MA 1883
Don’t Let the Word “Factory” Get in the Way
The Broader Uses of Autodesk® Factory Design Suite

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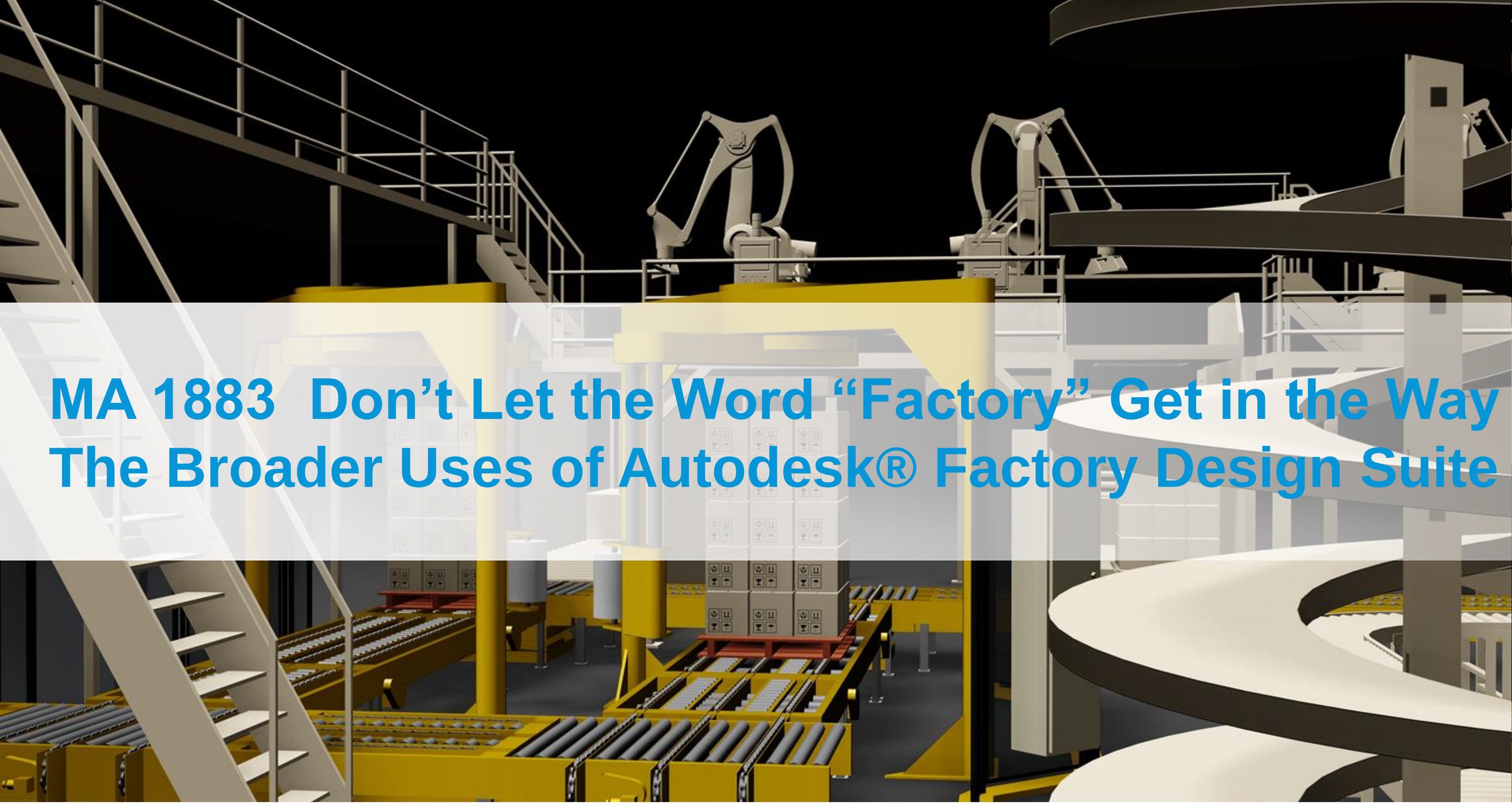


MA 1883 Don’t Let the Word “Factory” Get in the Way The Broader Uses of Autodesk® Factory Design Suite

Class summary

The Autodesk Factory Design Suite can be used on many different designs other than Factories.

Key learning objectives

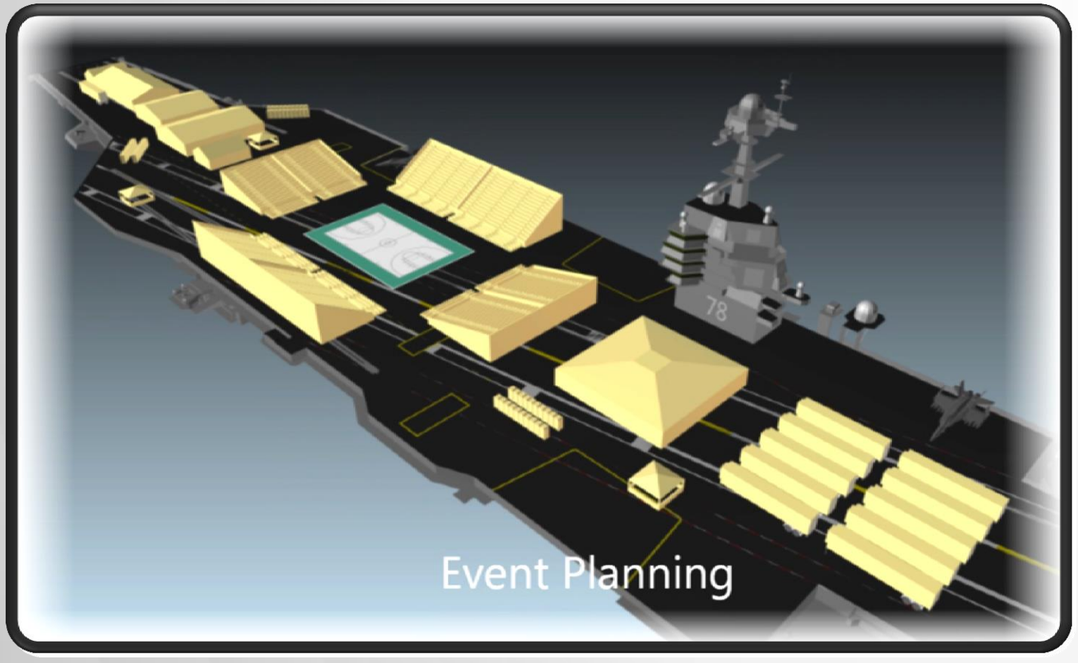
At the end of this class, you will be able to:

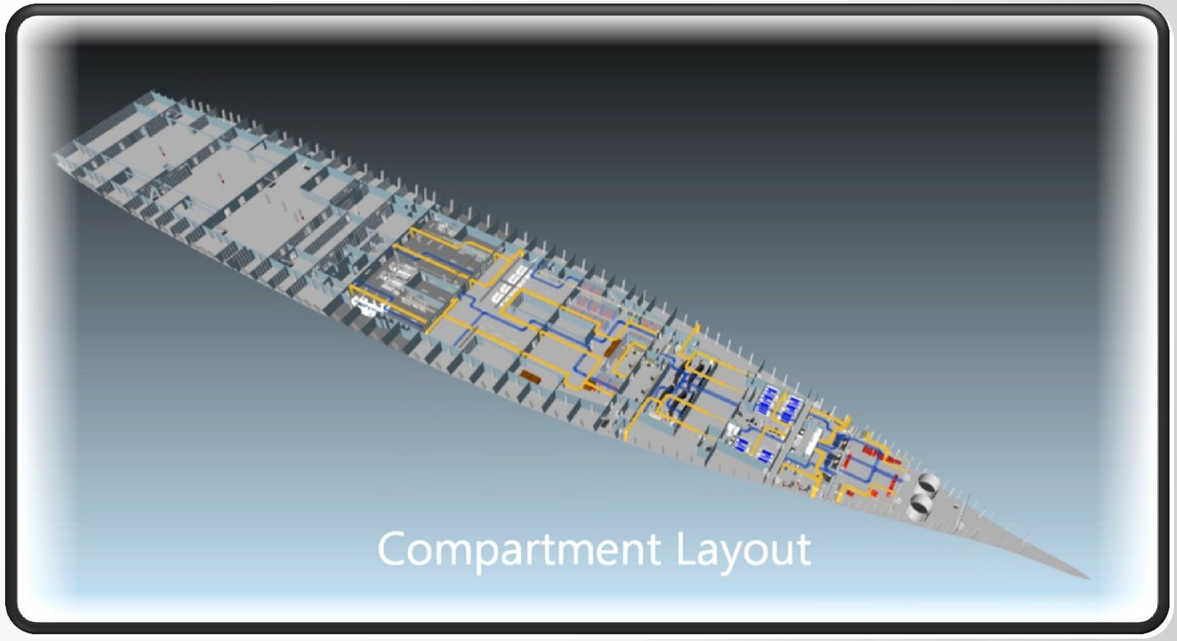
- Describe the Broader Uses of Factory Design Suite
- Explain Why Other Industries Would Consider the Factory Design Suite
- Identify Designs that Could Utilize Factory Design Suite – Other Than Factories
- Investigate Asset Publishing for Layout Design

