



Creating Drawings with Autodesk Inventor 2014

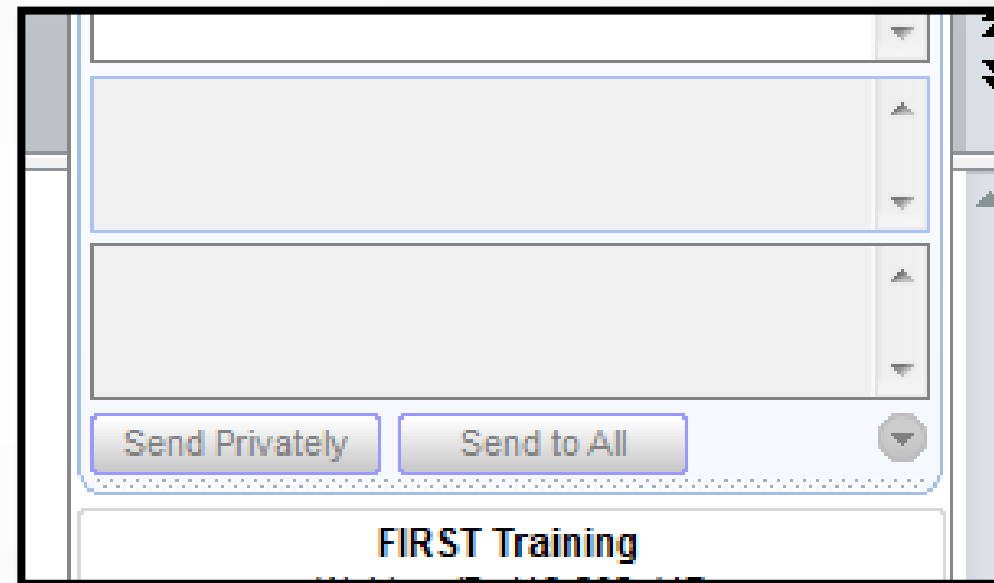
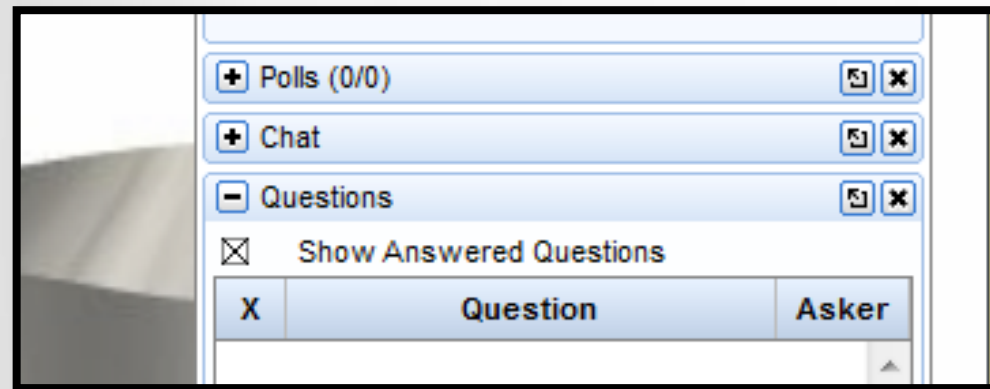
Andrew Sears – Fusion360 and Inventor QA

Dan Banach – Program Manager, Autodesk Education



Webinar Q&A

- Type questions in GoTo Webinar



- We are recording and will post when possible

Student Resources

- <http://students.autodesk.com>
- <http://autodesk.com/first>
- <http://www.youtube.com/user/AutodeskEd>
- <http://wikihelp.autodesk.com/enu>
- <http://engineeringexploration.autodesk.com>
- FIRST@autodesk.com
- <http://bxd.autodesk.com/>

Free software for students – Personal PC and Resources

- Download software from Autodesk Education Community

- <http://students.autodesk.com>

- 40+ titles available for FREE

- 3 year license

- 7.2 + million members

- Gallery showcase

- Learning materials

- Additional YouTube Videos

- <http://www.youtube.com/user/AutodeskEd>

Autodesk® Inventor®

AutoCAD®

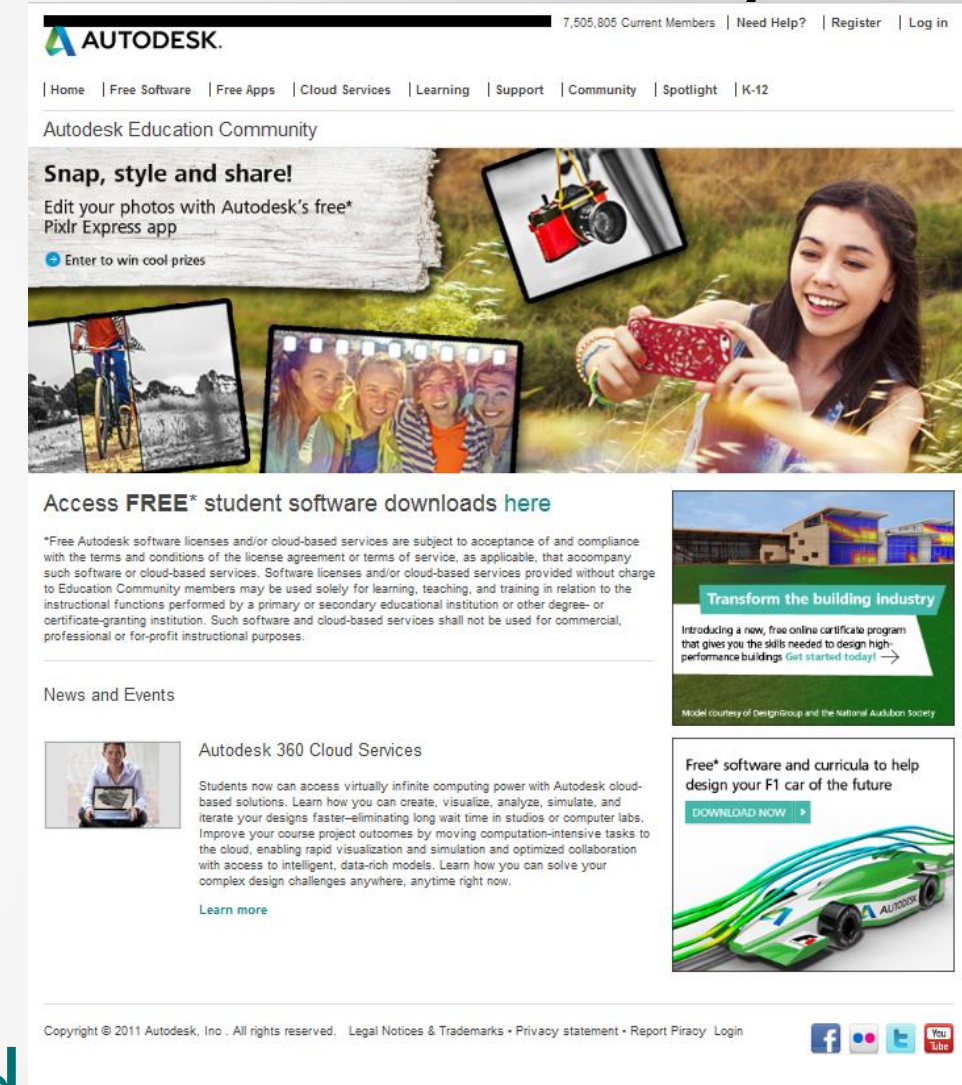
Autodesk® Revit®

Autodesk® Civil 3D®

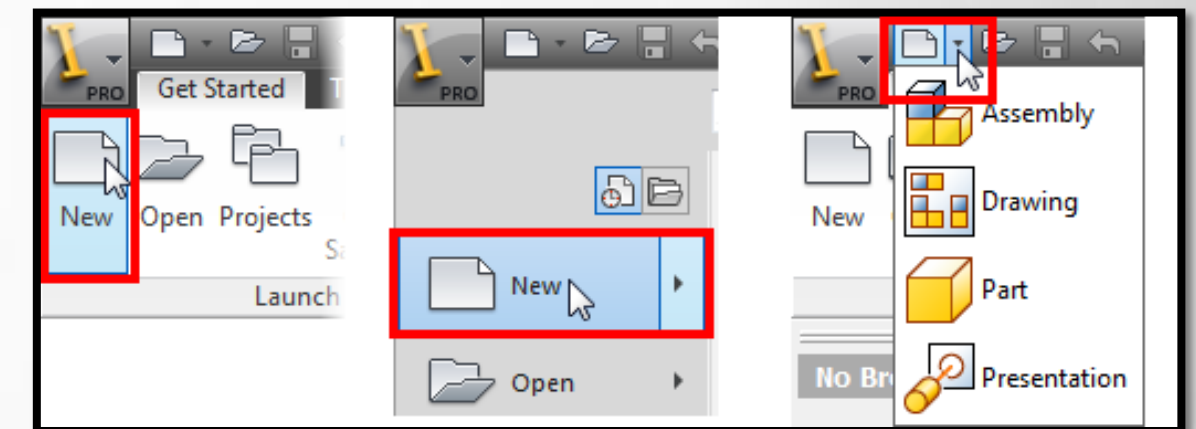
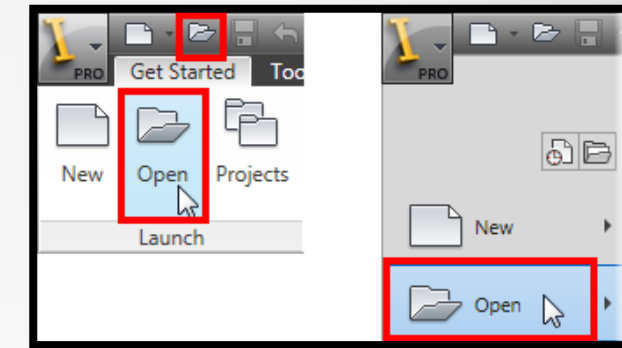
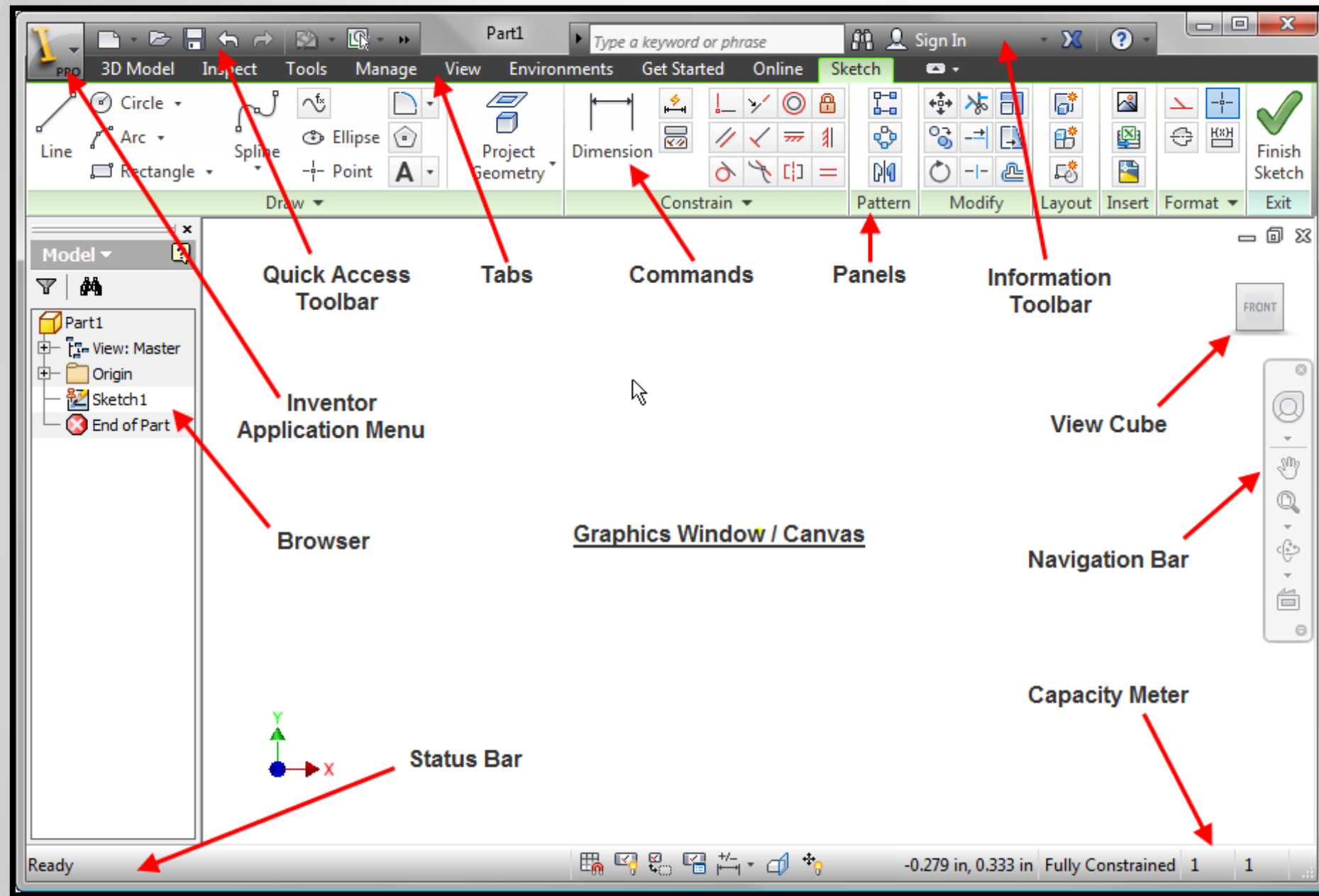
Autodesk® 3ds Max®

Autodesk® Maya®

And more...



