

# ProjectRender™

By ProjectMatrix



## Getting Started Guide

ProjectRender

# Contents

About This Guide	.....	3
Technical Support	.....	3
System Requirements	.....	3
Before You Begin	.....	4
What is ProjectRender?	.....	4
Understanding Terminology	.....	4
Authorization Code	.....	5
ProjectRender Quick Start	.....	6
Setup Options (Appendix A)	.....	17
Render Settings (Appendix B)	.....	23
Render Screen (Appendix C)	.....	24

# About This Guide

This guide will help you:

- Understand what ProjectRender does.
- Installation of ProjectRender and Material Libraries.
- What you need to start.
- How to map materials.
- Creating your environment.

All the images in this guide were created using Windows 7 in AutoCAD 2010. The look of the images compared to the ones on your computer may be slightly different.

# Technical Support

You can reach technical support in the following ways:

Website: [www.projectmatrix.com](http://www.projectmatrix.com)

E-mail: [support@projectmatrix.com](mailto:support@projectmatrix.com)

Phone: 513.554.1665

# Minimum System Requirements

**Operating System:** XP, Vista, and Windows 7

**Software:** AutoCAD 2007-2011

**CPU:** Pentium® 4 or AMD Athlon® dual-core processor, 3.0 GHz

**RAM:** 2 GB RAM

**Hard Drive:** 500 MB (free space depending on materials installed.)

**Resolution:** 1,024 x 768 display resolution with true color

## Before You Begin

AutoCAD and ProjectSymbols must be installed and ran at least once prior to installing ProjectRender. It must then be closed before running any installations.

### What is ProjectRender?

ProjectRender is an add-on tool to ProjectSymbols for AutoCAD. It allows any 3D symbol or environment to be rendered with materials using a fast, modern rendering engine which produces professional results with a minimum of effort.

### Understanding Terminology

ProjectSymbols and ProjectRender is made up of two parts. You must download and install both parts.

Part 1: ProjectSymbols, also known as **PSPlace**. has the user interface to access the symbol libraries. You will use ProjectSymbols to create the 2D and then 3D of the furniture to render.

## Understanding Terminology – Cont'd

Part 2: ProjectRender. This is the rendering engine that sits within PSPlace in AutoCAD. PSPlace automatically installs the menus and toolbars for ProjectRender.

## Authorization Code

You must call ProjectMatrix at 513.554.1665 to get your ProjectRender authorization code. This authorization code will be valid for one year. 30 days prior to your authorization code expiring you will get a warning that your authorization code is going to expire.

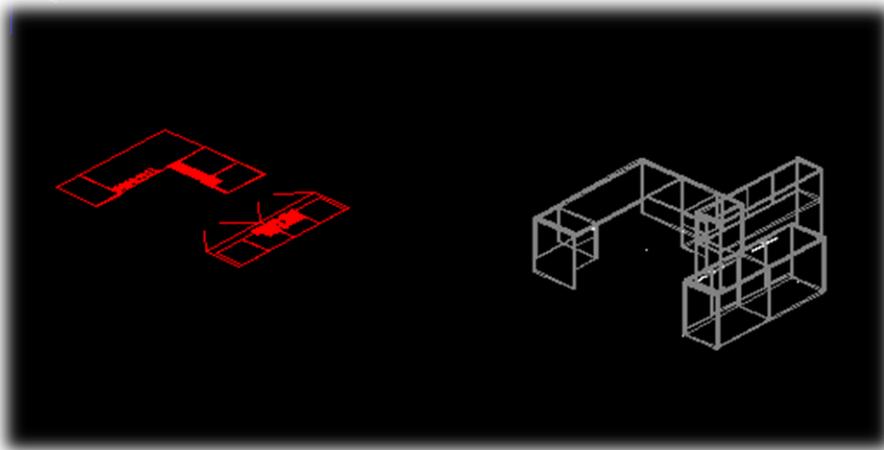
You will have to enter your authorization code the 1<sup>st</sup> time you run the program.

## Quick Start

Note: ProjectRender will render any 3D block, mesh, face or solid.

### Rendering with ProjectSymbols blocks

1. Create your 2D plan in AutoCAD using ProjectSymbols.
2. Convert your 2D symbols to 3D using the 2Dto3D command in PSPlace.

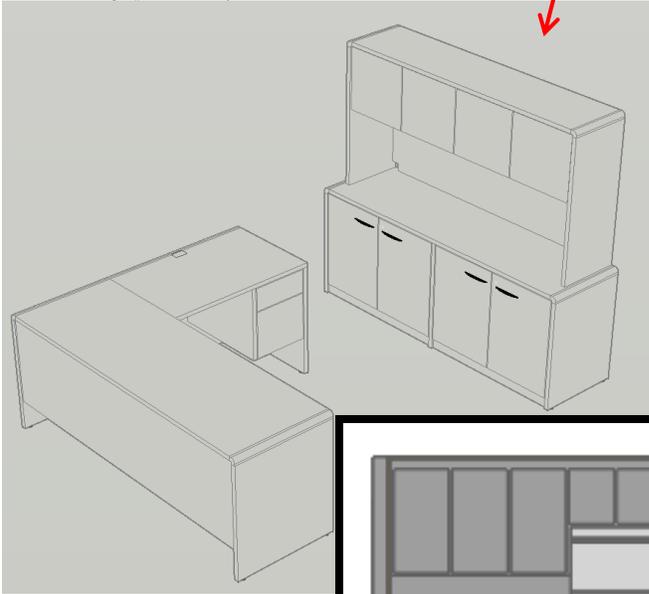
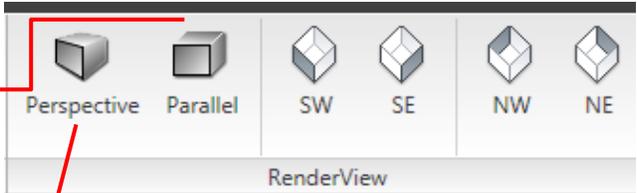
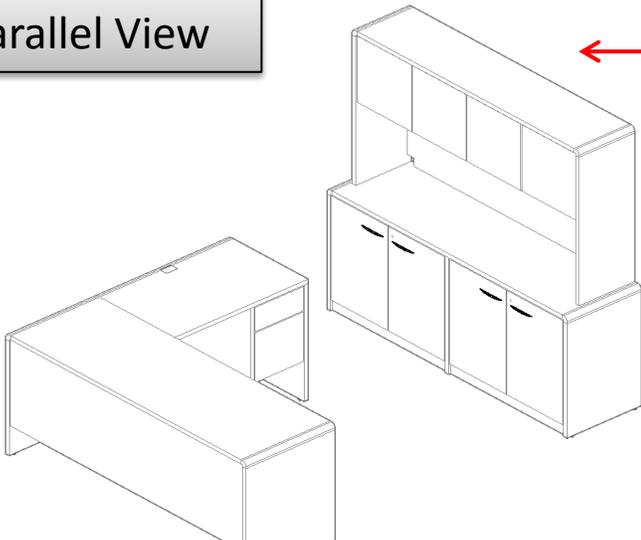


3. For faster renderings, isolate your 3D.
  - a. Do a “Save As” and create a copy of your drawing and delete everything but your 3D.
  - or
  -  b. Copy your 3D blocks using “Copy with Basepoint” and then open a new drawing and paste the 3D into a blank drawing. (Use SHIFT+CTRL+C to activate “Copy with Basepoint”)
4. It is also a good idea to run a purge on your drawing and verify that your blocks are near the 0,0,0 in the drawing.

Rendering with ProjectSymbols blocks- CONT.

5. Using Perspective over Parallel view will create a more realistic view of your furniture.

Parallel View

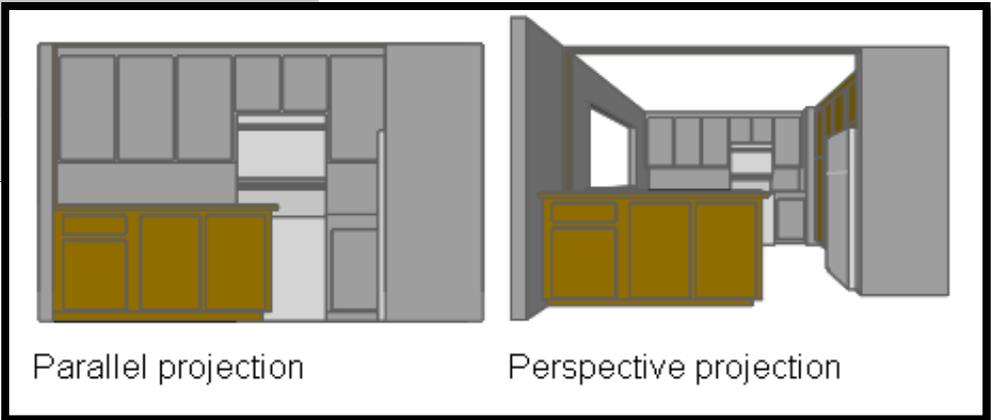


Perspective View

The difference between perspective views and parallel projections is that perspective views require a distance between a theoretical camera and target point.

