AUTODESK **UNIVERSITY** 2015

IM12101

Using FDS to Create Compelling Bid Packages

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Handout Objectives

- Quickly build a library of equipment for bid
- Create visualizations to compliment a bid
- Create a bill of equipment

Description

Selling complex and customized equipment is challenging at best, and creating a compelling bid package is critical to winning more business. This class will show how to use Factory Design Suite software to accelerate the creation of a build proposal, how to create compelling content, and how to create a bill of equipment required for costing the proposal.

Your AU Experts

Jim Byrne joined Autodesk in 2013 as a Manufacturing Technical Marketing Specialist. He is responsible for producing marketing content for Simulation products for FEA and CFD as well as content creation for Factory Design Suite.

Prior to joining Autodesk, Jim worked for a local reseller for 14 years selling and supporting CAD, Simulation, and data management solutions for several companies in Michigan, Indiana, and Ohio. Jim also has three years of experience in the industry as a machine designer.

Ashley Kerth joined Autodesk this year 2015. He is the product manager for Autodesk Factory Design Suite.

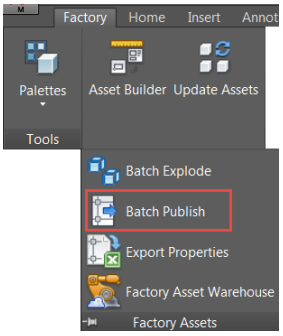
Prior to using this handout…

1. Unzip Vimek Factory.zip to C:/FDS/…

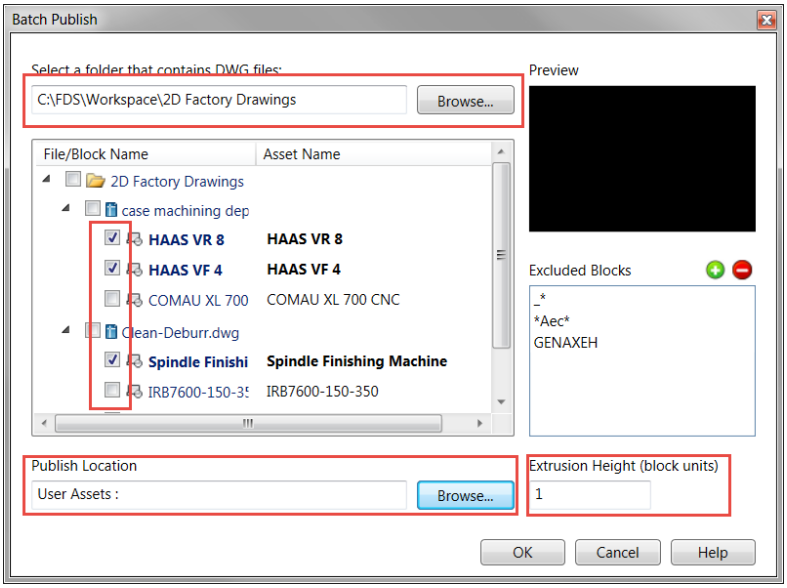
Building a library of equipment for bid

Batch asset creation

1. Start a New drawing.
2. Click on “Batch Publish” in the Factory Assets flyout in the Factory tab.

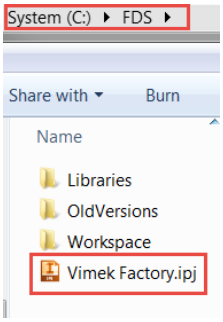


3. Choose a folder that contains DWG drawings containing blocks.
4. Check the boxes for the blocks you would like to convert to factory assets.
5. Choose the location in the factory asset library.
6. Specify a depth for the primitive solid or extrusion for all assets or different depths for selected assets.

