Creating Transparent And Wireframe Globe

by [Didik Wijaya](#)

Part 1

After reading a [discussion thread in Escalight Forum](#), I decided to write this tutorial. In forum. one of our member, Skappa, posted a tutorial about creating a wireframe and transparent globe. But unfortunately it seems other people have difficulties when following the tutorial. So, I wrote this tutorial based on tutorial posted in that thread. I also modified and simplified a little bit. Hope this tutorial useful for everyone. Credits should also goes to Skappa. Thanks for participating in the forum and answering other people's question.


1. First, begin with Photoshop. We will use material for creating transparent and wireframe globe in 3ds max. Therefore you need to prepare bitmap image for opacity channel. You need earth map like image below.
You can [obtain original image from here](#). Open this file in Photoshop.

2. Activate **Eyedropper Tool** (*shortcut I*). From top menu, **Select>Color Range**. Click blue color in image. In Color Range window, adjust Fuzziness until all blue color is selected. Click OK

From top menu, **Edit>Fill**. Use black color to fill sea area. Choose **Select>Inverse**, to inverse the selection. This time fill with white color. Deselect the selection (Ctrl+D)
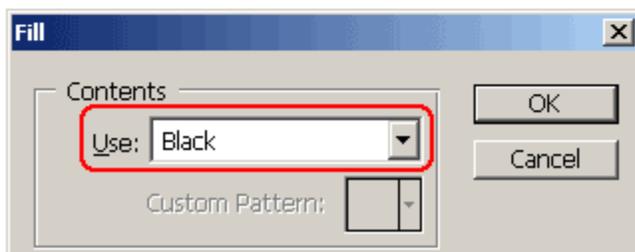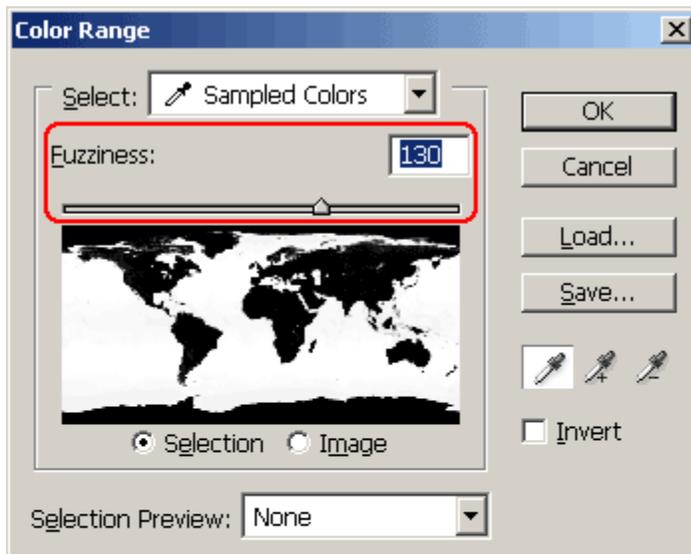
3. Watch your image closely. You'll see some grey areas. To remove this, from top menu **Image>Adjustment>Threshold**. Adjust Threshold Level until you have only black and white color.
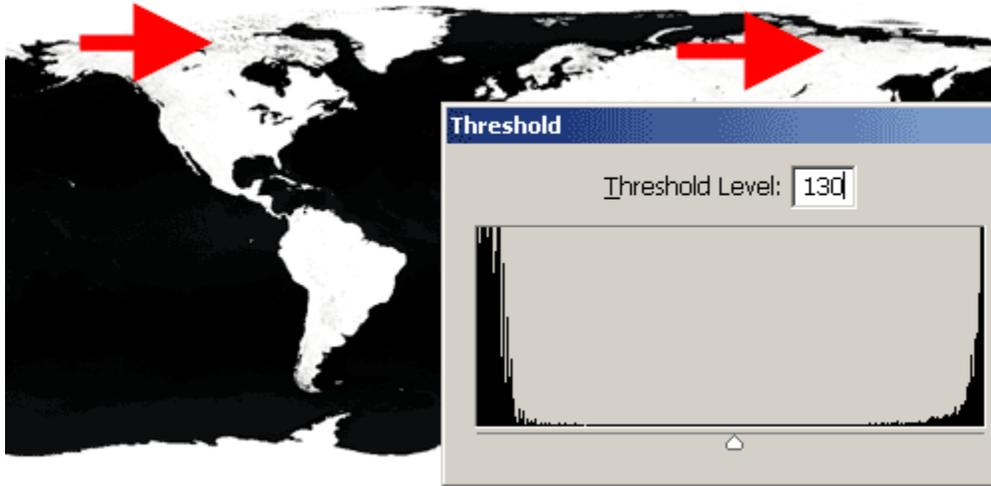

4. Image below show finished bitmap. Save as GIF or JPG file.

Part 2

After you've created bitmap for opacity channel using Photoshop in **Part 1** tutorial, you will create transparent and wireframe globe in 3ds max. In this tutorial, you won't find any modeling techniques. Just using material you can create convincing and nice looking globe.

