

## Technology Live!

Intelligent Factory Asset Creation - 26<sup>th</sup> April 2012  
Luke Davenport - Industry Specialist

# Technology Live!



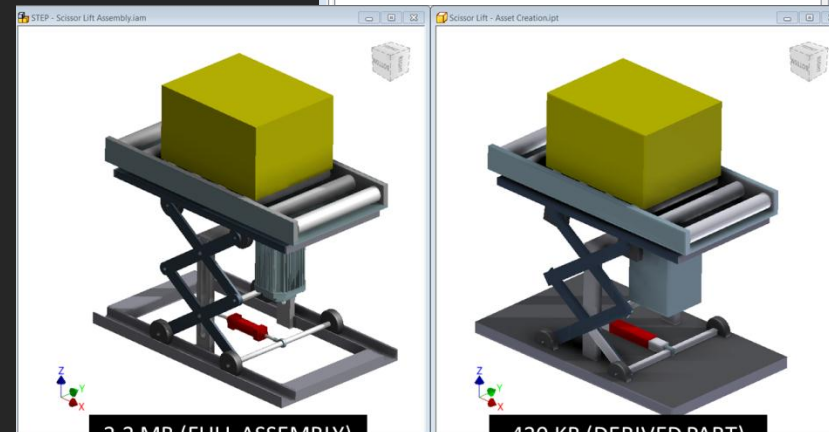
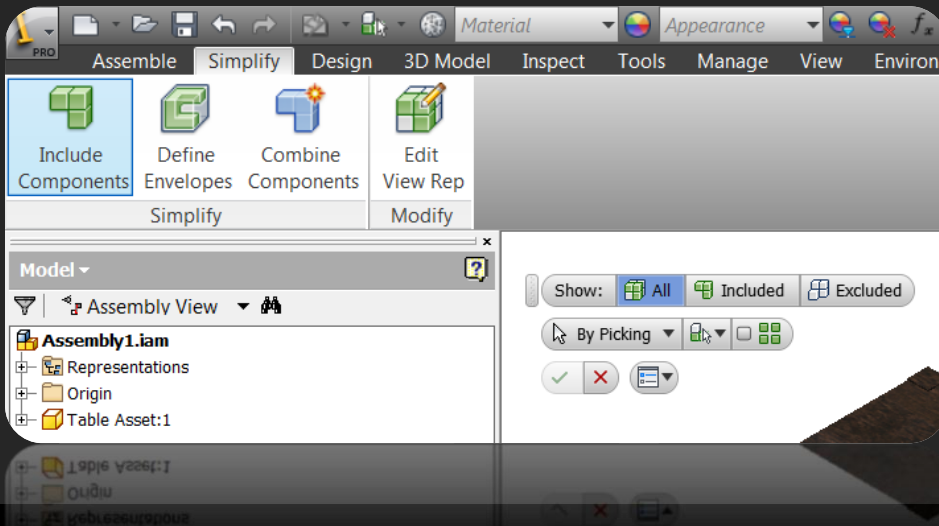
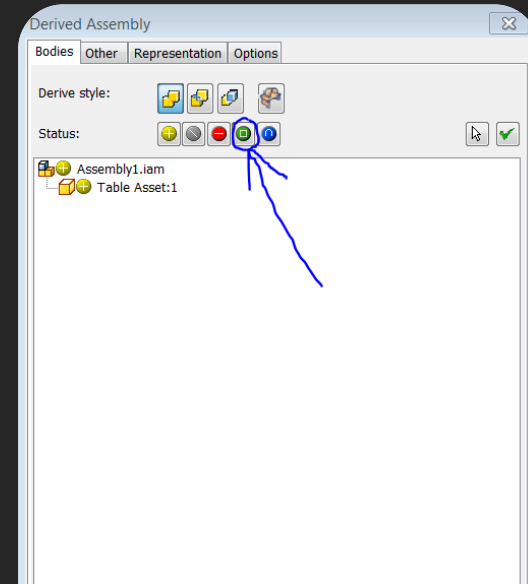
# SIMPLIFYING MODELS FOR ASSET CREATION:

## Reducing Size of Asset Models is Critical – Is it Better to Use Shrinkwrapping or Deriving?

- Deriving now offers just as many options as shrinkwrapping for simplifying an assembly – either is a good choice – Always break the link after deriving.
- Deriving allows bounding boxes around components which can be useful.
- Use the 'remove internal voids' option on both – NEW in 2013.