The Broader Uses of Factory Design Suite


Command and Control Centers


CLEANERS
iMARKET
DRUG STORE
Supermarkets


Event Planning

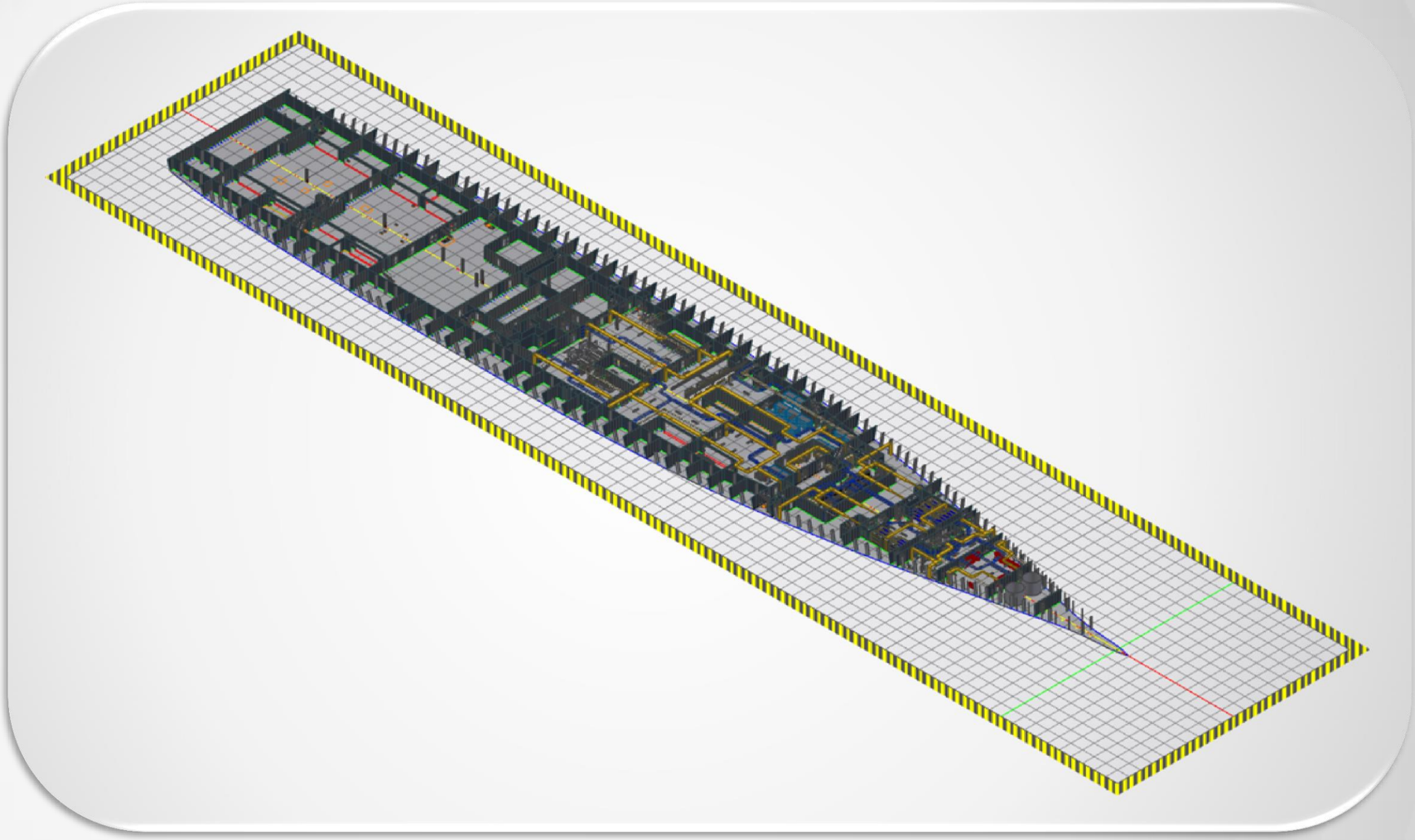

Compartment Layout

Why Other Industries Would Consider the Factory Design Suite

FDS Advantages

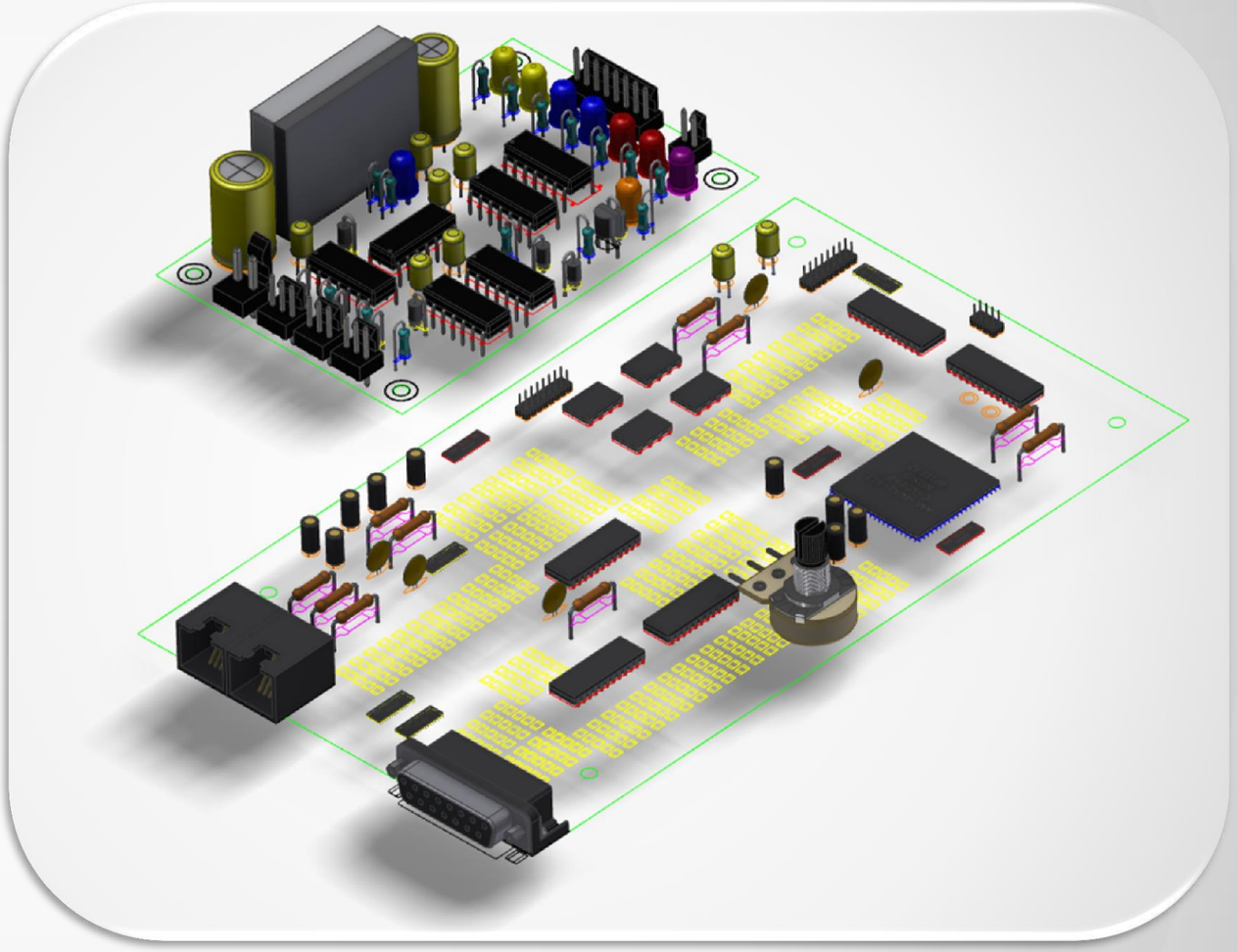
- The Floor – Layout Based Design
- Working with AutoCAD® – DWG Overlay
- Asset Based Design – Lego-CAD
- User Assets – Custom Assets
- Functional Assets - Parameters
- Extremely Large Layouts - Navisworks®
- Ease of Use
- Utilizing Tradesmen in Design

The Floor



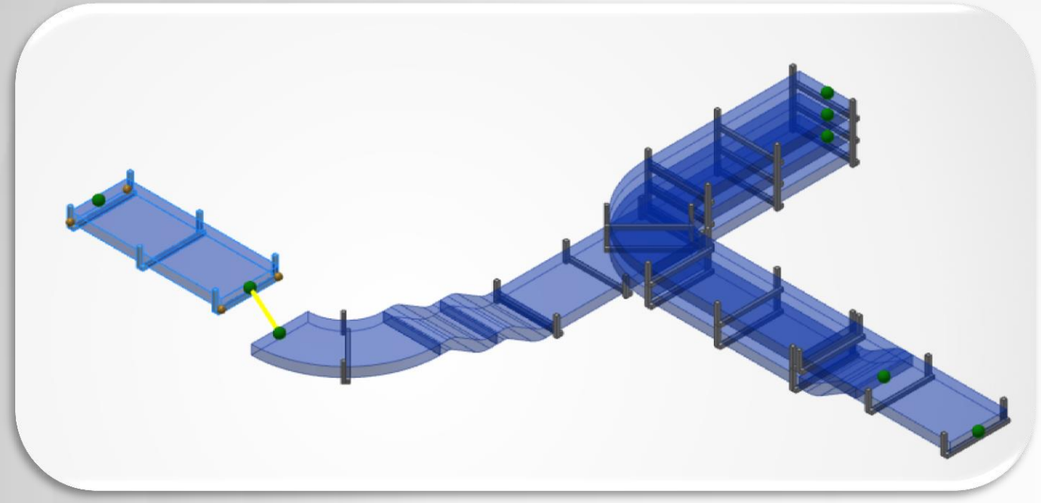
A Ground Plane or Deck is Very Common to Many Designs

