



# MicroStation CONNECT Edition What's New and Improved?

Årsmøde 2019  
Bentleyuser.dk

**Bentley**<sup>®</sup>  
Advancing Infrastructure

# WHAT'S NEW?

## MicroStation

With the MicroStation CONNECT Edition Update 13, you can speed and simplify the task of migrating your standards for use in CONNECT Edition. Now, it's easy to shorten the learning curve while adding powerful new capabilities for managing digital components and improving the realism of your visualizations. We have included some great features in the latest version.



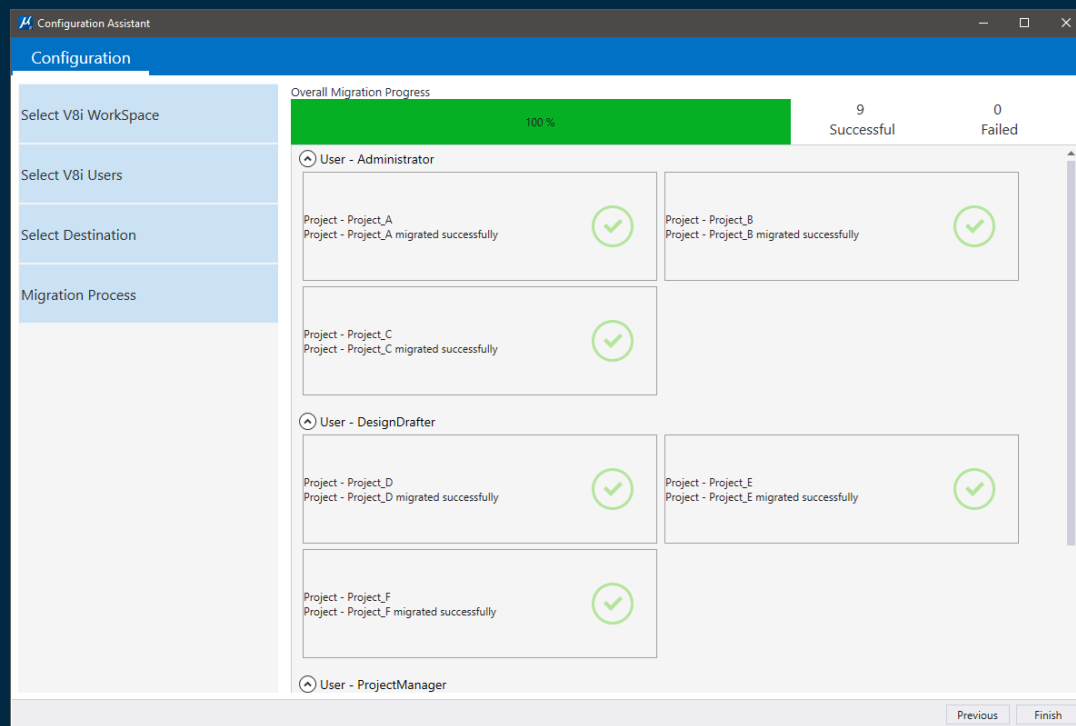


# MicroStation CONNECT Edition

**migrating your standards**

# migrating your standards

**Configuration Assistant** now helps facilitate your upgrade to MicroStation CONNECT Edition. Simplify the migration of legacy workspaces to CONNECT Edition Configurations.



