



Architectural Visualization Workflow in Autodesk Building Design Suite 2013

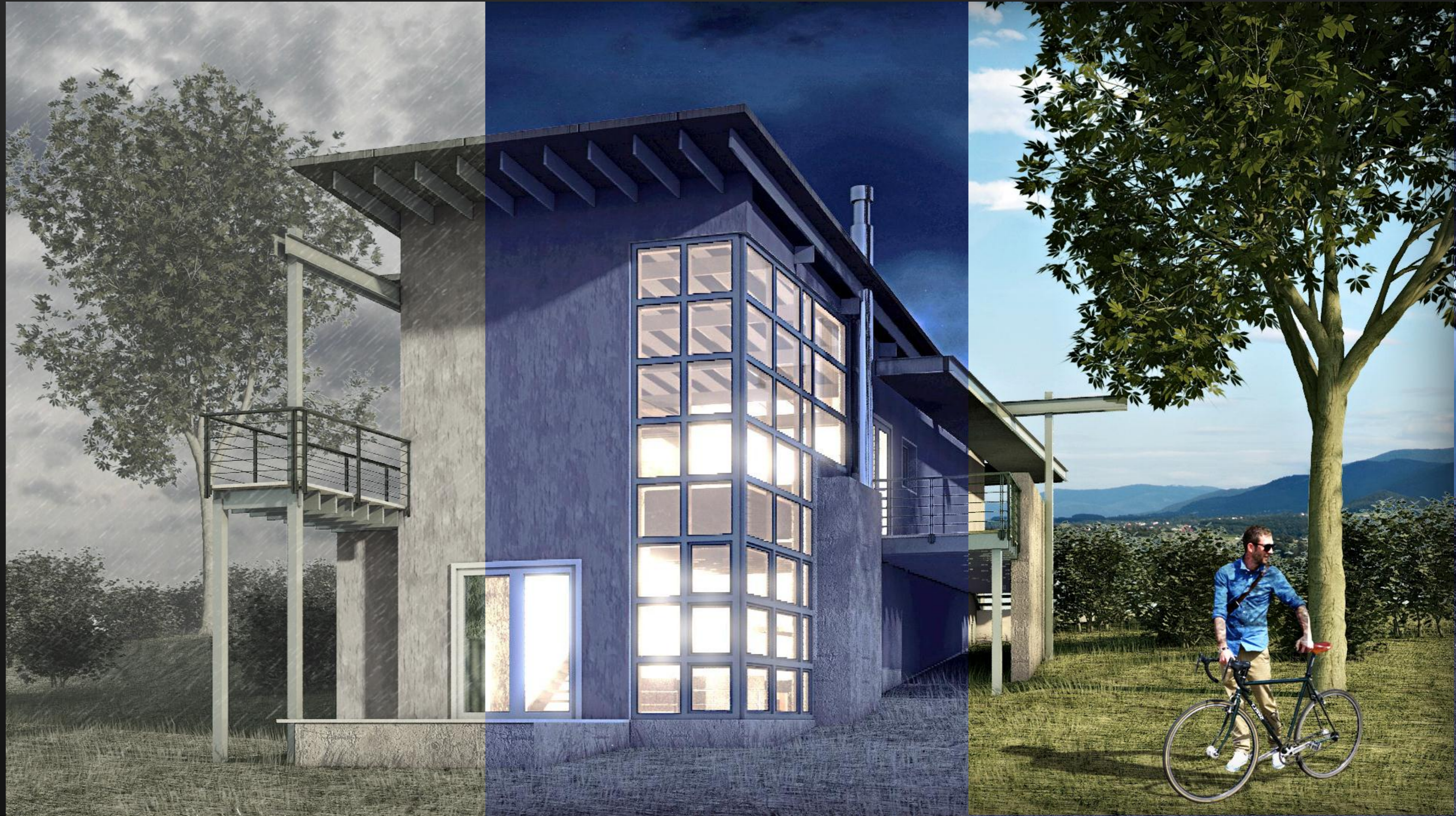
Marvi Basha
TU Graz

Class Summary

- What is Arch-Viz?
- Revit vs. 3Ds Max
- Workflow
- Post Production

Class Summary

- What is Arch-Viz?
- Revit vs. 3Ds Max
- Workflow
- Post Production



Learning Objectives

At the end of this class, you will be able to:

- Link and open a Revit model in 3ds Max Design
- Create a photorealistic rendering in a short amount of time
- Generate render elements with the Render Pass System in 3ds Max Design 2013
- Make modifications and add effects to the rendering with Autodesk Composite 2013

Importance of Architectural Visualization

Importance of Architectural Visualisation

- Communication
- Inspiration
- Motivation
- Marketing



Standard Render Settings

- Communication
- Inspiration
- Motivation
- Marketing



Adding Drama

How to add drama to your images:



9GAG.COM/GAG/4410154

What are the elements that makes a good rendering?

- Composition
- Story/ Scenario
- Environment/ Effects
- Lighting and Mood

Luxigon



Luxigon

What are the elements that makes a good rendering?

- Composition
- Story/ Scenario
- Environment/ Effects
- Lighting and Mood



A. Weirer
Studio 33

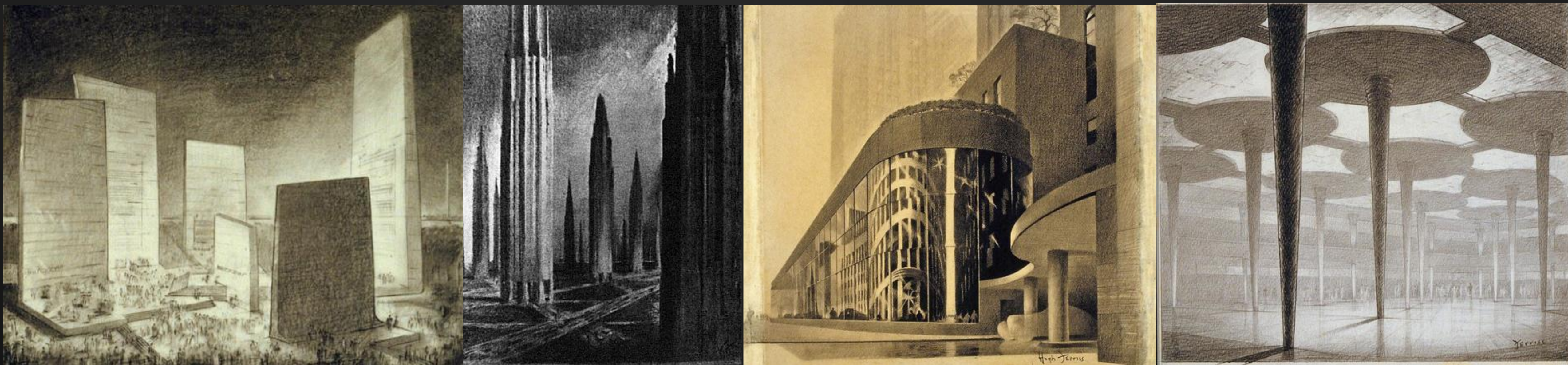
Mood Creation with Light

Hugh Ferriss



Mood Creation with Light

Hugh Ferriss



3D Render vs. Postprocessed Image



Pure Render



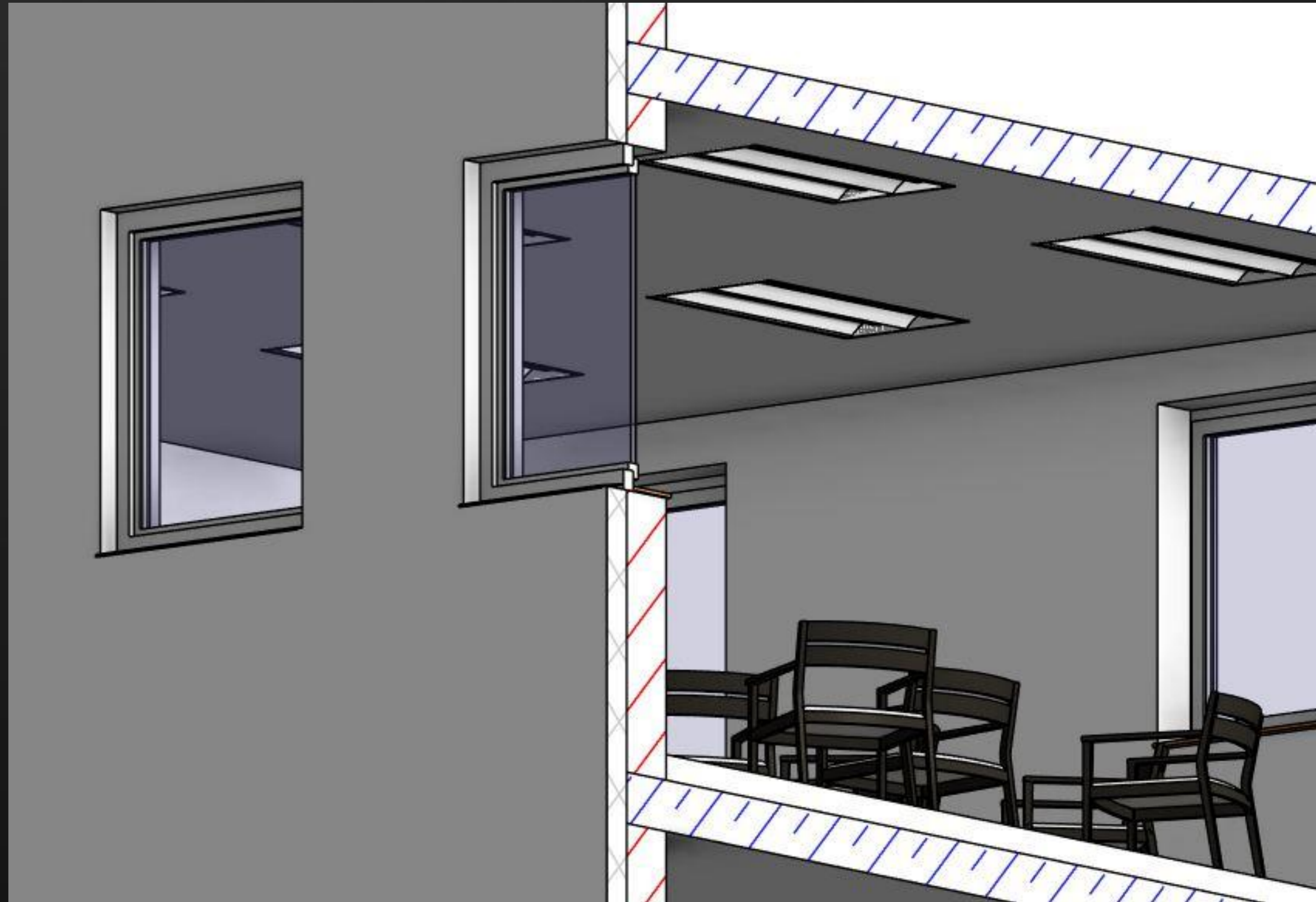
Luxigon

Revit Architecture vs. 3ds Max Design

Revit vs. 3ds Max

Advantages of Revit

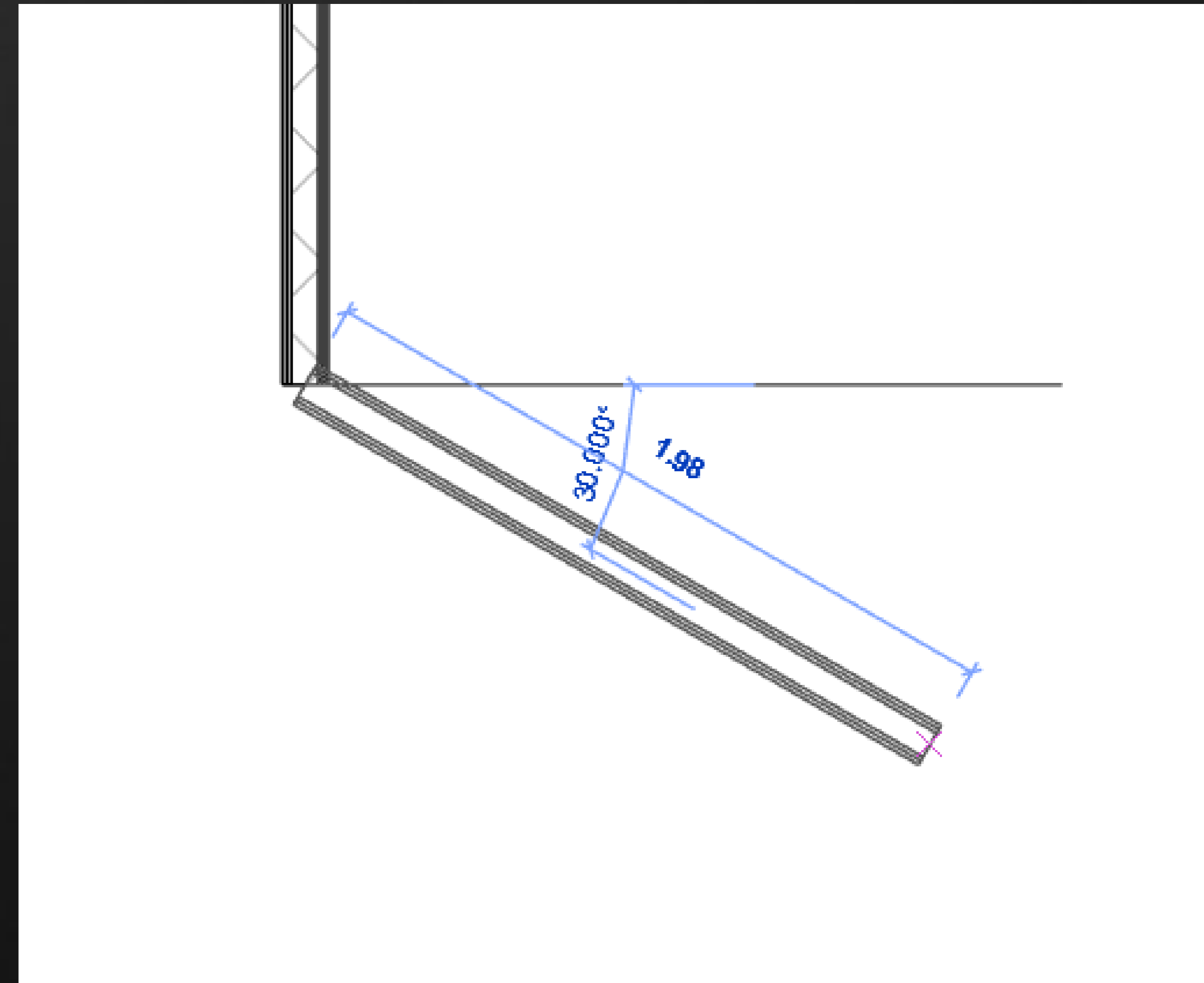
- **Modeling**
- Families
- Boolean Operation
- Alignment