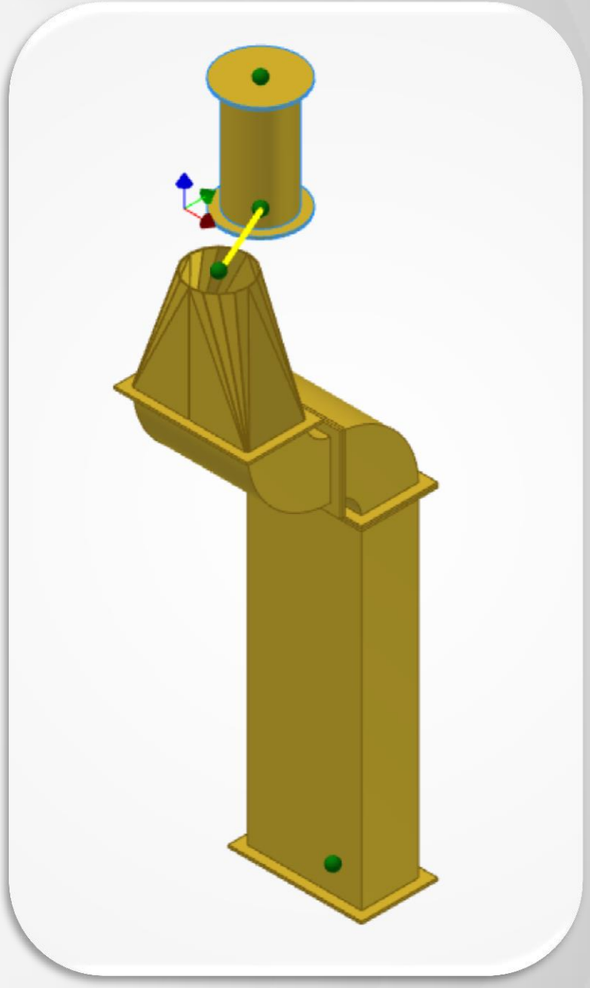
Working with AutoCAD – DWG Overlay



2D and 3D Working Together

Asset Based Design – Lego Cad



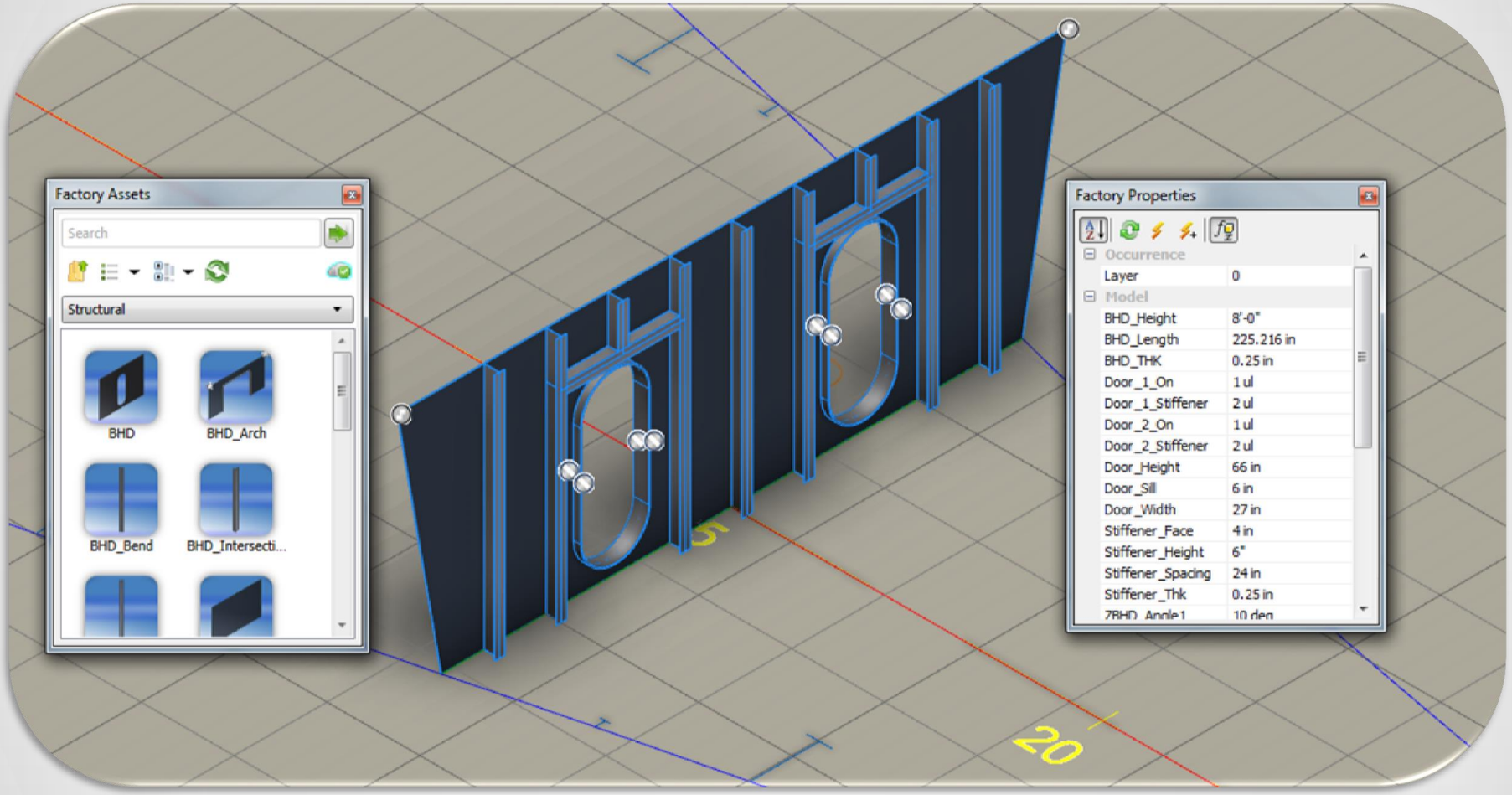


Assets Snap Together like Toy Building Bricks

User Assets – Custom Assets

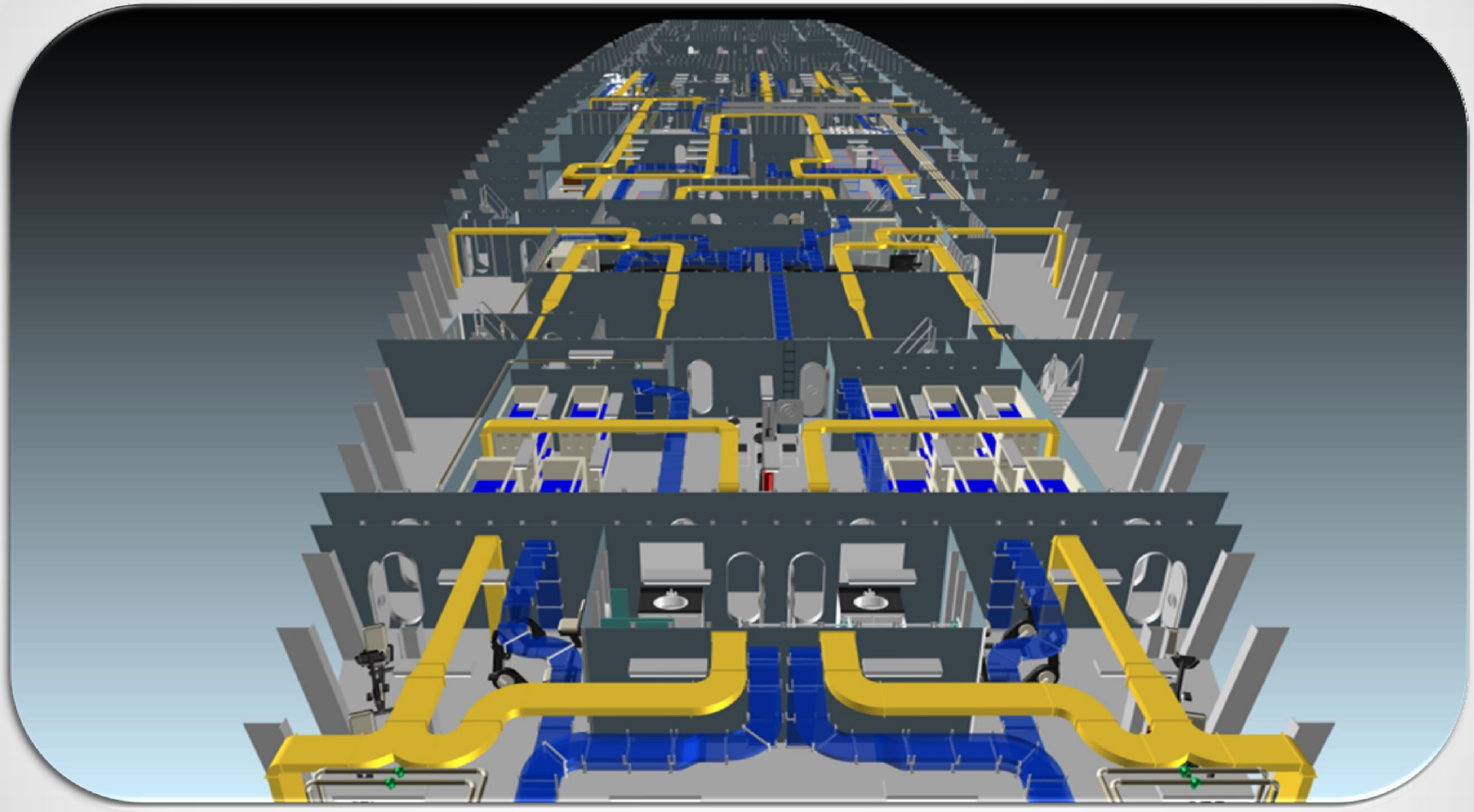
Assets can be Created from almost any 3D Model

Functional Assets - Parameters



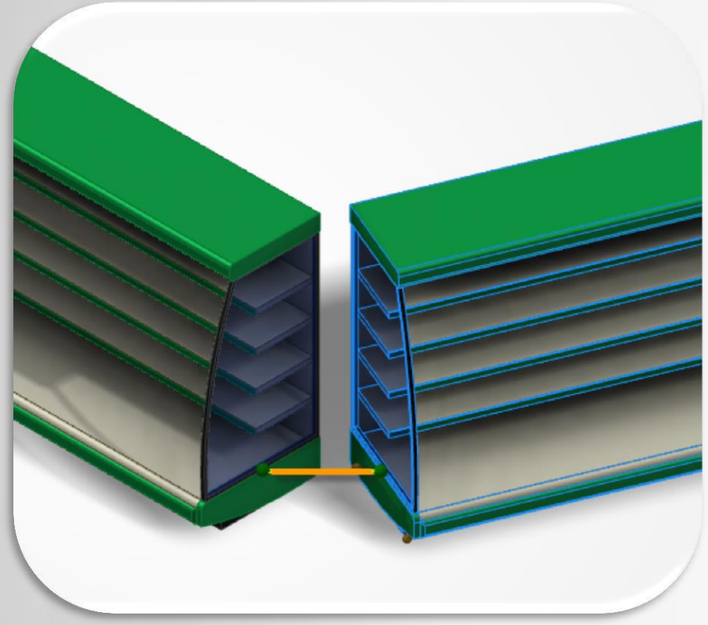
The Asset Browser and Properties Palette Provide Easy Access to Parameters