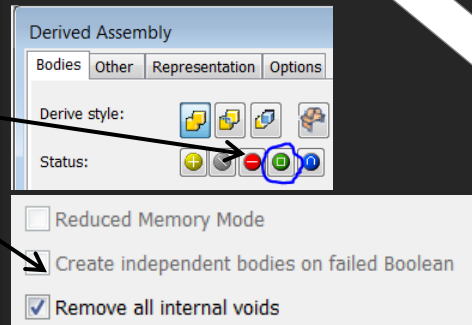
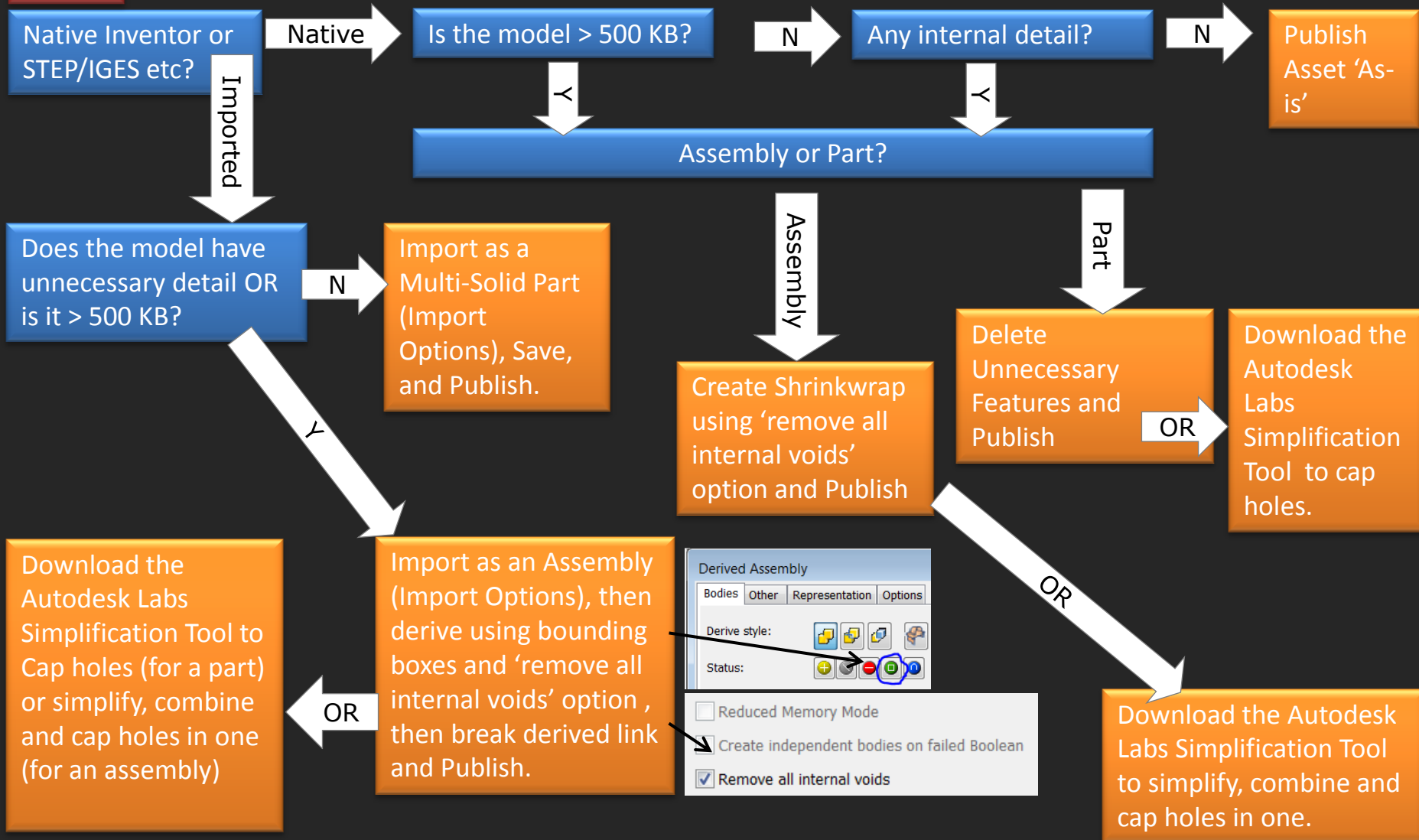
## Download the Simplification Tool from Autodesk Labs – For 2012 or 2013

