



**Getting products
specified in a
digital world.**

Luke Johnston
IGS - BIM Solutions
www.igsgroup.com.au

**FUTURE
BUILDING
INSIGHTS**
SUMMIT 2019

About IGS

What is BIM?

What is BIM Content?

BIM & Specification Strategy

Manufacturer BIM Technology Examples

Associated Technologies & Applications

Agenda

Company Overview



- Established in 2009, IGS' services include:
 - BIM Content Creation for Building Product Manufacturers, Architects, Engineers & Contractors (AECs), specialising in Autodesk Revit
 - BIM Content Management Strategy and Software for AECs
 - BIM Content Distribution for Manufacturers
 - Visualisation / Virtual & Augmented Reality
 - Custom Product Specification / Configuration Software Development
- 75+ Manufacturer Clients Globally
- Highly Engaged with leading AECs globally (Including. IGS 'BIM Advisory Panel')

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Manufacturer Clients



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Industry Engaged



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About Me



- Managing Director – IGS
- Previously 8+ Years Marketing & Development Manager - Britex
- Co-founder MelBIM
- Contributor:
 - Australia & New Zealand Revit Standards (ANZRS)
 - Collaborate ANZ
 - BuildingSmart

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*BIM (Building Information Modelling) is an intelligent **3D model-based process** that gives architecture, engineering, and construction (AEC) professionals the **insight and tools** to more efficiently **plan, design, construct, and manage** buildings and infrastructure.*

What is BIM?

'The Single Source of Truth'

- 2D Drawings: (Plans, Elevations, Details)
- 3D: Orbit, Render, VR, AR
- Schedules
- Costing
- Phasing
- Building Performance
- Building Analysis
- Clash Detection
- Manufacturing
- Asset Management
- Renovation / Demolition

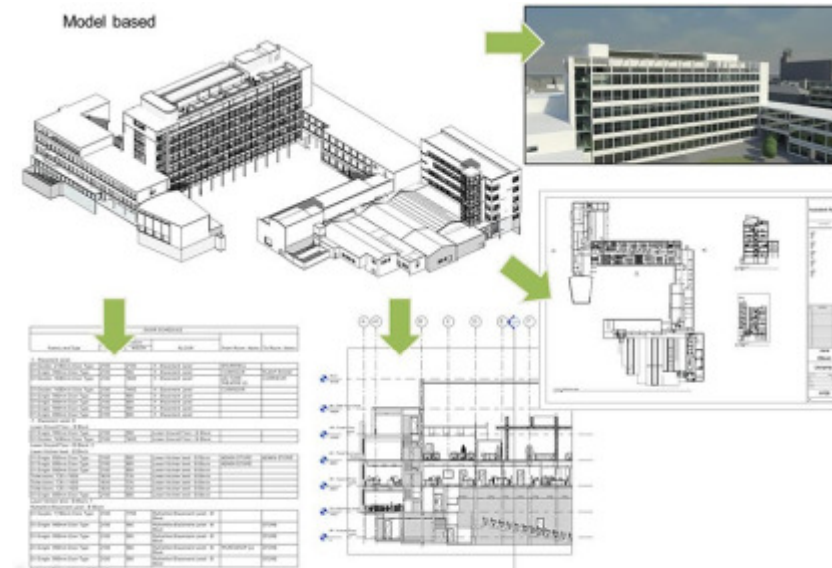


Image Source: ConvertBIM

What is BIM?

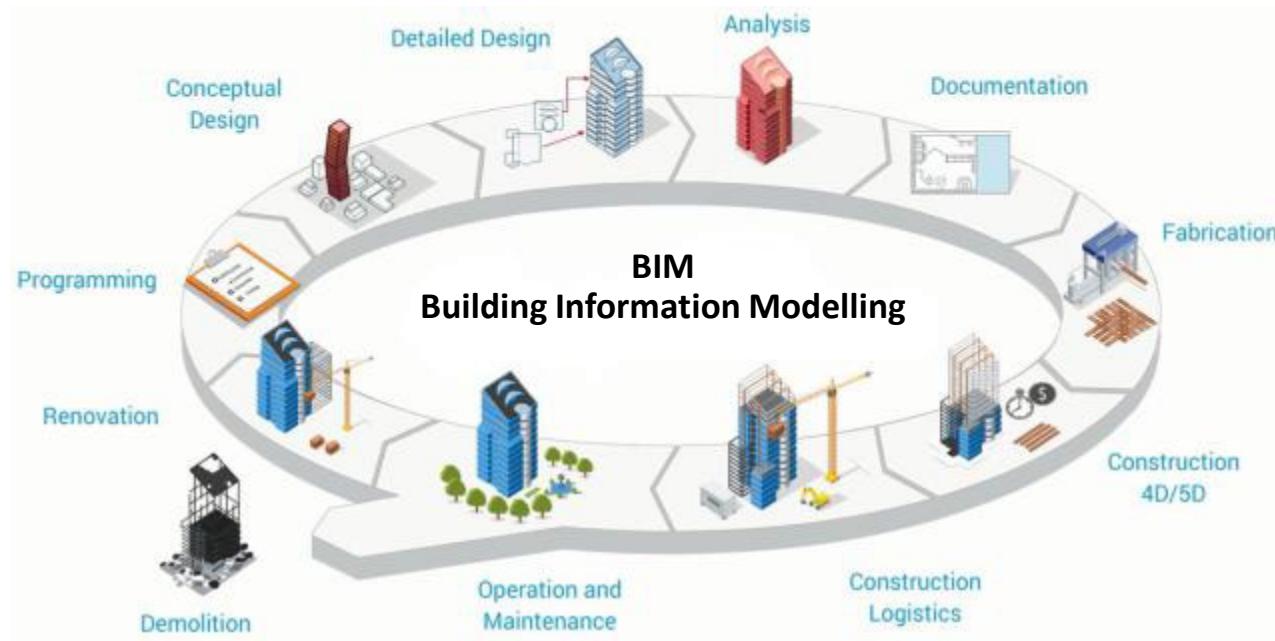


Image Source: tase.be

What is BIM?

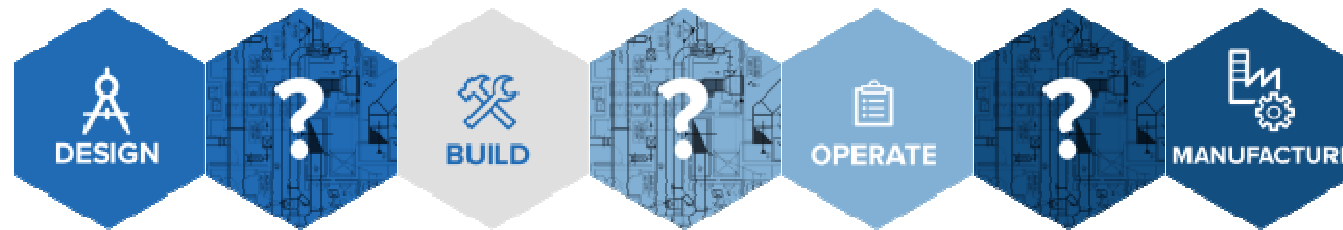
BIM Software 'Ecosystem'



Image Source: parametricmonkey.com

What is BIM?

LOST INFORMATION & INEFFICIENCY ACROSS THE BUILDING LIFECYCLE



\$16 BILLION: THE COST OF INFORMATION GAPS

“Nearly \$16 Billion Lost Annually Due to the Inoperability
of Data Between Architect, Constructor, and Owner” –N.I.S.T.

Why BIM?

BIM Content / Data Formats



What is BIM Content?

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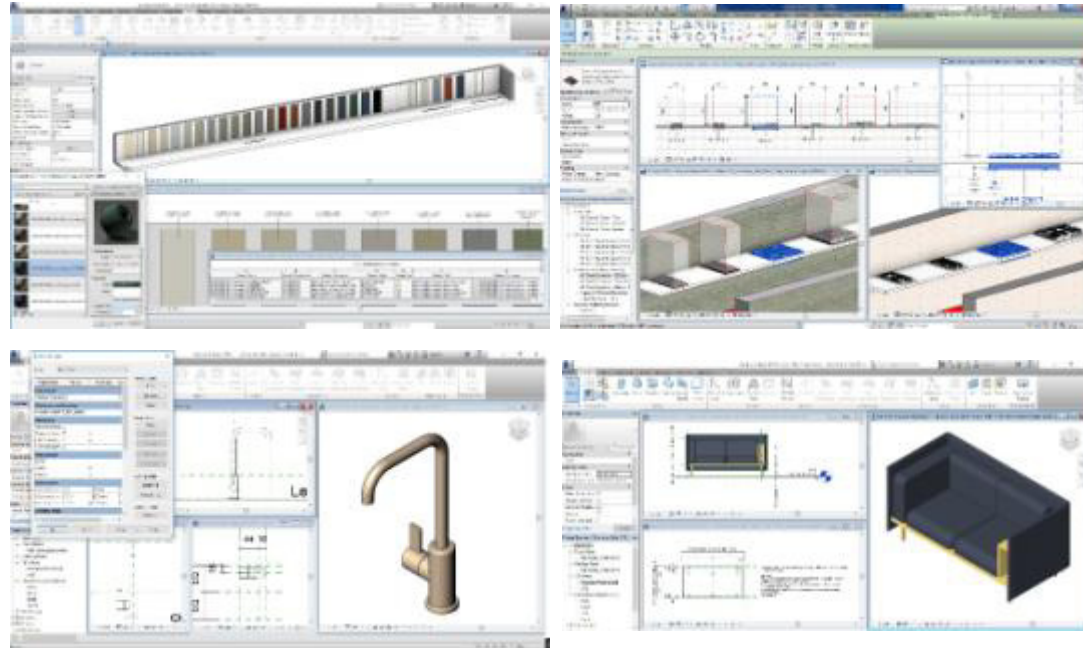
“BIM Content - The Digital Building Blocks to Generate BIM Data”

Data (Graphical)

- 2D
- 3D
- Materials

Data (Non-Graphical)

- Supplier Information
- Product Identifiers
- Performance Criteria
- Physical Properties
- Classification
- Cost



What is BIM Content?

Example BIM (Revit) Library

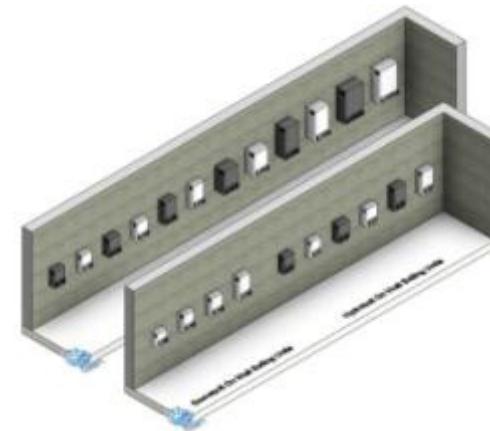
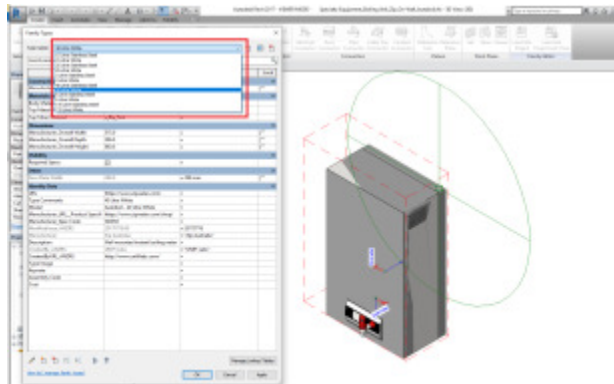
3 x Revit 'Families' (RFAs)



1 x Revit Project (RVT)



= many 'Types' (variants)



What is BIM Content?