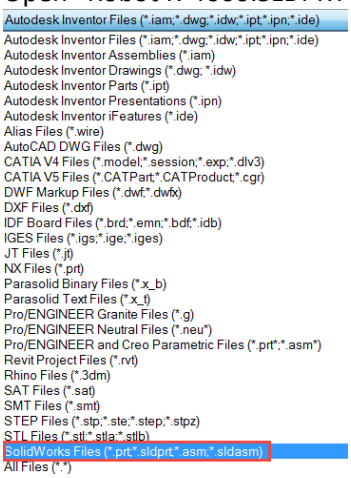


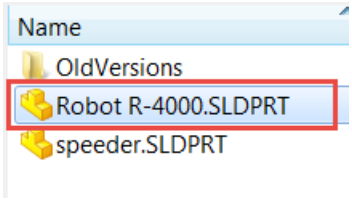
Creating assets from other CAD systems

1. Open Inventor 2016. Use the “Vimek Factory” project folder.

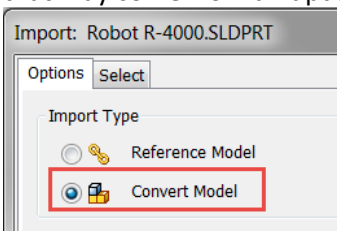


2. Open “Robot R-4000.SLDPRT” from the “SW” folder.

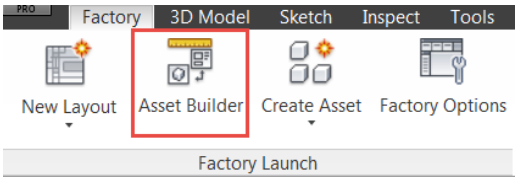




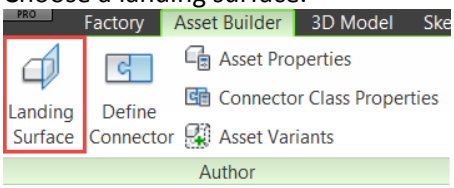
3. Convert the model to Inventor. Referenced can certainly be used if there are possible changes that may come from an updated SolidWorks file.

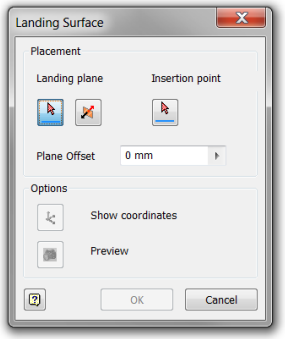


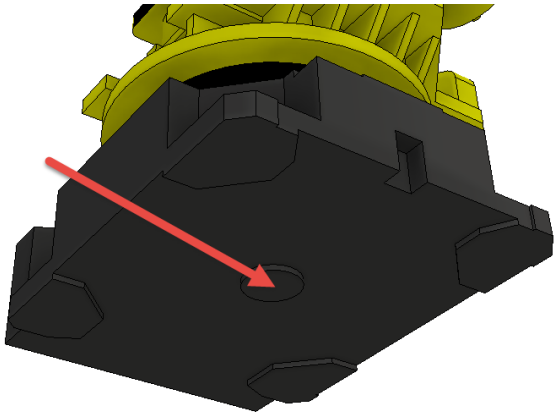
4. Turn on the Asset Builder.



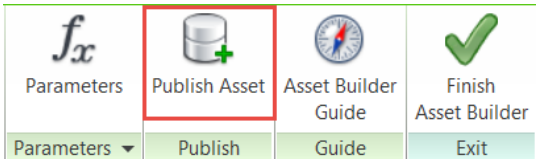
5. Choose a landing surface.



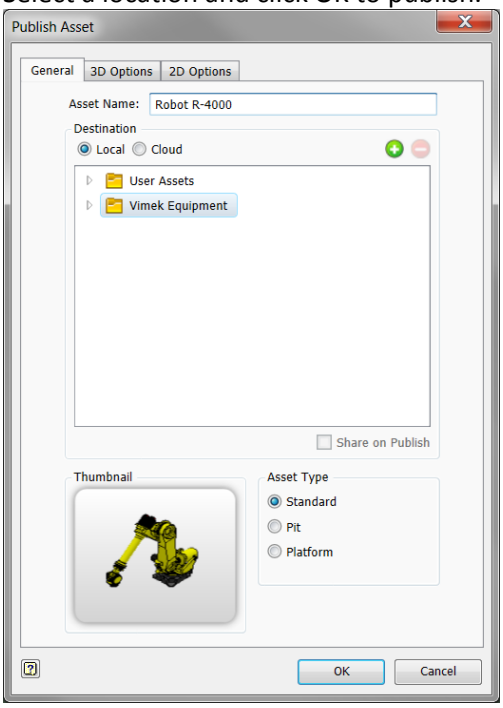




6. Publish the asset.



7. Select a location and click OK to publish.

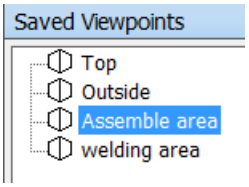


Create visualizations to compliment a bid

1. Start NavisWorks

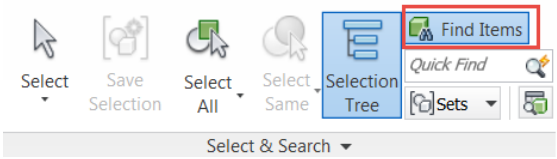
2. Open “Entire Factory.nwf” (C:\FDS\Workspace\Factory Layout)