User Interface – Refresher



Drawings

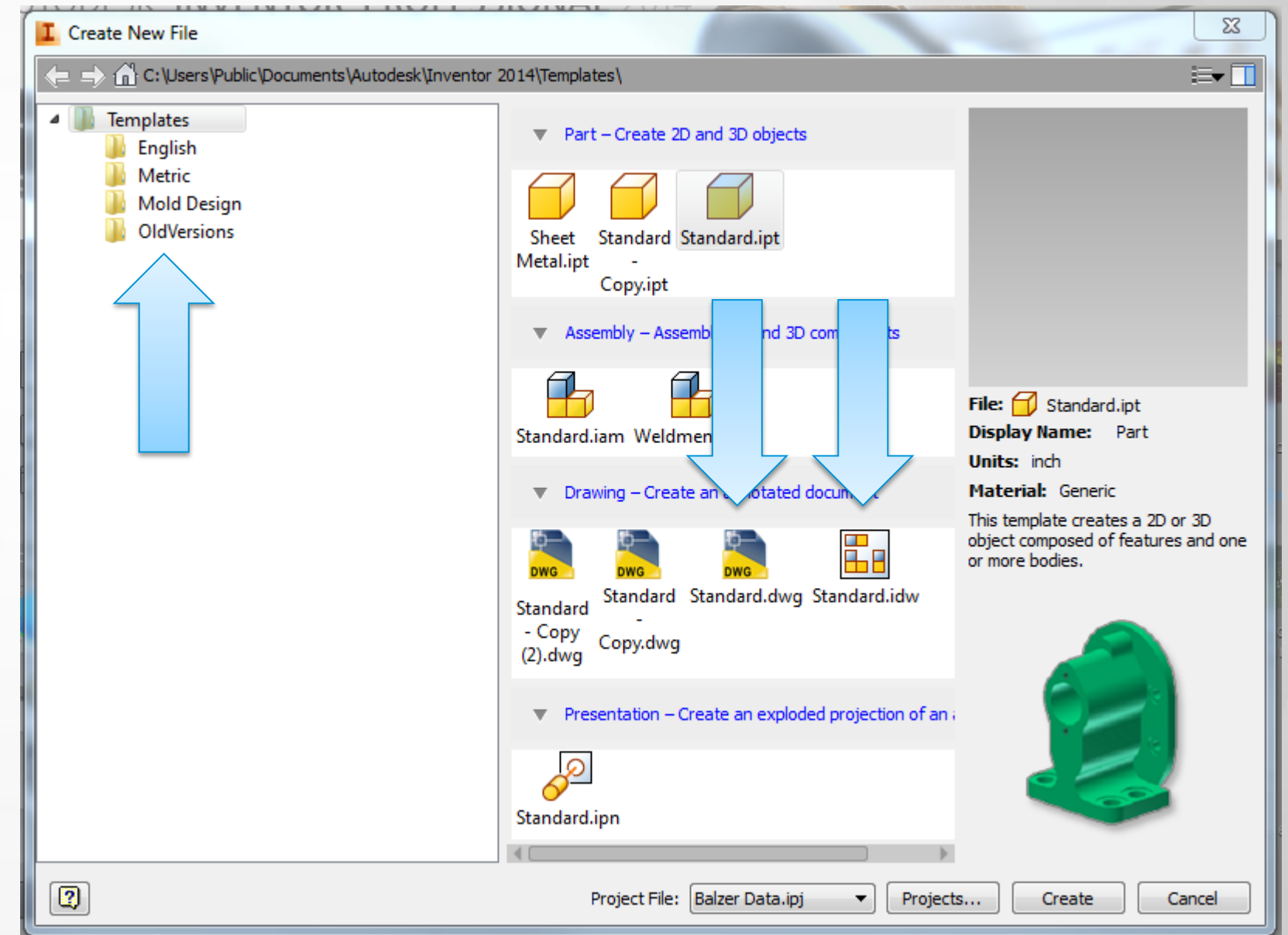
- After this webinar, you will be able to:
 - Open a new drawing
 - Prepare the drawing
 - Create base and projected drawing views from a file
 - Create auxiliary, section, detail and broken views
 - Edit drawing properties
 - Create hole notes
 - Open a model from a drawing
 - Open a drawing from a model

Drawings – cont.

- After this webinar, you will be able to:
 - Add general dimensions, baseline, chain, and ordinate dimensions
 - Edit, move, and hide dimensions
 - Add automatic centerlines
 - Repair sick dimensions
 - Add annotations such as text and leaders
 - Retrieve and arrange model dimensions for use in drawing views
 - Save as PDF

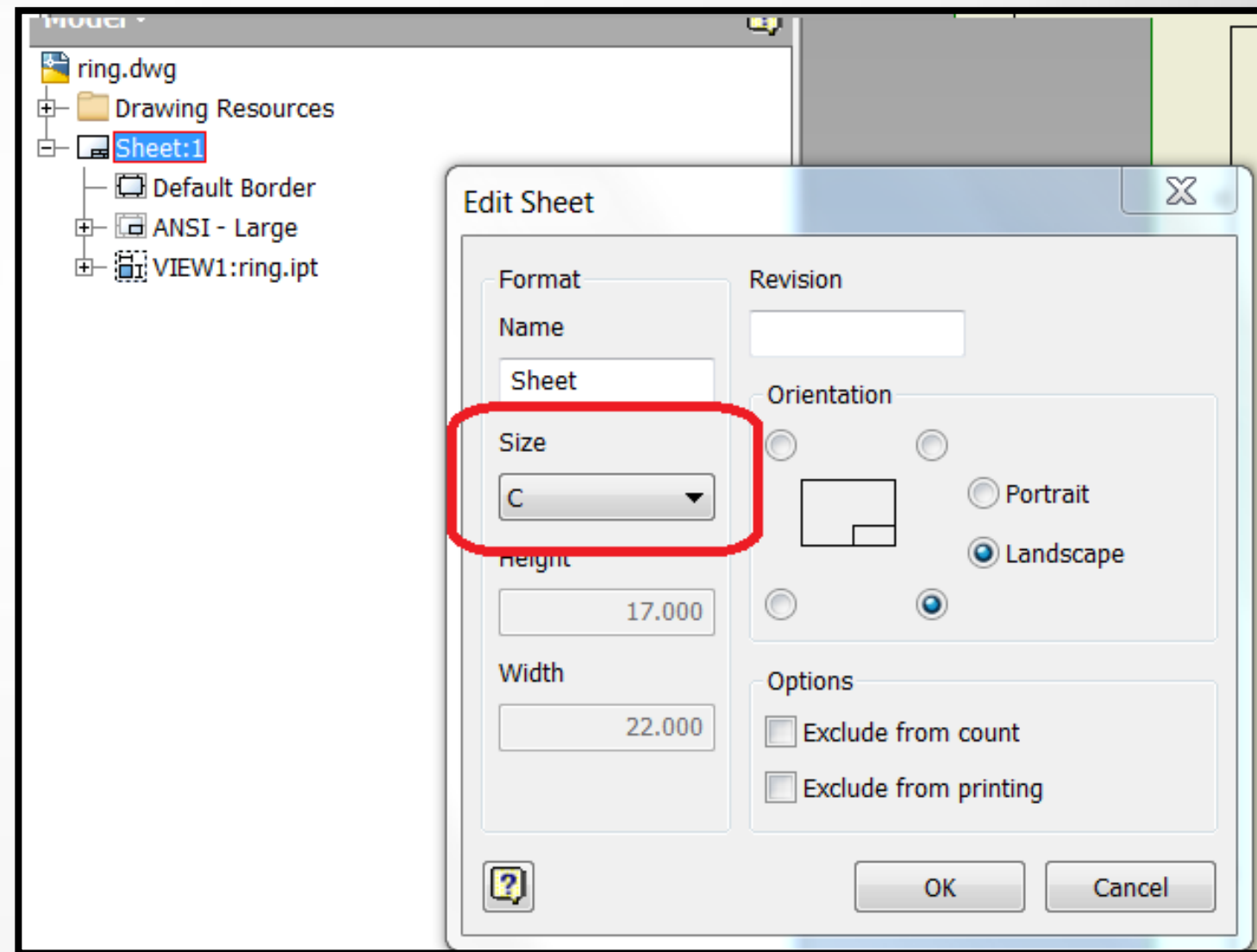
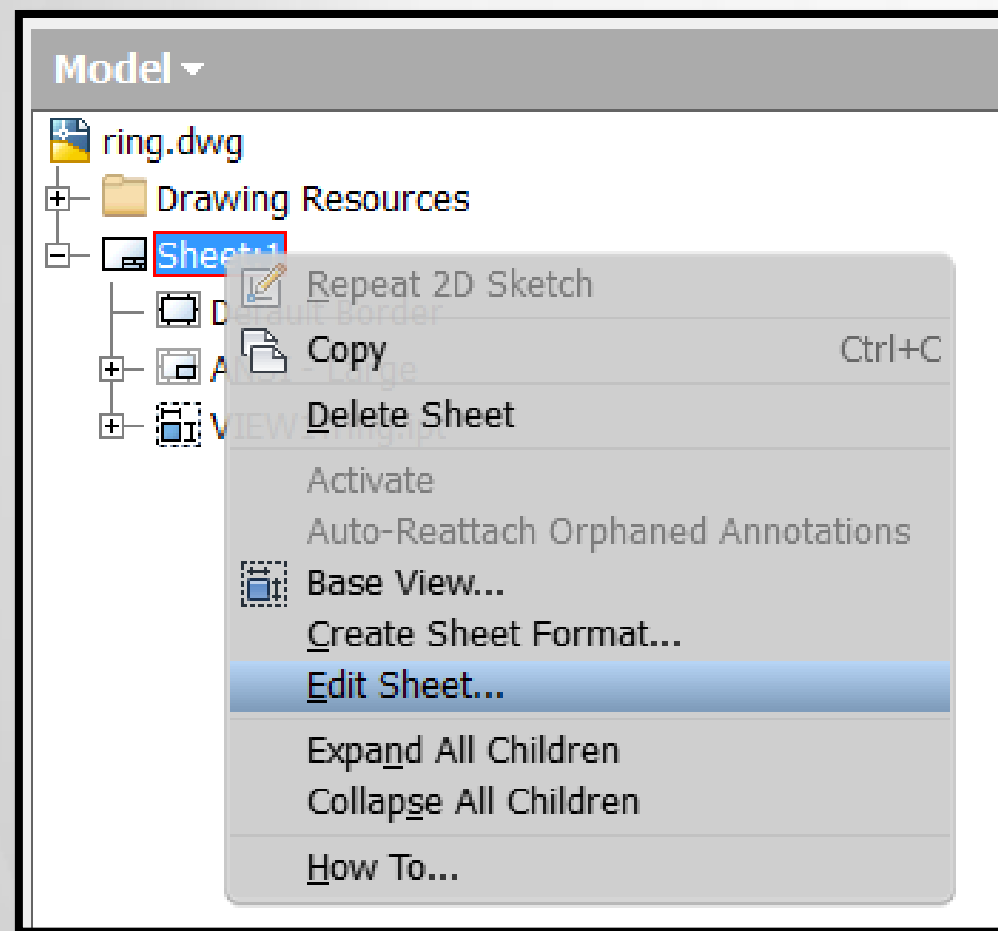
Open and Create New Files – Refresher

- Open
 - Open an existing Autodesk Inventor file
- New
 - Template for a new part, sheet metal part, assembly, presentation, or drawing



