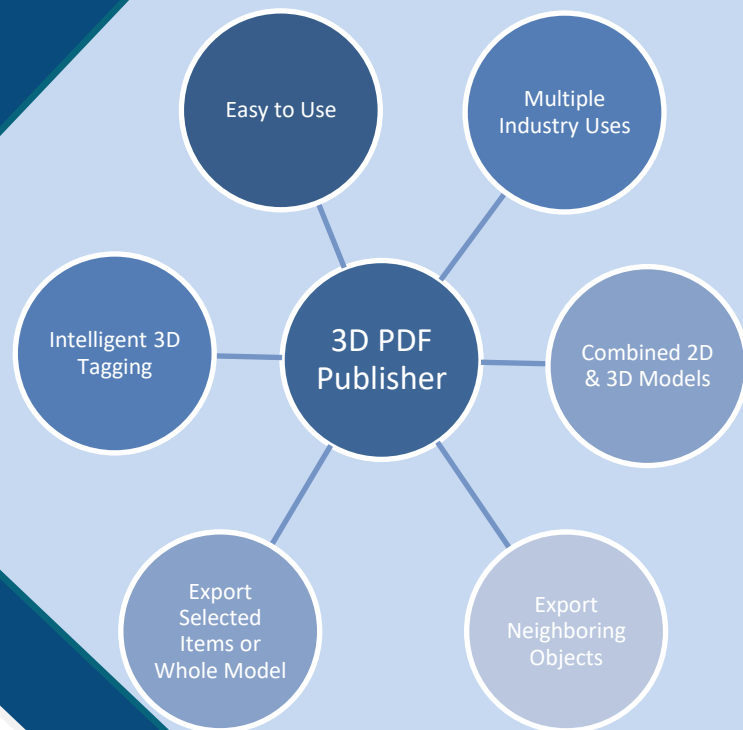




# 3D Apps 3D PDF Publisher for Revit®



## User Guide

Version 16.5

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# Introduction

Our Intelligent 3D PDF® for Revit is an add-in software module for Revit that allows you to convert 2D sheets and selected model(s) with neighboring objects into single 3D PDF. Our software allows you to do various useful functions as well as customize your settings to meet the demands of you and your customers. After the file is exported, users can use Adobe Reader to open the 3D PDF and seamlessly navigate the 3D and 2D together in one place.

*Our program allows you to:*

- *Select 2D drawings and 3D models and combine them into one sheet. Select specific 3D plans, rooms and objects and overlay them onto the 2D sheet.*
- *Export only what you need. Select a specific 3D plan, room or object and export just that without having to export the whole model.*
- *Use our intelligent TAG system to link the 3D information from room numbers or curtain wall tags with the 2D sheets.*

## Benefits

### BENEFITS



#### Simple

Creating 3D PDF is easier than you think. Just 1-2-3 click, you can create Intelligent 3D PDF on the fly.



#### Easy

3D PDF can reduce the 2d drafting efforts with embedded 3D view.



#### Light

Create lightweight 3D PDF by converting selected object(s) only instead of exporting the whole model.



#### Intelligent

TAGs in 2D and objects(space) in 3D are linked.

## What's New in PDF Exporter for Revit 16.5

In this version, you can now exports ADSK materials to a 3D PDF, so users can easily check materials in just the 3D PDF. Our new API extracts to 3D PDFs around 50% faster than previous versions.

# Installation Guide

## Basic System Requirements:

In order for the program to run correctly, the following minimum specifications are required.

- Windows 64-bit Version 7,8,10
- A licensed copy of Revit (2014, 2015, 2016)
- .Net framework of 4.5 or later

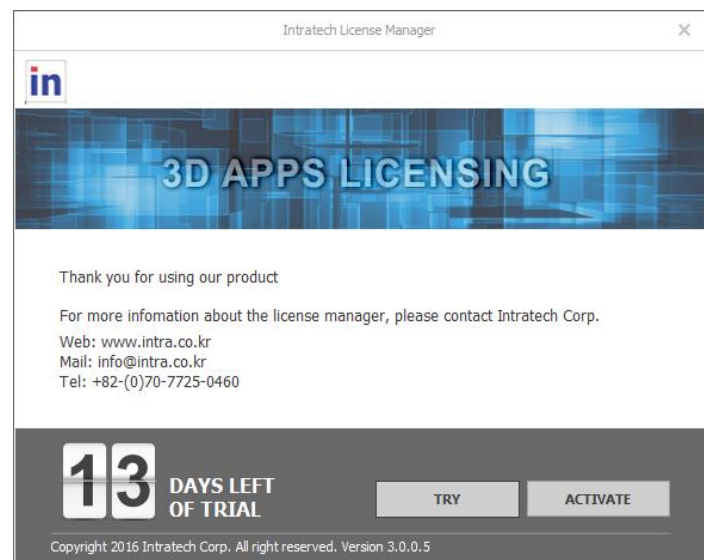
## Setup Guide

After downloading the file, double click on the installation file and begin the downloading process. Click “Next” and continue through the installation process.



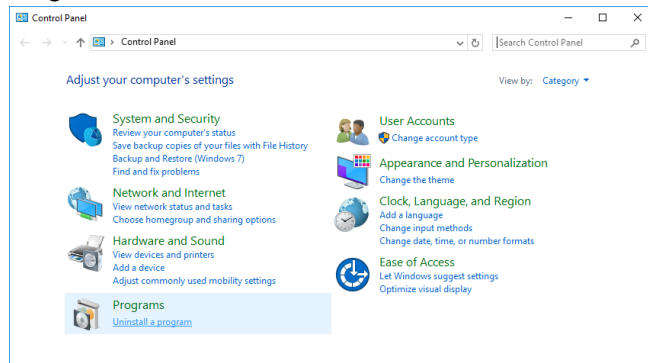
While going through the installation for the first time, it is possible to begin a 15 day free trial to test the program in order to make a final decision.

- Click “Try” to continue trial with the trial version
- Displayed at the bottom is the remaining days available on your free trial.
- When you are ready to activate, click the “Activate” button and continue to the activation process.
- Select your “License Type” and enter your activation key. This can be found on your License Certificate.

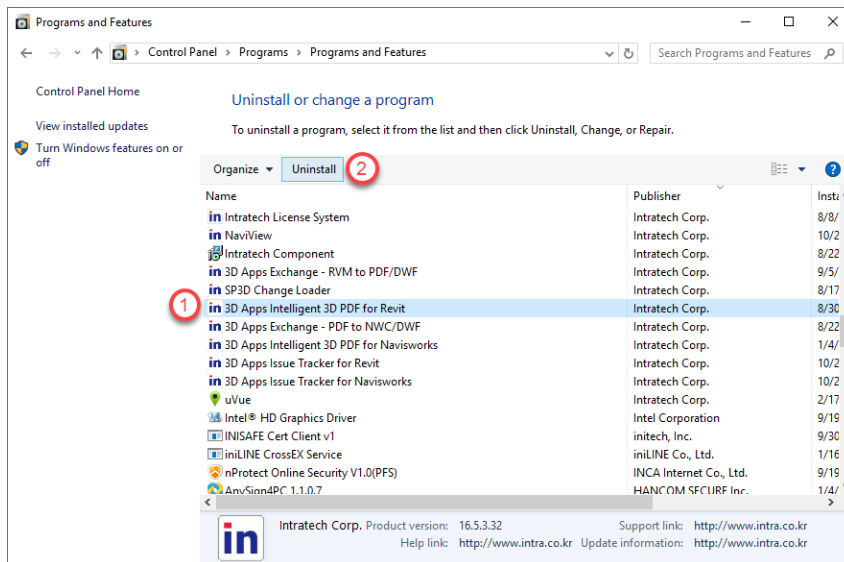


# Uninstall

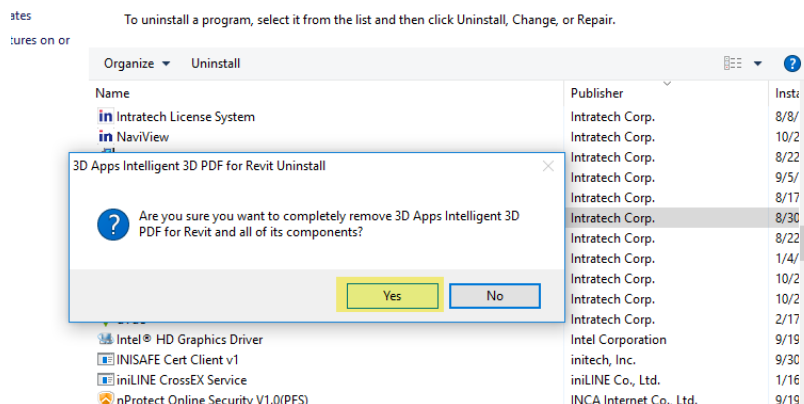
To uninstall 3D Apps Intelligent 3D PDF for Revit, please go to Control Panel and open Programs



You can find 3D Apps Intelligent 3D PDF for Navisworks in the programs list. **Select 3D PDF for Revit** and then click **Uninstall** button.



