



# Creating a Parametric Object in AECOsim

Brenden Roche

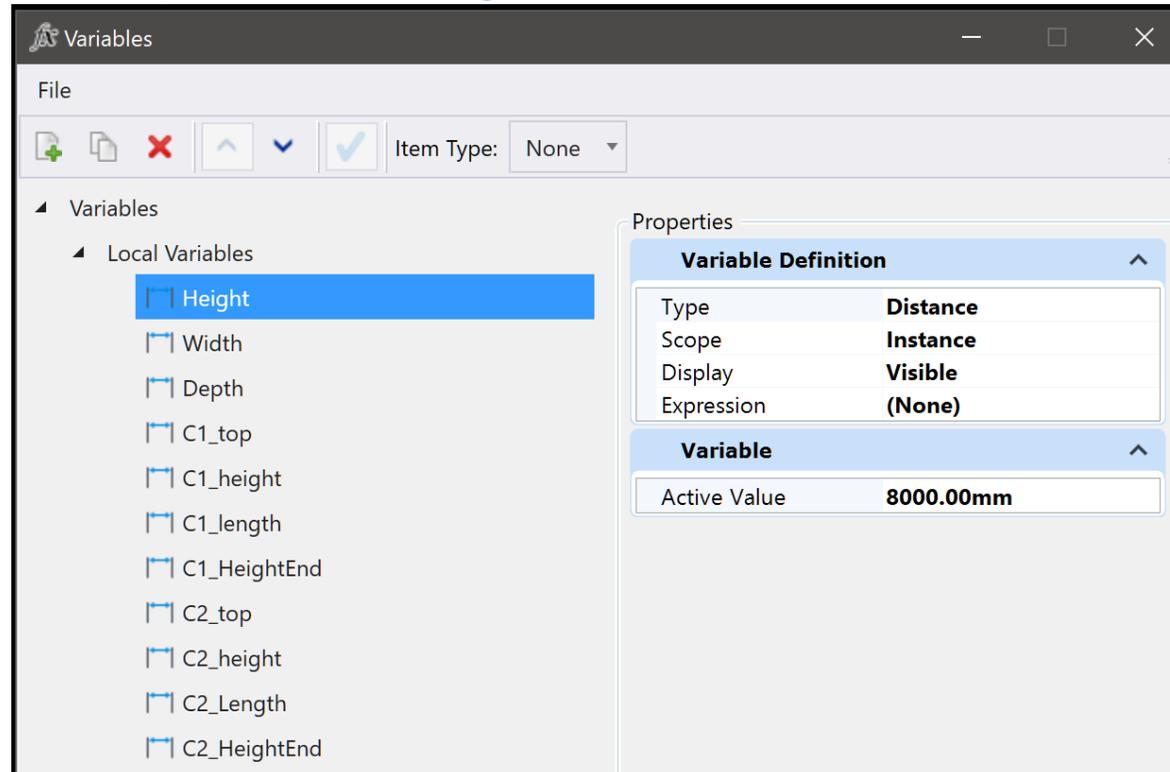
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# Process

- Create Geometry
  - Create Variables
  - 2d Profile
  - Add Constraints
  - Apply Variables... Test
- Create a Parametric Cell
- Create Property Definitions
- Create Datagroup Definition.
  - Connect definitions to variables