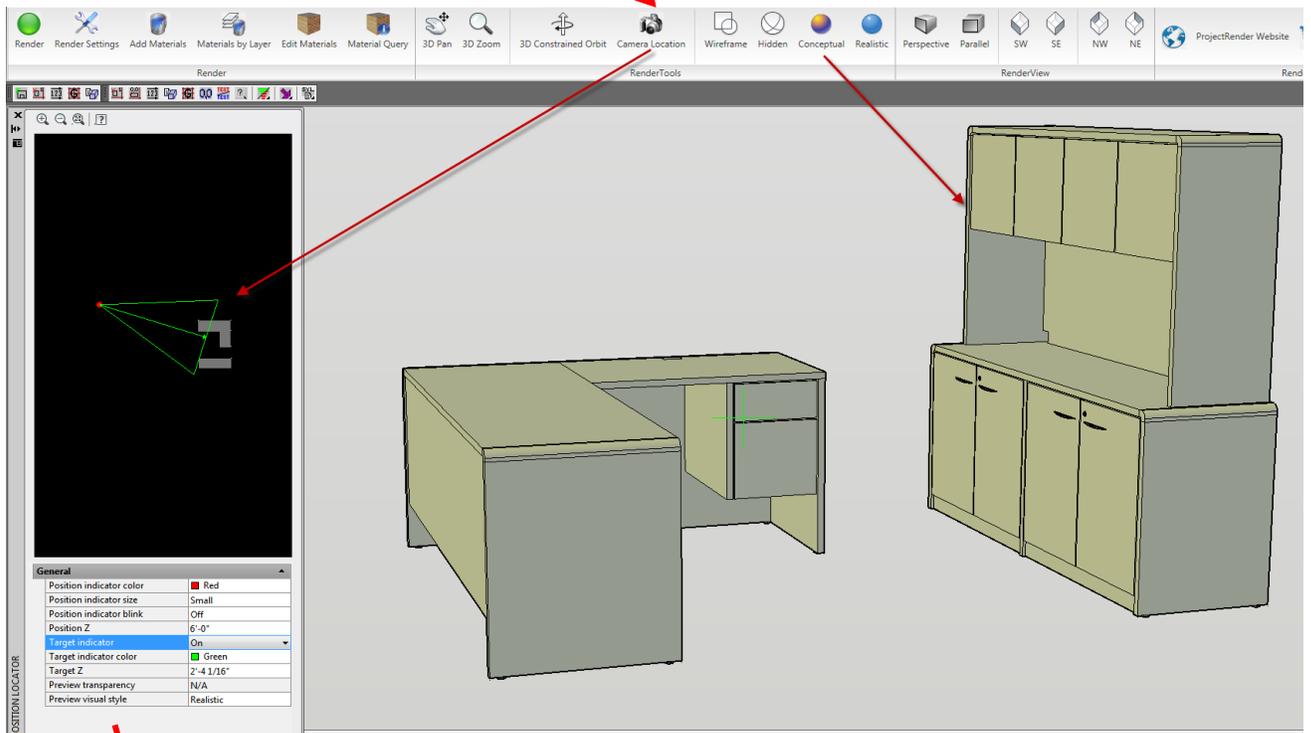
Small distances produce severe perspective effects; large distances produce mild effects.

The following illustration shows the same model in both a parallel projection and perspective projection. Both are based on the same viewing direction.



Rendering with ProjectSymbols blocks- CONT.

6. Use the “Render Tools” ribbon to find the best view for your rendering.



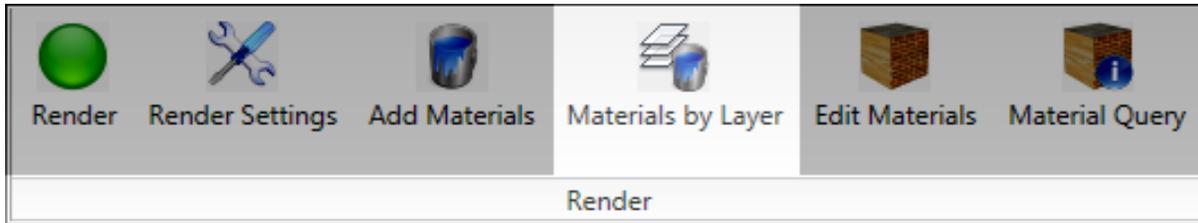
General

Position indicator color	Red
Position indicator size	Small
Position indicator blink	Off
Position Z	6'-0"
Target indicator	On
Target indicator color	Green
Target Z	2'-4 1/16"
Preview transparency	N/A
Preview visual style	Realistic

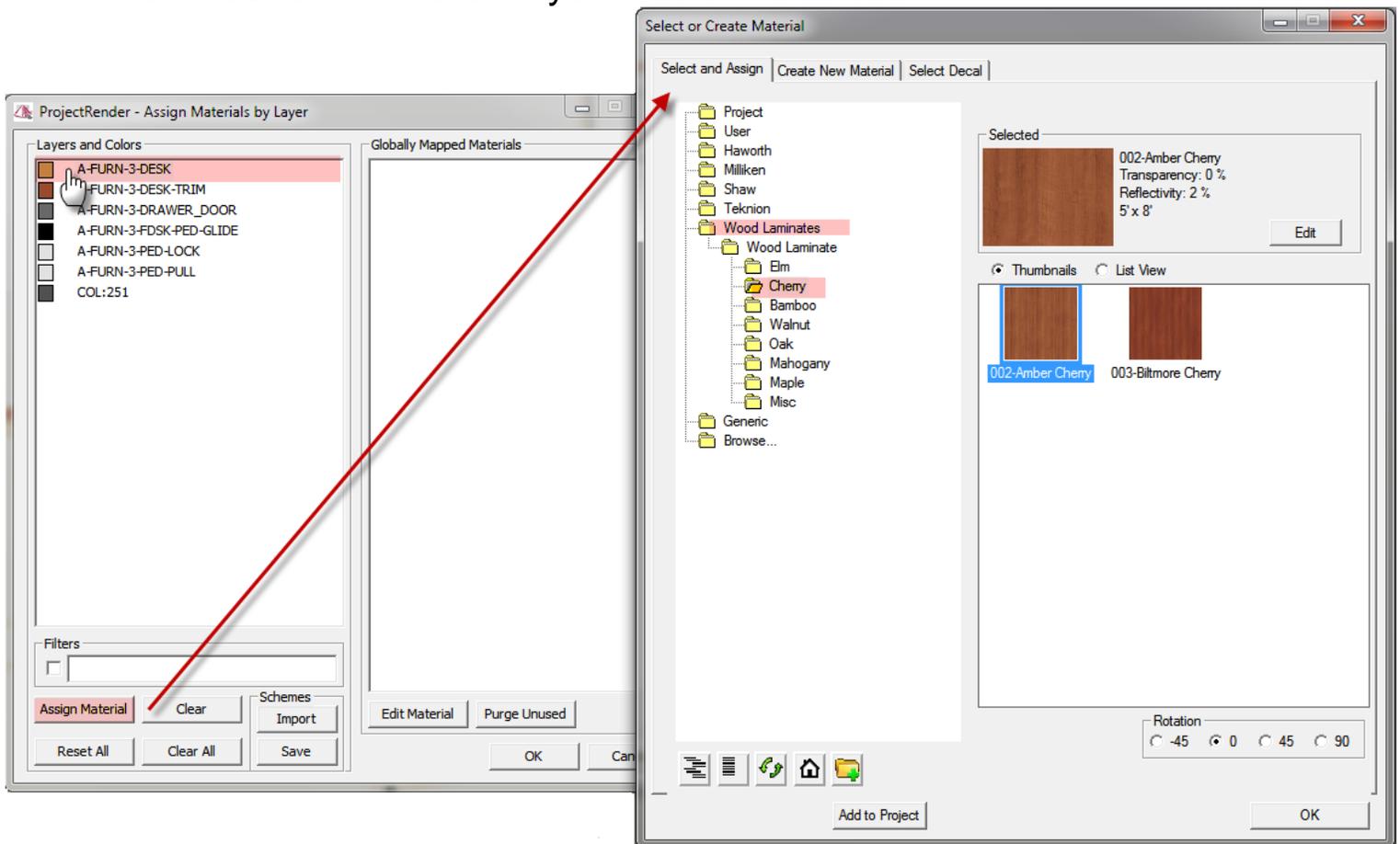
Use the “Camera Location” to fine tune the view including your eye height and target height.

## Rendering with ProjectSymbols blocks- CONT.

7. Begin mapping your materials to the layers in your drawing. (Note: if you purge your drawing, then only the layers that are visible for the 3D will show up in your Layers dialog.)