# migrating your standards

## V8i **WorkSpace**



Interfaces



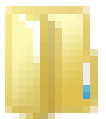
Projects



Standards



System



User

## CONNECT Edition **Configuration**



Organization



WorkSpace

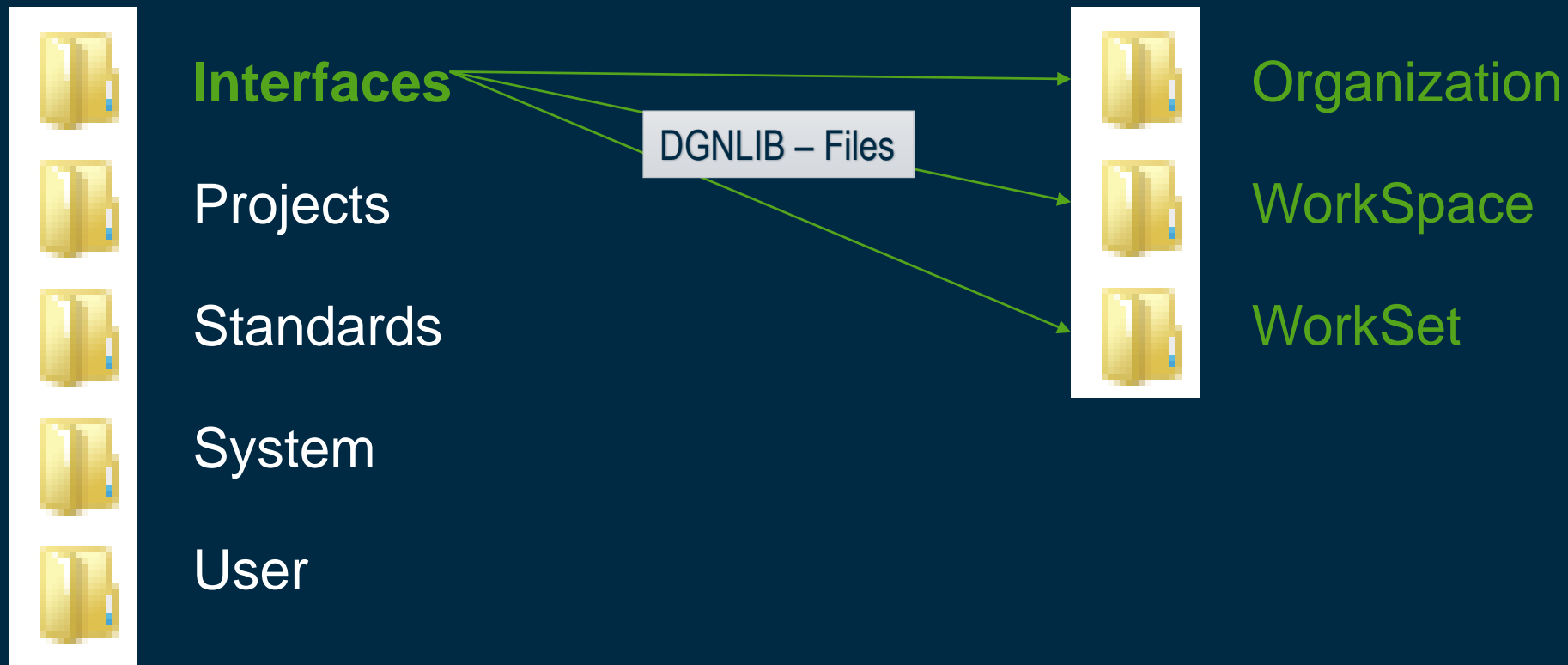


WorkSet

# migrating your standards

## V8i WorkSpace

## CONNECT Edition Configuration



# migrating your standards

## V8i WorkSpace



Interfaces



**Projects**



Standards



System



User

## CONNECT Edition Configuration



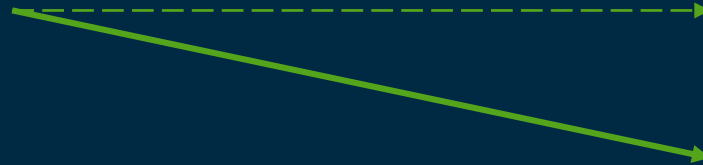
Organization



WorkSpace



**WorkSet**



# migrating your standards

## V8i WorkSpace



Interfaces



Projects



**Standards**



System



User

## CONNECT Edition Configuration



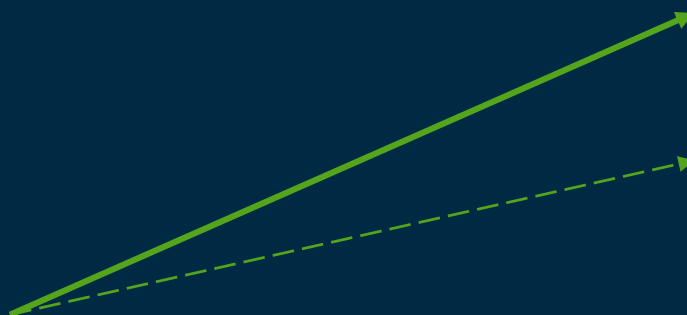
**Organization**



WorkSpace



WorkSet





# migrating your standards

## V8i WorkSpace



Interfaces



Projects



Standards



System



Modified files only!