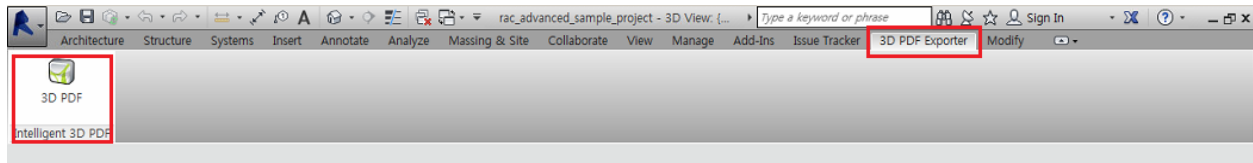
Then dialog box for uninstall confirmation will be displayed. Please click **Yes** to proceed the uninstallation.



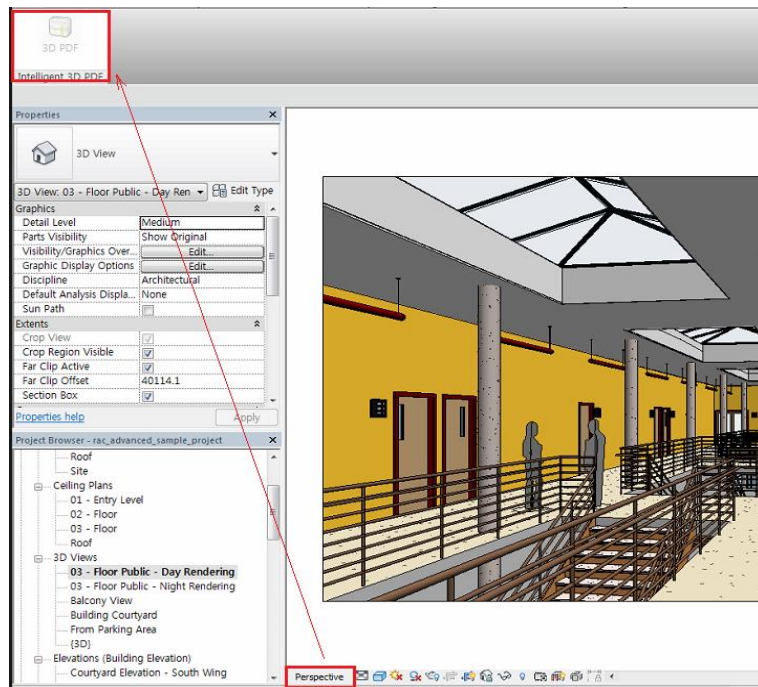
# Getting Started

## Running the program:

After Installation, open your version of Revit. At the top, you can find “3D PDF Exporter” tab. When you are ready to export a 3D PDF, simply click on the “3D PDF” button.



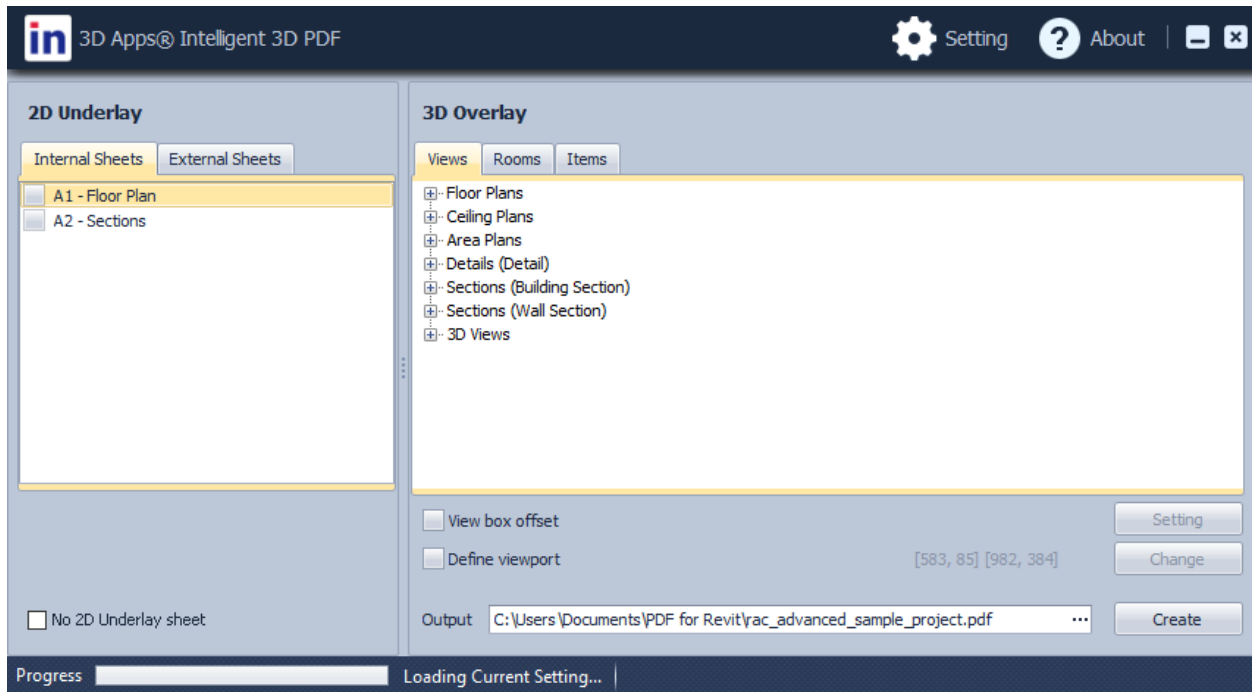
The menu will not be enabled if Revit is currently in Perspective mode. If the 3D PDF exporter is grayed out and not clickable, change the view mode by selecting a 2D drawing or section to enable.



## User Interface (UI)

After clicking on the “Export 3D PDF” button, the main window will be displayed. From this section, you can select the various options for your 3D PDF.

### Main Window



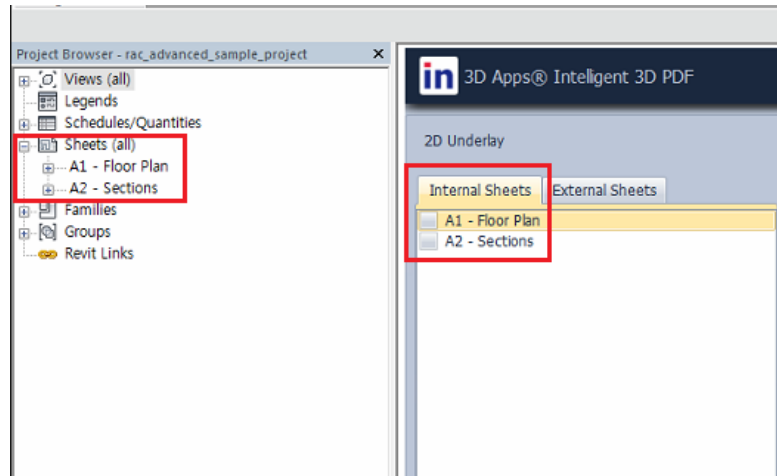
## Exporting 3D PDF:

The program allows you export 3D PDFs in three different ways:

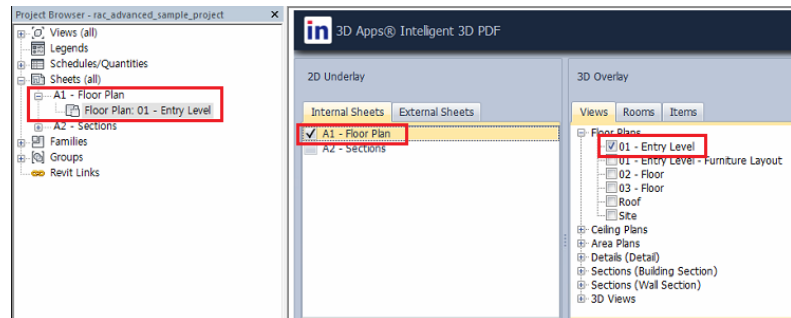
- Revit Internal Sheets underlay with 3D
- External Sheets underlay with 3D
- Only the 3D items

## Revit Internal Sheets Underlay with 3D

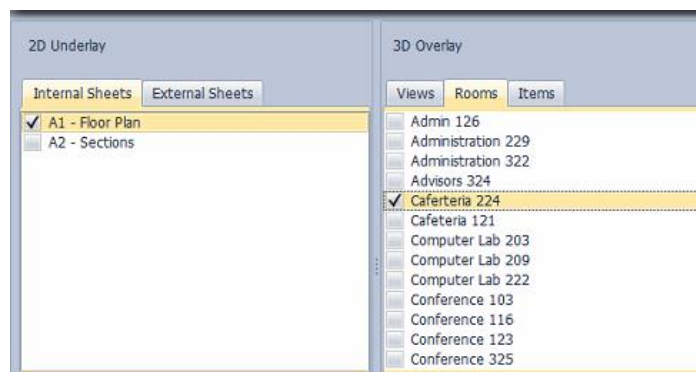
Under the Internal sheets tab, the 2D underlay sheets will be loaded automatically. By clicking the **“Sheets (all)”** section, users can view the available sheets for export.



After selecting the desired 2D underlay, users can then select specific Views, rooms, or items from the 3D tab on the right to export in one PDF.

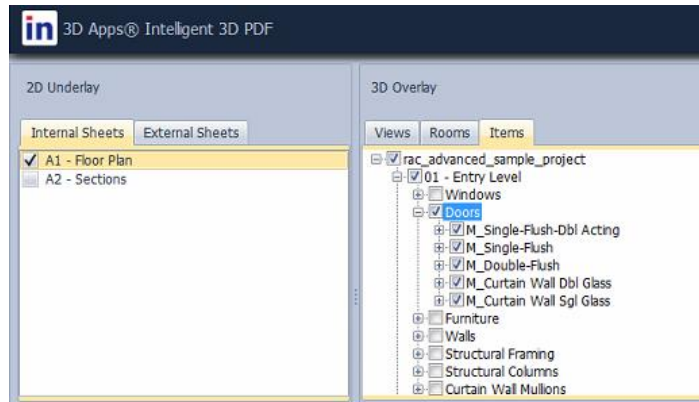


For example, in this image, the A1 – Floor plan 2D underlay will be linked with the 3D overlay room view of Cafeteria 224. The resulting 3D PDF will include both.





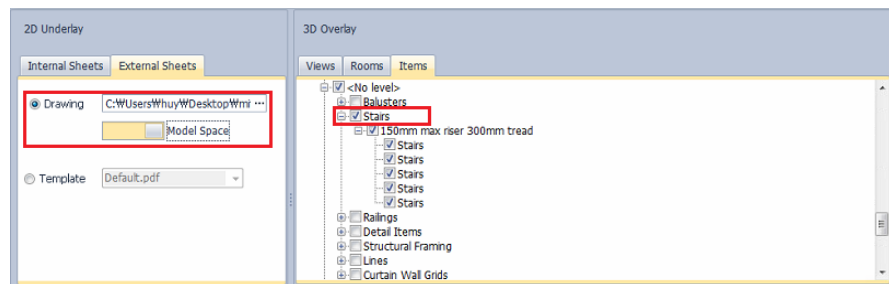
Additionally, by choosing specific items from the drop down menu, specific items can be selected to include in the exported 3D PDF as well.



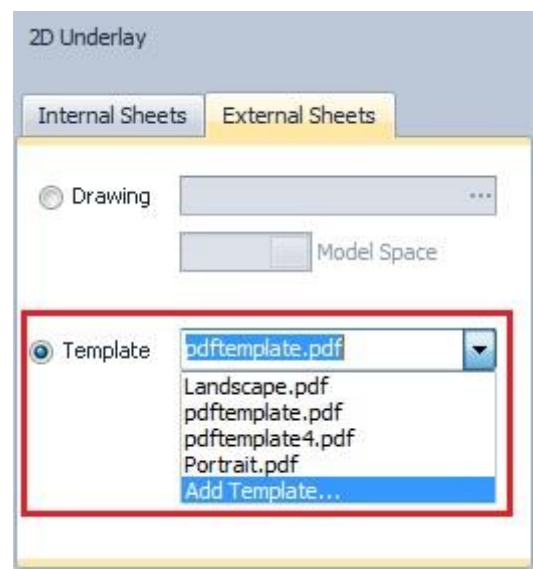
## External Sheets Underlay with 3D

By clicking on the External Sheets tab, you can choose the DWG files that you would like to combine with 3D sheets. You can select the file by using the file explorer and select the drawing you would like to combine. Additionally, a PDF template can be selected to be underlaid for your 3D PDF.

By selecting specific items, views, or rooms, you can export them in conjunction with your selected 2D underlay.



After clicking on the External sheets tab, you can choose the desired template from the drop down menu.



After selecting your own template, the user can specific the settings in the text fields and map button functions. Simply input the desired value into each field.

PDF File: C:\Users\Wadmin\Desktop\Wm\Wpdftemplate.pdf

Text Fields	Value
Company	Intratech
Issued for	Room 209
Date	%datetime%
ObjectName	Window
Notes	wrong position
ModelFile	rac_advance_sample
Author	%systemname%

Button Fields	Function
Window3DImage	Window3DImage
DimOther	DimOther
HideOther	HideOther
TransparentOther	TransparentOther
Zoom	Zoom
Unhide	Unhide
Reset	Reset

Save

After exporting, the resulting 3D PDF will look like this. Even when using templates, the file can be exported with Views, Rooms, or Items.

3D APPS® PDF

Company	Intratech	Issued for	Room 209
Author	INTRA	Date	11/12/2015 00:48:32
Model File	rac_advance_sample	Object Name	Window

## No 2D Underlay Sheet (Only 3D Export)

If you would like to export ONLY the 3D Model, check “**No 2D Underlay Sheet.**” After selecting this, you can export 3D models for Views, Rooms, or Items.

Internal Sheets External Sheets

☐ Drawing

☐ Paper Space

☒ Template: pdftemplate.pdf

No underlay

☒ No 2D Underlay sheet

# Export Options

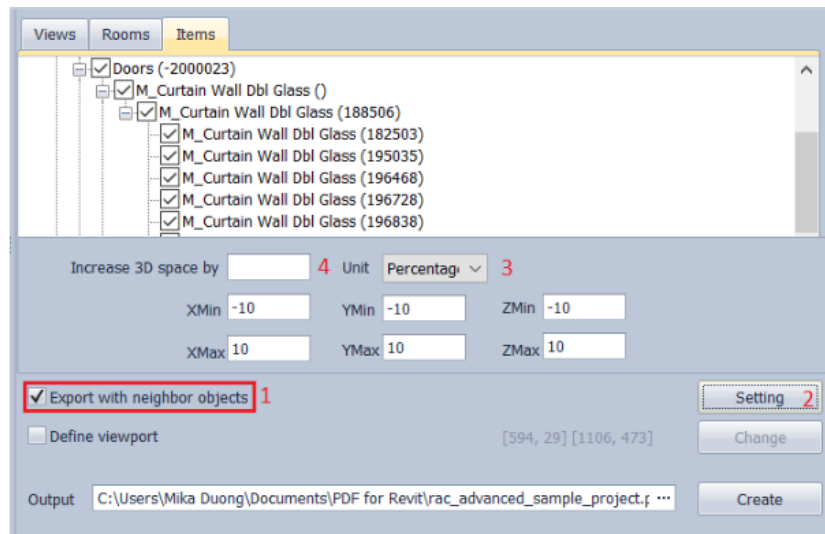
There are various options that can be selected when exporting files to customize what you would like to export. In order to export neighboring objects or export with a fixed viewpoint, review the below directions.