1. Open 3ds max. Create a sphere. Use any radius you want.
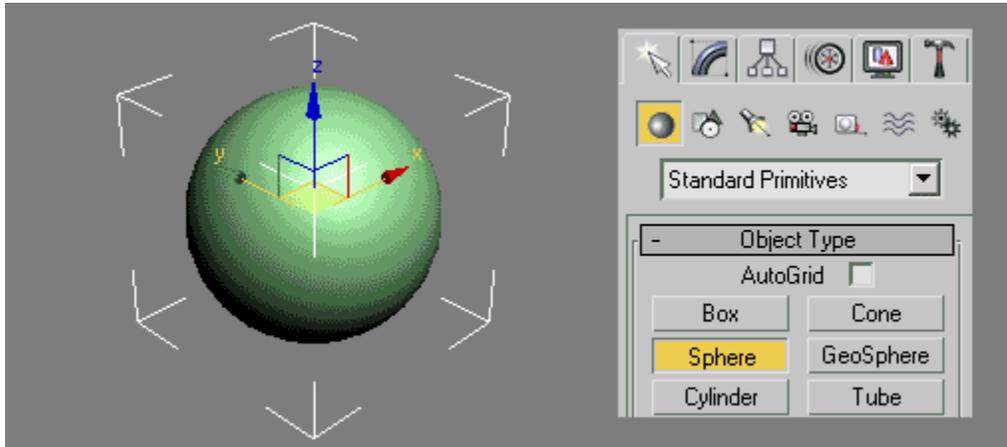
2. Open **Material Editor** (press M in keyboard). Drag one sample material slot to sphere in viewport to apply this material. You can also click **Apply Material to Selection** button if sphere is still selected. In Shader Basic Parameters, you can activate "2-Sided" if you want, so you can see back of globe later. I usually turn this option off because wireframe globe may looks a little bit cluttered (crowded). Change **Diffuse color box** into any color you want. In this example I use blue color.
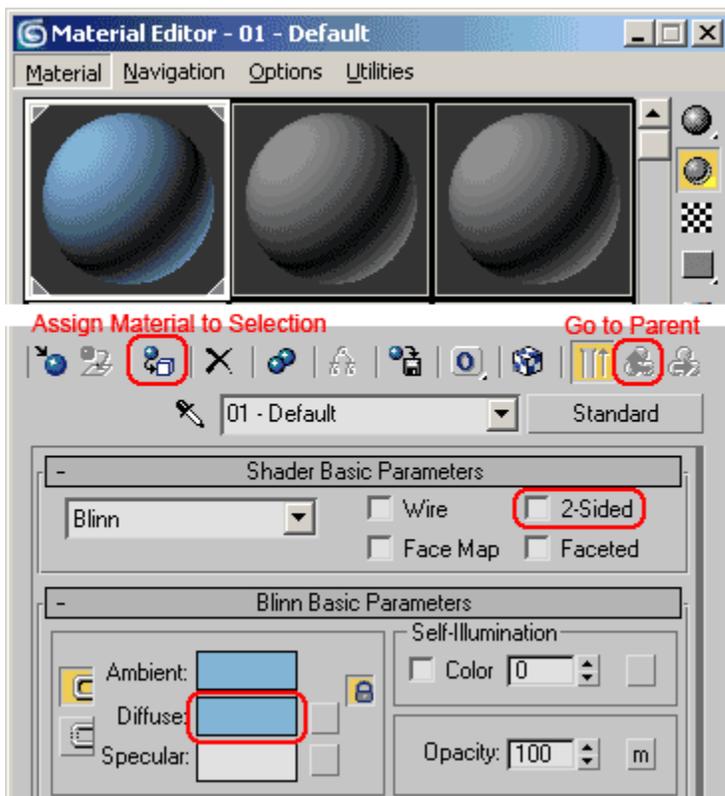

