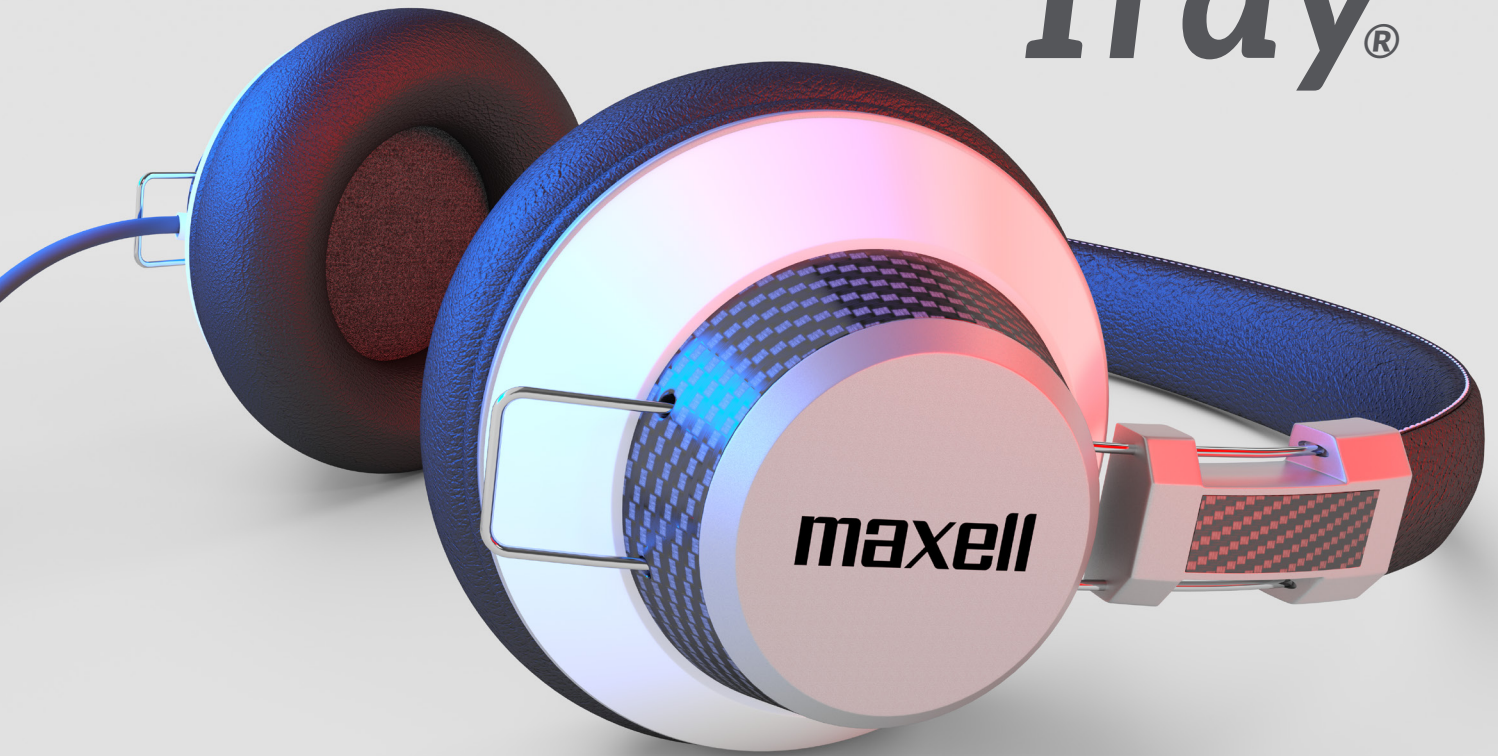


Iray⁺



Iray+ for 3ds Max Product Demo

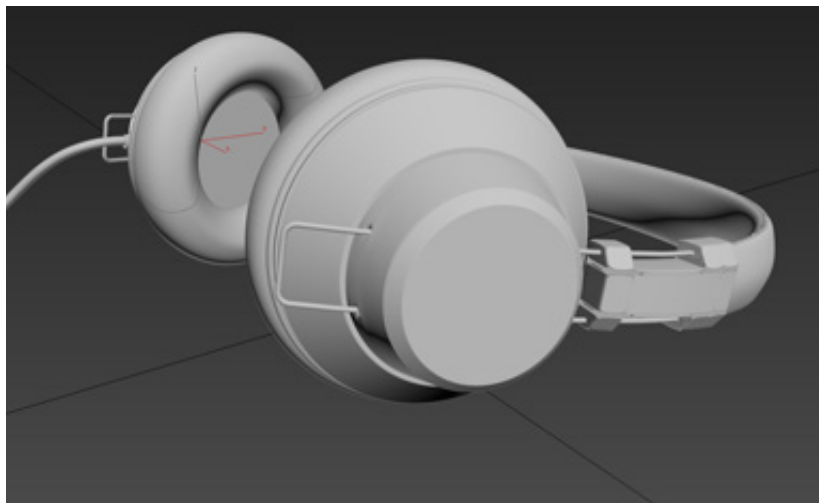
This demonstration walks through the typical workflow of rendering a product in Iray+ for 3ds Max. Including setting up your scene and renderer, adding lighting, adding and creating materials and production rendering.