3. Click on “Assemble area” under Saved Viewports

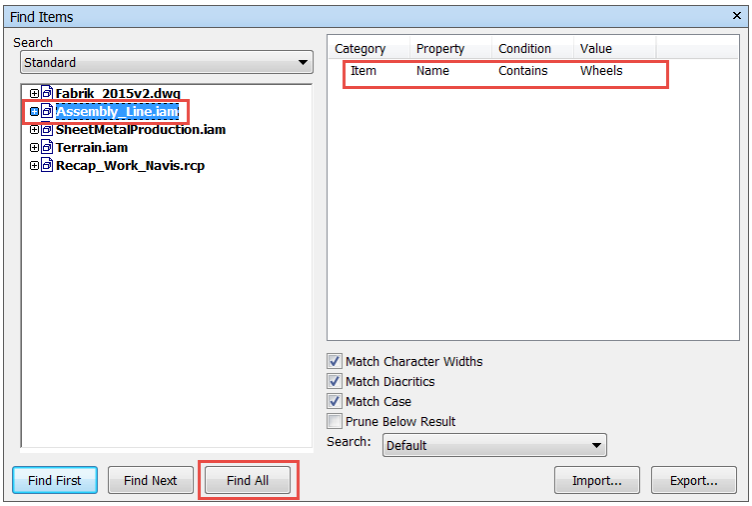


4. Optional – Use “Walk” to find a desired location in the building

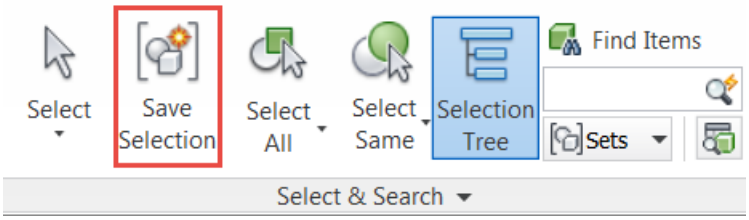
5. Click “Find Items” in the Home tab



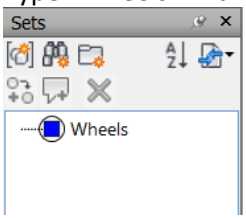
6. Select “Assembly_Line.iam”
7. Search for “Item, Name, Contains, Wheels”
8. Find All



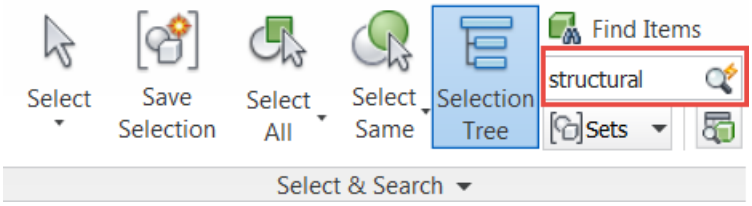
9. Click “Save Selection” in the Home tab



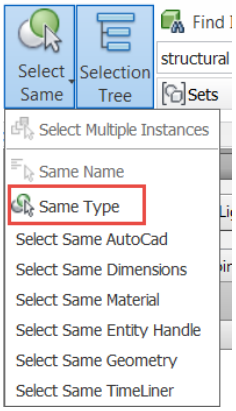
10. Type “Wheels” in the sets dialog



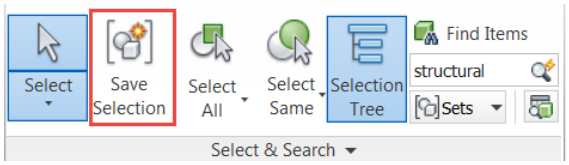
11. Type “Structural” in Quick Find in the Home tab



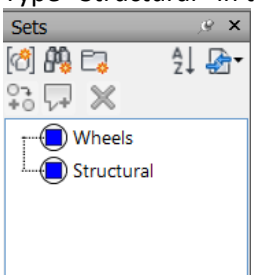
12. Select “Same Type” in the Home tab



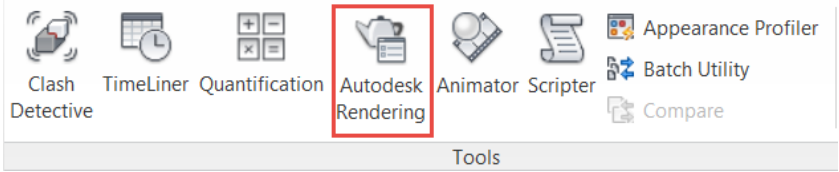
13. Click “Save Selection” in the Home tab