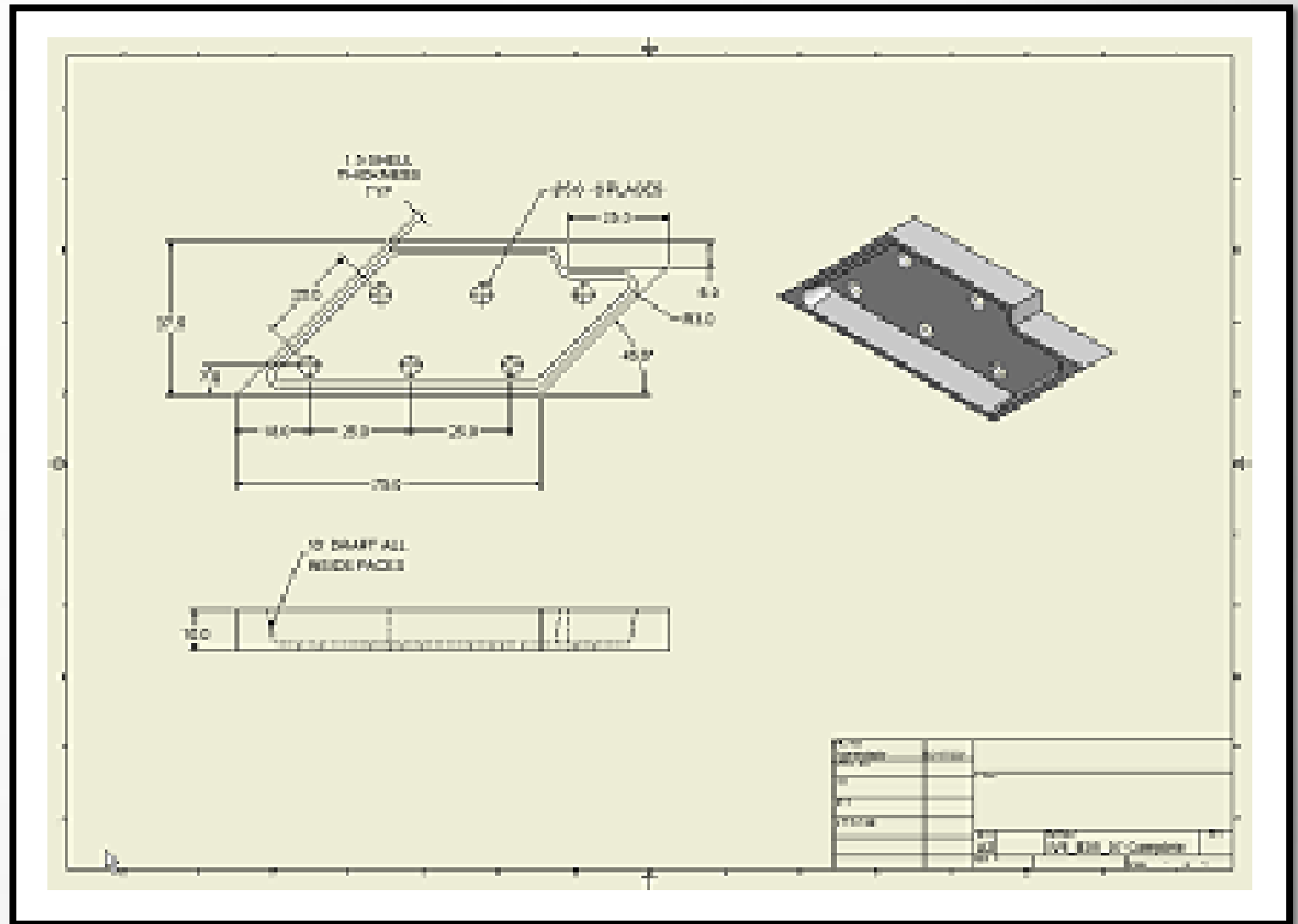
Modifying the Drawing

- Modify drawing sheet size



Creating Drawing Views

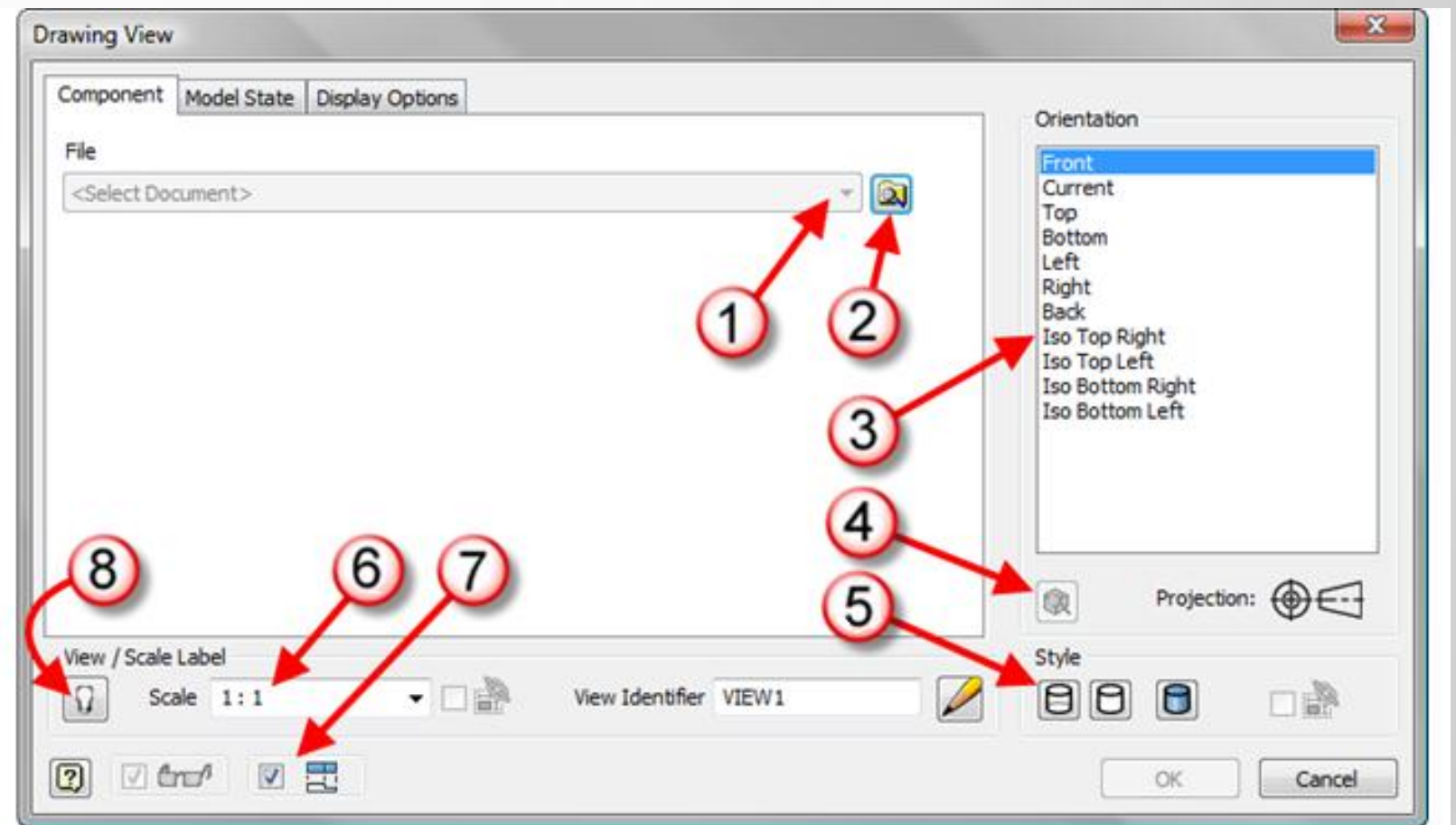
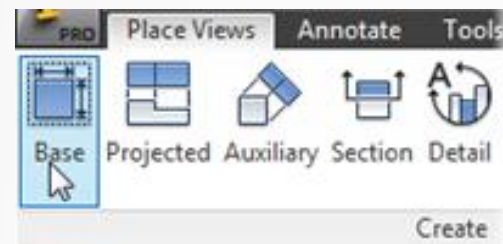
- Creating Drawing Views
 - Created from an existing part, assembly, or presentation file
 - Types..
 - Base View
 - Projected View
 - Orthographic (Ortho View)
 - ISO View
 - Auxiliary View
 - Section View
 - Detail View
 - Break View



Creating Drawing Views

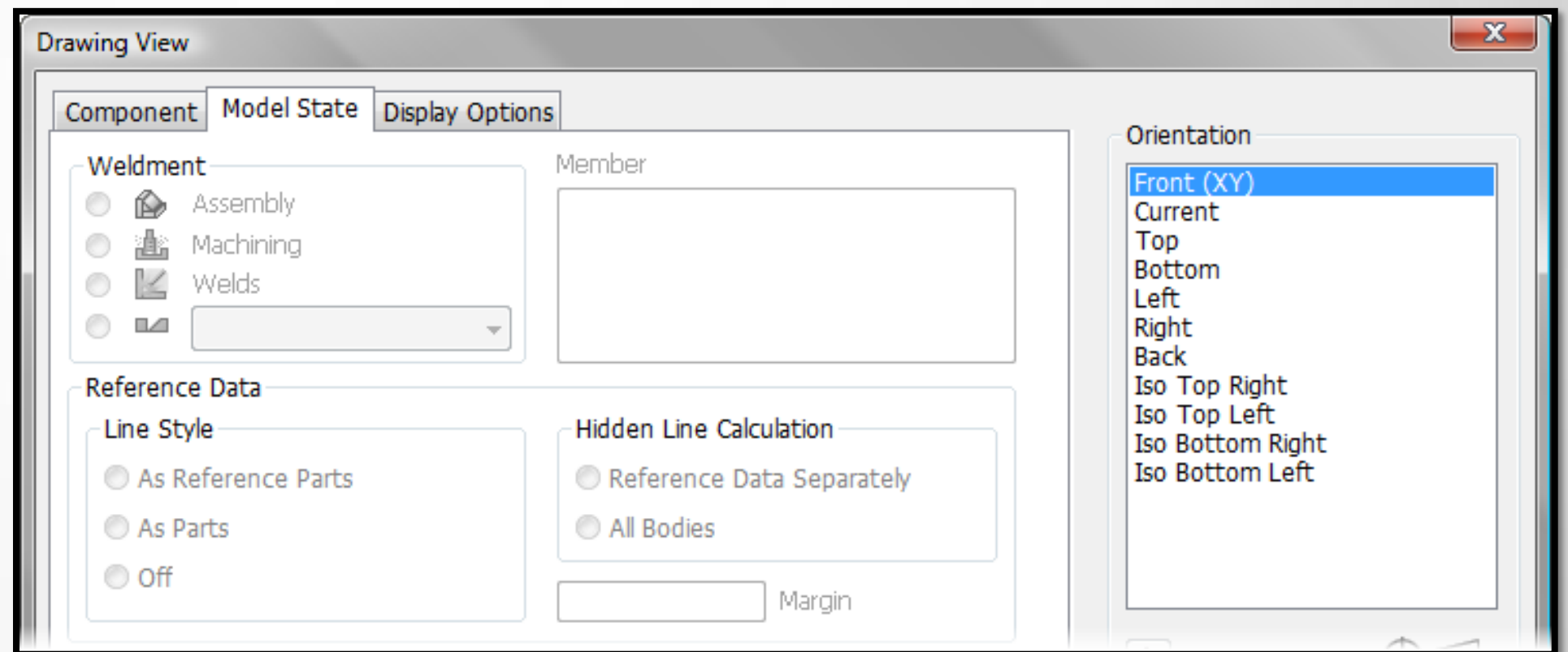
■ Base View - Component tab

1. Model selection
2. Browse
3. Orientation
4. Custom Orientation
5. Visual Style
6. View Scale
7. Automatically project views
8. Display Scale under view



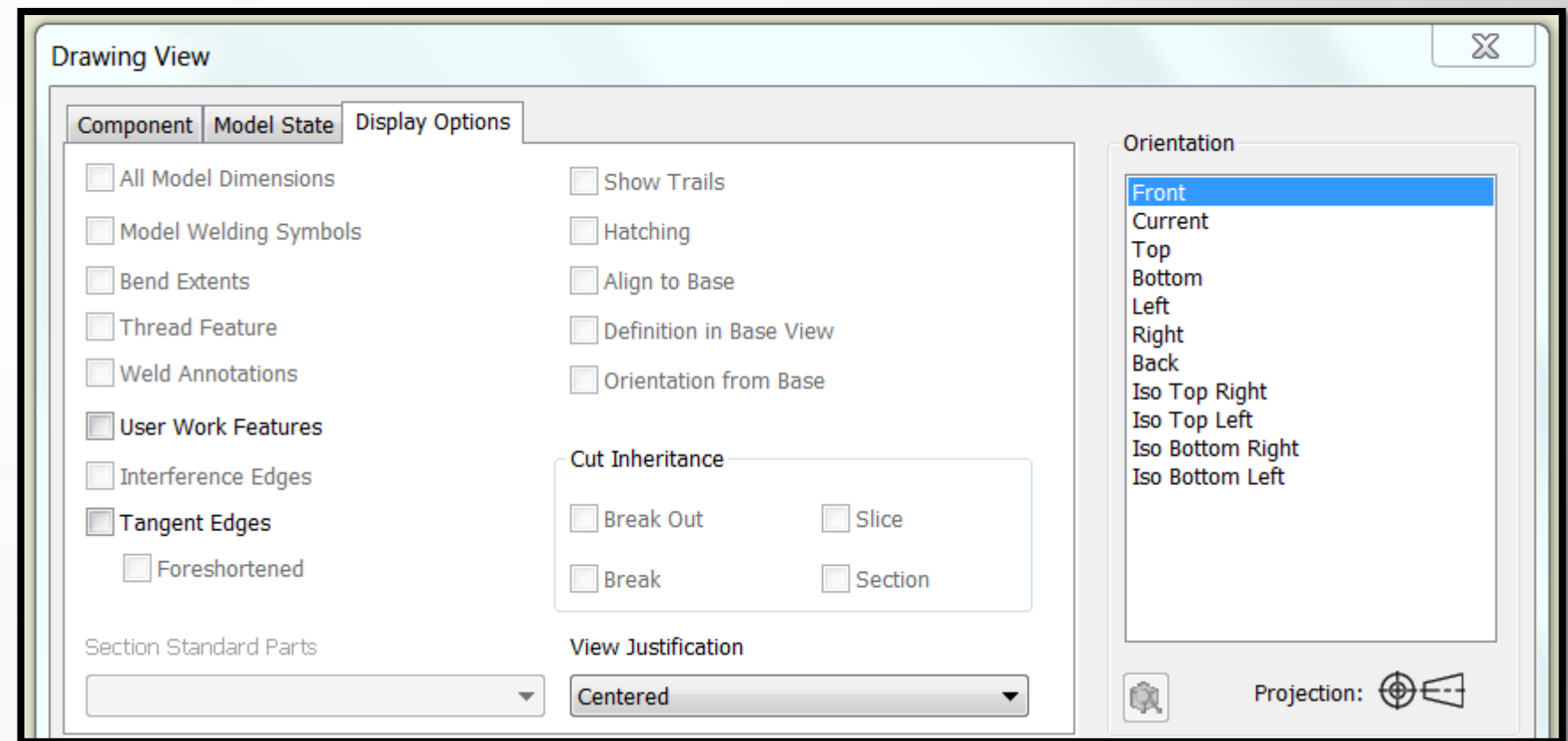
Creating Drawing Views

- Base View – Model State tab
- Options change depending on file selected
 - Reference Data
 - Hidden line