Revit vs. 3ds Max

Advantages of Revit

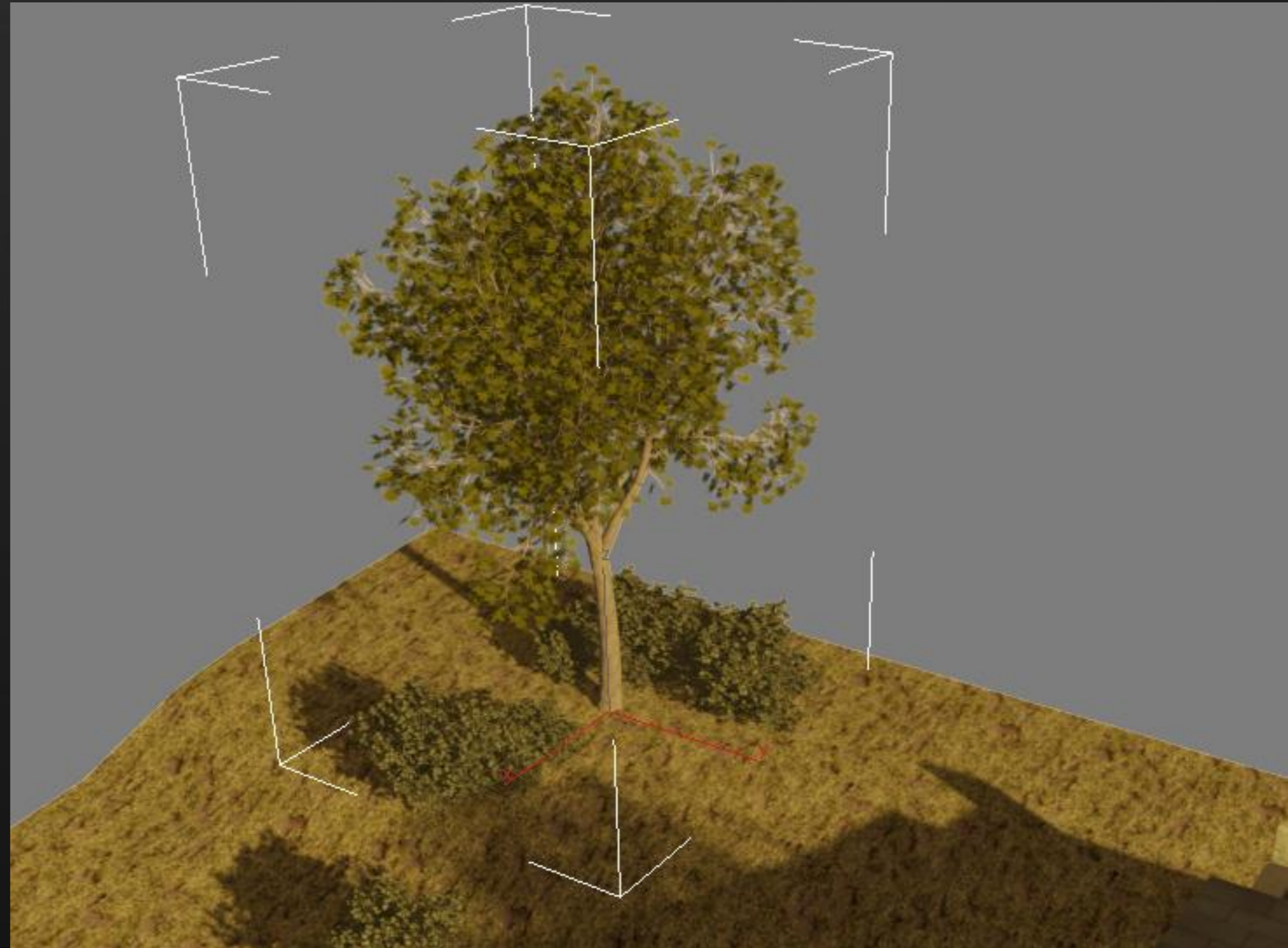
- **Modeling**
- Families
- Boolean Operation
- Alignment
- Temporary Dimensions



Revit vs. 3ds Max

Advantages of 3ds Max

- Modeling
- Nature



Revit vs. 3ds Max

Advantages of 3ds Max

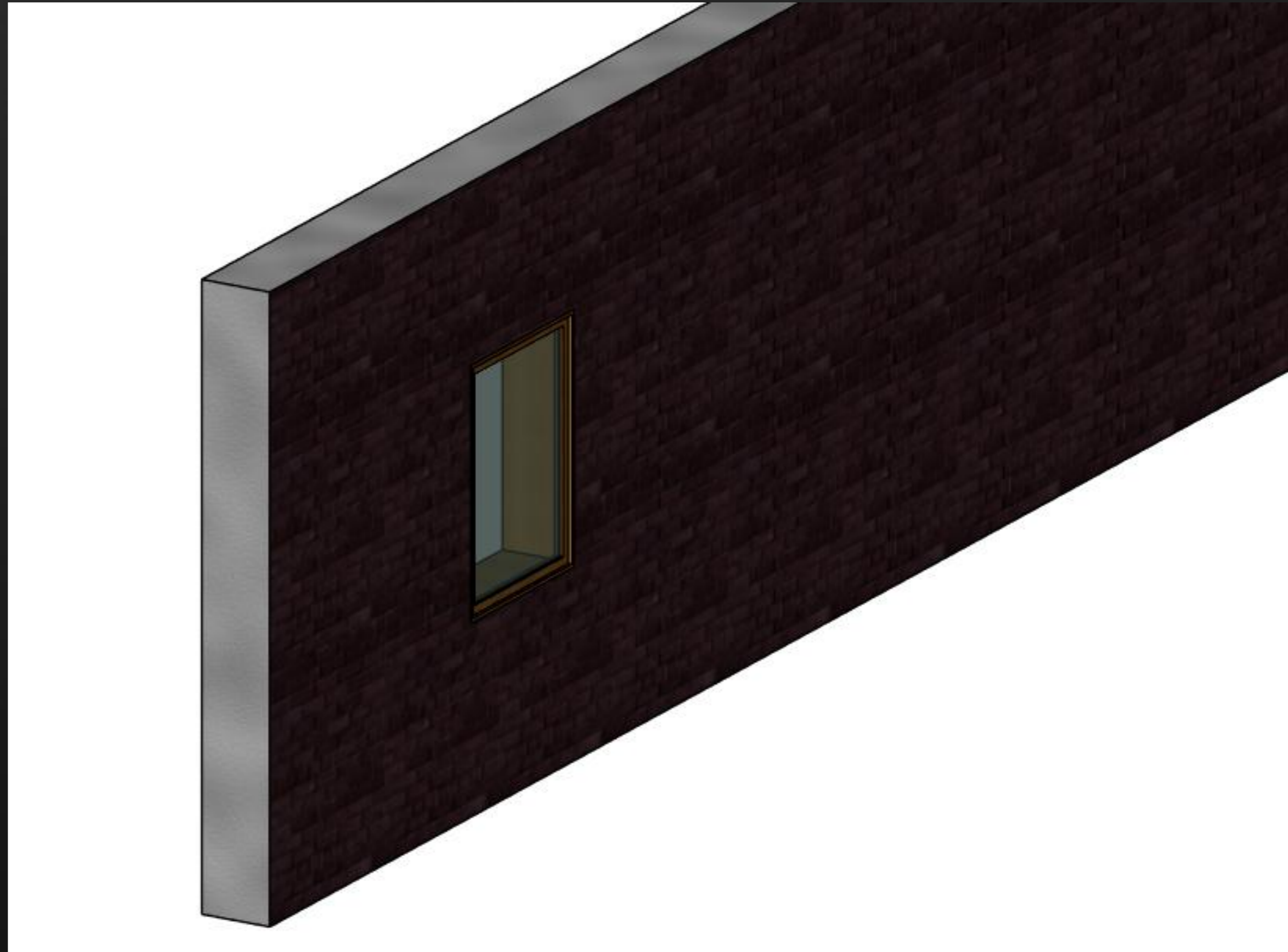
- Modeling
- Nature
- Scatter



Revit vs. 3ds Max

Advantages of Revit

- Modeling
- **Texturing**
- Families with Materials



Revit vs. 3ds Max

Advantages of 3ds Max

- Modeling
- **Texturing**
- Substance Maps



Revit vs. 3ds Max

Advantages of 3ds Max

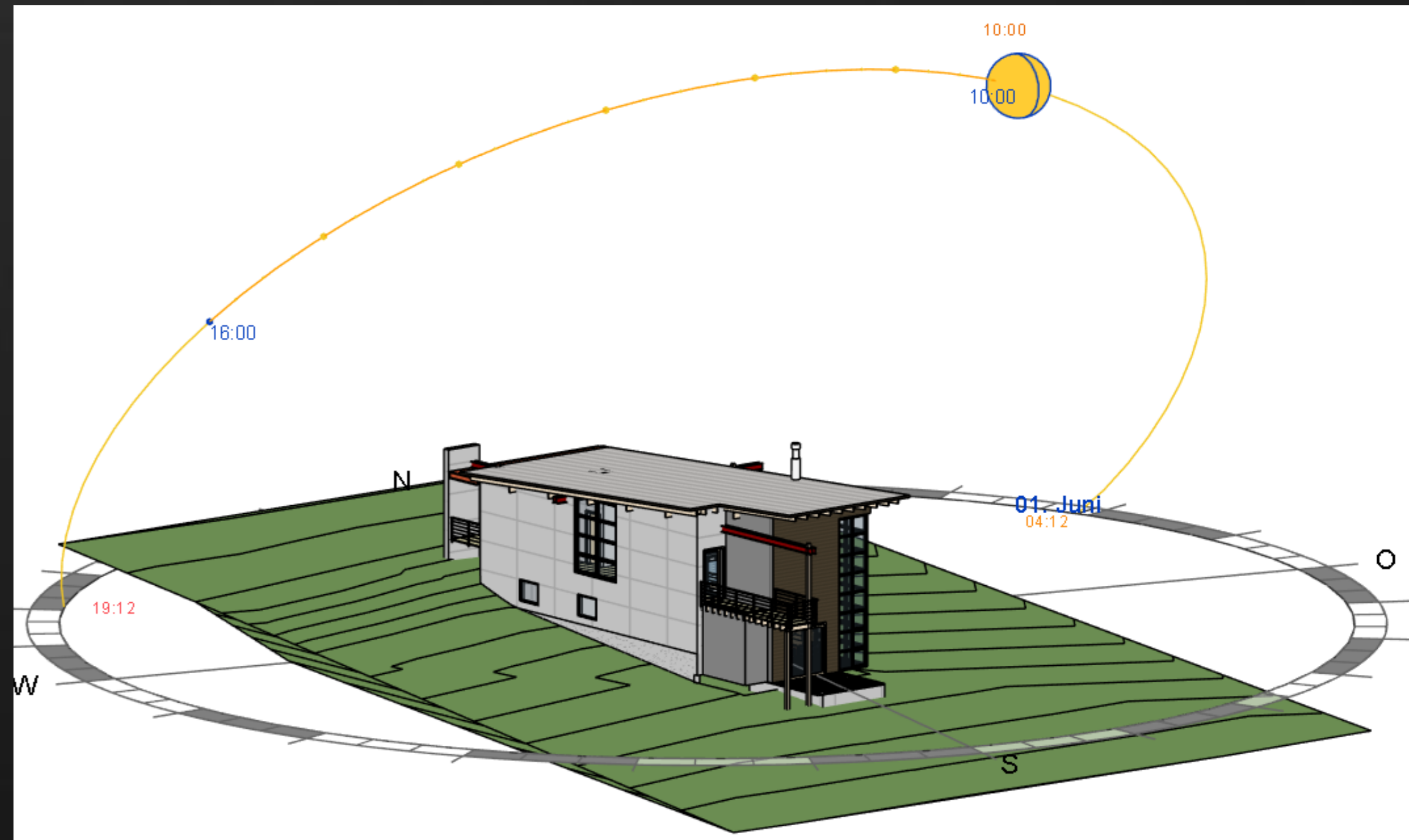
- Modeling
- **Texturing**
- Substance Materials
- UVW Map



Revit vs. 3ds Max

Advantages of Revit

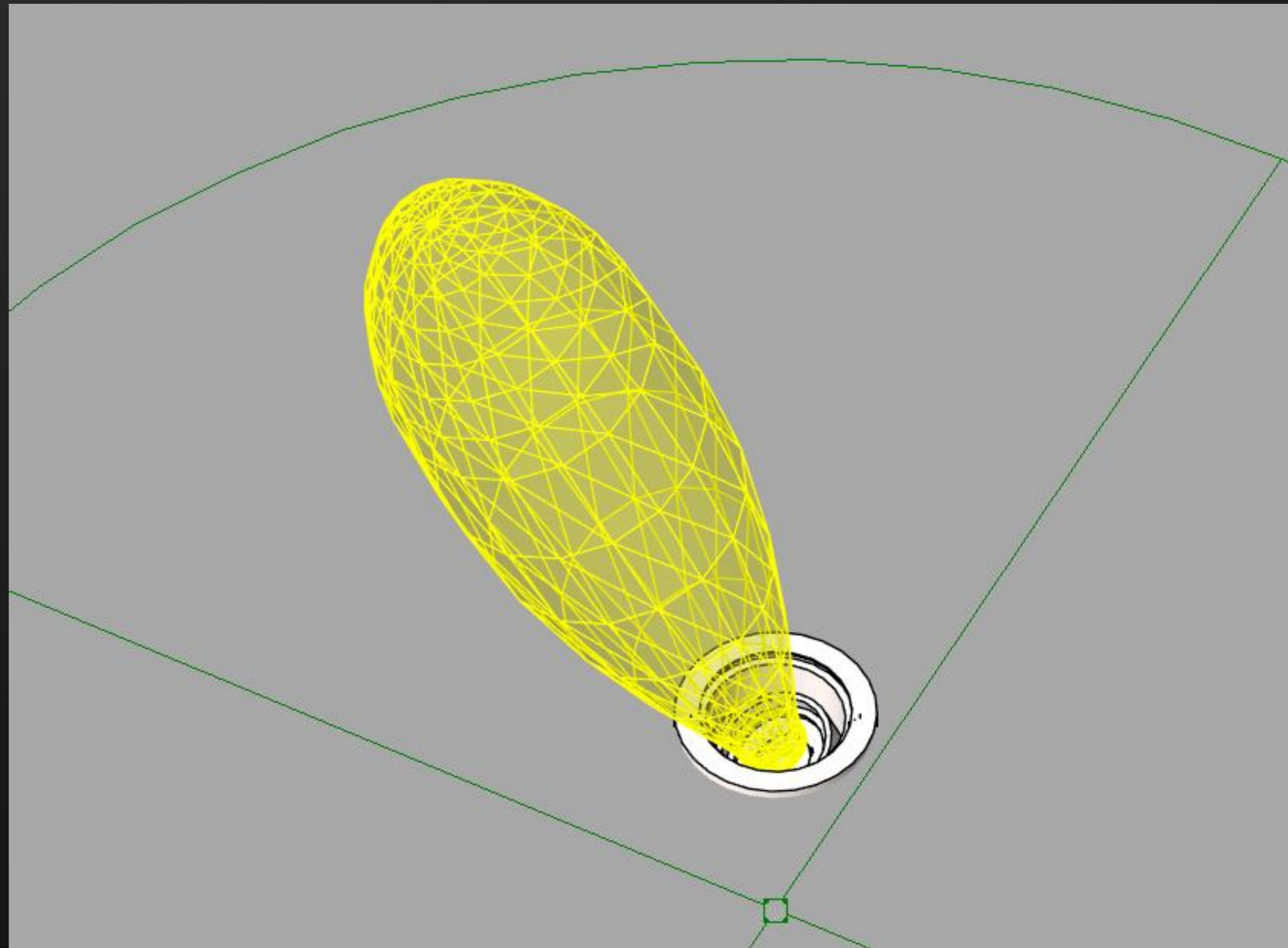
- Modeling
 - Texturing
 - **Lighting**
- Sun & Sky presets