Extremely Large Layouts - Navisworks

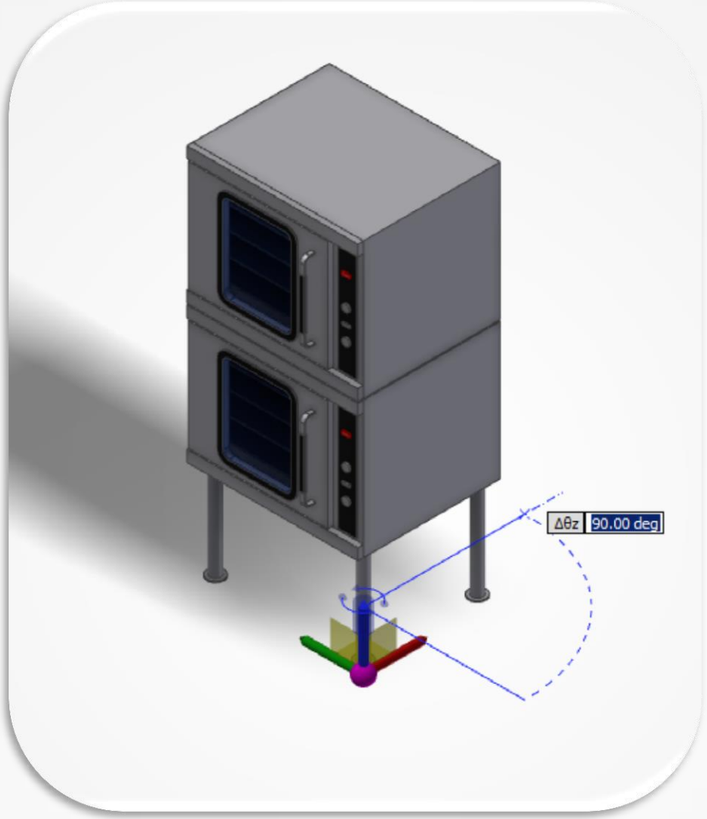


Experience Largest Designs with Real-Time Fly-Thru and Walk-Thru

Ease of Use



Connector Points

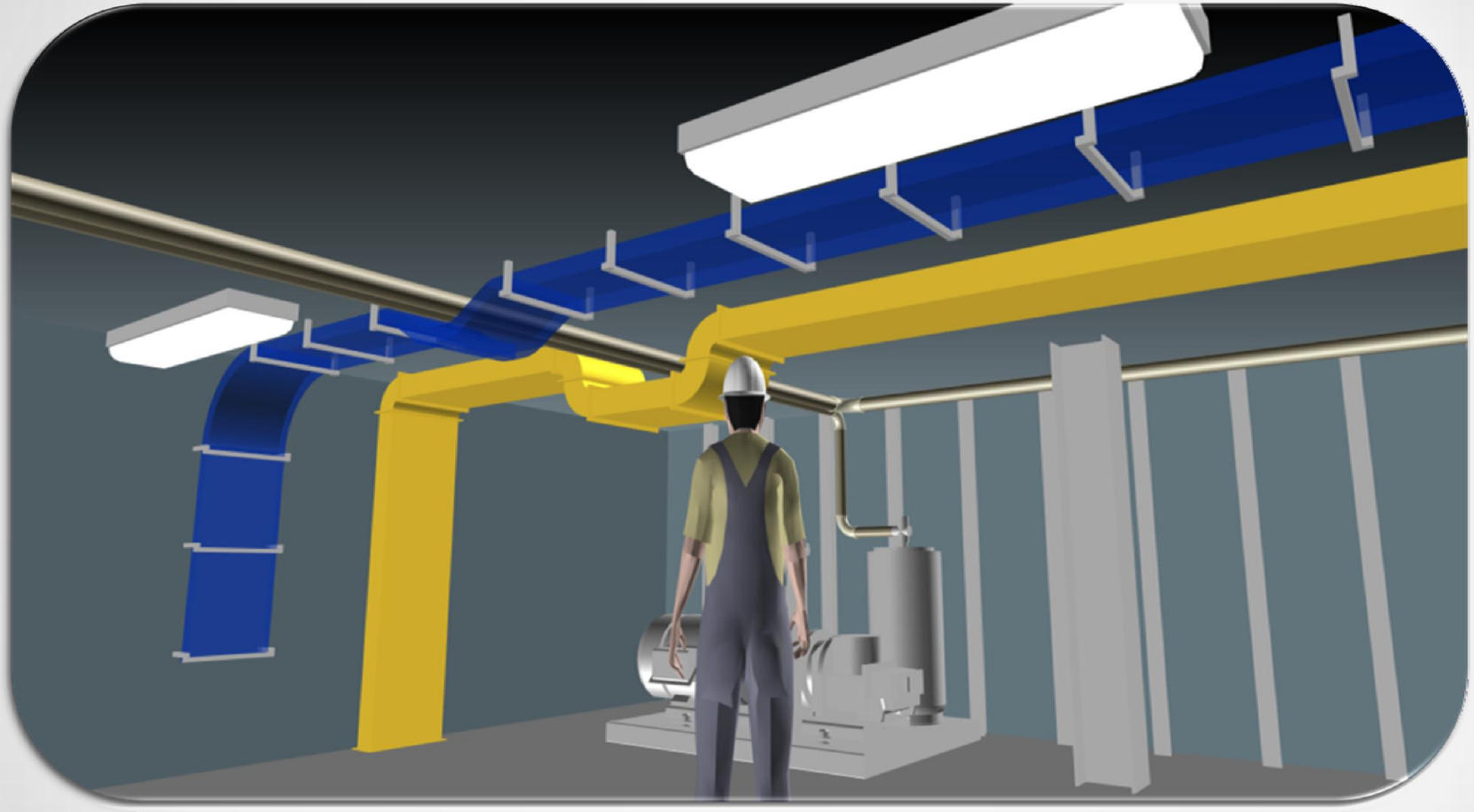


Reposition

Insert Model

Many Inventor Commands have been Simplified for Easy Use

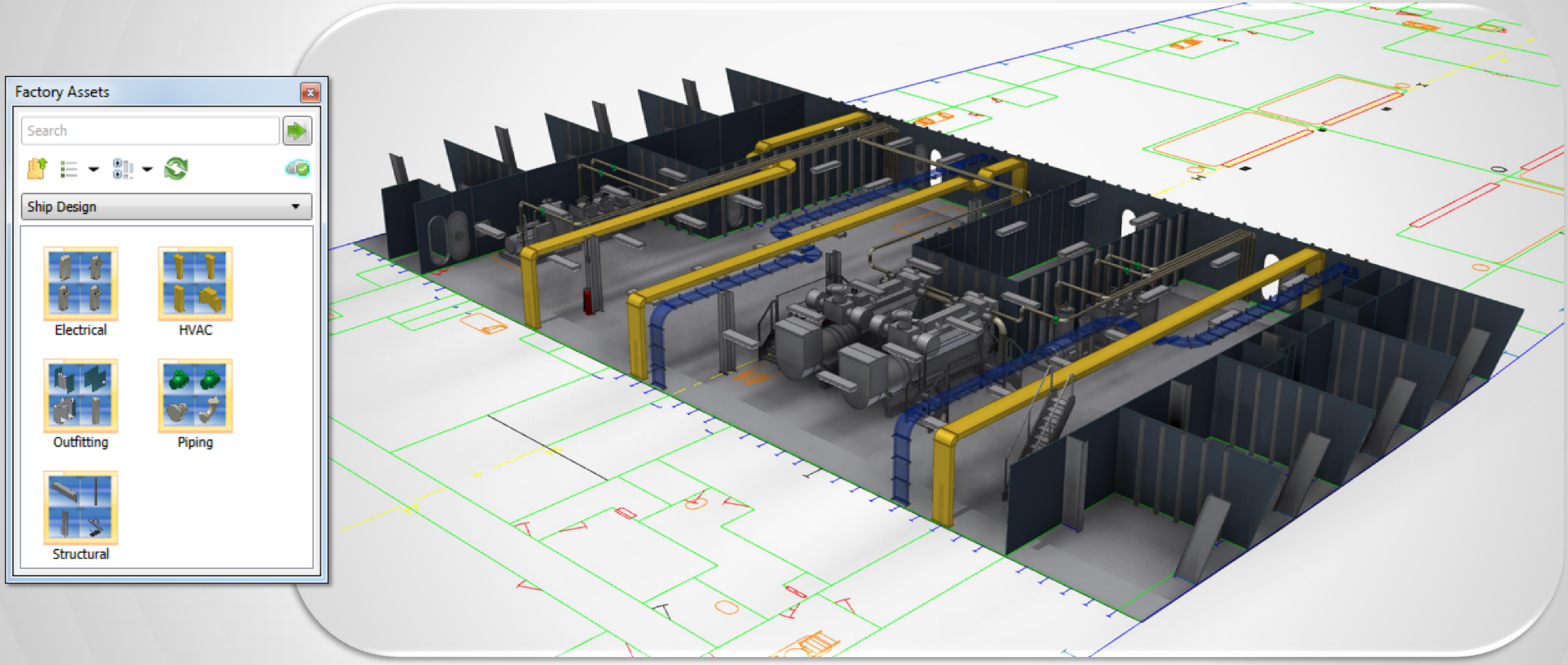
Utilizing Tradesman in Design



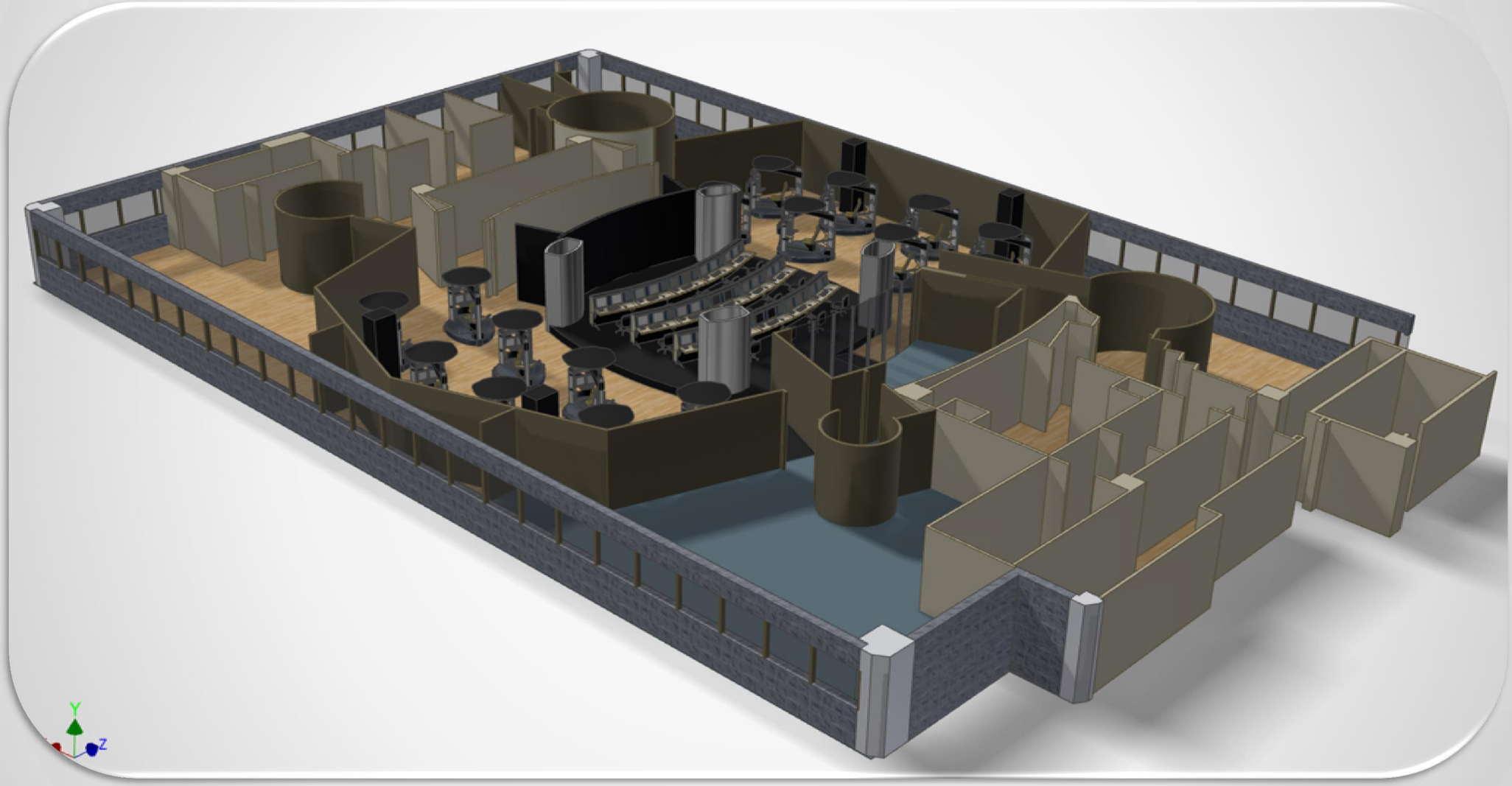
“It is often easier to teach a veteran tradesman how to use a computer than to train a college graduate the intricacies of your manufacturing rules and processes.”

