

## REVIT WITH VRAY - CERTIFIED AUTODESK CLASSES

### RENDERING

#### Real-time rendering

See in real time the changes in lights and textures made on the 3D model as you build it. Walk through your project render in seconds, you don't have to wait to see what your model looks like.

#### Object Library for Architecture and Interior Design:

Library of 3D models, prepared with textures ready to insert in the project: furniture, plants, appliances, urban furniture, benches, light poles, traffic lights, etc.

#### Solar Revit Study in VRay

VRay renders photo-realistic images and animation from the Revit solar studio.

Revit solar study calculates the sunlight and its shadows on the Revit 3D model according to its geographic location, orientation, time and date. Revit makes an animation of the path of the sun and the projection of shadows throughout the day and year.

### LIGHTING

#### Revit lighting in VRay

V-Ray automatically converts all Revit lights to V-Ray ones

#### Light mixing

Change the lighting of the model after rendering. Modify the intensity and color of individual lights or groups of lights

#### Adaptive Dome Lights

A Dome light shines inward at the scene as if from a spherical light source outside the scene extents.

### **Sun & Sky**

Reproduce the real-life Sun and Sky environment of the Earth

### **Global Illumination**

Indirect illumination to add more realistic lighting and naturalistic lighting solutions to interior scenes

### **Camera Lens effects**

Photorealistic camera lens effects such as bloom and glare

## **MATERIALS AND TEXTURES**

### **Revit Materials and V-Ray**

V-Ray recognizes and renders native Revit materials

### **Decals and advertising images**

Add images to paintings, signs, and displays. V-Ray renders the Revit decals

### **Randomizer**

Assign random variations of patterns and colors for more realistic materials

### **Weathering and dirt**

Add impression of natural weathering and dirt to the materials in the scene

### **Texture maps**

Realistic and custom materials using any image to set up a new texture map. V-Ray has many built-in procedural textures

### **Material Library**

More than a thousand realistic materials for Architecture and Design. Scanned, prepared and available directly from V-Ray

## **ATMOSPHERIC EFFECTS**

### **Environment Fog**

Atmospheric depth and haze. True 3D fog with realistic light scattering

### **Aerial perspective**

Deep, realistic skies for the project environment

### **Volumetric materials**

Realistic material light scattering and translucency

## **GEOMETRY MANAGEMENT**

### **V-Ray Proxies**

Use Revit families to produce high resolution plant and tree models

### **V-Ray Grass & Fur**

Render realistic grass, carpets or fabric

### **Randomize proxy objects**

Achieve realism to the environment by applying random variations in size and rotation to plants and trees

### **Displacement**

Add details to surfaces without additional modeling for materials like brick and stone. This option can be applied to V-Ray materials and Revit materials.

### **Section Box**

Render sections with Revit's section box

### **Infinite Ground Plane**

Extend the model context automatically

## REVIT RENDER with VRAY - COURSE CONTENT

### MATERIALS

Mapping

### MATERIALS AND TEXTURES

#### METALLIC MATERIAL

PBR (Physically Based Rendering)

#### PRESET MATERIAL LIBRARY

Extensive library of ready-to-use materials

#### MATERIAL CATEGORIES

Bricks, Carpaint, Ceramic and Porcelain, Concrete, Emissive, Fabric, Glass, Ground, Leather, Liquid, Metal, Plastic, Stone, Tiles, WallPaint, Wood.

#### MATERIAL RENDERING

Hair: Rendering of materials made up of cloth threads

Bump: Add bump map effects to any material

Toon Material: Cartoon-style outlines on objects

V-Ray Fur: Simulating grass cover or textile fibers

V-Ray Proxy: Full Geometry Plants and Trees

Override: Control over the color bleeding, reflections, refractions, and shadows of the objects

#### GLOBAL MATERIALS:

Override all materials with one V-Ray material in order to achieve a stylized conceptual rendering

## **RENDER**

Render Types

Render Production

Render Interactive

## **ENVIRONMENT LIGHTING**

All lights within Revit are fully supported by V-Ray for Revit including simple shaped lights, ies lights, and the sun

### **V-RAY SUN**

The V-Ray Sun uses data from Revit to place the sun and render the image

Sun Visibility

Main Settings: Intensity, Sun Size and Sun Filter

### **SOLAR STUDY**

Uses the location of the project in conjunction with the time of day/year

### **V-RAY DOME LIGHT**

The Dome light illuminates the scene using either a solid color or an image

Settings: Visibility, Dome Light Color Settings, HDR Image Settings

## **ARTIFICIAL LIGHTS**

IES Lights

## **CAMERA**

Camera Settings

Exposure Settings

Effects

## **GLOBAL ILLUMINATION**

Lighting

Reflection

Refraction

Self Illumination

Specular

Background

Atmosphere

Environment

Aerial Perspective

Environment Fog

Infinite Ground Plane

## **SET UP V-RAY RENDER SETTINGS**

Environment Lighting

Camera Settings

V-Ray Production Render

Self-Illuminating materials

Sun Time and Date

Sun Azimuth and Altitude

Sun's shadows

HDRI map to light the Scene

Artificial lights

Shadows from the Emissive Material

Emissive Properties

Combining the Artificial Lights with the Environmental Lights