This document requires that the following files are available:

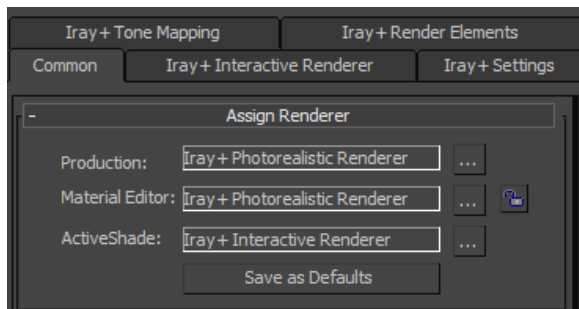
- headphones_start.max
- headphones_final.max
- headphones_material_library.mat
- /assets folder

Scene setup and lighting

1. Open 3ds Max model: **headphones_start.max**
2. If you see the Units Mismatch dialog then select Adopt the File's Unit Scale
3. Configure the user paths/textures directory from the toolbar **Customize > Configure User Paths > External Files** and add the **assets** folder that came with this demo
4. Create a camera, from the toolbar select **Create > Cameras > Create Camera From View**
5. Open **Render Setup > Common > Assign Renderer** and select Iray+ Photorealistic Renderer for your Production and Material Editor and Iray+ Interactive Renderer for your Production and Material Editor

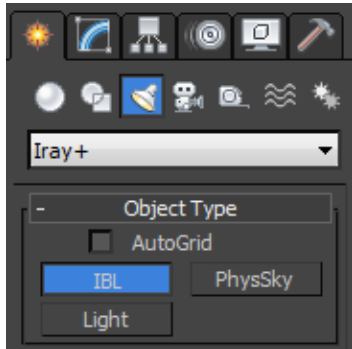


6. Set ActiveShade to Iray+ Interactive Renderer



7. Open the Material Editor
8. Add an Iray+ Material from the Material/Map Browser from **Materials > Iray+ > Iray+ Material**. Set the Base Color as a light gray
9. Select all geometry in the scene and apply the Iray+ Material to all objects.

Adding an IBL environment



1. Create an IBL light from **[Create Panel] > Lights > Iray+ [Dropdown] > IBL** and select in your viewport to create the IBL. Set the camera viewport to Shaded Mode
2. In the IBL parameters set the following:

Parameters

- **Image:** <model dir>/assets/studio_environment_01.hdr
- **Intensity:** 20000
- **Preview in Viewport:** On
- **Shape:** Sphere
- **Radius:** 600
- **Cam Height:** 100

Matte Parameters

- **Shadows:** On
- **Density:** 1

3. In the viewport use the transform tools to set the following
 - **Rotation:** -41 degrees in Z axis
4. Open **Render Setup > Iray+ Tone Mapping** and set the following:
 - **Exposure/Brightness:** 0.34
 - **Highlights:** 0.1
 - **Shadows:** 0.1
 - **Saturation:** 1.1
5. Open an ActiveShade window to preview the scene. It should look correctly lit.



Adding Iray+ Lights

1. Create an Iray+ light from **[Create Panel] > Lights > Iray+ [Dropdown] > Light** and select inside your camera viewport to create the Light. Set the following parameters to create a blue light:

- **Light Type:** Rectangle
- **Length:** 0.1
- **Width:** 0.4
- **Light Intensity:** 20000
- **Total Power:** On
- **Tint (RGB):** 0, 30, 255

2. Use the transform tools to position the light with the following settings:

Move

- **X axis:** - 0.122
- **Y axis:** - 0.178
- **Z axis:** 0.176

Rotation

- **X axis:** 40
- **Y axis:** 0
- **Z axis:** -30

3. Add a second red Iray+ Light with the following parameters:

- **Light Type:** Rectangle
- **Length:** 0.2
- **Width:** 0.2
- **Light Intensity:** 11000
- **Total Power:** On
- **Tint (RGB):** 255, 0, 0

