

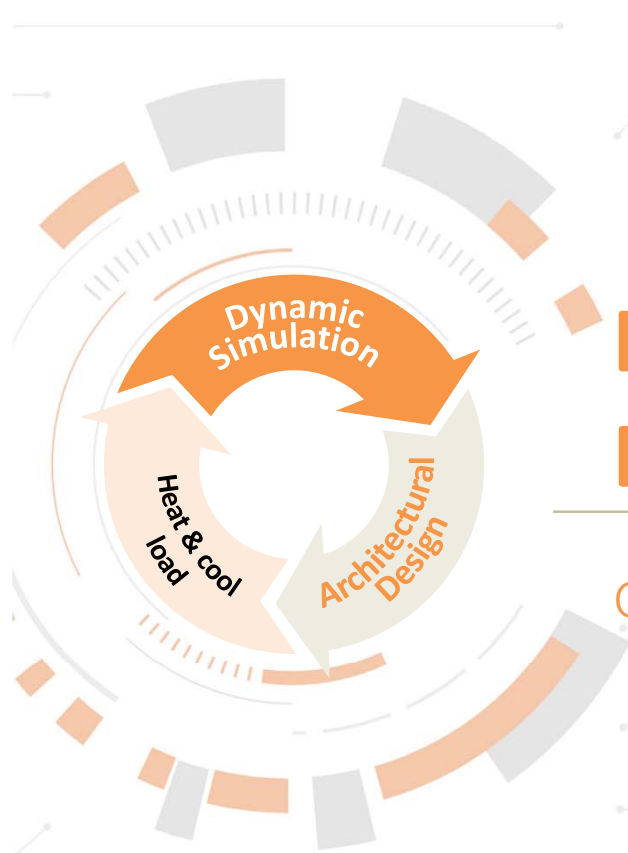


26-09-2019 – 12H – 18H30 – VUB BRUSSELS

LE POINT SUR LE BIM 'BUILDING INFORMATION MODELING' VU PAR LES TECHNIQUES SPÉCIALES
EEN UPDATE OVER HVAC SPECIALE TECHNIKEN EN BUILDING INFORMATION MODELING (BIM)

WELKOM BIENVENUE





BIM | Integrated & Automated Building Design

Continuous improvement, optimization and increasing detail

Rein Verrelst, Consultant Green Buildings

Building calculations

- Heat load
- Cooling load
- Dynamic calculations
- Ventilation (CODEX-EPB-...)

