Vertical Scale: **79%**  
 Horizontal skew: **-38°**




13. To commit the transformation, double-click on the big “O” in the image.
14. Using the **Move tool** (  ), move the big “O” near the middle of the image.
15. Rename this layer **center big O**.
16. In the **Layers panel**, double-click to the right of the **center big O** layer name to open the **Layer Style** dialog.
17. Add a **Drop Shadow** effect with the following settings:







18. Click **OK** when done.
19. Still using the **Move tool** (  ), hold **Option** (  ) or **Alt** (  ) and drag the “O” down a bit to make a copy.
20. Go to the **Character panel** and change the **Color** of this new “O” to **R: 64 G: 70 B: 128**.
21. Do a **Free Transform** ( **Cmd-T** (  ) or **Ctrl-T** (  ) ) and scale the “O” down to about **60%** of its original size.
22. Move it so it spills off the **bottom-left** corner of the document.
23. Rename this layer **bottom left O**.
24. As shown below, set the layer **Opacity** to **30%** and the **Fill** to **5%**. This will show more of the **shadow effect** than the “O” itself.





25. Select the **center big O** layer and set layer **Opacity** to **20%** and the **Fill** to **5%**.
26. Select the **bottom left O** layer.
27. Using the **Move** tool (  ), hold **Option** (MAC) or **Alt** (WINDOWS) and drag up to copy the **bottom left O** layer.
28. Position the new layer under the left side of the (solar panel) banner, spilling off the left side of the document.
29. Rename this layer **banner O**.

**CREATING THE PLANET-LIKE GLOBES**



1. With the **banner O** layer selected, at the bottom of the **Layers** panel, click the **Create a new layer** (  ) button.
2. Name the new layer **globes**.
3. If it's not already there, drag the **globes** layer so it is below the **solar panel** layer.
4. Select the **Elliptical Marquee** tool (  ).
5. In the **Options** bar make sure **Anti-alias** is **checked**.
6. In the **middle left** of the picture hold **Shift** and select a perfect circle that is approximately **75** pixels in diameter. (Watch the tooltip.)
7. Choose the **Gradient** tool (  ).
8. In the **Options** bar click the **Radial Gradient** button (  ).
9. In the **Options** bar click on the current gradient to edit it (as shown below).






10. In the bottom half of the dialog that opens, you can add new **color stops**  by clicking **below** the gradient preview. (**Opacity** stops are above the gradient preview and we don't want to change them.) Add the following three color stops:

LOCATION:	COLOR:
At 0%:	R: 255 G: 19 B: 23 (HINT: double-click color stops  to change their color)
At 85%:	R: 51 G: 54 B: 102
At 100%:	R: 70 G: 76 B: 136
Gradient Type:	Solid
Smoothness:	100%




11. Click **OK** to close the gradient editor.

12. Inside the circular selection **drag** from the **top-left** corner to the **bottom-right** corner at a **45°** angle by holding **Shift** (to match the direction of the light throughout the rest of the picture).
13. Choose **Select > Deselect**.
14. Use the **Elliptical Marquee** tool (  ) to make another circular selection in the **top right** of the image, partially **above** the solar panel banner. Make it about **120** pixels in diameter.
15. Use the **Gradient** tool (  ) to create the same gradient within the selection.
16. Choose **Select > Deselect**.
17. Set the **Opacity** of this layer to **60%** to make the globes partially transparent.

#### ADDING THE GLOWING GLOBE


1. Do a **File > Place Embedded**.
2. Double-click on **world-iStock-copyright-fpm-Image7243140.jpg** to choose it.
3. Hit **Return** (  ) or **Enter** (  ) to accept the size and placement.
4. Using the **Move** tool (  ), position the layer in the **bottom right** of the canvas, so you only see the top half of the globe.
5. In the **Layers** panel,
  - Name the new layer **world**.
  - Change the blending mode from **Normal** to **Screen**.
  - Change the layer opacity to **70%**.