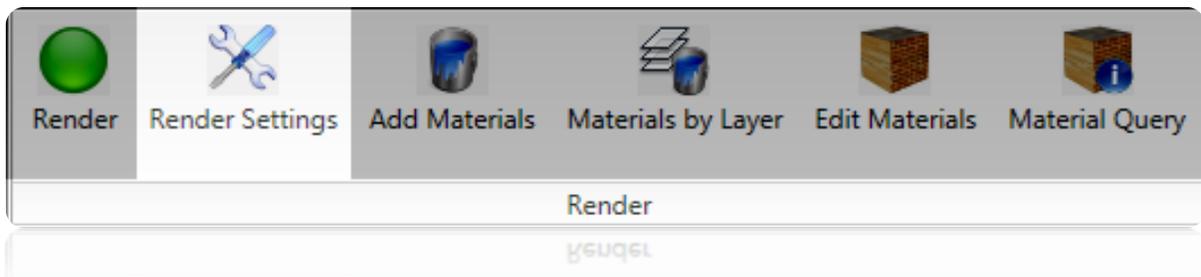


8. Select a layer to map. Click the “Assign Material” button and then browse for the material you would like to use.

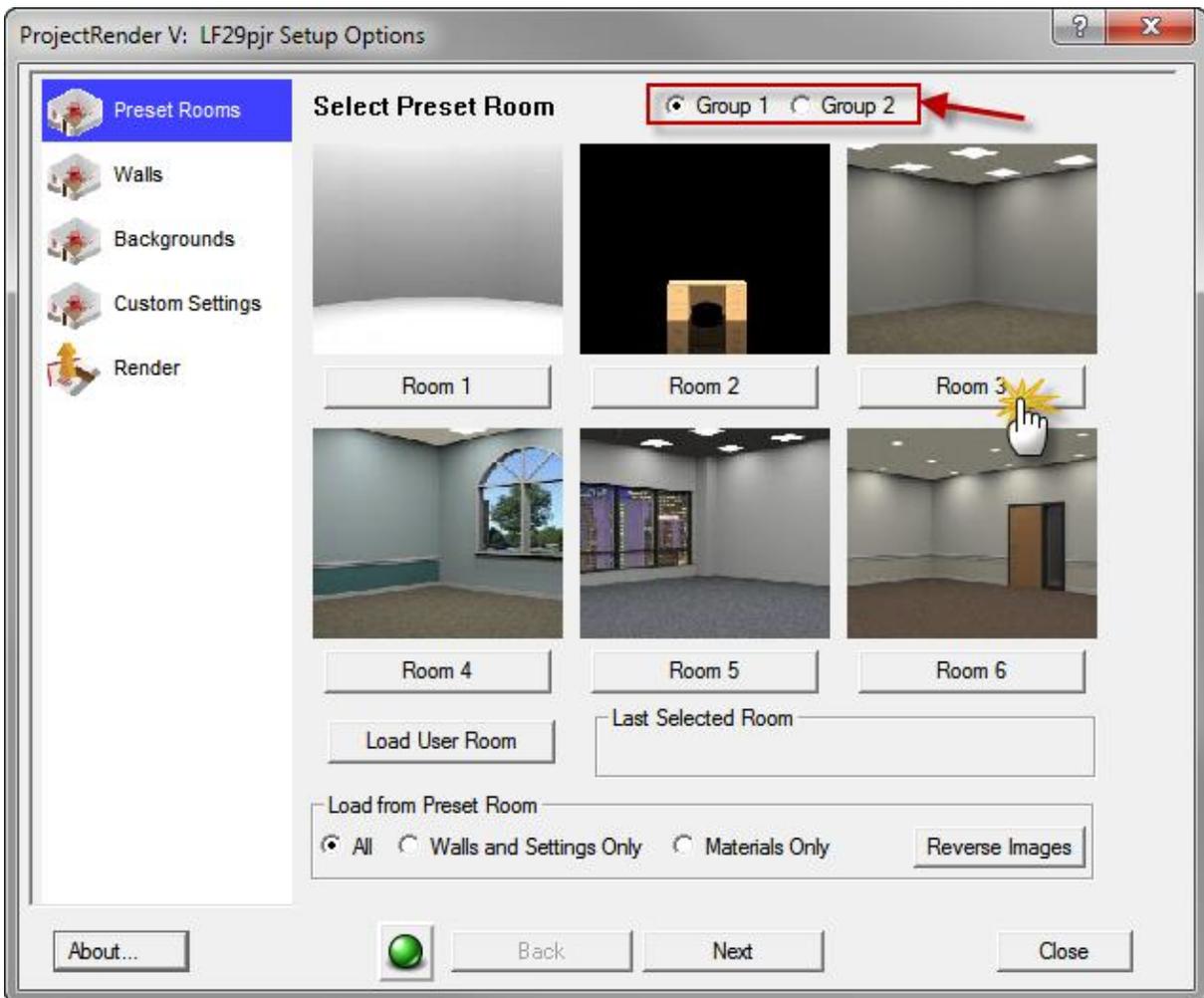


9. Repeat that process for all layers.

Rendering with ProjectSymbols blocks- CONT.



10. Choose the “Render Settings” button.



10a. Choose a default room. This loads all of the settings show, including wall type, background, and room materials.

(Note: All setting can be modified later if desired.)

(Note: There are two groups of room types. Toggle between the groups at the top of the page)

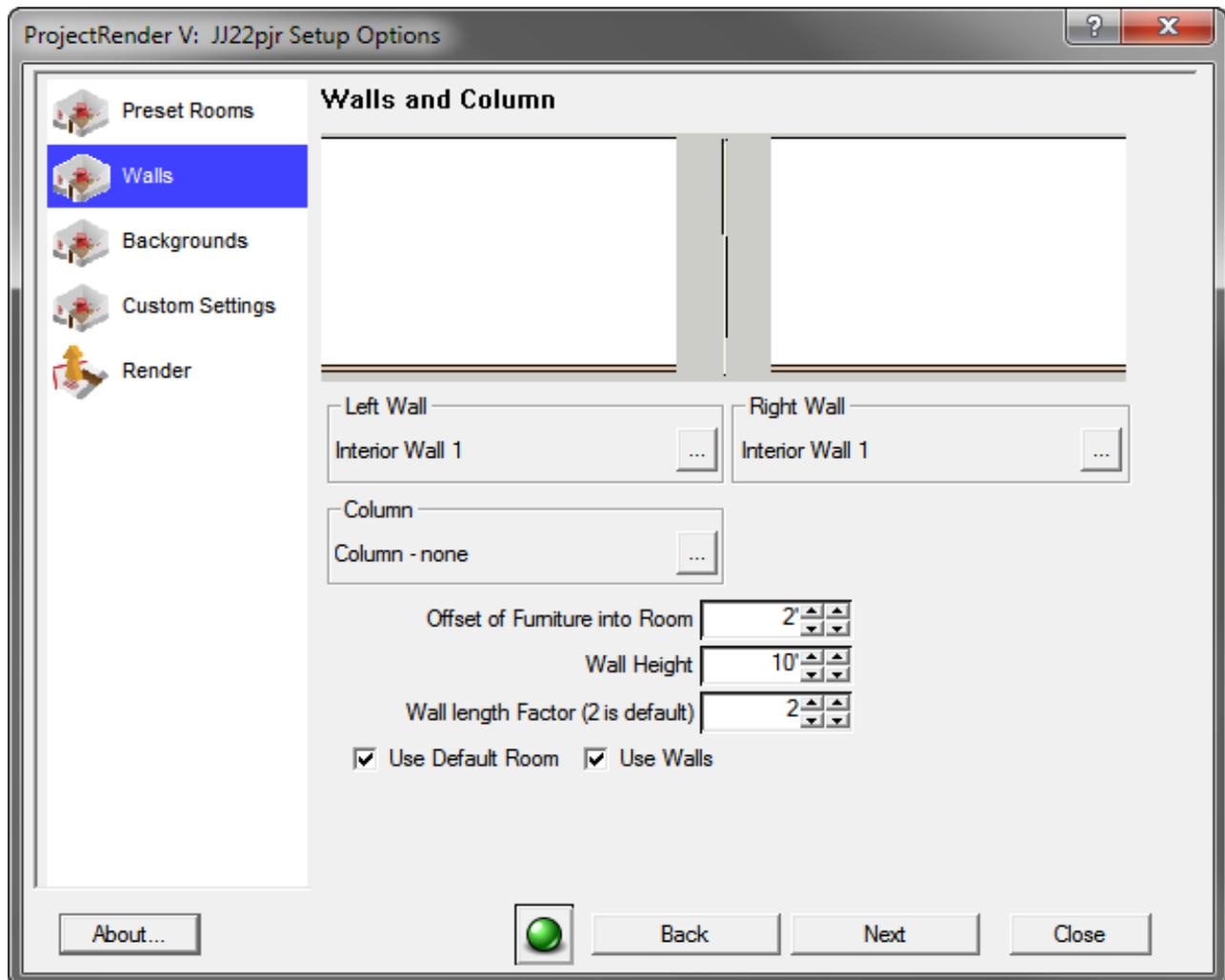
10b. Choose “NEXT”.

*To see more options on this dialog, please see Appendix A*

Rendering with ProjectSymbols blocks- CONT.

10c. This screen allows you to make modifications to the wall types and corner columns.

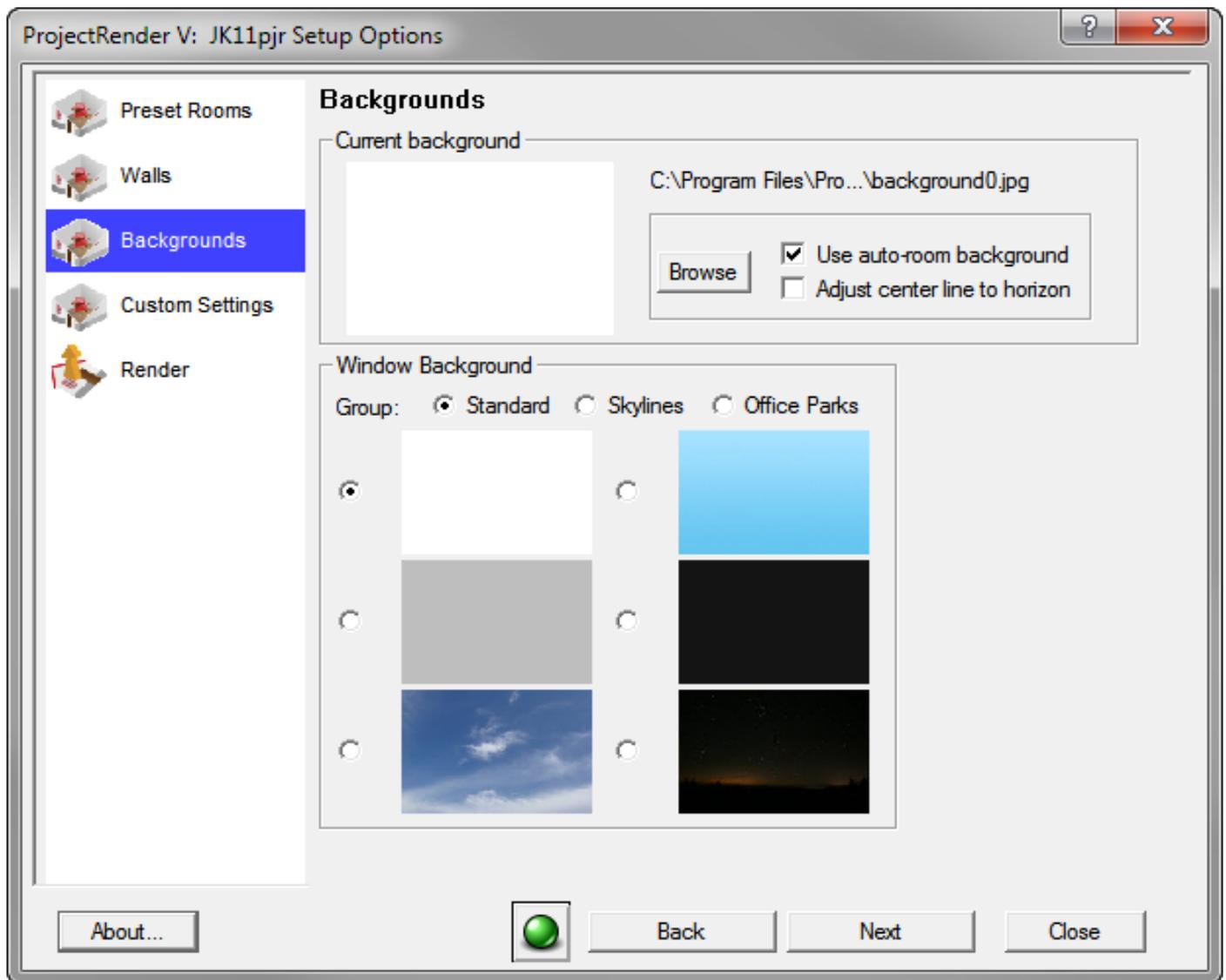
10d. Choose “NEXT”.