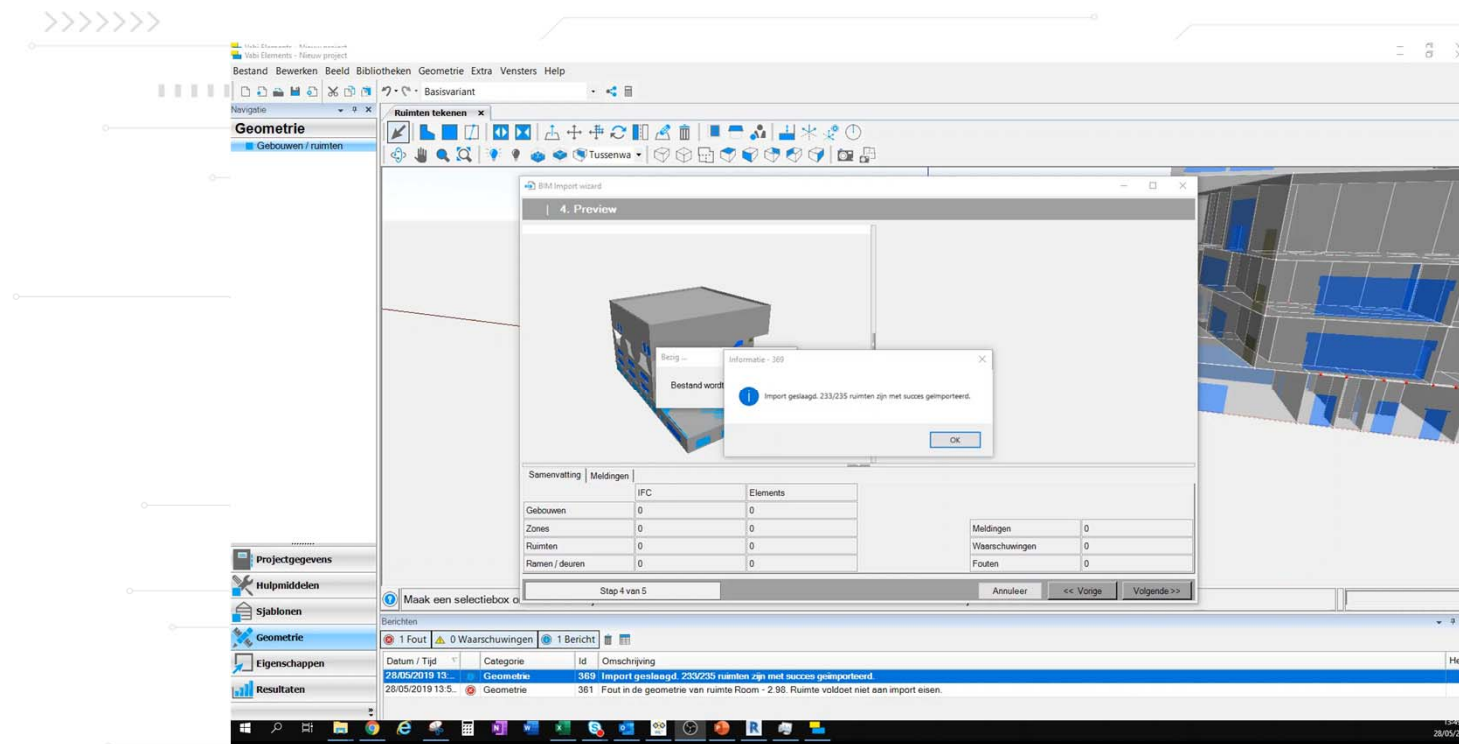
vabi
elements



Direct import Architectural BIM Model



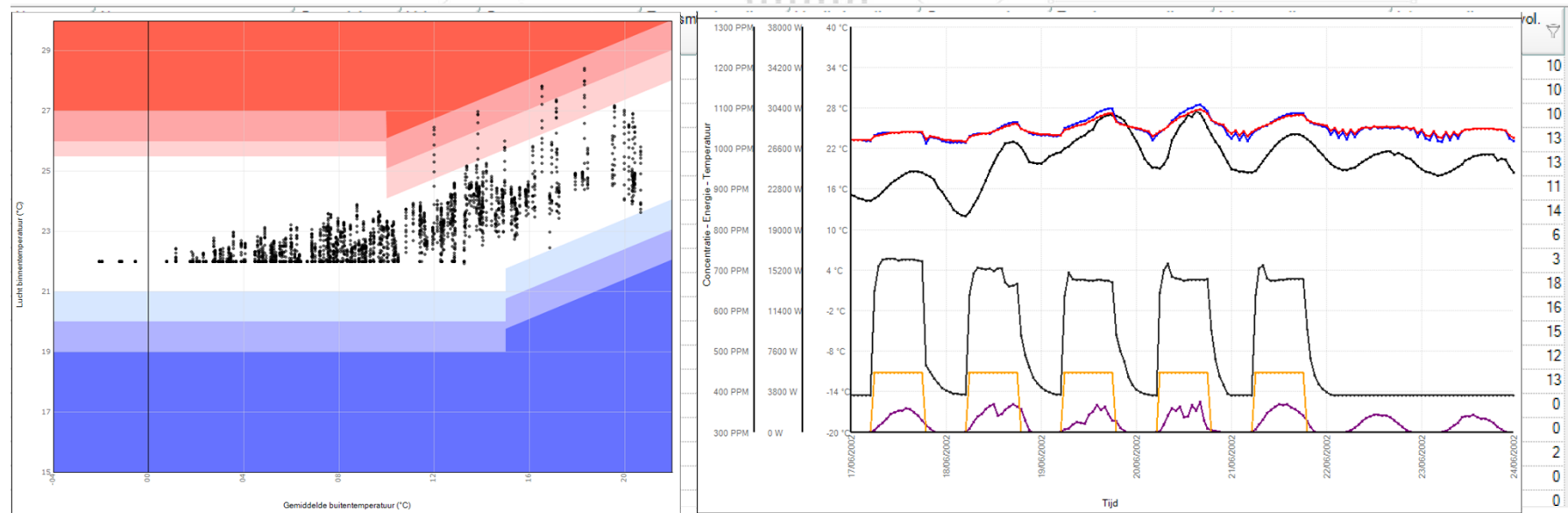
BIM Import



Increasing speed & reducing mistakes by cancelling manual measurements



Dynamic simulations



Heating & Cooling Load Calculation

Autodesk Revit 2012 - B0117101131 ARC-ME-GEN-EX-MO-001 HRA3.rvt - Schedule Tools - MEP spaces