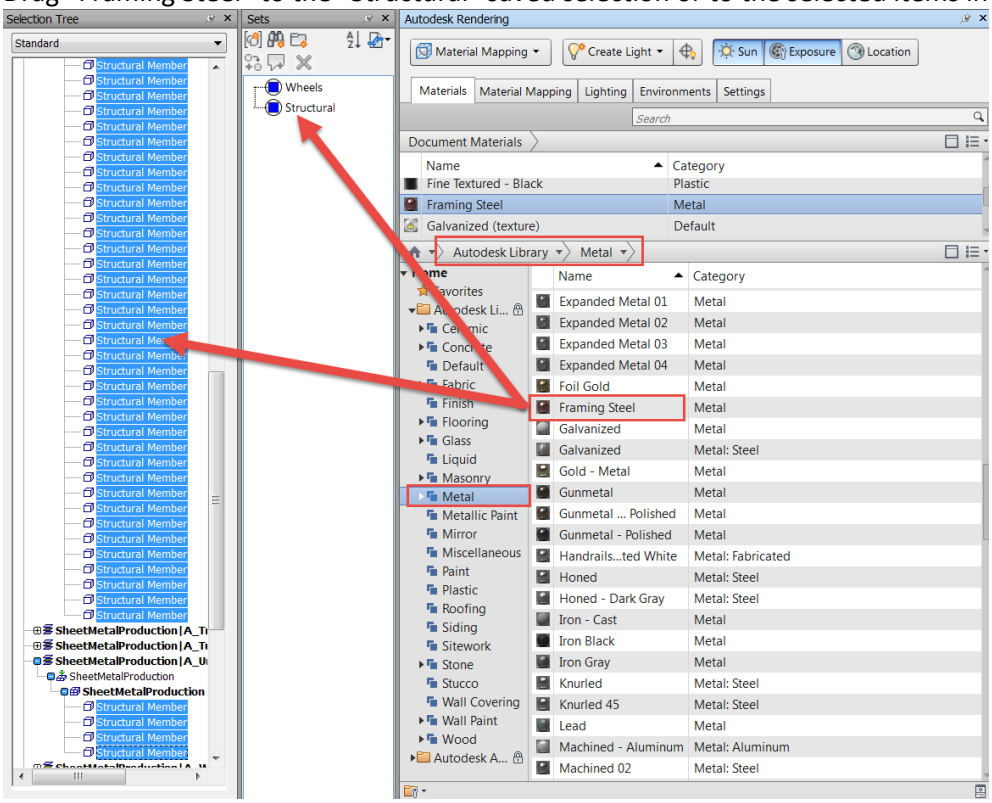
14. Type “Structural” in the Sets dialog



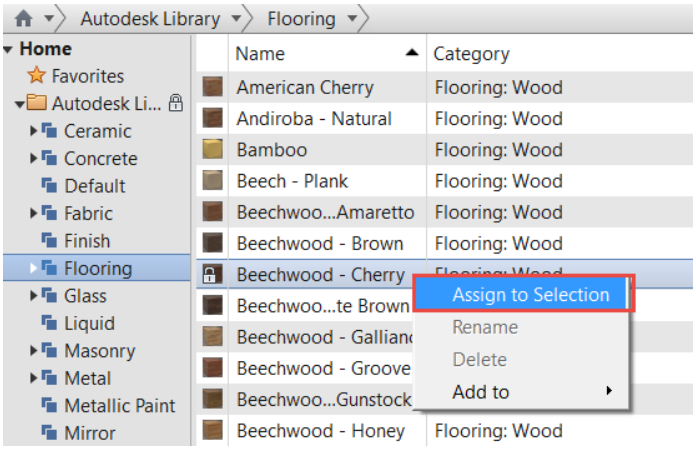
15. Click on “Autodesk Rendering” in the Home tab