User

## CONNECT Edition Configuration



Organization



WorkSpace



WorkSet

# migrating your standards

## V8i WorkSpace



Interfaces



Projects



Standards



System



User

## CONNECT Edition Configuration



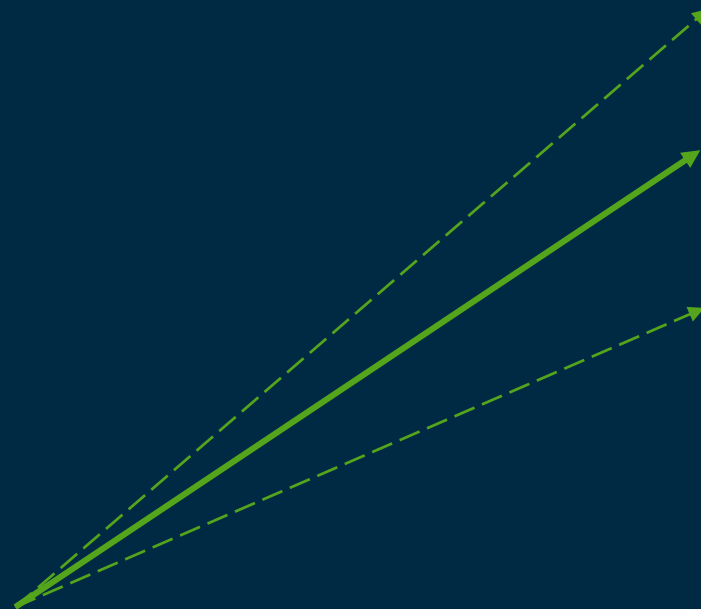
Organization



**WorkSpace**



WorkSet

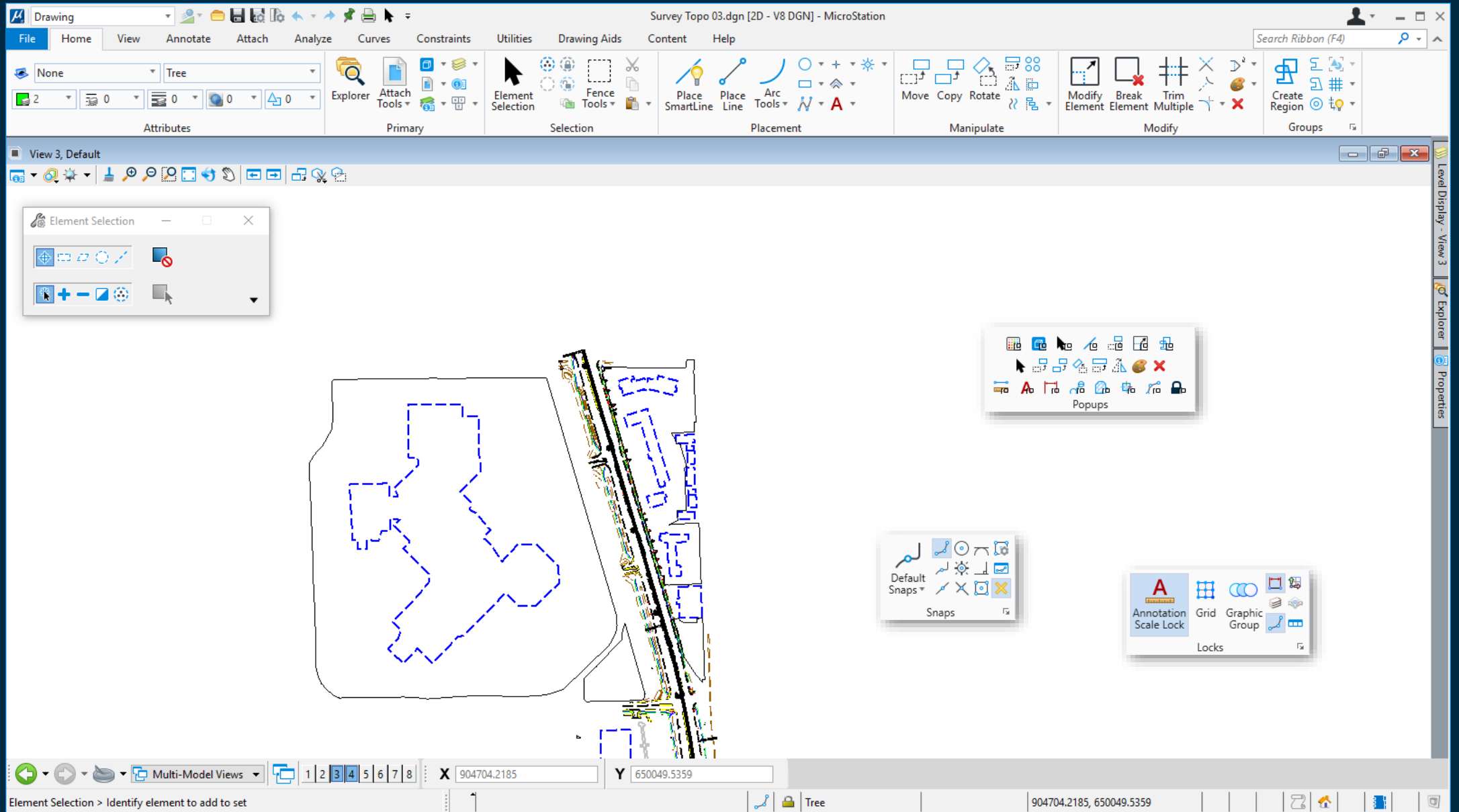


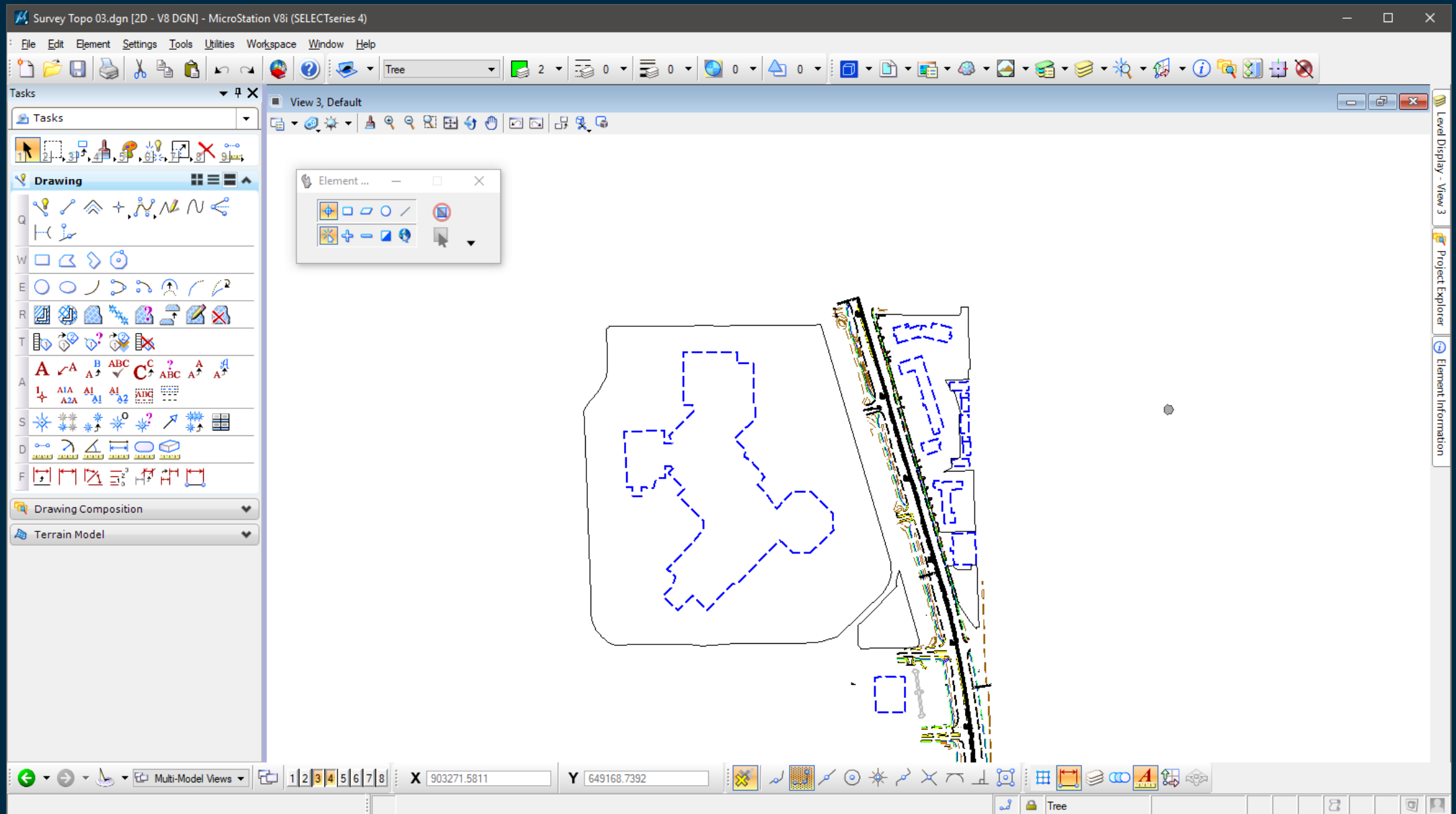


# MicroStation CONNECT Edition



**shorten the learning curve**



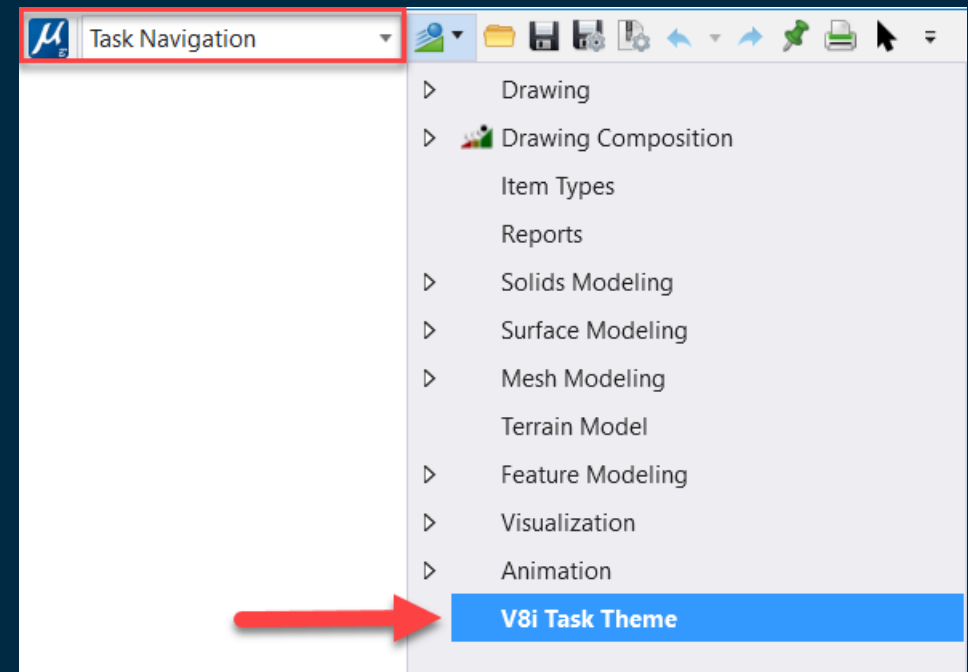


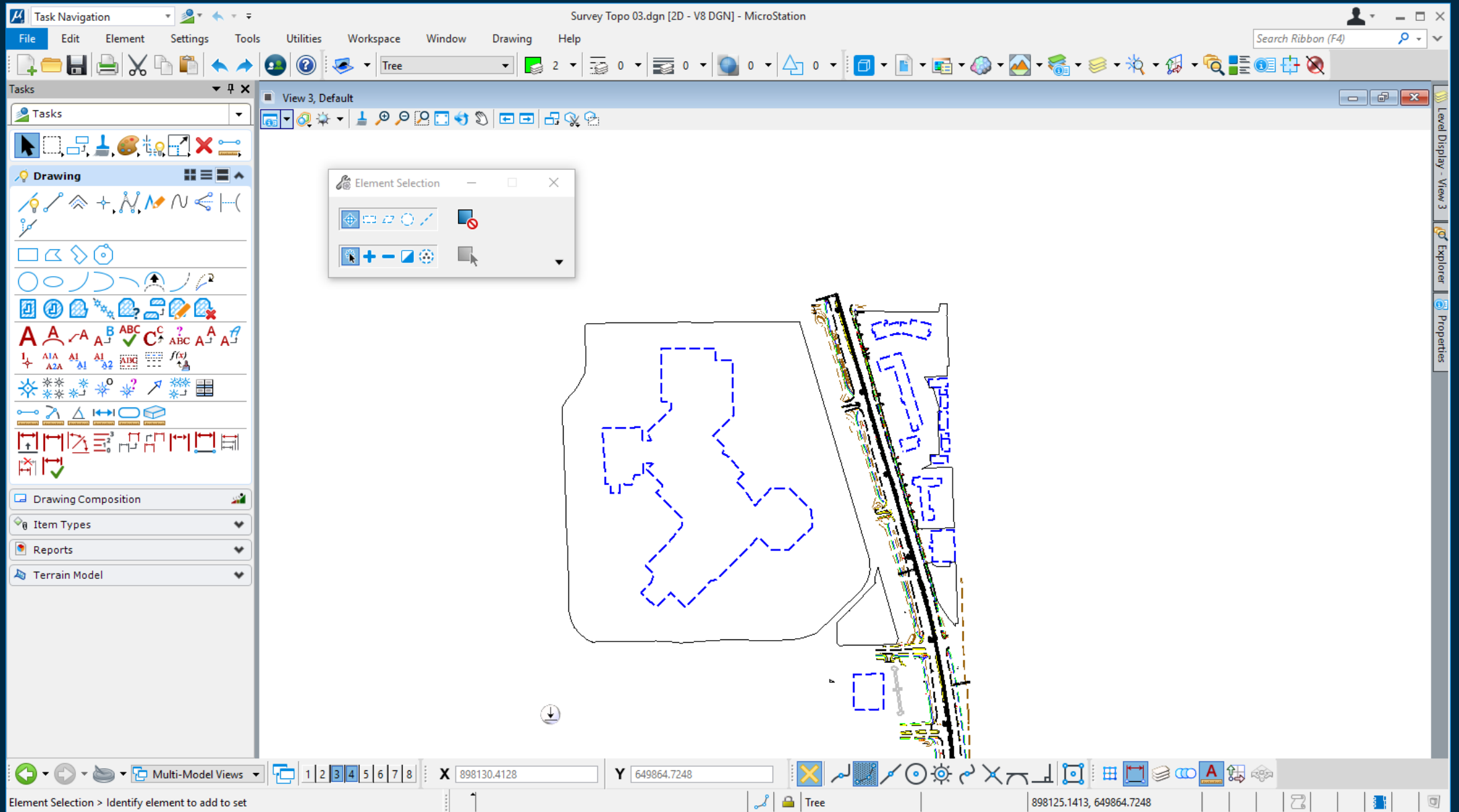


# shorten the learning curve

Now, you can use the  
**V8i Task Theme** in  
MicroStation CONNECT Edition.

Quickly access capabilities using  
a familiar interface while becoming  
proficient in using the CONNECT  
Edition ribbon interface.





Level Display - View 3  
Explorer  
Properties



# MicroStation CONNECT Edition



**managing digital components**




# managing digital components

You can now use **Components Center**, a cloud-based digital component library and catalog management service, to manage, access, and share your organization's component libraries across project teams and applications directly from within MicroStation.



# managing digital components





Start

Bentley Systems Inc


Ressourcen

Projekte





Ronald Zeike




Components Center


Library Management

Browse Brands...

Search for...

-- Select Search --






> Catalog

> Category


> Manufacturer


> Application

> State




Job Management






Clear All


Category: Door




Checked




Published



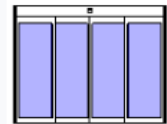
Published




Published



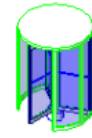
Draft




Draft




Draft



Draft



Published



Published