## Export 3D with neighbor objects

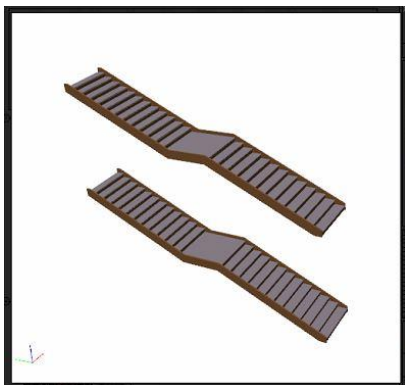
This functionality allows you to export your selected object with the neighboring objects.

First, click on “**Export with neighbor objects.**”

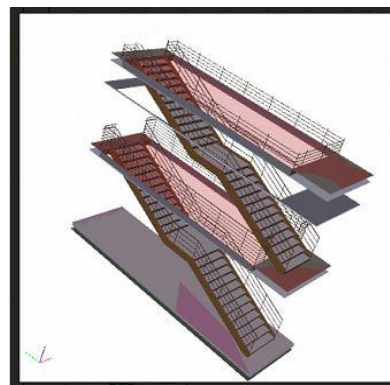
In the Unit drop-down menu, select whether to extend from length, or percentage. After making a selection, you can set the distance to extend in each direction from the selected item.



The below examples show the difference between exporting without neighboring objects and with neighboring objects.



No neighbor items



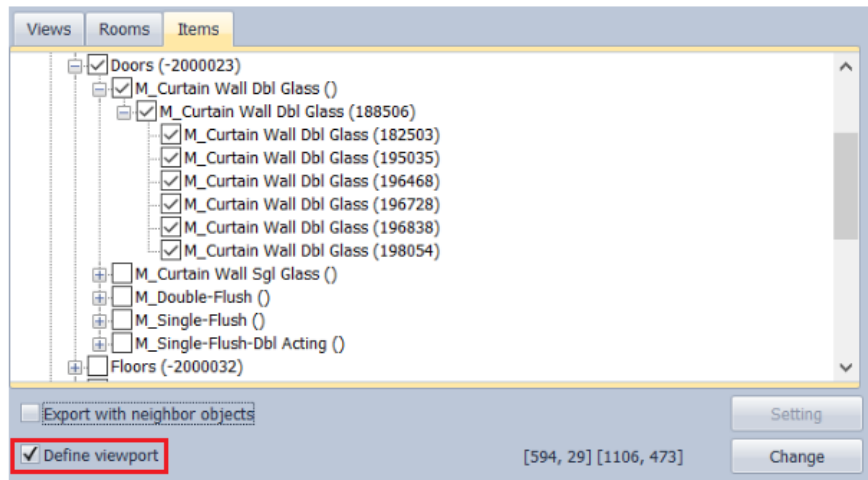
Extend object's box 2m of length

## Export with Fixed 3D Viewport

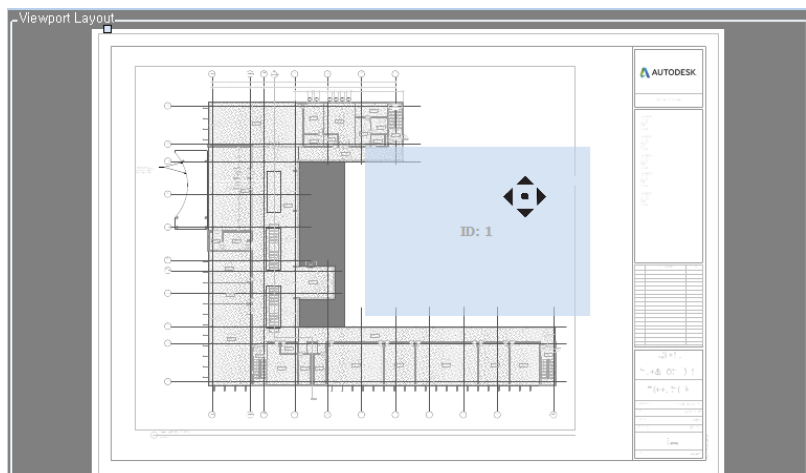
By default, 3D windows exported to a 3D PDF can be resized and their location can be changed. With the following option, you can fix the 3D window size and location preventing the end user from changing the settings.

Select **“Fix 3D Viewport”** to use a fixed viewpoint.

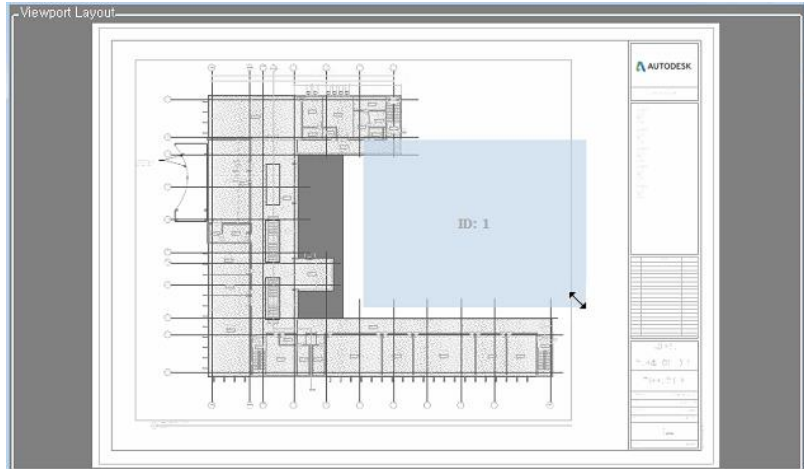
Next, click **“Change”** to set the position for the 3D window in the exported PDF file.



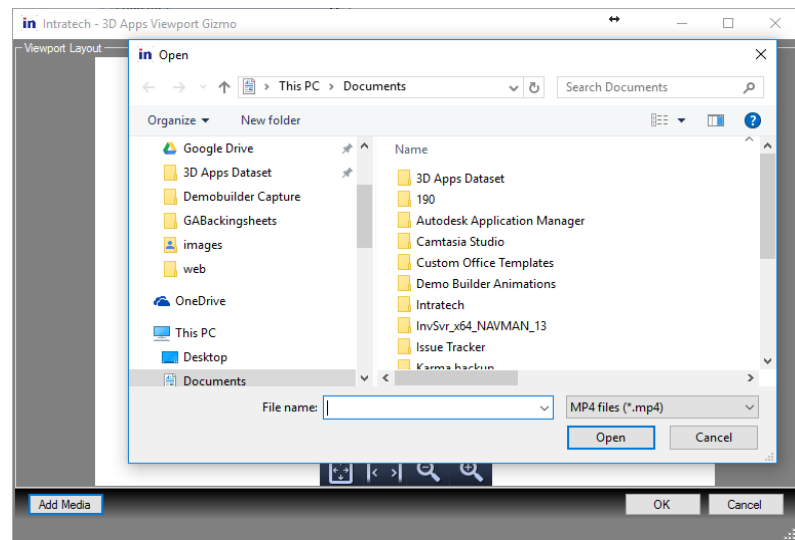
Use the cursor in the 3D viewer window and set the desired location.



Place the cursor in the bottom right-hand corner of the window to change the size of the region.



Selecting add Media allows you to embed either mp4 or avi files in the PDF.