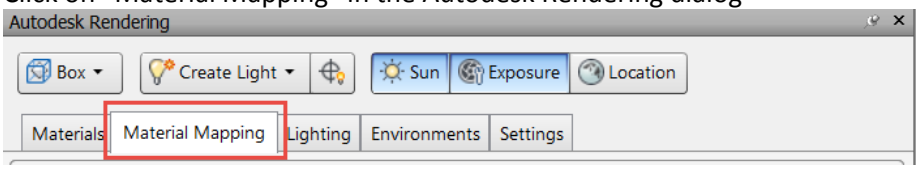
16. Find “Framing Steel” in the Autodesk Library in the Metal category
17. Drag “Framing Steel” to the “Structural” saved selection or to the selected items in the browser



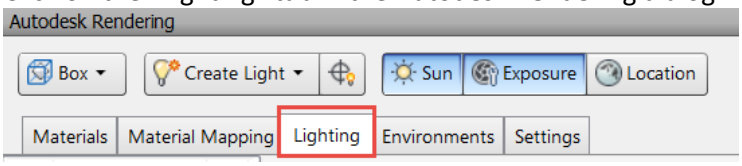
18. Select the floor in the graphics area
19. Pick any desired floor
20. Right click “Assign to Selection” or drag the texture to the floor in the graphics view



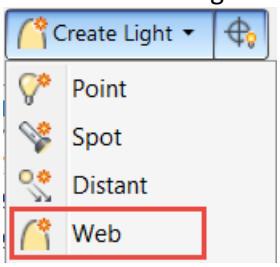
21. Click on “Material Mapping” in the Autodesk Rendering dialog



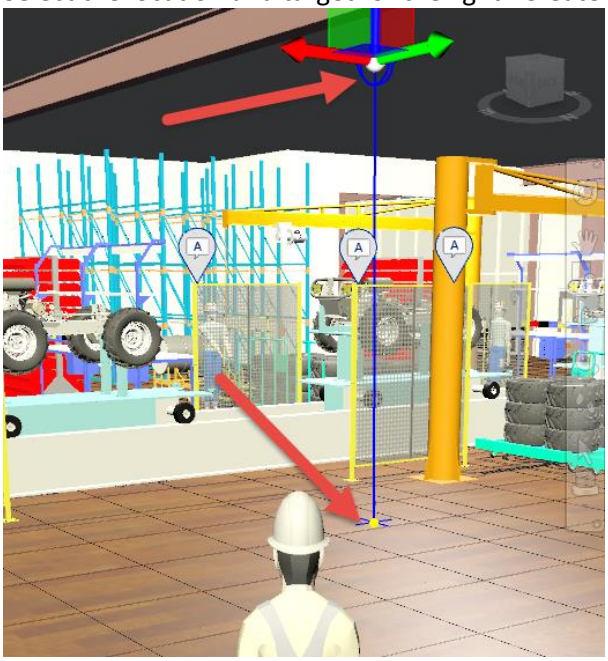
22. Be sure the item is selected
23. Change the scale and rotation as desired for the size and direction of the flooring if it’s something like wood planks.
24. Click on the “Lighting” tab in the Autodesk Rendering dialog



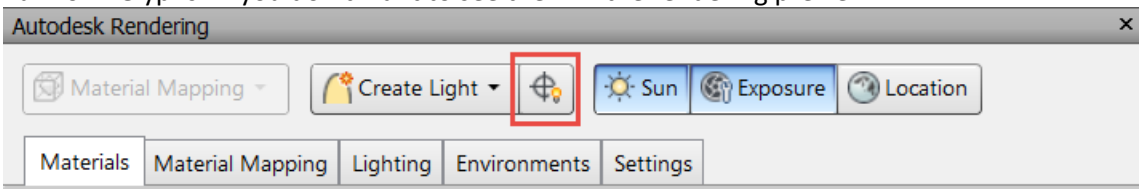
25. Create a “Web” light



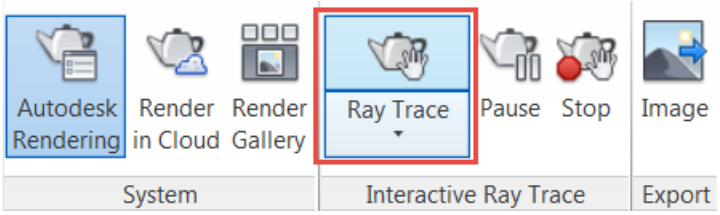
26. Select the location and target for the light. Create as many of them as you wish.