Designs that Could Utilize Factory Design Suite *Other Than Factories*

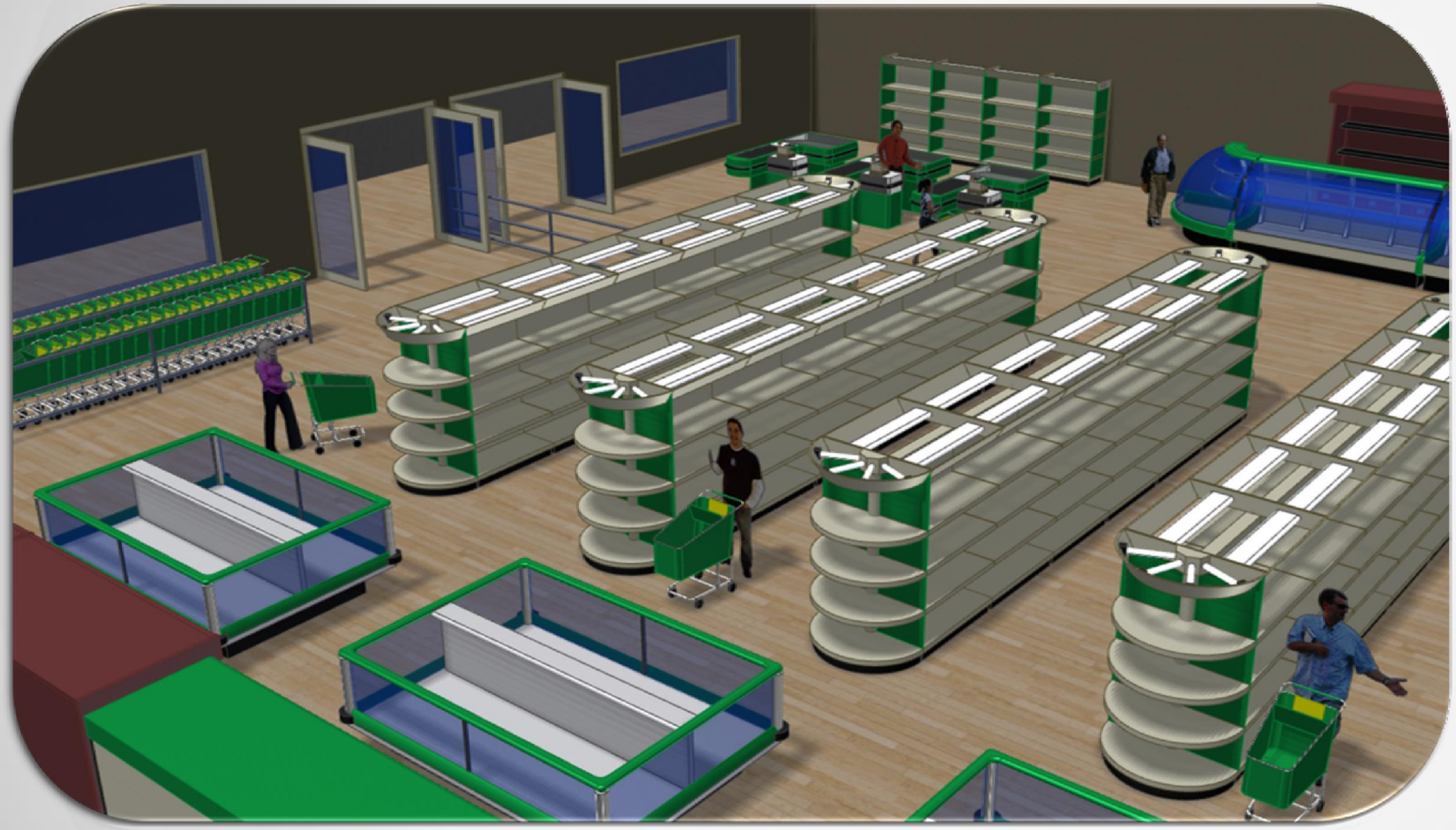
Shipboard Compartment Layouts

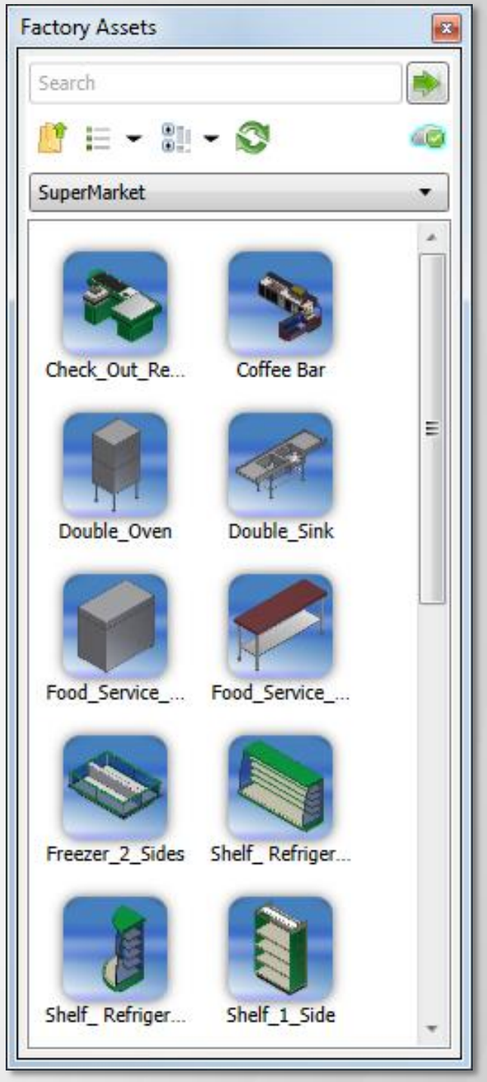


Command and Control Centers

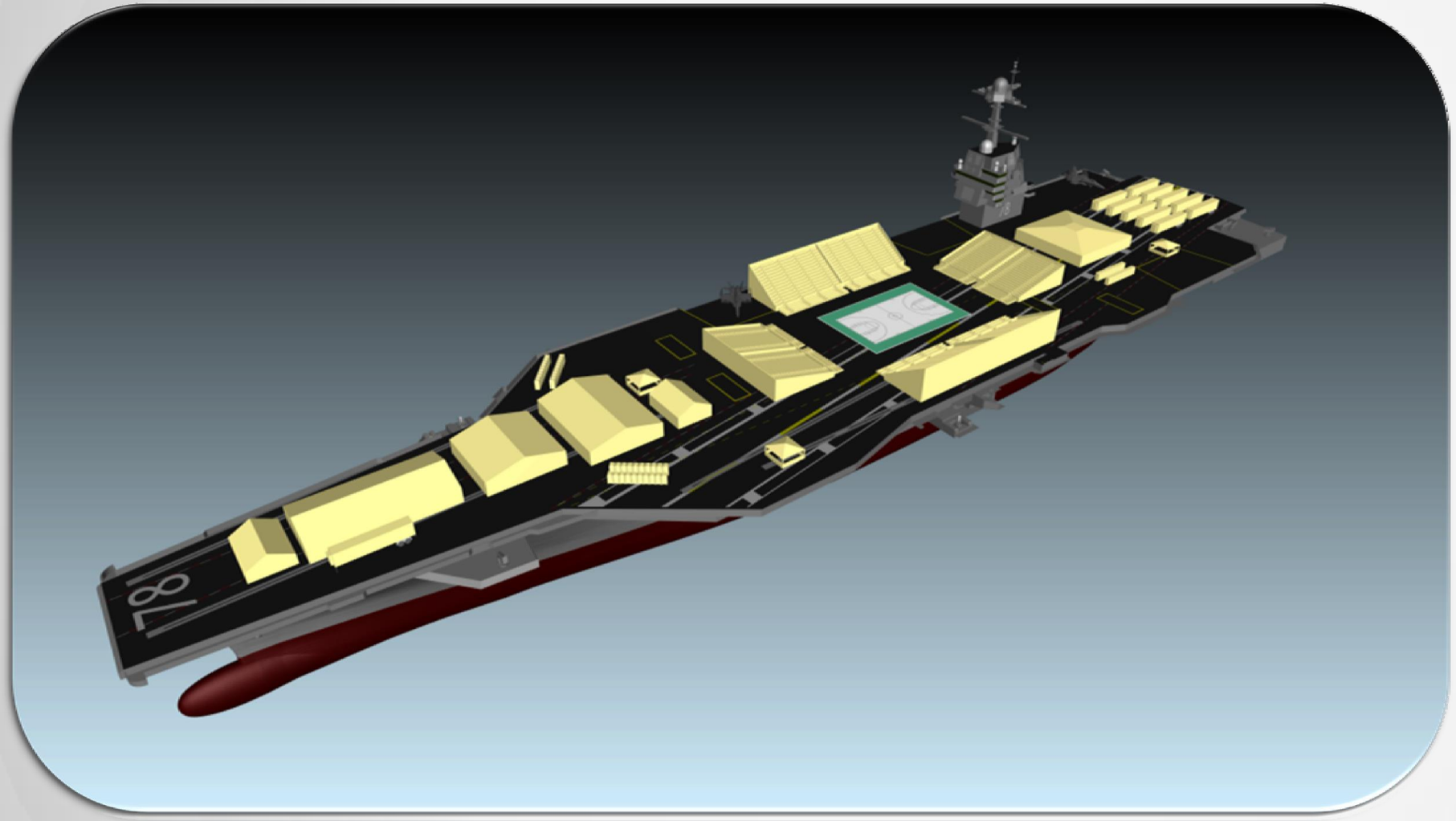


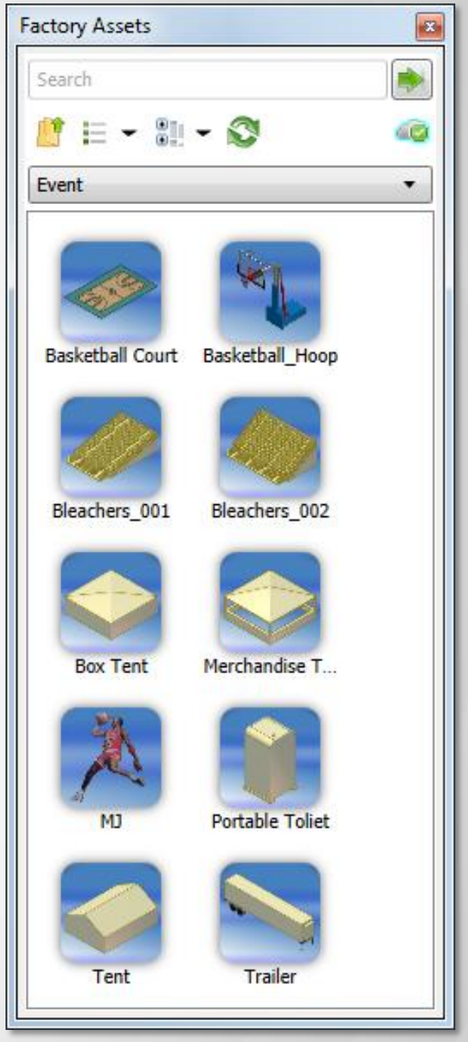
Supermarkets



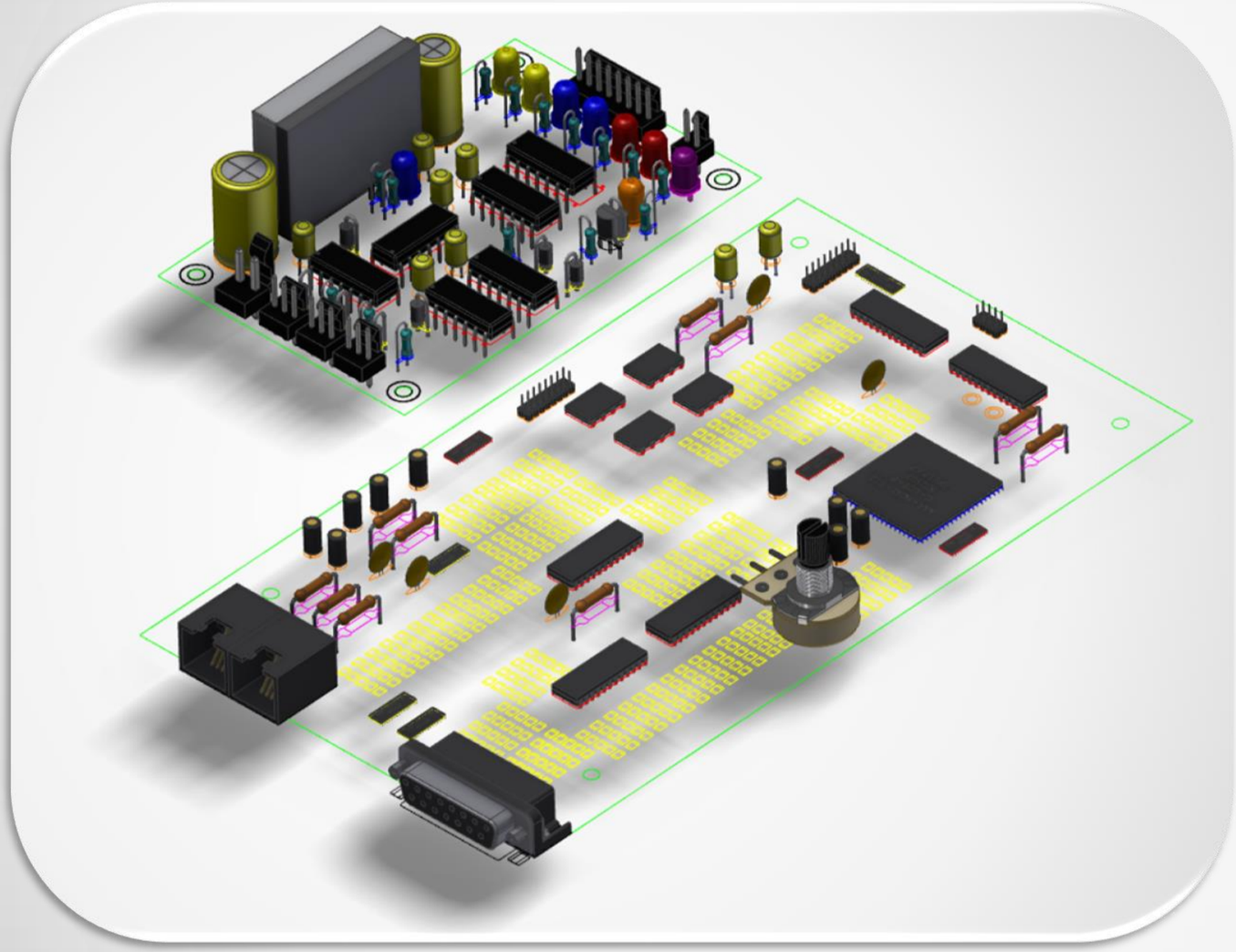


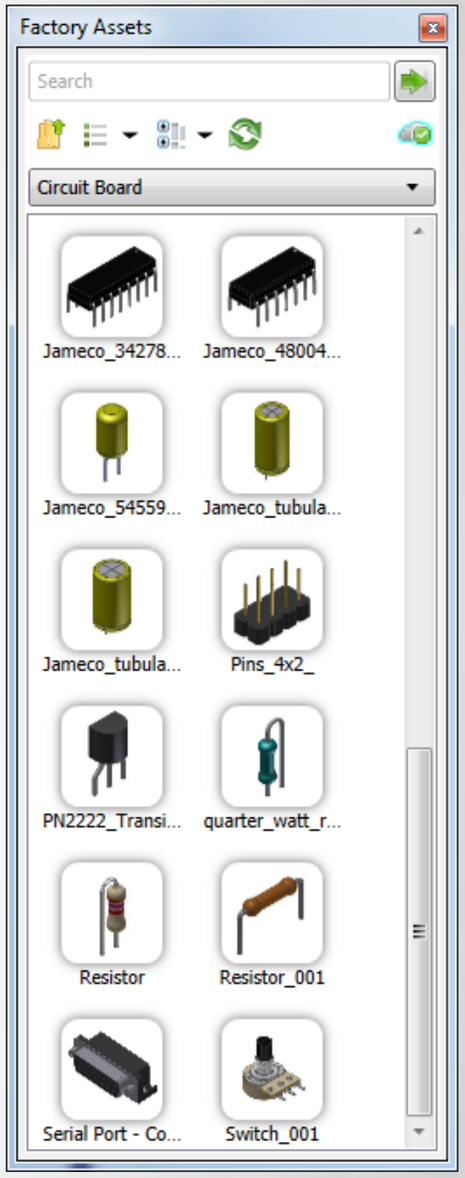
Event Planning



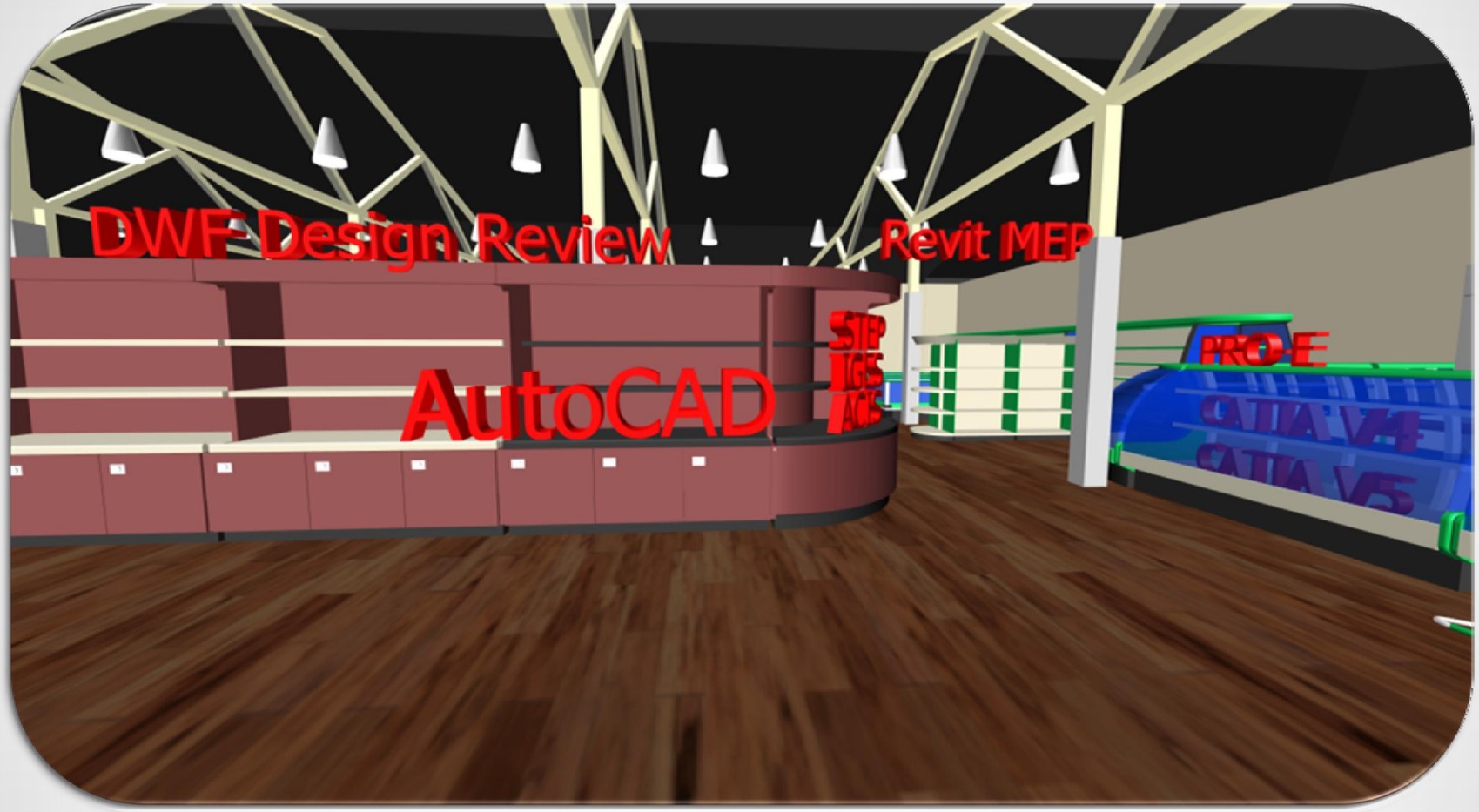


Circuit Board Layout



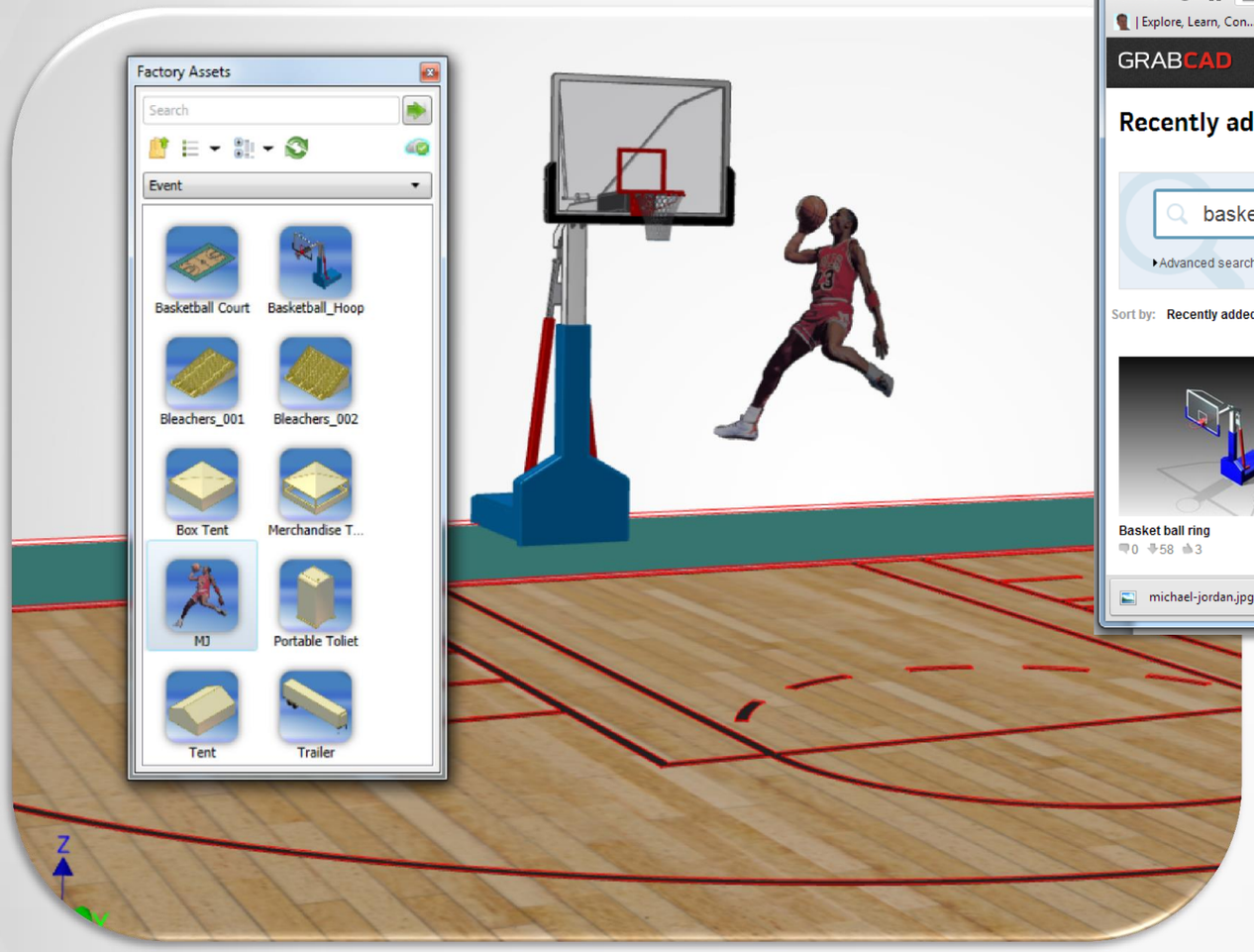


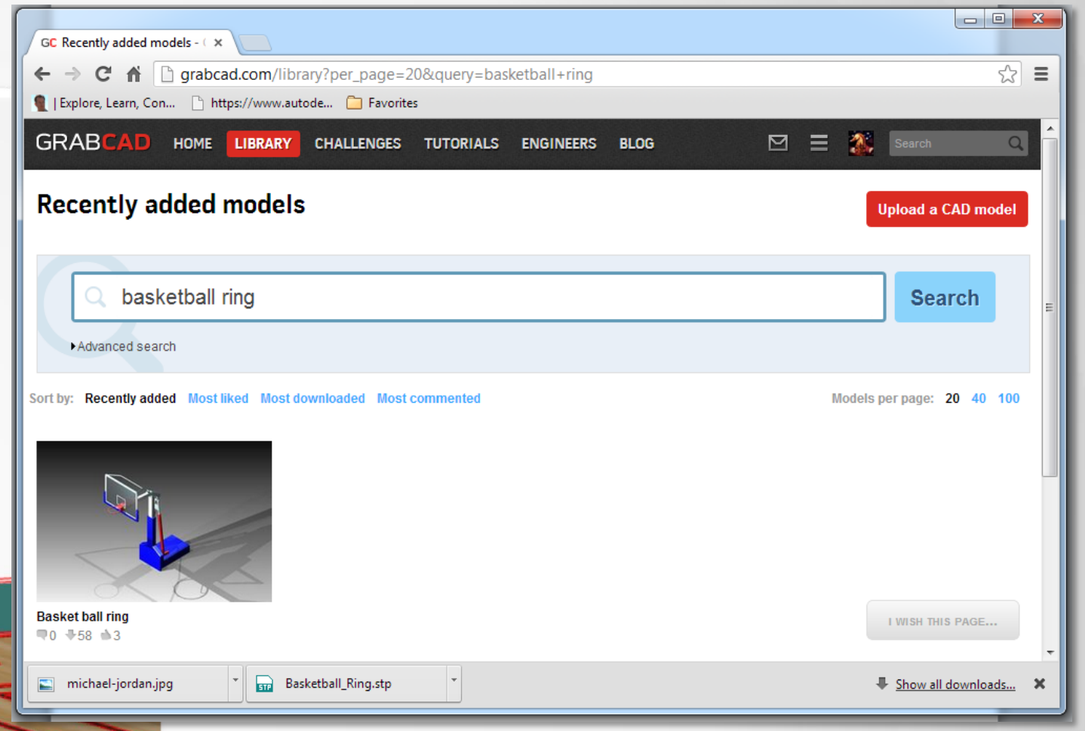
Asset Origins



Almost any 3D model can be used as an Asset

Static Assets

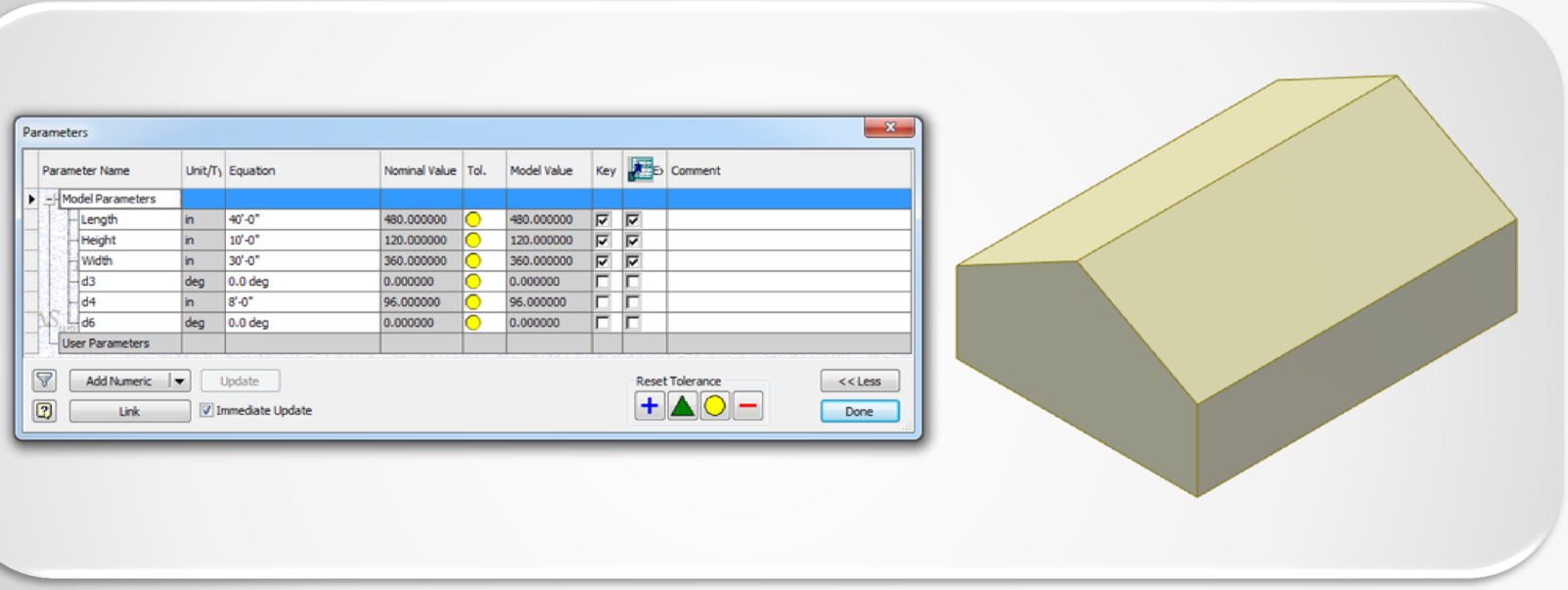


