

### Session

# Creating a BIM model

## Case study – Educational building

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REPUBLIKA SLOVENIJA  
MINISTRSTVO ZA OKOLJE, PODNEBJE IN ENERGIJO

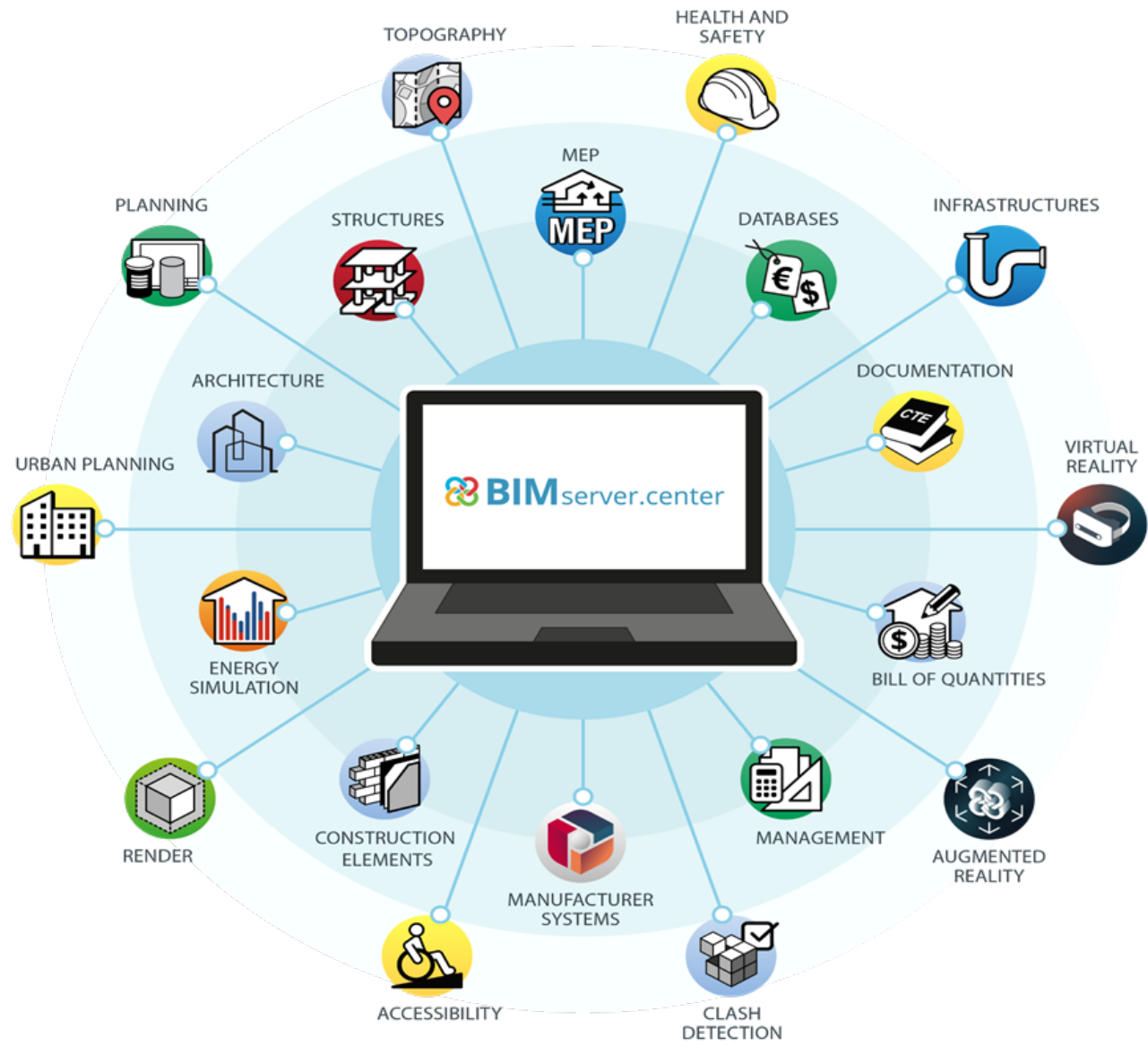


## Objective

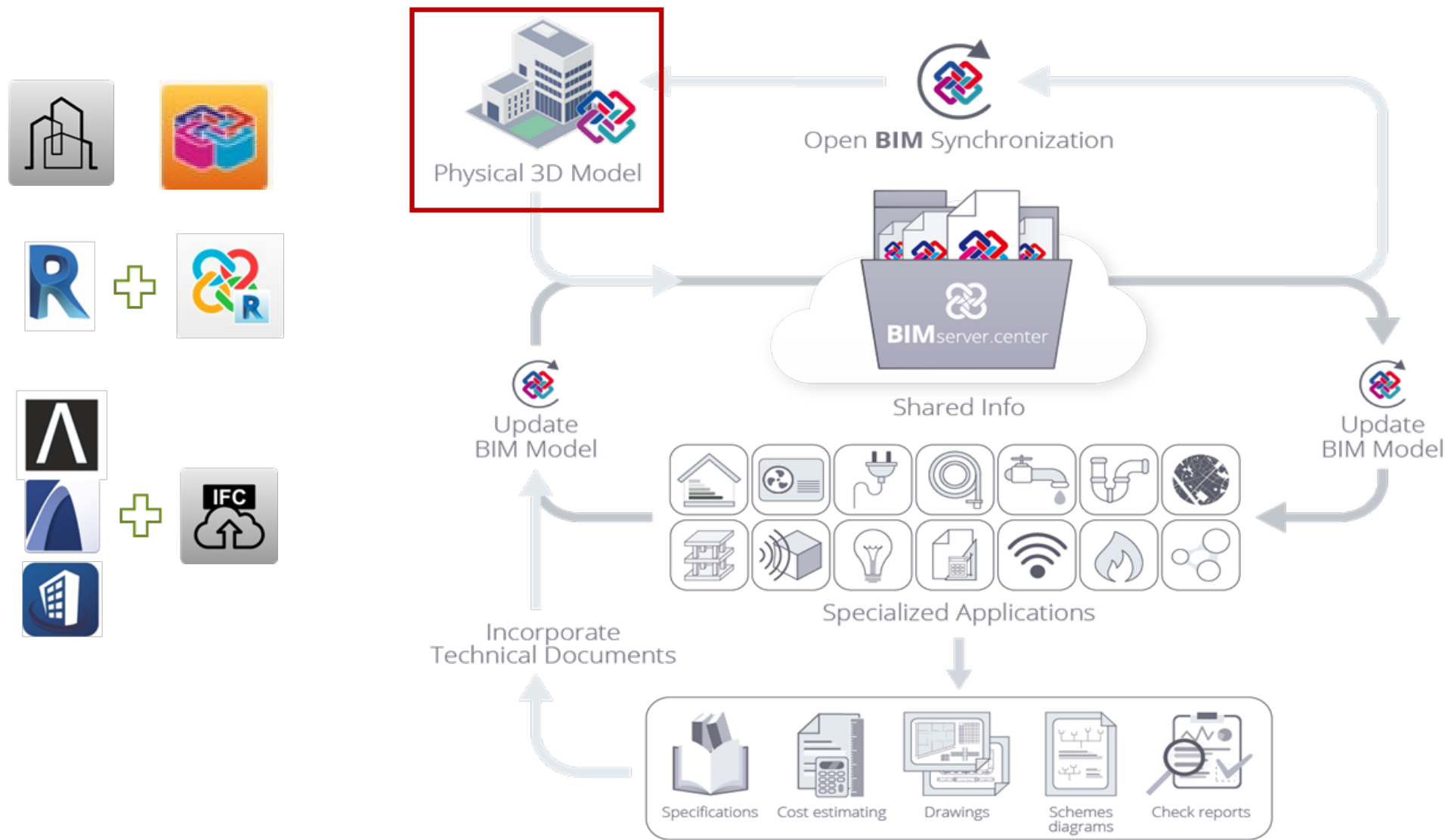
How to use BIM modelling software to create a model of an educational building.

# CYPE

- Architecture
- MEP
- Structures
- Management



# CYPE Workflow



# Previous steps

- Creating an account on BIMserver.center
- Installation of the following programmes :
- IFC Builder

[https://store.bimserver.center/en/app/1/ifc\\_builder](https://store.bimserver.center/en/app/1/ifc_builder)

