

Archicad for CORENET X: Fast-Track your BIM Submission

Vimal Kumar Thangasamy
Manager, Customer Success

Agenda



- › CORENET X & IFC-SG with Archicad & Solibri
- › CORENET X workflow with Archicad
- › IFC-SG Toolkit for Archicad – Template & Add-ons
- › Coordination & Collaboration with Archicad
- › Solibri for IFC-SG Validation

PLANNING + DESIGN

Precise, innovative, and open planning
and design workflows

ALLPLAN

GRAPHISOFT

IRISA

SOLIBRI

VECTORWORKS

NEMETSCHek ENGINEERING

FRILO
A NEMETSCHek COMPANY

SCIA

BUILD + CONSTRUCT

Collaborative, efficient, and
sustainable construction processes

BLUEBEAM

NEVARIS

OPERATE + MANAGE

Smart, intelligent and comprehensive
building management

CREMSOLUTIONS

SPACEWELL

MEDIA + ENTERTAINMENT

Creative, intuitive and
powerful 3D animation

MAXON

DIGITAL TWIN BUSINESS UNIT

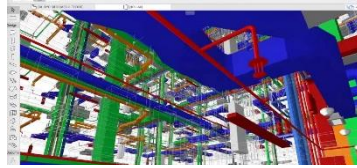
dRofus

dTwin

GRAPHISOFT BIM ECOSYSTEM



One Integrated Model



Multi-Disciplinary Coordination / Collision Detection

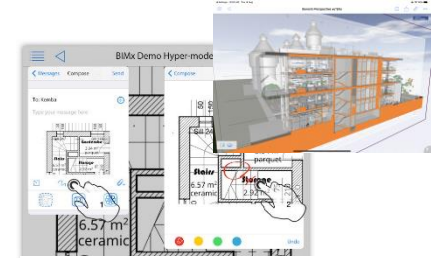


Teamwork

Virtual Reality



BIM Data Access

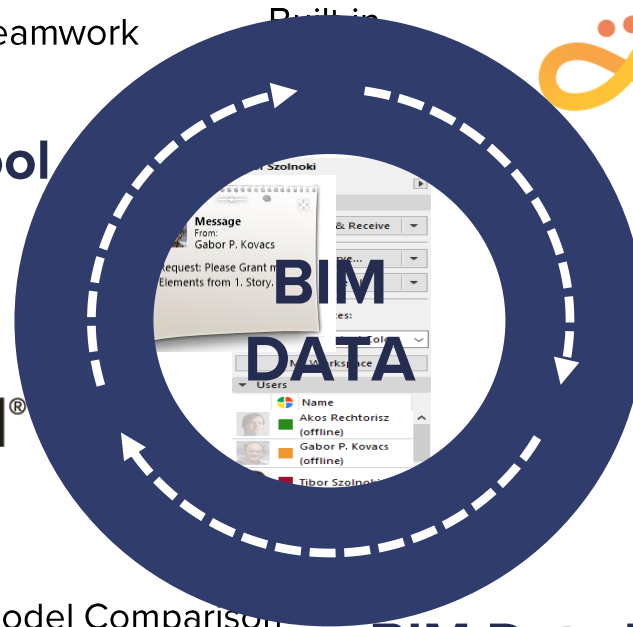


3D/2D Content
Cloud Access
BIM-to-Site
Communication

BIM Authoring Tool



GRAPHISOFT
Archicad®

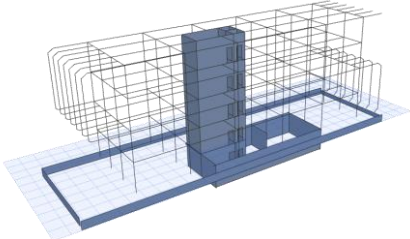


GRAPHISOFT
BIMx®



ICE Discussion

Structural Analytical Model



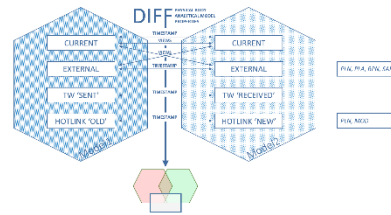
Interoperability

OPEN BIM™



Issue Management

Model Comparison



BIM Data Management



GRAPHISOFT
BIMcloud®

CORENET X & IFC-SG with Archicad & Solibri

CORENET X

The CORENET X project was initiated in 2018 with the objective to leverage technologies such as Building Information Modelling (BIM) and automation, to transform the regulatory approval process for building works. CORENET X is conceived as the future ecosystem of regulatory approvals, redefining Government to Business interactions as a One Stop Integrated Digital Shopfront. It adopts the agile approach and is targeted to be rolled out from end 2023.

BIM Readiness

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GRAPHISOFT
Archicad

GRAPHISOFT
BIMcloud

GRAPHISOFT
BIMx

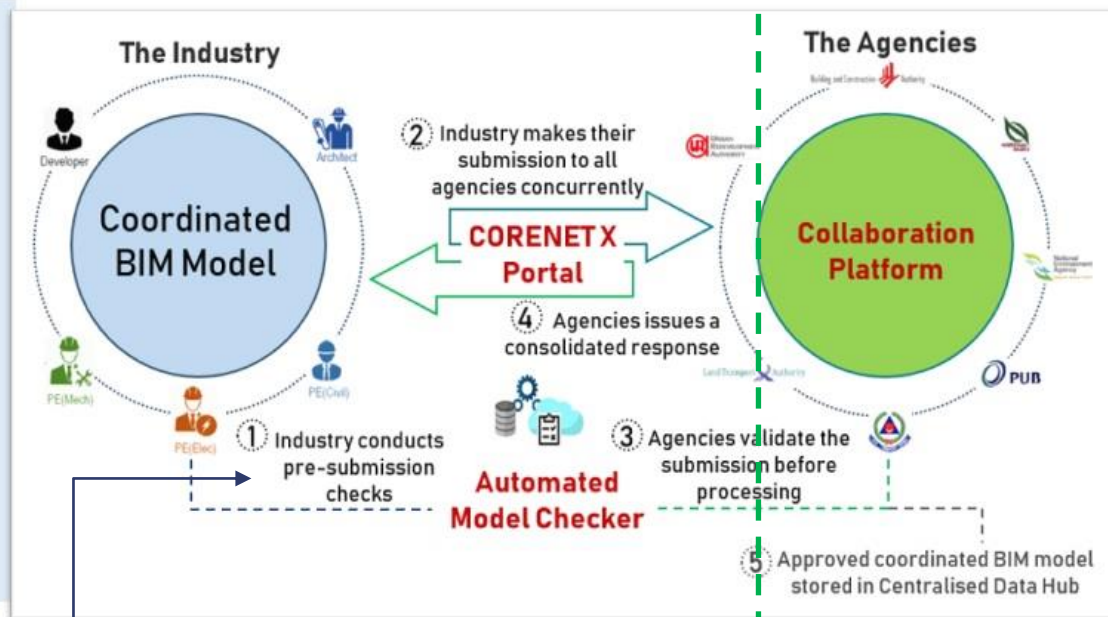
SOLIBRI
A NEMETSCHek COMPANY

TRANSFORMATION of INDUSTRY

- Promote design coordination and teamwork
- Promote digitalization of construction sector
- Support IDD¹ & DfMA² imperatives

Integrated Pre-Check Solution

FIRST IN THE WORLD One-Stop Integrated Digital Shopfront



TRANSFORMATION of REGULATORY AGENCIES

- Reduce silos, iterations & regulatory gateways
- Embrace collaboration & raise productivity amidst rising demands
- Improve accessibility & centralise information towards a Single Source of Truth

