

Dok id: 1.2.4.14.22.2 Versjon: 2.00 Dokumenteier: Pawel Dominiak Godkjent av: Hans Bakken Målgruppe: [] Gyldig fra: 17.07.2023 Side: **1** av **6**

Using base points when working with IFCs

1. Add base reference model. Most often this will be an IFC from ARK or RIB.

Location	by:	Model	origin
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Add model							$-\Box$
	st	andard				•	Save
Files	F	K Tynset					Browse
Group	D	efault					•
Location by	М	odel origin				•	Edit
Offset	х	0.00 mm	Y	0.00 mm	Ζ	0.00 mm	Pick
Scale	1:	1.00		Rotati	ion	0.00	Pick
▶ More							
Add model							Cancel

2. If the IFC is not visible in the model, fit the work area.

View > Work area > To entire model in all/selected views



3. If the IFC is placed far from the model origin, it may be necessary to zoom to it.

Reference Models 0 X Interrupt Ð + Add model New group Properties... Search models... q Inquire Сору 🖌 💽 Default Copy special > O FK Tynset Move > Move special Delete Show with Exact Lines Hide Show Only Selected Create View > Task > Zoom > 🎾 Zoom Selected 2 Update window 🏓 Zoom In Next window Θ Zoom Out 🎾 Zoom Original 🞾 Zoom Previous Active Window >

Select ifc in the list, Right button > Zoom > Zoom Selected

4. Open Menu > Project properties > Base points.

Click **Pick** button for **Location in the model** then click the project origin, which should be defined by the architect and included in the ifc. If the project origin is not defined, or if it makes more sense, any other point can be chosen as well.

Here we use a grid intersection close to the part of the building that we will design.

	Base point		×
	Name	•	+
	Description		
	Coordinate system		
	East coordinate (E)	0.00 mm	
	North coordinate (N)	0.00 mm	
	Elevation	0.00 mm	
	Latitude	0.00	
	Longitude	0.00	
	Location in the model		Zoom to
		X 0.00 mm Y 0.00 mm Z 0.00 mm	Pick
	Angle to North	0.00	Pick
Intersection point	Modify Proje	ct base point	Close

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5. Now click Pick button for Angle to North.

Select a point in the north direction from the previously chosen location. The line created by these two points will later become aligned with the direction of the Y axis.

	Base point			×
	Name		•	+ 🕯
Intersection point				
	Description			
	Coordinate system			
	East coordinate (E)	0.00 mm		
	North coordinate (N)	0.00 mm		
	Elevation	0.00 mm		
	Latitude	0.00		
	Longitude	0.00		
	Location in the model			Zoom to
		X -144167.02 mm Y 118051.22 mm Z	0.00 mm	Pick
	Angle to North		0.00	Pick
	Modify Proj	ect base point		Close

6. Set X, Y and Z offsets to 0 and invert the Angle to North.

Location in the model		Zoom to
	X -144167.02 mm Y 118051.22 mm Z 0.00 mm	Pick
Angle to North	56.8060628222802	Pick
Location in the model	V	Zoom to
	X 0.00 mm Y 0.00 mm Z 0.00 mm	Pick
Angle to North	-56.8060628222802	Pick

7. Fill in the Name of the base point, check Project base point and click Modify.

Base point)	×
Name	Nullpunkt							•	+	Î	
Description											
Coordinate system											
East coordinate (E)	0.00 mm										
North coordinate (N)	0.00 mm										
Elevation	0.00 mm										
Latitude	0.00										
Longitude	0.00										
									_		
Location in the model									Zo	om to	
		Х	0.00 mm	Y	0.0	0 mm	Z	0.00 mm	F	Pick	
Angle to North						-56.806	506	28222802	F	Pick	
Modify Proje	ct base point								C	lose	

8. Add the same IFC again, this time located by the created base point.

Location by: Base point: ...

Now the north direction should be aligned with the Y axis.

Add model				- 🗆 X
	standard		•	Save
Files	FK Tynset			Browse
Group	Default			•
Location by	Base point: Nullpu	nkt	•	Edit
Offset	X 0.00 mm	Y 0.00 mm Z	0.00 mm	Pick
Scale	1: 1.00	Rotation	0.00	Pick
More				
Add model				Cancel

- 9. If the IFC is again not visible in the model, repeat steps 2 and 3.
- 10. Click Pick button for Location in the model and select the same point as in step 4, this time in the second IFC, rotated according to the base point.

		Base point			×
		Name	Nullpunkt	•	+ 💼
		Description			
		Coordinate system			
		East coordinate (E)	0.00 mm		
		North coordinate (N)	0.00 mm		
		Elevation	0.00 mm		
Ī		Latitude	0.00		
_		Longitude	0.00		
		Location in the model			Zoom to
	Intersection point		X 0.00	mm Y 0.00 mm Z 0.00 mm	n Pick
		Angle to North		-56.806062822280	2 Pick
		Modify 🖌 Proje	ct base point		Close

11. Invert the X and Y offsets. Adjust the Z offset if necessary.

Location in the model		Zoom to
	X 19860.09 mm Y 185272.22 mm Z 0.00 mm	Pick
Angle to North	-56.8060628222802	Pick
Location in the model		Zoom to
	X -19860.09 mm Y -185272.22 mm Z 0.00 mm	Pick
Angle to North	-56.8060628222802	Pick

12. Click Modify and then Yes to confirm adjustment of the IFC location.

Base point	
Do you want to modify related referen	ice model locations?
Yes	No

13. The IFC should now be placed in the model origin and aligned with the axes.



14. Remove the original IFC, keeping only the one located by the base point.

٥	Reference Model	5		0 X	>
+	- Add model	≡ New group		o	0?
Se	earch models			Q	3
4	• Default			Delete	
	• FK Tynse	t	QO =	ŀ	Ŷ
	FK Tynse	t			

15. Repeat step 2 to reduce previously extended work area to the now aligned IFC.



16. Insert additional IFCs using the created base point.

If they are not placed correctly, more base points may be created as necessary.

17. When exporting IFCs use the same base point as well.

Location by: Base point: ...

Save Load standard	✓ Save As	Hel
arameters Advanced		
Output file	.\IFC\out	
File format	IFC	•
Export type	Surface geometry	-
Additional property sets	<new></new>	✓ Edit
Export	All objects	•
Location by	Base point: Nullpunkt	-
		View Log File
		View Log File