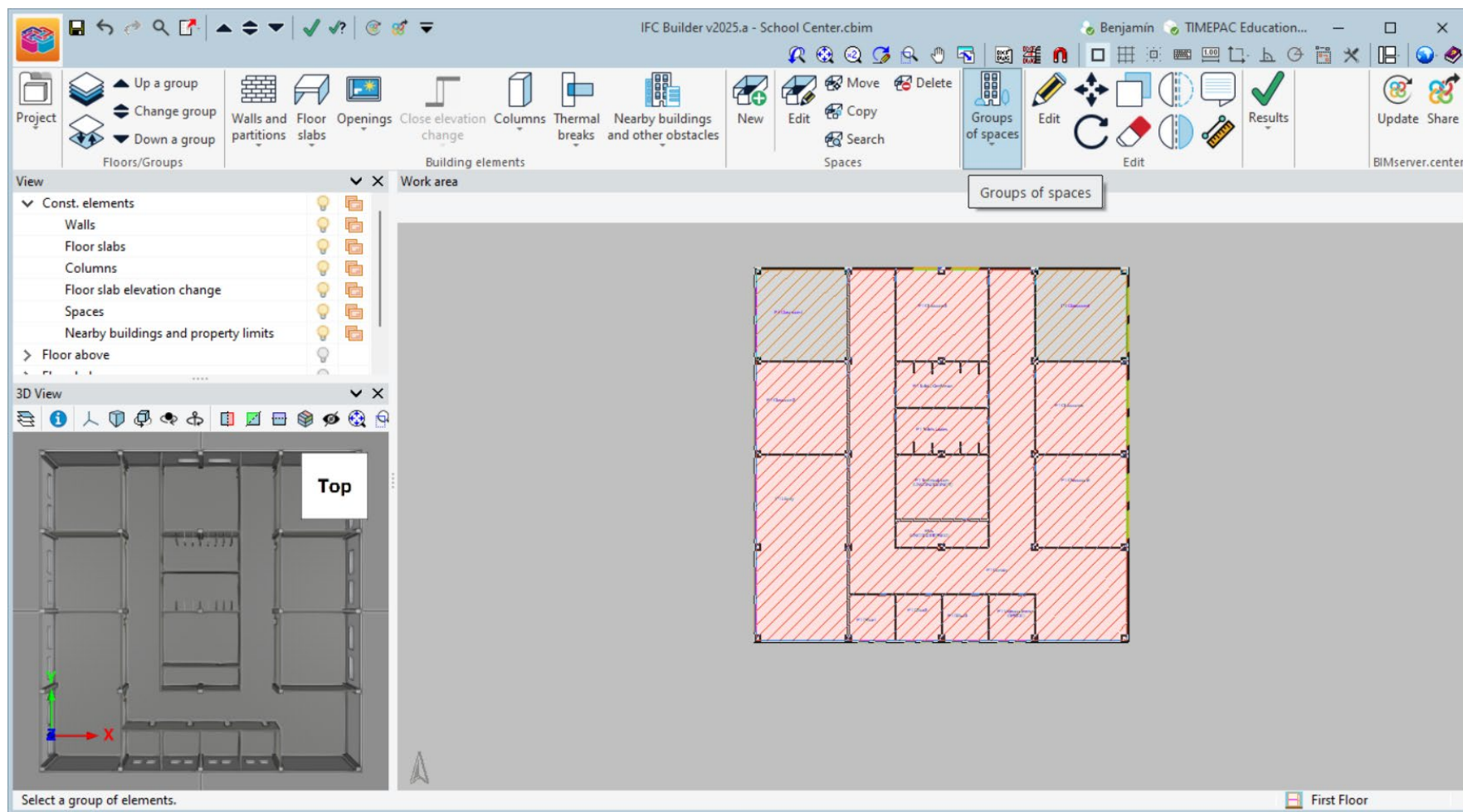
CYPETHERM Eplus

[https://store.bimserver.center/en/app/29/cypetherm\\_eplus](https://store.bimserver.center/en/app/29/cypetherm_eplus)