- Visual selection of components to keep/remove.
- Replace fully detailed components with square OR cylindrical envelopes.
- Fill holes with greater control.
- [Download Inventor Simplification Tool](#)



# SIMPLIFYING MODELS FOR ASSET CREATION: *(a quick reference)*

Start here



# ALTERNATIVE SOURCES FOR ASSETS:

## Download Them!

- General websites: 3dcontentcentral.com, grabcad.com, traceparts.com, mitutoyo.com.
- Manufacturers websites: Becoming more common.
- Choose STEP format over IGES.

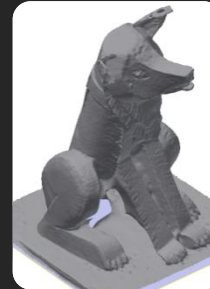


## Use 2D to 3D Tool

- Available from Autodesk Labs for Inventor 2012 – expected soon for 2013.

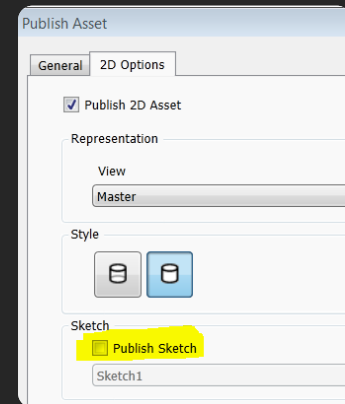
## Turn Photos into Models!

- Download Autodesk 123D Catch for free. Tutorials Online.



## Point Cloud Assets

- New in Inventor 2013!
- Change the density of the point cloud as required.
- Massive reduction in filesize compared to normal solid model.
- Downside – Can't display in drawings or layouts - need a sketch to represent asset.
- Tick the 'Publish Sketch' box and select sketch when publishing the asset.



## Use the Global Factory Asset Warehouse

- New for Factory Design Suite 2013!

# SMARTER ASSET TIPS:

- Always use multi-bodied solids, not assemblies.
- Consider Using iLogic for iProperties:
- Remember Landing Surface not Mandatory

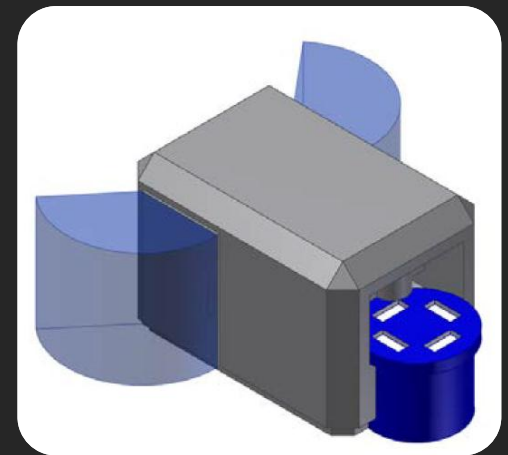
```
iProperties.Value("Project", "Part Number")="Table "+CStr(Length)+" Long X "+CStr(Width)+" Wide X "+CStr(Height)+" High"
```

- iLogic for Part Colour:

```
If Colour = "Red" Then  
iProperties.PartColor = "Red"  
End If
```

```
If Colour = "Blue" Then  
iProperties.PartColor = "Blue"  
End If
```

- Use Parametric Connector Positions.
- Model a transparent 'clearance zone' if required.
- Use faces not edges to specify connector directions.
- Don't publish assets with the 'Perspective' view active (fixed in 2013).
- Don't link parameters with other parts or link to Excel spreadsheets.
- Add plenty of insertion points to give options for placement when inserting (tab to switch between them)
- Use Asset Variants for fixed sizes and 2D AutoCAD layout. If not using AutoCAD then use Key Parameters (with multi-value list if fixed sizes required)



click here  
to read  
my blog

**Thank you for your time!**

Luke Davenport – Industry Specialist

[CADline Community - Luke Davenport's Blog](#)