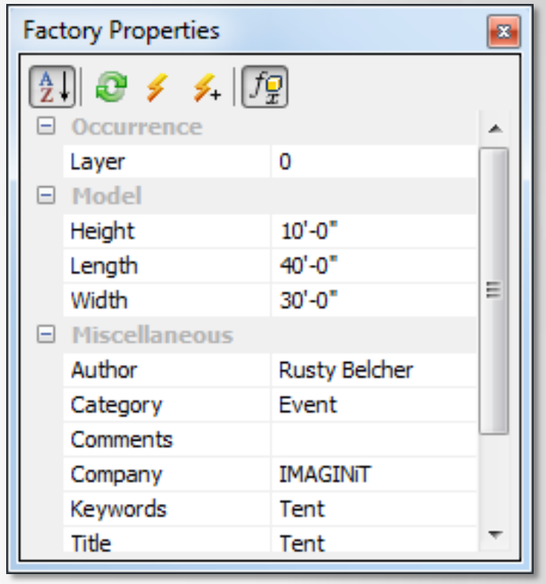


- Landing Surface
- Connectors
- Meta Data

Sports Equipment downloaded from GRABCAD

Parametric Assets – Inventor Based

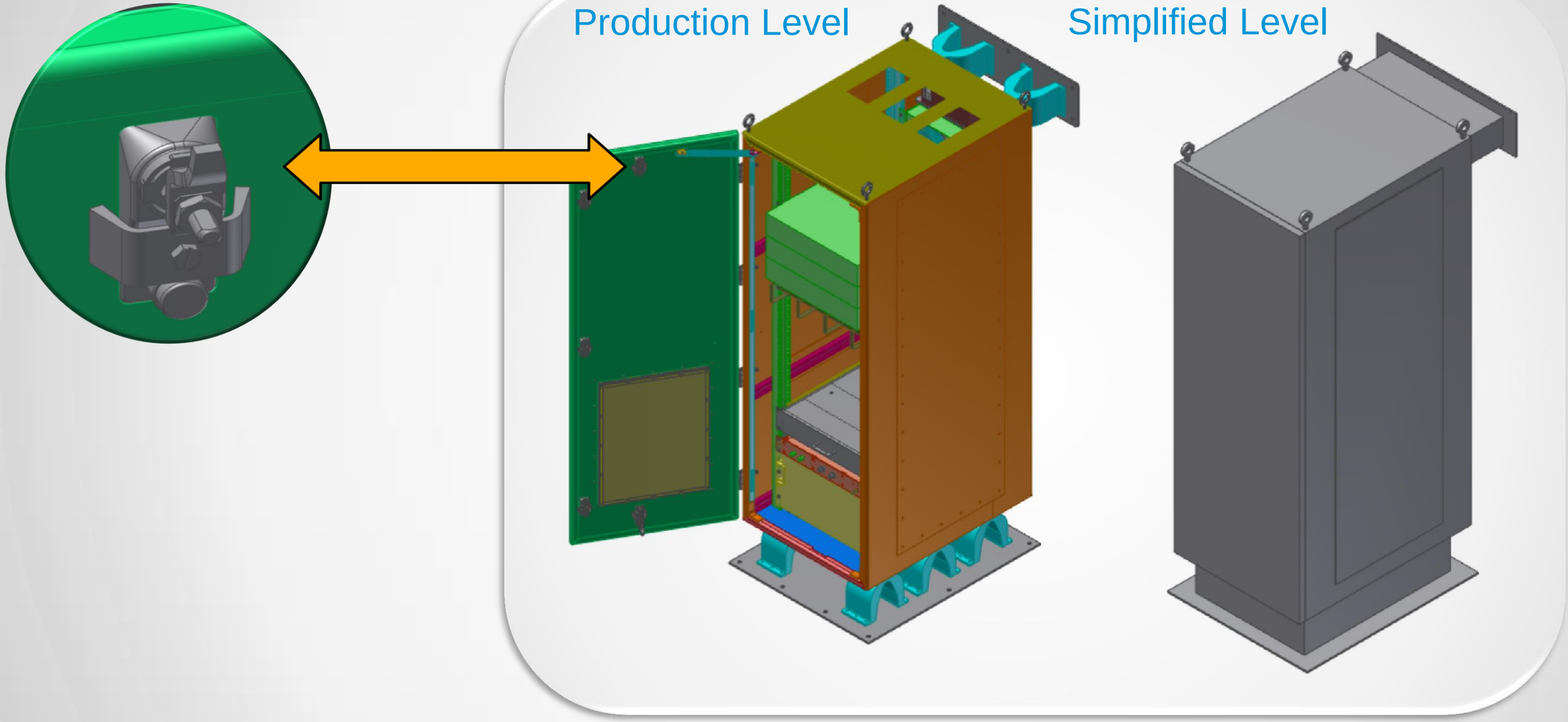




- Key Parameters
- Landing Surface
- Connectors
- Meta Data
- Asset Variants

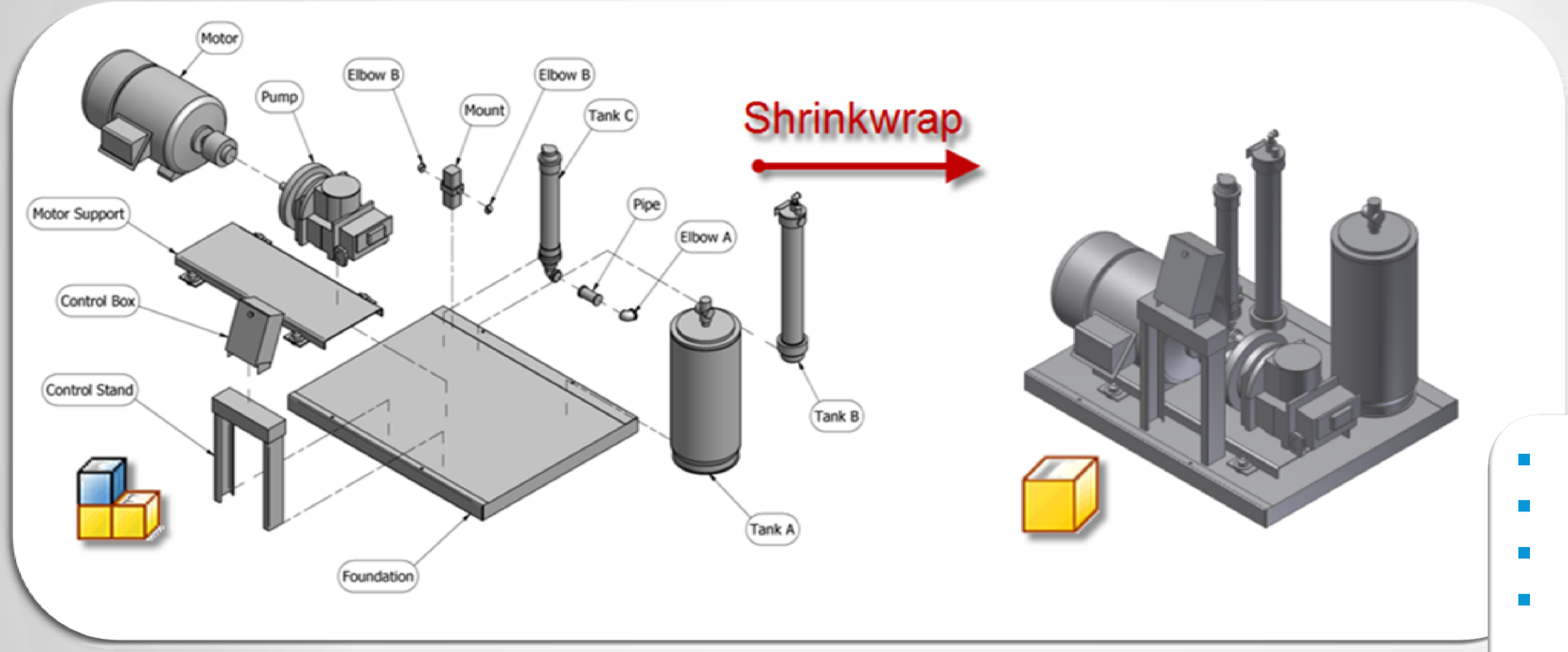
Key Parameters are Utilized to Control the Asset Size

Best Practice – Low Detail



A Simplified Level of Model Detail is Recommended

Best Practice – Single Part vs. Assembly



- Shrinkwrap
- Multi-Body Modeling
- Multi-Body Import
- Inventor Simplification

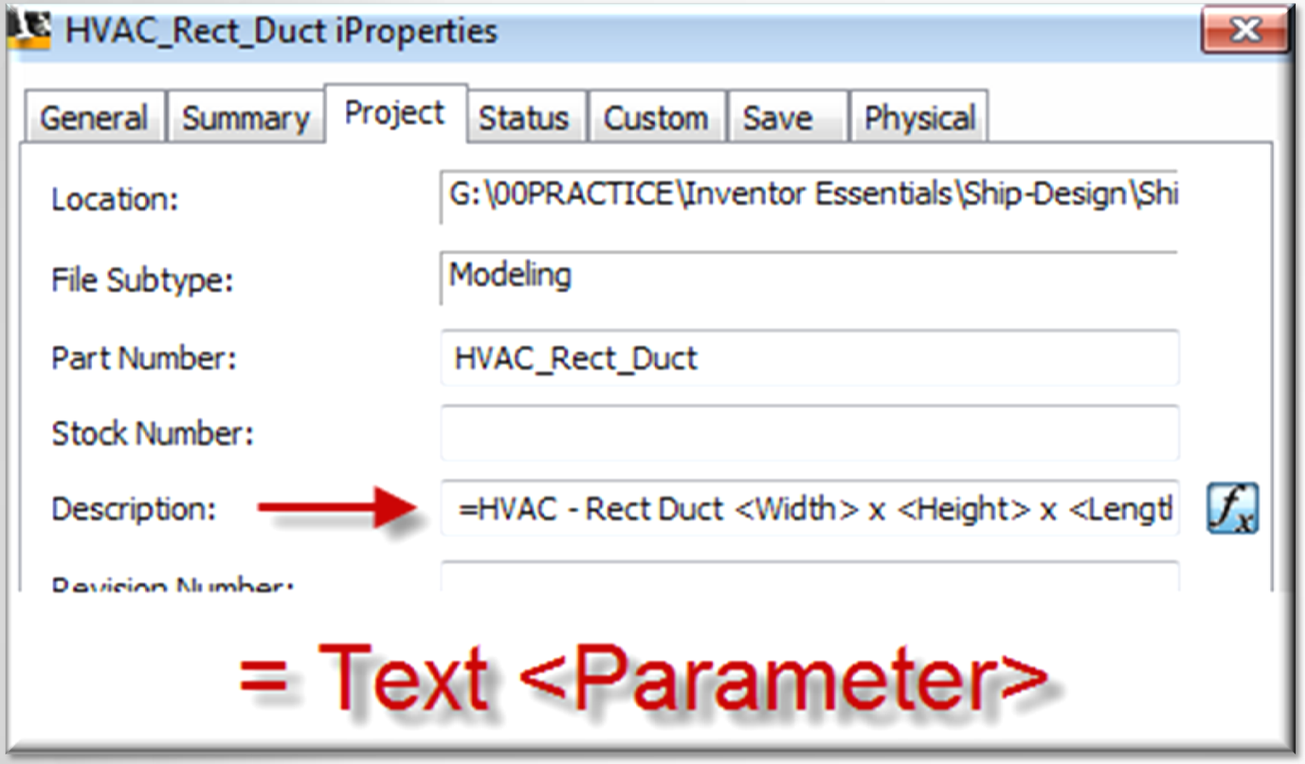
Simple Single Parts are Generally Preferred over Assemblies