File

Architecture

Structure

Insert

Systems

Insert

Annotation

Annotations

Moving & Site

Collaborate

View

Manage

Add-In

TAB Network Link

TAB Create/Modify

Quantification

Site Designer

ARC-ME Tools

Modify

Present

Modify Schedule/Quantities

CO

Properties

Design Tools

Format

Calculate

Combine

Parameters

Insert

Delete

Reuse

Hide

Unhide

Insert

Field

Delete

Recreate

Manage

Unlink

Smart

Chart

Group

Ungroup

Shading

Bottom

None

Field

Align

Horizontal

Align

Vertical

Highlight

In Model

Isolate

Expans

Properties

Parameters

Columns

Rows

Titles & Headers

Appearance

Element

Not Placed/Unloaded

Error

Modify Schedule/Quantities

Start up view

Tools - MEP spaces

Schedule

Schedule Tools - MEP spaces

IS Edit Type

Graphics

Visibility/Graphics Over...

Edit...

Text

ARC Schedule Type

Properties

View Template

<None>

View Name

Tools - MEP spaces

Dependency

Independent

Worksheet

View Schedule Tools

Edited by

Revituser1

Phasing

Phase Filter

Show All

Phase

New Construction

Other

Filter

Filter

Properties Data

Project Browser - B0117101131 ARC-ME-GEN-EX

D,Elementen - 573 Kanalen fittings

D,Elementen - 574 Koppels & dampers

D,Elementen - 574 Rookroosters

D,Elementen - 584 Kanalaansluit

D,Elementen - 584 Landingsplaat

D,Quality - ISO ducts

D,Quality - ISO flex ducts

D,Quality - ISO flex pipes

D,Quality - ISO General

D,Quality - ISO pipes

Tools - MEP duct systems

Tools - MEP pipe systems

Tools - MEP spaces

Tools - MEP ventilation

Tools - Overview levels

Tools - Overview sheets

Tools - Overview views

Sheets (all)

Family

Groups

Reset Links

+Tools - MEP spaces														
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Numero	Naam	Maat	Oppervlakte (m²)	Winter (°C)	Zomer (°C)	Verwarming (W)	Koeling (W)	Publicatie (m³/h)	Specified Supply	Extractie (m³/h)	Specified Return	Breuking	Type Verwarming	Type Koeling
0.01	VOOR EN NASCHOLLE OP	201.14	22		8207	0	2600	2600 m³/h	2600					
0.02	SLAAPRUIMTE	34.88	22		4059	0	1200	1200 m³/h	0	1160 m³/h	16			
0.03	LERARSKAMER	66.78	22		2712	0	1080	1080 m³/h	0		626 m³/h			
0.04	DIRECTIE 1	34.81	22		1481	0	0	350 m³/h	0		350 m³/h			
0.05	DIRECTIE 2	34.81	22		1379	0	0	300 m³/h	0		300 m³/h			
0.06	ADRJE	18.98	22		574	0	0	0 m³/h	76		76 m³/h			
0.07	ONTHAL	36.38	22		2179	0	250	250 m³/h	0		171 m³/h			
0.08	KROEGAS	18.08	18		1540	0	0	15 m³/h	0		0 m³/h			
0.09	HOOFDROM	163.32	18		1286	0	0	200 m³/h	0		0 m³/h			
0.10	COOD	0.91	22		624	0	0	0 m³/h	100		100 m³/h			
0.11	EHBO	11.31	22		818	0	0	100 m³/h	200		100 m³/h			
0.12	BE SPREKRUIMTE 1	10.99	22		1802	0	0	400 m³/h	0		400 m³/h			
0.13	BE SPREKRUIMTE 2	16.91	22		389	0	0	400 m³/h	0		400 m³/h			
0.14	ZORGKONINK	28.63	22		1088	0	0	300 m³/h	0		300 m³/h			
0.15	GANG ADMINISTRATIE	47.38	18		0	0	0	0 m³/h	0		0 m³/h			
0.16	VELDOEGES	9.75	18		0	0	0	0 m³/h	0		0 m³/h			
0.17	ROKOM PATIO	43.48	18		249	0	0	0 m³/h	0		0 m³/h			
0.18	GANG ROKOM	34.67	18		0	0	0	0 m³/h	0		0 m³/h			
0.19	SAN	16.76	18		0	0	0	0 m³/h	0		0 m³/h			
0.20	SANITAIR V	39.42	18		399	0	0	0 m³/h	400		400 m³/h			