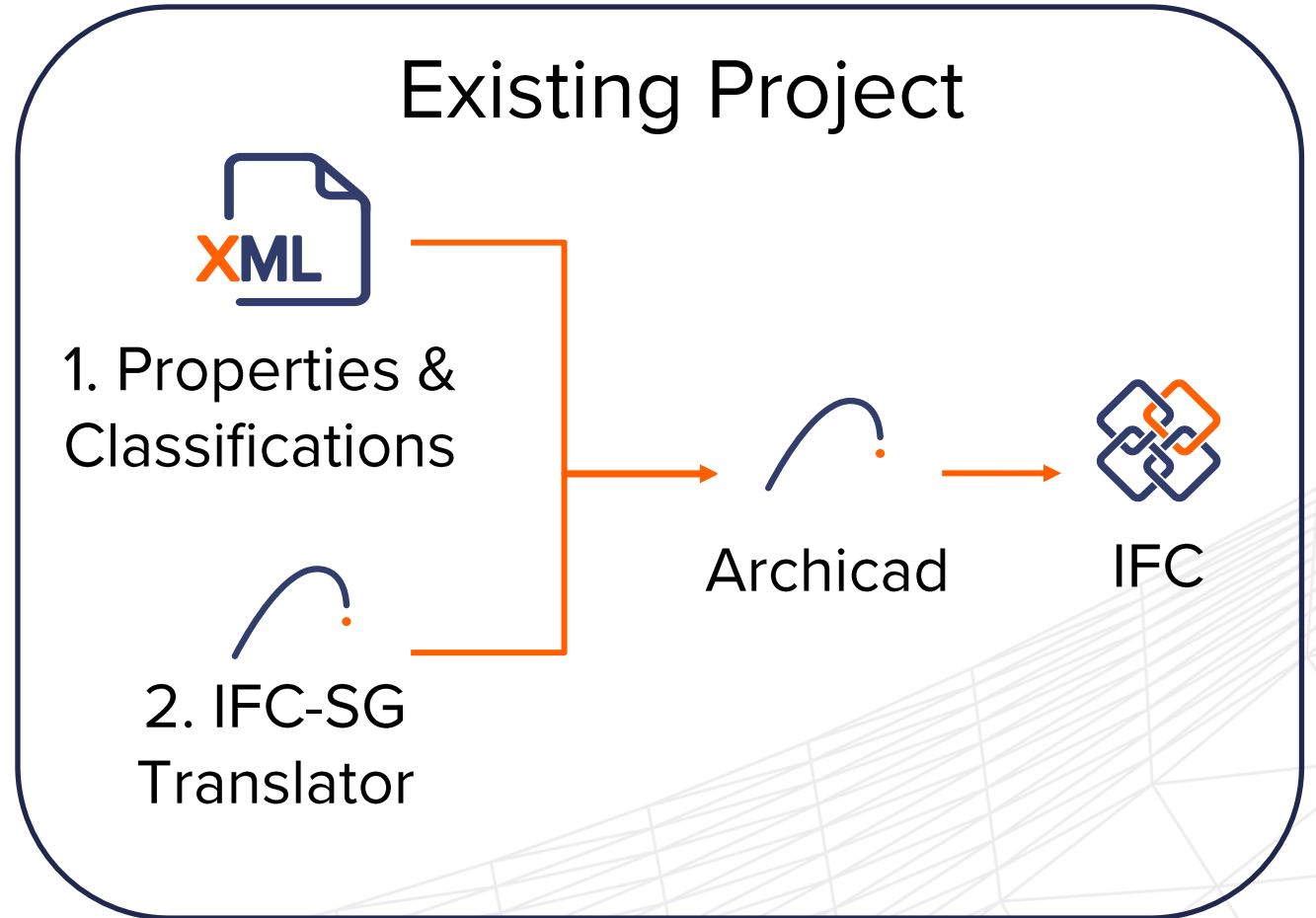
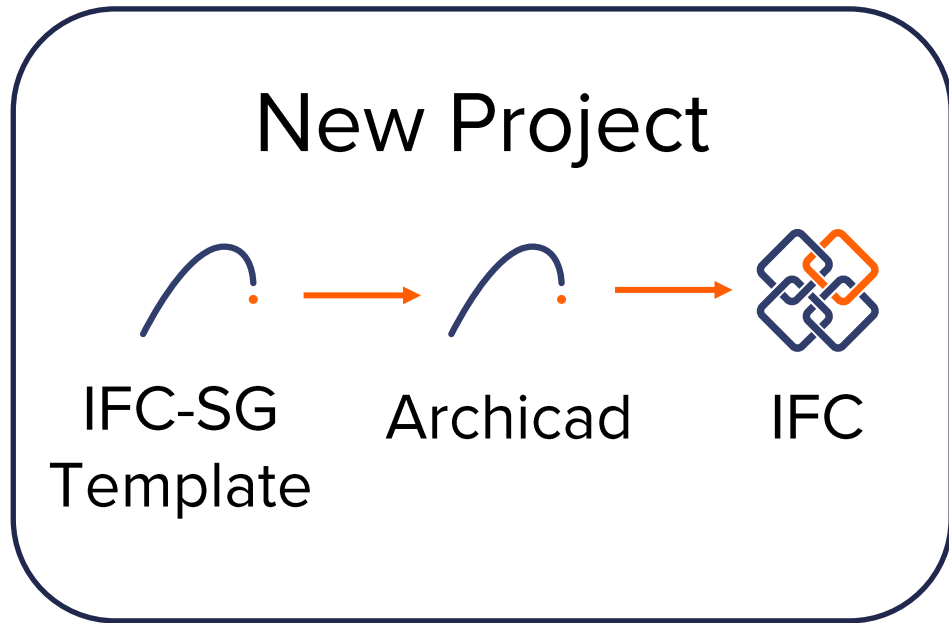
<https://www1.bca.gov.sg/regulatory-info/building-control/corenet-x/more-information>

*IDD and openBIM format, IFC-SG

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A NEMETSCHek COMPANY

CORENET X Workflow with Archicad

CORENET X Workflow in Archicad



Workflow

1

INITIALIZATION



2

COMPLYING
WITH IFC SG



3

MODEL CHECKING



4

EXPORTING

Initialization

INITIALIZATION

COMPLYING
WITH IFC SG

MODEL CHECKING

EXPORTING

1 USING IFC-SG TEMPLATE

Starting a new project with IFC SG template from IFC-SG resource kit

2 MERGING WITH EXISTING TEMPLATE

Incorporating ongoing project with IFC-SG requirements by importing IFC-SG Classification & Properties and IFC SG Export Translator

Complying with IFC-SG

INITIALIZATION

COMPLYING
WITH IFC SG

MODEL CHECKING

EXPORTING

(USING IFC SG TEMPLATE / MERGING WITH EXISTING TEMPLATE)

CLASSIFYING ELEMENT



INPUT PROPERTIES
WITH ADD ON

Complying with IFC-SG

(USING IFC SG TEMPLATE / MERGING WITH EXISTING TEMPLATE)

INITIALIZATION

COMPLYING
WITH IFC SG

MODEL CHECKING

EXPORTING

CLASSIFYING ELEMENT

Classification is the key.

Classification allows the
appropriate properties and
type mapping to be done

Archicad Tools are *versatile*.

One Tool can be used to
create unique building
elements required with ease



INPUT PROPERTIES
WITH ADD ON

Complying with IFC-SG

(USING IFC SG TEMPLATE / MERGING WITH EXISTING TEMPLATE)

INITIALIZATION

COMPLYING
WITH IFC SG

MODEL CHECKING

EXPORTING

CLASSIFYING ELEMENT

Classification is the key.

Use of Tool Favourites to
classify elements / input
necessary metadata

Use of **Marquee Tool** to pick
up elements easily.
Alternatively, use **Find &
Select**



INPUT PROPERTIES
WITH ADD ON

Complying with IFC-SG

(USING IFC SG TEMPLATE / MERGING WITH EXISTING TEMPLATE)

INITIALIZATION

COMPLYING
WITH IFC SG

MODEL CHECKING

EXPORTING

CLASSIFYING ELEMENT >



INPUT PROPERTIES
WITH ADD ON

Quick Properties Add-On

enter the values in a faster
way.

available for SSA /Forward
users.

Model Checking

INITIALIZATION

COMPLYING
WITH IFC SG

MODEL CHECKING

EXPORTING

(USING IFC SG TEMPLATE / MERGING WITH EXISTING TEMPLATE)

INTERACTIVE
SCHEDULE

GRAPHIC OVERRIDE

SOLIBRI DIRECT
CONNECTION

Model Checking

(USING IFC SG TEMPLATE / MERGING WITH EXISTING TEMPLATE)

INITIALIZATION

COMPLYING
WITH IFC SG

MODEL CHECKING

EXPORTING

INTERACTIVE SCHEDULE

To check the
classifications of
elements and values of
USERDEFINED
properties.

Easy to use tool on the
go.

GRAPHIC OVERRIDE

SOLIBRI DIRECT
CONNECTION

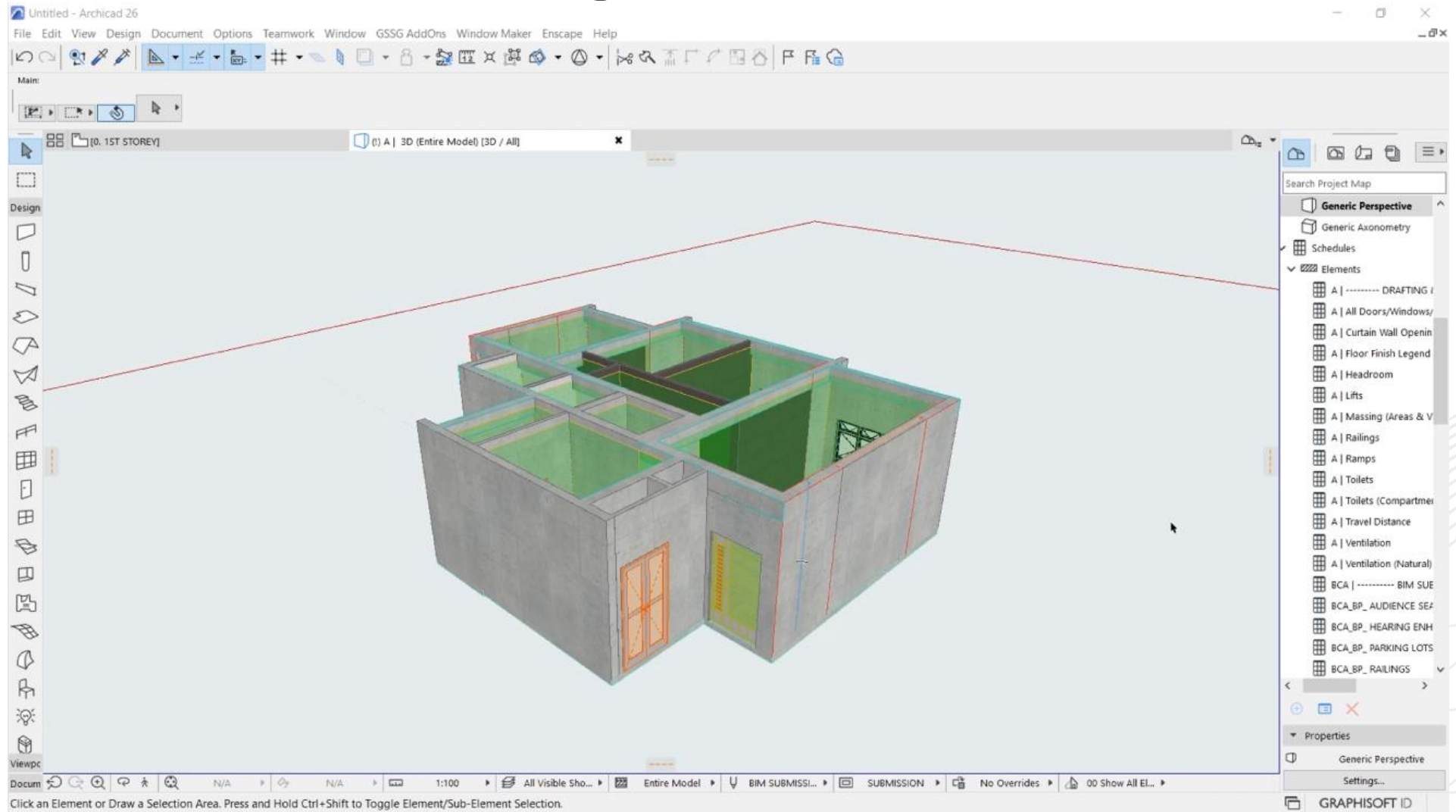
Model Checking (INTERACTIVE SCHEDULES)