# Creating a project in BIM

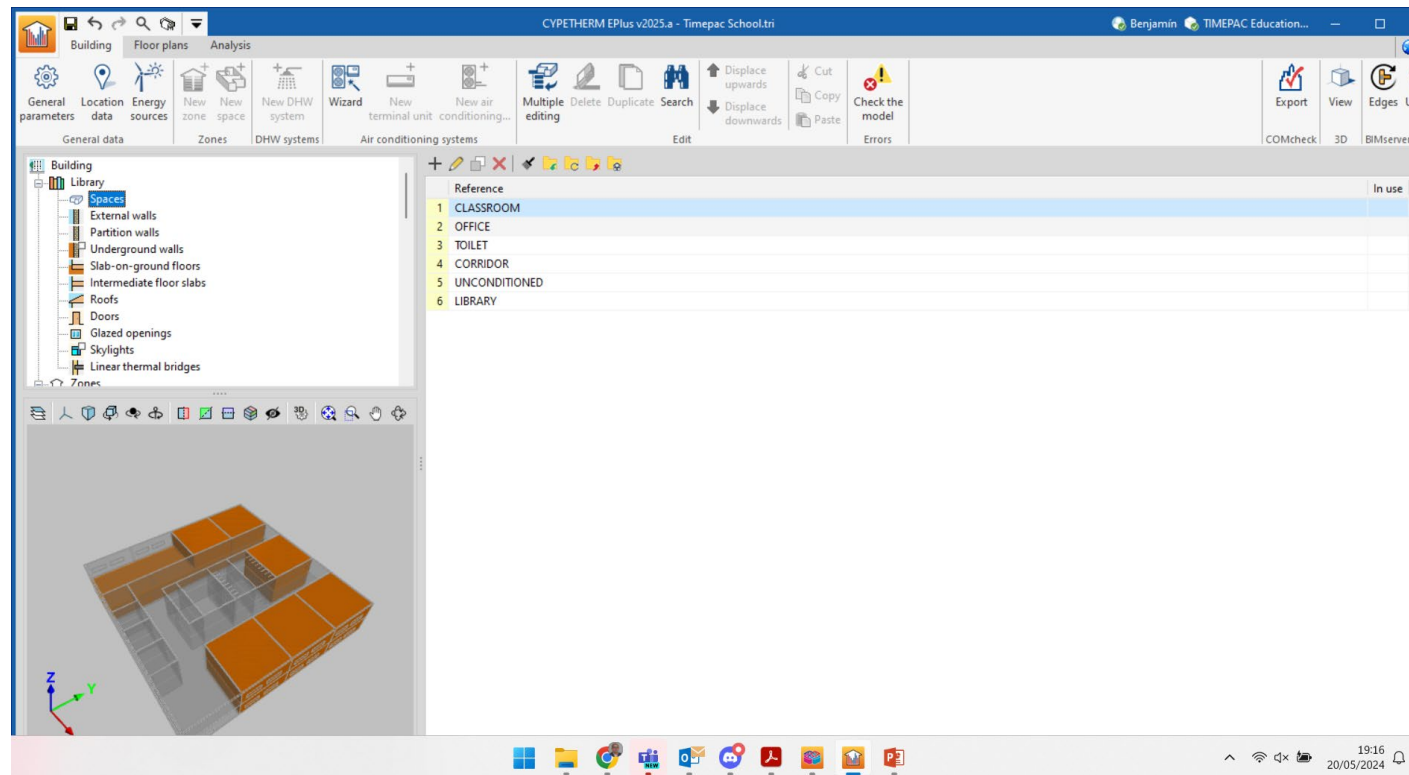


# Generation of a BIM model



# Generation of a thermal BIM model

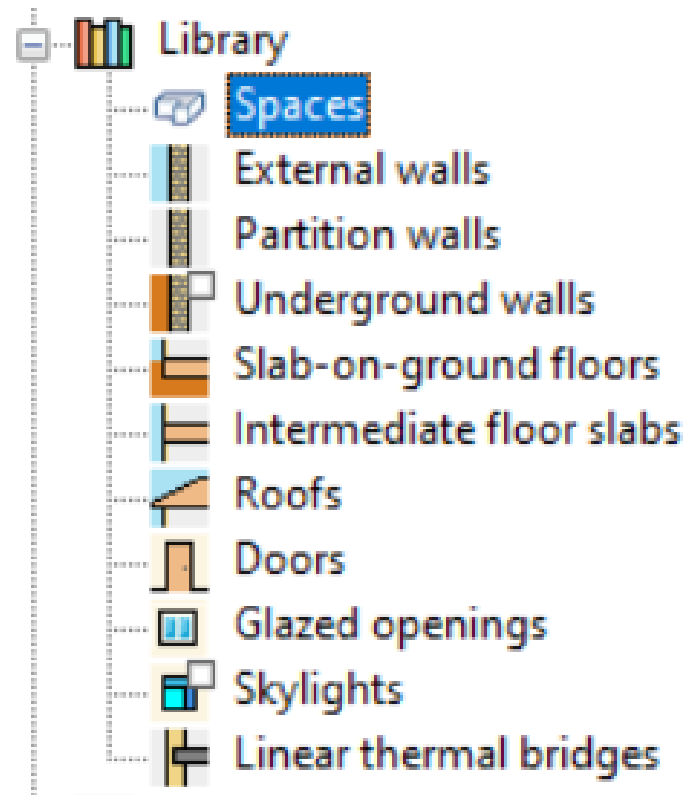
## CYPETHERM EPlus





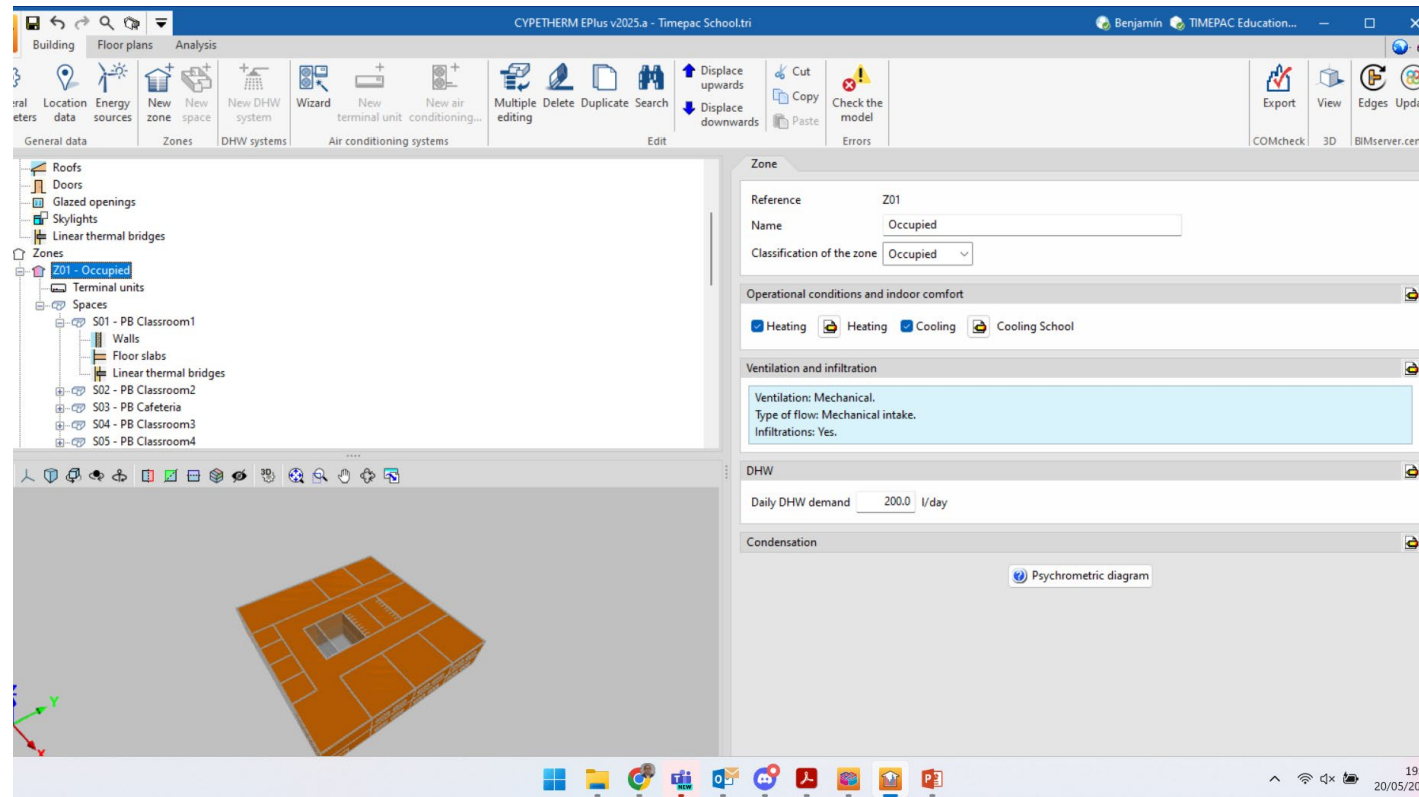
# Generation of a thermal BIM model

- Libraries



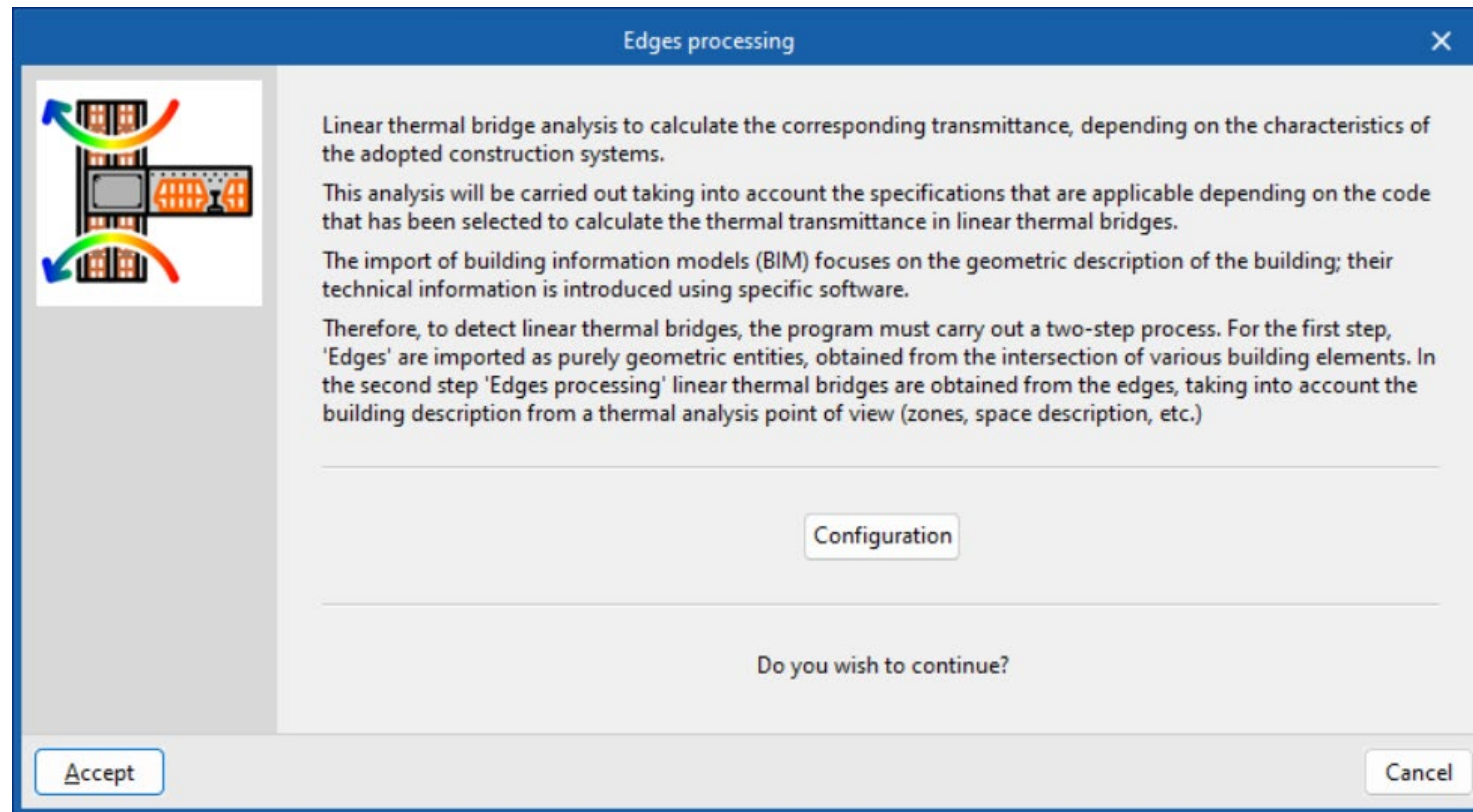
# Generation of a thermal BIM model

## - Zones



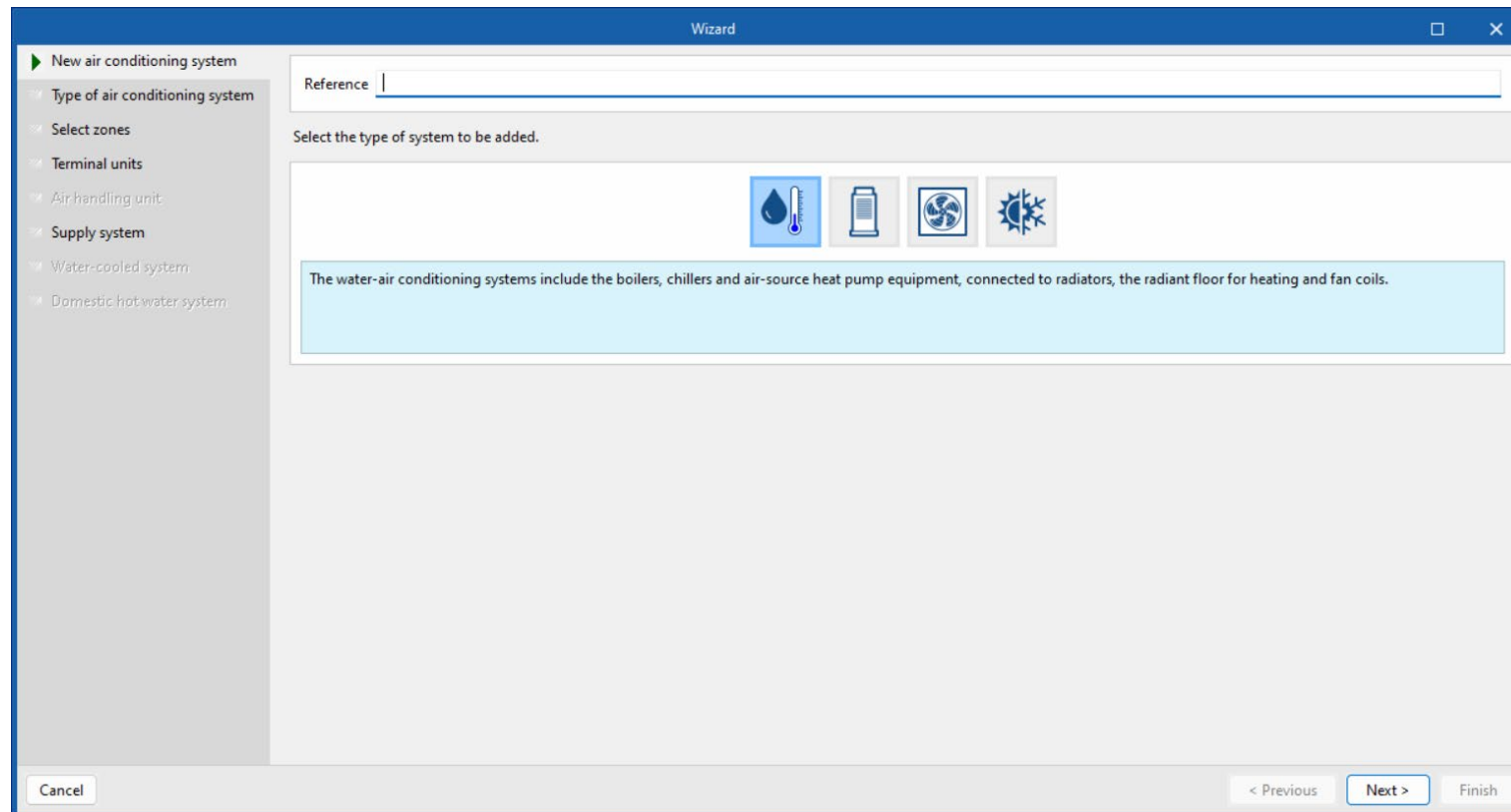
# Generation of a thermal BIM model

## - Thermal Bridges



# Generation of a thermal BIM model

## - Systems



# Generation of a thermal BIM model

## - Analysis

Calculation options