Autodesk Revit 2012 - B0117101131 ARC-ME-GEN-EX-MO-001 HRA3.rvt - Schedule Tools - MEP spaces

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Autodesk Revit 2012 - B0117101131 ARC-ME-GEN-EX-MO-00

Ventilation CODEX – EPB – ...

Autodesk Revit 2012 - Dubbele basisschool MEP.rvt - Schedule Calculation - MEP Ventilation

Properties: Calculation - MEP Ventilation

A	B	C	D	E	F	G	H	I
Niveau	Nummer	Naam	Oppervlakte (m²)	ARC_Occupants	ARC_Toilets/Showers	Space Type	ARC_EPb_Occup	ARC_EPb_Air
A_Geljkvloers	1	Kinderopvang	207.62	100	0	ARC_Education_childcare	100	2300 m³/h
A_Geljkvloers	12	Bergplaats	10.06	0	0	ARC_Unoccupied spaces_No	0	15 m³/h
A_Geljkvloers	30	Overlegruimte	28.22	8	0	ARC_Office building_Meeting	9	225 m³/h
A_Geljkvloers	32	Vergaderzaal B	15.89	6	0	ARC_Office building_Meeting	6	150 m³/h
A_Geljkvloers	33	Vergaderzaal A	15.89	6	0	ARC_Office building_Office	6	150 m³/h
A_Geljkvloers	43	Intomass	29.17	0	0	ARC_Special room_small entr	0	0 m³/h
A_Geljkvloers	45	Kantoor B	24.62	3	0	ARC_Office building_Office	3	75 m³/h
A_Geljkvloers	46	Kantoor A	24.62	3	0	ARC_Office building_Office	3	75 m³/h
A_Geljkvloers	49	Leraarslokaal	60.50	14	0	ARC_Education_teacher's roo	18	400 m³/h
A_Geljkvloers	50	Onthaal	35.98	3	0	ARC_Office building_Office	3	75 m³/h
A_Geljkvloers	51	Incom	105.69	0	0	ARC_Office building_lean entr	11	275 m³/h
A_Geljkvloers	58	gang	54.75	0	0	ARC_Unoccupied spaces_Ca	0	83 m³/h
A_Geljkvloers	69	gang	48.43	0	0	ARC_Unoccupied spaces_Ca	0	70 m³/h
A_Geljkvloers	75	Toilet dames	20.96	5	0	ARC_Unoccupied spaces_Toil	0	250 m³/h
A_Geljkvloers	76	Toilet heren	35.84	0	8	ARC_Unoccupied spaces_Toil	0	400 m³/h

Project Browser - Dubbele basisschool MEP.rvt

- Floor Plans
 - MM_Geljkvloers
 - MM_Planum_Geljkvloers
- Legends
- Schedules/Quantities (Arcadis)
 - Elements (Dutch)
 - Elements (French)
 - Quality
 - Tools
 - Analysis - Heating & Cooling equipment
 - Calculation - MEP Ventilation
 - Overview - Levels
 - Overview - MEP duct systems
 - Overview - MEP pipe systems
 - Overview - MEP spaces
 - Overview - Sheets
 - Overview - Views
- Sheets (Arcadis)
- Families
- Groups
- Revit Links

Zooms in or out using the Ctrl + mouse wheel or Ctrl + [+/-]. To reset to the original zoom level (100%), press Ctrl + 0.

Integrated & Automated Building Design

- Advanced Design process**
Fast & in time design input
- Increased Speed**
Importing BIM-files
- High Quality Reducing mistakes**
Cancelling manual measurements
- Savings Costs savings**
Increasing the calculation detail