INITIALIZATION

COMPLYING WITH IFC SG

MODEL CHECKING

EXPORTING

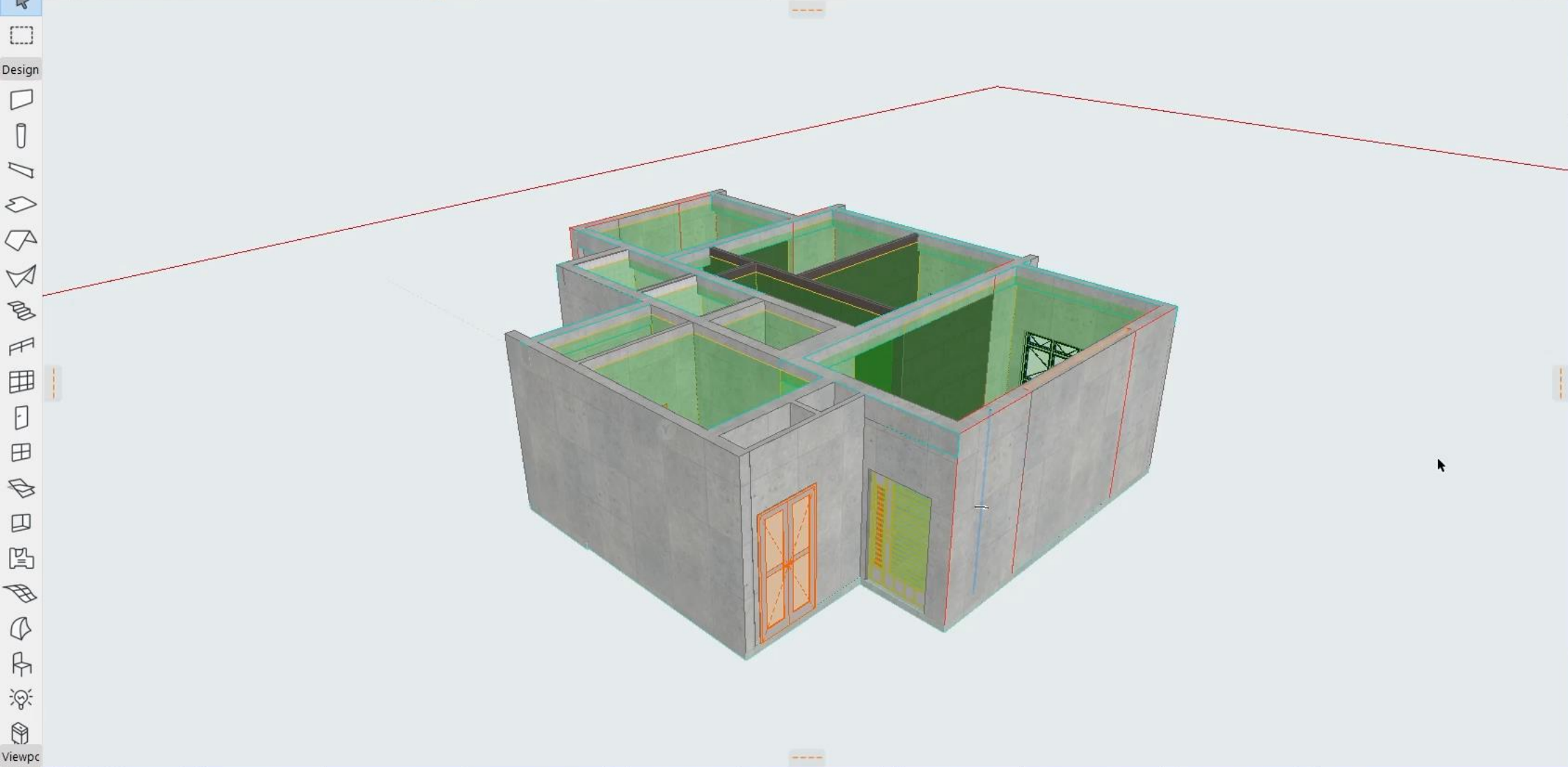




Main:



[0. 1ST STOREY] (1) A | 3D (Entire Model) [3D / All]



Search Project Map

- Generic Perspective
- Generic Axonometry
- Schedules
- Elements
 - A | ----- DRAFTING
 - A | All Doors/Windows/
 - A | Curtain Wall Openin
 - A | Floor Finish Legend
 - A | Headroom
 - A | Lifts
 - A | Massing (Areas & V
 - A | Railings
 - A | Ramps
 - A | Toilets
 - A | Toilets (Compartment
 - A | Travel Distance
 - A | Ventilation
 - A | Ventilation (Natural)
 - BCA | ----- BIM SUE
 - BCA_BP_AUDIENCE SEA
 - BCA_BP_HEARING ENH
 - BCA_BP_PARKING LOTS
 - BCA_BP_RAILINGS

Properties

Generic Perspective

Settings...

Model Checking

(USING IFC SG TEMPLATE / MERGING WITH EXISTING TEMPLATE)

INITIALIZATION

COMPLYING
WITH IFC SG

MODEL CHECKING

EXPORTING

INTERACTIVE SCHEDULE

To check the
classifications of
elements and values of
USERDEFINED
properties.

export and import excel
file to enter the value of
USERDEFINED
properties

GRAPHIC OVERRIDE

SOLIBRI DIRECT
CONNECTION

Model Checking

(USING IFC SG TEMPLATE / MERGING WITH EXISTING TEMPLATE)

INITIALIZATION

COMPLYING
WITH IFC SG

MODEL CHECKING

EXPORTING

INTERACTIVE
SCHEDULE

GRAPHIC OVERRIDE

excellent tool to visually
check with graphic
override rules

Highlight the elements
that are not classified

Visually check the values
of USERDEFINED
Properties.

SOLIBRI DIRECT
CONNECTION

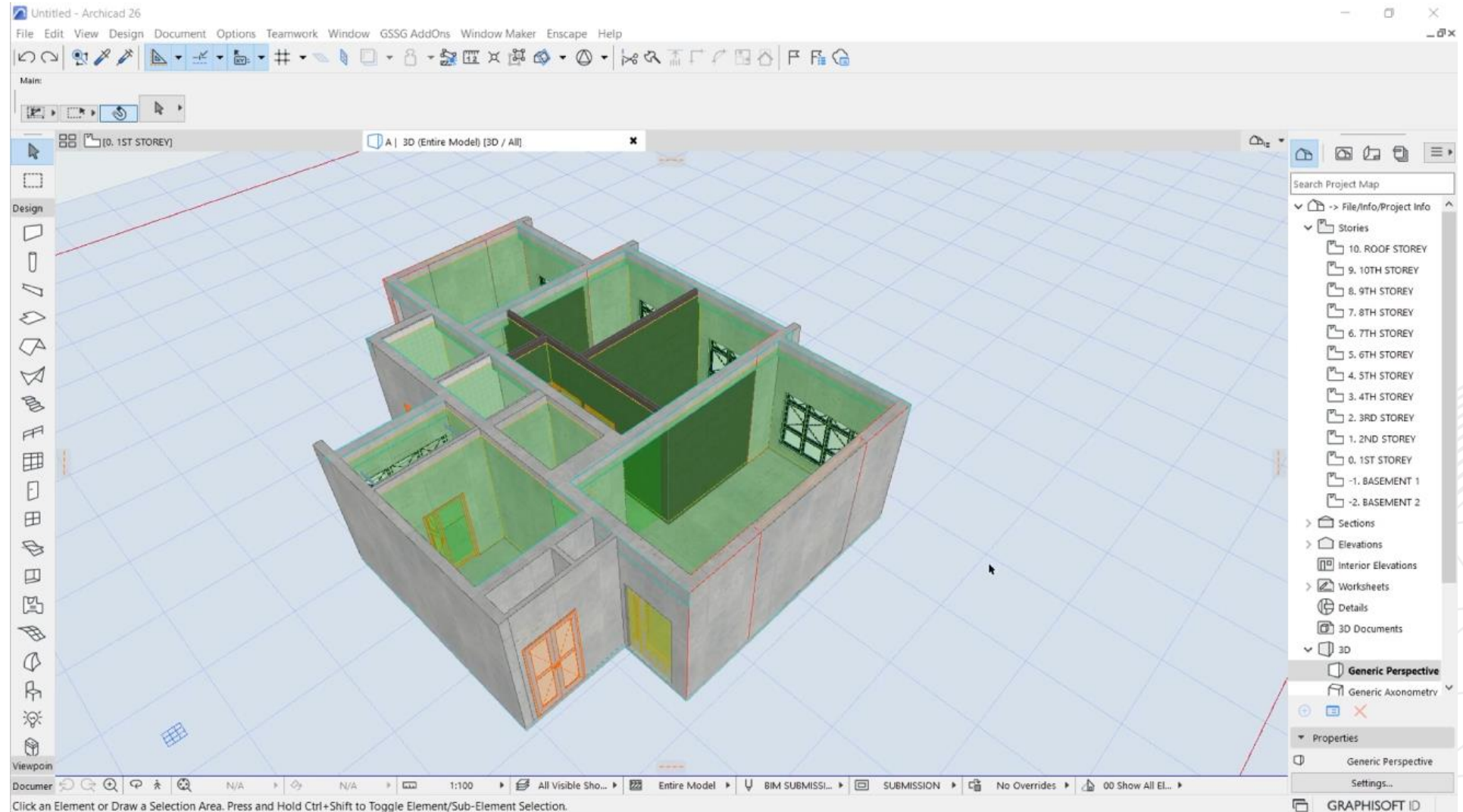
Model Checking (GRAPHIC OVERRIDE)