Simulation type: Demand/Consumption

With thermal bridge export

Partition simplification

Vertical

Horizontal

Margin of setpoint temperatures ⓘ

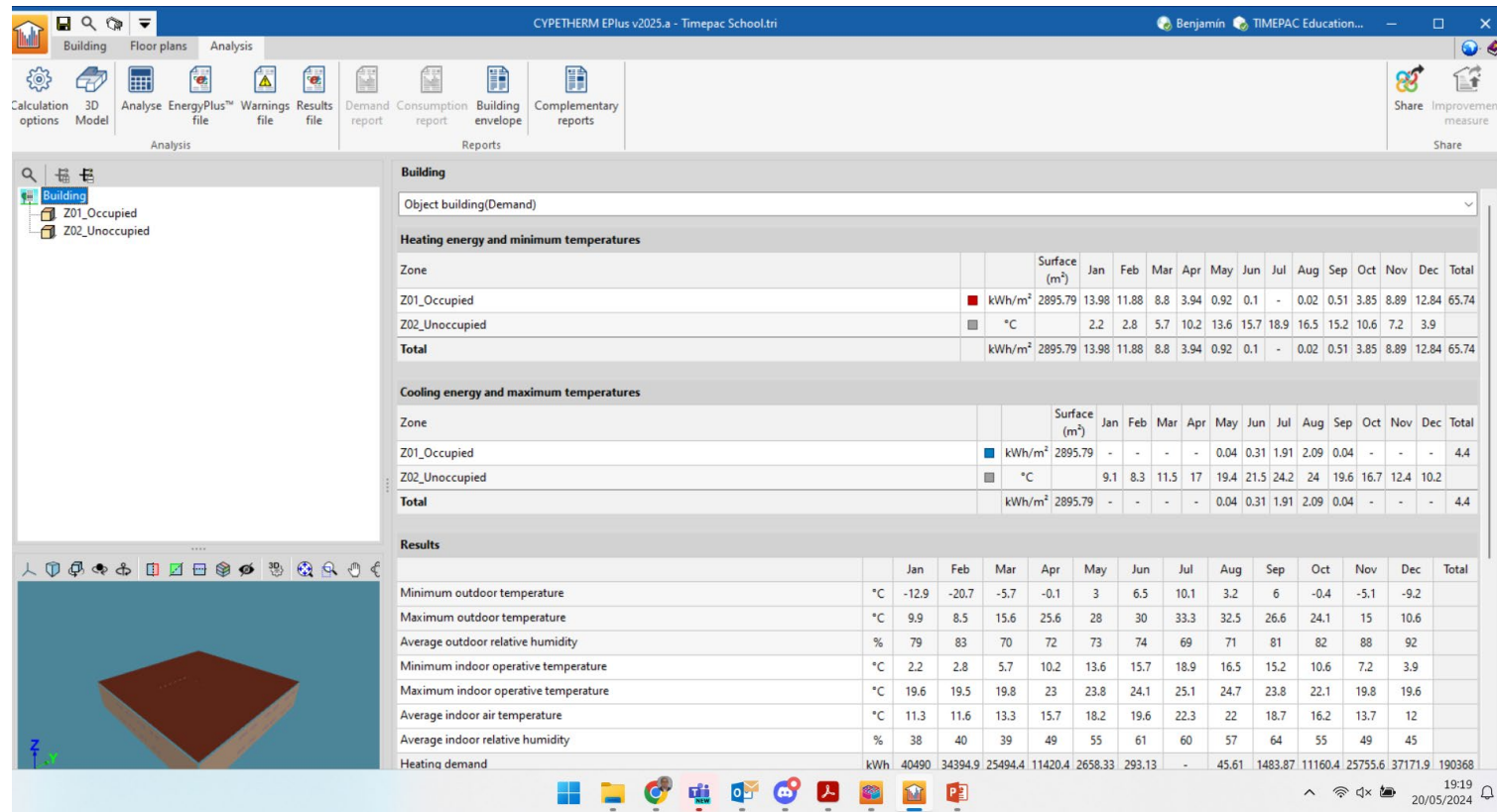
Heating: 0.2 °C    Cooling: 0.2 °C

Simulation period

Accept    Cancel

# Generation of a thermal BIM model

## Results



# Generation of a thermal BIM model

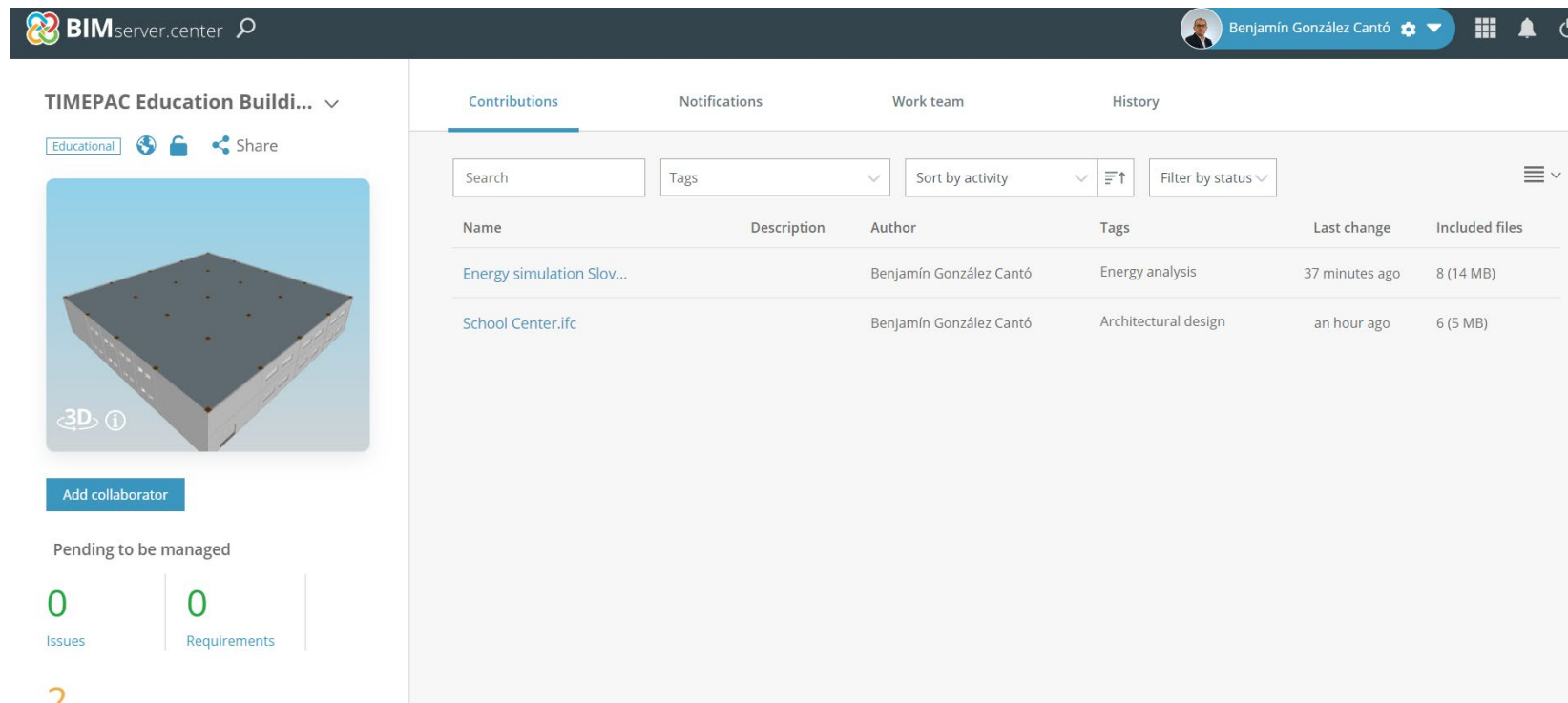
- Sharing results in the CDE

The screenshot displays the CYPETHERM EPlus v2025.a software interface. The main window shows a 3D model of a building and a