Make your products easier and faster for designers to specify and you'll be specified more often.

What do designers get paid for.....?

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Key Points About BIM Content



- AutoCAD is no longer the primary commercial project design authoring software for Architects, Engineers and Contractors. Therefore, providing 'CAD blocks' for your products no longer has the value it once did.
- Commercial projects are now being designed using BIM-enabling applications
- The most widely used BIM authoring / design / coordination software in Australia is Revit.
- Creating BIM content is time consuming. E.g. a Toilet / Chair Appliance may take 4-5 hours to create.
- By providing ready-to-use content for your products, you are saving clients considerable time (i.e. money) when it comes to them putting your products into their projects

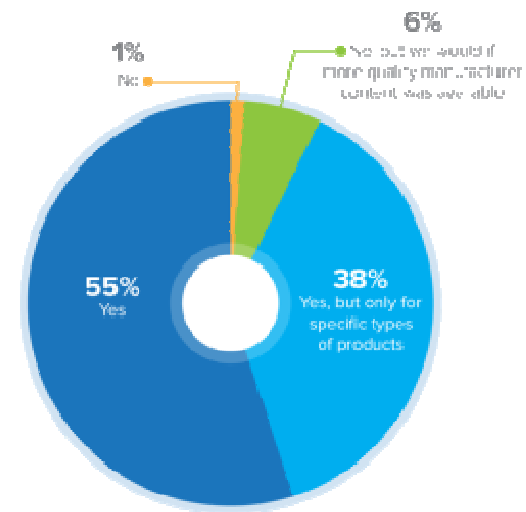
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Survey Says...

In 2017 we asked 65 commercial design firms a series of questions about their Revit content needs and their utilisation of BIM content from product manufacturers.

Does your firm use manufacturer-specific content?



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Survey Says...



...we also asked which specific product categories they were most needing BIM content from product manufacturers.

Has this changed?

	High Need	Medium Need	Low Need	N/A
Furniture	56.45% 35	22.58% 14	12.90% 8	8.06% 5
Lighting	49.21% 31	25.49% 16	20.63% 13	4.76% 3
Washroom Accessories	48.28% 20	32.76% 19	10.34% 6	8.62% 5
Plumbing Fixtures	46.67% 20	36.67% 22	13.33% 8	3.33% 2
Appliances (eg. kitchen, laundry)	42.62% 20	32.75% 20	18.03% 11	6.56% 4
Railings	44.07% 20	28.81% 17	13.56% 8	13.56% 8
Medical Equipment	32.79% 20	19.67% 12	34.43% 21	13.11% 8
Electrical Equipment	30.00% 10	36.67% 22	28.33% 17	5.00% 3
Storage / Racking / Lockers	30.51% 10	40.68% 24	20.34% 12	8.47% 5
Materials (Paints, flooring, veneers, tiles)	28.33% 17	26.67% 16	35.00% 21	10.00% 6
Laboratory Equipment	28.81% 17	27.12% 16	28.81% 17	15.25% 9

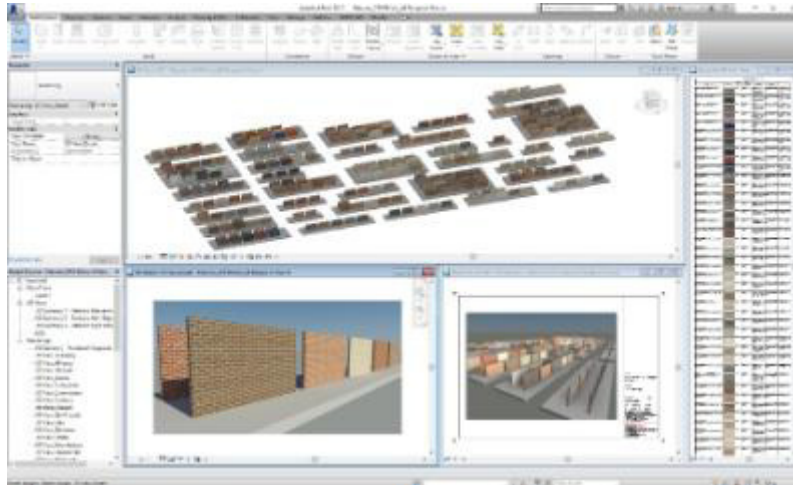
Bottom 16 categories not shown

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What Do 'Most Needed' Categories Have in Common?

- Used frequently
- Time consuming to create
- Difficult to create (complex / parametric modelling)
- Teams only recently using BIM (i.e. Interiors)
- Clients want specificity during design phase
- Designers want certainty in constructability
- Perception of rapid obsolescence
- Requirements vary from project to project

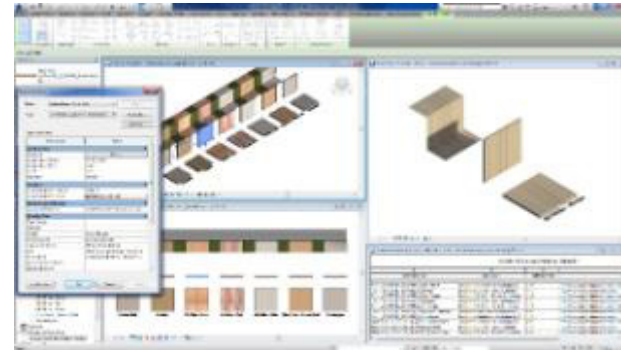


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Manufacturer Content - Help or Hindrance?

Benefits

- Saves time
- Better accuracy (manufacturer generated)
- Greater design specificity than 'generic'
- Greater design flexibility (constraints / variants)
- Integration of critical design / specification data

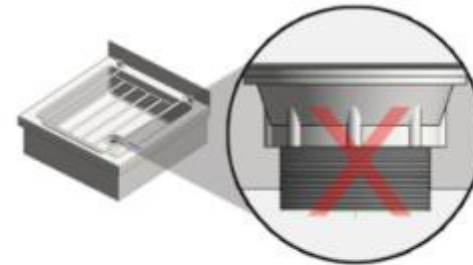


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Manufacturer Content - Help or Hindrance?

Drawbacks

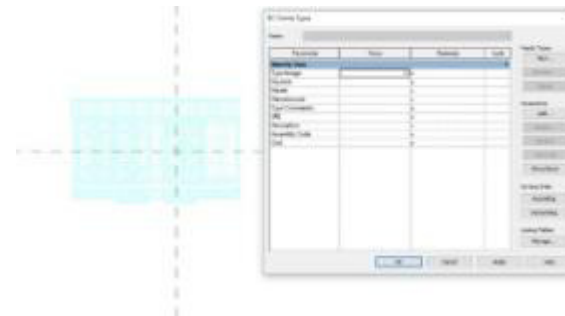
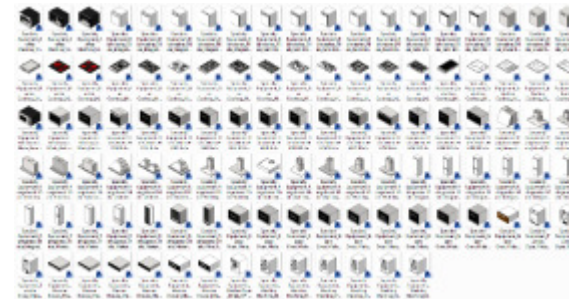
- Manufacturer content has 'Bad PR'.
- Greater risk (unknown author / consistency)
- Model performance often as issue
- Requires various degrees of editing (data / geometry)
- Potential obsolescence



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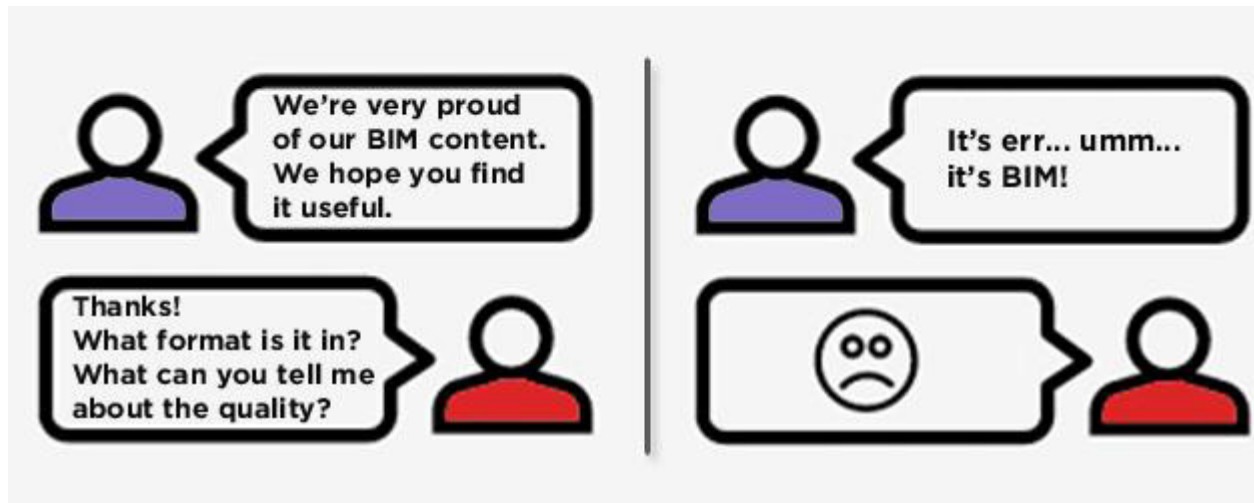
BIM Content 'Quality' – What and Why?