INITIALIZATION

COMPLYING
WITH IFC SG

MODEL CHECKING

EXPORTING

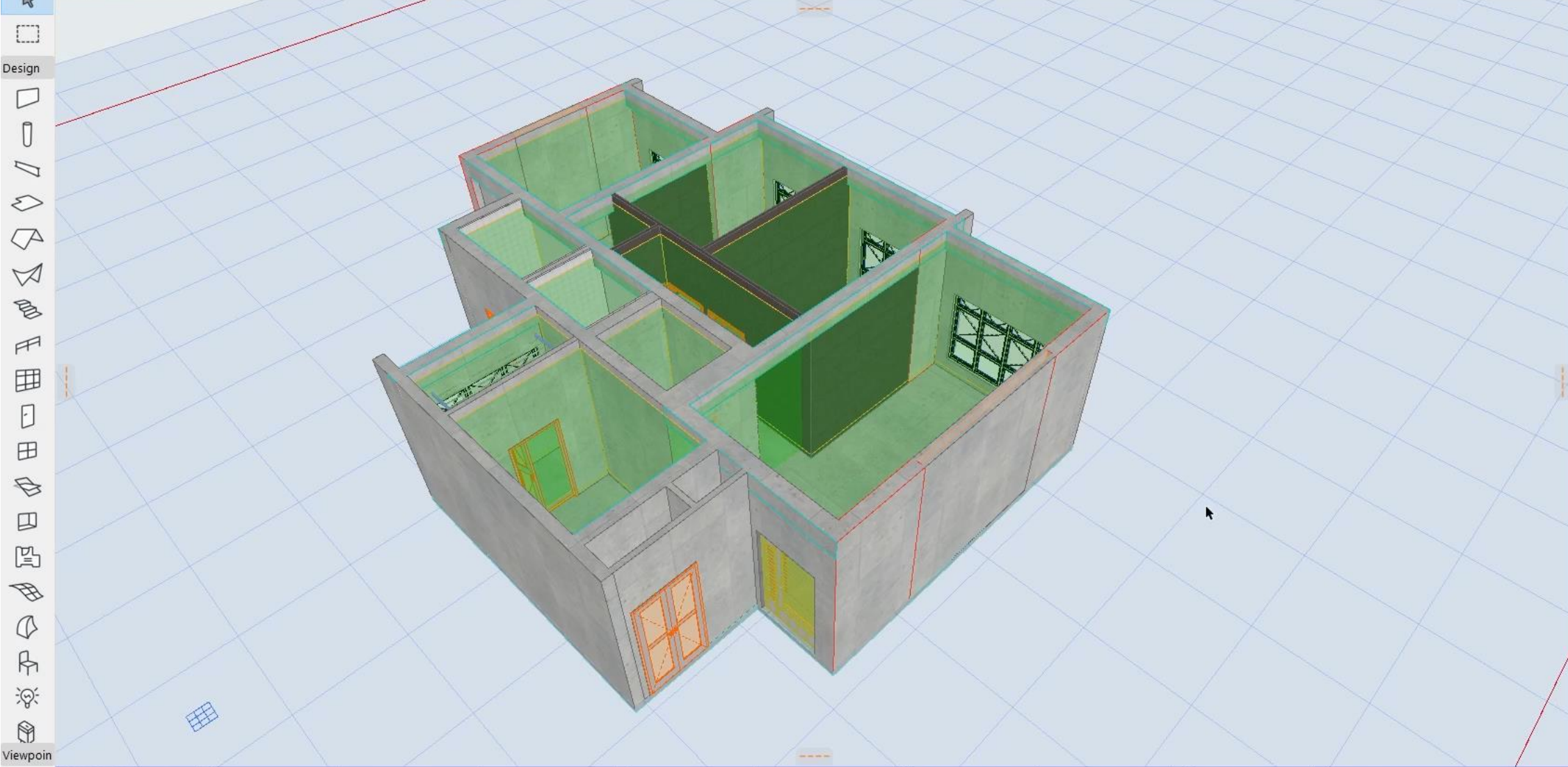




Main:

[0. 1ST STOREY]

A | 3D (Entire Model) [3D / All]



Viewpoint

Search Project Map

- > File/Info/Project Info
- Stories
 - 10. ROOF STOREY
 - 9. 10TH STOREY
 - 8. 9TH STOREY
 - 7. 8TH STOREY
 - 6. 7TH STOREY
 - 5. 6TH STOREY
 - 4. 5TH STOREY
 - 3. 4TH STOREY
 - 2. 3RD STOREY
 - 1. 2ND STOREY
 - 0. 1ST STOREY
 - 1. BASEMENT 1
 - 2. BASEMENT 2
- Sections
- Elevations
 - Interior Elevations
- Worksheets
- Details
- 3D Documents
- 3D
 - Generic Perspective**
 - Generic Axonometr

Properties

Generic Perspective

Settings...

Model Checking

(USING IFC SG TEMPLATE / MERGING WITH EXISTING TEMPLATE)

INITIALIZATION

COMPLYING
WITH IFC SG

MODEL CHECKING

EXPORTING

INTERACTIVE
SCHEDULE

GRAPHIC OVERRIDE

SOLIBRI DIRECT
CONNECTION
(TO SOLIBRI OFFICE)

Use this direct
connection via
Window Tab > Palettes >
Solibri Connection

Use the same direct
connection with
Solibri Anywhere
(free BIM viewer)