table of simulation results. A dialog box titled "Export in 'IFC' format" is open, prompting the user to generate application results and upload them to a project on BIMserver.center. The dialog box includes a "Name" field with the text "Energy simulation Slovenia" and a "Description" field. The "Accept" button is highlighted.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Minimum outdoor temperature	*C -12.9	-20.7	-5.7	-0.1	3	6.5	10.1	3.2	6	-0.4	-5.1	-9.2	
Maximum outdoor temperature	*C 9.9	8.5	15.6	25.6	28	30	33.3	32.5	26.6	24.1	15	10.6	
Average outdoor relative humidity	% 79	83	70	72	73	74	69	71	81	82	88	92	
Minimum indoor operative temperature	*C 2.2	2.8	5.7	10.2	13.6	15.7	18.9	16.5	15.2	10.6	7.2	3.9	
Maximum indoor operative temperature	*C 19.6	19.5	19.8	23	23.8	24.1	25.1	24.7	23.8	22.1	19.8	19.6	
Average indoor air temperature	*C 11.3	11.6	13.3	15.7	18.2	19.6	22.3	22	18.7	16.2	13.7	12	

# Generation of a thermal BIM model

- Visualizar resultados en el CDE



The screenshot displays the BIMserver.center interface. On the left, a project titled "TIMEPAC Education Buildi..." is shown with a 3D model of a building. Below the model, there are statistics: "0 Issues" and "0 Requirements". On the right, the "Contributions" tab is active, showing a table of recent contributions.

Name	Description	Author	Tags	Last change	Included files
Energy simulation Slov...		Benjamín González Cantó	Energy analysis	37 minutes ago	8 (14 MB)
School Center.ifc		Benjamín González Cantó	Architectural design	an hour ago	6 (5 MB)



**If you would like more information,  
please visit [www.timepac.eu](http://www.timepac.eu) or contact us at  
[benjamin.gonzalez@cype.com](mailto:benjamin.gonzalez@cype.com)**

Thanks for your attention!