- Consistency!!!
- Quality of documentation (i.e. 2D drawings)
- Visualisation Outputs (balance!)
- Performance in project model
 - Level of Detail
 - File size implications
 - Ability to align, adjust, control
- Metadata: standard / structure / amount
- Ease to customize to project / firm standards
- Searchability (Naming / Thumbnails etc)



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BIM Adoption Challenges for Manufacturers



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BIM Adoption Challenges for Manufacturers

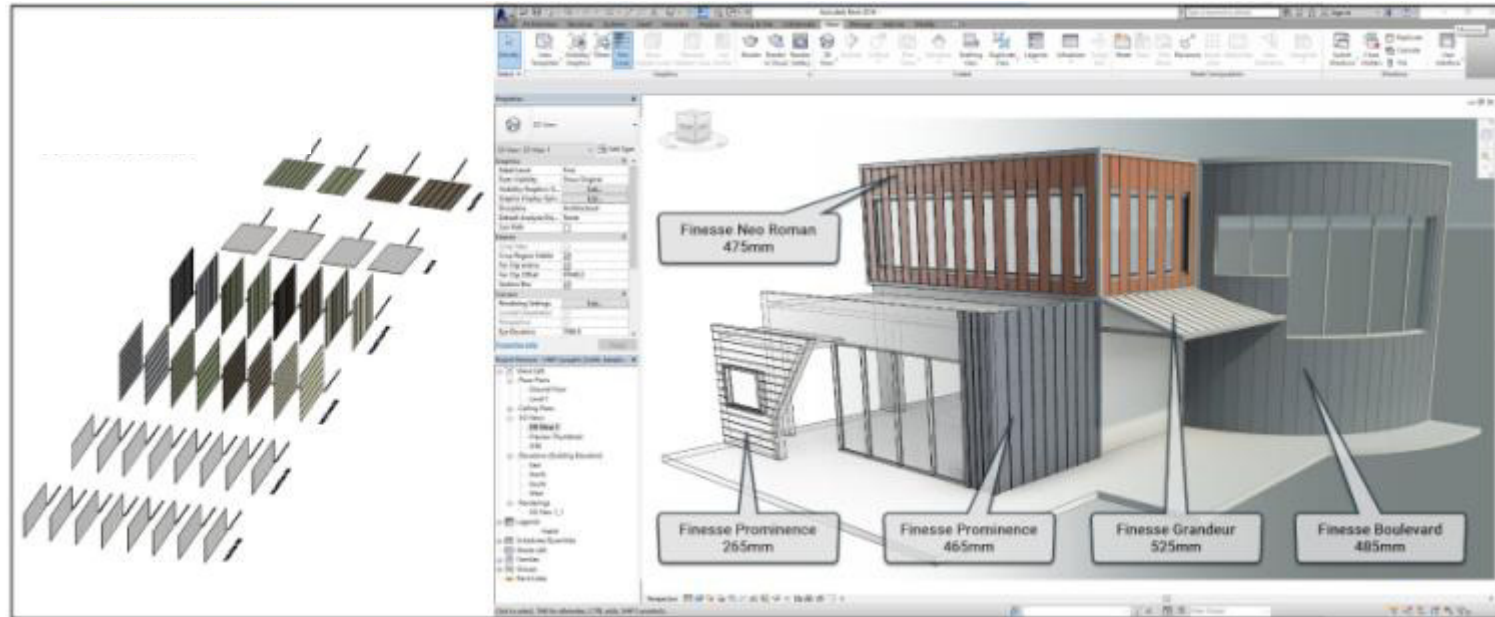


- Cost
- Time
- Minimal Understanding of Content Usage (Context)
- Content Creation Skills / Software Knowledge
- Choosing the right content provider
- Understanding industry standards / guidelines
- Bad advice

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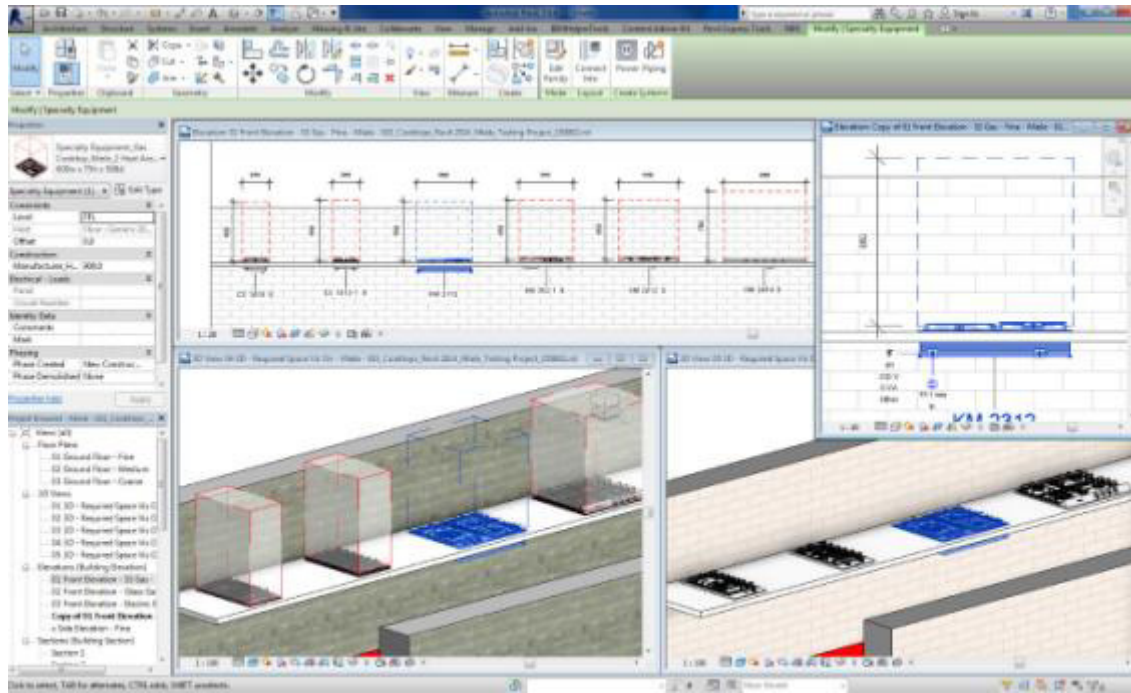
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Food For Thought.....



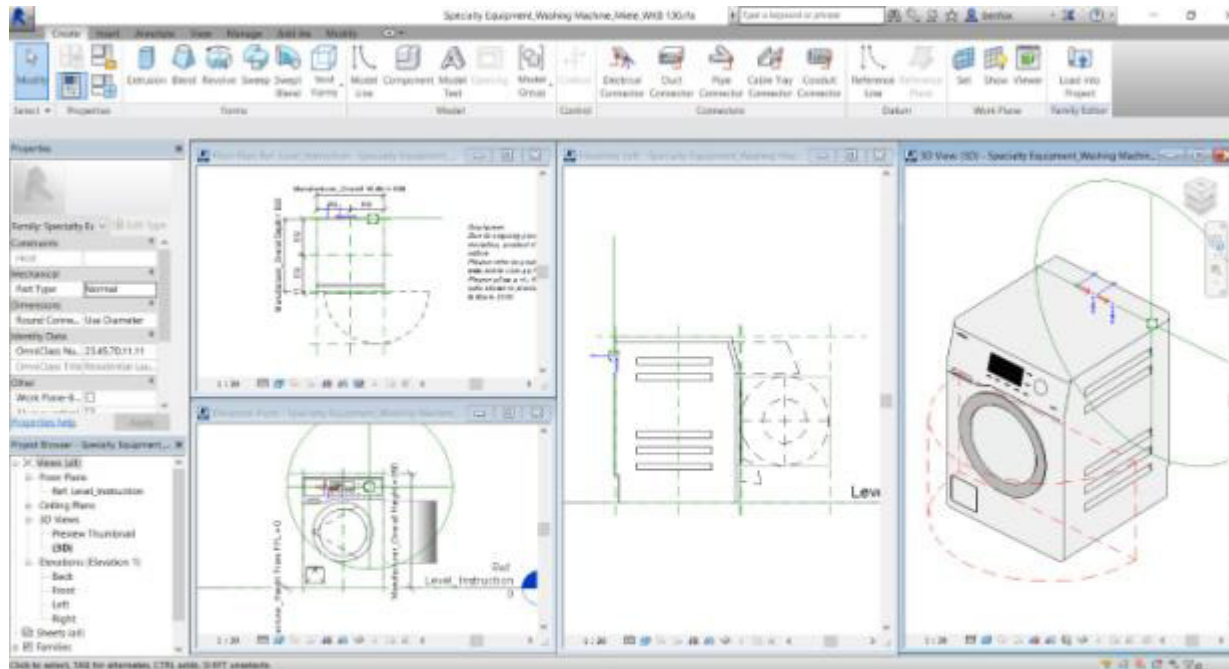
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Intuitive Spatial Design Indicators



Manufacturer BIM Solutions

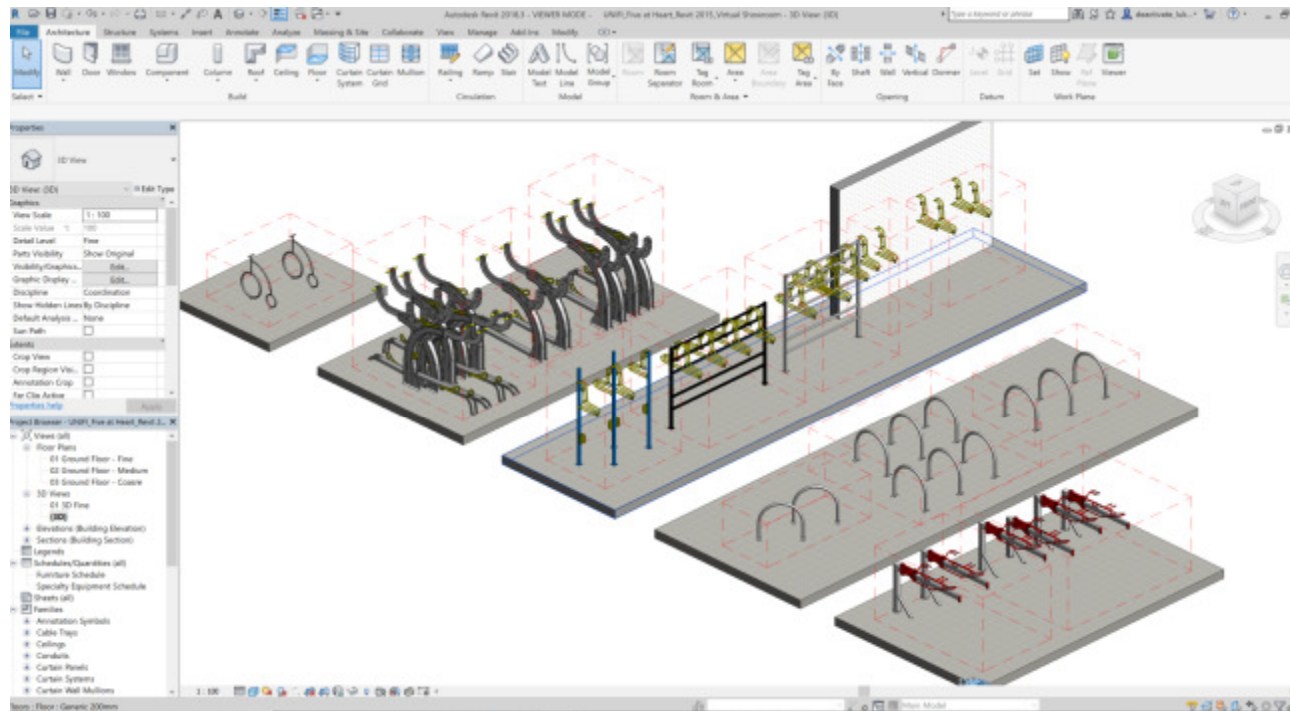
Intuitive Spatial Design Indicators



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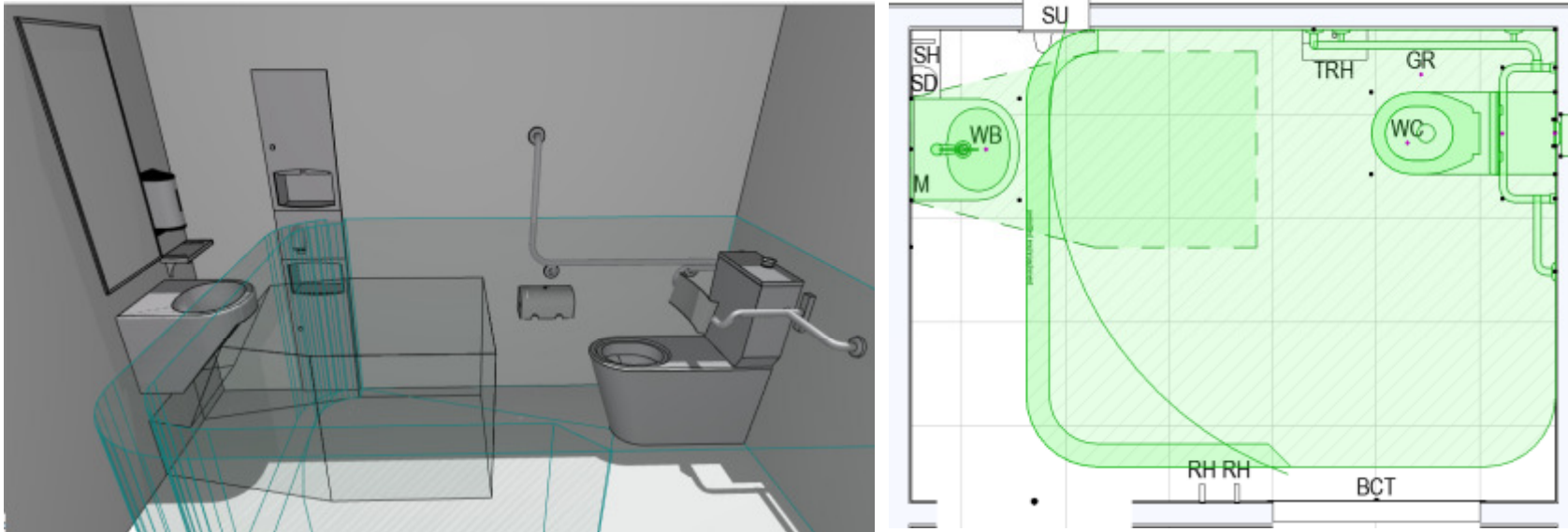
Intuitive Spatial Design Indicators