Rendering with ProjectSymbols blocks- CONT.

10e. This screen allows you to choose a background. For interior rooms, we recommend to leave the plain white or black selected. For rooms with windows, you can select several options from skyline backgrounds to office parks. You also have the option to load your own photo.\*\*\*

10f. Choose “NEXT”.



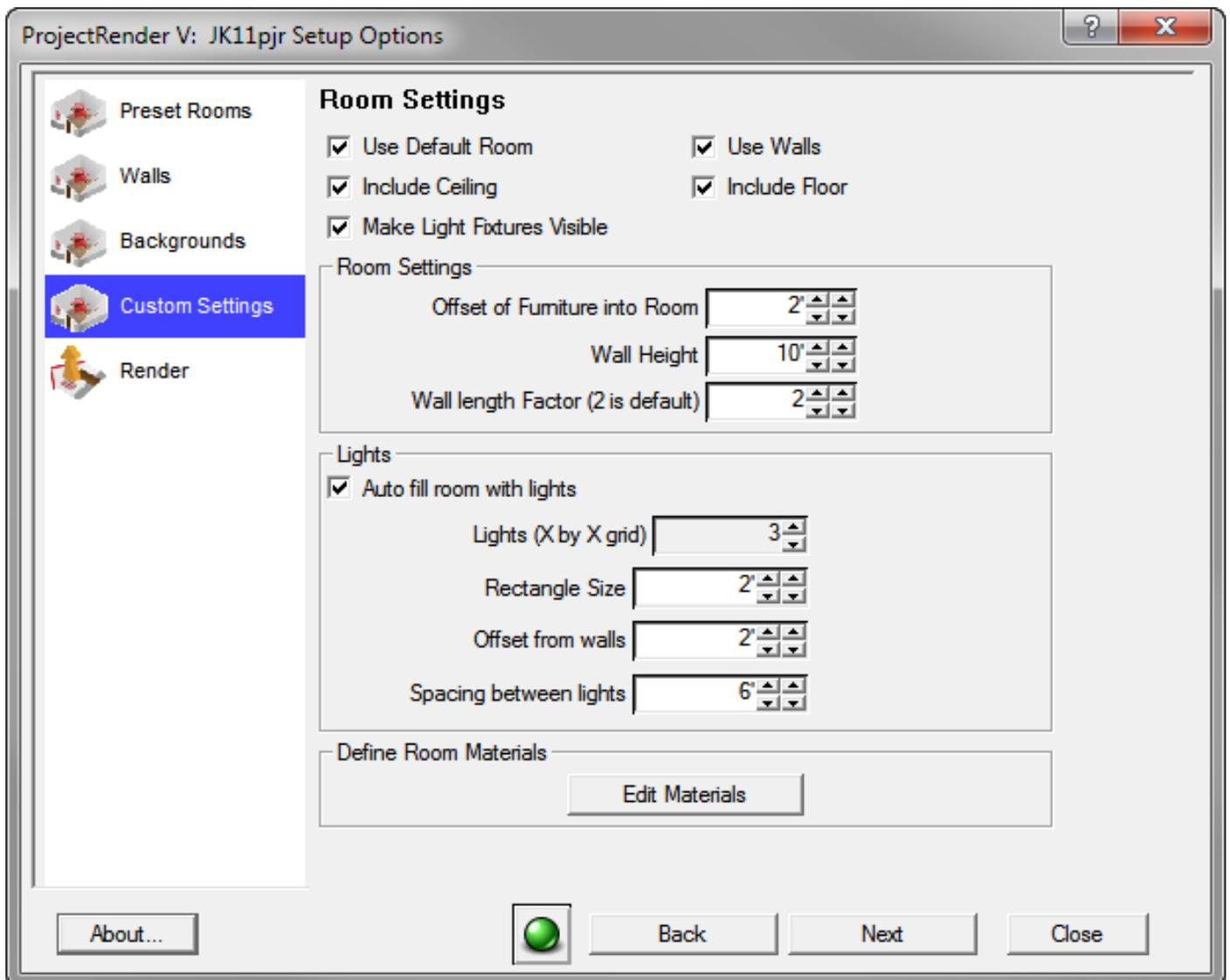
\*\*\* If you choose to use your own photo, make sure that the photo has correct perspective, and the camera is level when taking the photograph, otherwise it will cause optical illusions in the rendering.

Rendering with ProjectSymbols blocks- CONT.

10g. This screen allows you to modify room settings. By Default the room is fully lit with “Auto fill” checked. You can uncheck that and modify how many lights are used in the room. In either case, you may also change the size and distance from each light.

You may also edit the room materials here. This allows you to select different wall or carpeting colors along with any other room material option.

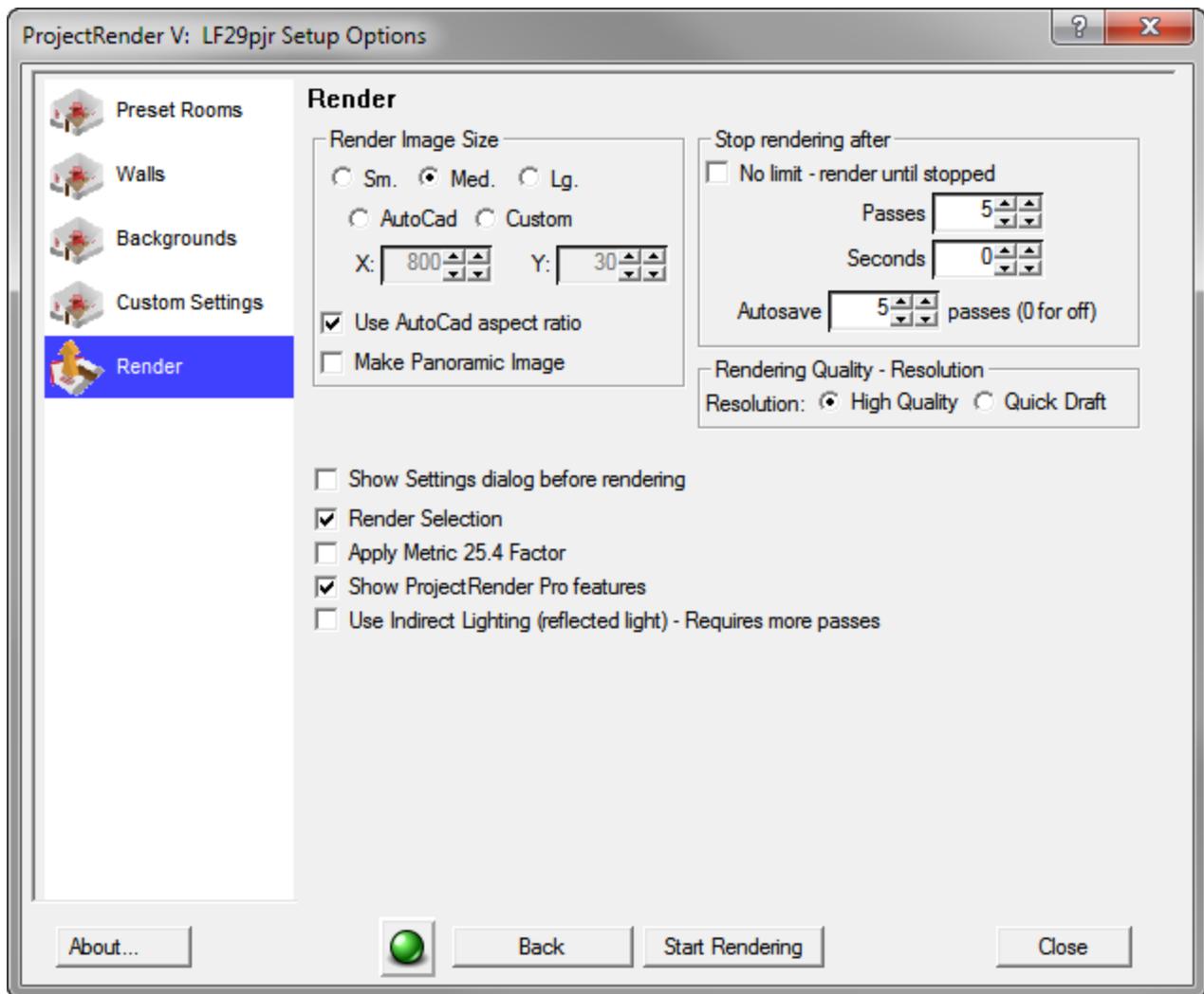
10h. Choose “NEXT”.