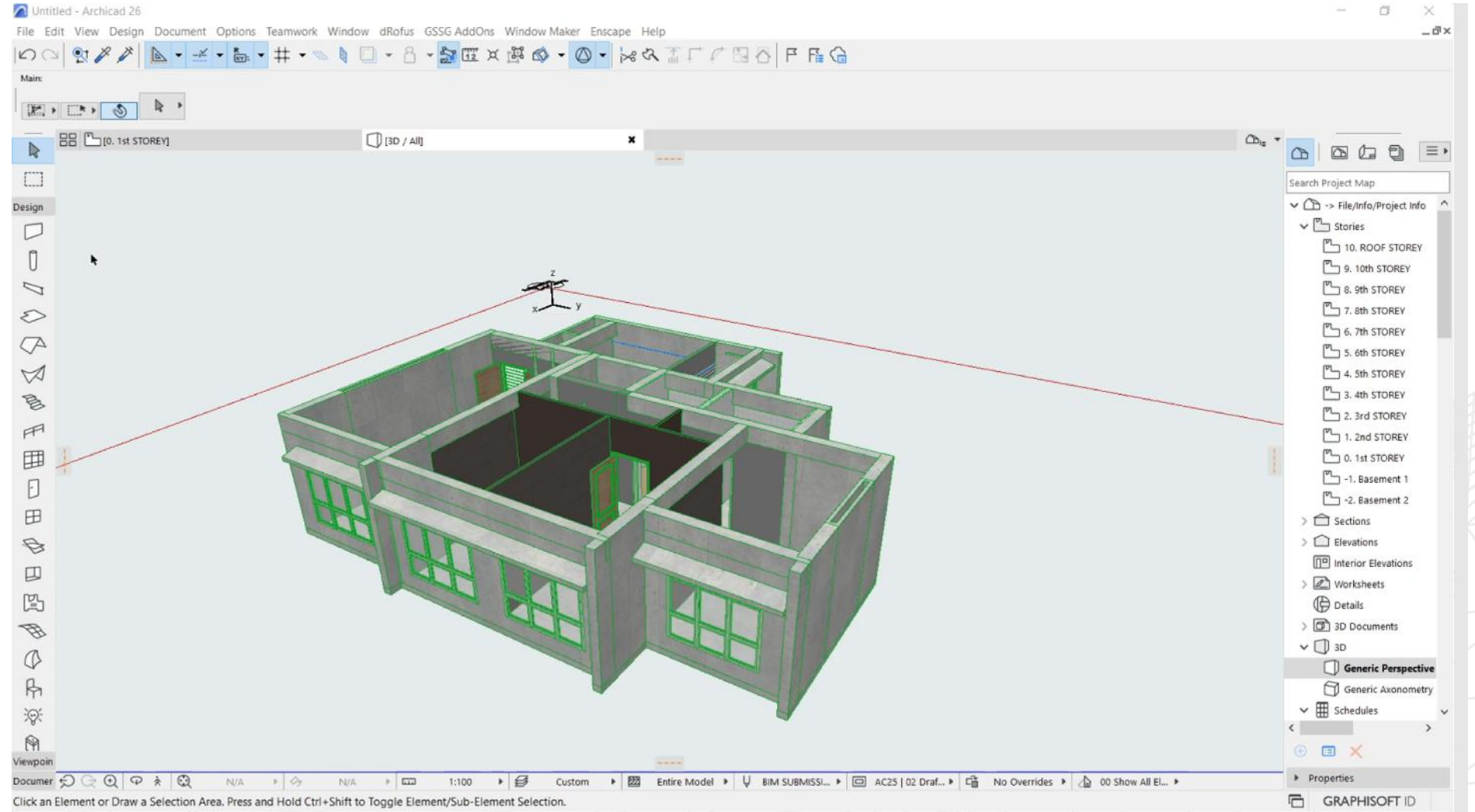
Exporting

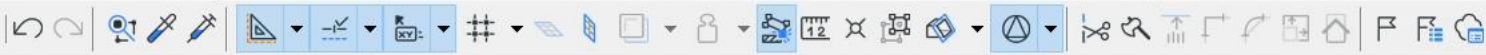
INITIALIZATION

COMPLYING
WITH IFC SG

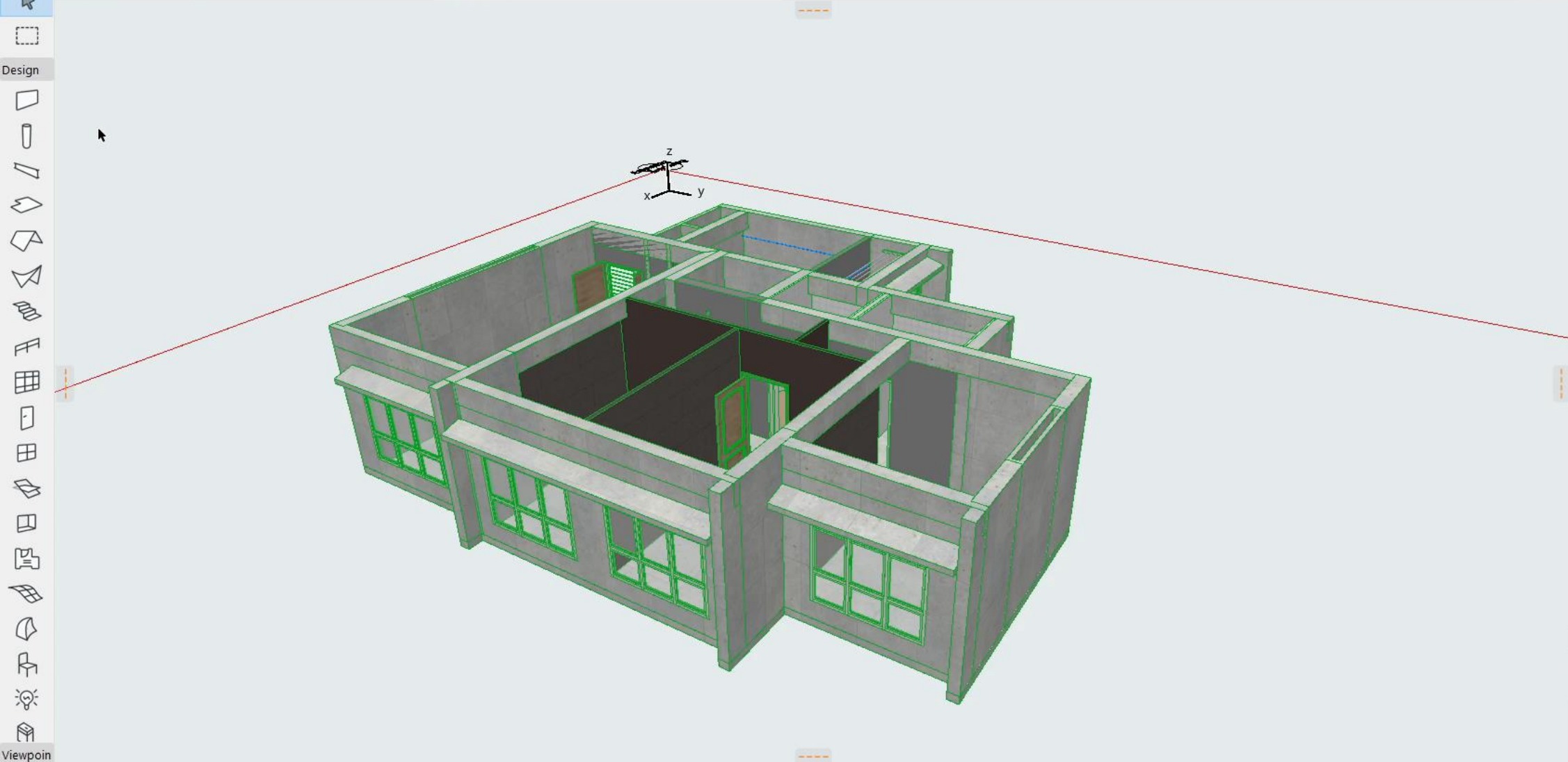
MODEL CHECKING

EXPORTING





[0. 1st STOREY] [3D / All]



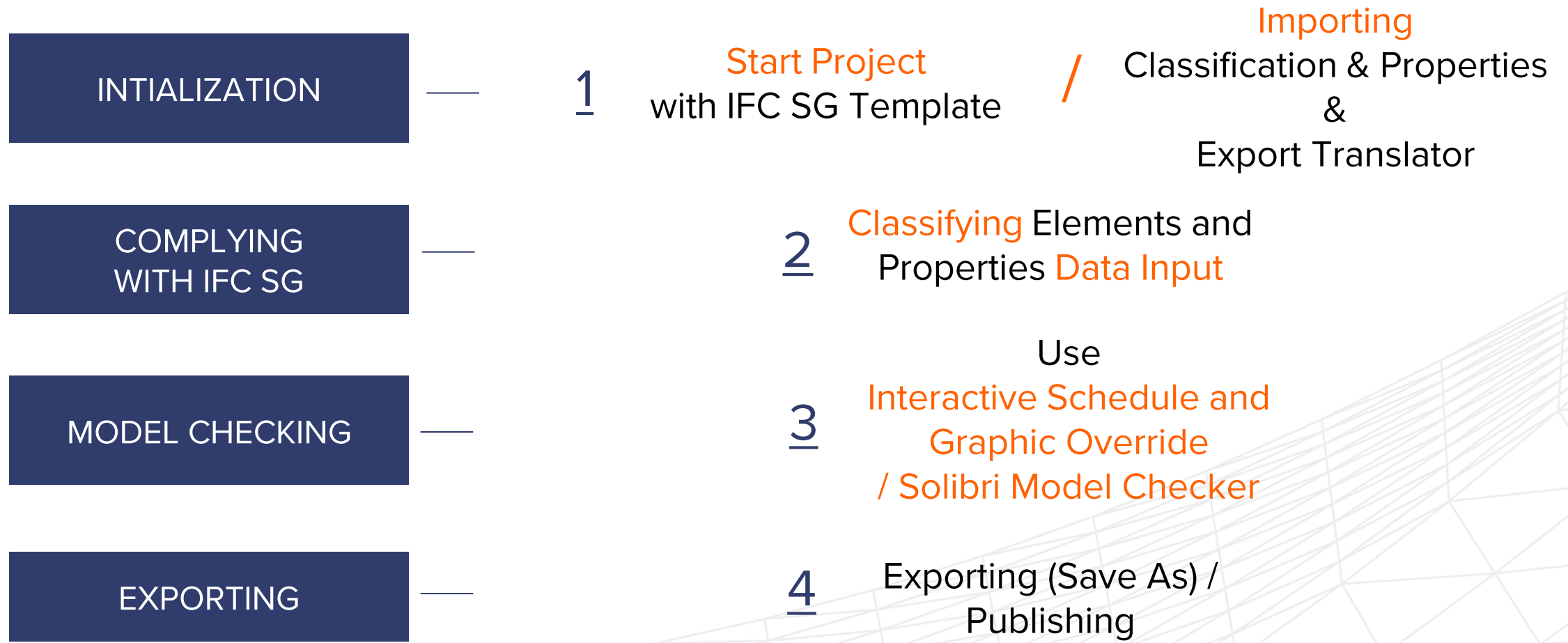
Search Project Map

- > File/Info/Project Info
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 - 8. 9th STOREY
 - 7. 8th STOREY
 - 6. 7th STOREY
 - 5. 6th STOREY
 - 4. 5th STOREY
 - 3. 4th STOREY
 - 2. 3rd STOREY
 - 1. 2nd STOREY
 - 0. 1st STOREY
 - 1. Basement 1
 - 2. Basement 2
 - Sections
 - Elevations
 - Interior Elevations
 - Worksheets
 - Details
 - 3D Documents
 - 3D
 - Generic Perspective**
 - Generic Axonometry
 - Schedules


Properties

Workflow

(USING IFC-SG TEMPLATE / MERGING WITH EXISTING TEMPLATE)




Archicad IFC-SG Workflow



Workflow Made Easy for CORENET X: The Archicad Way

Course



Reema Chopra Roy Chowdhury

About Modules

- ▶ Format: Webinar recording
- ▶ Level: beginner/intermediate/advanced
- ▶ Duration: 1 hour

Topics covered:

- ▶ CORENETX, OpenBIM, IFC
- ▶ IFC-SG Overview
- ▶ IFC-SG ; The Archicad Way
- ▶ CORENETX and One Integrated Model
- ▶ Graphisoft with you!
- ▶ Archicad IFC-SG Toolkit