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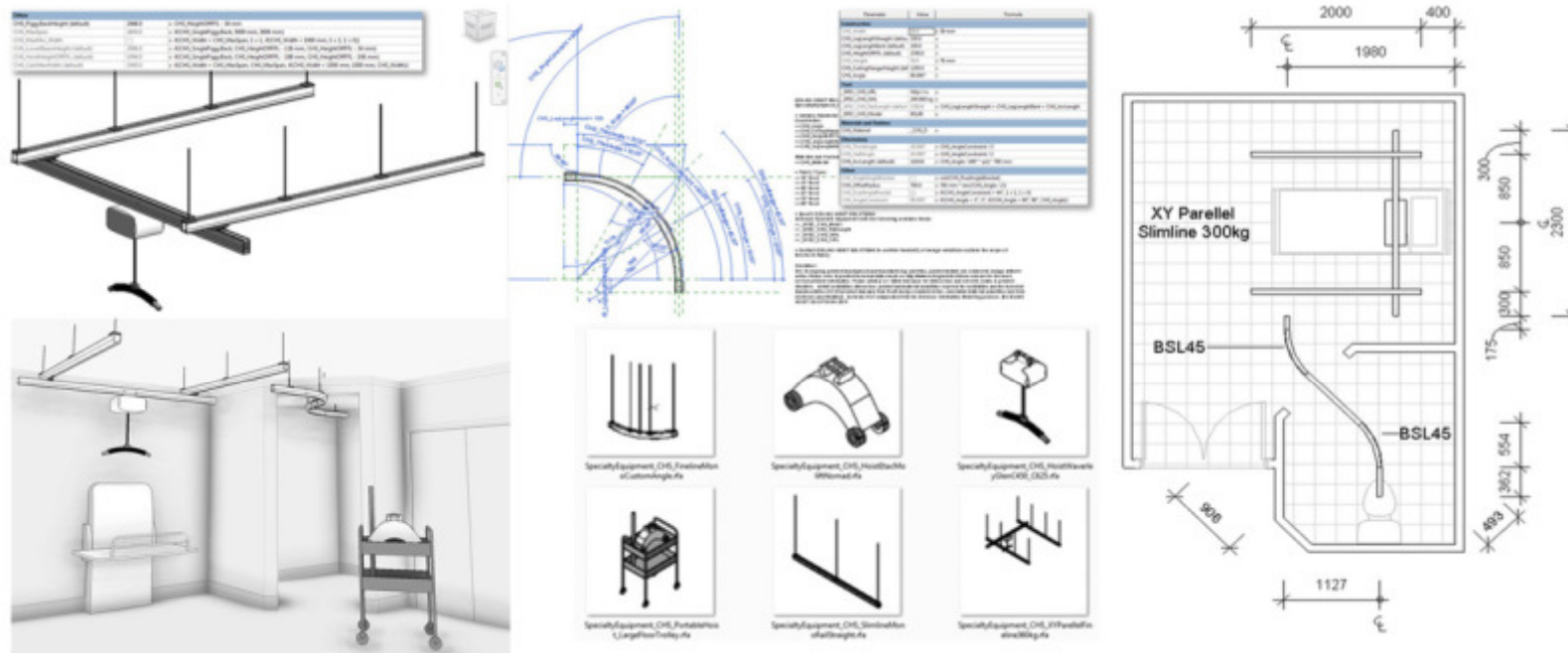
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Intuitive Spatial Design Indicators








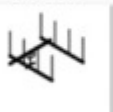
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Complex Design Systems



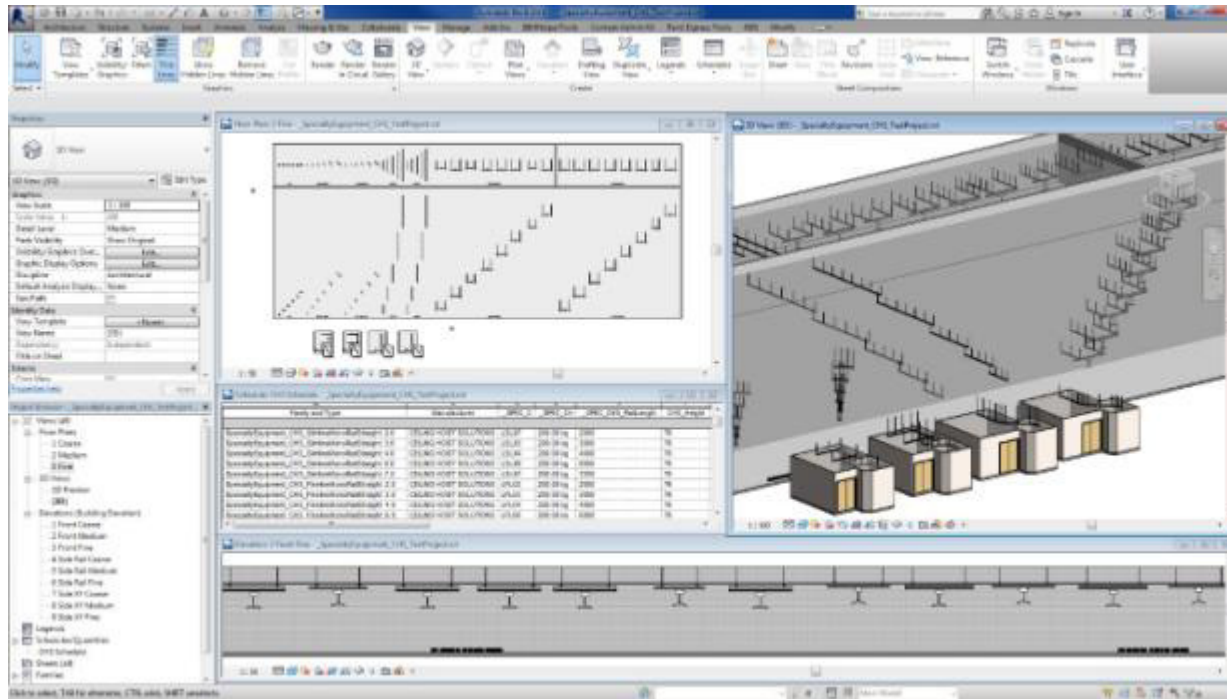
Equipment	Quantity	Manufacturer	Model
XY Parellel Slimline 300kg	1	XY	XY Parellel Slimline 300kg
BSL45	2	BSL	BSL45

Equipment	Quantity	Manufacturer	Model
XY Parellel Slimline 300kg	1	XY	XY Parellel Slimline 300kg
BSL45	2	BSL	BSL45

		
SpecifyEquipment_DH_XYParellelSlimline300kg	SpecifyEquipment_DH_BSL45	SpecifyEquipment_DH_HospitalBed
		
SpecifyEquipment_DH_HospitalBed	SpecifyEquipment_DH_Gurney	SpecifyEquipment_DH_HospitalBed