To see more options on this dialog, please see Appendix A

Rendering with ProjectSymbols blocks- CONT.

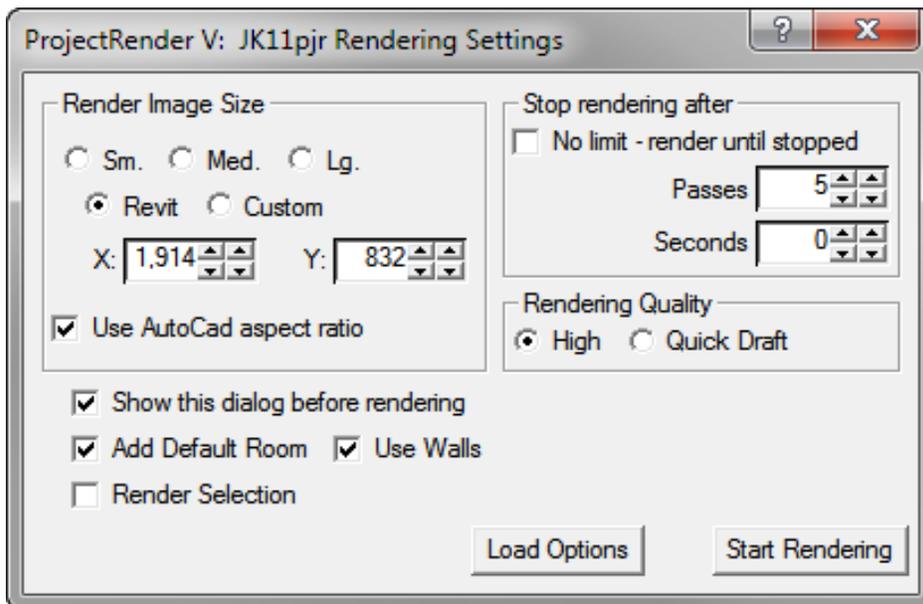
- 10i.. This screen allows you to modify the render settings. You can also adjust these settings in the “Start Render” button from the toolbar.
- 10j. Choose “NEXT”.



*To see more options on this dialog, please see Appendix A*

## Rendering with ProjectSymbols blocks- CONT.

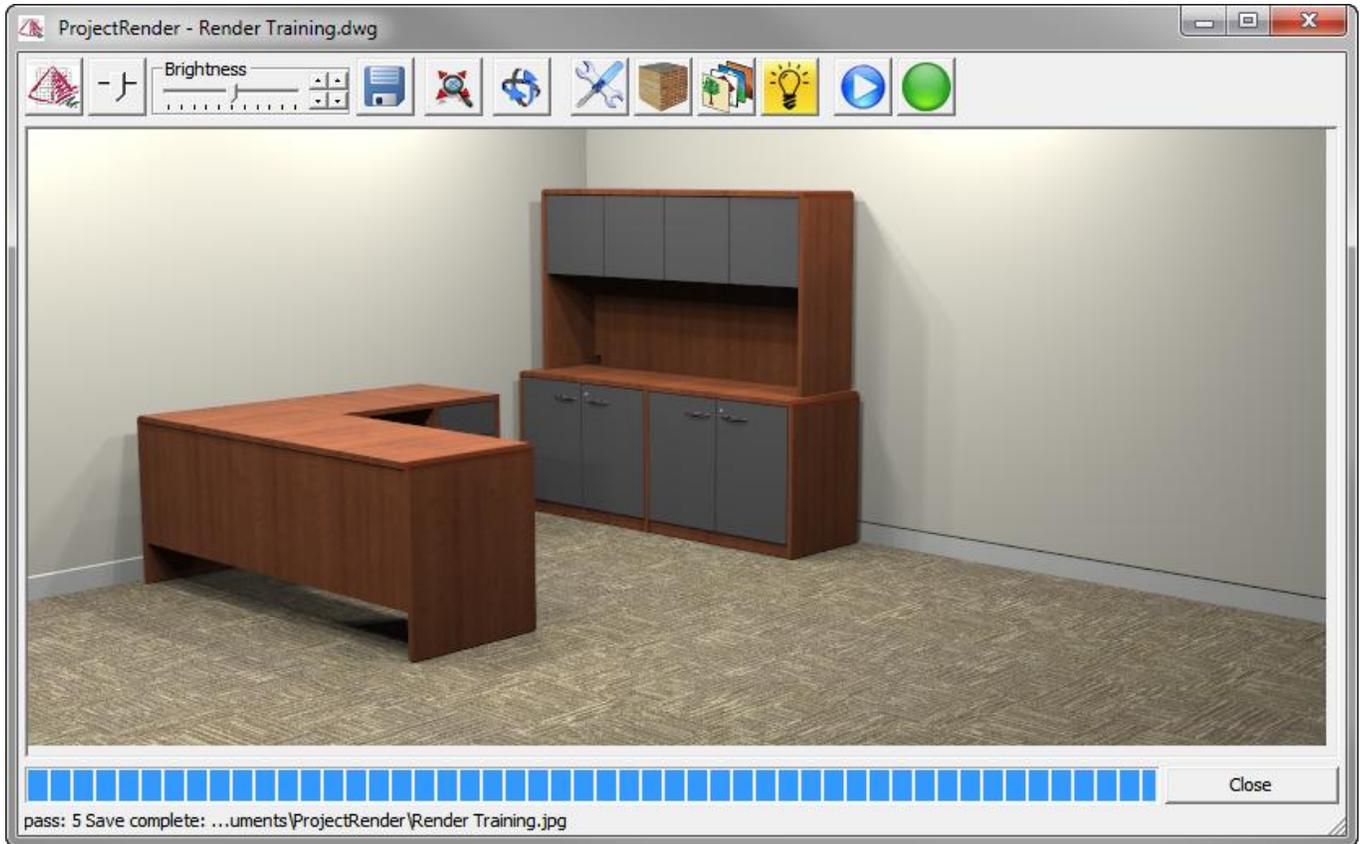
11. Click the “RENDER” button on the toolbar.
12. Choose your Render Size, number of passes and quality.
13. Click the Start Rendering.



*To see more options on this dialog, please see Appendix B*

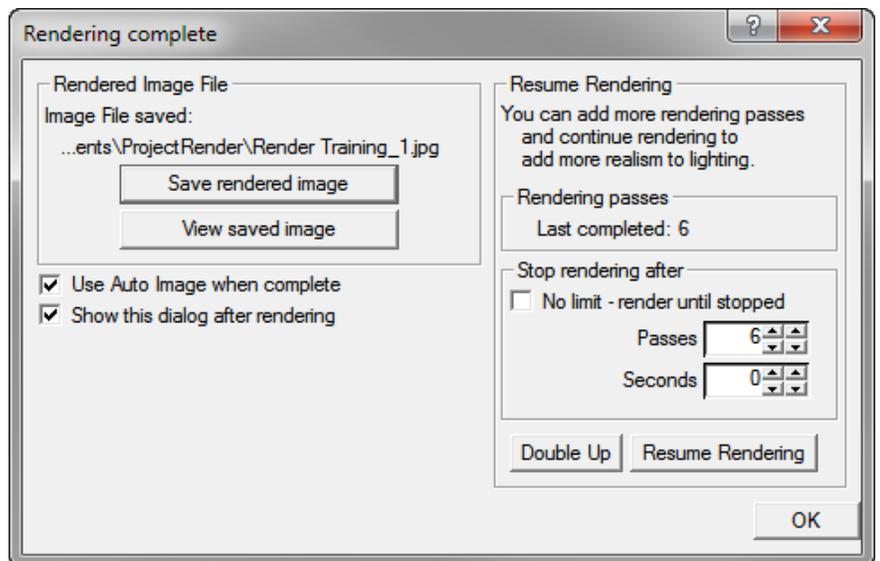
Rendering with ProjectSymbols blocks- CONT.

14. The rendering will begin processing your drawing.



To see more options on this dialog, please see Appendix C

15. Once the rendering is complete a completed dialog will appear. At this point the rendering has been saved automatically to your “My Documents” in the ProjectRender folder.