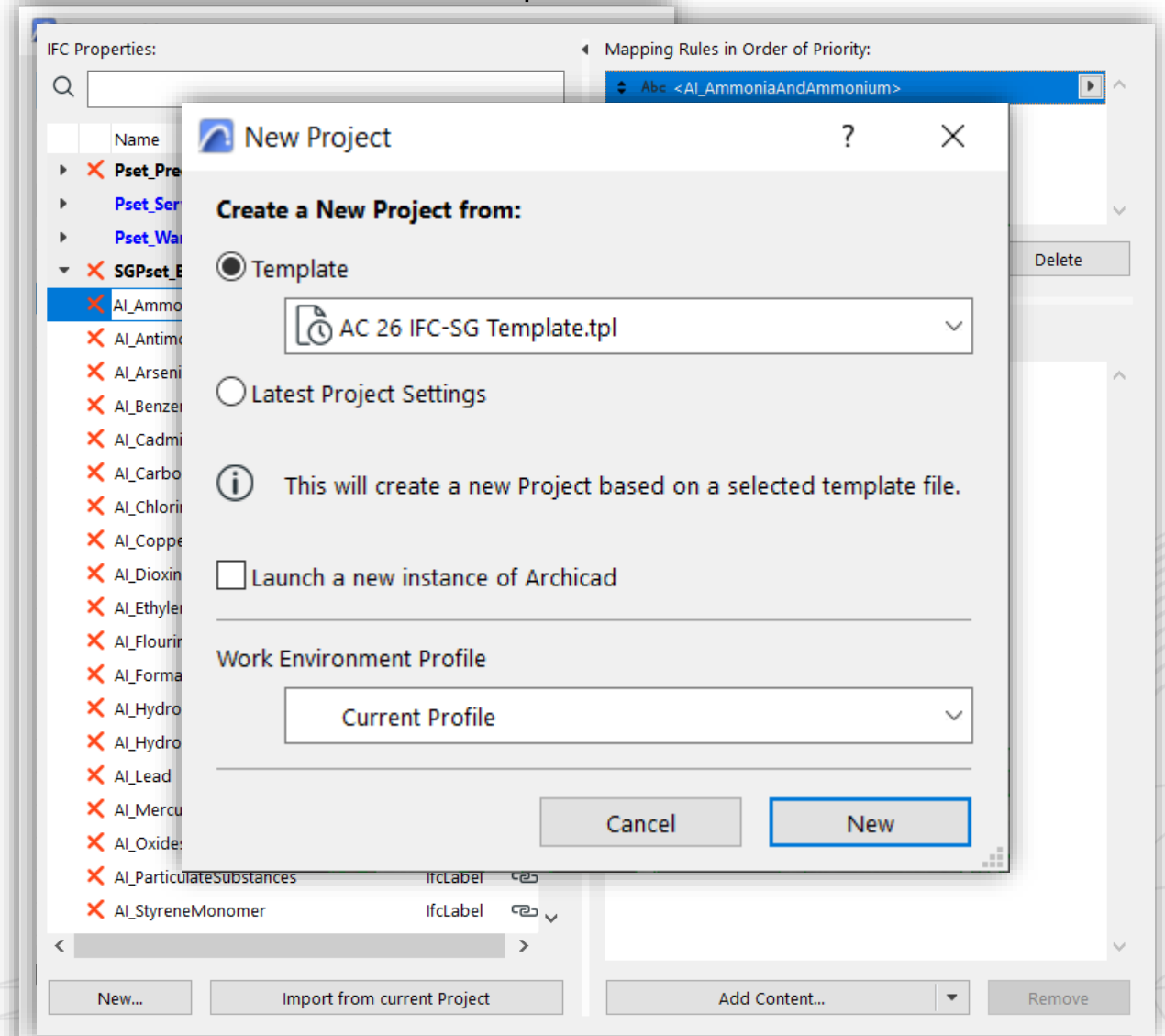


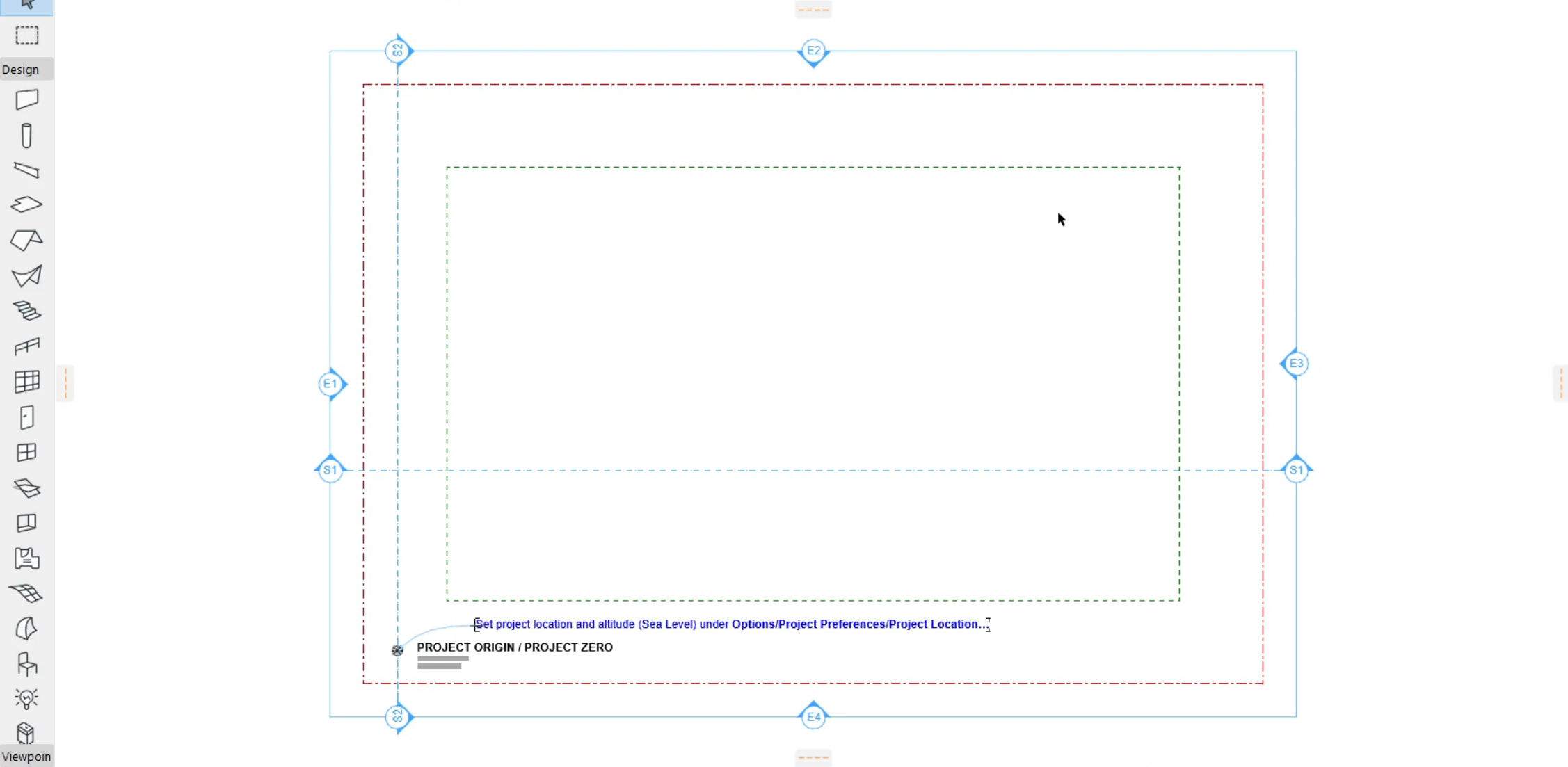
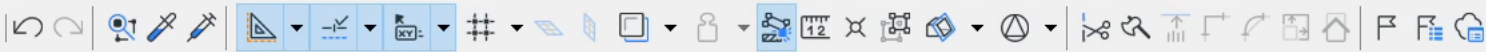
IFC-SG Toolkit for Archicad – Template & Add-ons



Archicad IFC-SG Templates

- Updated to latest IFC Mapping requirements
 - + Config Files
 - + Translators
 - + IFC – SG Templates for all three disciplines





Search Project Map

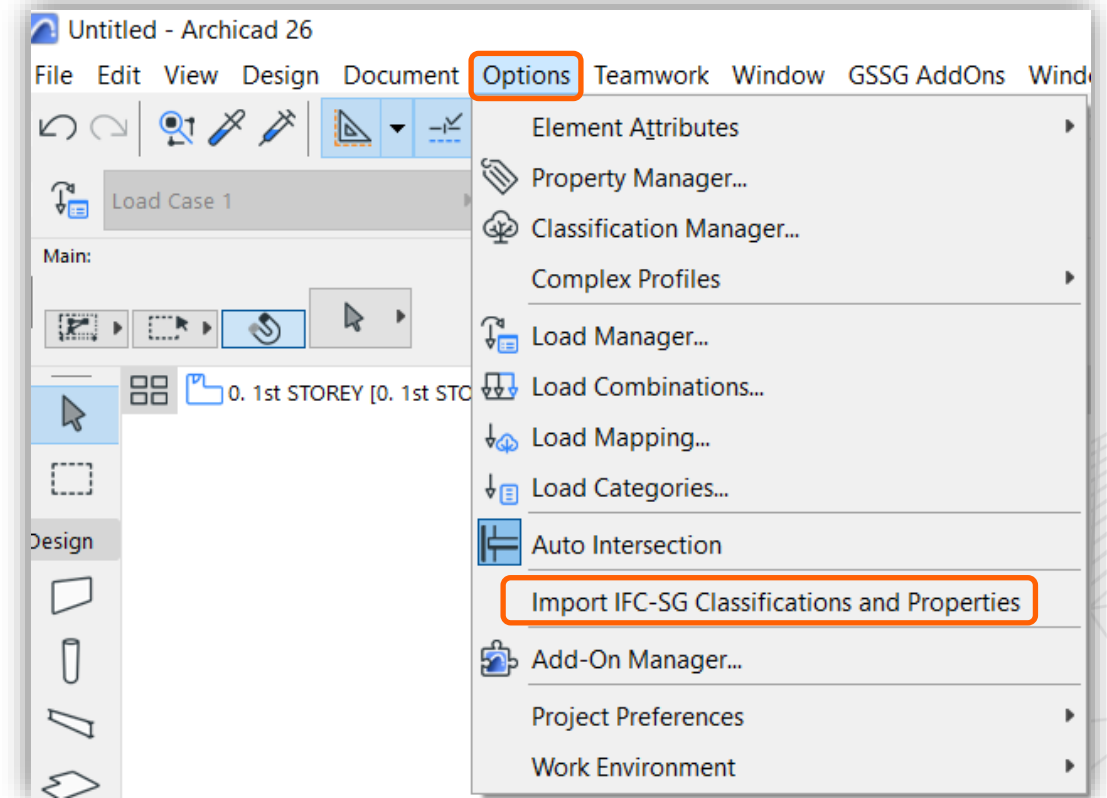
- File/Info/Project Info
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 - 10. ROOF STOREY
 - 9. 10th STOREY
 - 8. 9th STOREY
 - 7. 8th STOREY
 - 6. 7th STOREY
 - 5. 6th STOREY
 - 4. 5th STOREY
 - 3. 4th STOREY
 - 2. 3rd STOREY
 - 1. 2nd STOREY
 - 0. 1st STOREY**
 - 1. Basement 1
 - 2. Basement 2
 - Sections
 - Elevations
 - Interior Elevations
 - Worksheets
 - Details
 - 3D Documents
 - 3D
 - Generic Perspective
 - Generic Axonometry
 - Schedules