3.Open Maps rollout. Click None button right next to **Opacity**. In opened window, double click **Mix**. This material type is used to combine 2 materials. In Mix Parameters, click button

right next to black color (Color #1). Choose Bitmap and use image created previously using Photoshop in Part 1 tutorial.
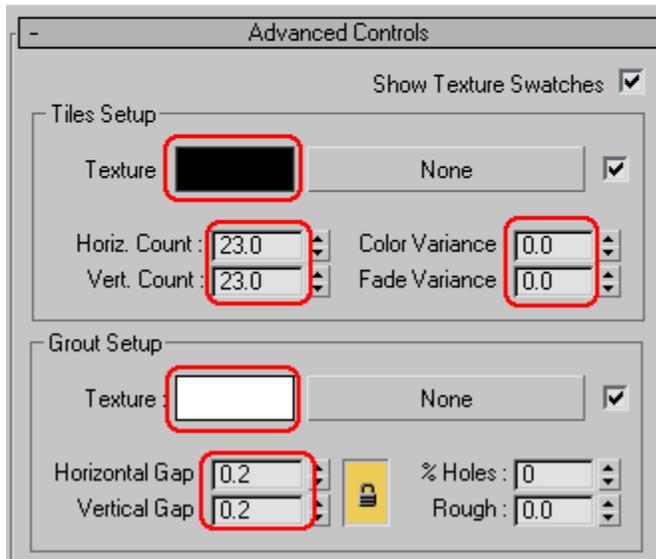
Click **Go To Parent** button to go back to Mix Parameters rollout.
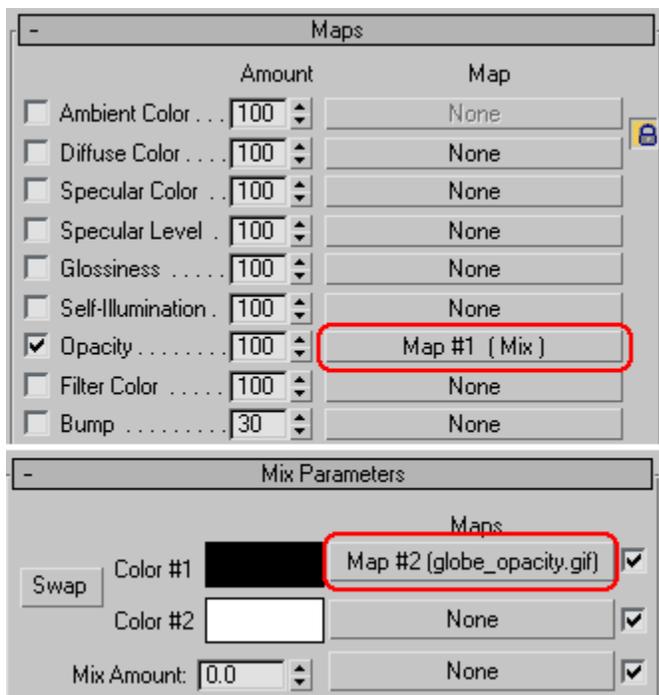
4. Try to render. You will have transparent globe. Black color in bitmap will create transparent area. Meanwhile, white color creates solid area.
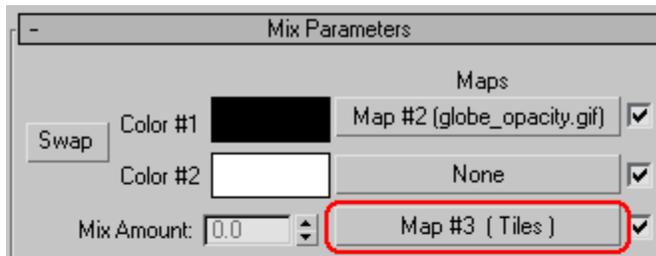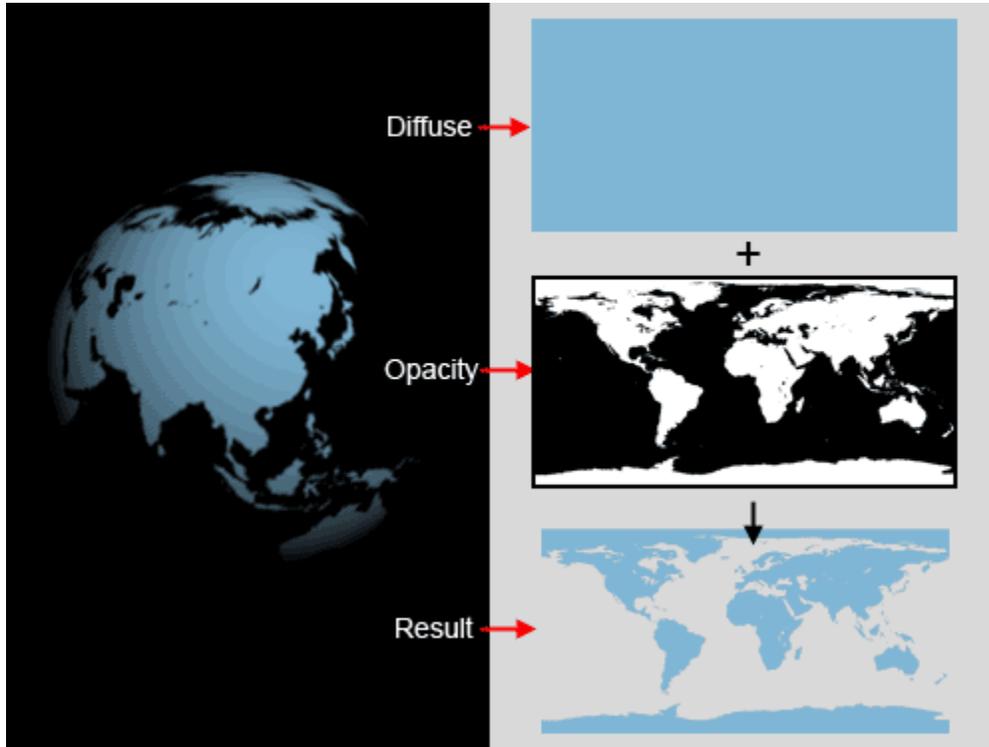
5. Next, you are going to add wireframe. Click button right next to **Mix Amount.** Choose **Tiles**. This material type is used to create tiling pattern.