Door\_Interior\_Door\_Charis...

Doors\_Door-sets\_JELD-WE...

Doors\_Door-sets\_JELD-WE...

Doors\_Door-sets\_JELD-WE...

Door - test


Door-Sliding-Stanley\_Acces...


Door\_Interior\_Door\_Charis...


Door\_St StanleyRush-1500


Doors\_Door-sets\_JELD-WE...


Doors\_Door-sets\_JELD-WE...


 Doors


 No Tags Applied


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 Doors

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Version 2019.10.24.1



# managing digital components

The screenshot displays the MicroStation interface with the 'Building.dgn [3D - V8 DGN] - MicroStation' file open. The ribbon is set to 'Content', and the 'Components Center (T)' button is highlighted. The 'Components Center Explorer' window is open, showing a list of components under 'My Organization'. The 'Table\_RFA' component is selected, and its properties are displayed in the 'Table\_RFA' panel. The 'Place Parametric Cell' dialog is also open, showing the 'Active Cell' as 'M\_Table-Ellipse' and the 'Variation' as '1800 x 900mm'.

**Place Parametric Cell Dialog:**

Active Cell: M\_Table-Ellipse  
Variation: 1800 x 900mm  
Active Angle: 0,00 °  
☐ Interactive

**M\_Table-Ellipse Properties:**

M_Table-Ellipse	
Keynote	
Model	
Manufacturer	
Type Comments	
URL	
Description	
OmniClass Number	23.40.20.14.17
Assembly Code	
Cost	0,0000
Length	5 7/8ft
Width	2 15/16ft
Height	2 1/2ft
Top Material	
Base Material	

**Components Center Explorer:**

Filter By: ☐ Electrical Fixtures ☐ Fire Alarm Devices ☒ Furniture ☐ g ☐ Generic ☐ Generic Models ☐ LumenRT

Variations: ☒ 1800 x 900mm ☐ 1500 x 1200mm ☐ Type 3

**Table\_RFA Properties:**

Table_RFA	
Name	Table_RFA
Application	Revit 2019
Category	Furniture
Manufacturer	
State	Published
Tags	Revit