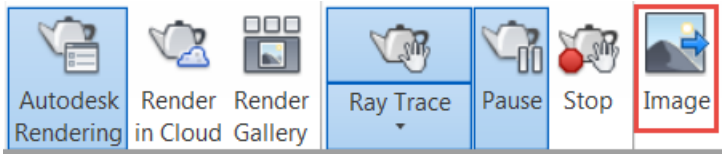
27. Turn off “Glyphs” if you don’t want to see them in the rendering preview



28. Click on “Ray Trace” in the Render tab



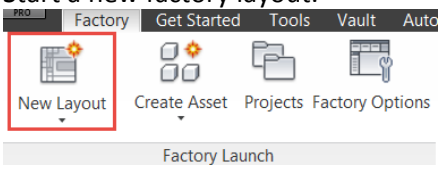
29. Publish an image from the rendering.



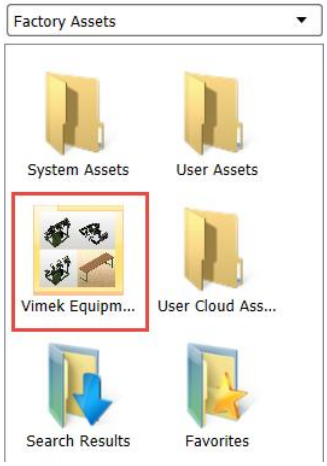
Create a bill of equipment

Saving estimated cost in a factory asset

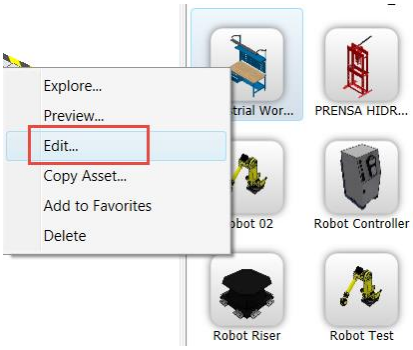
1. Start a new factory layout.



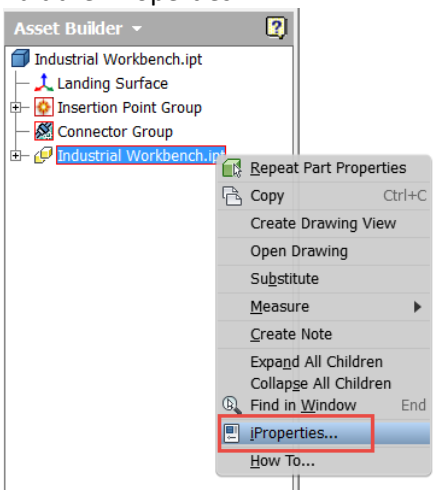
2. Go to the Vimek Equipment library in Factory Assets.



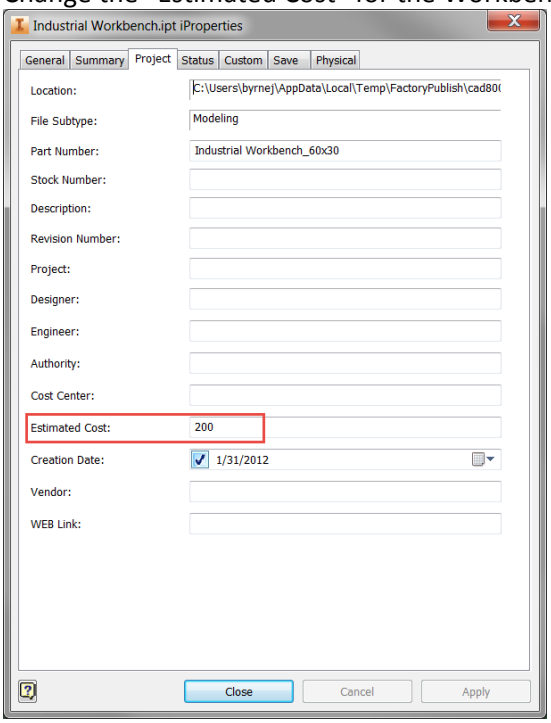
3. Edit the Workbench.



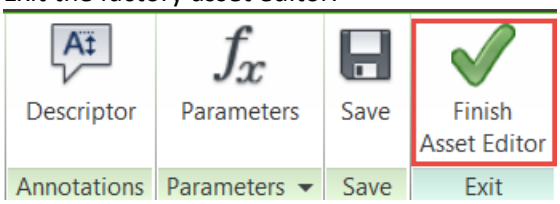
4. Edit the iProperties



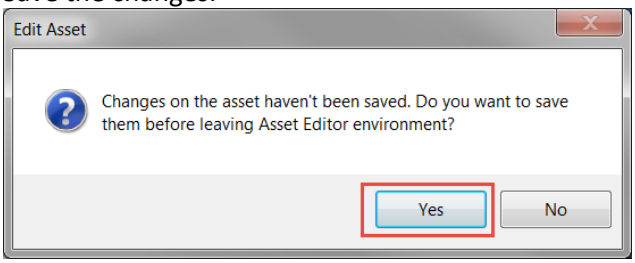
5. Change the “Estimated Cost” for the Workbench.