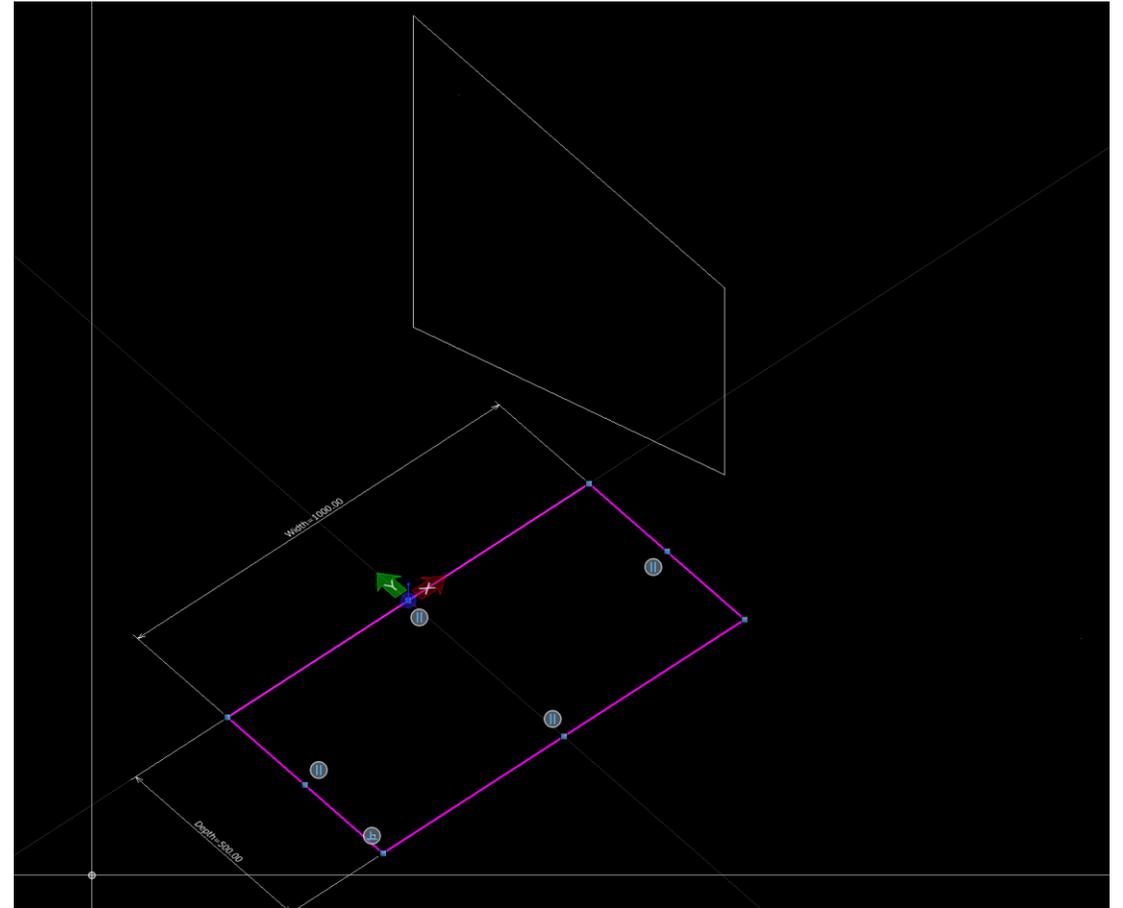
# Variables

- Begin with the end in Mind
  - Think about how you want to control the object moving forward
  - Create Variables with clear simple meaningful names