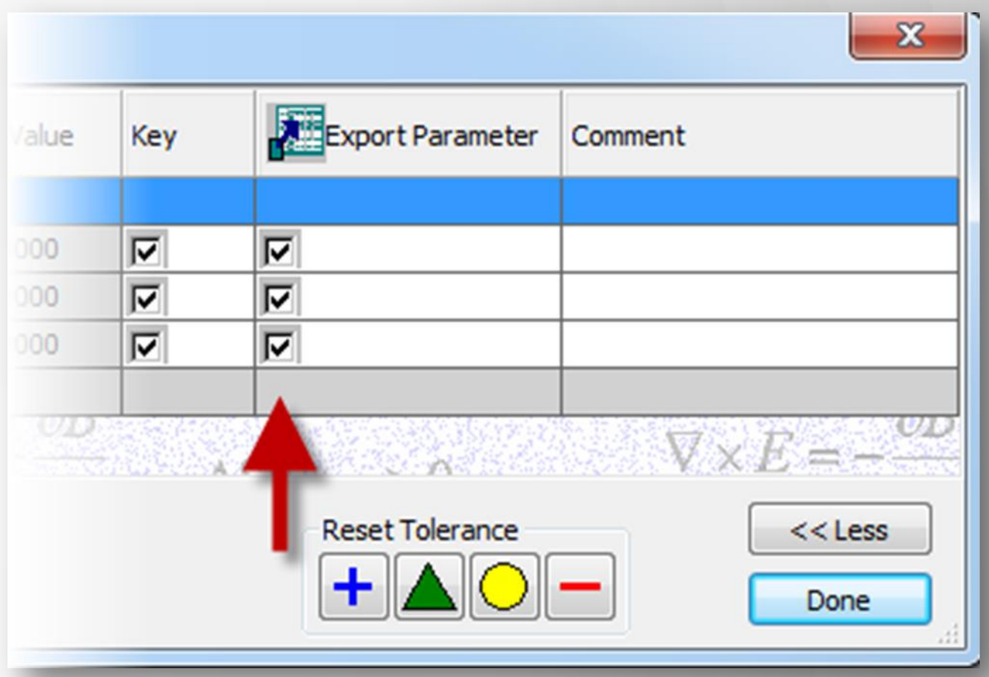
Best Practice – Meta Data

iProperty	Information
Title	Formal Name or Part Name
Part Number	Automatically set to the filename by default
Description	General description of the asset. Could be mapped to parameters like Length, Width, and Height.
Company	Very Helpful for Cloud Based Assets
Category	Your Cloud Based Assets are managed by Categories.
Author	That's You
Keywords	Very Useful for Searching Cloud Based Assets.
Comments	Useful Tips on using the Asset.

iProperty Data is Used in Many Downstream Workflows

Best Practice – Mapping Parameters to iProperties

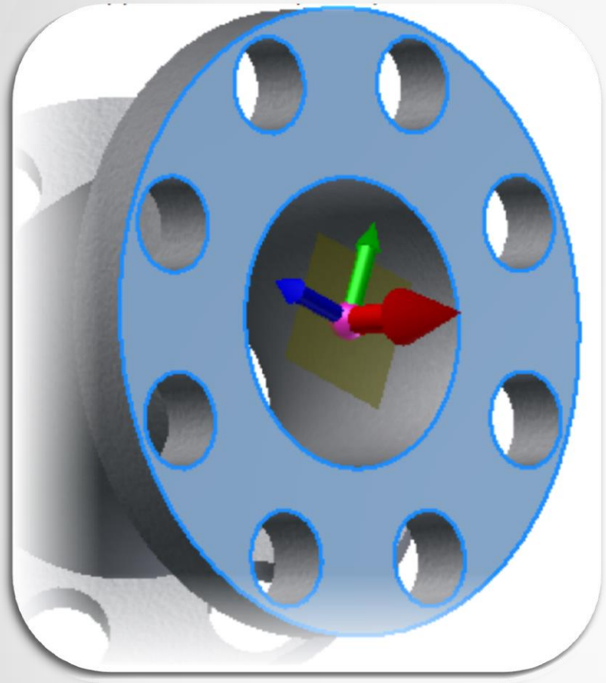




Parameters must be marked for export.