Revit vs. 3ds Max

Advantages of Revit

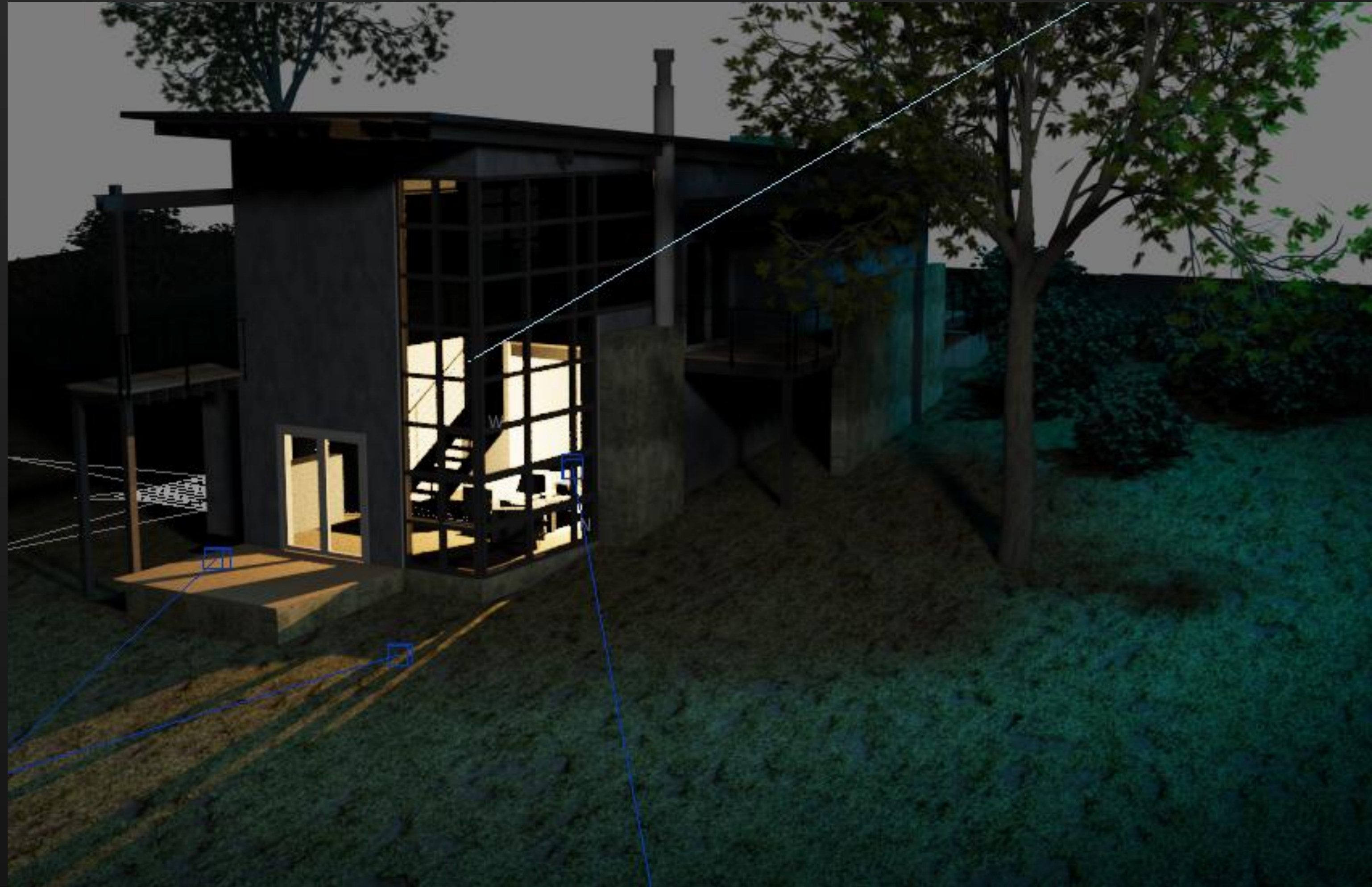
- Modeling
- Texturing
- **Lighting**
- Sun & Sky presets
- Light families with IES data



Revit vs. 3ds Max

Advantages of 3ds Max

- Modeling
- Texturing
- **Lighting**
- Nitrous Viewport



Revit vs. 3ds Max

Advantages of 3ds Max

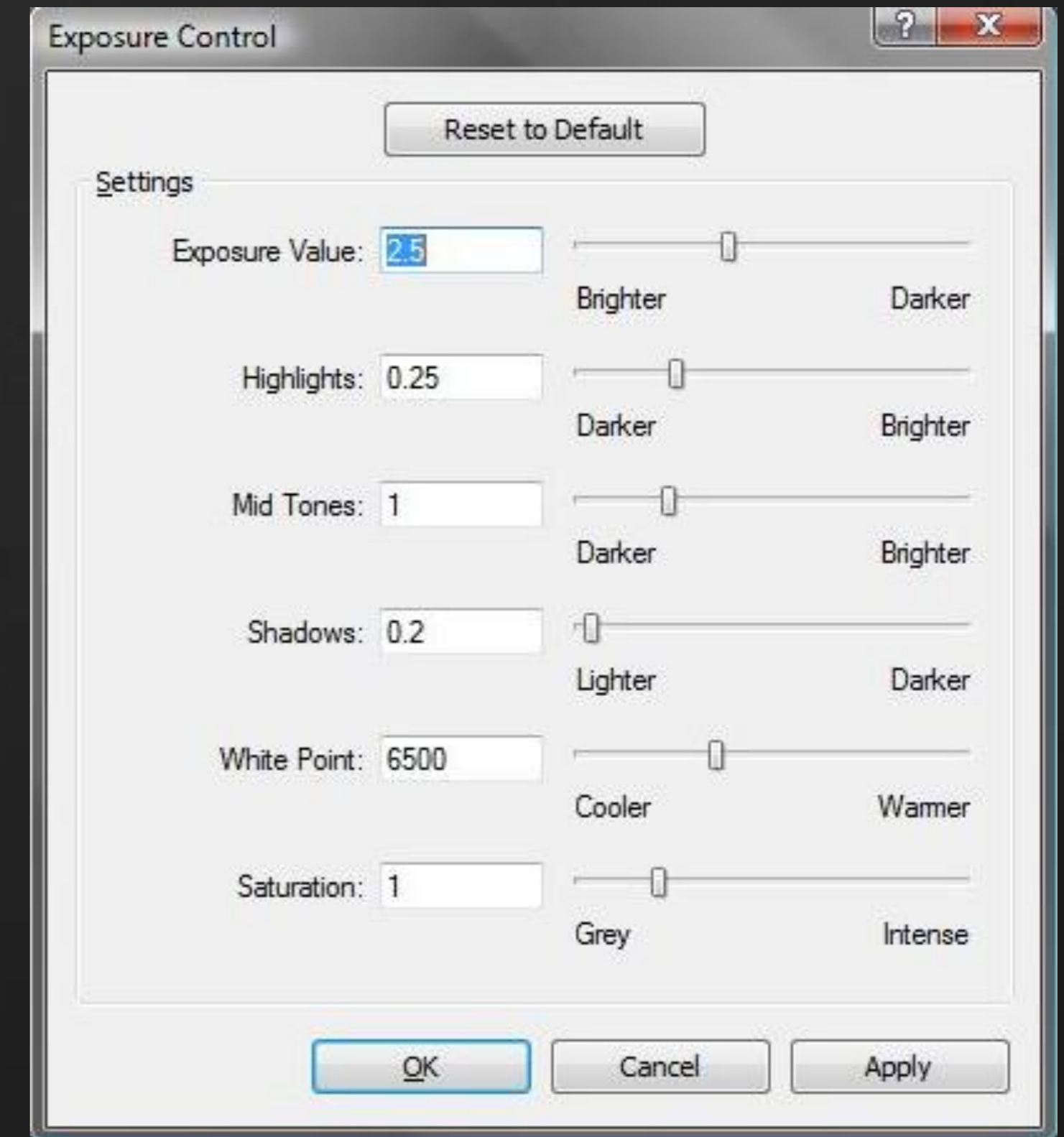
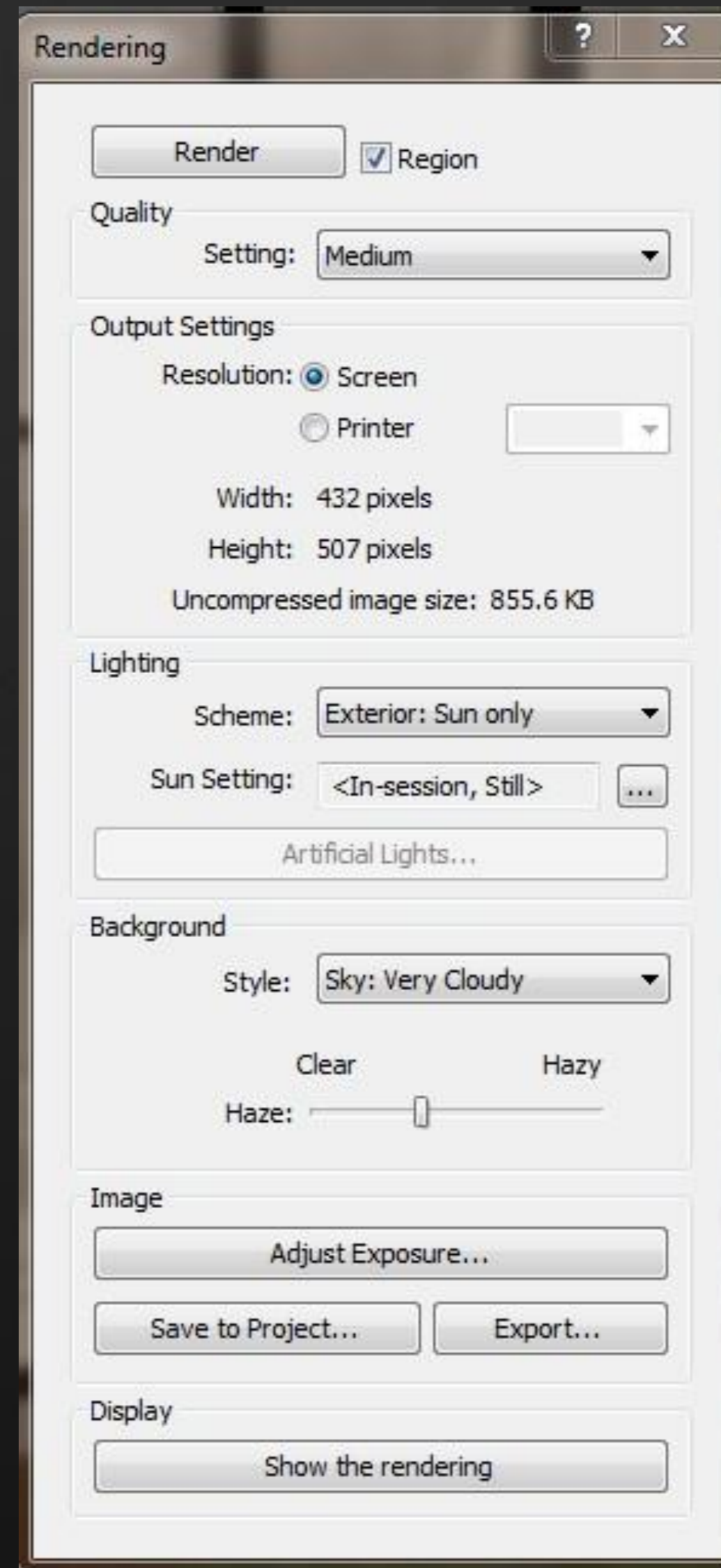
- Modeling
- Texturing
- **Lighting**
- Nitrous Viewport
- Environment and Effects



Revit vs. 3ds Max

Advantages of Revit

- Modeling
 - Texturing
 - Lighting
 - **Rendering**
- Few Render Settings
 - Adjust Exposure



Revit vs. 3ds Max

Advantages of 3ds Max

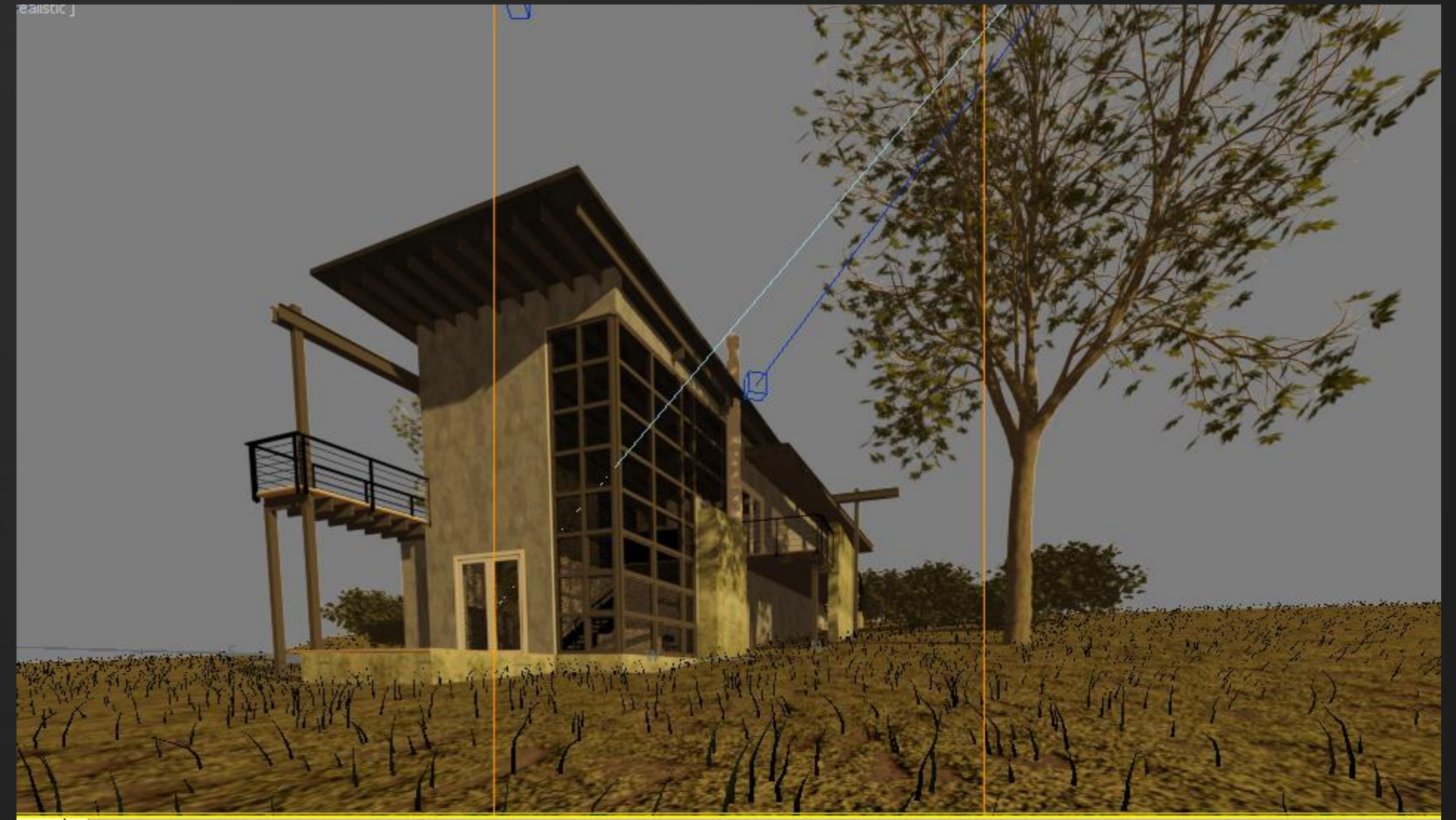
- Modeling
 - Texturing
 - Lighting
 - **Rendering**
- Render Time
 - Effects