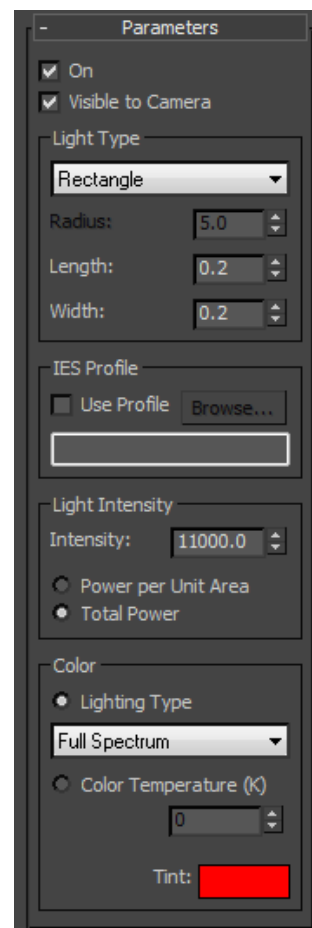
4. Use the transform tools to position the light with the following settings:

Move

- **X axis:** 0.355
- **Y axis:** 0.198
- **Z axis:** 0.189

Rotation

- **X axis:** -70
- **Y axis:** -2
- **Z axis:** 0





Materials

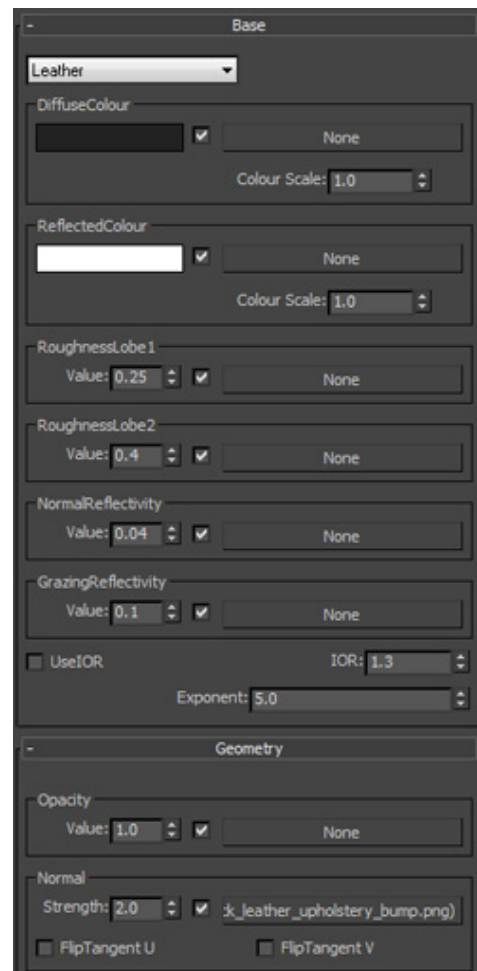
1. Open the Material Editor to create the leather material for the headphones
2. Add an Iray+ Material from the **Material/Map Browser** from **Materials > Iray+ > Iray+ Material**.
3. Change the preset dropdown on the base component from Matte to **Leather**
4. Remove the Color Map that was loaded in with the Leather preset.
5. Add a Normal Map by clicking the empty map button in the **Normal** group. From the Material/Map Browser select **bitmap** and add black_leather_upholstery_bump.png from the models assets folder
6. Set the following parameters:

Base

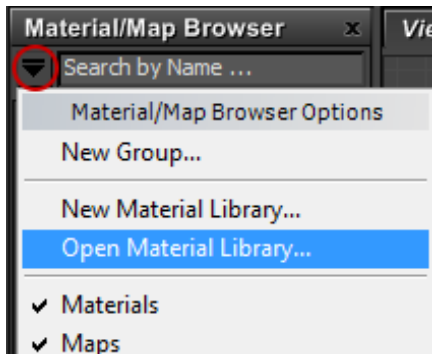
- **Preset:** Leather
- **Diffuse Color (RGB):** 3, 3, 3

Geometry

- **Normal Map:** <model dir>/assets/black_leather_upholstery_bump.png
- **Normal Strength:** 2.0
- **Normal Map Tiling:** 2.0 and 2.0



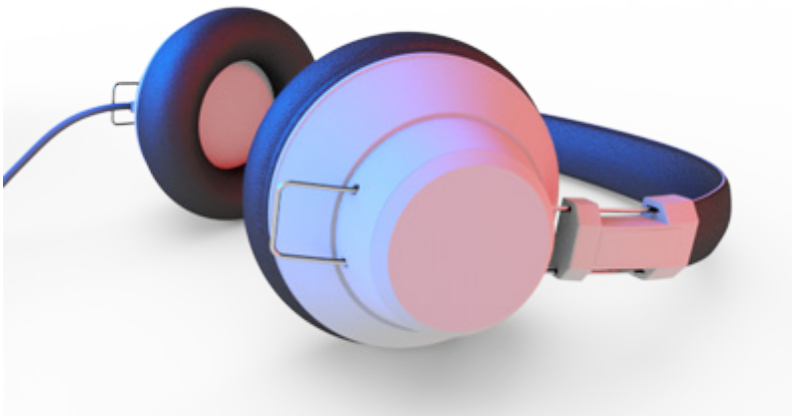
7. Apply the material to the **leather** selection set. Preview image in ActiveShade and adjust parameters until you are happy with the leathers appearance