# Appendix A

## Setup Options

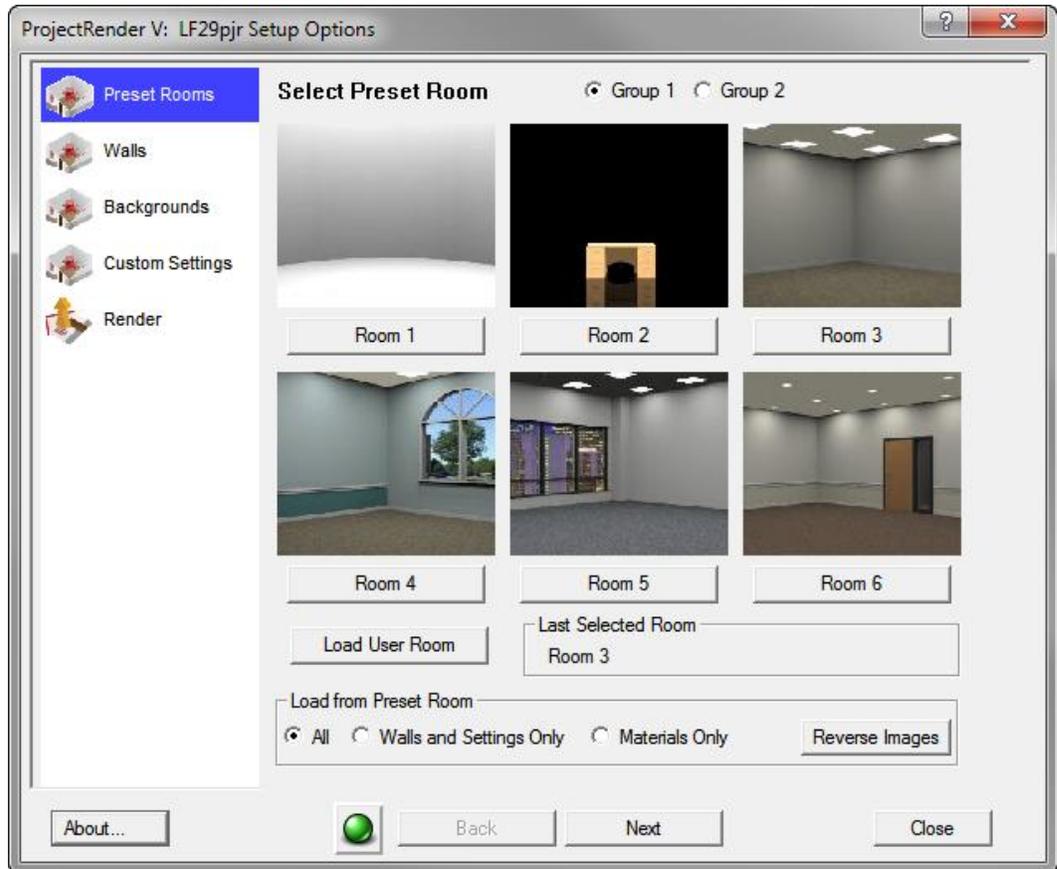


# Appendix A

## Setup Options- Preset Rooms

Each Preset Room will load:

- Left Wall
- Right Wall
- Corner “Column”
- Room Materials
- Backgrounds



### Reverse Images

This reverses the left and right walls. For example the default for the “Private Office”, the window is on the left wall. Using the Reverse, it would make the window on the right wall.

### Load from Preset Room

“Walls and Settings Only”- Only loads wall types and background. User must choose all materials.

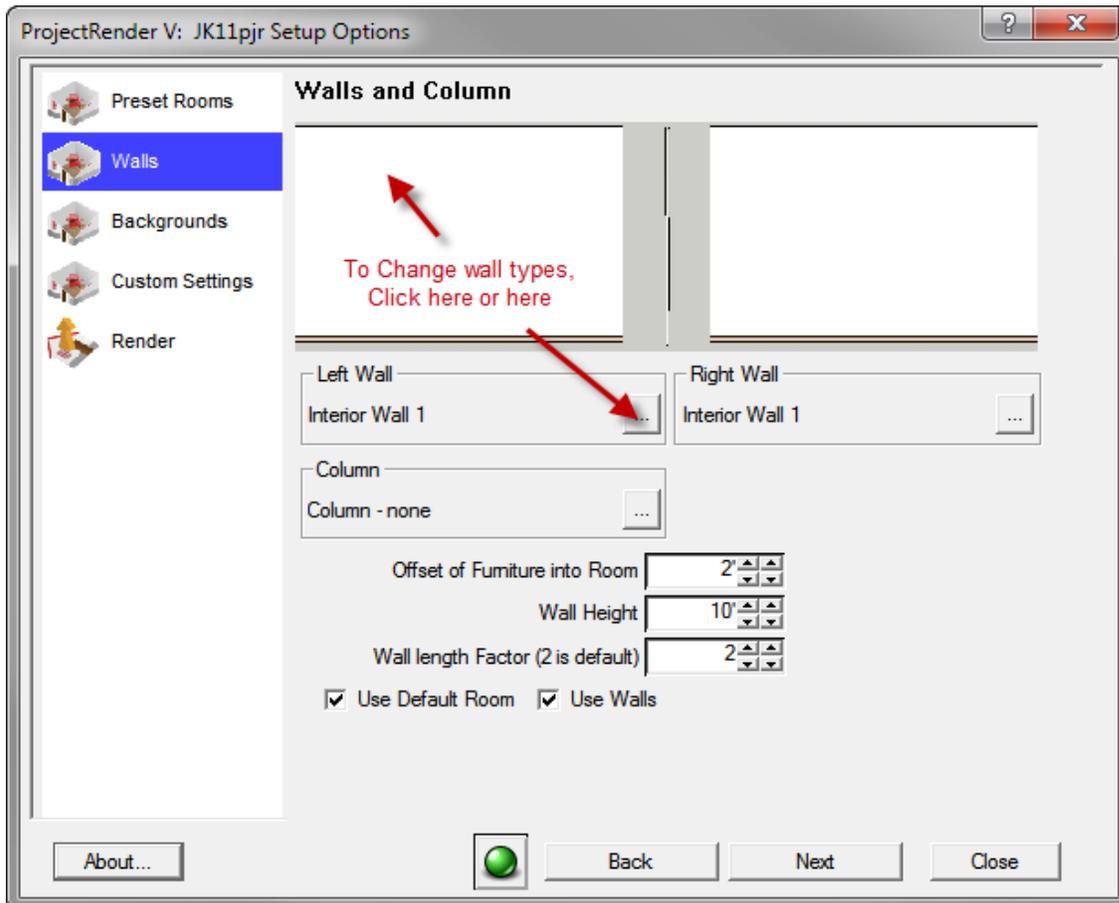
“Materials Only”- Stores only the materials for user to choose wall types and backgrounds.

# Appendix A

## Setup Options- Walls

### Choose Wall and Column style

If a preset room was chosen, then the wall types will be displayed here. You always have the option to change even if a preset room was selected.



**Offset of Furniture into Room**- This setting determines how far into the room the furniture sits from the corner of the walls. The distance is calculated from the farthest block from your viewpoint.

**Wall Height**- This sets the height of the walls, and determines where the ceiling is shown.

**Wall Length Factor**- This setting should be adjusted if you can see the ends of the walls in your rendering. Each wall type has a length of “X number of feet” before repeating. The factor will measure how much furniture is being used and place that many wall segments plus the number set so that the walls appear endless.

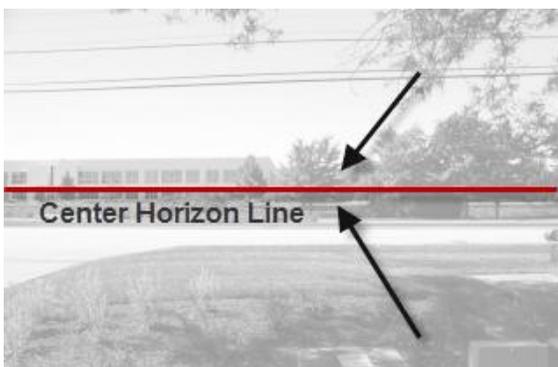
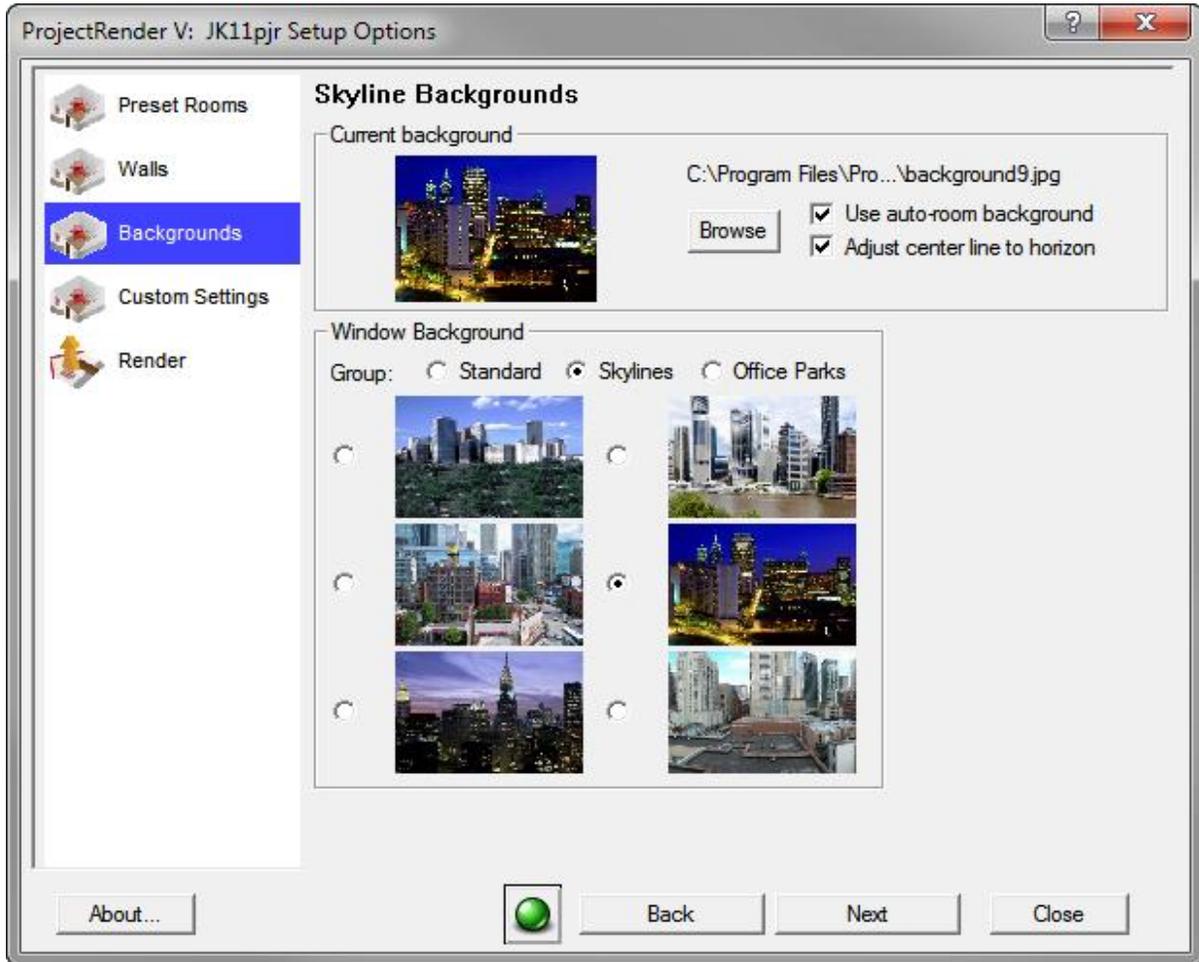
**Check boxes**- “Use Default” room keeps settings from first screen, and “Use Walls” will disable walls for an environment with no walls.