Manufacturer BIM Solutions

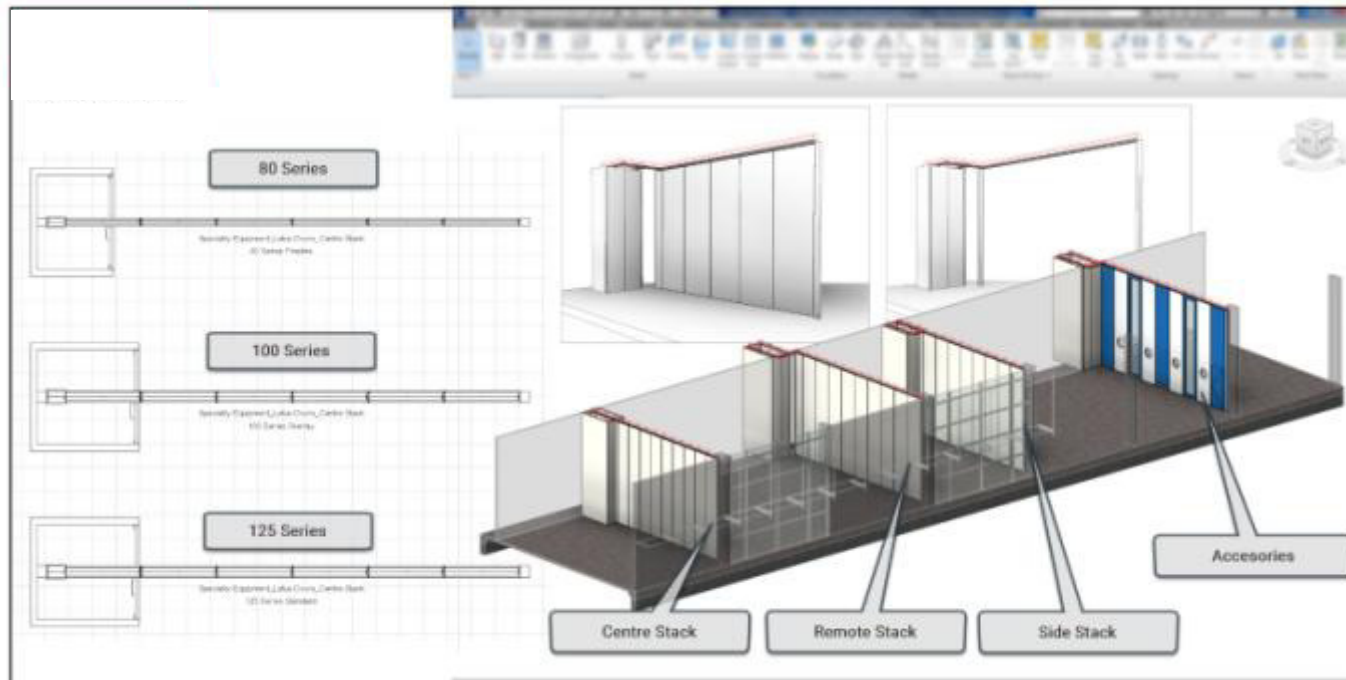
Complex Design Systems



Manufacturer BIM Solutions

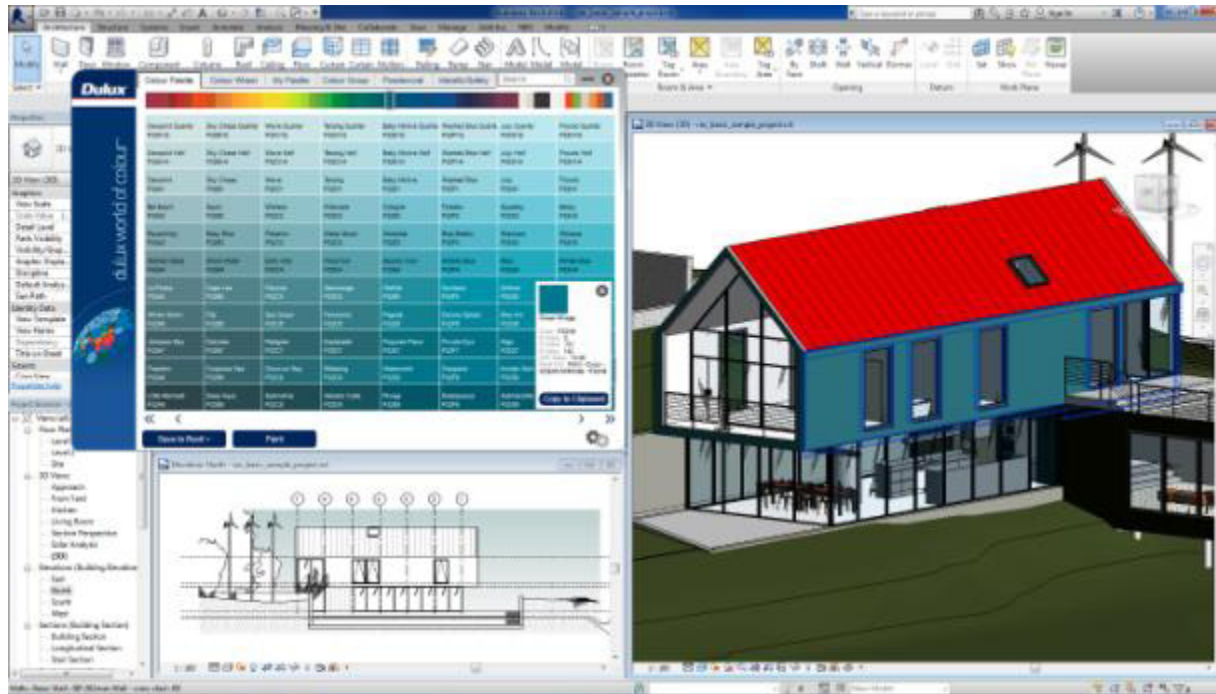
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Complex Design Systems



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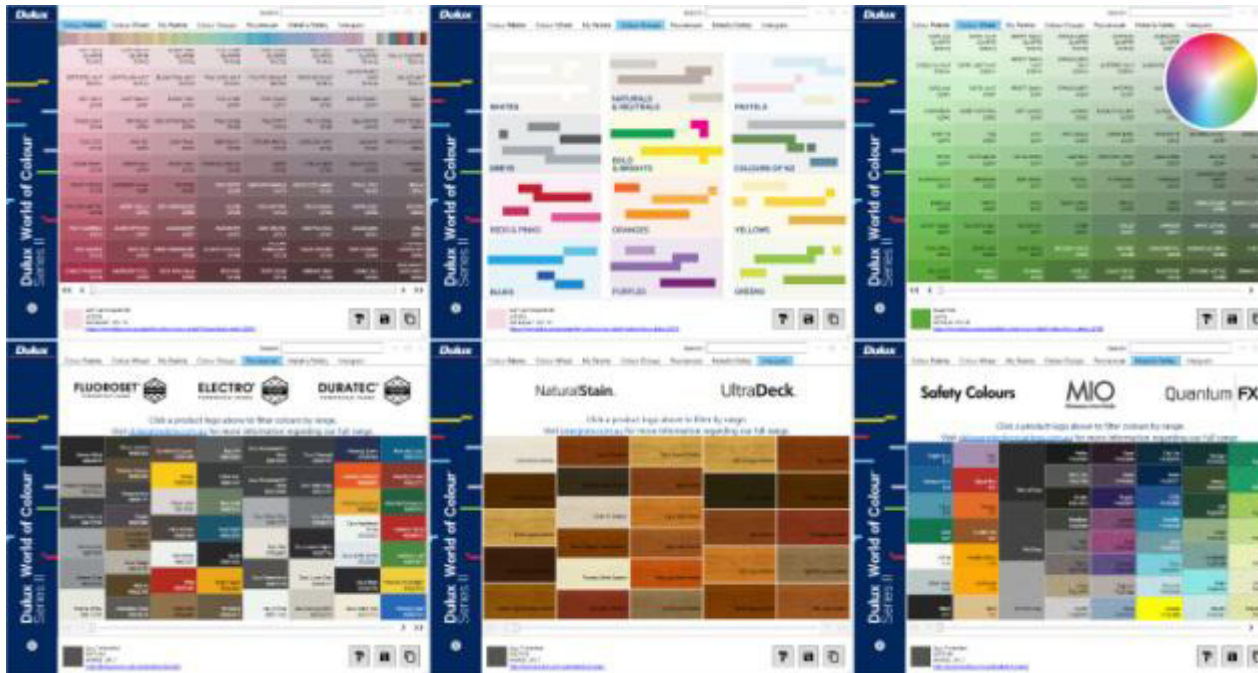
Product Selection Via Custom Application



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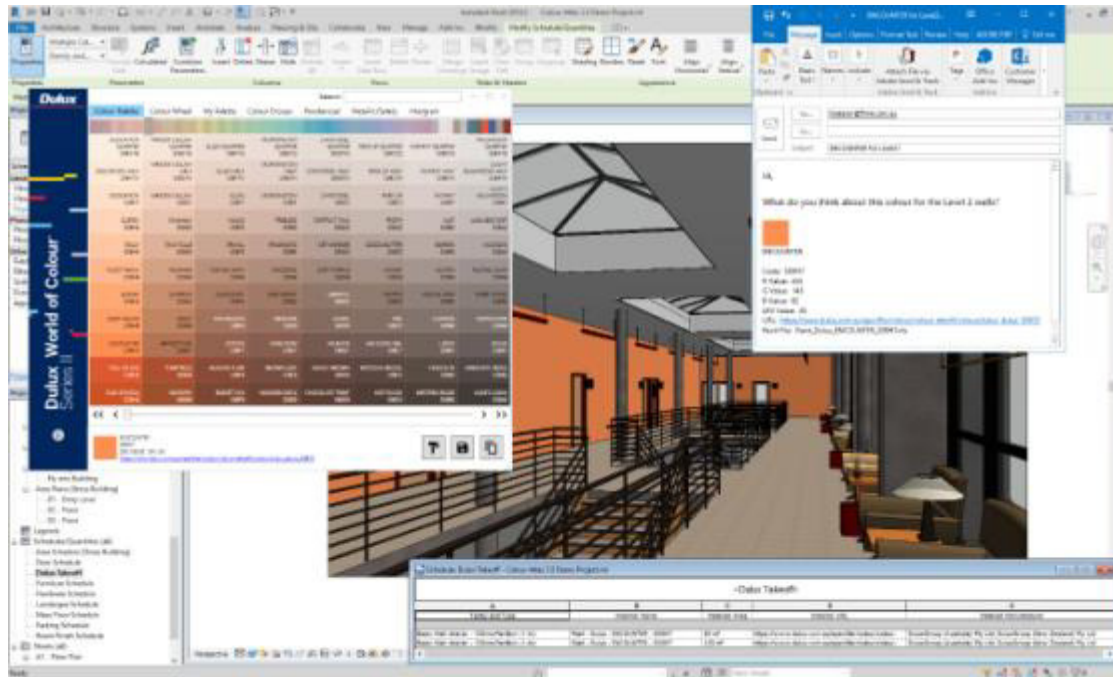
Product Selection Via Custom Application



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Product Selection Via Custom Application



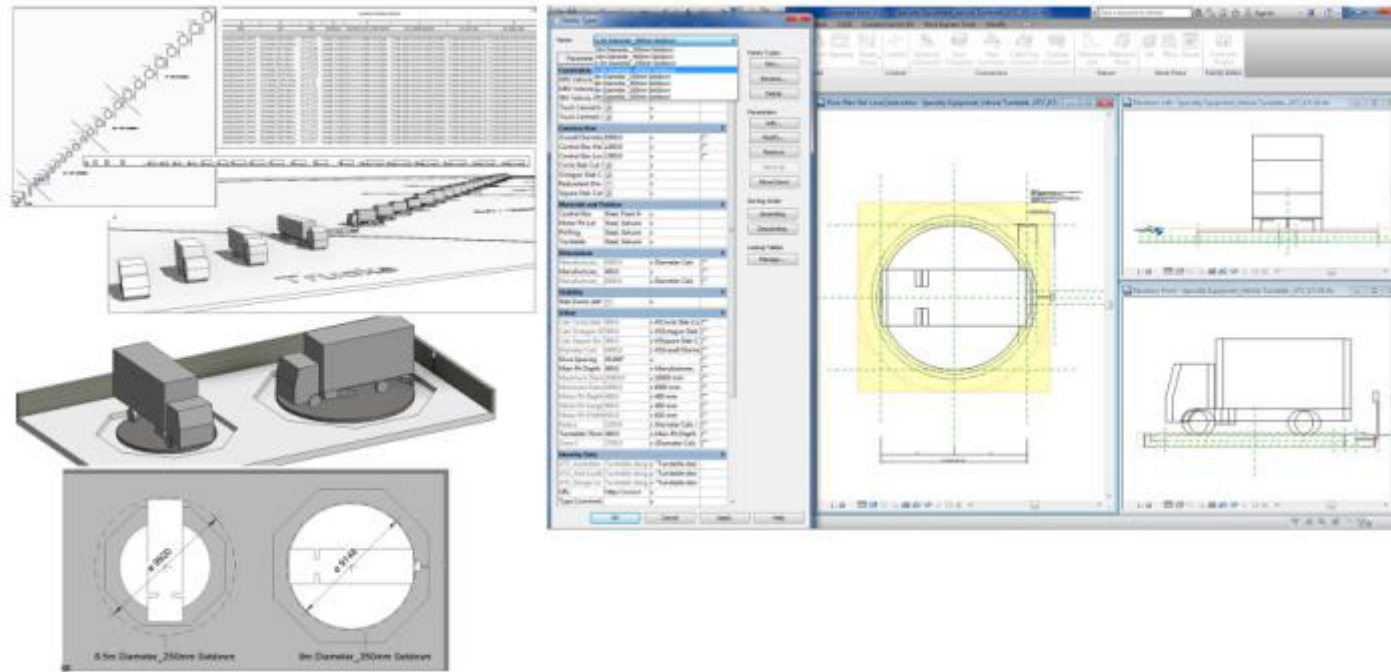
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Product Selection Via Custom Application