Revit vs. 3ds Max

Advantages of 3ds Max

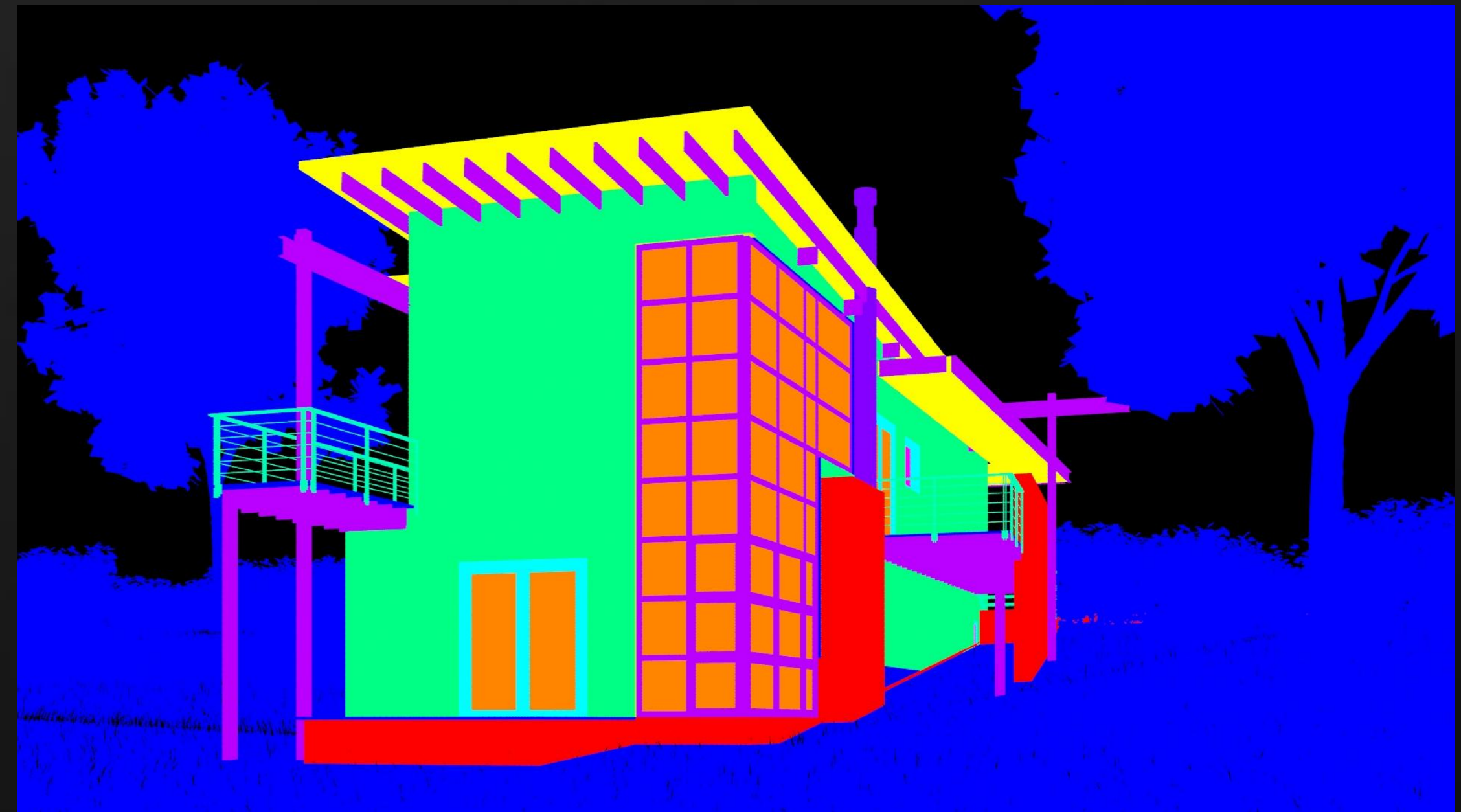
- Modeling
- Texturing
- Lighting
- **Rendering**
- Render Time
- Effects
- Camera Correction



Revit vs. 3ds Max

Advantages of 3ds Max

- Modeling
 - Texturing
 - Lighting
 - **Rendering**
- Render Time
 - Effects
 - Camera Correction
 - Render Elements

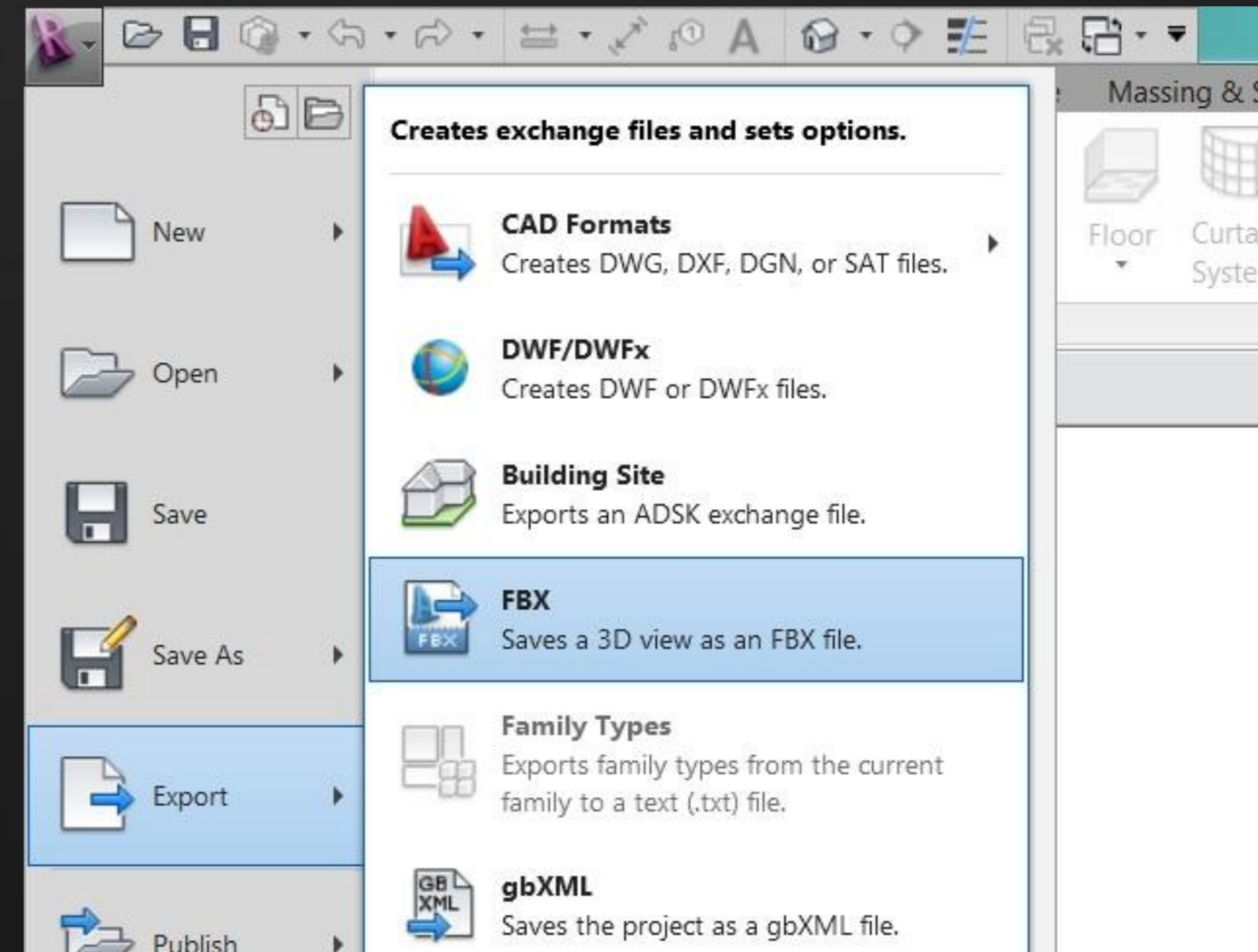


Importing & linking files in 3ds Max

DWG vs. FBX

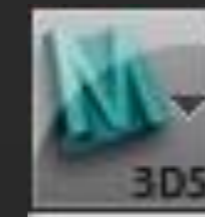
- DWG
- Layers
- Curves & Lines
- FBX
- Lights
- Materials
- Cameras

 > Export > FBX or DWG

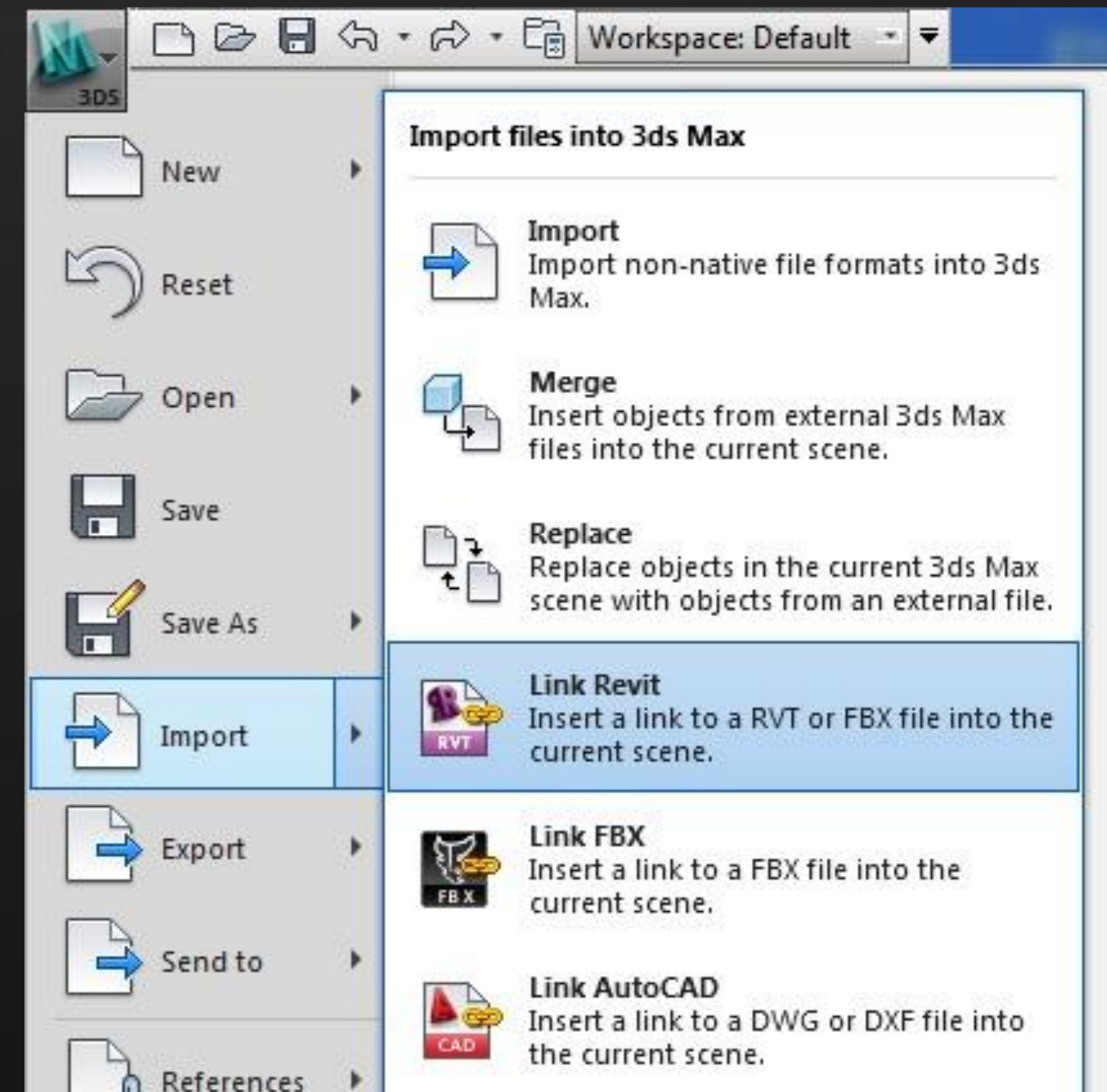


Linking Files

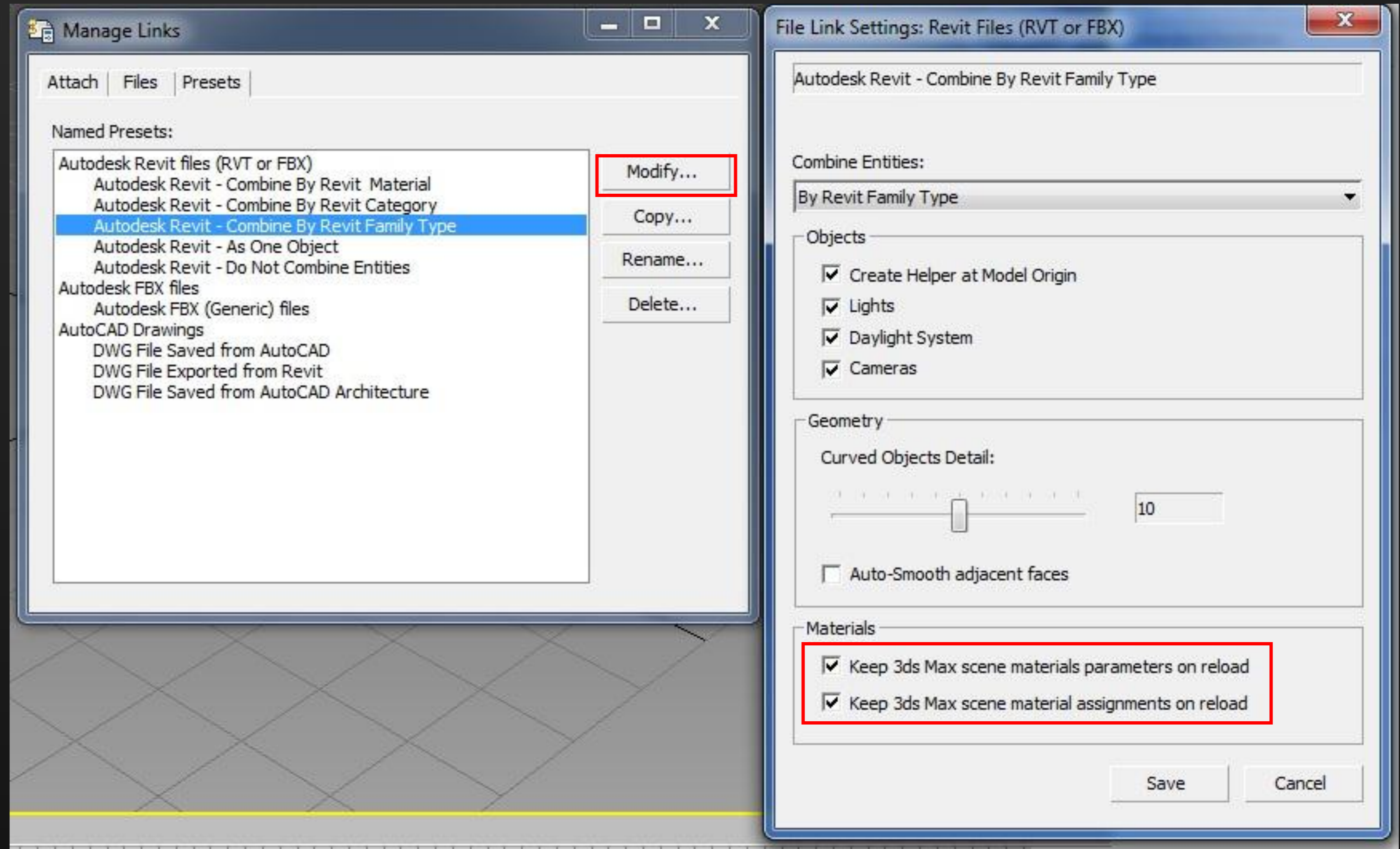
- **Combine By Revit Material**
- **Combine By Revit Category**
- **Combine By Family Type**
- **As One Object**
- **Do Not Combine Entities**