**Variation's Properties:**

Variation's Properties	
Name	1800 x 900mm
Half Width	450
Half Length	900



# MicroStation CONNECT Edition



**improving the realism**

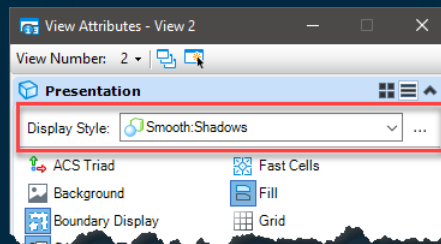
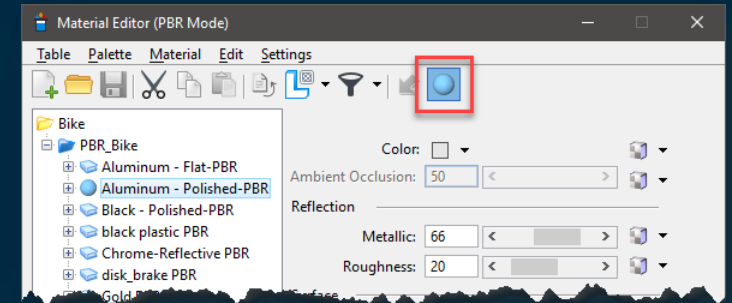
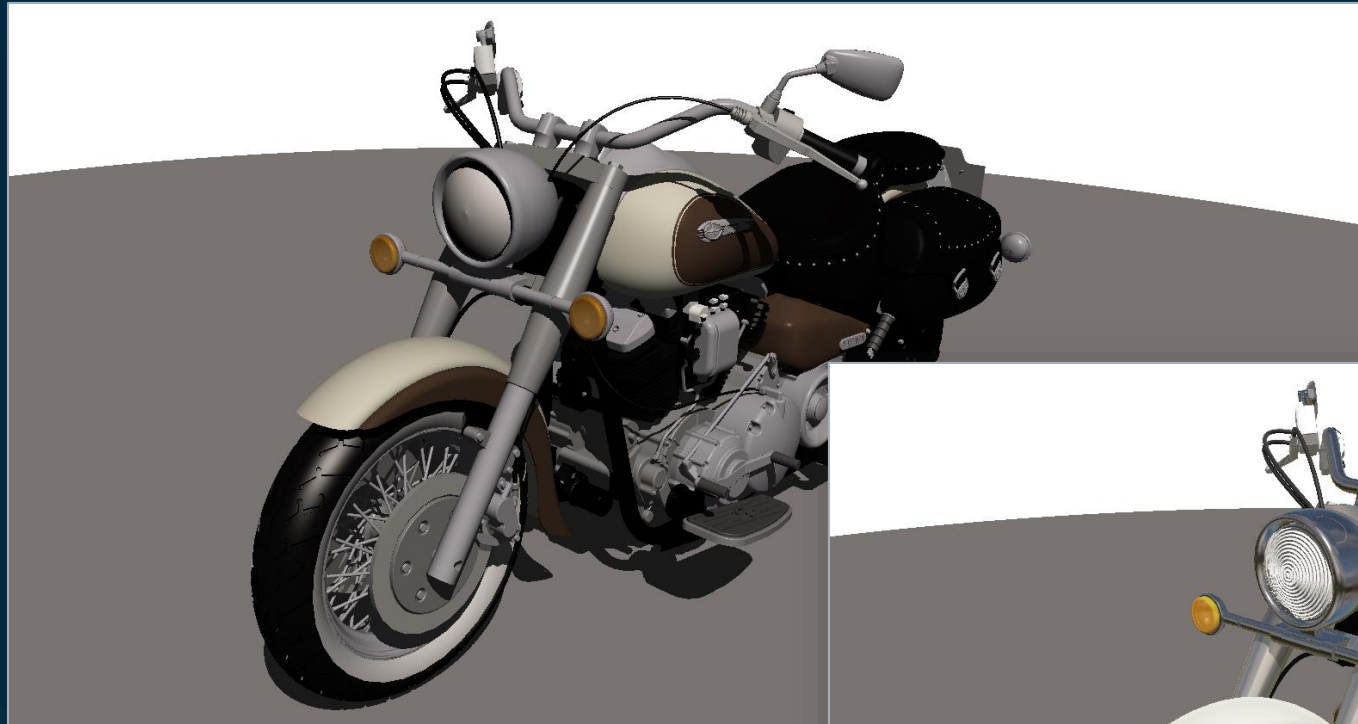


# improving the realism

MicroStation now supports **physically based rendering (PBR)**.  
Accurately represent a material's surface based on its  
interactions with light.



# improving the realism





# MicroStation CONNECT Edition



**some great features**





# some great features

## Item Types

**Pick lists** provide a way to let you use predefined values for item types properties. You can specify a pick list for an item in the property definitions of Item Types dialog, and then specify a pick list value in the Attach Item tool for the specified pick list.

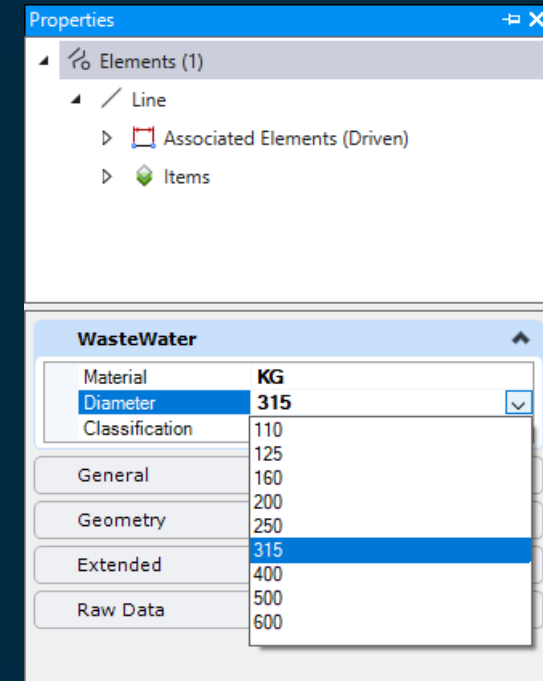
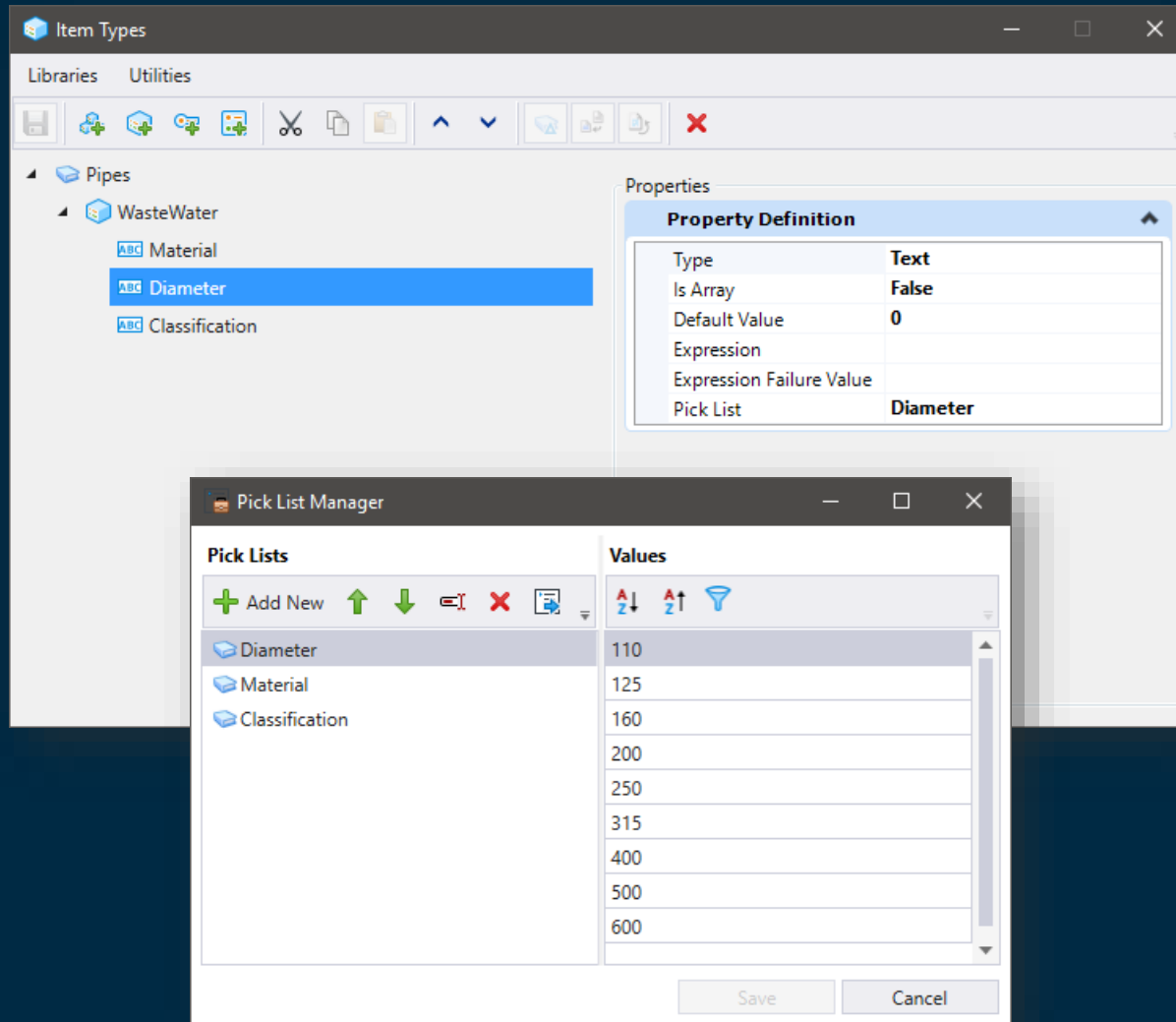
You can now define and attach an expression to an element's item type. The corresponding value of the expression will display in the element's Properties dialog.