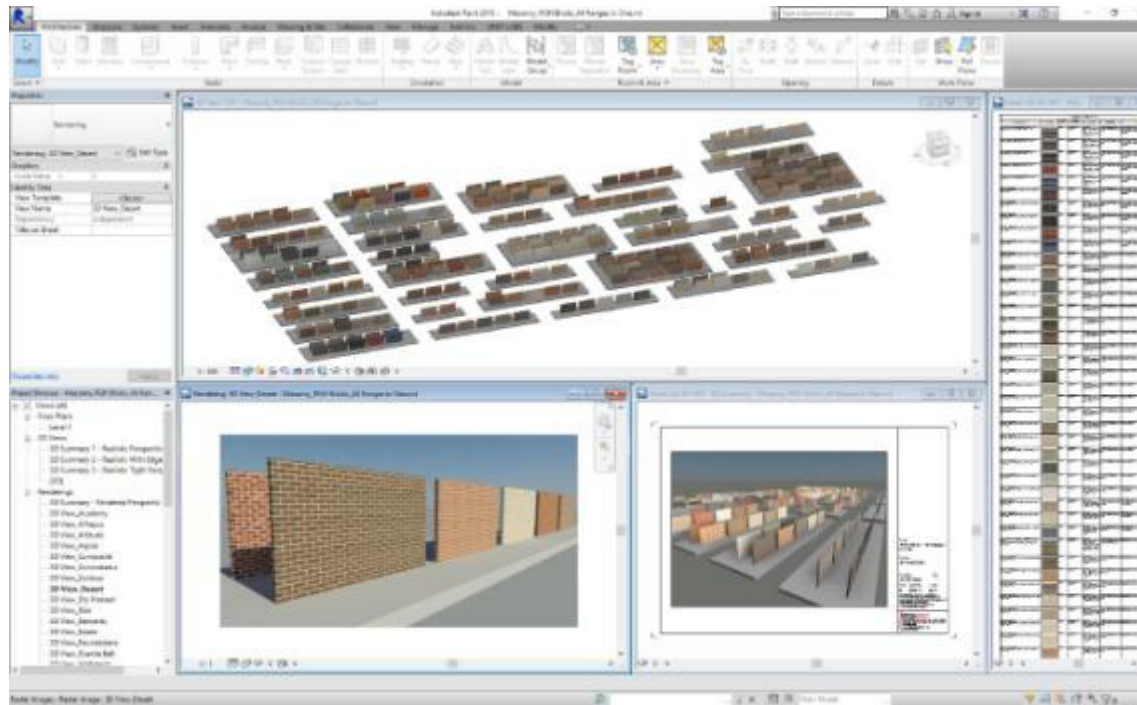
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Design Application Studies



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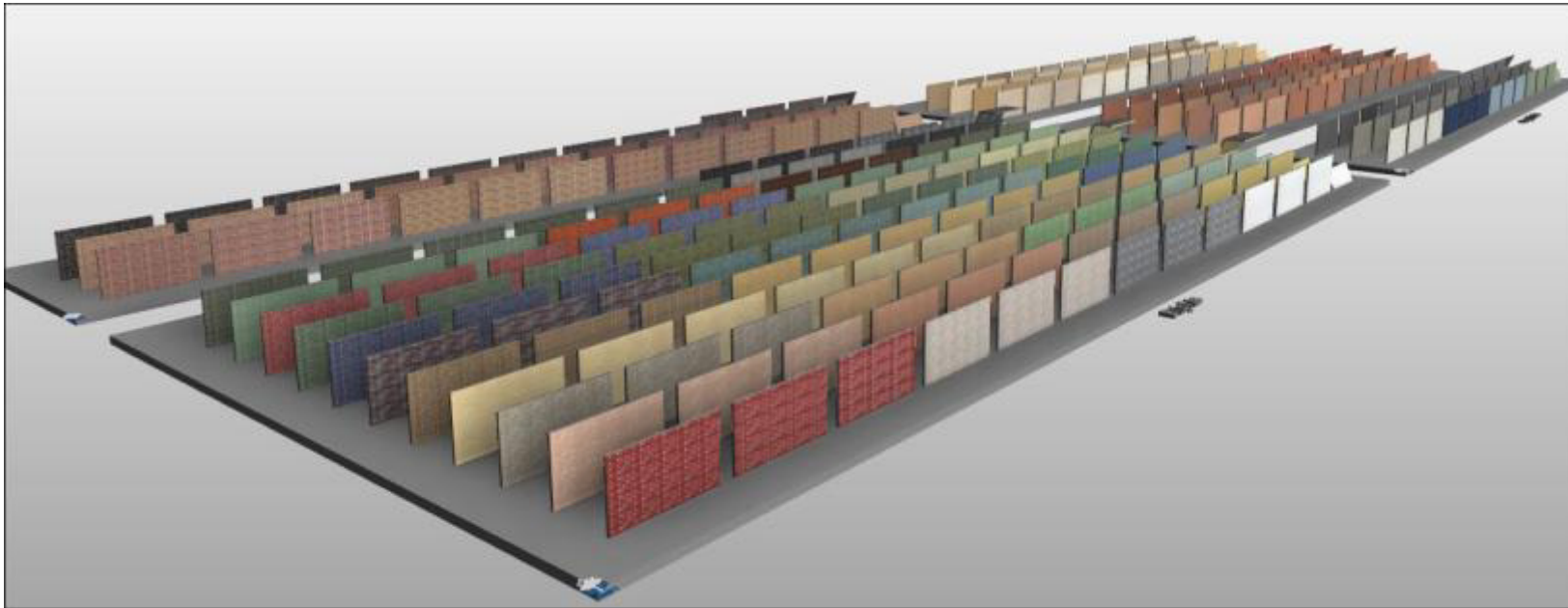
Design 'Inspiration' Enablement



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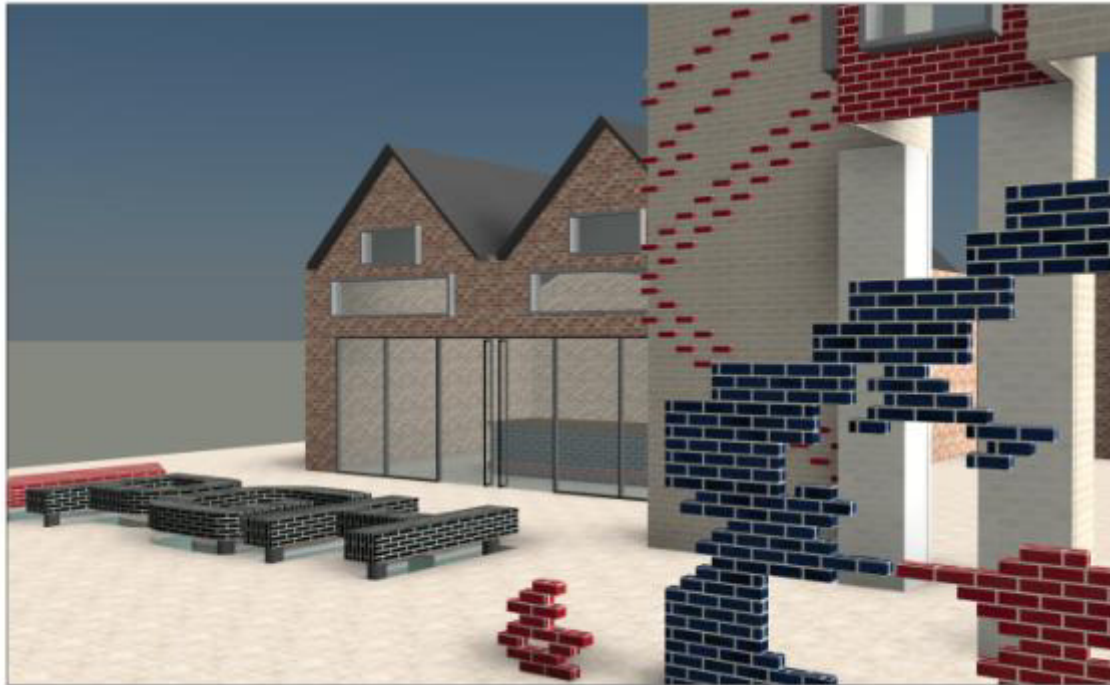
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Design 'Inspiration' Enablement



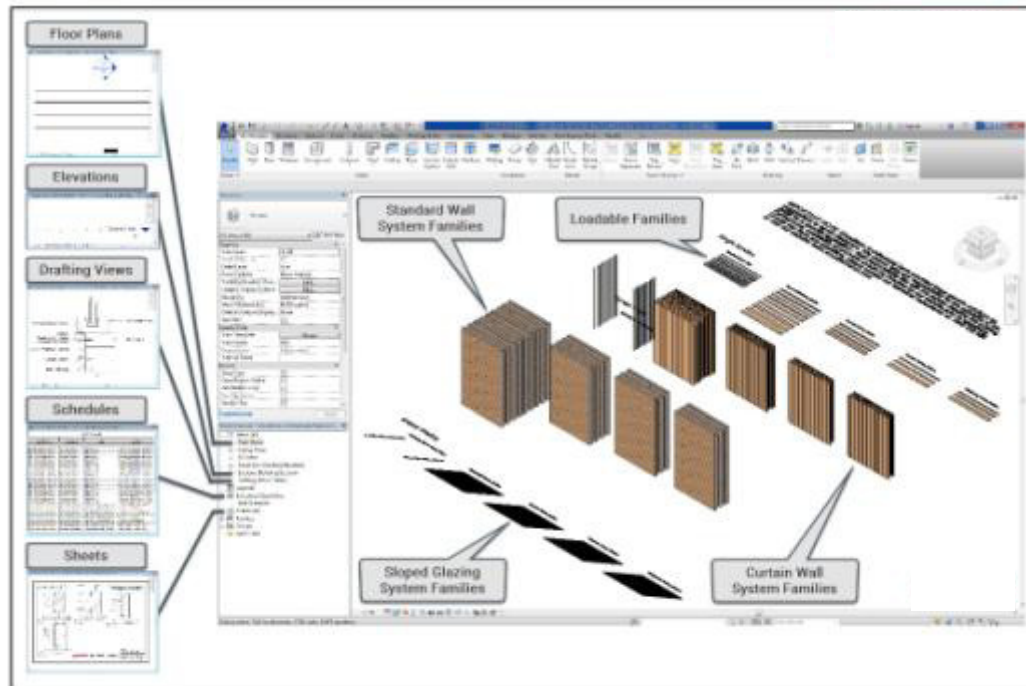
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Design 'Inspiration' Enablement



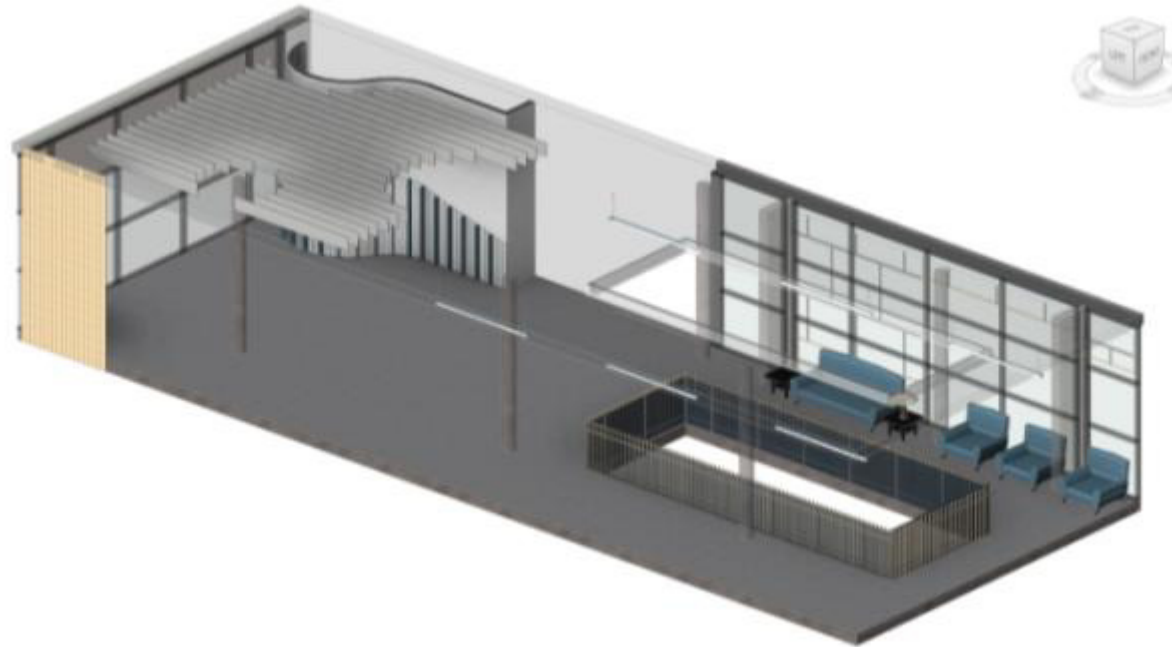
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Design 'Inspiration' Enablement