Creating Drawing Views

- Base View – Display Options tab
 - Interference Edges
 - Tangent Edges



Creating Drawing Views

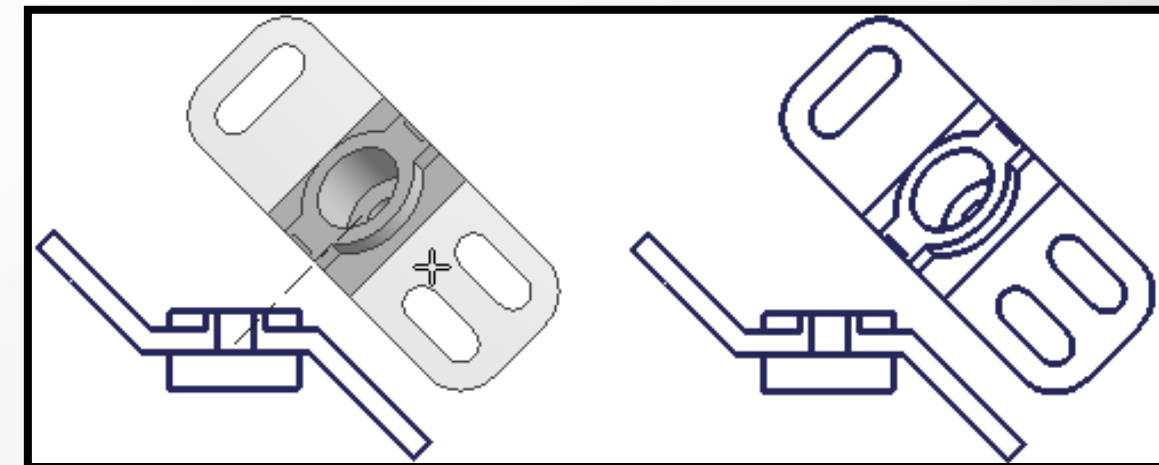
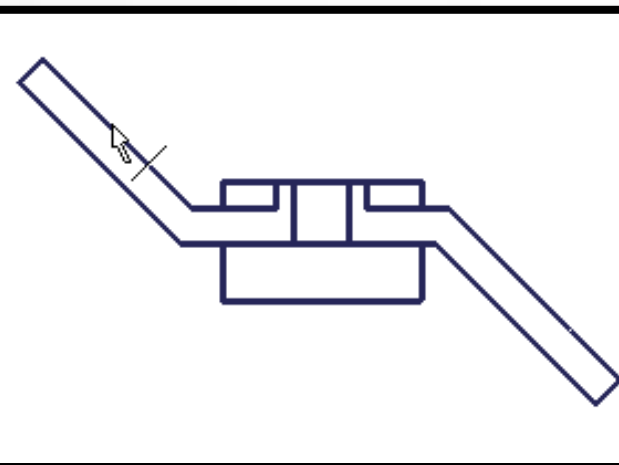
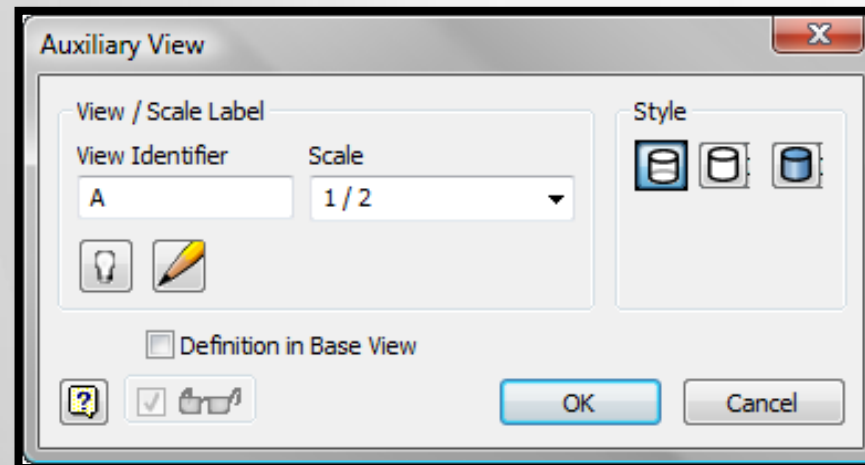
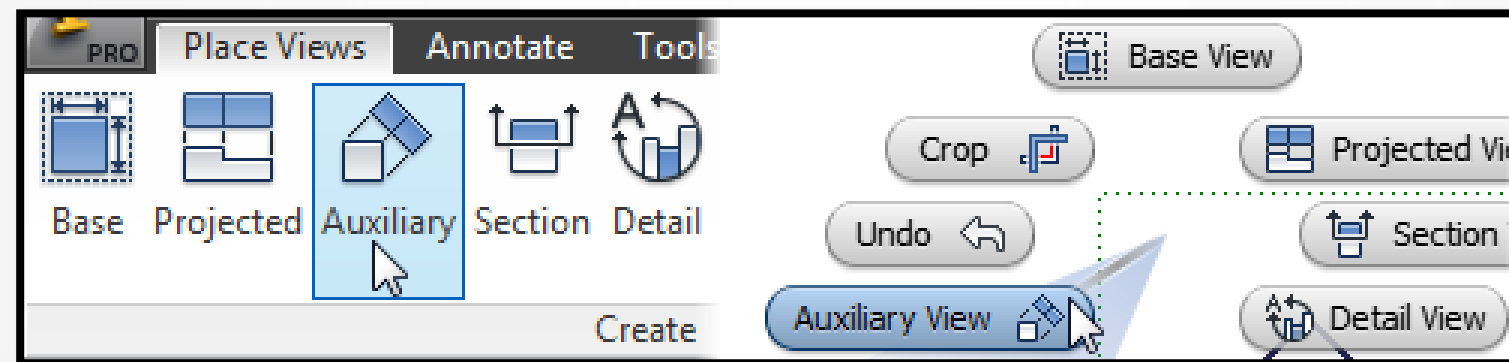
- Demo – Placing Views

Creating Additional Drawing Views and Editing

- Additional Drawing Views
 - Auxiliary
 - Section
 - Detail
- Additional Drawing View modifiers
 - Break
 - Break Alignment

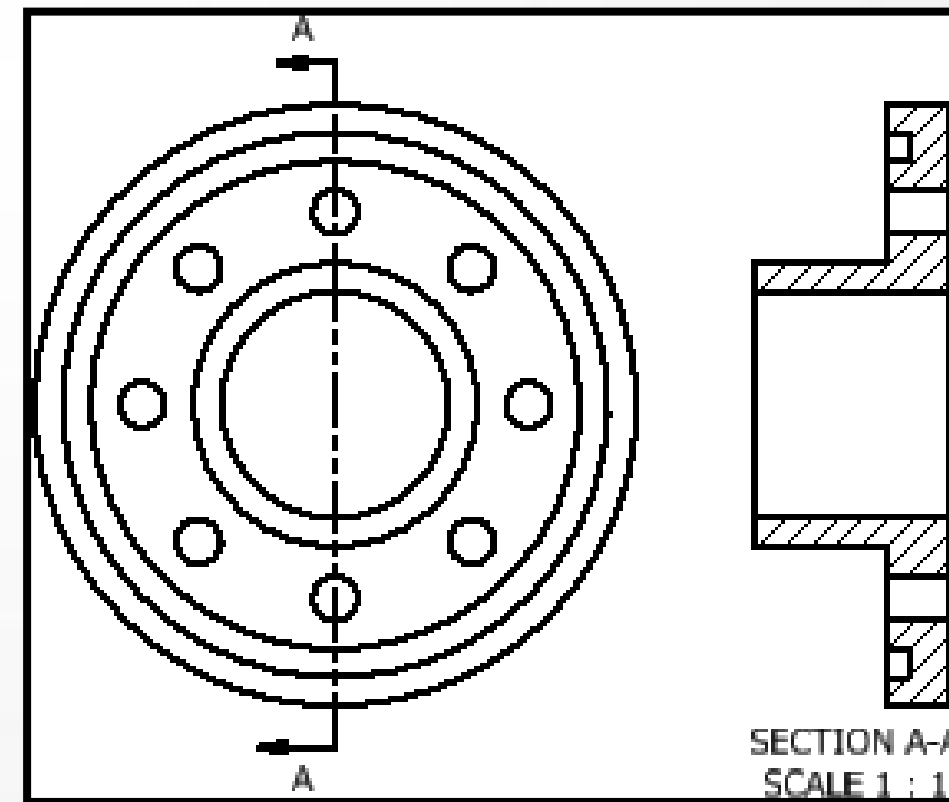
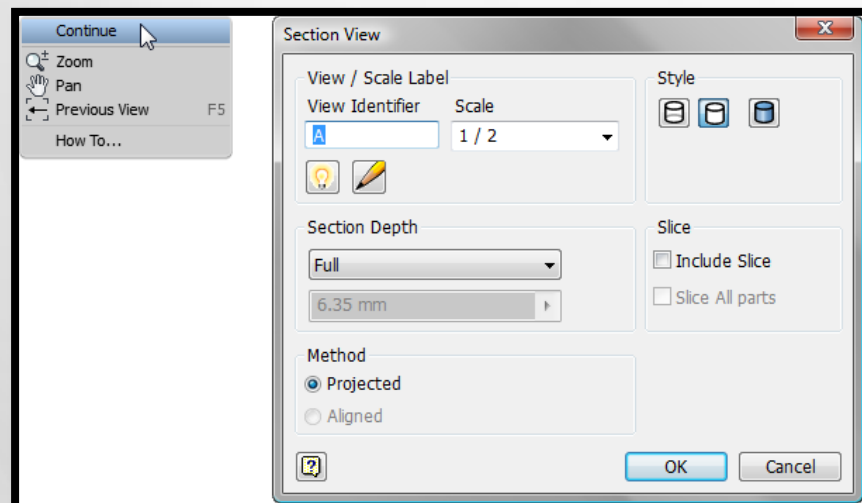
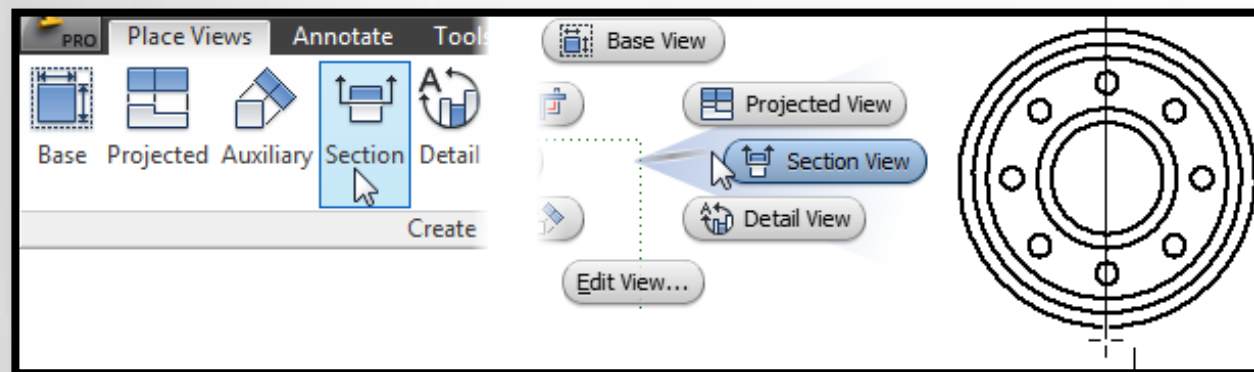
Creating Additional Drawing Views and Editing

- Auxiliary Views are projected views using an existing edge as the 90 degree projection



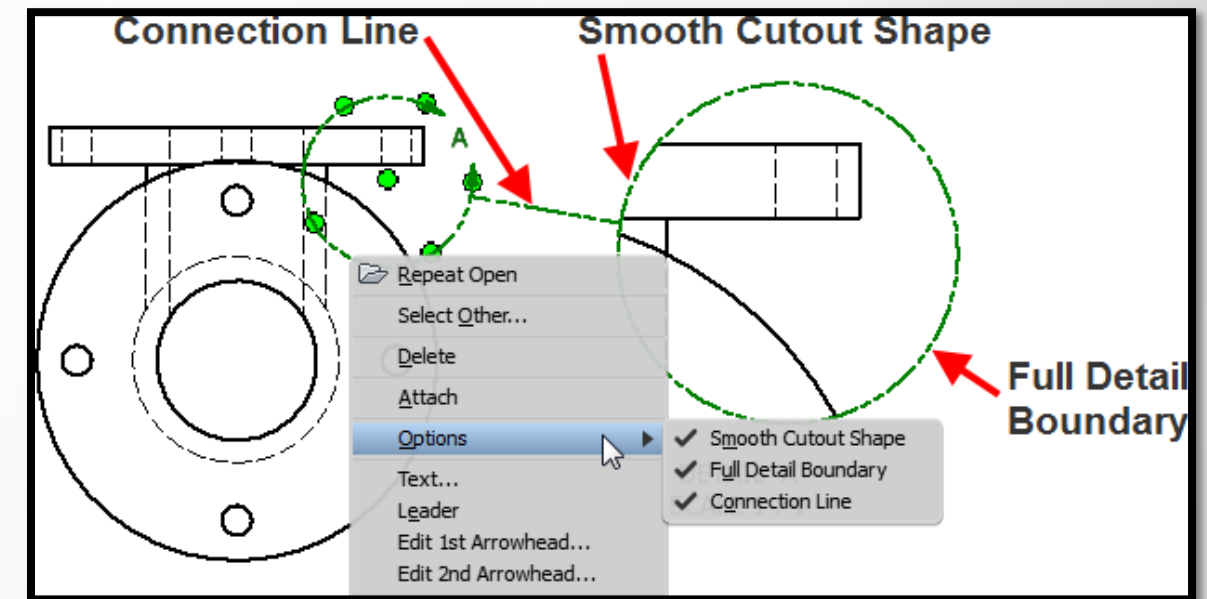
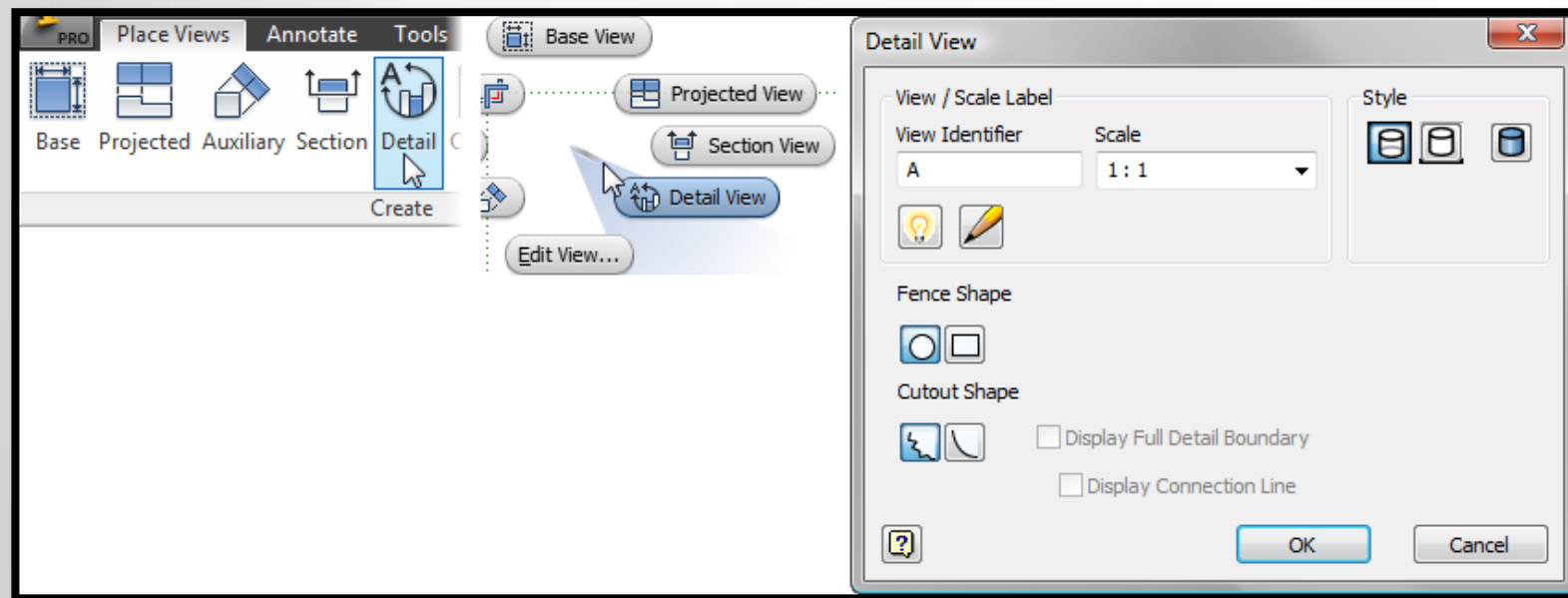
Creating Additional Drawing Views and Editing