# Appendix A

## Setup Options- Walls

### Choose Backgrounds

If a preset room was chosen, then the background will automatically be chosen. You always have the option to change even if a preset room was selected.

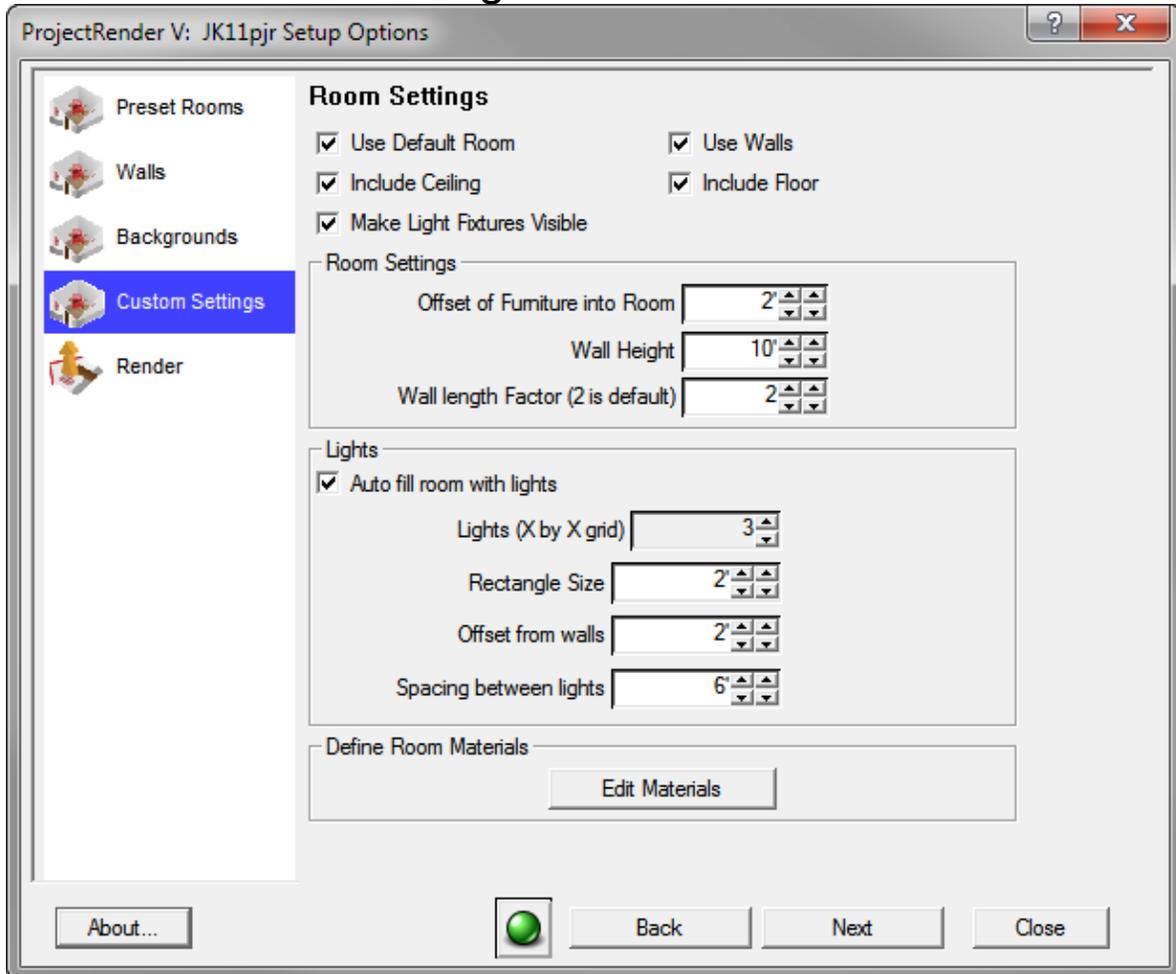


You can choose from standard, skyline, or office park backgrounds. Click the radio button next to the selection you prefer. You may also click the "browse" button to select your own image. Please make sure your picture uses correct perspectives and the camera line is level with the horizon. There is a preference to set the Centerline of the rendering to the centerline of the picture. This works well when your horizon line in the photo is the exact center of the photograph.

# Appendix A

## Setup Options- Walls

### Choose Room Settings



#### **Room Settings**

Many of these settings are repeated from the “Walls” screen. You have preference to turn off certain features such as floor and walls, or display lights in the rendering or not.

#### **Lights**

By Default the room is fully lit with “Auto fill” checked. You can uncheck that and modify how many lights are used in the room. In either case, you may also change the size and distance from each light.

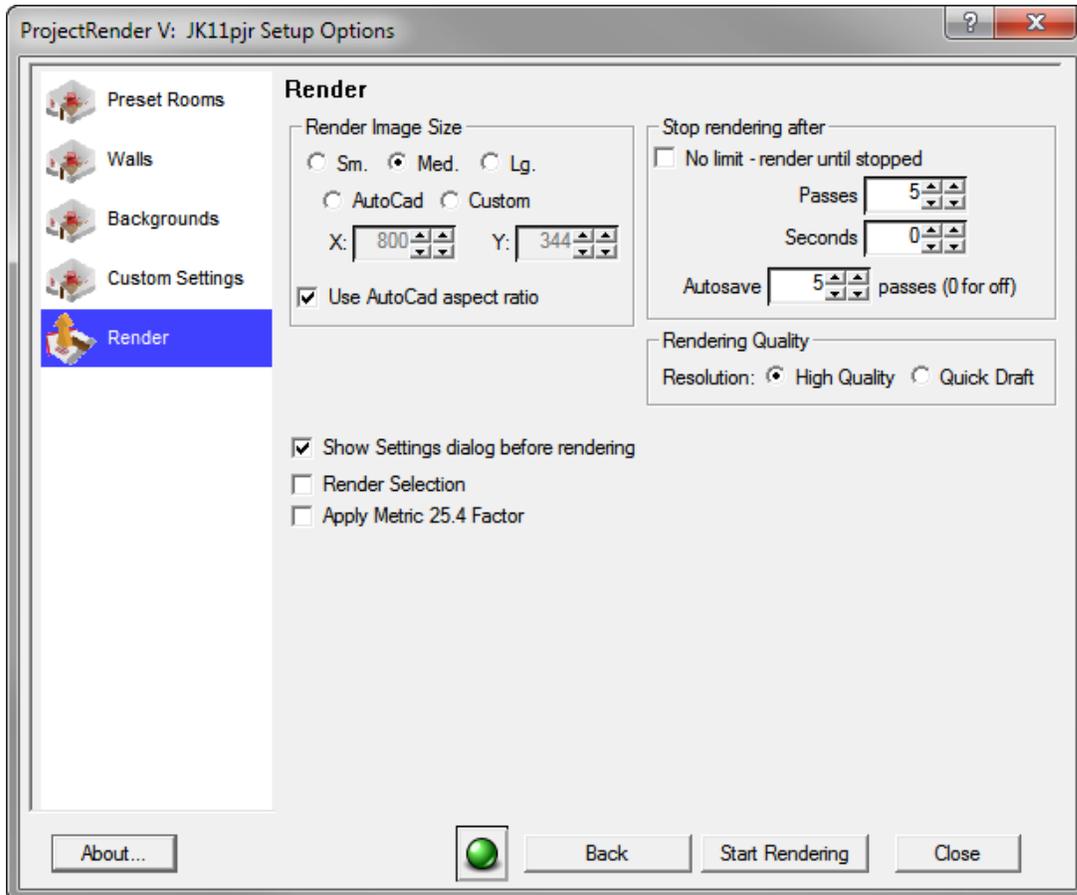
#### **Define Room Materials**

This choice allows you to change wall, baseboard, window trim, carpet and ceiling colors and materials.

# Appendix A

## Setup Options- Walls

### Choose Render Settings



#### **Render Image Size**

These are preference on the size of the output rendering in pixels. Defaults are as follows: Small (640), Medium (800), Large (1200), and then AutoCad uses the existing screen resolution and custom is user defined. Use AutoCAD ratio is recommend because it renders exactly as you see the blocks on the screen.

#### **Render Passes**

Each “pass” that is completed calculates lighting and reflections to create a ray trace rendering. It is recommend to render at minimum 5 passes. After you first rendering is complete, you have the option to resume rendering at higher passes without starting over.