> Import > Link Revit



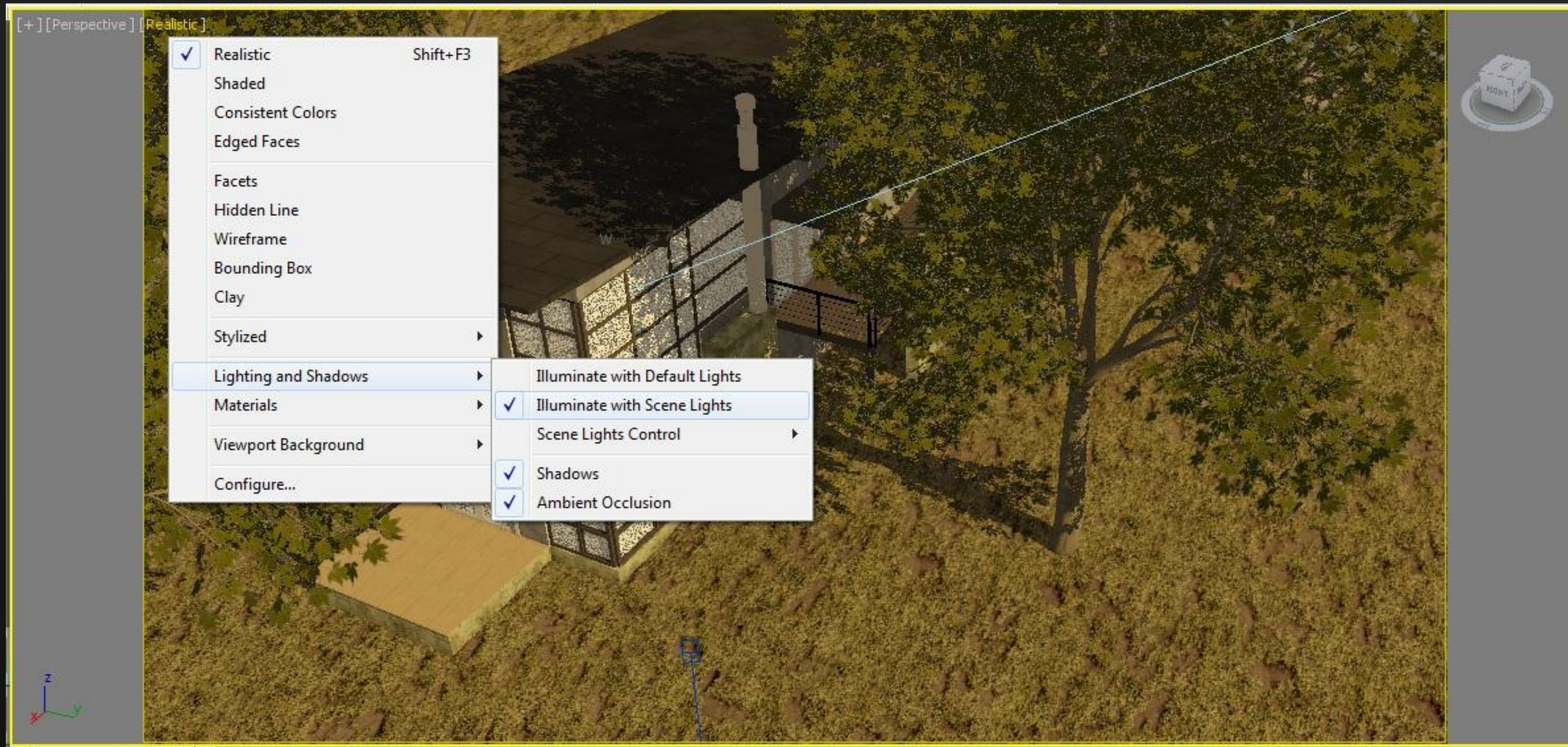
Linking Files



Preparing the Scene

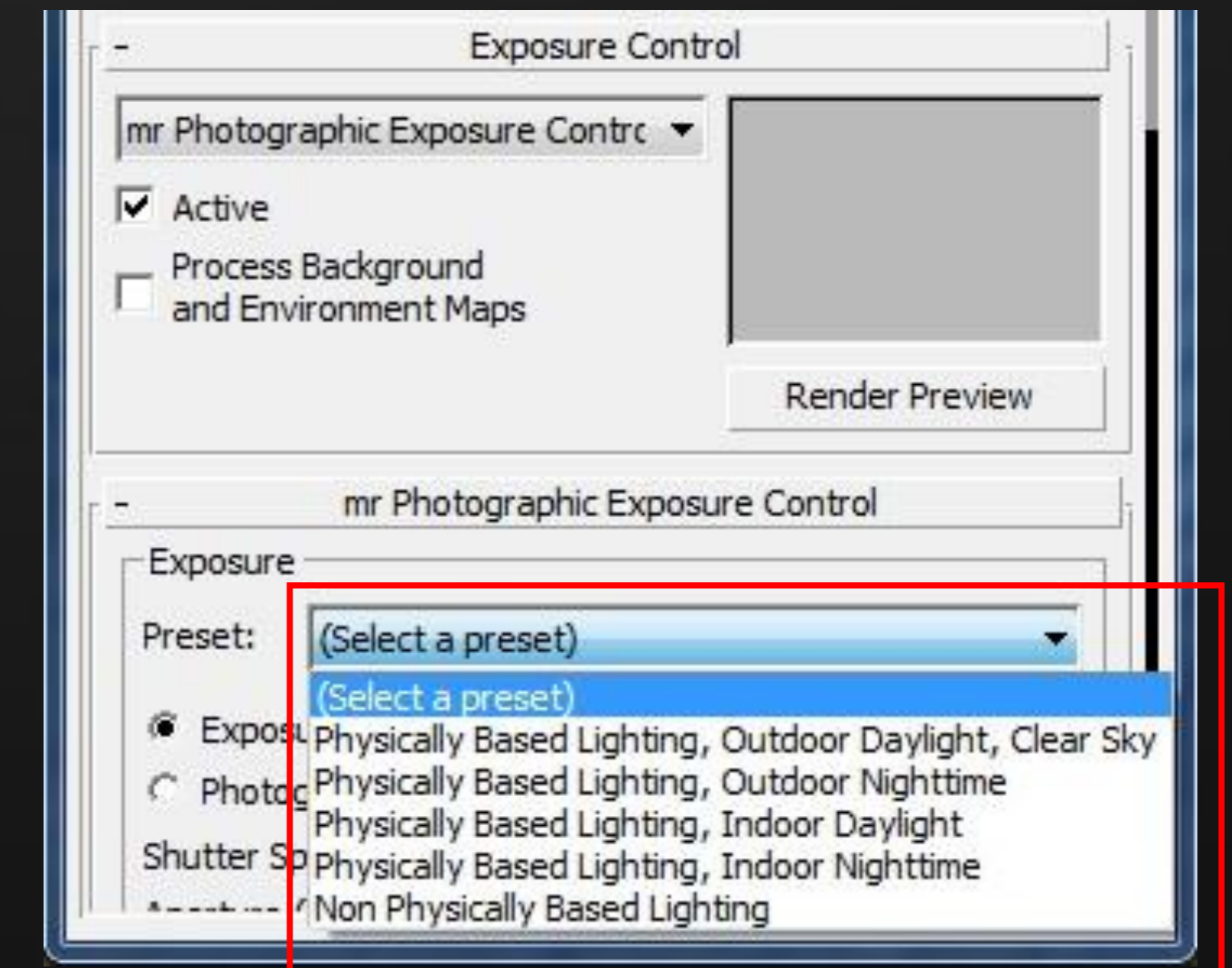
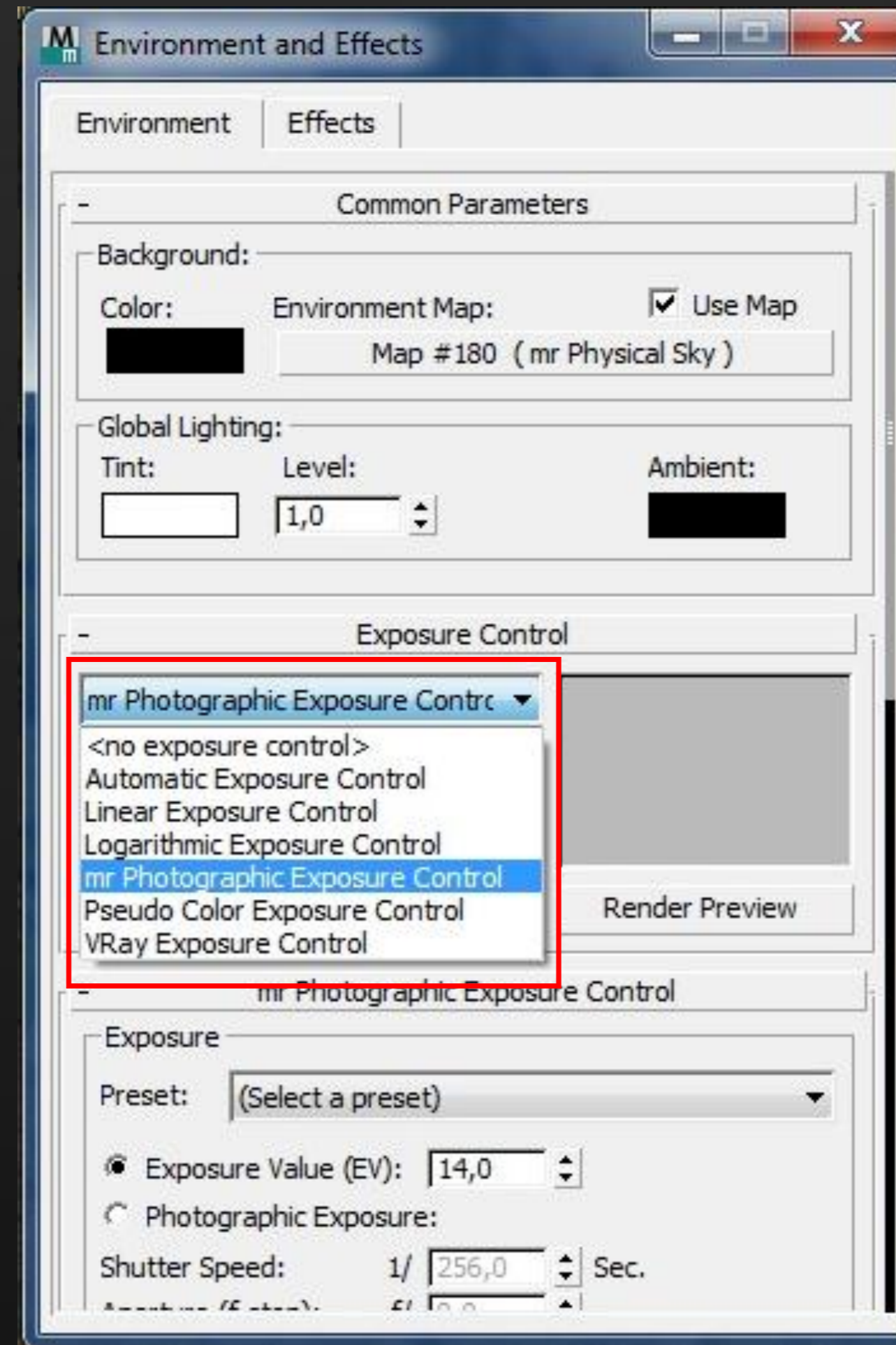
Activating Nitrous Viewport

Realistic > Lights and Shadows > Illuminate with scene lights + Shadow + Ambient Occlusion