- Section Views display the inside of a model
 - Hatched lines indicate sectioned view



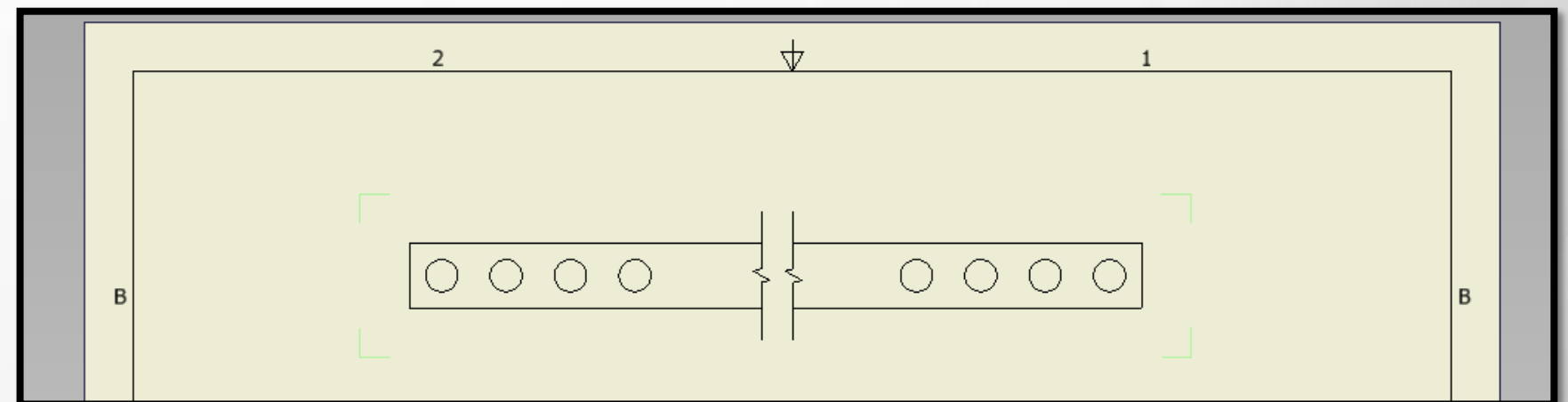
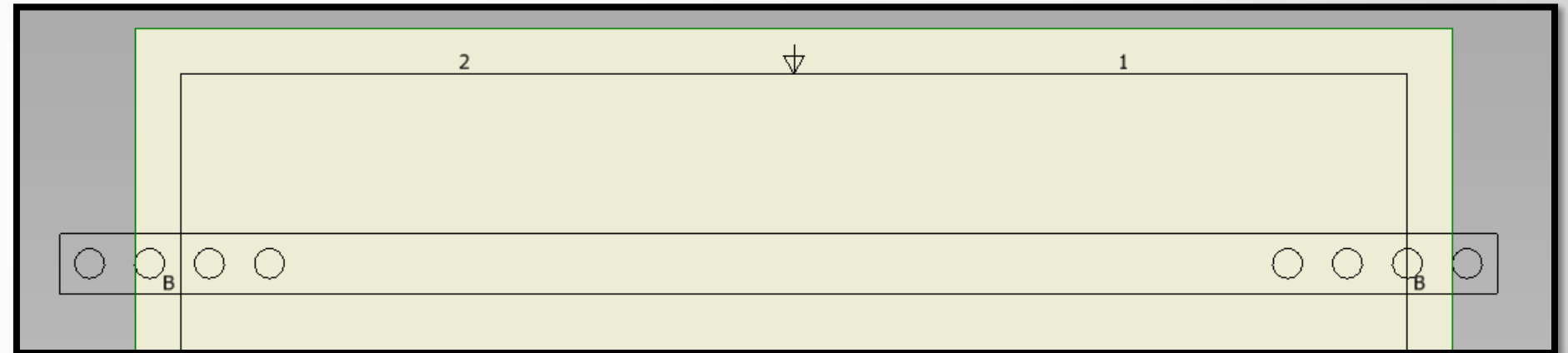
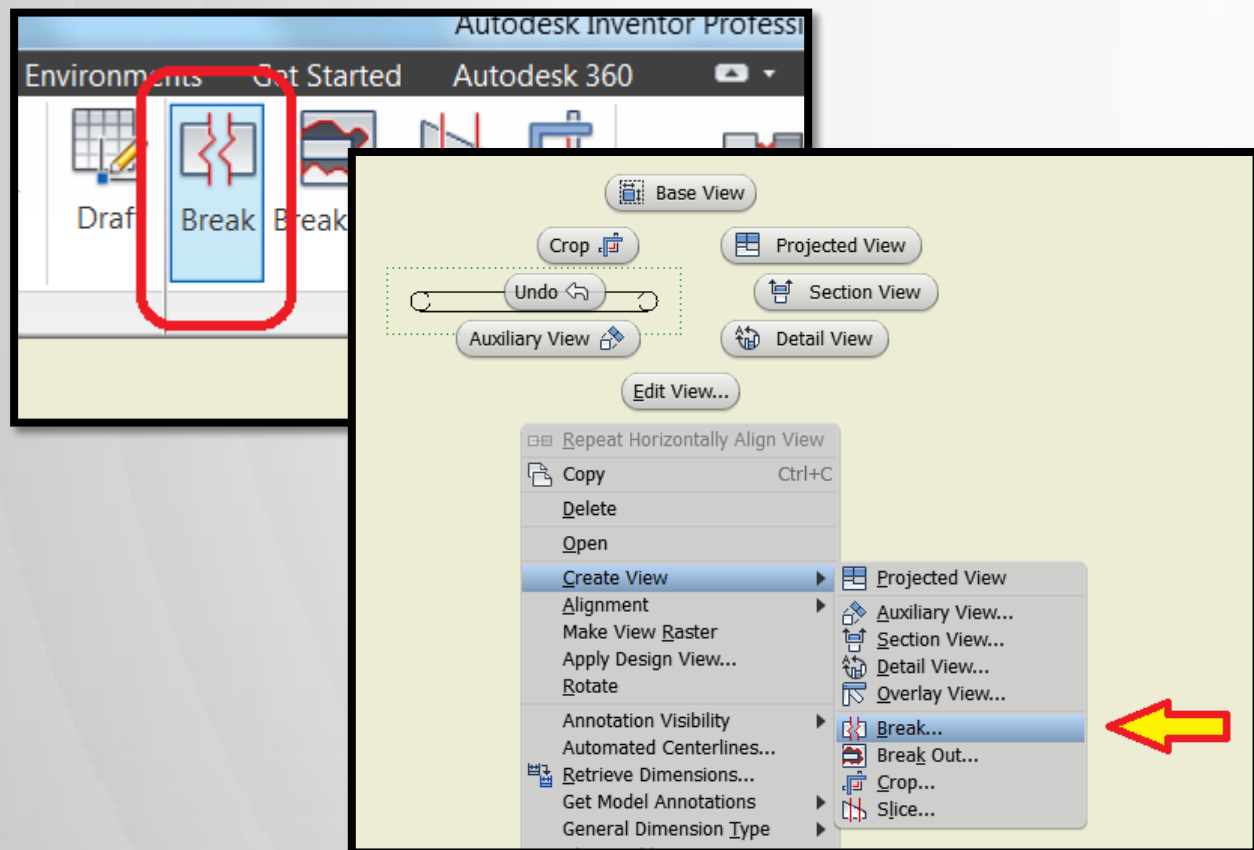
Creating Additional Drawing Views and Editing

- Detail Views bring attention to small details
 - These views are usually enlarged from base view (magnifying glass)



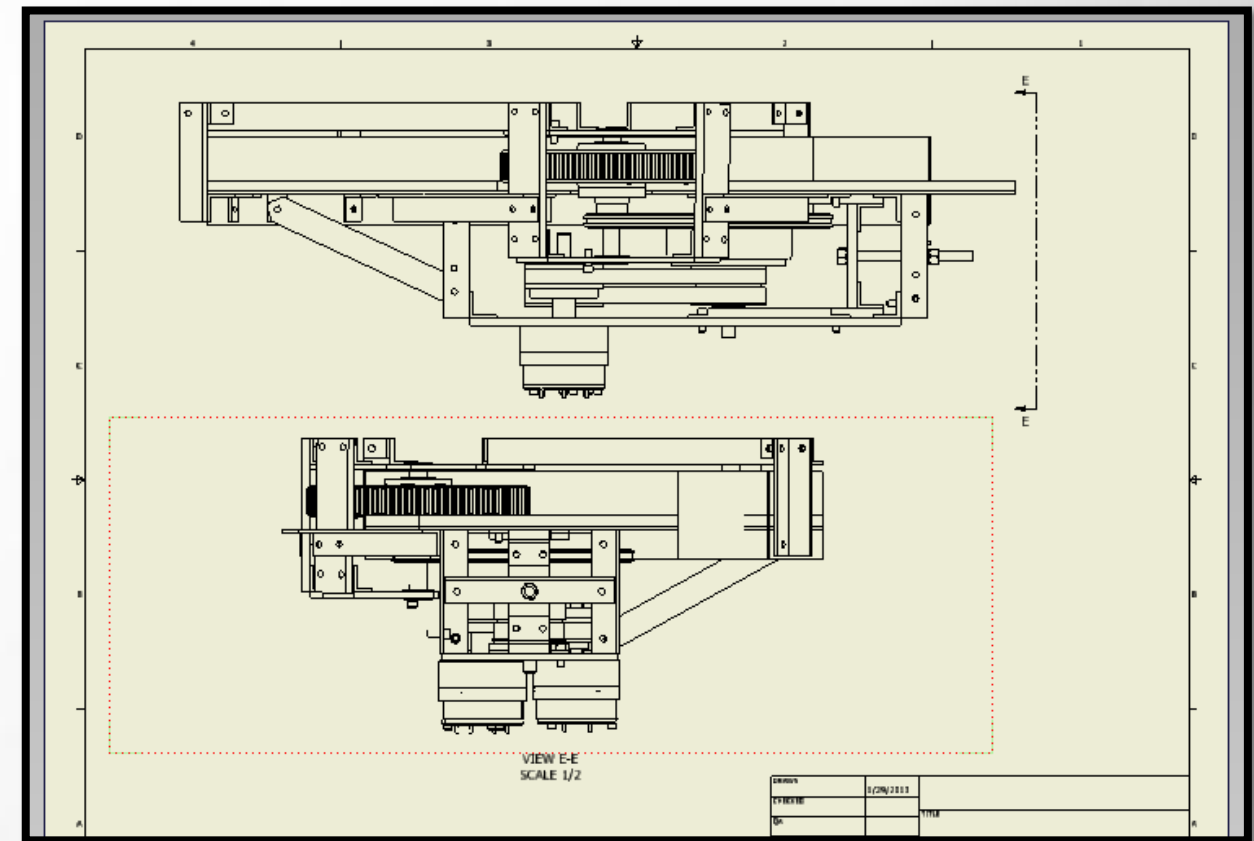
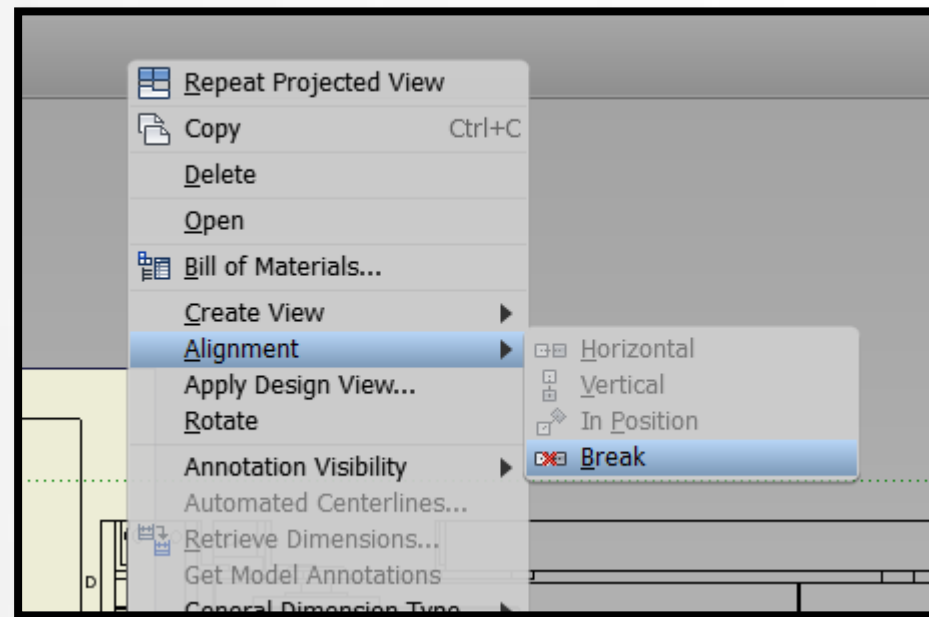
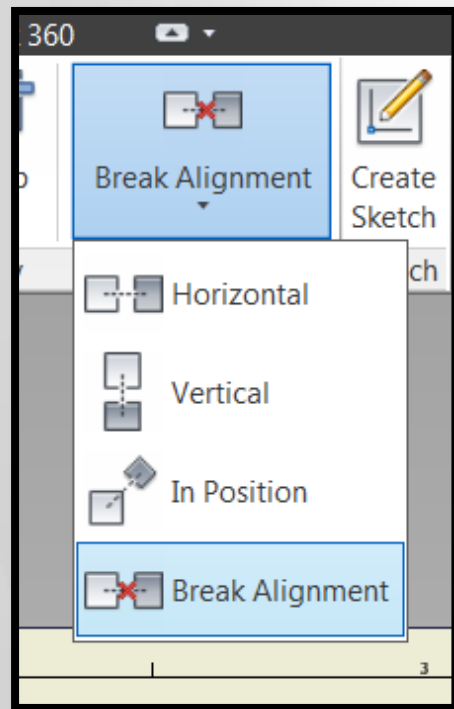
Creating Additional Drawing Views and Editing