Properties

Archicad Add-on

> How to Install

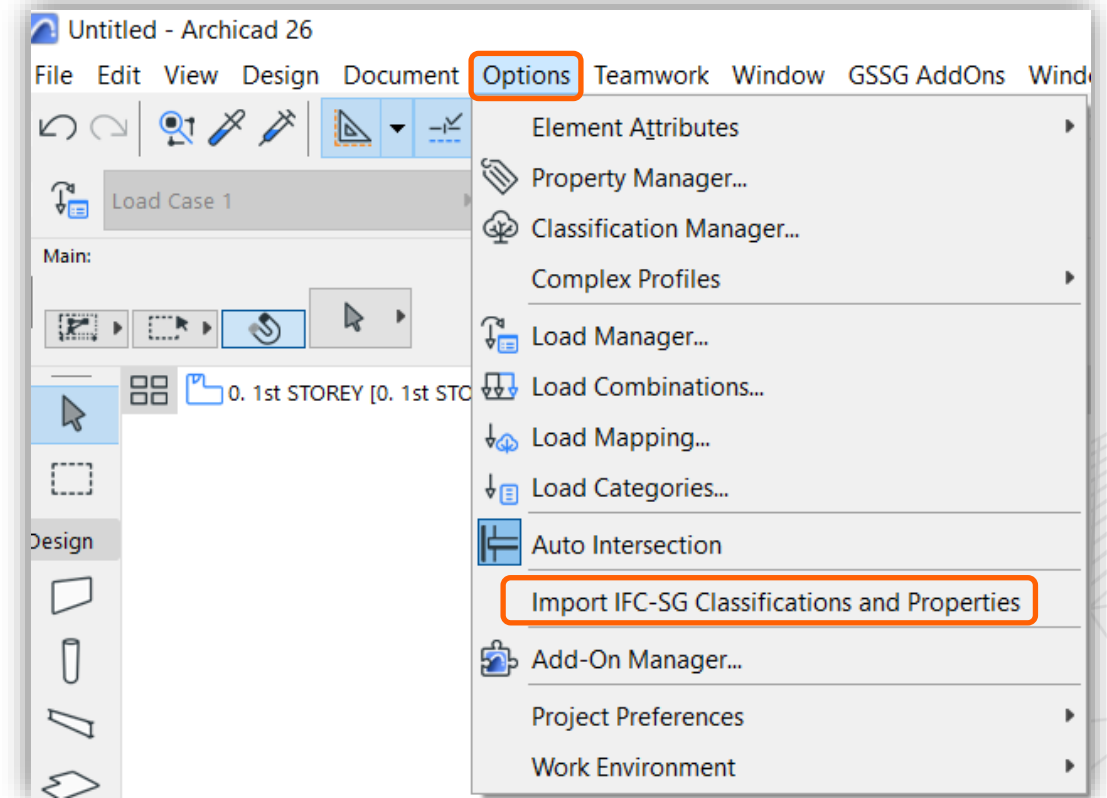
- + Quit all running instances of Archicad
- + Go to your Archicad application folder with the correct version (GRAPHISOFT/ARCHICAD <version>) then place the unzipped folders or the .APX files into the “**Add-Ons**” folder.
- + Start Archicad

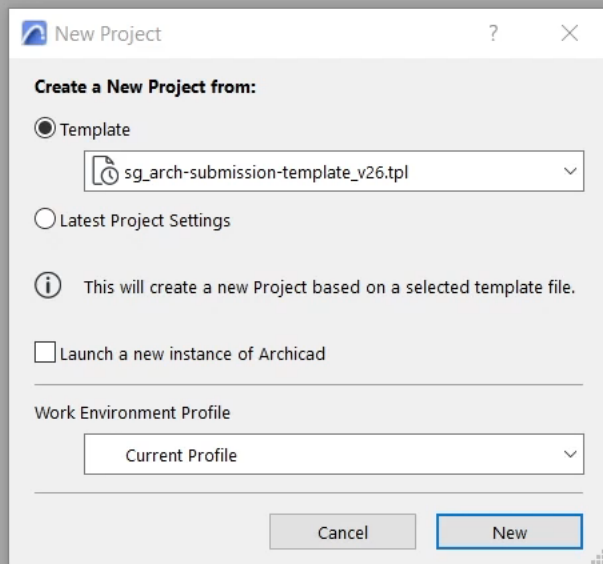
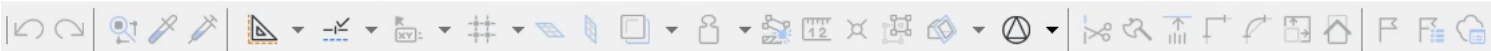


Archicad Add-on

› What does this Add-on do?

- + **Simplify** the process of importing config files.
- + **Clean up the redundant** “SGPset_” properties and property groups.
- + Imports in the **latest** Classifications and Properties with just few clicks
- + **Retain** the Model Information.*

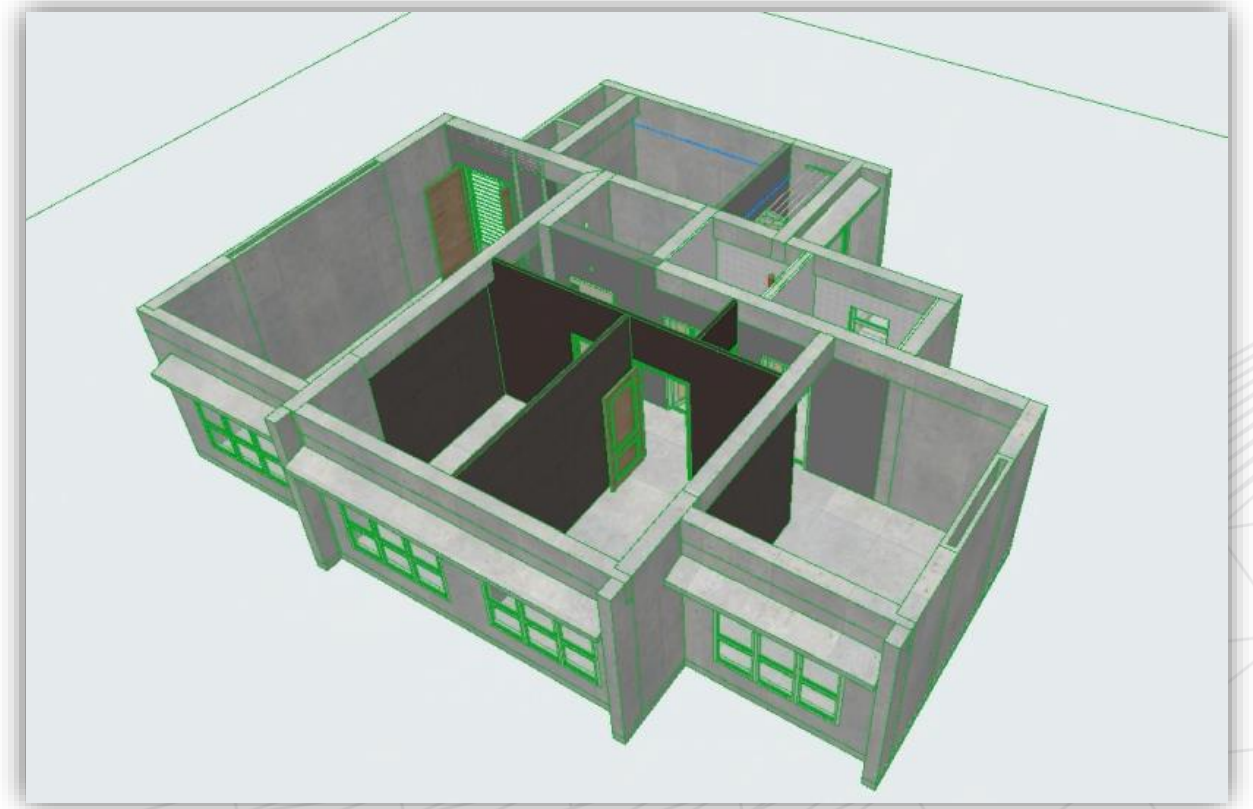


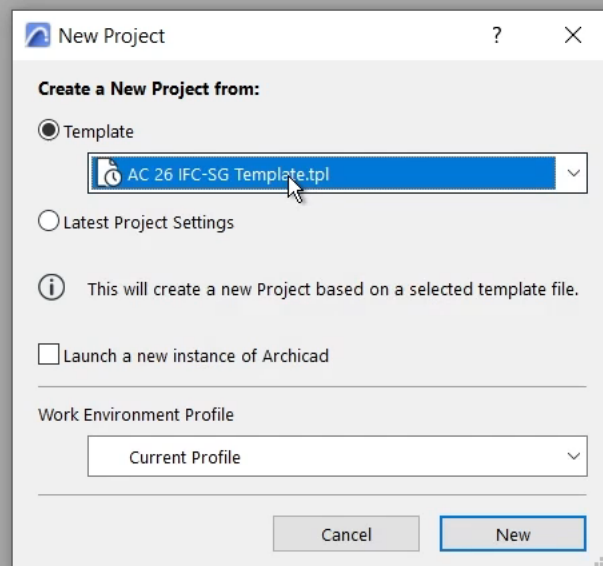


Coordination & Collaboration with Archicad

Archicad for Coordination

- Archicad can be used to **federate multiple IFC models** for coordination.
- Perform **Model Compare** between different versions of IFC models.
- Perform **Collision Detection**.
- Perform **Visual Checking**.
- Perform **Issue Management**.