Open **Advanced Controls** rollout. Change **Texture** color to black. Increase **Horizontal and Vertical Count** as may as you want. Also decrease **Variance** value to 0.

Change **Grout** color to white. Decrease wireframe thickness (**Horizontal and Vertical Gap**) to 0.2 or any value you want.

6. Advanced Controls will create black and white pattern like image below (middle left image). Because it is used as opacity channel, you will get blue wireframe. Combined with previous transparent earth, you will get transparent and wireframe globe.
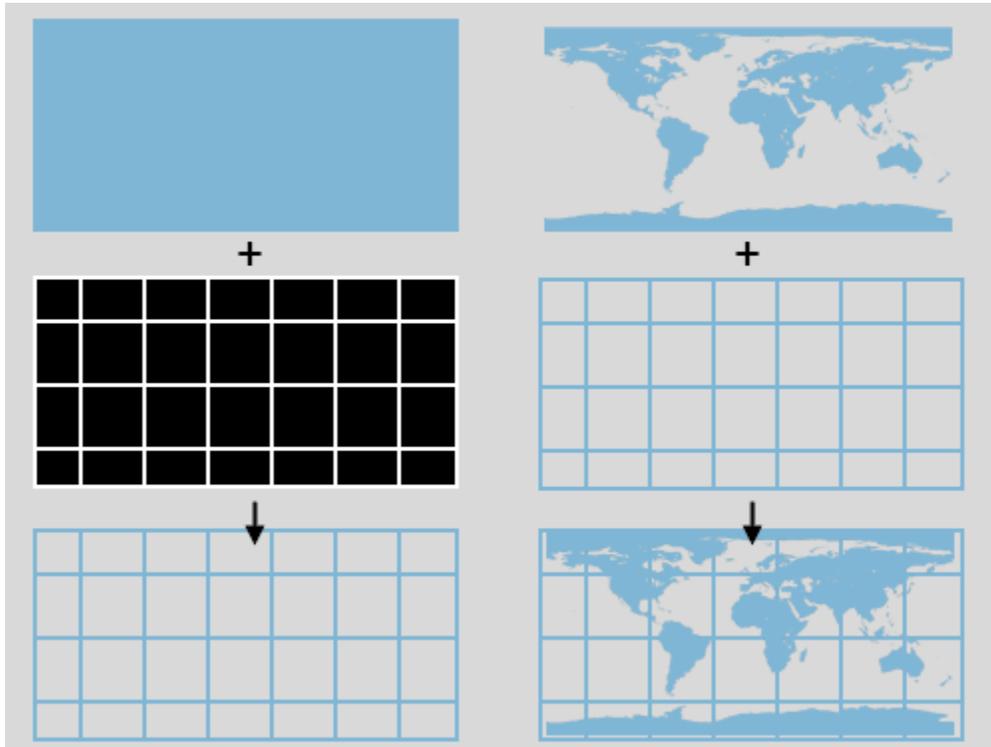
7. Render. Image below shows finished result. This techniques will be an awesome addition to your bumper or logo animation.

Download finished 3ds max file here

Tutorial published in pixel2life.com

PDF version by 3D Myths

Enjoy!