- Break views will help with detailing long/narrow models
 - Alternative to Detail Views when more of the model needs to be visible



Creating Additional Drawing Views and Editing

- Breaking view alignment will help with detailing long/narrow models where Break is not suitable

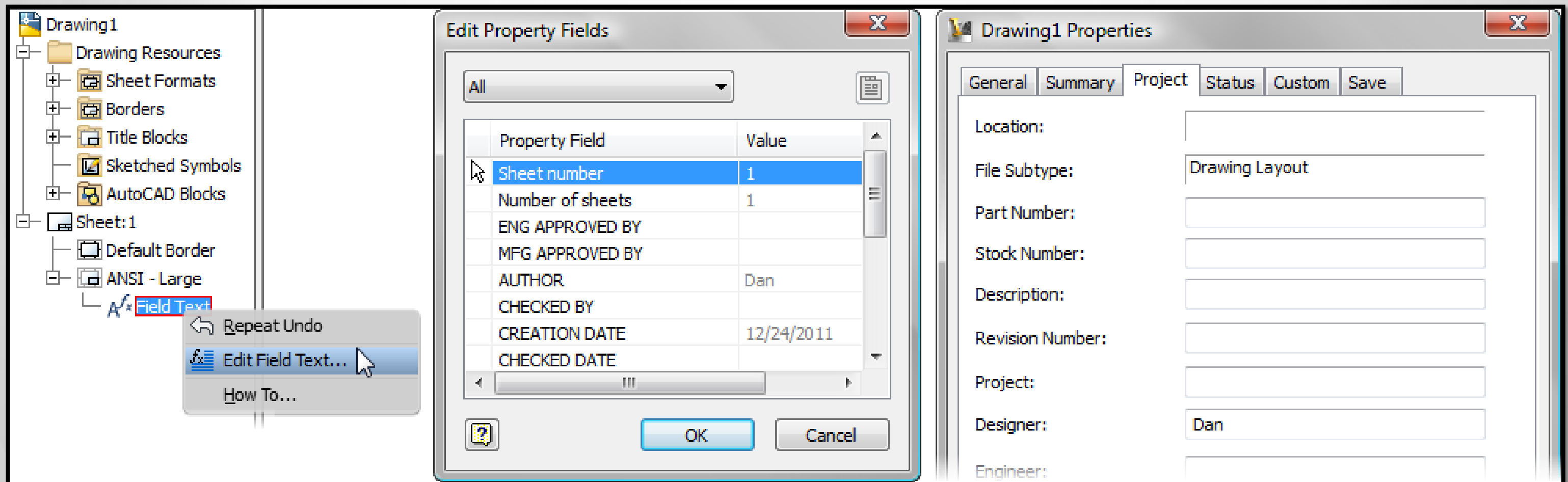


Creating Additional Drawing Views and Editing

- Demo – Additional Views & Editing

Property Fields

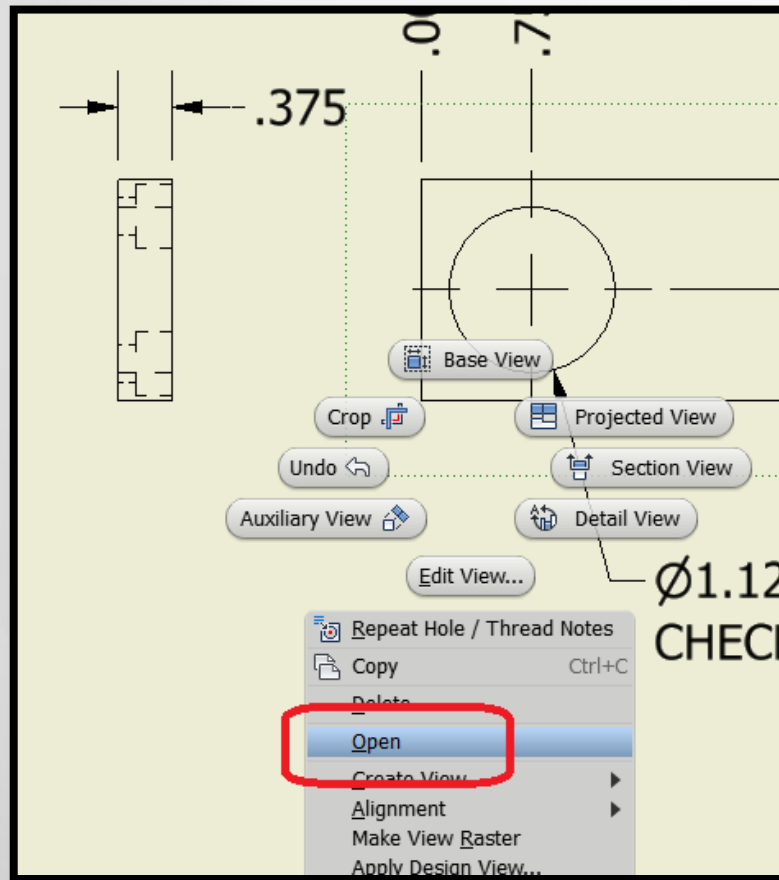
- Editing
- iProperties (RMB on Drawing node in Browser)



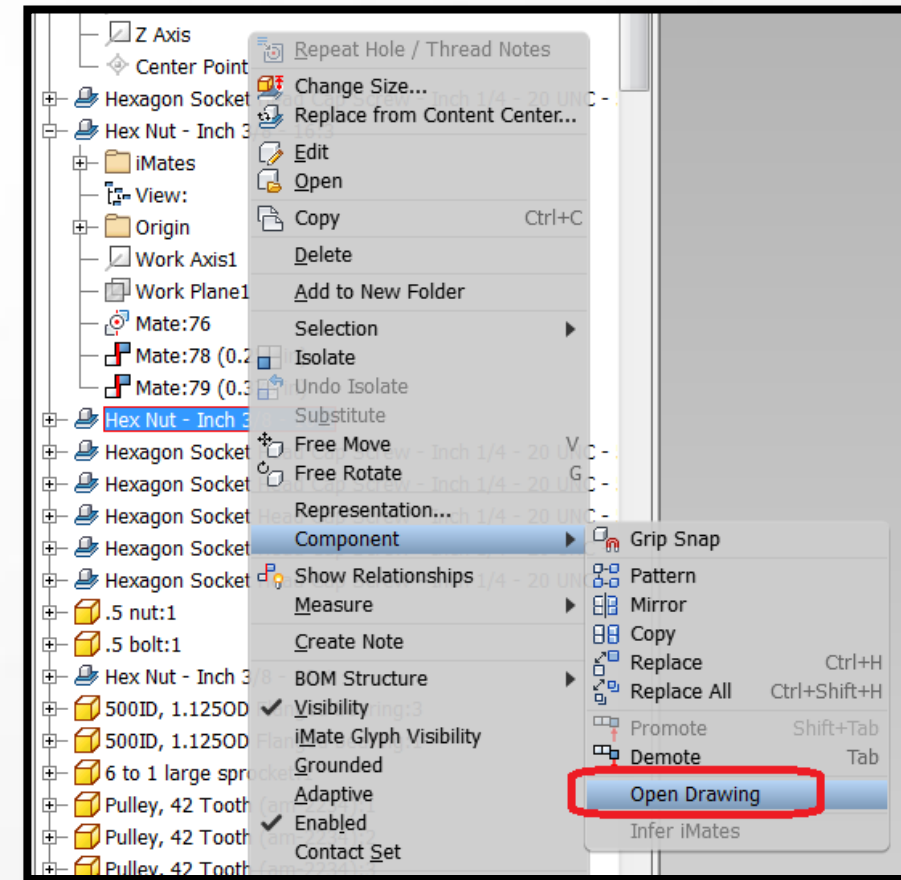
Open Model or Drawing

- You can open files from anywhere!

Open the model from the drawing

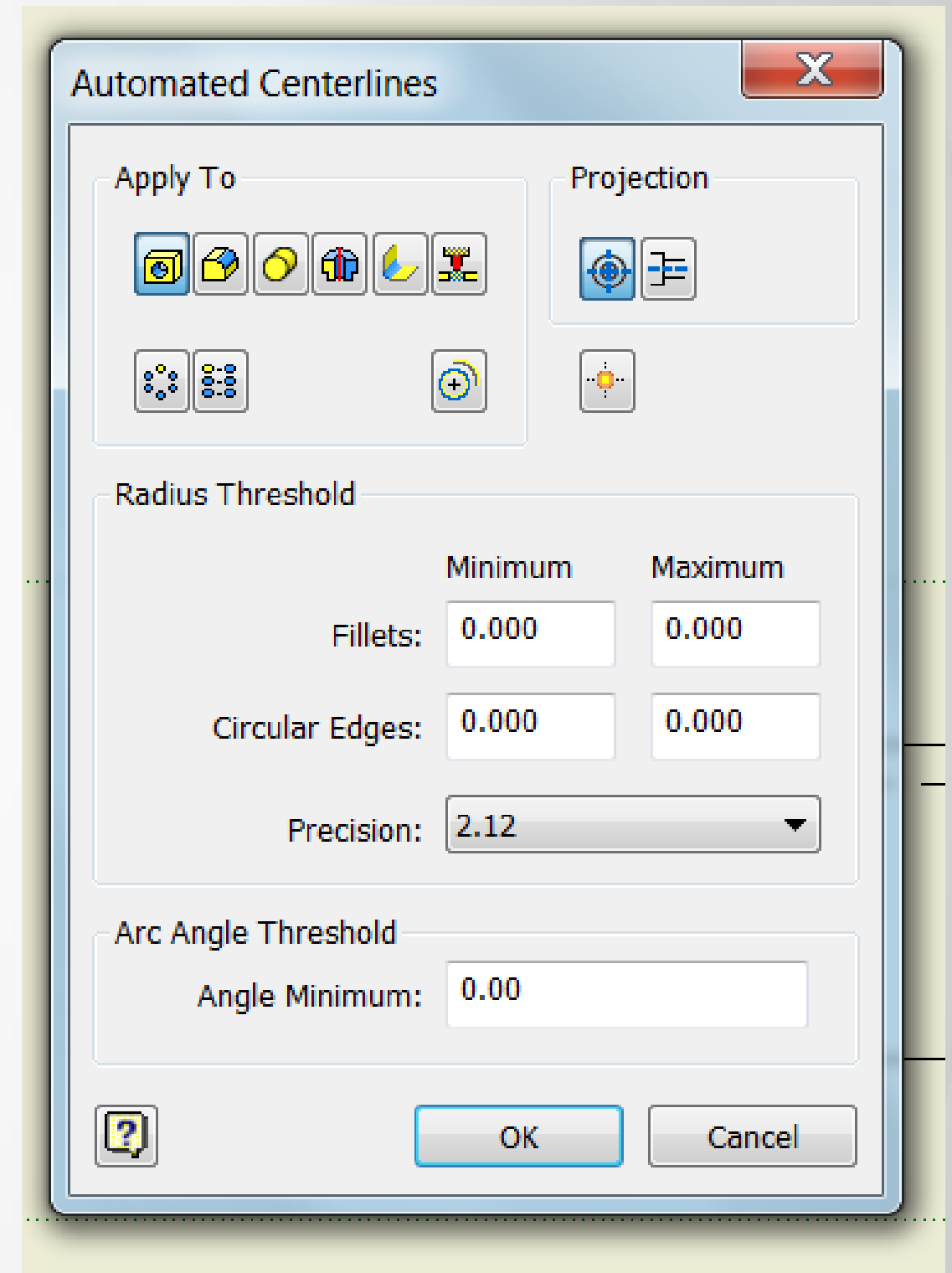
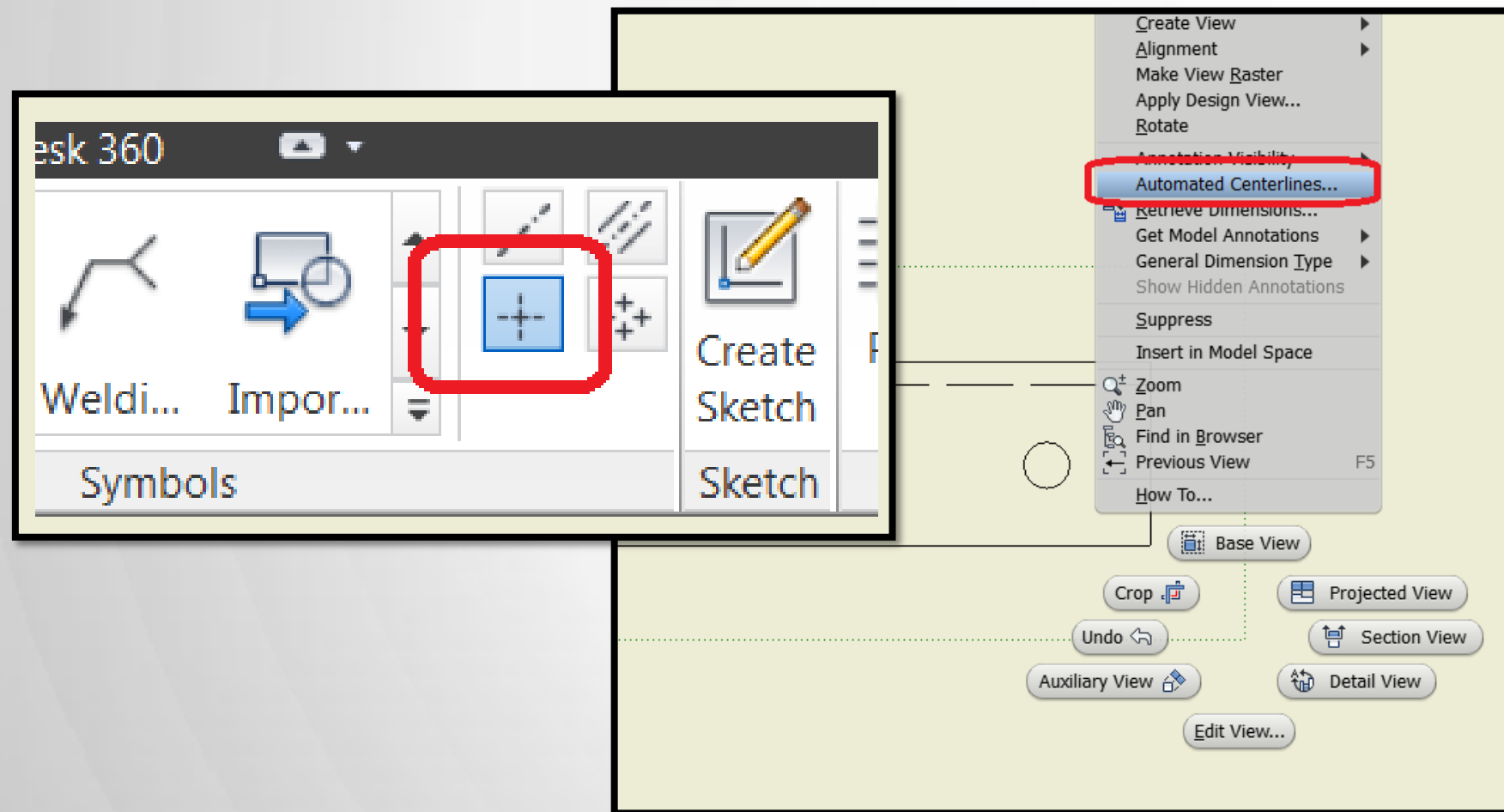