Solibri for IFC-SG Evaluation

Solibri Anywhere

- > **Free viewer** for IFC files
- > **IFC systems** can be viewed.
- > **Search Query** helps to search model elements.
- > Displays **Grid elements** from IFC files.

** To view multiple IFC files in FOC viewers that are unable to federate IFC models, the "1IFC" app, which is also FOC, could be used. This openBIM application has been specially created by Graphisoft, is based on C# and is able to bind multiple IFC files.

 [1IFC app in zip folder](#)
30mb


 [1IFC User Guide](#)
265kb





Welcome to Solibri ×

SOLIBRI
A NEMETSCHKE COMPANY

PRODUCT SELECTION

 SOLIBRI OFFICE

 SOLIBRI SITE

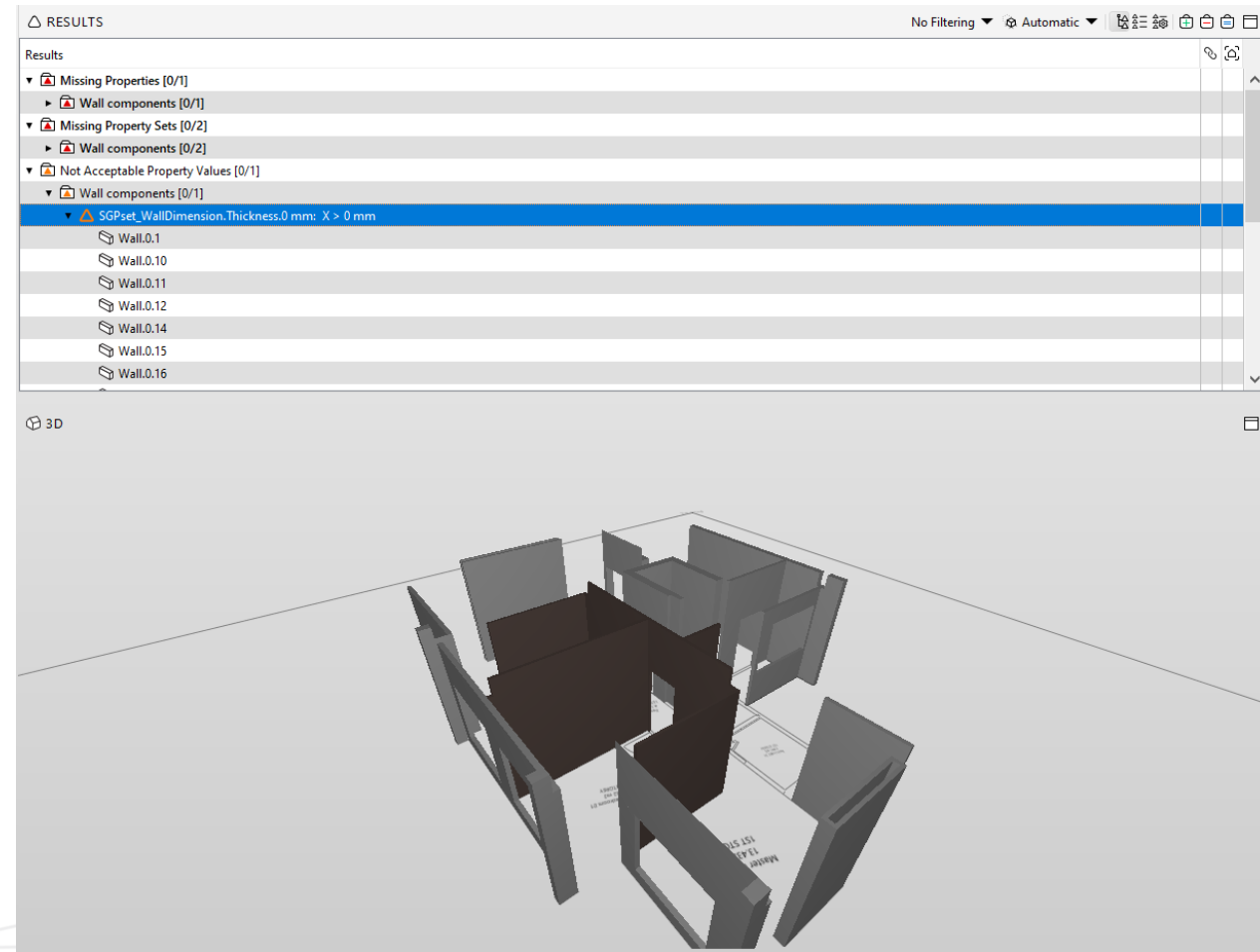
 SOLIBRI ANYWHERE

REMEMBER THIS NEXT TIME

CONTINUE

Solibri Office

- Solibri is an **IFC based** tool for Model Checking.
- Archicad-Solibri Direct Connection Add-on enables the **comprehensive model checking**.
- Rulesets in Solibri are highly **parametric** to check for complex criteria.





- Open Model...
- Add Models...
- Update Models...
- Save Model
- Save Model as...
- Integrations
- Security Settings...
- Close
- Recent
- Roles
- Solution Center
- Settings
- Help
- Ruleset Manager
- Exit

Recent Models

	Federated IFC Model.ifc C:\Users\VThangasamy\Desktop\Federated Model Export\	
	Sample.ifc C:\Users\VThangasamy\Desktop\	
	IFC SG Training Model Archi - AC 25 V3.ifc C:\Users\VThangasamy\Desktop\	
	IFC SG Training Model Archi - AC 25 V2.ifc C:\Users\VThangasamy\Desktop\	
	IFC SG Training Model Archi - AC 25.ifc C:\Users\VThangasamy\Desktop\	
	Solibri Building.ifc C:\Users\Public\Solibri\SOLIBRI\Samples\ifc\	
	MRT Sample.ifc C:\Users\VThangasamy\ViMaL - GSSG\Solibri\NTU Solibri\	
	RME_basic_sample_project.ifc C:\Users\VThangasamy\Desktop\	
	Ventilation Model.ifc	

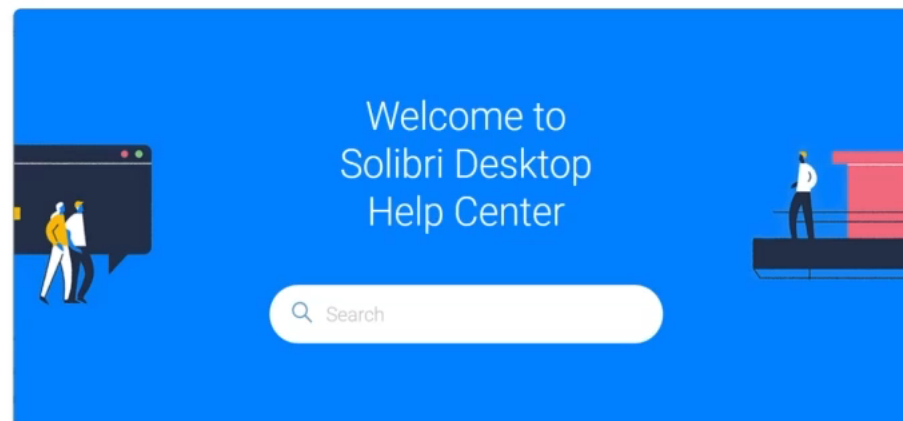
Open

Recent Model Places

	Federated Model Export C:\Users\VThangasamy\Desktop\	
	Desktop C:\Users\VThangasamy\	
	ifc C:\Users\Public\Solibri\SOLIBRI\Samples\	
	NTU Solibri C:\Users\VThangasamy\ViMaL - GSSG\Solibri\	
	Downloads C:\Users\VThangasamy\	
	IFC Models C:\Users\VThangasamy\ViMaL - GSSG\IFC SG\	
	wetransfer_hdb-mep-library_v25_4-lcf_2023-09-08_0833 C:\Users\VThangasamy\Downloads\	
	OneDrive_1_2-23-2022 C:\Users\VThangasamy\Downloads\	
	Documents	



Welcome to Solibri Office



Got questions?

Want to learn more about using the software? Go to our Online Help Center to learn more about doing model checking, classifications, Information takeoff, and more.

[Go to Help Center](#)

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Email Vthangasamy@graphisoft.com

Thank You 😊

Graphisoft Singapore