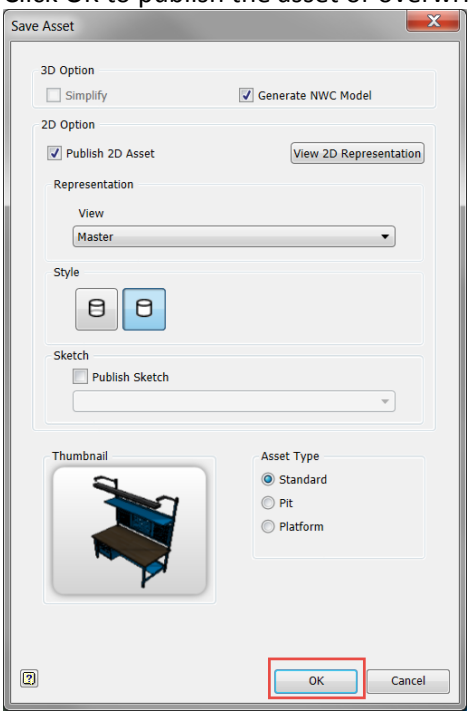
6. Exit the factory asset editor.



7. Save the changes.

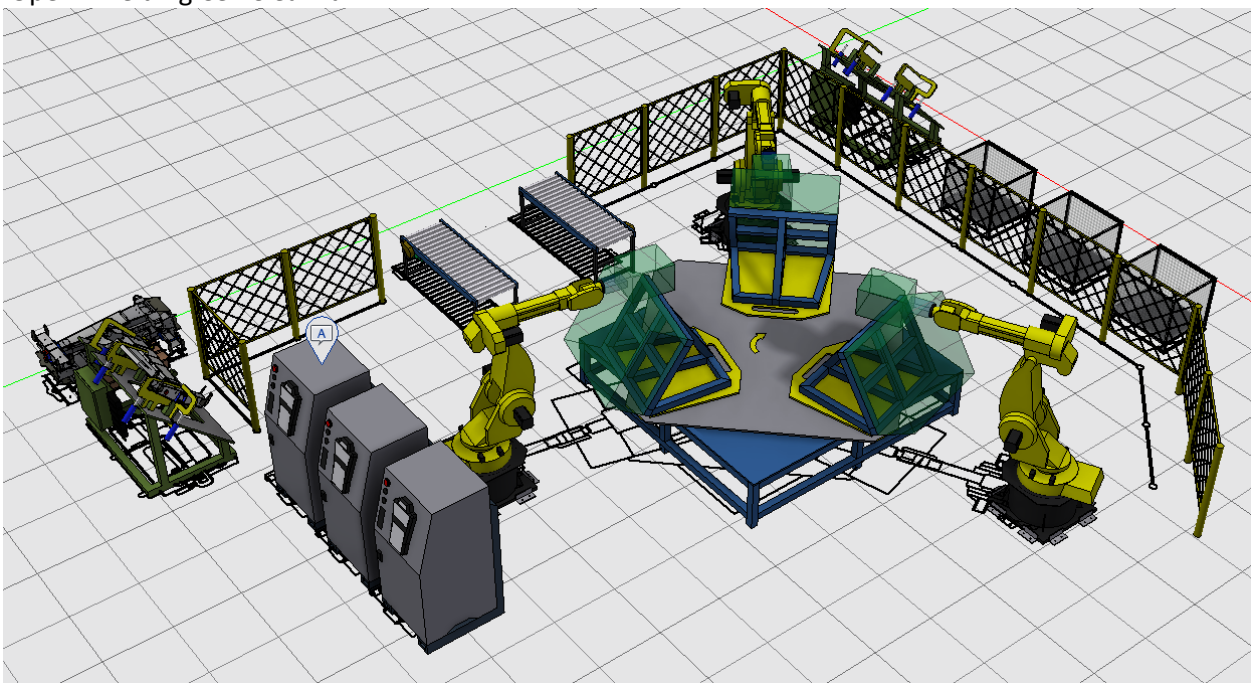


8. Click OK to publish the asset or overwrite the existing one.

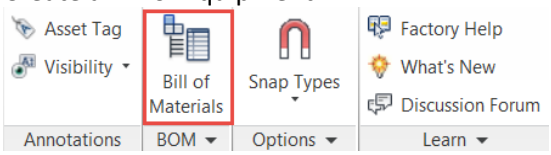


Create a Bill of Equipment

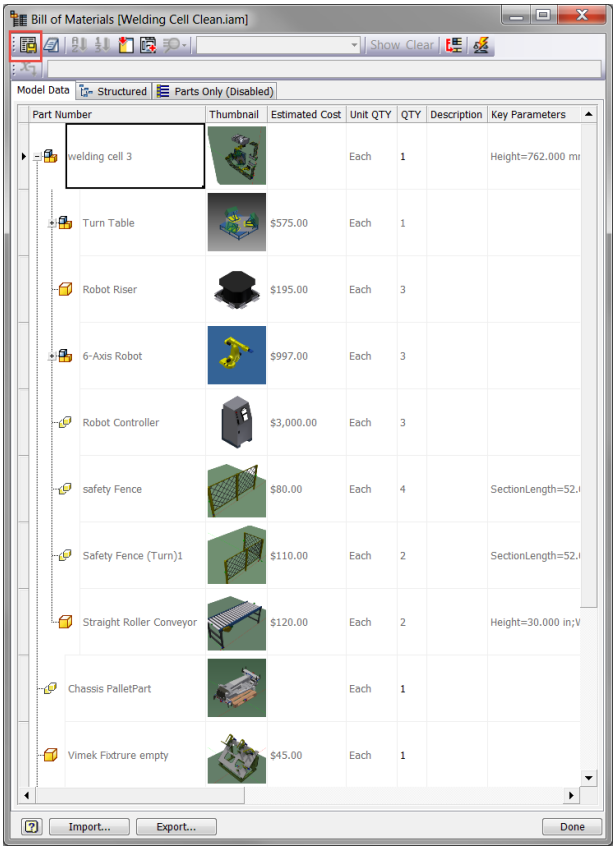
1. Open “Welding Cell Clean.iam”

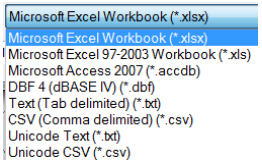


2. Create a Bill of Equipment.



3. Save as an Excel file.

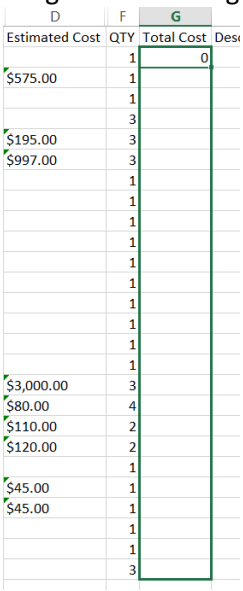




4. Add a column for Total Cost.

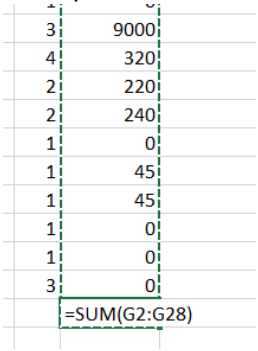
	A	B	D	F	G	H
1	Item	Part Number	Estimated Cost	QTY	Total Cost	Description
2	1	welding cell 3		1	=D2*F2	
3	1.1	Turn Table	$575.00	1		
4	1.1.1	Turn Table		1		
5	1.1.2	Turn Table Tool		3		
6	1.2	Robot Riser	$195.00	3		
7	1.3	6-Axis Robot	$997.00	3		

5. Drag the bottom right corner of the cell to copy the formula for the other cells below.



D	F	G	
Estimated Cost	QTY	Total Cost	Desc
	1	0	
$575.00	1		
	1		
	3		
$195.00	3		
$997.00	3		
	1		
	1		
	1		
	1		
	1		
	1		
	1		
	1		
	1		
	1		
$3,000.00	3		
$80.00	4		
$110.00	2		
$120.00	2		
	1		
$45.00	1		
$45.00	1		
	1		
	1		
	3		

6. Add up the sum of the column at the bottom.



3	9000	
4	320	
2	220	
2	240	
1	0	
1	45	
1	45	
1	0	
1	0	
3	0	
	=SUM(G2:G28)	

Conclusion

I hope the information mentioned in the power point and handout helps in one or two areas to make compelling bid packages easier for you. If you have any questions about the material then please feel free to contact me via email.

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LinkedIn