#### ADDING THE STAIRS & POINTING FIGURE

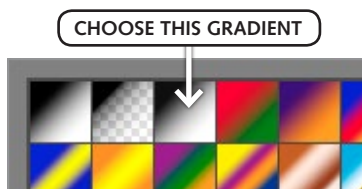
1. Open **stairs-iStock-copyright-Nikada-Image15013074.jpg**.
2. Go to **Window > Arrange > 2-up Vertical**.
3. Drag the **Background** layer of the stairs image onto our illustration.
4. Close **stairs-iStock-copyright-Nikada-Image15013074.jpg**.
5. Name the new layer **stairs**.
6. Press **Cmd-T** (  ) or **Ctrl-T** (  ) to enter **Free Transform mode** and scale the stairs down to around **55%**.
7. Position it so the stairs start at the bottom of the document (cropping off the flooring below the stairs), and they should be centered below the "OLOG" in **TECHNOLOGY**.
8. Select the **Polygonal Lasso** tool (  ).

9. Create a selection as shown below:



10. Choose **Layer > Layer Mask > Reveal Selection** to hide everything except the selection.
11. Open **businessman-iStock-copyright-4x6-Image15791617.jpg**. This image should be a businessman pointing to the top-left corner.
12. Go to **Window > Arrange > 2-up Vertical**.
13. Drag the **Background** layer of this image onto the illustration.
14. Close **businessman-iStock-copyright-4x6-Image15791617.jpg**.
15. Name the new layer **businessman**.
16. Press **Cmd-T** (MAC) or **Ctrl-T** (WINDOWS) to start a **Free Transform**.
17. Shrink him to about **38%**.
18. Move the man so that he is centered with the stairs you just created, and so that his feet just touch the top.
19. Choose the **Magic Wand** (  ) tool.
20. In the **Options** bar set the following:
- **Tolerance:** 3
  - **Anti-alias:** checked on
  - **Contiguous:** unchecked
21. Click anywhere in the white area.
22. Holding down the **Shift** key, click on the remaining white areas between his legs, arm, and the shadows beneath his feet to add them to the selection.
23. Choose **Select > Inverse**.
24. In the **Options** bar click the **Select and Mask** button. (Prior to CC 2015.5 this was called **Refine Edge**.)

25. In the **Properties** panel on the right:
  - Click on the thumbnail to the right of **View** and double-click **On Layers**.
  - You'll probably have a white halo, so in the **Global Refinements** section, slide **Shift Edge** to the left until it looks better. If there are some leftover white areas, don't worry about them for now; you can fix the layer mask later.
  - In the **Output Settings** section, set **Output To** to **Layer Mask**.
  - When done, click **OK**.
26. If there are still visible white parts, choose a **black brush** and paint over them to hide them. Don't worry about being too precise. We're going to partially blur him next, so it doesn't have to be perfect.
27. Let's make the figure a bit more anonymous and impressionistic by partially blurring it. Select the **stairs** layer and the **businessman** layers. (Select one of the layers, then hold **Shift** and click on the other.)
28. From the **Layers** panel menu (☰), choose **Duplicate Layers**.
29. When the dialog box appears, click **OK**.
30. Merge the layers you just duplicated by choosing **Layer > Merge Layers**.
31. Name this new layer **blurred man and stairs**.
32. Blur it by choosing **Filter > Blur > Gaussian Blur**.
33. Choose a **Radius** of **3** and click **OK**.
34. Let's have the stairs start sharp at the bottom and then gradually blur towards the top. At the bottom of the **Layers** panel, click the **Add layer mask** button (◻).
35. Choose the **Gradient** tool (◻).
36. In the **Options** bar, click the **Linear Gradient** button (◻).
37. In the **Options** bar, click the gradient thumbnail. In the dialog that opens, choose the **Black, White** preset (third from the left).



38. Click **OK**.
39. Drag from the **bottom** to the **top** of the stairs.

Now the bottom of the stairs should appear sharp and get more blurred as it gets closer to the man.