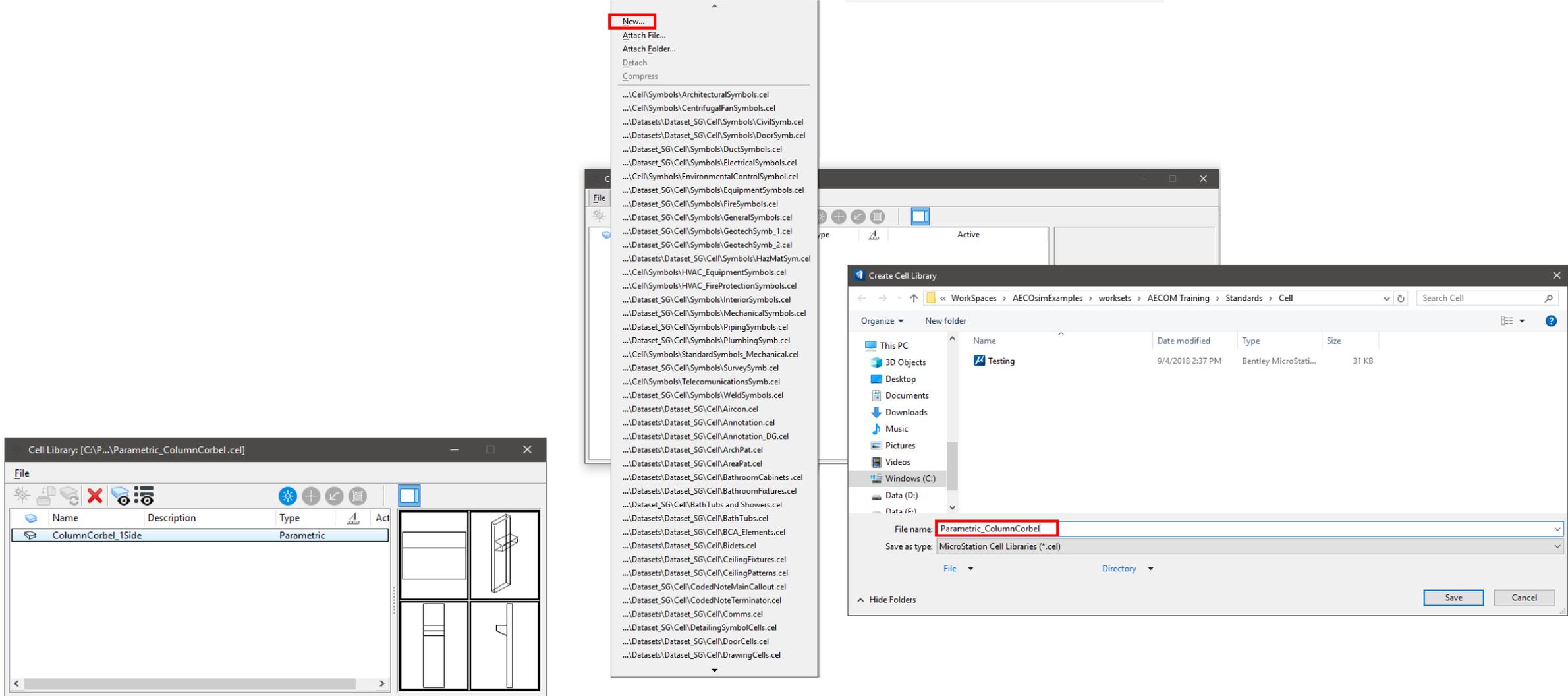


# Create 2D Profiles

- A well constrained profile.
- $DOF = 0$
- Test behaviour.

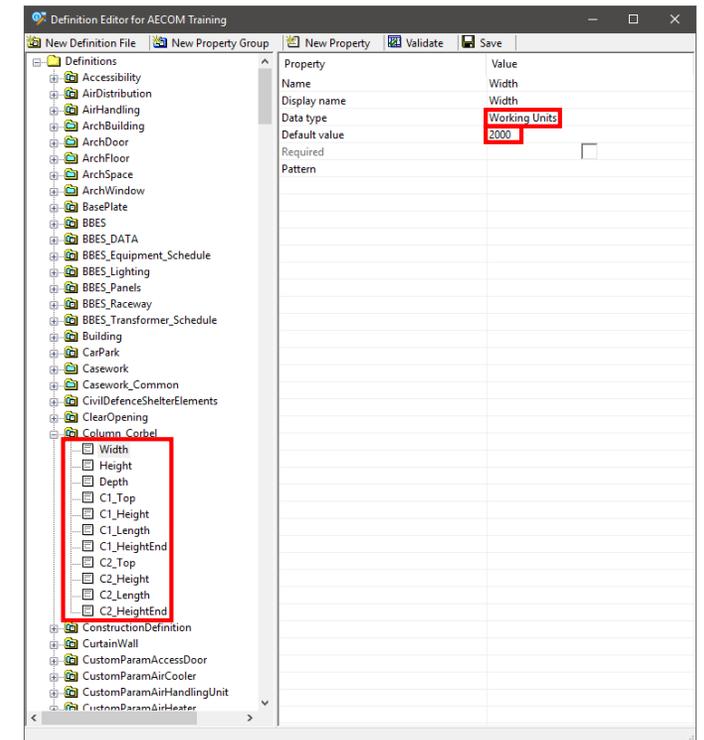
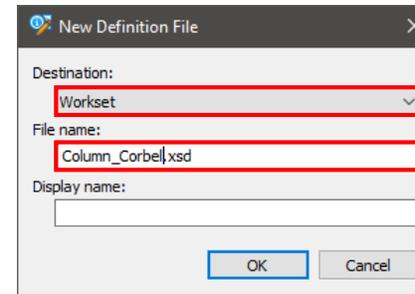
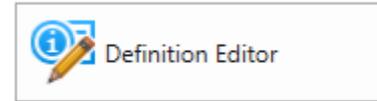