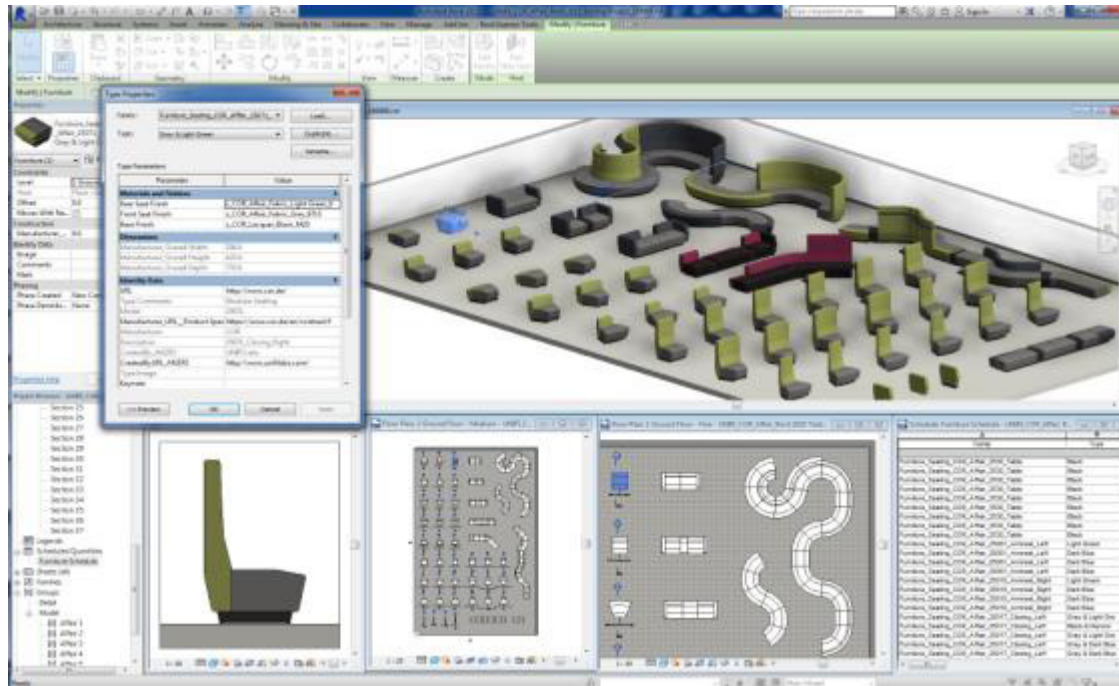
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Design 'Inspiration' Enablement



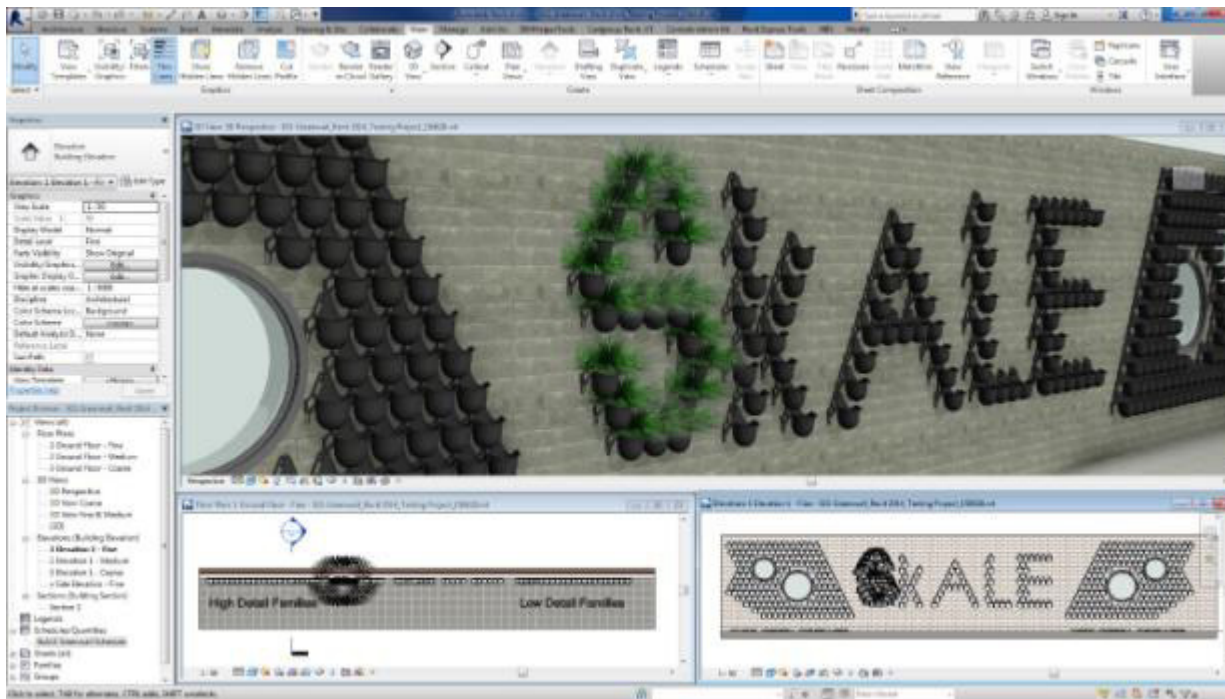
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Design 'Inspiration' Enablement



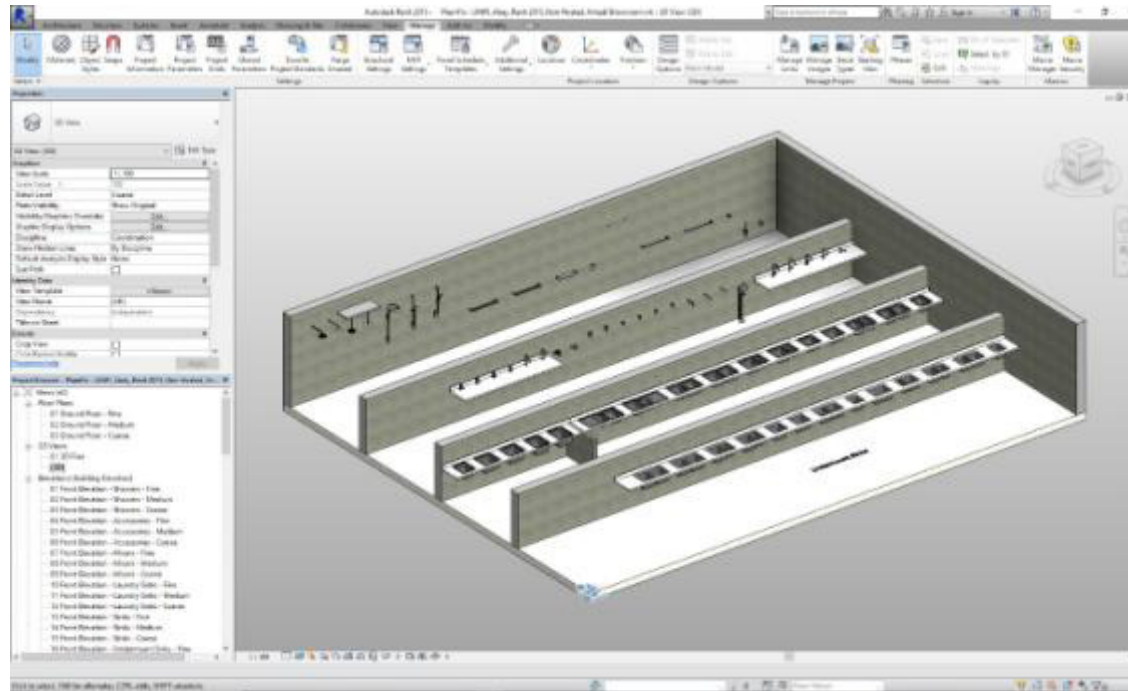
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Design 'Inspiration' Enablement



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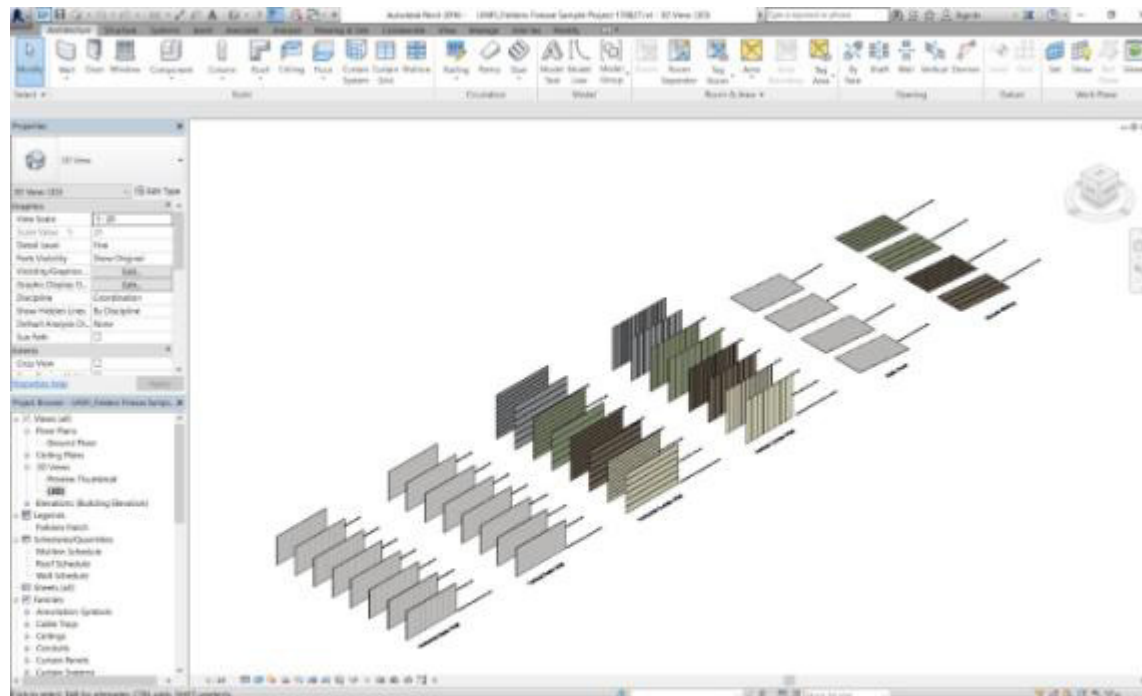
'Virtual Showroom' Product Browsing