**Expressions** can represent business data which otherwise cannot be graphically represented for an element. Expressions have specific syntax definitions based on their type like arithmetic, concatenation, condition, comparison and so on.

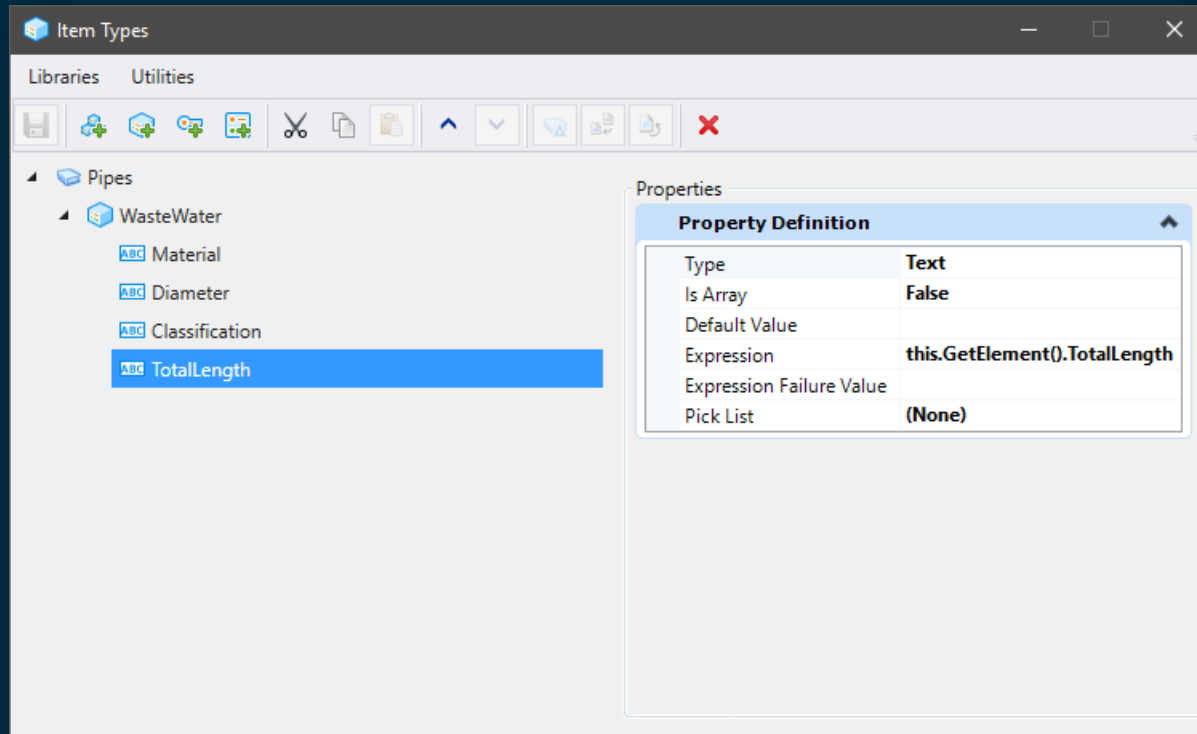
Using the **ItemType Import/Export** tool, you can export and import Item Type definitions and instances to and from Excel files. Export ItemType instances creates a report from your design elements. If you change data in Excel, you can import properties back to your design file elements.



# ItemTypes – Pick Lists



# ItemTypes – Expressions



- General Symbols (Arithmetic)
- String Concatenation
- If Symbols (Condition)
- If Smbol (Comparison)
- SystemString
- System Math
- System Path
- Element Properties
- Model Properties
- File Properties
- GetItemSameLibrary()
- GetItemDifferentLibrary()
- GetItemExtrinsicSchema
- GetItemRelatedExtrinsicSchema

# ItemTypes – Import / Export

Properties

Elements (1)

- Line
  - Associated Elements (Driven)
  - Items

**WasteWater**

Material	KG
Diameter	400
Classification	Public (K=1,0)
TotalLength	3200035,95178267

General

Geometry

Extended

**Raw Data**

Element ID	41180
Range Low	902175.66',646562.92'
Range High	902189.06',646882.65'
Size	88
Linkages	2
XAttributes	1

Item Type Import/Export

☐ Import ☒ Export

Selection Type: All

Export To: C:\Temp

Export Cancel

	A	B	C	D	E
1	ElementId	Classification	Diameter	Material	TotalLength
2	41176	Öffentlich (K=1,0)	200	KG	420004,570517684
3	41177	Öffentlich (K=1,0)	315	KG	3000004,61456312
4	41178	Public (K=1,0)	315	KG	2999994,99332916
5	41179	Öffentlich (K=1,0)	200	KG	441940,836169781
6	41180	Public (K=1,0)	500	HT	3200035,95178267
7	41181	Öffentlich (K=1,0)	400	KG	1300087,85632008
8	41182	Öffentlich (K=1,0)	400	KG	1752139,40703508
9	41183	Öffentlich (K=1,0)	200	KG	419998,490390823
10	41184	Öffentlich (K=1,0)	200	KG	489868,951149182
11	41185	Öffentlich (K=1,0)	315	KG	516352,63144483
12					

Item Type Import/Export

☒ Import ☐ Export

Selection Type: All

Import from: C:\Temp\Pipes.xlsx

Import Cancel

Properties

Elements (1)

- Line
  - Associated Elements (Driven)
  - Items

**WasteWater**

Material	HT
Diameter	500
Classification	Public (K=1,0)
TotalLength	3200035,95178267

General

Geometry

Extended

**Raw Data**

Element ID	41180
Range Low	902175.66',646562.92'
Range High	902189.06',646882.65'
Size	88
Linkages	2
XAttributes	1



# some great features

## 3D Modeling

The **Shrinkwrap Mesh** tool is used to create a watertight mesh around elements. Delete all the little details and unnecessary inside elements and decrease the file size and complexity of your 3d models.