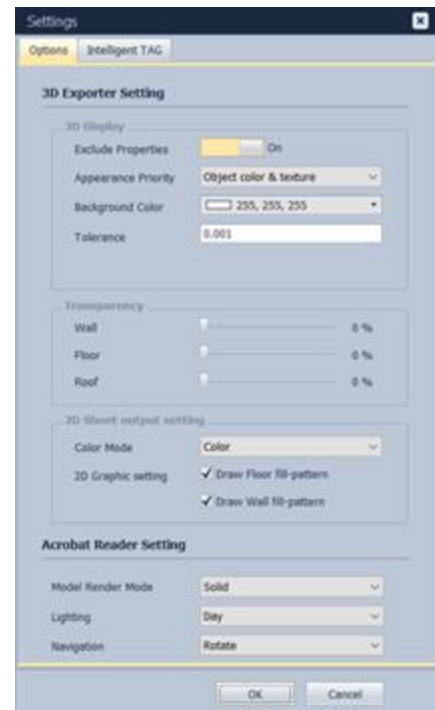
# Settings

To adjust the program settings, select “Settings” from the upper right-hand section of the main UI.



## Options:

After clicking, settings the setting options that can be changed will be displayed. This section allows you to edit the 3D Exporter Setting, Transparency settings, 2D sheet output settings, and change the settings for Acrobat Reader.

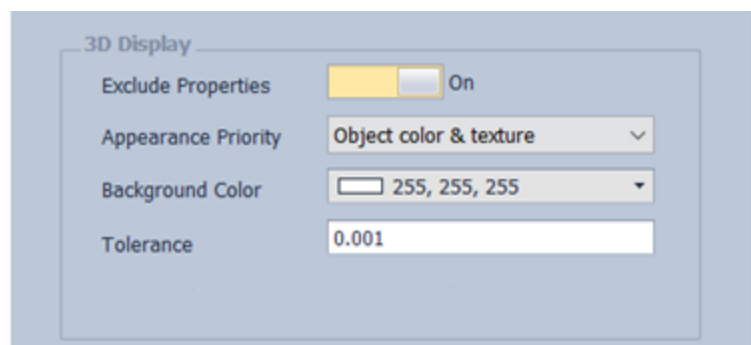


## 3D Exporter Settings

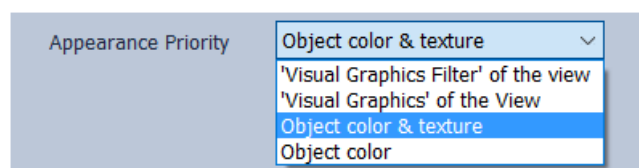
**Exclude properties:** exclude all properties when exporting to PDF:

**Turn ON:** do not export properties

**Turn OFF:** export all properties

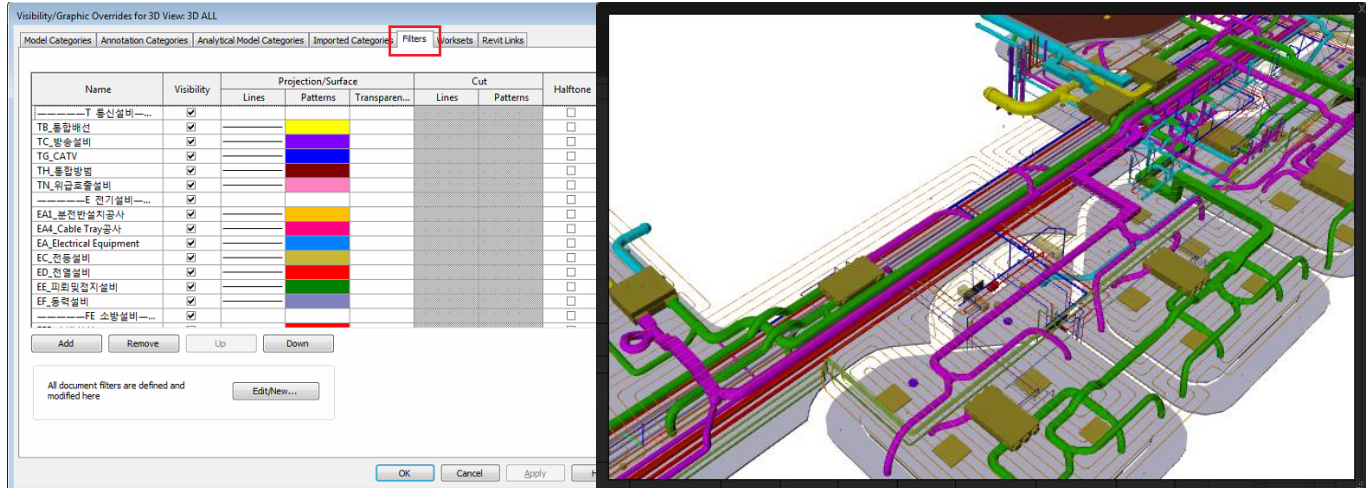


## Appearance Priority:

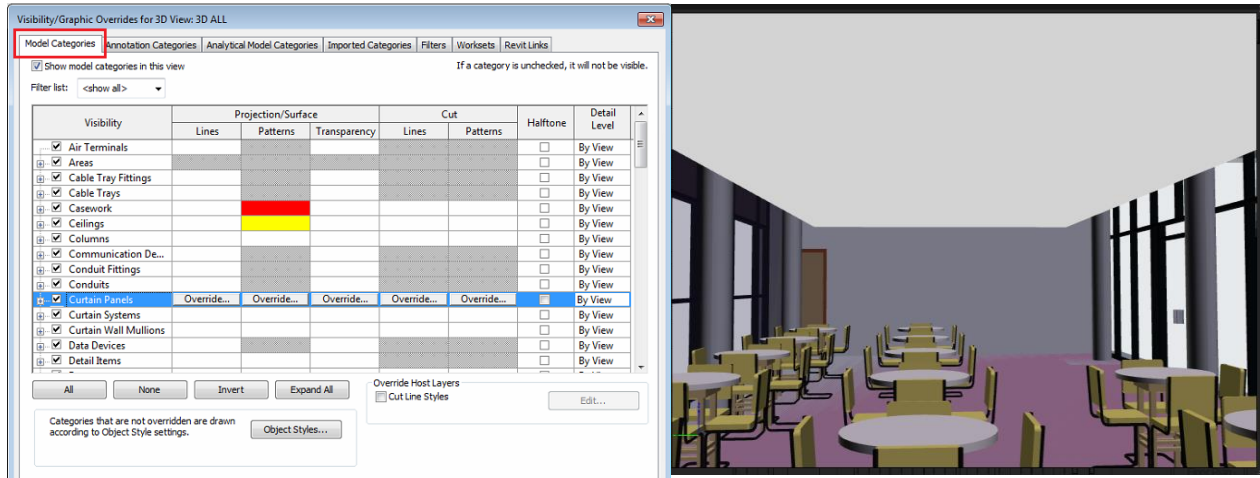


Use the drop-down menu to select the appearance setting you would like to use.

**Visual Graphics Filter of the View:** This setting use the color settings from “**Filters**” tab located in “**Visibility/Graphic Overrides for 3D View**”. The resulting PDF will look like this:

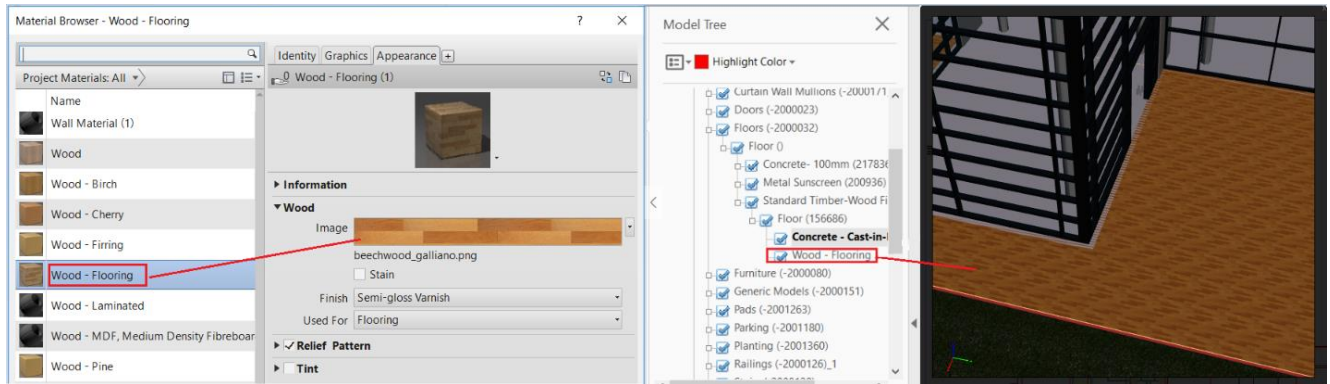


**Visual Graphics of the View:** This setting use the color settings from the “**Model Categories**” tab located in “**Visibility/Graphic Overrides for 3D View**”. The resulting PDF will look like this:





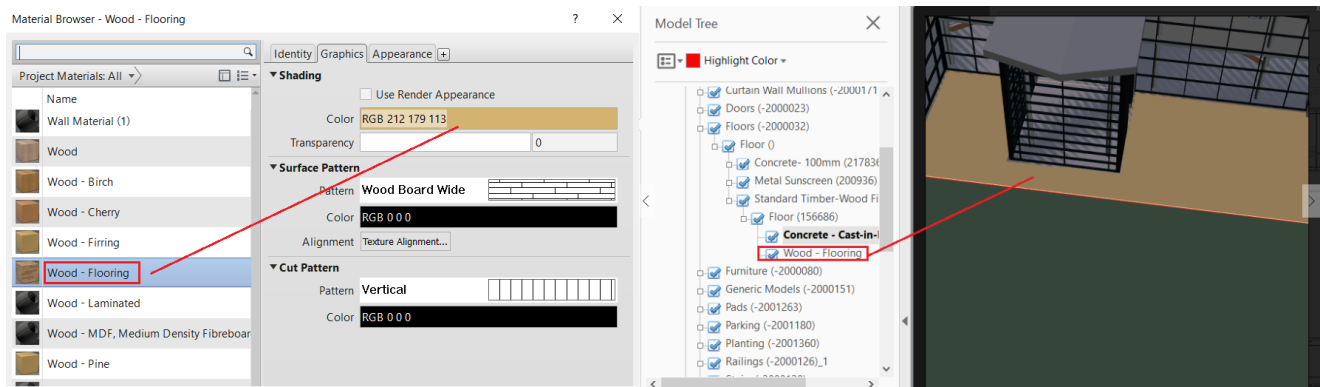
**Object color and texture:** This setting will use the color and image texture of each item based on its original color and image material on Revit



Color of Wood-Flooring object in Revit

Color of Wood-Flooring object in PDF file

**Object color:** This setting will use the color of each item based on its original color from Revit.



Color of Wood-Flooring object in Revit

Color of Wood-Flooring object in PDF file

**Background Color:** set the background to be used in the exported PDF file.

Background Color

**Tolerance:** This setting allows you to define the distance to extend the box when exporting a specific view. The value is calculated in feet.

Tolerance



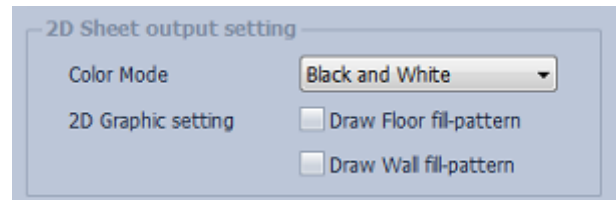
## **TRANSPARENCY**

Set the transparency values for the different objects including Wall, Floor, and Roof.



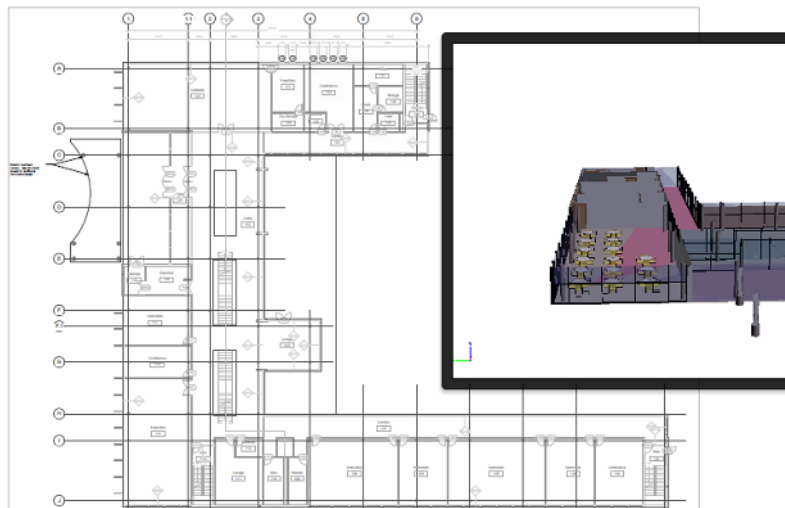
## **2D SHEET OUTPUT SETTINGS**

This section allows you to change the settings used in the 2D sheets when outputting.

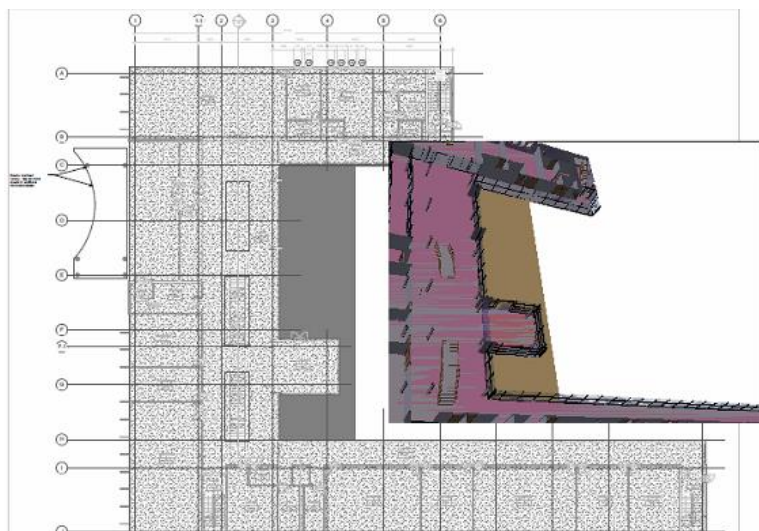


**Color Mode:** Set the color style for 2D underlay of PDF file (Black and White, Color)

*This example shows the exported 2D underlay with both options unchecked.*



*This example shows the exported 2D underlay with “Draw Floor Fill-pattern” selected.*

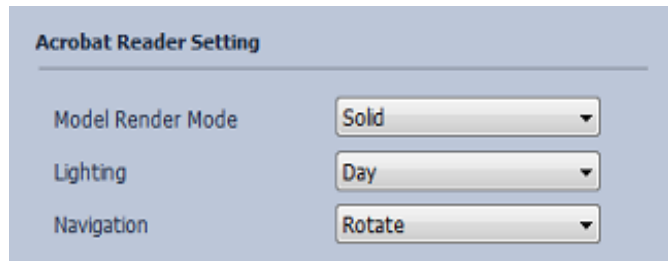


## ACROBAT READER SETTINGS:

**Model Render Mode:** Set the model style for the PDF file (solid, transparent, illustration...)

**Lighting:** Set the light mode of model in PDF file (day, night, blue...)

**Navigation:** Set the default tool to be used in the model in the PDF file (Rotate, Pan, Zoom...)

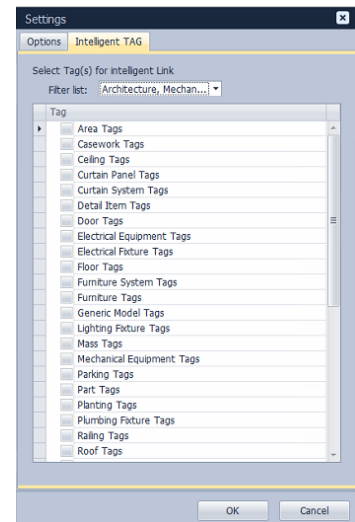


## Intelligent Tag Exporter:

### Select Specific Tags

From the list you can select specific items to be automatically tagged. When a Tag is selected, a link will be created between the 2D Tag and the 3D model Image. By clicking on the TAG, the relevant 3D image will be displayed.