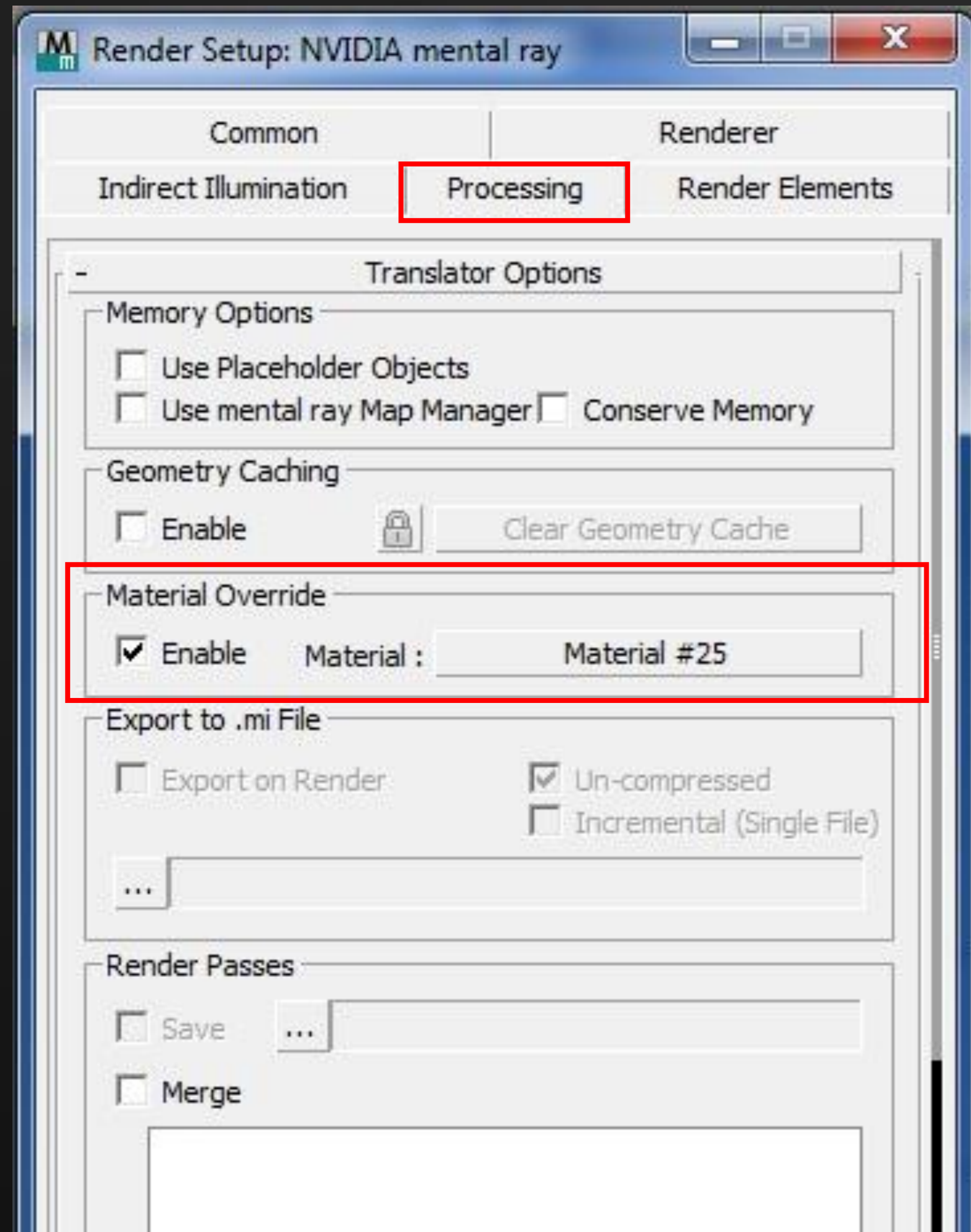


Environment

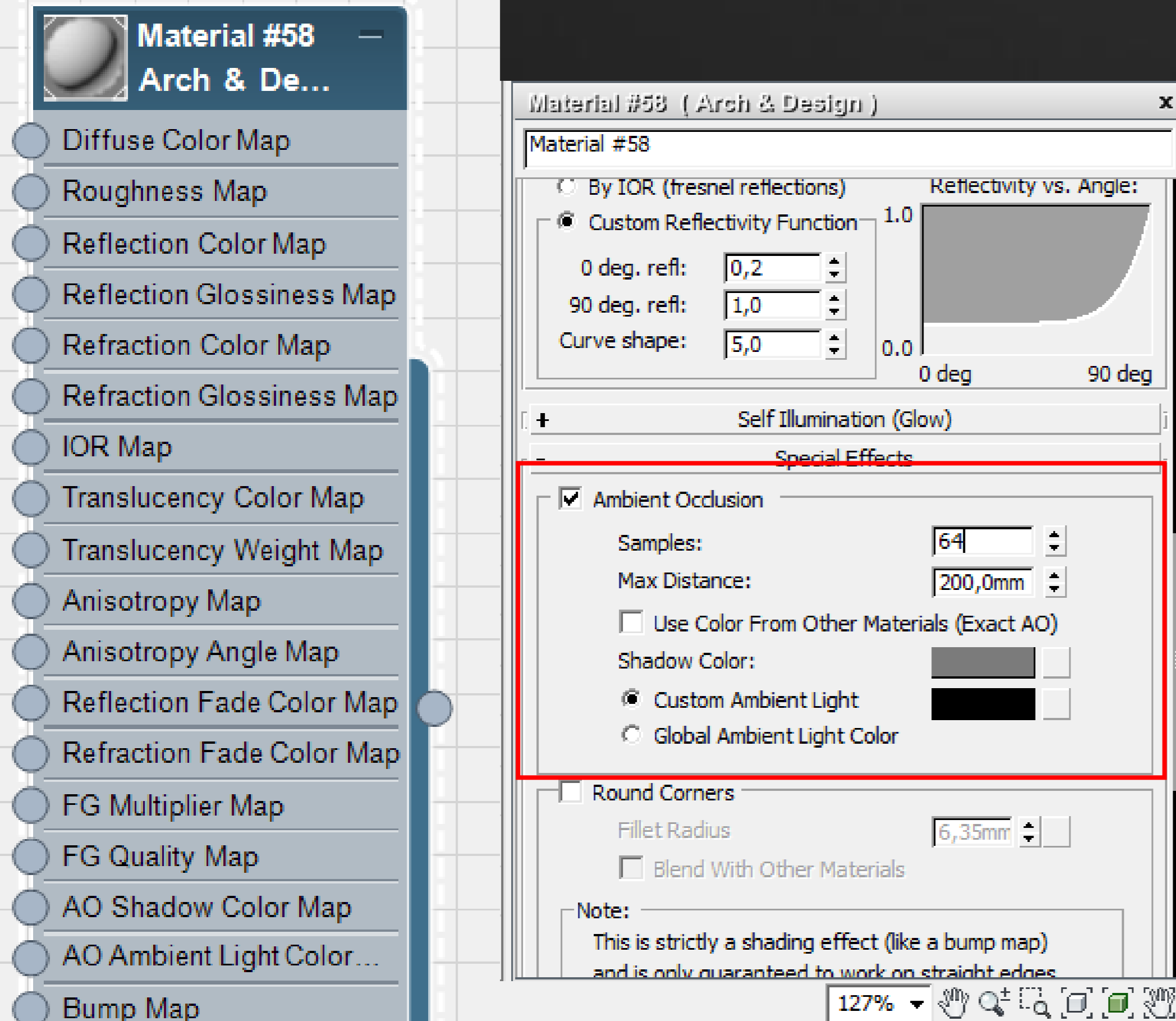
- mr Photographic Exposure Control



Material Override



Ambient Occlusion



Ambient Occlusion

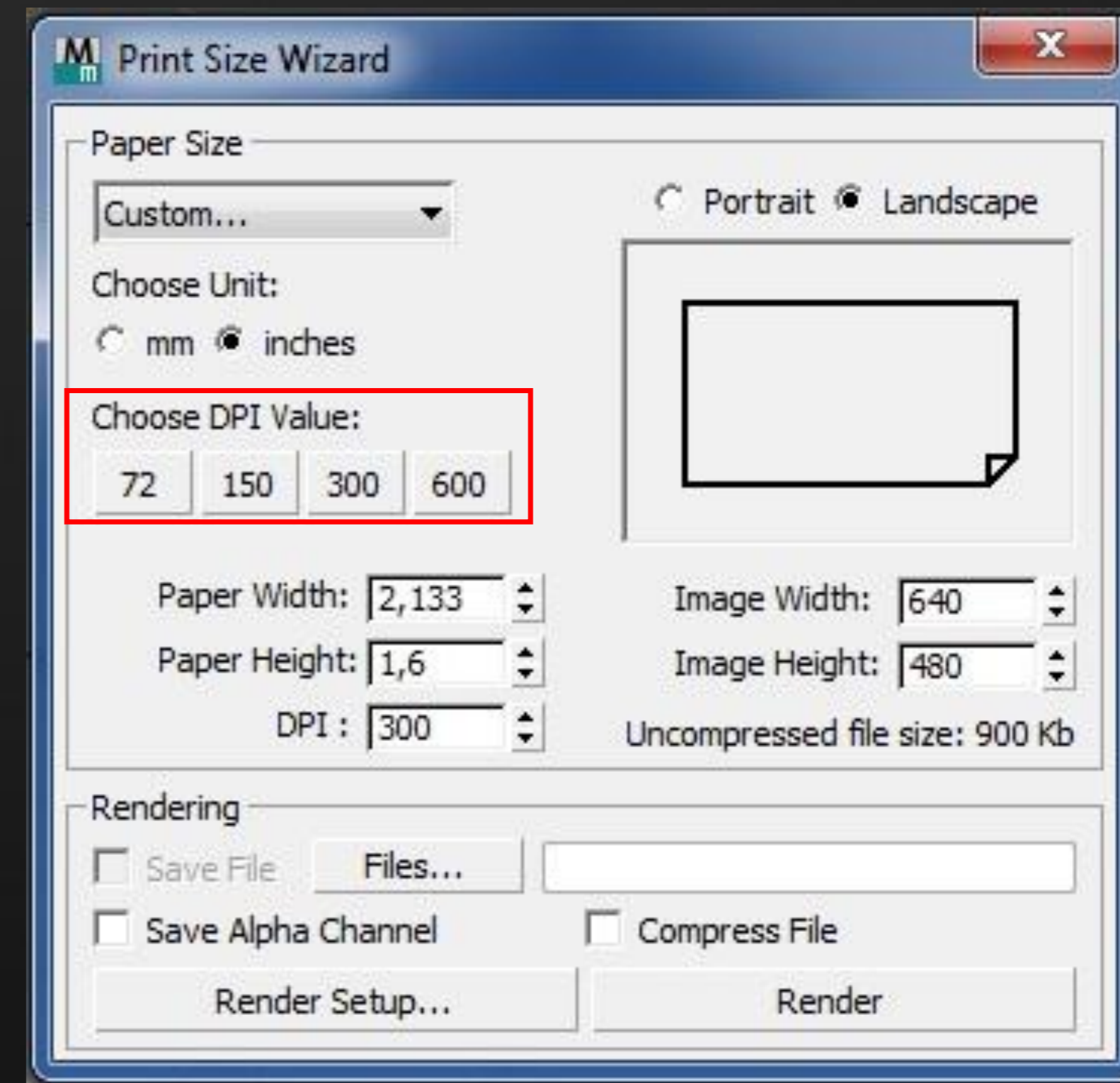


Render Settings

Image Resolution

- Image Resolution

Rendering > Print Size Assistant...



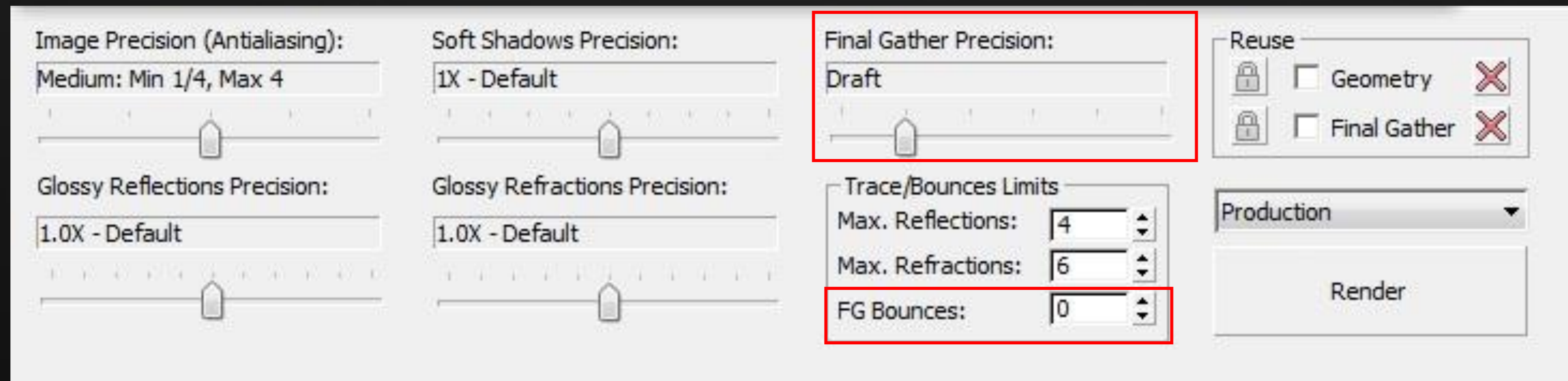
Final Render Settings

- Increasing Final Gather Precision

(For high quality GI set the FG Precision to Low or Medium)

- Increase the FG Bounces

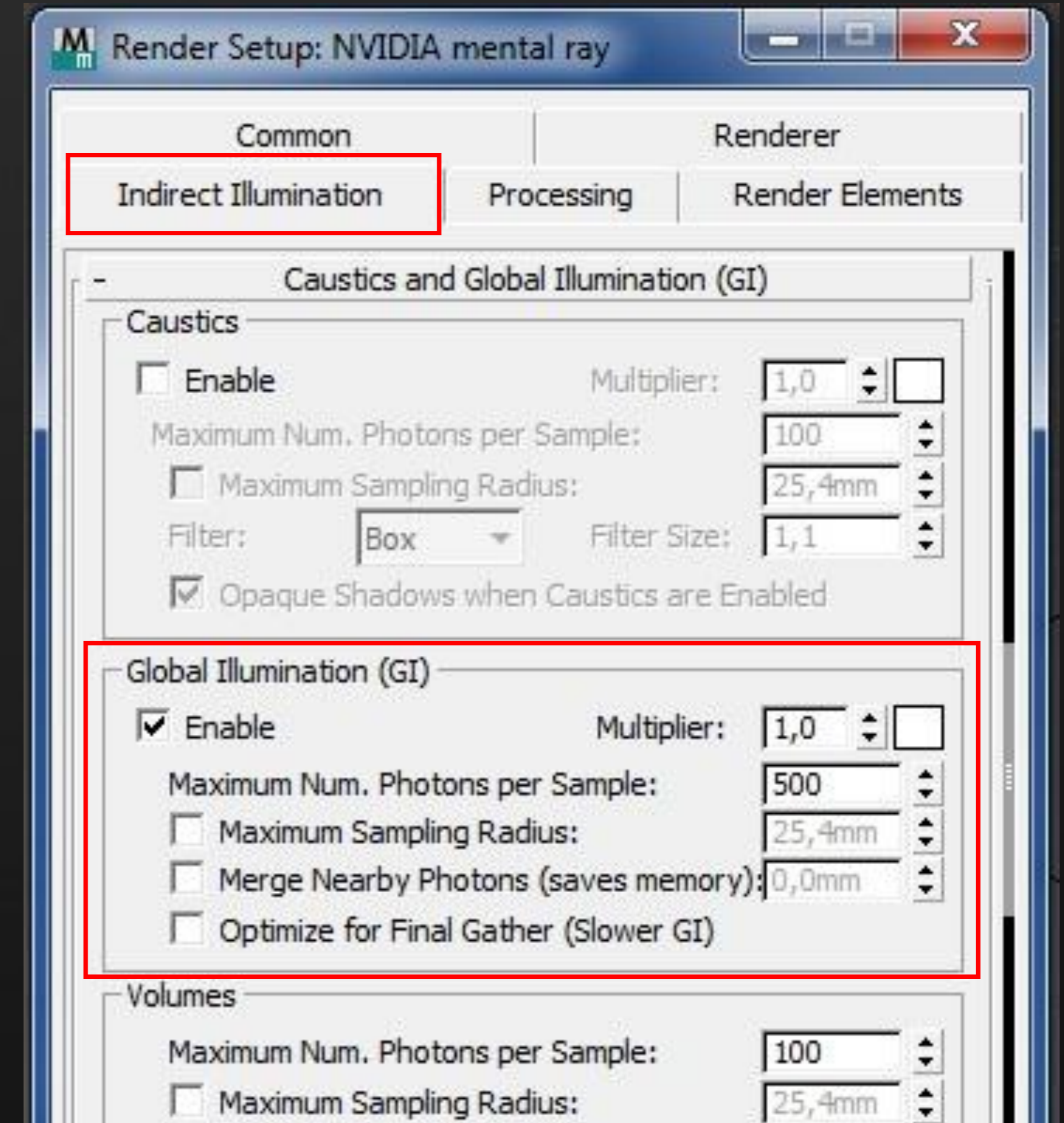
(For exterior renderings set the FG bounces to 2)



Interior Render

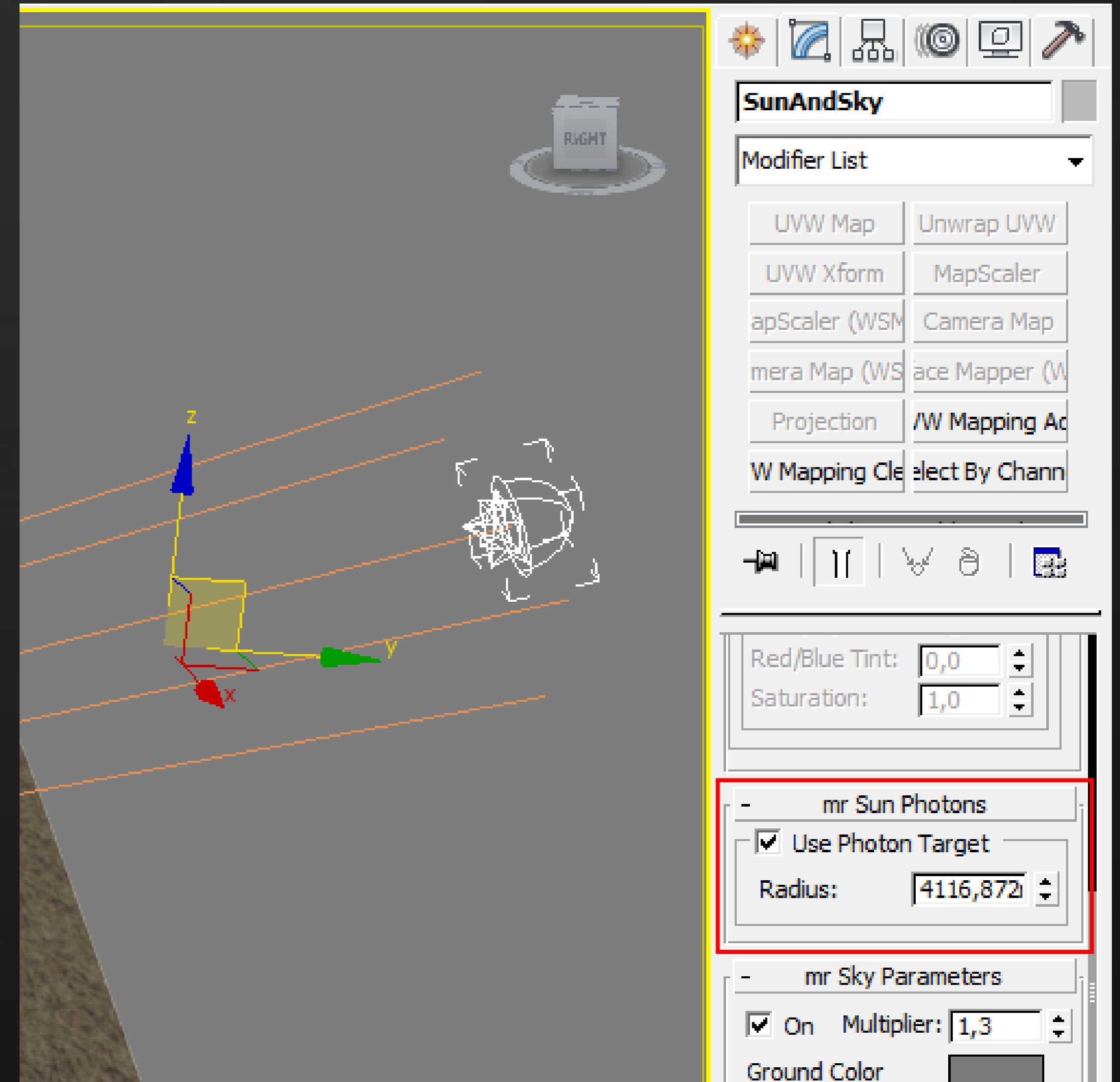
- Activate GI

(Recommended for Interior Renderings)