8. To create the material for the RUBBER_WIRE object, use a material from the premade material library. In the **Material/Map Browser** select the drop down arrow to and select **Open Material Library**. Select headphones_material_library.mat from the demo resources
9. Add the rubber material from the imported material library to the Material Editor and assign to the **rubber** Selection Set
10. For the CHROME_ADJUSTER objects, add an Iray+ Metal material from **Materials > Iray+ > Iray+ Metal** and assign it to the **Chrome** selection set. Then select the following parameters:

Base

- **Preset:** Chromium
- **Roughness:** 0.025

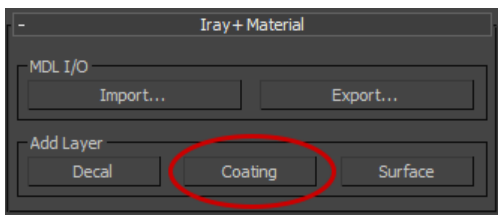


Creating a complex material

1. For the LOGO_PANEL objects add an Iray+ Material to the Material Editor, assign it to the **Shellac_Logo** selection set. Open an ActiveShade window to preview the changes made the material
2. Add the following parameters to your material:

Base

- **Preset:** Glossy
- **Diffuse Color (RGB):** 89, 89, 89
- **Reflected Color (RGB):** 224, 244, 244



3. Add a coating layer to to the material by choosing **Add Layer > Coating** and set the following parameters:

Coating

- **Preset:** Flakes
- **Flake Color (RGB):** 242, 253, 255
- **Flake Roughness:** 0.2
- **Flake Intensity:** 10.0
- **Flake Size:** 0.025
- **Flake Amount:** 0.2
- **Flake Bumpiness:** 0.75
- **ScalingFactor:** 0.0008

4. Add a second coating layer and set the following parameters:

Coating

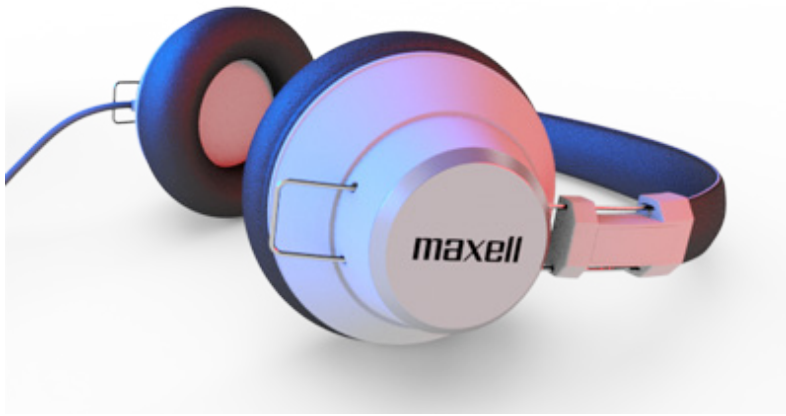
- **Preset:** MetalPlating
- **Color (RGB):** 0, 0, 0
- **Roughness:** 0.015
- **Weight:** 0.25
- **IOR:** 25.0

5. Add a final coating layer and set the following parameters:

Coating

- **Preset:** MatteFinish
- **Color:** maxell_logo.jpg
- **Roughness:** 0
- **Weight:** maxell_logo_weight.jpg

6. Save the model.



Render Setup

1. For the purposes of the demo, we will now work from a completed version of the model, Open 3ds Max model: **headphones_final.max**
2. If you see the Units Mismatch dialog then select **Adopt the File's Unit Scale**
3. Open **Render Setup > Common**
4. Ensure you have Production Renderer chosen
5. Under **Common Parameters**, select **Single Output**
6. Select a place to save the image
7. Select the desired file format
8. Go to the Iray+ Photorealistic tab and under Resources select **Render on this Machine**
9. Adjust frame completion to the desired setting
10. Go to **Iray+settings > Resource manager** and ensure you are using any GPUs you want to render with. If no GPU, then ensure CPU is selected
11. Go to **Iray+ Render Elements** tab and select any elements required. These will be saved alongside your rendered image
12. Select the Render button.