*Note: Currently, only **Room Tags** and **Curtain Wall Tags** are available. Additional tag functionality will be enabled in later versions. Check the update notes to see which tags are currently supported.*

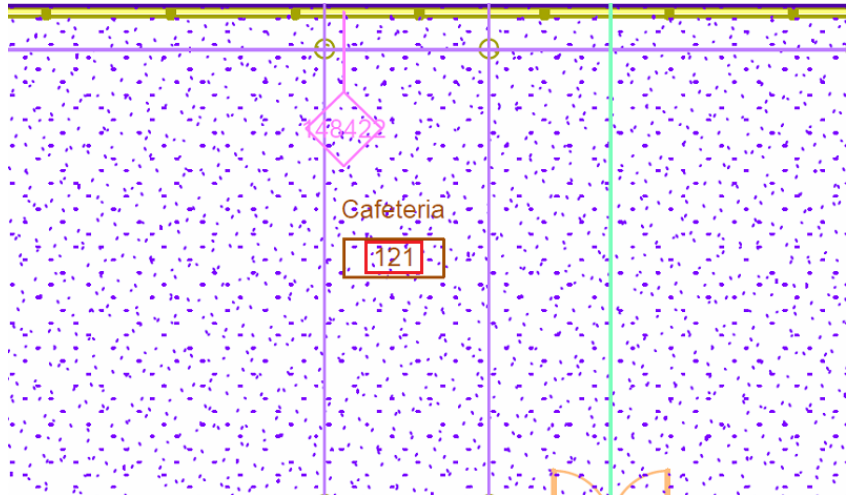


**Filter List:** Filter the Tags displayed in the Tag list by choosing specific categories.

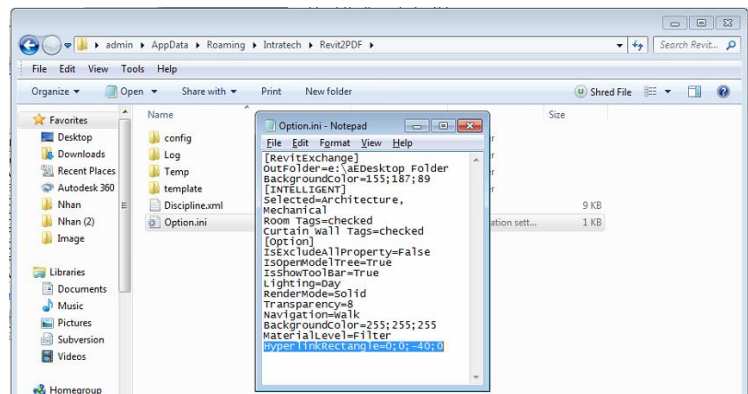


## Intelligent TAG configuration

When the PDF file is open, when you mouse over a Room TAG or Wall TAG, the mouse pointer will become a hand icon.

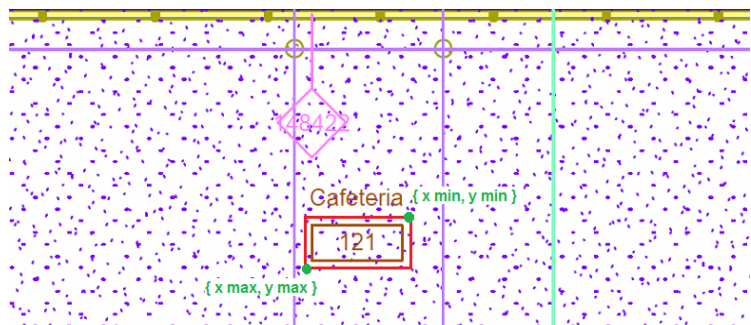


To make selecting intelligent tags more specific, you can change the size of the active area (for example, the red rectangle in the below image) from within the option.ini file.



Open the file into a text editor and change the value manually. The default location for the options.ini file is C:\Users\UserName\AppData\Roaming\Intratech\Revit2PDF

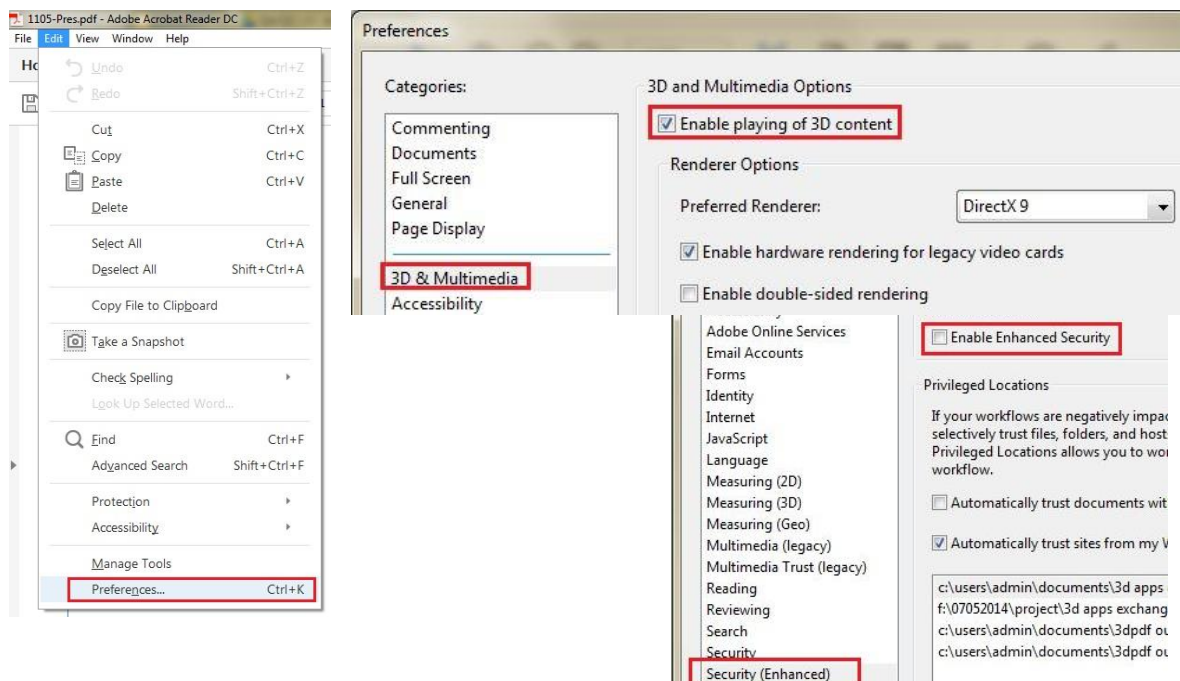
In the options file, modify the value "HyperlinkRectangle=0;0;-40;0"  
The settings values for the rectangle are (x min; y min; x max; y max)