Interior Render

- Activate GI
 - (Recommended for Interior Renderings)*
- Optimize GI
 - *Activate the Photon Target*



Final Render Settings

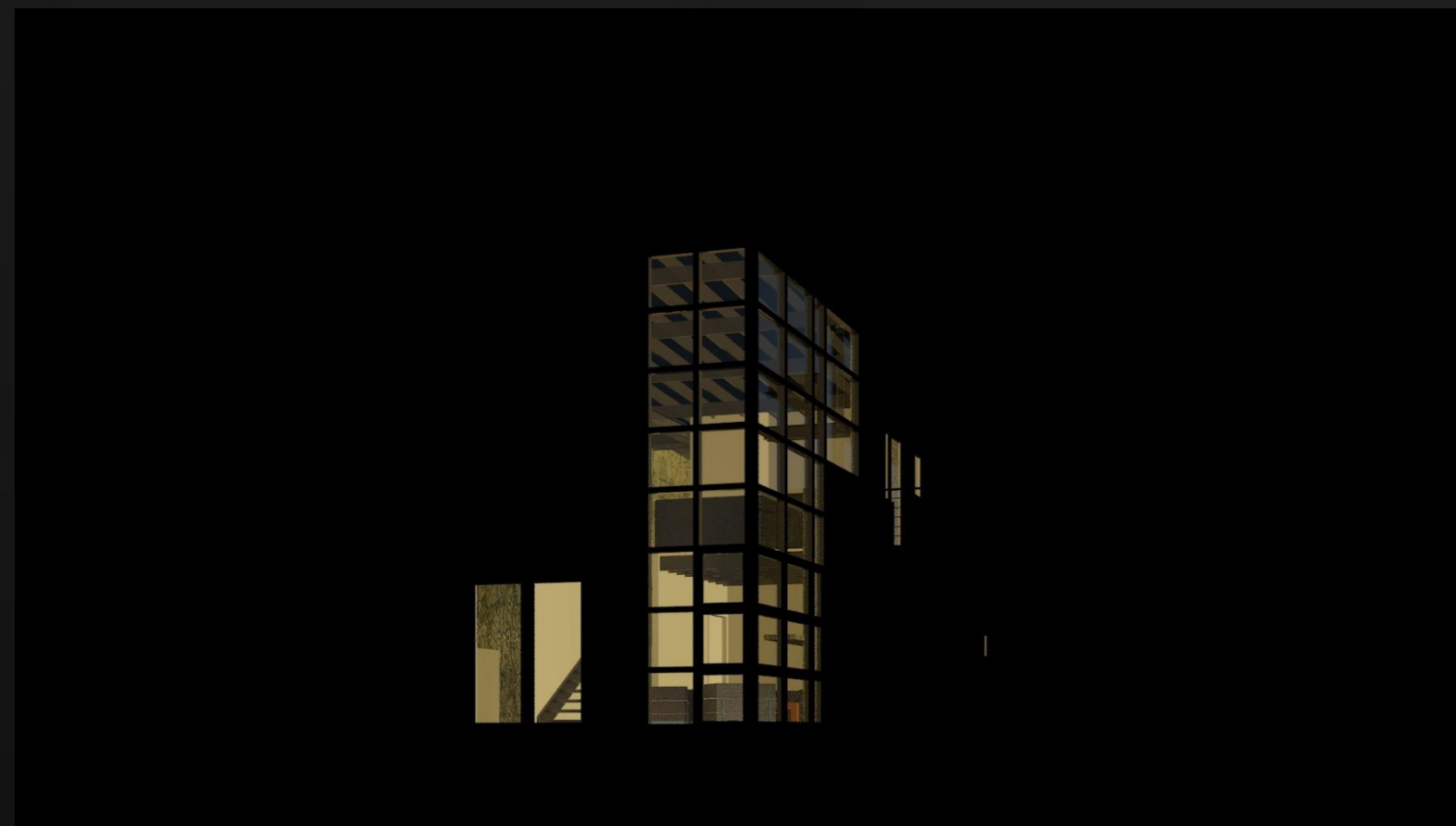
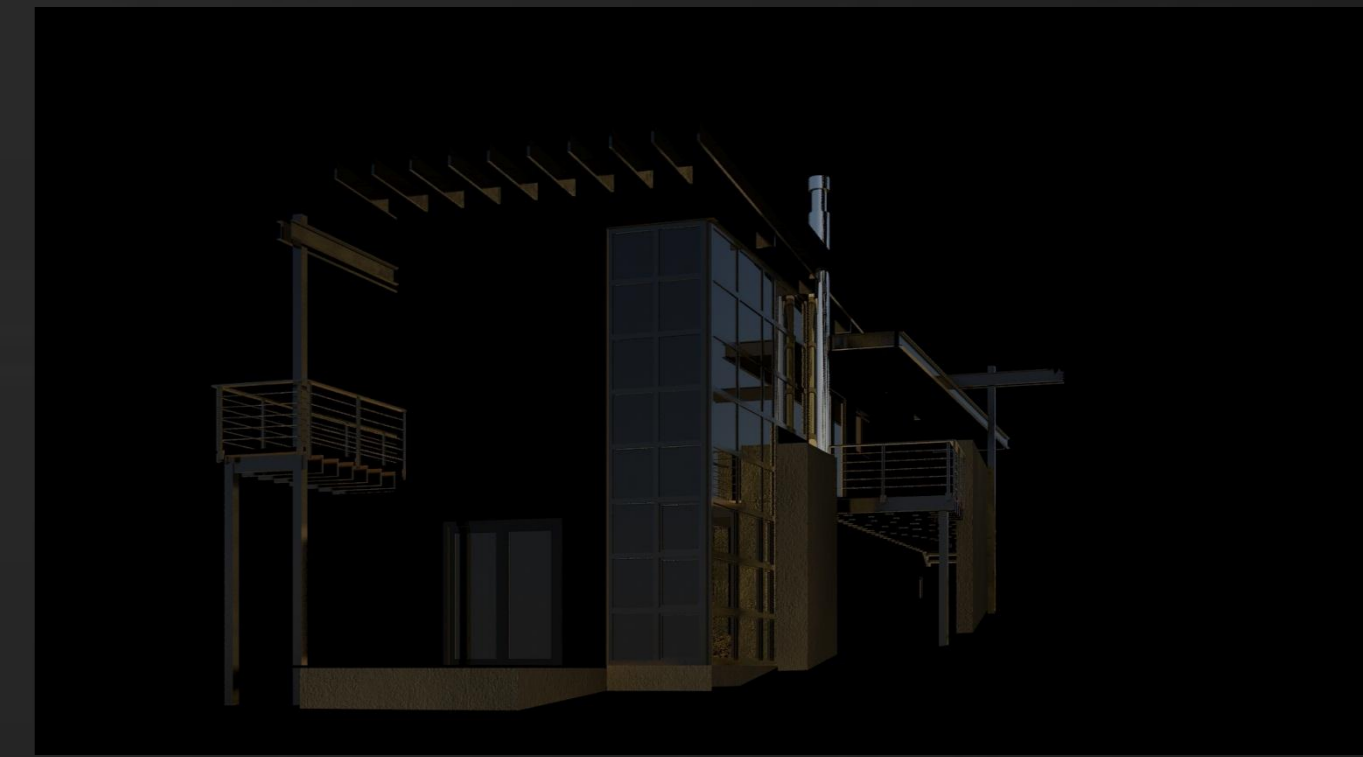
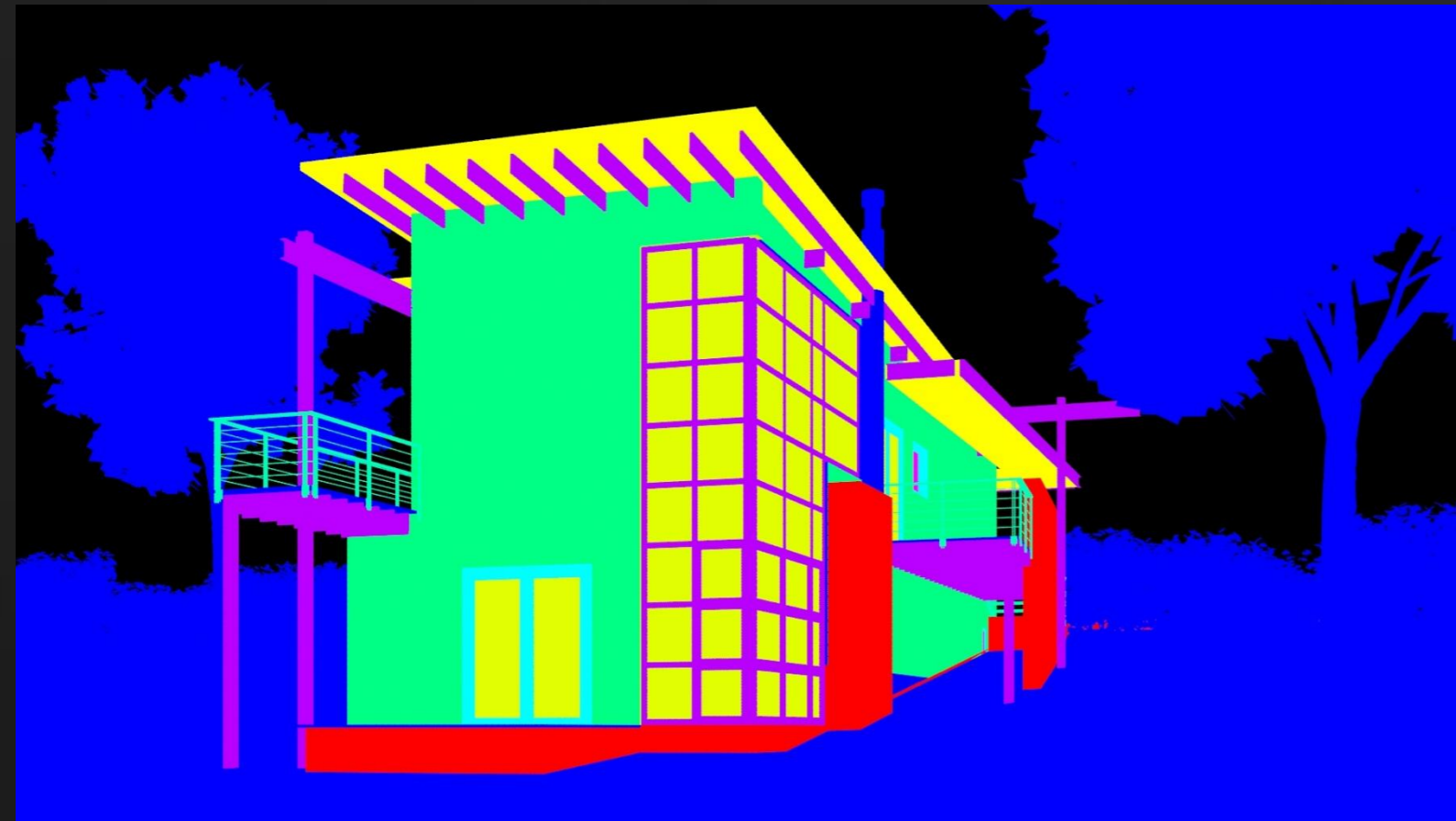
- Activate GI
 - (Recommended for Interior Renderings)*
- Optimize GI
 - *Activate the Photon Target*
 - *Use mr Sky Portal*