## ADDING ADDITIONAL STAIRS

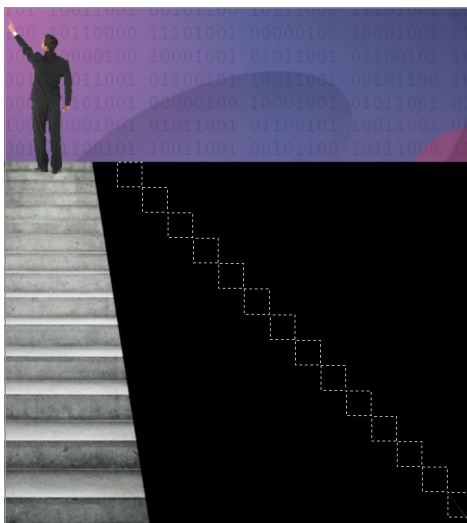
Let's draw some stairs to the right and left of the existing ones.


1. Go to **Layer > New > Layer**.
  - Name it **stairs extra**.
  - Make sure **Use Previous Layer to Create Clipping Mask** is **UNchecked**.
  - Click **OK**.

2. Drag the new layer **below** the existing **businessman** and **stairs** layers.



We need to draw the profile of a staircase, something more easily done in an illustration program than in Photoshop, but here's one way to do it.

3. Choose the **Rectangular Marquee** tool (  ).
4. Hold **Shift** (to select a perfect square) and drag from the top-right corner of the existing stairs down and to the right, moving down the bottom of the document.
5. Set the foreground color to **black**.
6. Fill the selected area by pressing **Option-Delete** (MAC) or **Alt-Delete** (WINDOWS).
7. Hit **Cmd-D** (MAC) or **Ctrl-D** (WINDOWS) to **deselect**.
8. In the **Options** bar set the following:
  - Style: **Fixed Size**
  - Width: **25 px** and Height: **25 px**
9. Zoom in closer, and click about 25 pixels to the right of the **top-right corner** of the stairs photo. Then, as shown below, **Shift-click** at the bottom right corner of that selected square and repeat until you almost reach the bottom of the file.




10. Press **Delete** to erase those black pixels to reveal the background underneath.
11. Use the **Magic Wand** (  ) with a **Tolerance** of **1**, **Anti-alias** **off** and **Contiguous** **on**, to click in the black area that you don't want in the staircase shape.



NOTE: If you made the stairs perfectly this should only select the part you want to delete. If it selects all the stairs you'll have to use another method (of your choosing) to select the unwanted portion.

12. Press **Delete** to erase the pixels.
13. Hit **Cmd-D** (MAC) or **Ctrl-D** (WINDOWS) to **deselect** everything.
14. With the **stairs extra** layer still selected, hit **Cmd-J** (MAC) or **Ctrl-J** (WINDOWS) to duplicate the layer.
15. Go to **Edit > Transform > Flip Horizontal**.
16. Using the **Move** tool (  ), move the new stairs to the **left** of the gray stairs.
17. In the **Layers** panel select **both** stairs layers. (Click on one, then **Shift-click** on the other one.)
18. Merge the copied stairs layer with the first stairs layer by going to **Layer > Merge Layers** (**Cmd-E** (MAC) or **Ctrl-E** (WINDOWS)).
19. If the layer name changes, rename it **stairs extra**.
20. Set the layer **Opacity** to **50%**.
21. Choose **Layer > Layer Mask > Reveal All** to add a layer mask.
22. Select the **Gradient** tool (  ) (the simple black-to-white linear gradient should still be chosen) and drag from the **bottom to the top** of the stairs photo to gradually fade the stairs as they reach the bottom of the image.
23. In the **Layers** panel, double-click on the right side of the **stairs extra** layer and:
  - Add an **Outer Glow** with **Opacity: 35%**, **Spread: 10**, and **Size: 13**.
  - Click on the **Blending Options** section on the left, then check on **Layer Mask Hides Effects** to prevent the glow from lightening the stairs.
  - Click **OK**.

### CREATING THE BEAMS OF LIGHT




1. In the **Layers** panel select the **binary numbers** layer.
2. Add a **new layer** above it (**Cmd-Shift-N** (MAC) or **Ctrl-Shift-N** (WINDOWS)) and name it **light beams** (click **OK**).
3. Choose the **Brush** tool (  ).