Map Parameter Values to Automatically Update Asset Properties

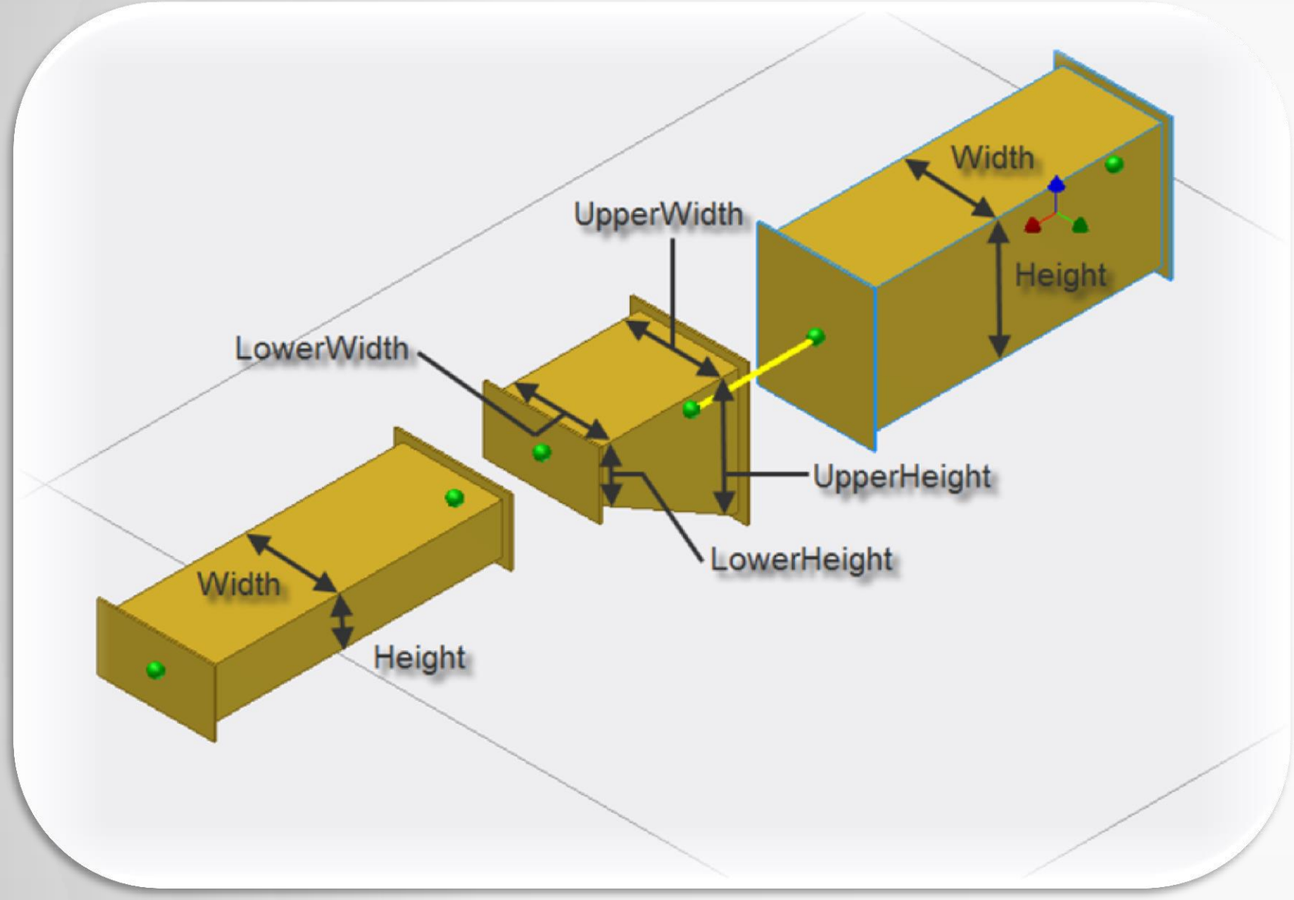
Best Practice – Connectors

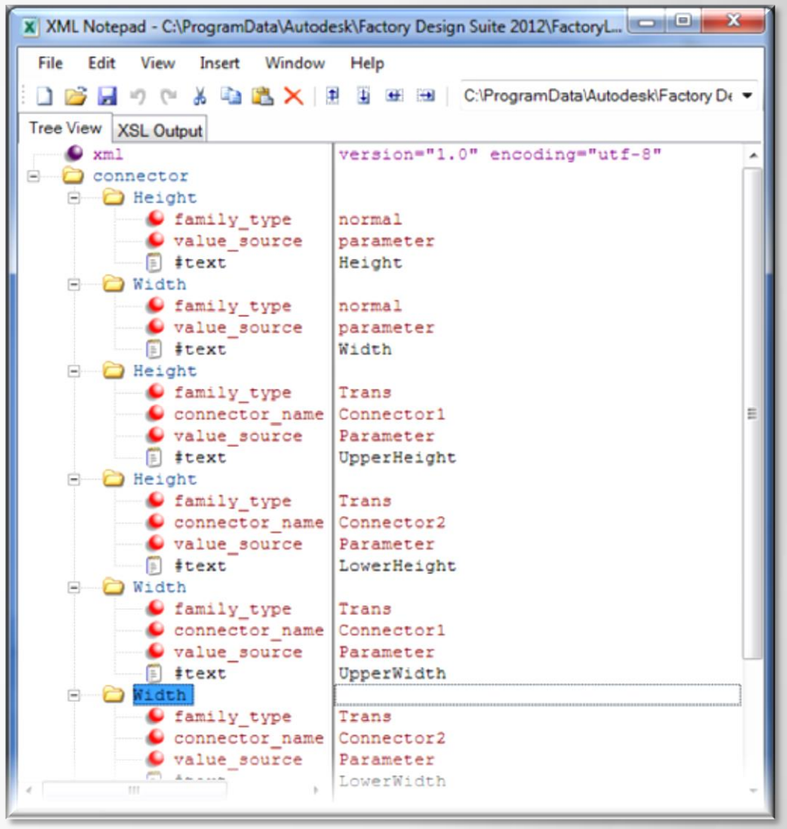


- Planar Face
- Vertex
- Midpoint
- Endpoint
- Hole Center
- Work Point
- Work Plane

Place Connectors in Logical Locations

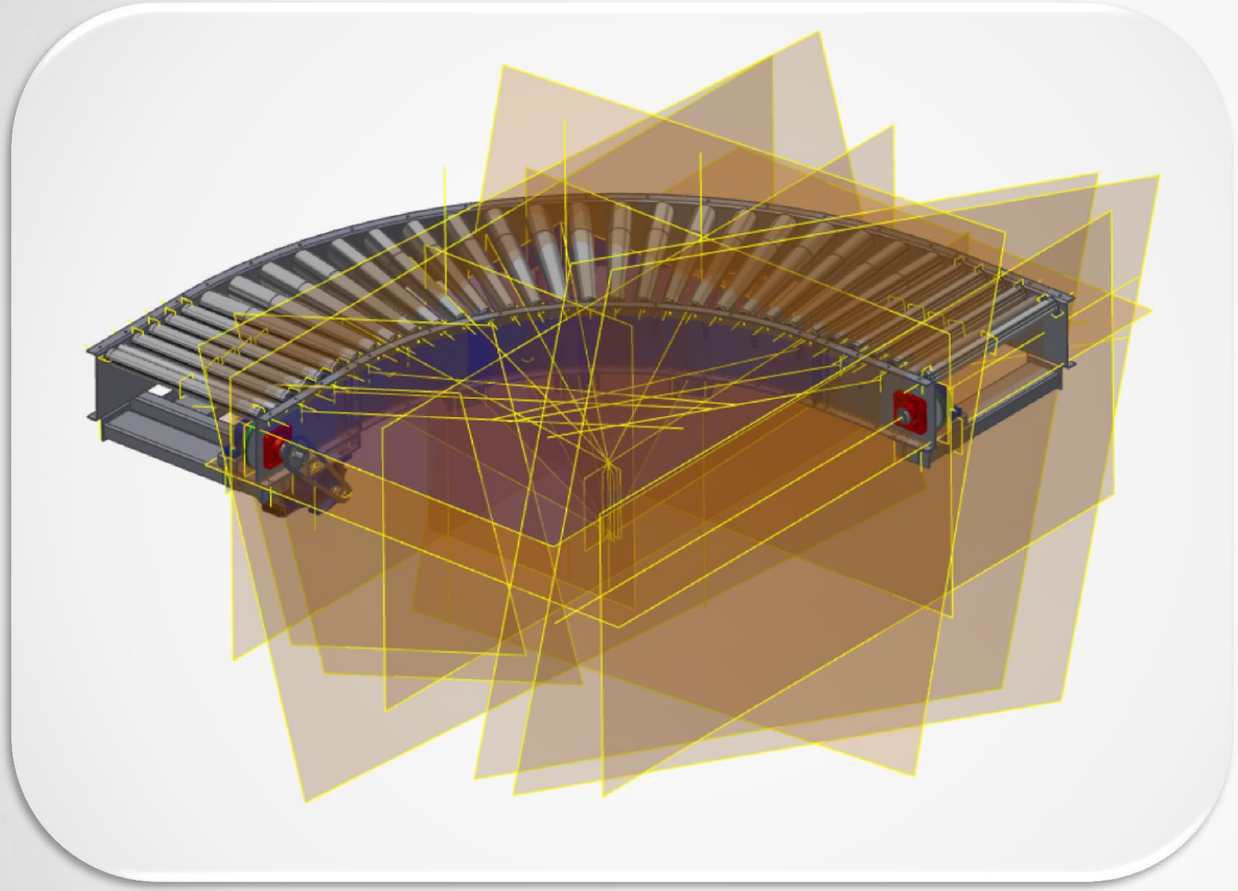
Best Practice – Connector Classes (Optional)





Use XML Notepad to Create New Connector Classes

Best Practice – Turn Off All Work Features



Assets are Library Parts and Cannot be Edited by Default

Best Practice – Publishing Checklist

Checklist for Asset Publishing	
☐	Model Detail – Low
☐	Shrinkwrap if Necessary
☐	Multi-Body if Necessary
☐	Parameters - Named
☐	Parameters - Key
☐	Parameters - Exported
☐	Parameters – Multi-Value
☐	Parameters - Tested
☐	iProperties – Part Number
☐	iProperties – Description
☐	IProperties – Mapped Parameters
☐	Work Features for Publishing - On
☐	Landing Surface
☐	Insertion Point
☐	Define Connectors
☐	Connector Class Properties
☐	Asset Properties
☐	Asset Variants
☐	All Work Features Off
☐	Publish Local
☐	Test
☐	Modify to Suit Testing
☐	Publish Local - Final
☐	Publish to Cloud - Optional

Update the Checklist to Suit your Designs