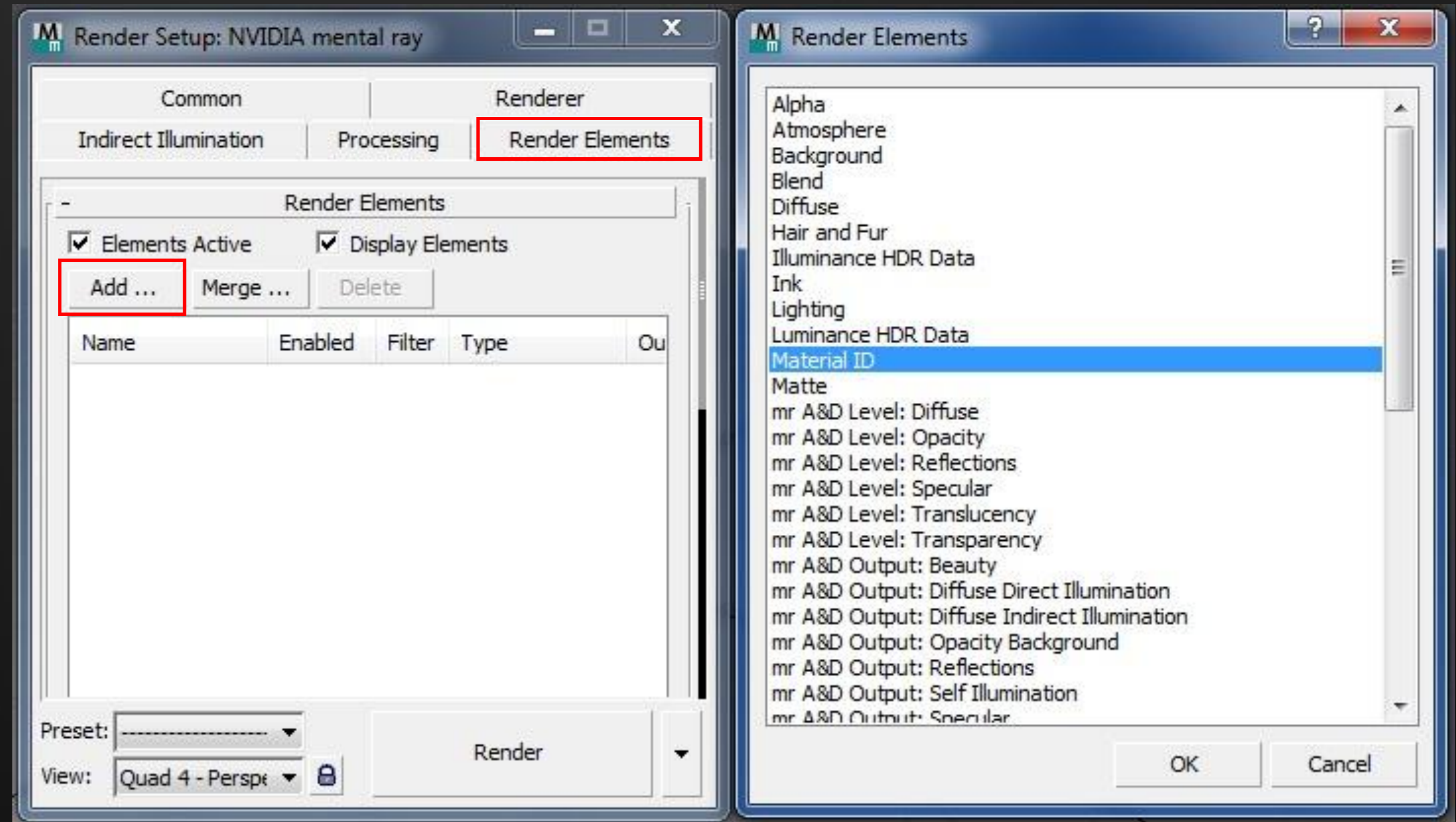


Render Elements

Render Elements



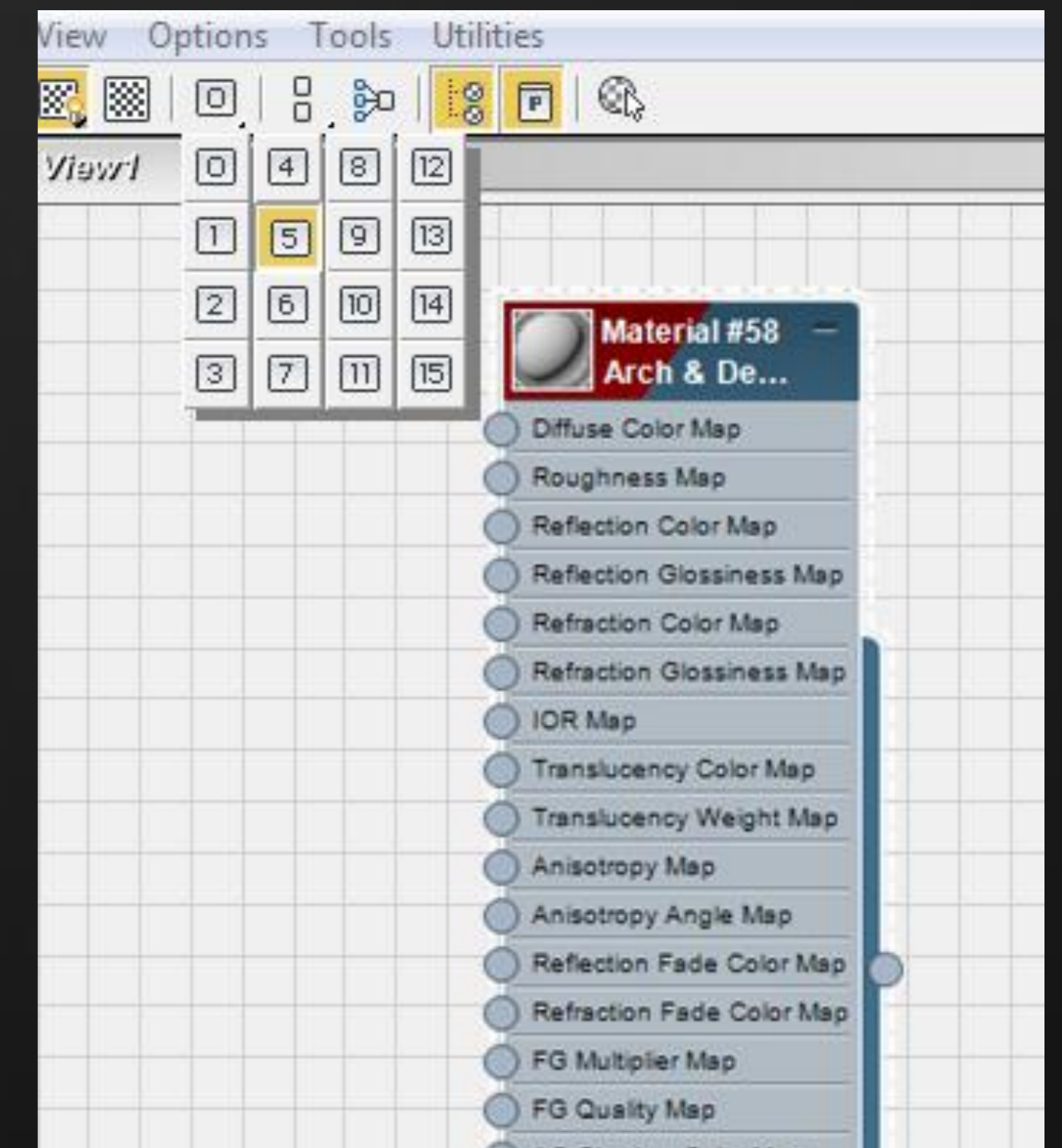
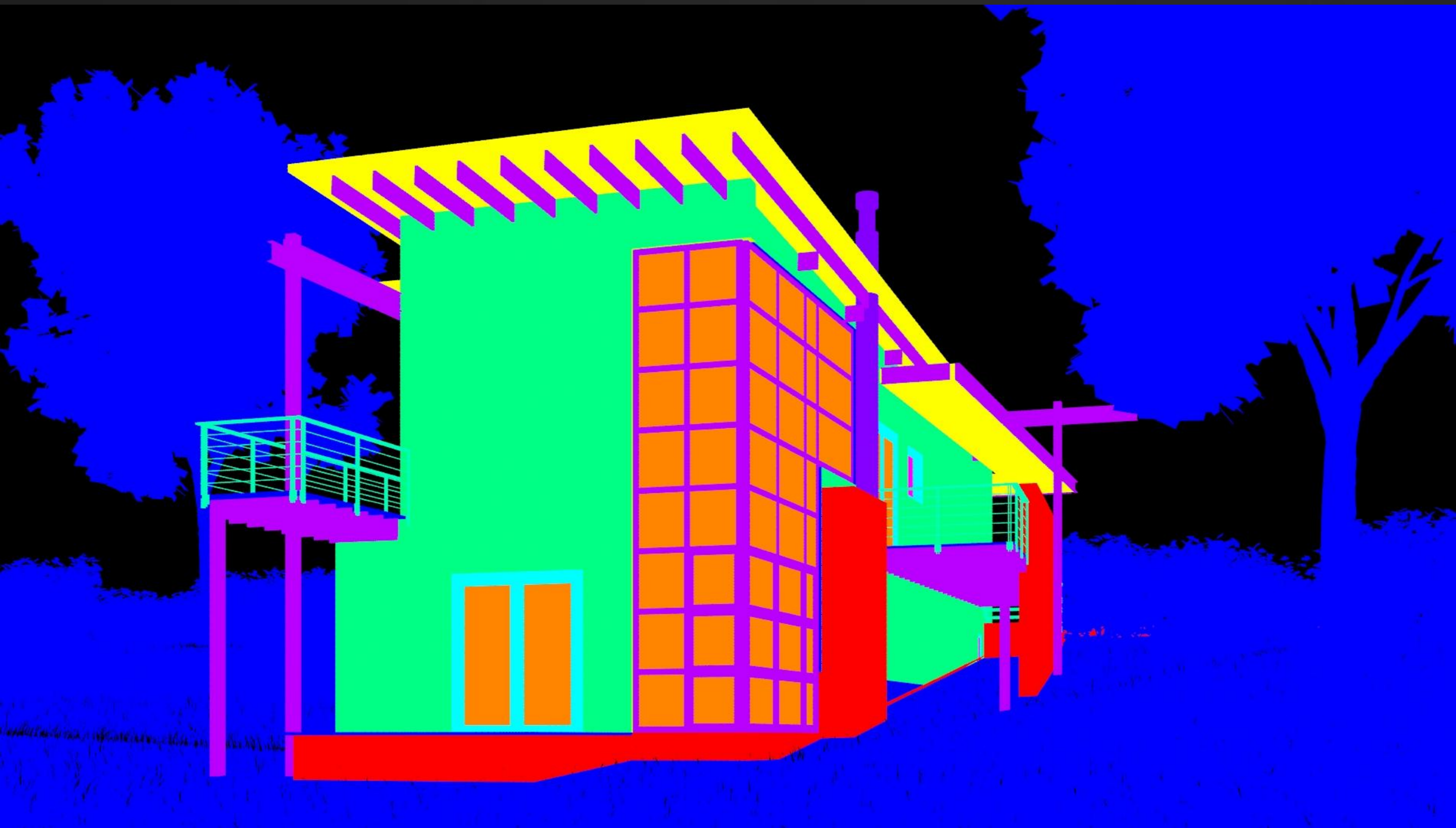
Render Elements



Autodesk Composite 2013



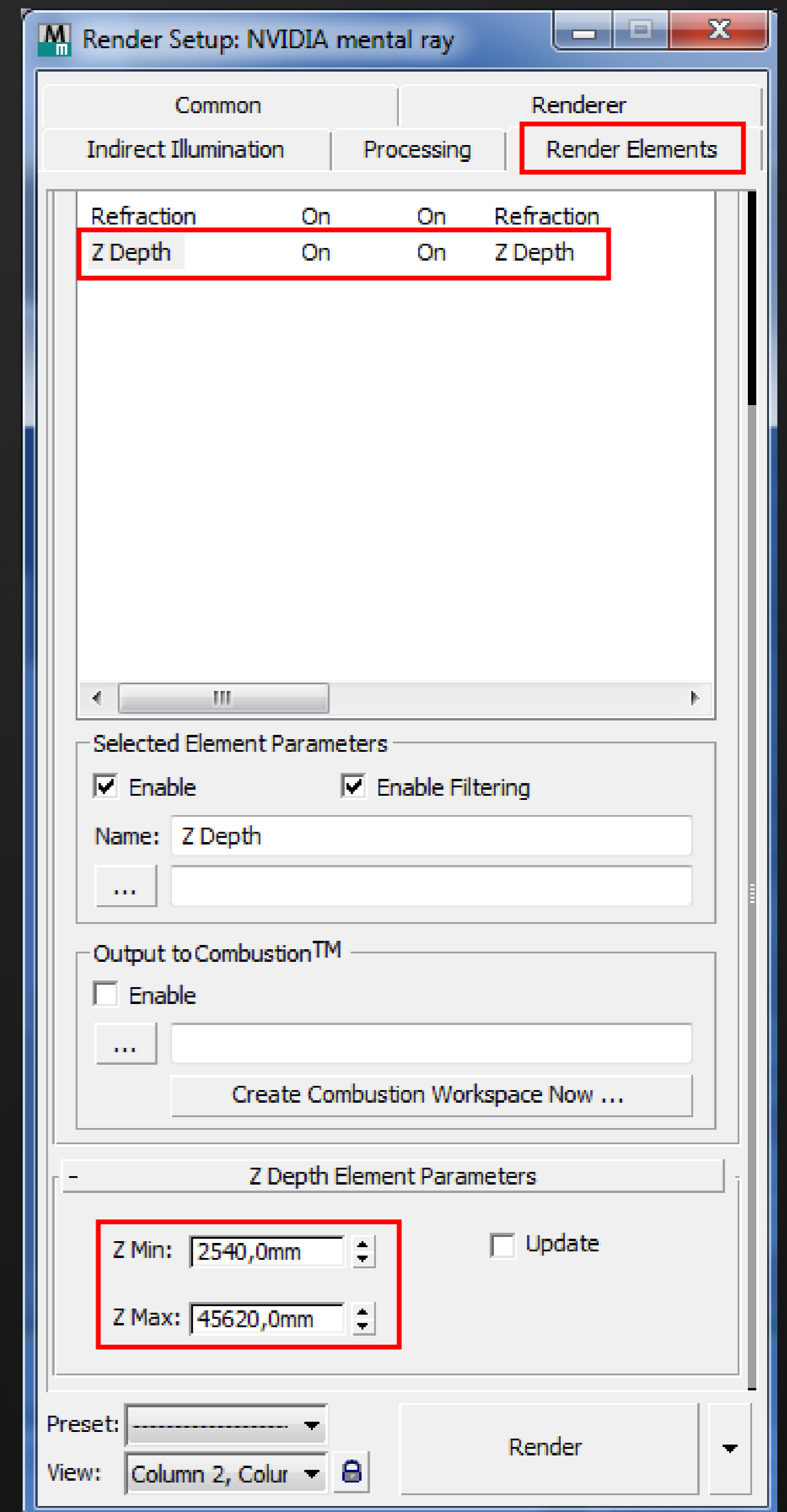
Material ID



Material ID



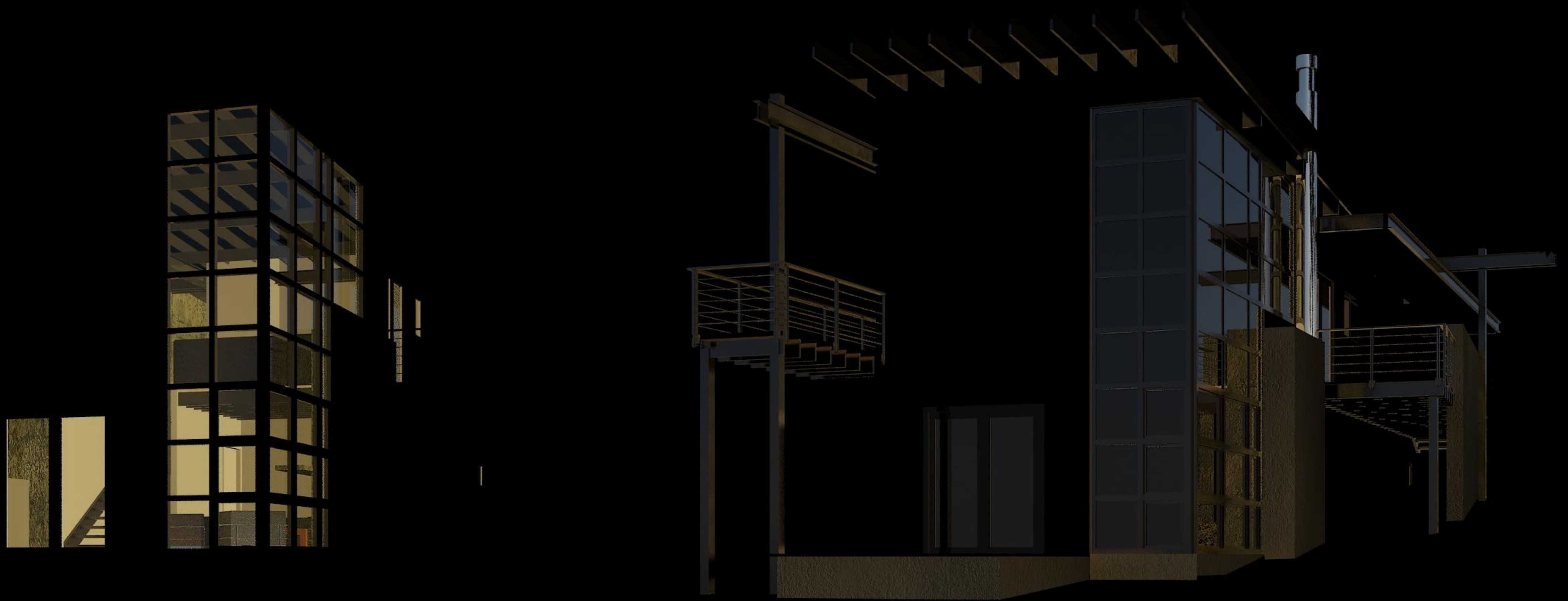
Z-Depth



Z-Depth



Refractions/ Reflections



Refractions



Add Life



Add Life



Add Life









Thank you