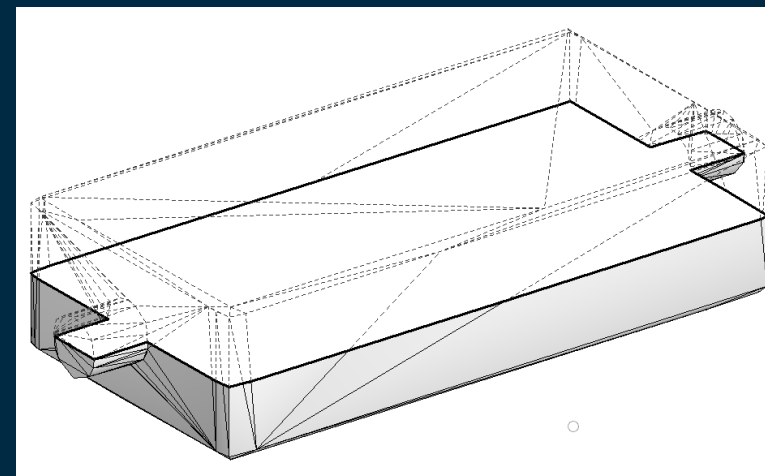
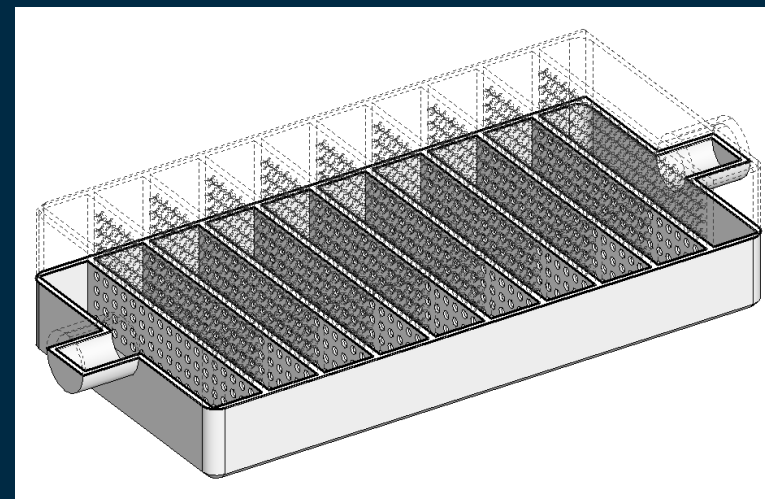
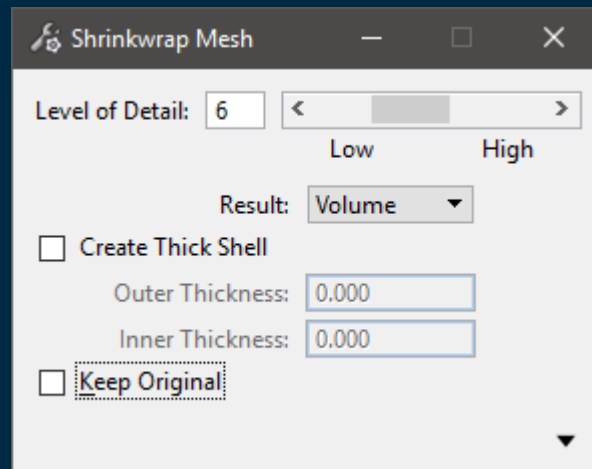
**Perforators** act as cutting elements on any target element and create a cut in the target element based on their profile.

You can now extract faces and edges from a parametric solid using the **Associative Extraction** tool. The extracted faces and edges will maintain association with the parent solid.





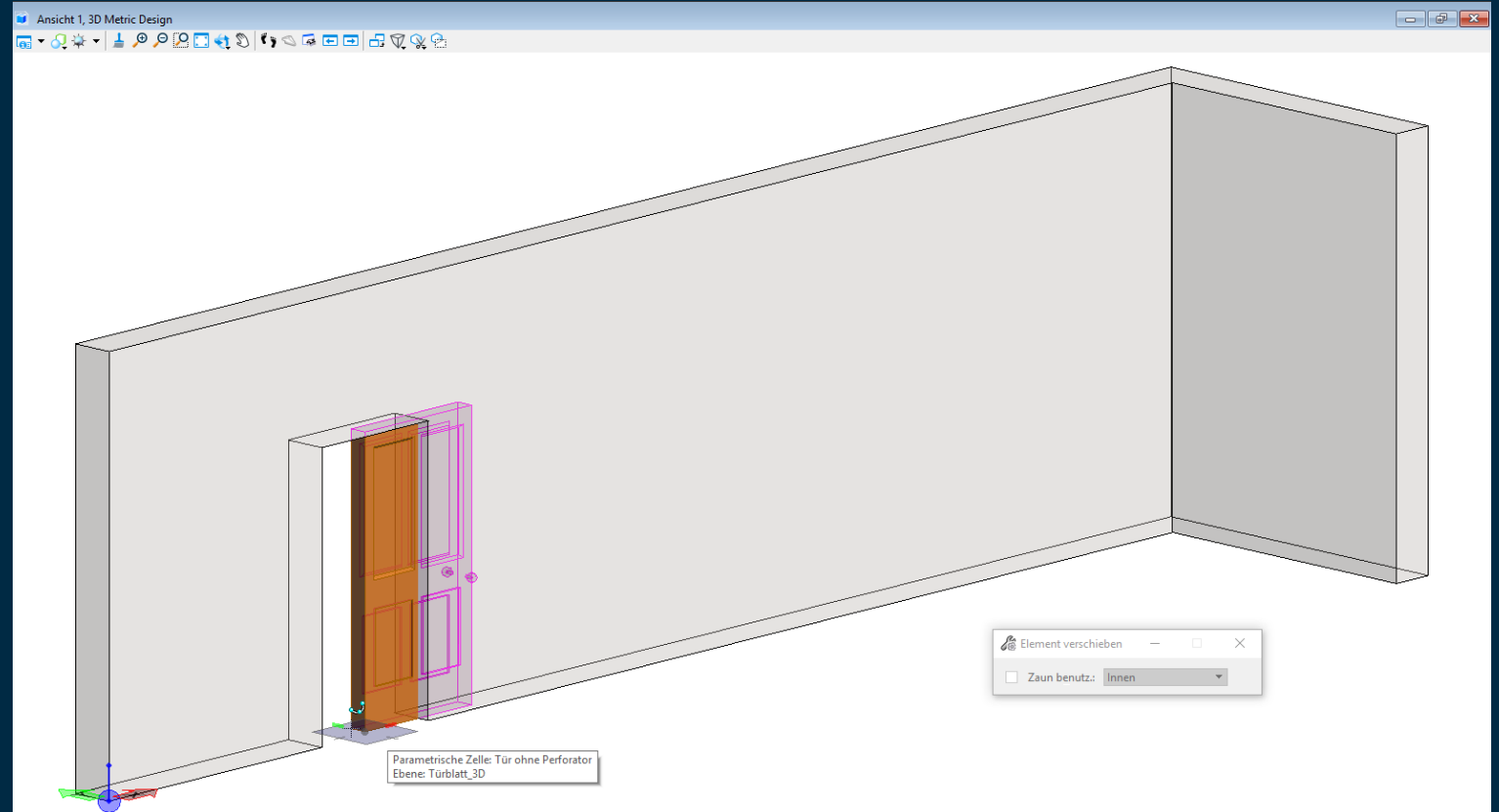
# 3D Modeling – Shrinkwrap Mesh



# 3D Modeling – Perforators

Previously in MicroStation:

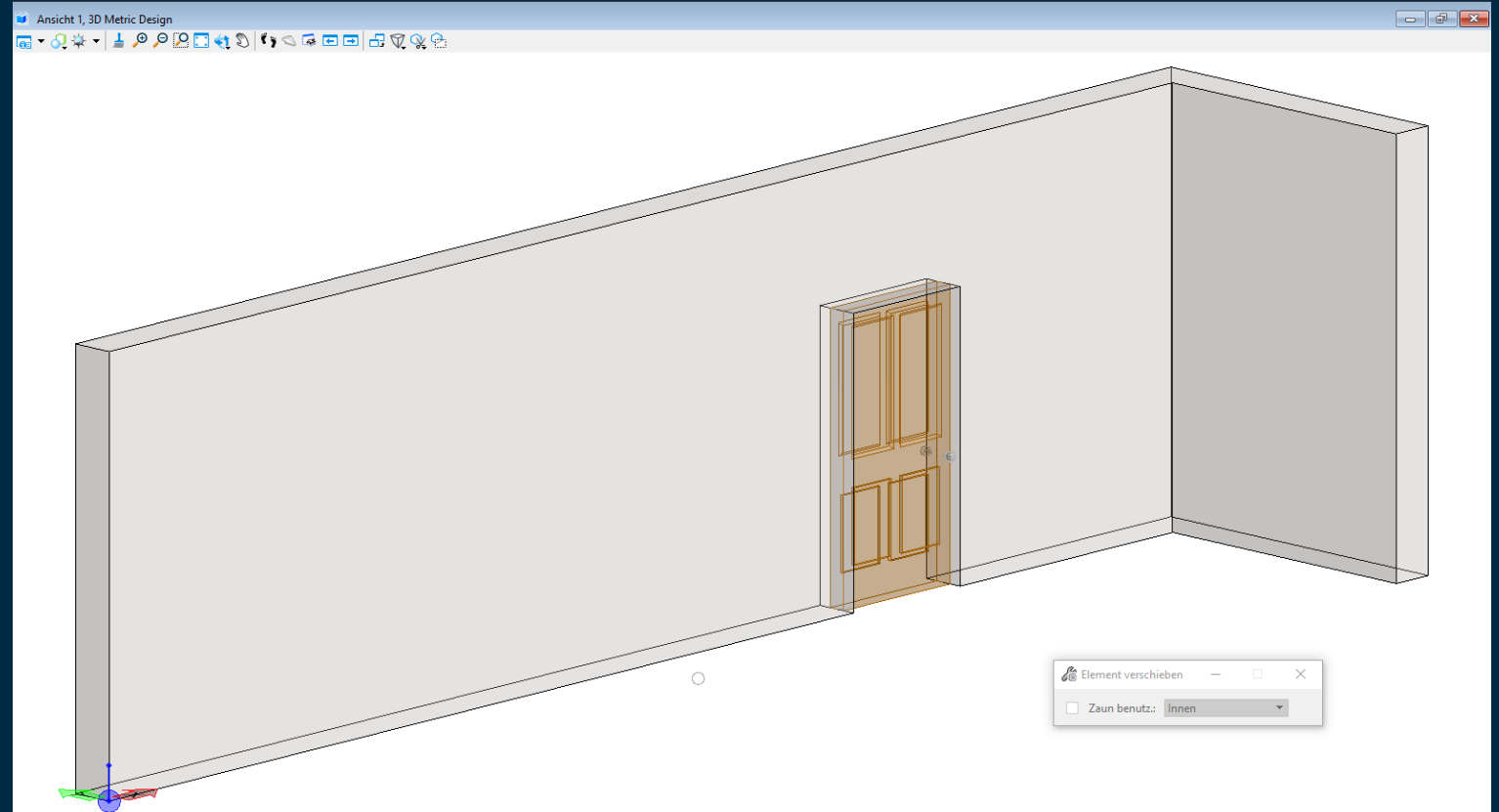
1. Draw a wall
2. Imprint opening
3. Create opening
4. Construct door or place as cell
5. Move door, opening will not follow



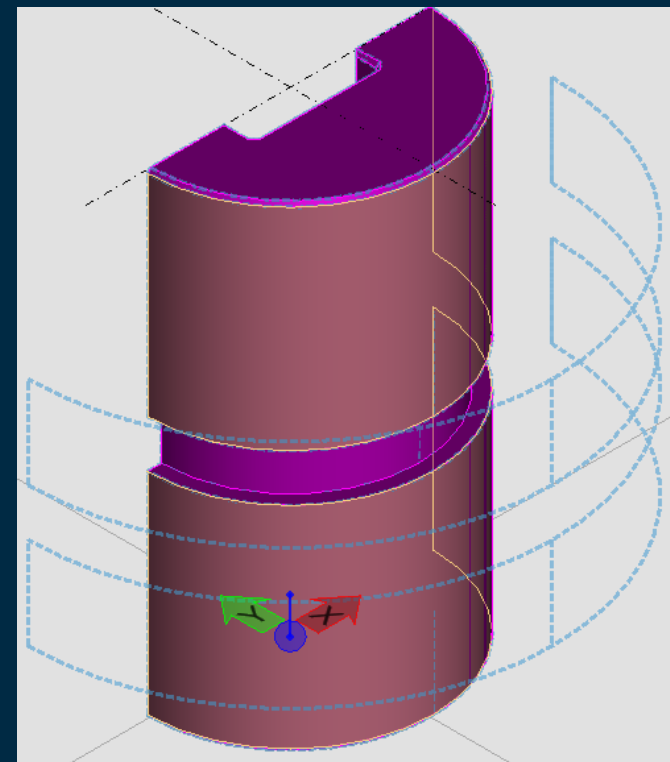
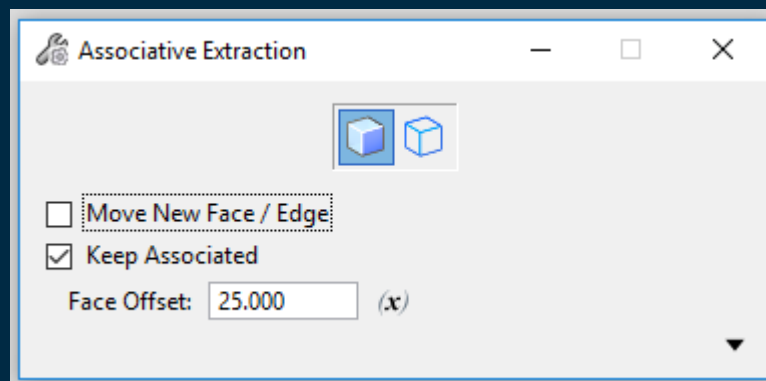
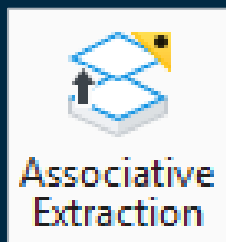
# 3D Modeling – Perforators

## Today in MicroStation CE

1. Draw a wall
2. Place parametric cell incl. perforator
3. Opening is associated to the door and will move automatically



# 3D Modeling – Associative Extraction





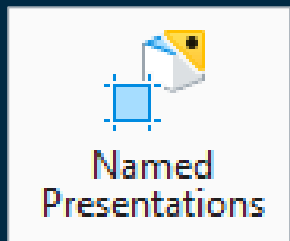
# some great features

## Documentation Center

You can use **Named Presentations** to represent different symbology for an element in different view orientations. For example, a door can be represented differently in top, front/rear elevation and isometric views.



# Named Presentations



Named Presentations				
		Named Presentations	Elements	View Orientation
>	👁	Model	6	Model
	👁	Top	2	Top
	👁	Front	1	Front
	👁	Right	0	Right
	👁	Isometric	0	Isometric
	👁	Bottom	0	Bottom
	👁	Back	0	Back
	👁	Left	0	Left