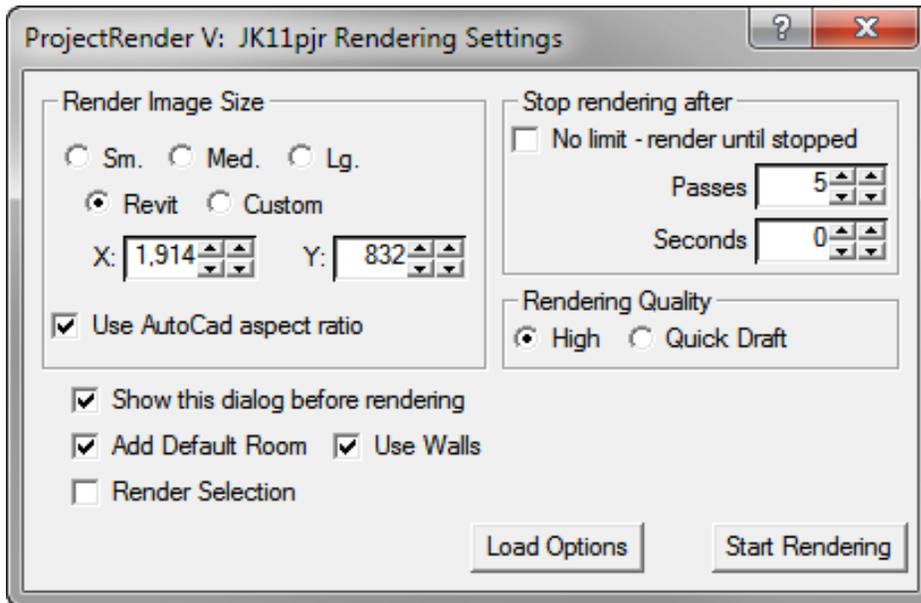
#### **Rendering Quality**

For Presentation you will want to use High Quality. Quick Draft is good for checking room settings and colors. If you take a medium rendering at 800 pixels, Quick Draft will render the same size output but only at 400 pixels, so it will appear “grainy” , but will render faster.

## Appendix B

### Start RENDER dialog

### Choose Render Settings



#### **Render Image Size**

These are preference on the size of the output rendering in pixels. Defaults are as follows: Small (640), Medium (800), Large (1200), and then AutoCad uses the existing screen resolution and custom is user defined. Use AutoCAD ratio is recommend because it renders exactly as you see the blocks on the screen.

#### **Render Passes**

Each “pass” that is completed calculates lighting and reflections to create a ray trace rendering. It is recommend to render at minimum 5 passes. After you first rendering is complete, you have the option to resume rendering at higher passes without starting over.

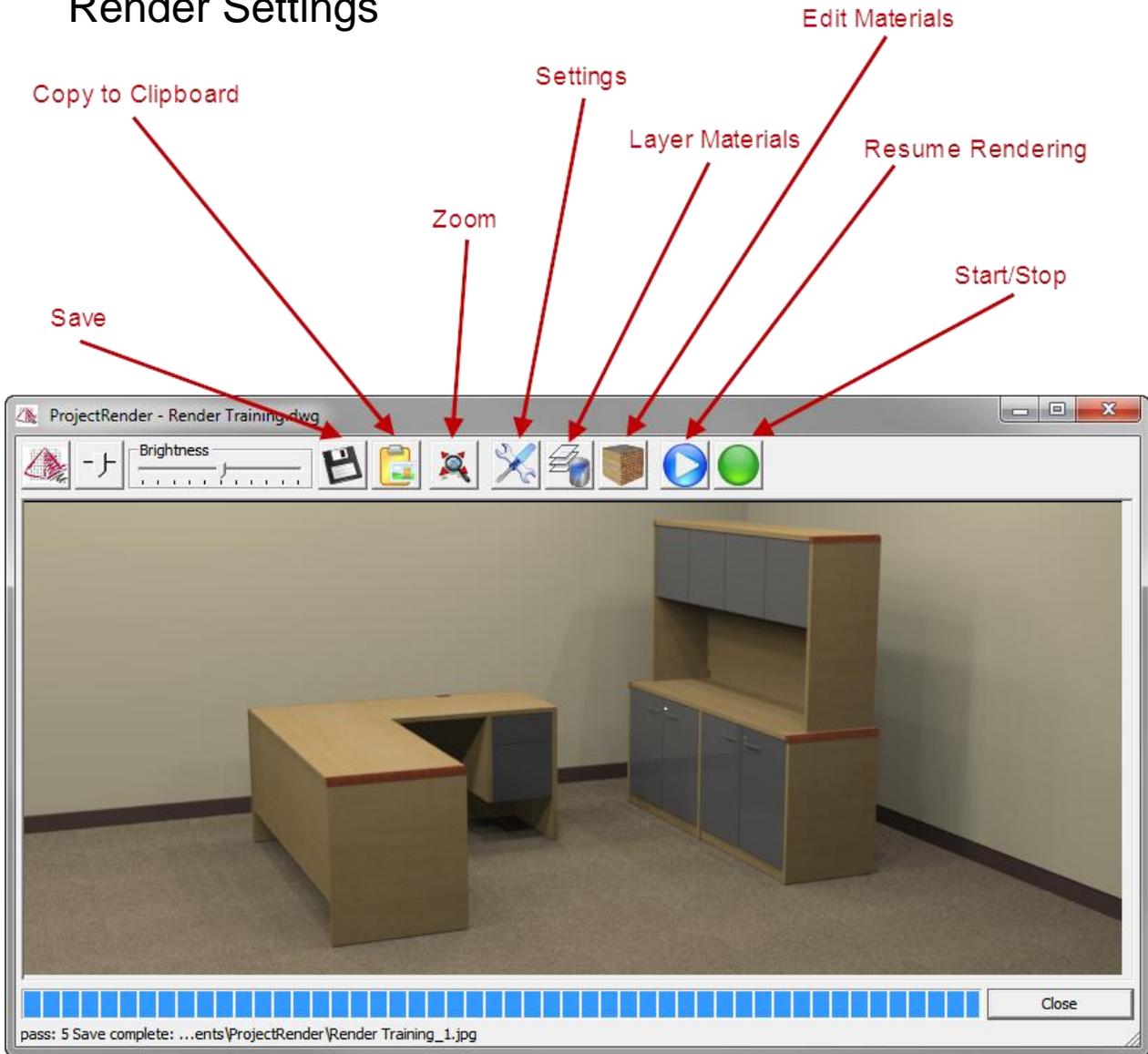
#### **Rendering Quality**

For Presentation you will want to use High Quality. Quick Draft is good for checking room settings and colors. If you take a medium rendering at 800 pixels, Quick Draft will render the same size output but only at 400 pixels, so it will appear “grainy” , but will render faster.

# Appendix C

## RENDER dialog

### Render Settings



### **Save**

ProjectRender automatically saves the image to a ProjectRender folder in your “My Documents” . However, if you would like to force a SAVE or save to a different location, you can use this button.

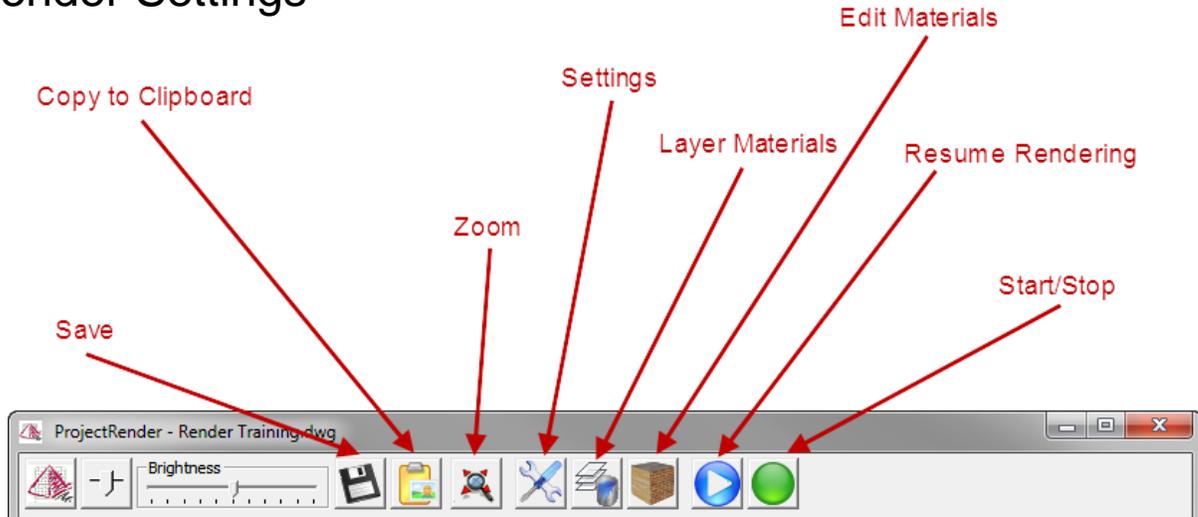
### **Copy To Clipboard**

This automatically copies the image on the screen so you can easily paste the image into any document or email using the “PASTE” function or Ctrl+V

# Appendix C

## RENDER dialog

### Render Settings



#### **Zoom**

This toggles the zoom between “Fit in Window” and “1:1”. The “Fit in Window” will fill the preview dialog box, but may distort the image. “1:1” resizes the image to the proper pixel size, and reflects the true rendering size.

#### **Settings**

This stops the rendering, and loads the “Room Settings” dialog box to make changes.

#### **Layer Materials**

This stops the rendering, and loads the “Material Layer” dialog box to make changes.

#### **Edit Materials**

This stops the rendering, and loads the “Edit Materials” dialog box to make changes. With this, you can change any material in the room including room materials in addition to symbol materials.

#### **Resume Rendering**

The default rendering will complete 5 passes before finishing. If you are satisfied with the rendering, but want a higher quality, you can click the Resume Rendering box. Increase your passes and then hit the resume. This allows you to continue rendering from the last pass without completely starting over.

#### **Start/Stop**

If the button is RED then you can press stop once to complete the pass that the rendering is on. If you press the Stop twice, then the rendering will stop immediately. When the button is GREEN, then you can press it to begin rendering, or re-render.