Open the drawing from the model



Automatic Centerlines

- Automatic Centerlines will speed up the detailing process

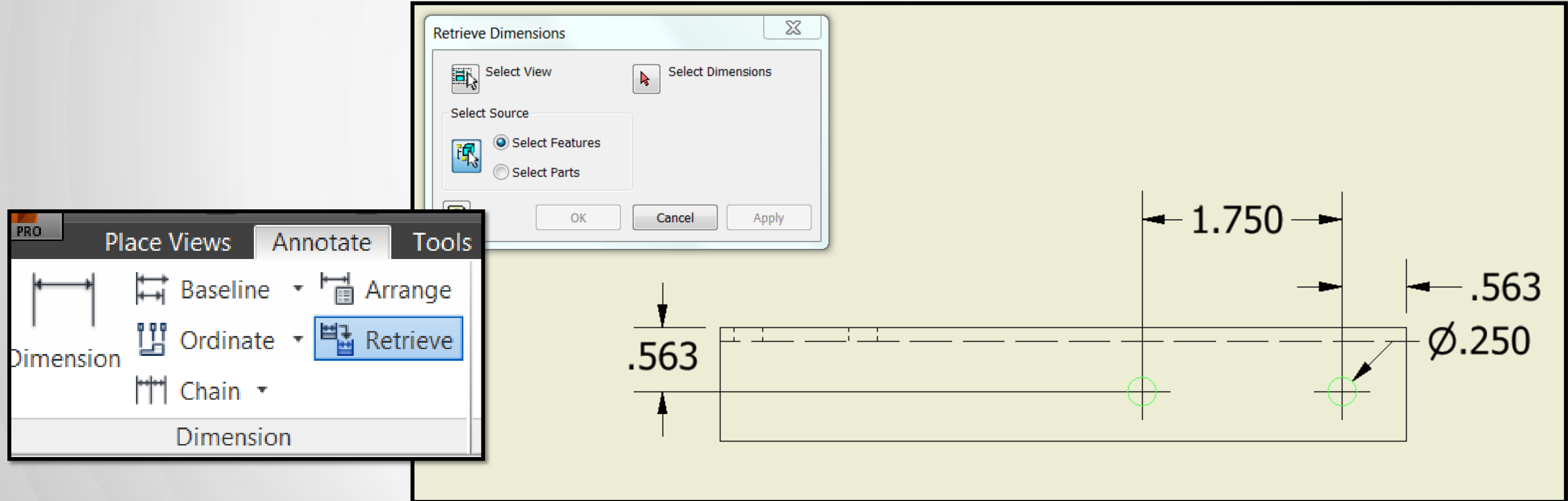


Adding Dimensions

- Dimension types to know
 - Retrieve
 - Dimension
 - Baseline Set
 - Chain
- **IMPORTANT!!!**
 - Do not override drawing dimensions!!!

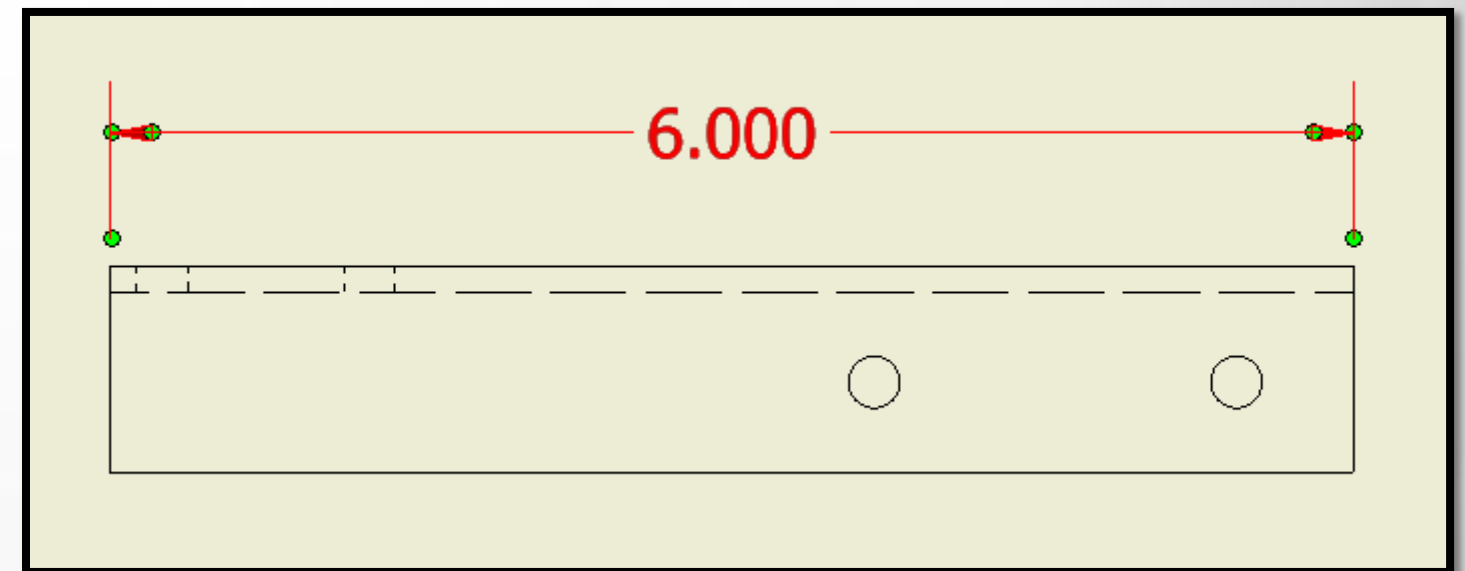
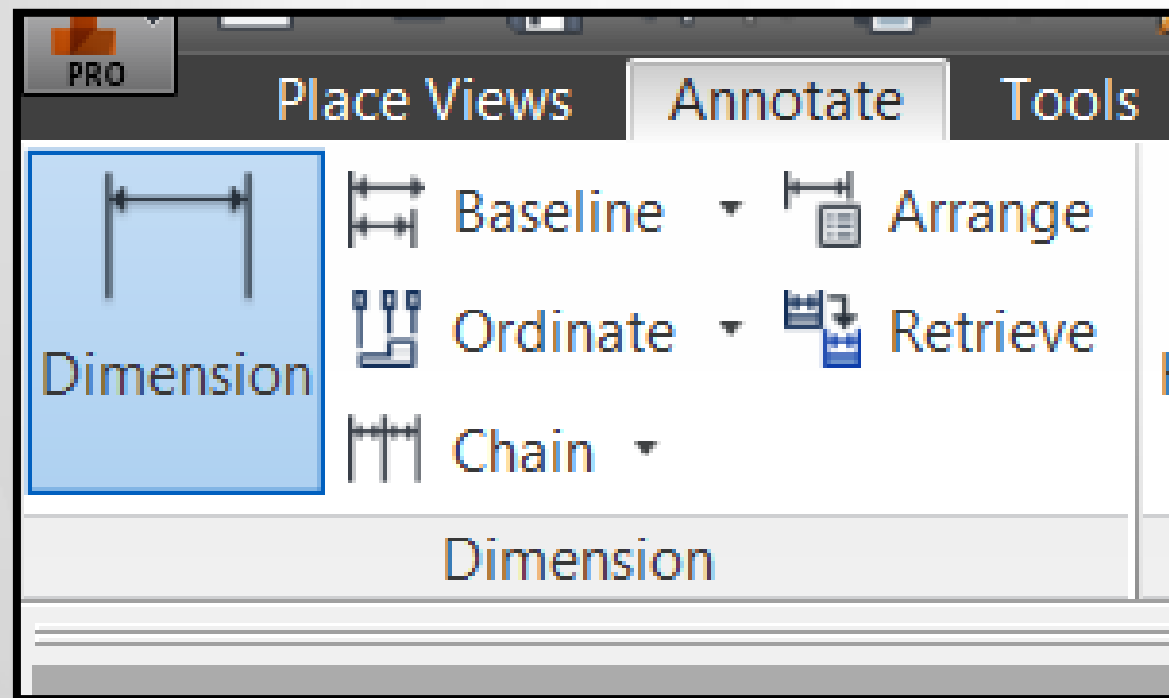
Adding Dimensions

- Retrieve Dimensions
 - Grabs dimensions from features or parts



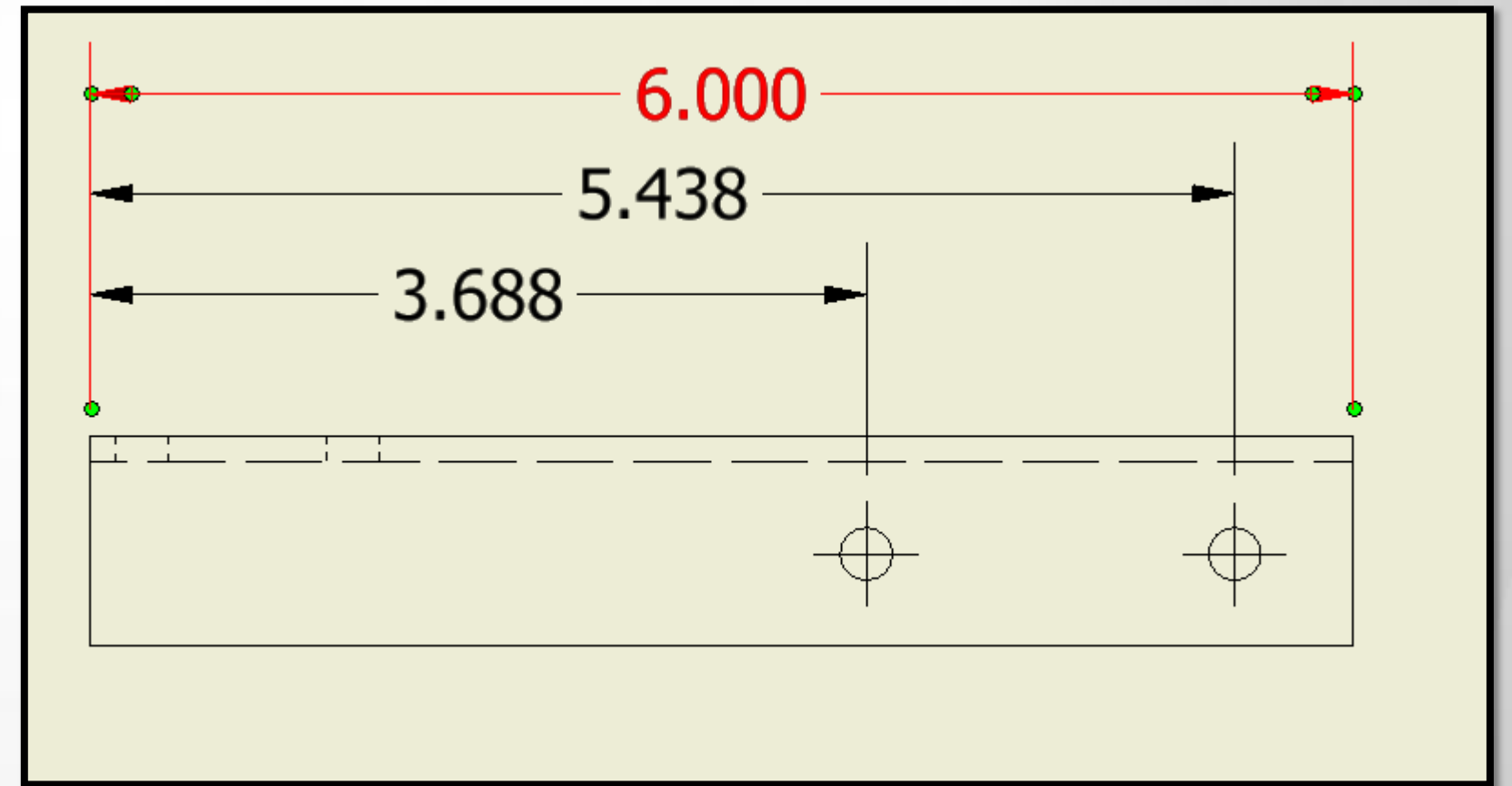
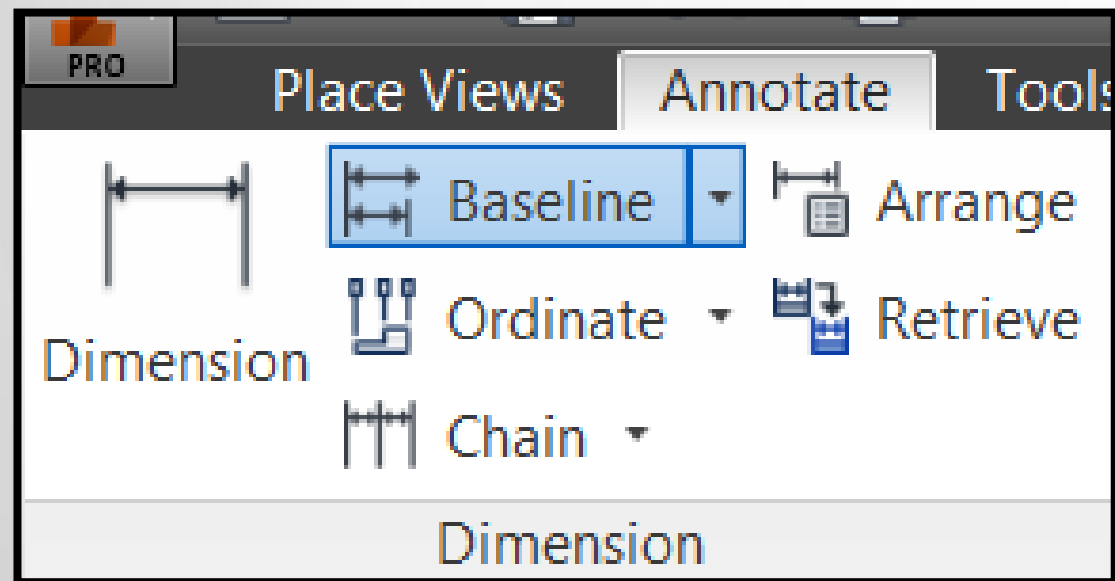
Adding Dimensions