# 3D PDF Review

## Enabling 3D in Acrobat Reader (setting PDF Reader Security)

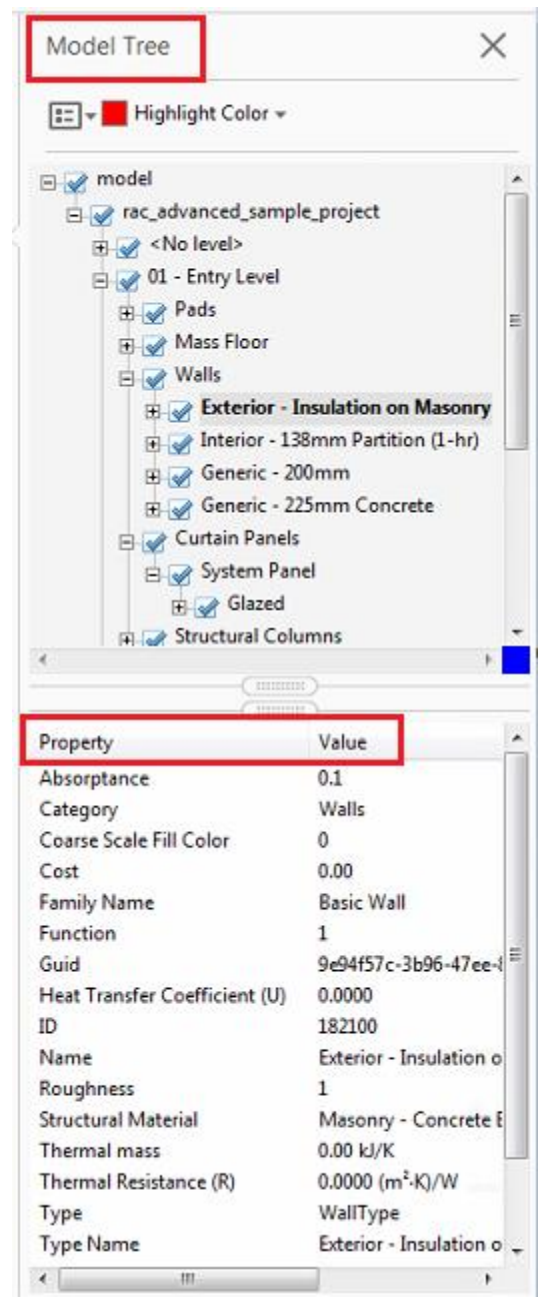
With the PDF opened, open Adobe Acrobat reader and go the **Edit** tab. In the list, select the **“Preferences”** option. Under **3D & Multimedia**, select **“Enable playing of 3D content”**. Next, under **Security (enhanced)**, uncheck **“Enable Enhanced Security”**. If your PDF is still cannot be viewed, please try exporting the PDF again or contacting Intratech for additional customer support.



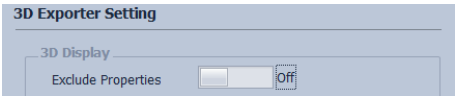
# Hierarchy and properties

The top section will show the Hierarchy of the exported model. To navigate to that section of the 3D PDF, simply click on the item from the model tree.

Additionally, clicking on a node will show the properties of that specific note. This will be included if selected during exporting.



*Note: When exporting PDFs, set the **OFF** value to export properties.*



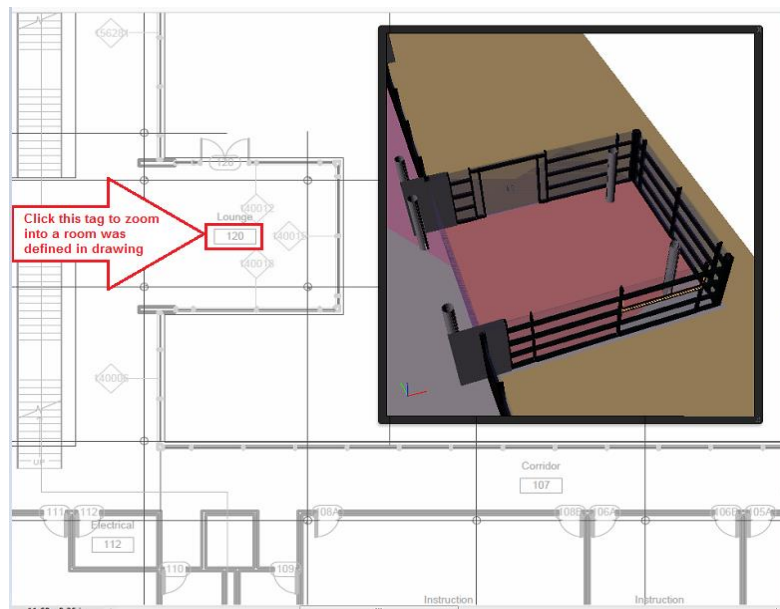
## Intelligent Tag System

The intelligent Tag system allows you to automatically link 3D models with their corresponding 2D Tags. Using this function, you can simply click on a 2D Tag in the exported PDF to open that section of the 3D model.

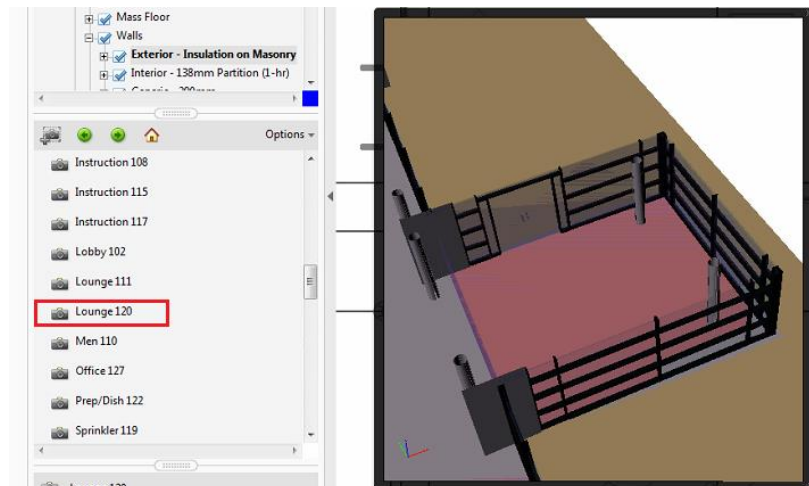
*Note: This function is only supported when a file is being exported with its internal sheet.*

### Room tags:

Select the Room tag in the 2D drawing to zoom into the 3D model of that Room.



Additionally, you can click the Room from the Room Tag List.





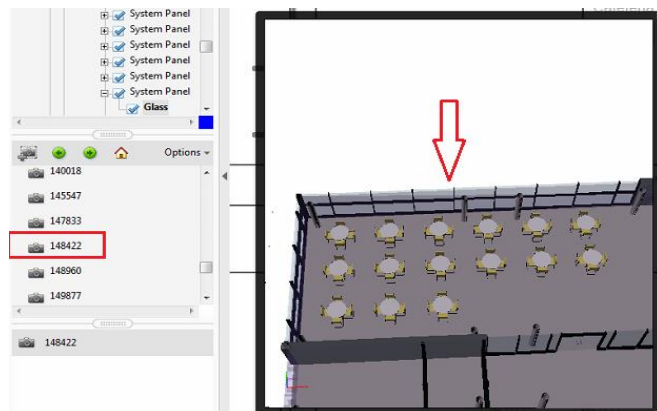
## Curtain wall tags

*Note: In order to use this function, the Internal sheet must be included when exporting.*

To view the 3D Room Model, simply click on the Curtain Wall tag in the 2D drawing to zoom in on the 3D Room model of that specific tag.



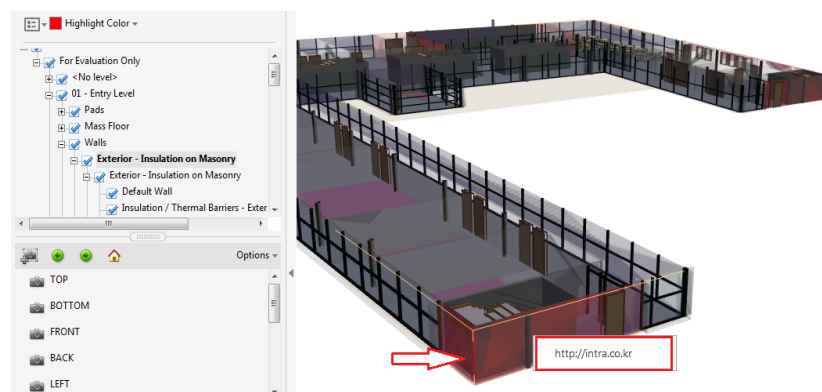
Alternatively, users can also click on the specific Curtain Wall from the Tag List to display the 3D image of that Tag.



## Linking a URL to Object:

When a user clicks on an object that contains a URL link in the **properties** section, the link will be displayed in the 3D PDF. Click the link to automatically go to the linked URL.

*Note: If the URL property of TYPE has value, this link is automatically embedded in the 3D PDF)*



# About



Company Name	Intratech Co., Ltd
Corporate Headquarters	#806 R&D Tower, NuriDreamSquare, 396 WorldCupBuk-ro, Mapo-gu, Seoul 03925, Korea Web: <a href="http://www.intra.co.kr">www.intra.co.kr</a> Tel : +82-70-7725-0456 Fax: +82-2-2132-0451 info : <a href="mailto:info@intra.co.kr">info@intra.co.kr</a>