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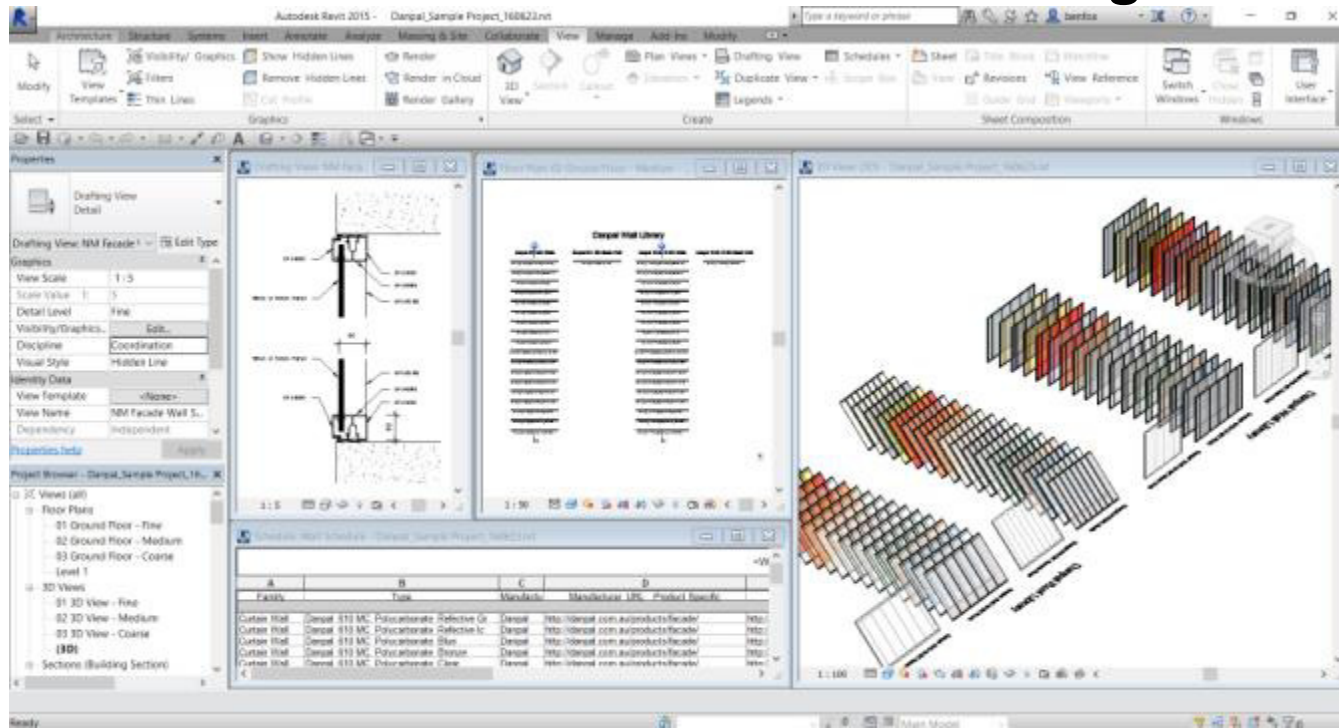
'Virtual Showroom' Product Browsing



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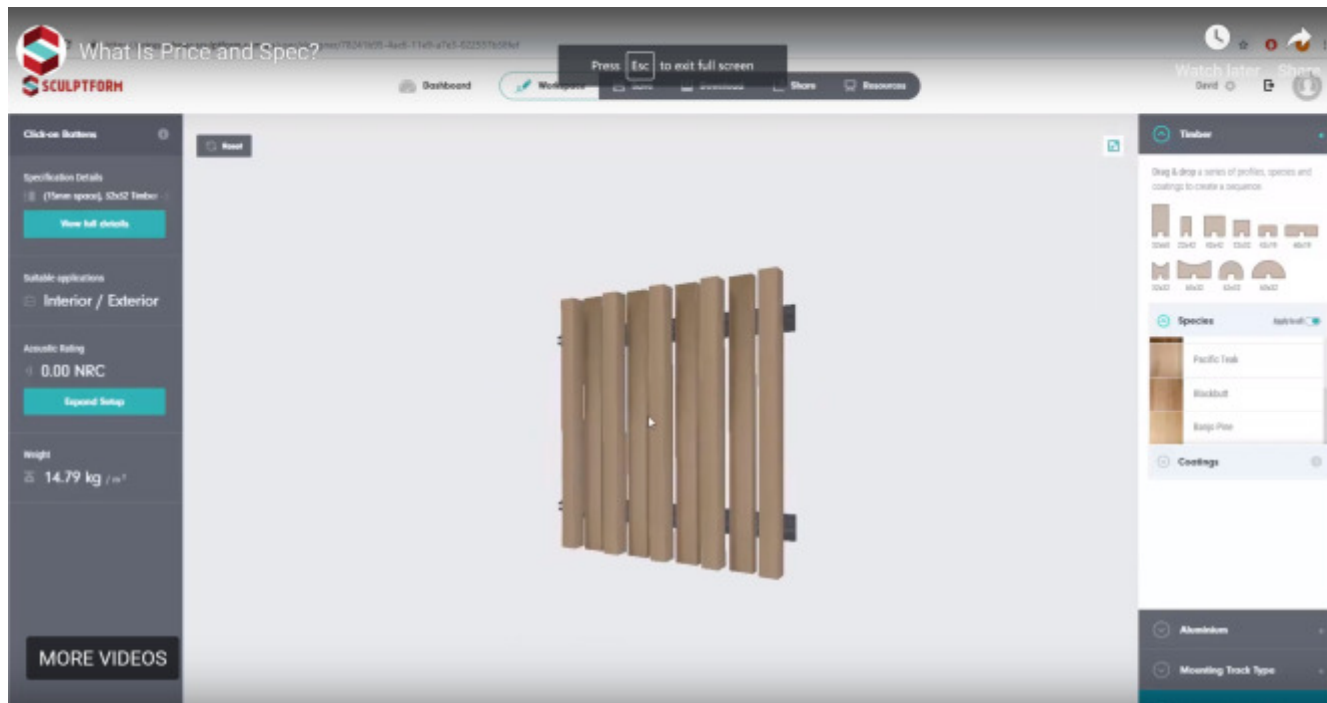
'Virtual Showroom' Product Browsing



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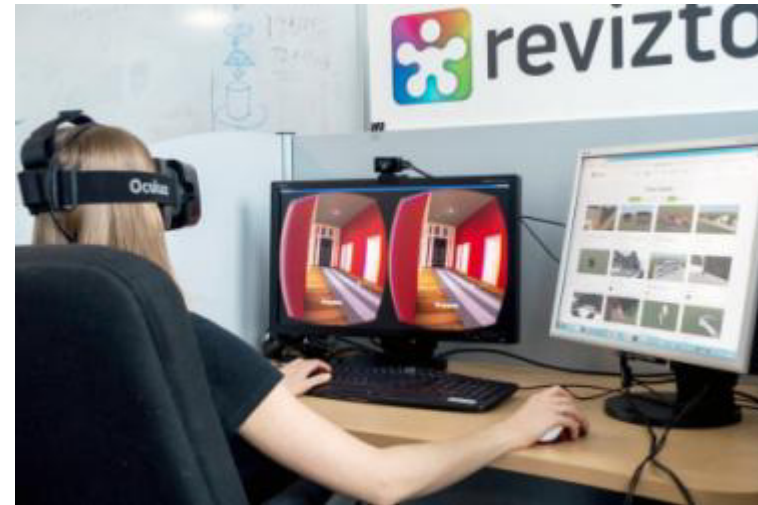
Online Configurators



Associated Technologies & Applications

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Immersive Product Research / Selection



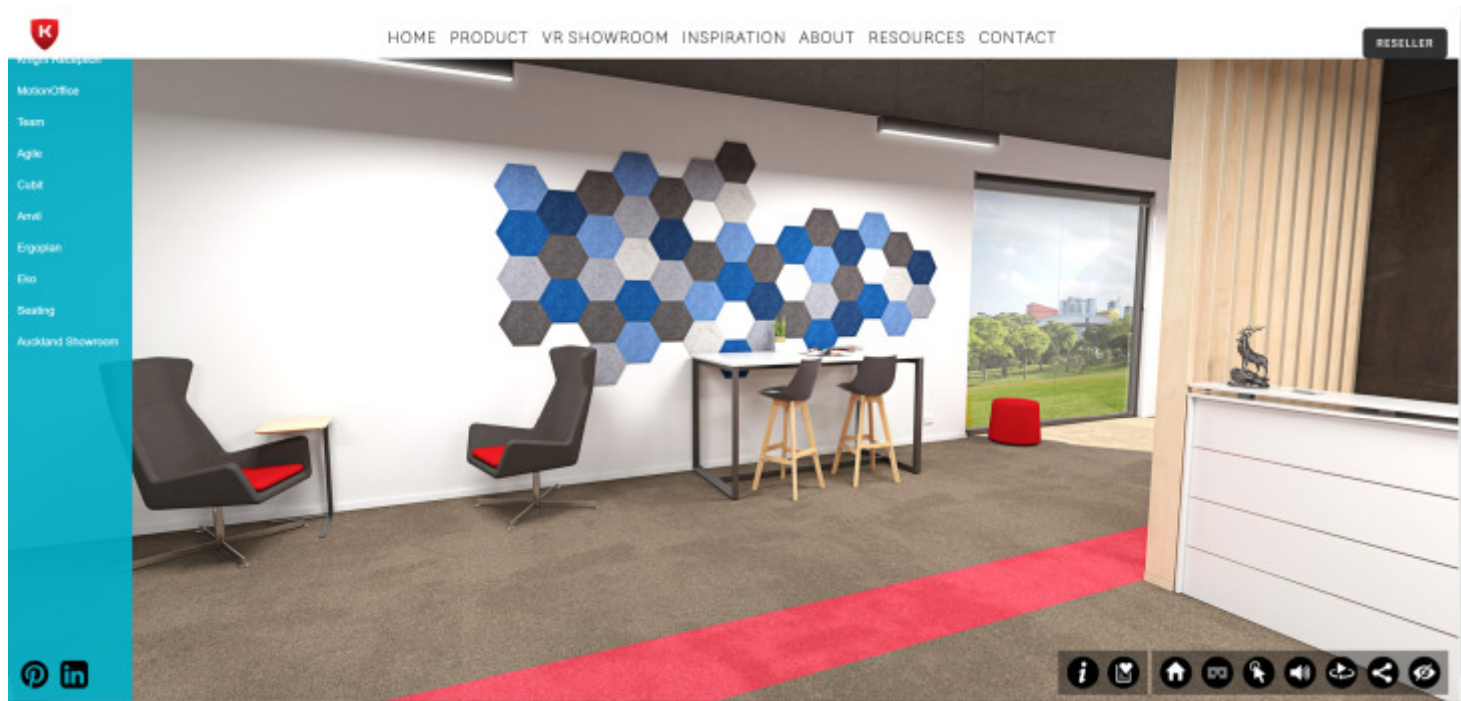
Associated Technologies & Applications

Immersive Product Browsing / Selection



Associated Technologies & Applications

Immersive Product Browsing / Selection



Associated Technologies & Applications

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*ANY
QUESTIONS*

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Thank You!