4. In the **Options** bar, change the size to a 1 pixel brush.
5. Set the **Foreground** color to **white**.
6. Select the **Pen** tool (  ).
7. In the Options bar at the top of the screen, at the far left make sure the first menu says **Path**. If it says **Shape Layer**, change it to **Path**.
8. Draw a few individual (non-connected) lines emanating from the globe outward towards the edges of the canvas. A good guide to follow would be the beams of light in the image itself. Make your lines parallel to several of those. (Hold down **Cmd** (MAC) or **Ctrl** (WINDOWS) and click in an empty space to disconnect from a previous path before starting a new one to avoid joining points.)
9. When you're finished, make sure no points are selected by holding **Cmd** (MAC) or **Ctrl** (WINDOWS) and clicking in an empty space.
10. Go to the **Paths** panel (**Window > Paths**).
11. Go into the **Paths** panel menu (  ) and choose **Stroke Path**.
12. Choose **Brush** as the tool and click **OK** to trace the lines with white.
13. Click in the empty background area of the **Paths** panel to deselect the work path and see the lines.
14. Go to the **Layers** panel (**Window > Layers**).
15. Set the layer **Opacity** to **15%**.
16. Double-click to the right of **light beams** layer name and add an **Outer Glow** effect with **Spread: 5** and **Size: 6**.
17. Click **OK**.
18. **Cmd-click** (MAC) or **Ctrl-click** (WINDOWS) on the **center big O** layer image thumbnail (the letter T) to load it as a selection.
19. **Cmd-Shift-click** (MAC) or **Ctrl-Shift-click** (WINDOWS) on the layer thumbnails of any additional elements you don't want the light beams to penetrate (like the solar panel mask, the globes, and the stairs).
20. When you've finished building the selection, make sure the **light beams** layer is still selected.
21. Choose **Layer > Layer Mask > Hide Selection** to prevent the light beams from showing in the selected areas.

**CREATING A BEAM OF LIGHT (FROM THE TOP LEFT CORNER)**

1. In the **Layers** panel select the **bg color** layer. (It's the only layer we want to affect.)

2. Near the bottom of the **Tools** panel, double-click the **Quick Mask Mode** button (  ) to set its display options.
3. In the dialog that opens::
  - Set **Color Indicates** to **Selected Areas**.
  - Below **Color**, click the swatch and choose a color that does not appear in the image (like bright lime green).
  - Click **OK**.
4. You should now be in Quick Mask mode, where you can use pixel-based tools to create selections. Choose the **Gradient** tool (  ), which should still be set to a linear black-to-white gradient
5. Drag from the **top-left** corner to the **bottom-right** corner of the image. You should see your quick mask color in the top left, gradually fading out by the bottom right.
6. Choose the **Polygonal Lasso** tool (  ).
7. As shown below, select a necktie-shaped area, narrow at the upper-left corner and wide at the bottom right.



8. Choose **Select > Modify > Feather**.
9. Set **Feather Radius** to **50** pixels and click **OK**.
10. Invert the selection by choosing **Select > Inverse** (or pressing **Cmd-Shift-I** (MAC) or **Ctrl-Shift-I** (WINDOWS)).
11. Set the foreground color to **white**.
12. Fill the selected area by pressing **Option-Delete** (MAC) or **Alt-Delete** (WINDOWS).
13. Press **Q** to exit **Quick Mask** mode. You may not see any marquee as the selection is so feathered, but it's there!

14. Choose **Layer > New Adjustment Layer > Curves**.
15. Name the adjustment **beam of light** and click **OK**.
16. In the **Properties** panel, drag the white point to the left to brighten the tones (affecting the highlights first).

#### HIDING THE BINARY NUMBERS IN DISTRACTING AREAS

1. **Cmd-click** (MAC) or **Ctrl-click** (WINDOWS) on the **solar panel** layer mask thumbnail to load it as a selection.
  2. **Cmd-Shift-click** (MAC) or **Ctrl-Shift-click** (WINDOWS) on the layer thumbnails of any additional elements to build a selection of areas where the binary numbers are distracting (like the O shapes, the globes, the man and stairs, etc.).
  3. Click on the **binary numbers** layer to make it the current layer.
  4. Choose **Layer > Layer Mask > Hide Selection** to hide the numbers in the selected areas.
  5. To hide the numbers in additional areas, use a paintbrush with pure **black** on the new **layer mask**.
  6. Save the file. Nice work!
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