# Create a parametric Cell



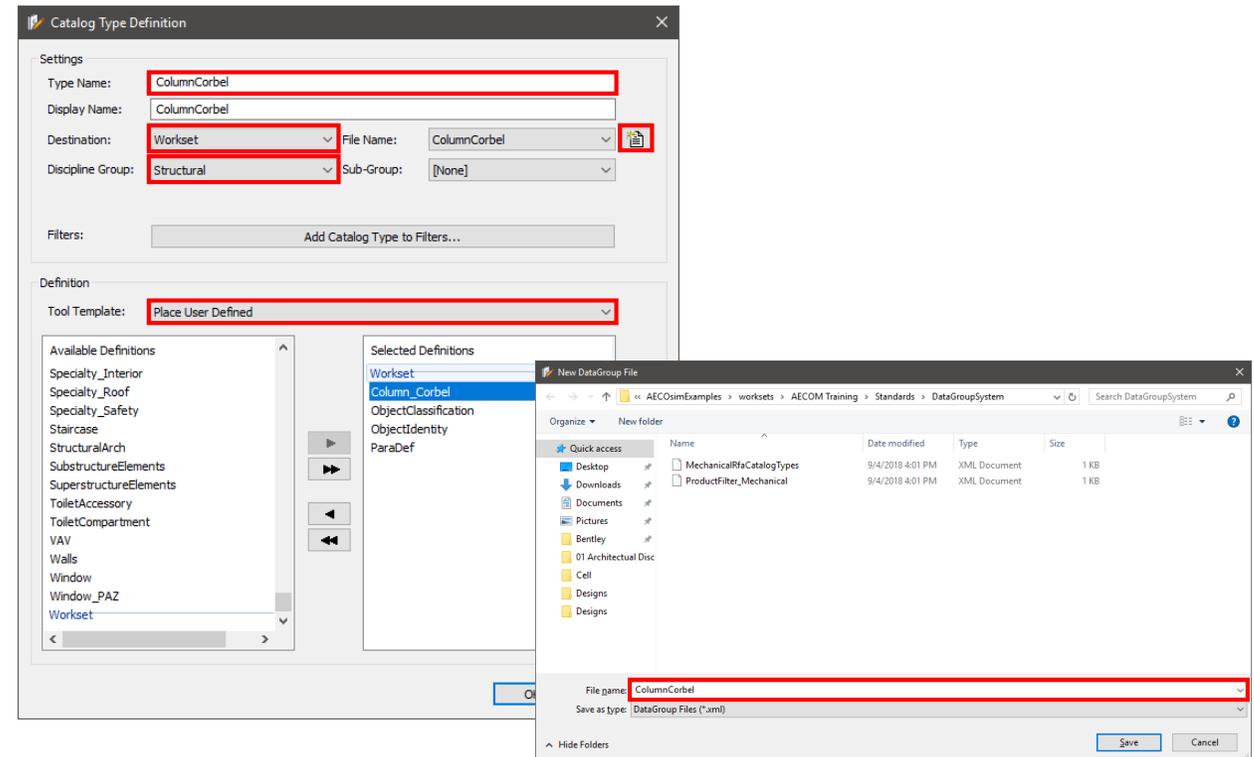
# Create Property Definitions

- Recreate Variables as DG Property Definitions
- Write them into your workset
- Use Working Units as data type



# Create Datagroup Definition

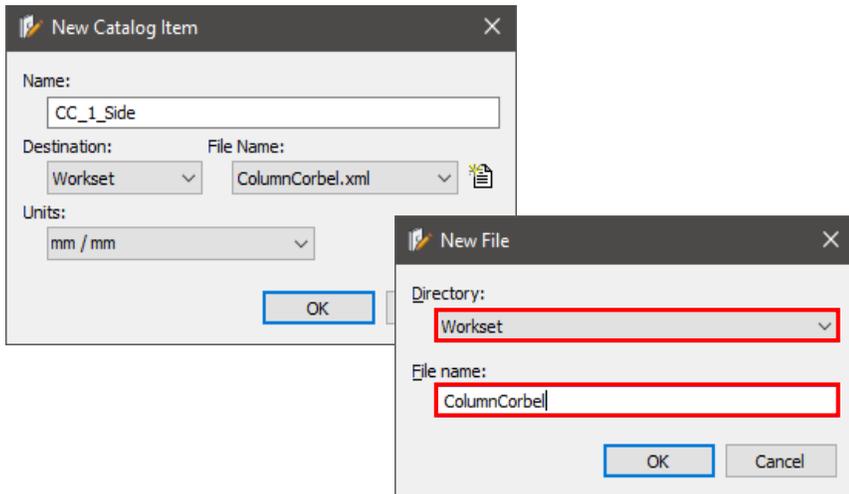
- New Catalog Type
  - Structural Discipline
  - WorkSet
  - Select new property definitions
  - Place user defined object



# New Item Type

- Add to WorkSet

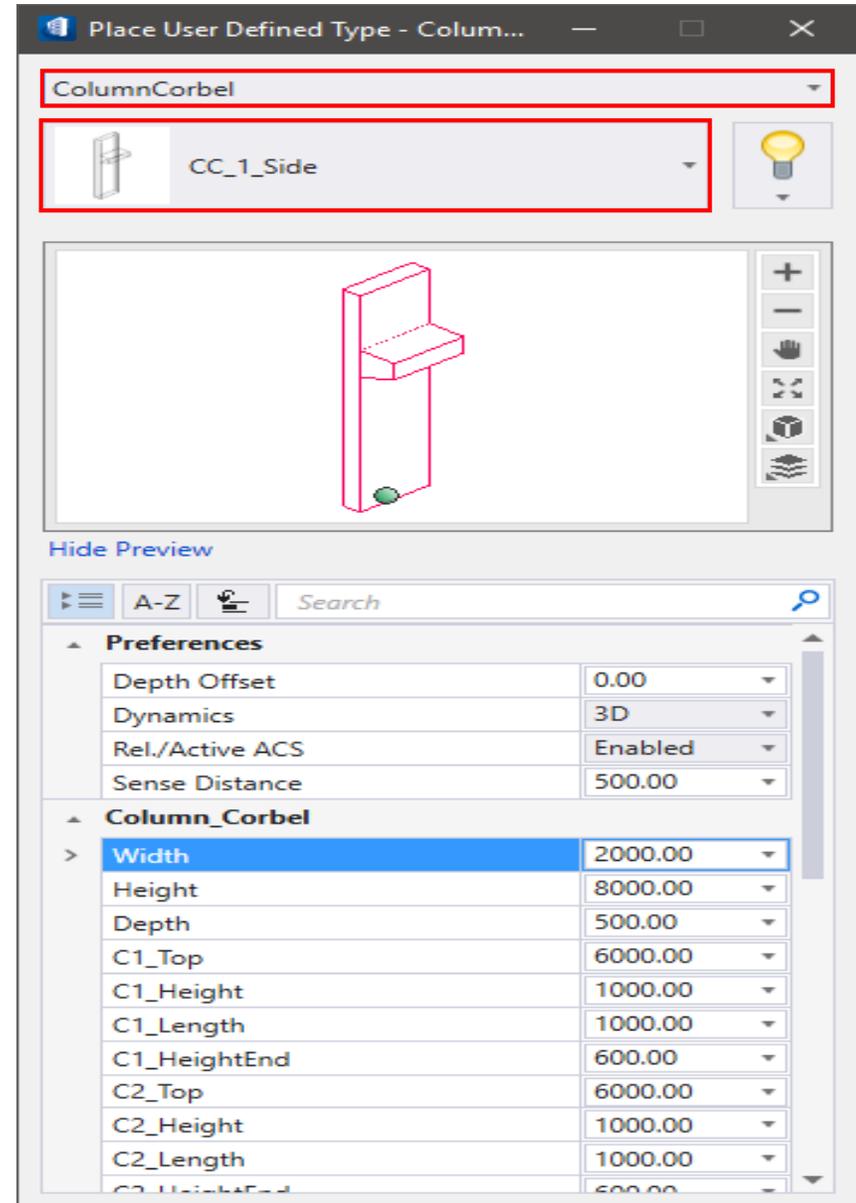
- Associates Properties with Variables



The screenshot shows the 'Catalog Editor for Training (Catalog Items)' interface. On the left is a tree view of 'Catalog Items' with 'Structural' expanded to show 'ColumnCorbel' and 'CC\_1\_Side'. On the right is a table with columns: Definition, Property, Value, Editable, Hidden, and Parametric Name. The 'Value' column and the 'Parametric Name' column are highlighted with red boxes. The 'Value' column contains numerical values for various properties, and the 'Parametric Name' column contains corresponding parametric names. The 'Parametric Name' column also contains 'CEL (parametric)' and 'ColumnCorbel\_1Side' for the 'ParaDef' rows.

Definition	Property	Value	Editable	Hidden	Parametric Name
Column_Corbel	Width	2000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Width
Column_Corbel	Height	8000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Height
Column_Corbel	Depth	500	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Depth
Column_Corbel	C1_Top	6000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C1_Top
Column_Corbel	C1_Height	1000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C1_Height
Column_Corbel	C1_Length	1000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C1_Length
Column_Corbel	C1_HeightEnd	600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C1_Height End
Column_Corbel	C2_Top	6000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C2_Top
Column_Corbel	C2_Height	1000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C2_Height
Column_Corbel	C2_Length	1000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C2_Length
Column_Corbel	C2_HeightEnd	600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C2_Height End
ObjectClassificati	MasterFormat		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ObjectClassificati	OmniClass		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ObjectClassificati	UniFormat		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ObjectClassificati	NATSPEC		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ObjectClassificati	CBI 2011		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ObjectIdentity	ID   Type ID		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ObjectIdentity	ID   Number		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ObjectIdentity	ID   Name (Alternate)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ObjectIdentity	ID   Description		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ObjectIdentity	ID   Keynote		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ObjectIdentity	ID   Asset Tag		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ObjectIdentity	ID   Notes		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ParaDef	Parametric   File Type	CEL (parametric)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ParaDef	Parametric   File Name	ColumnCorbel_1Side	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

# Place Object





Thank You

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