- Dimension
 - Select Edges, end points and mid-points
 - Quick key to activate dimension is "d"



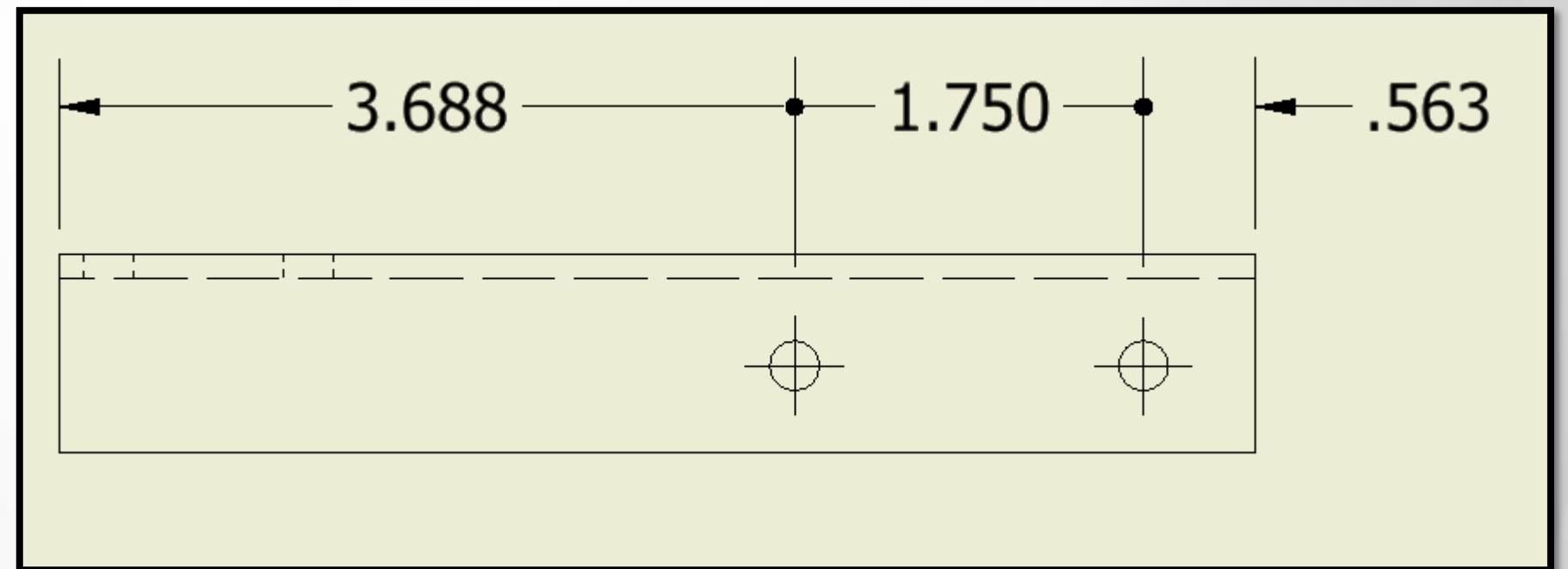
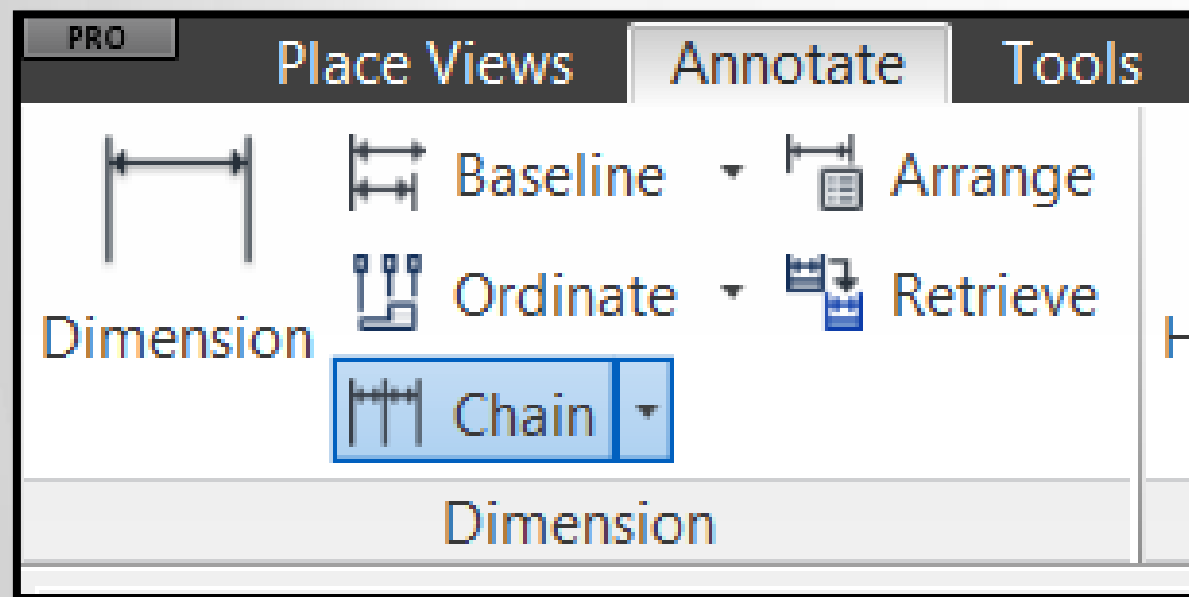
Adding Dimensions

- Baseline
 - Select Edges, end points and mid-points
 - Select everything then place



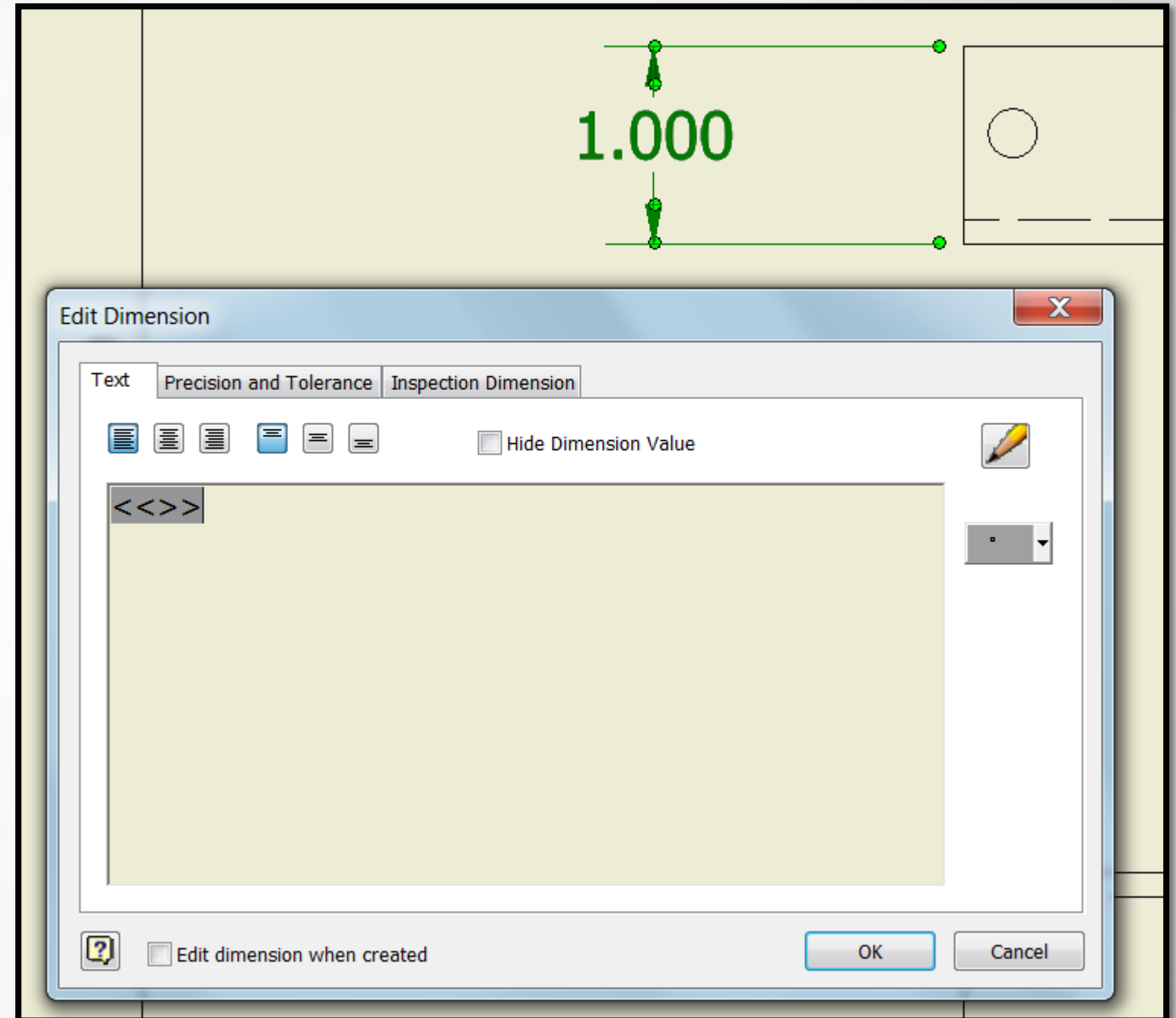
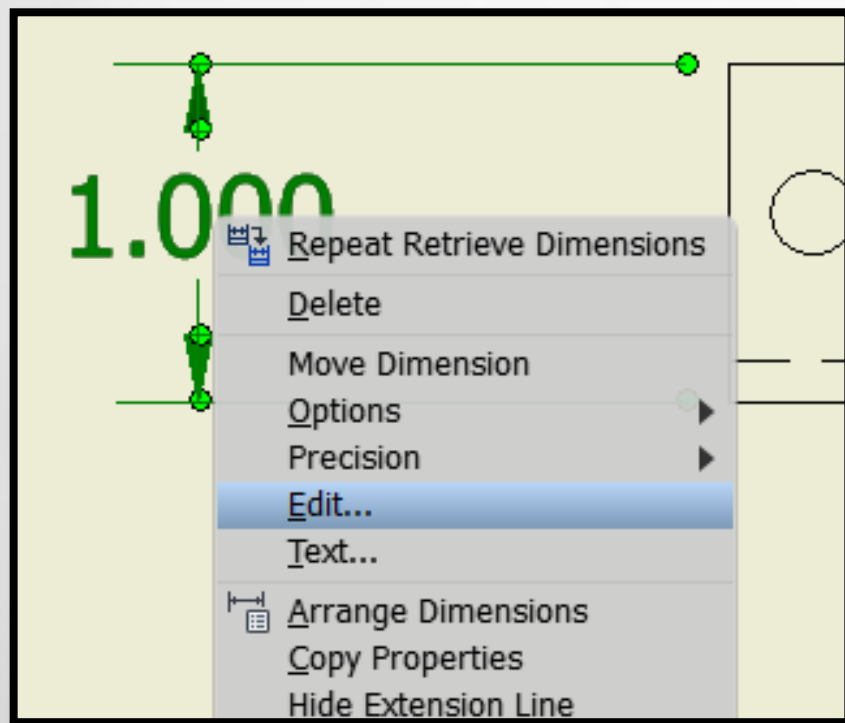
Adding Dimensions

- Chain
 - Select Edges, end points and mid-points
 - Select everything then place



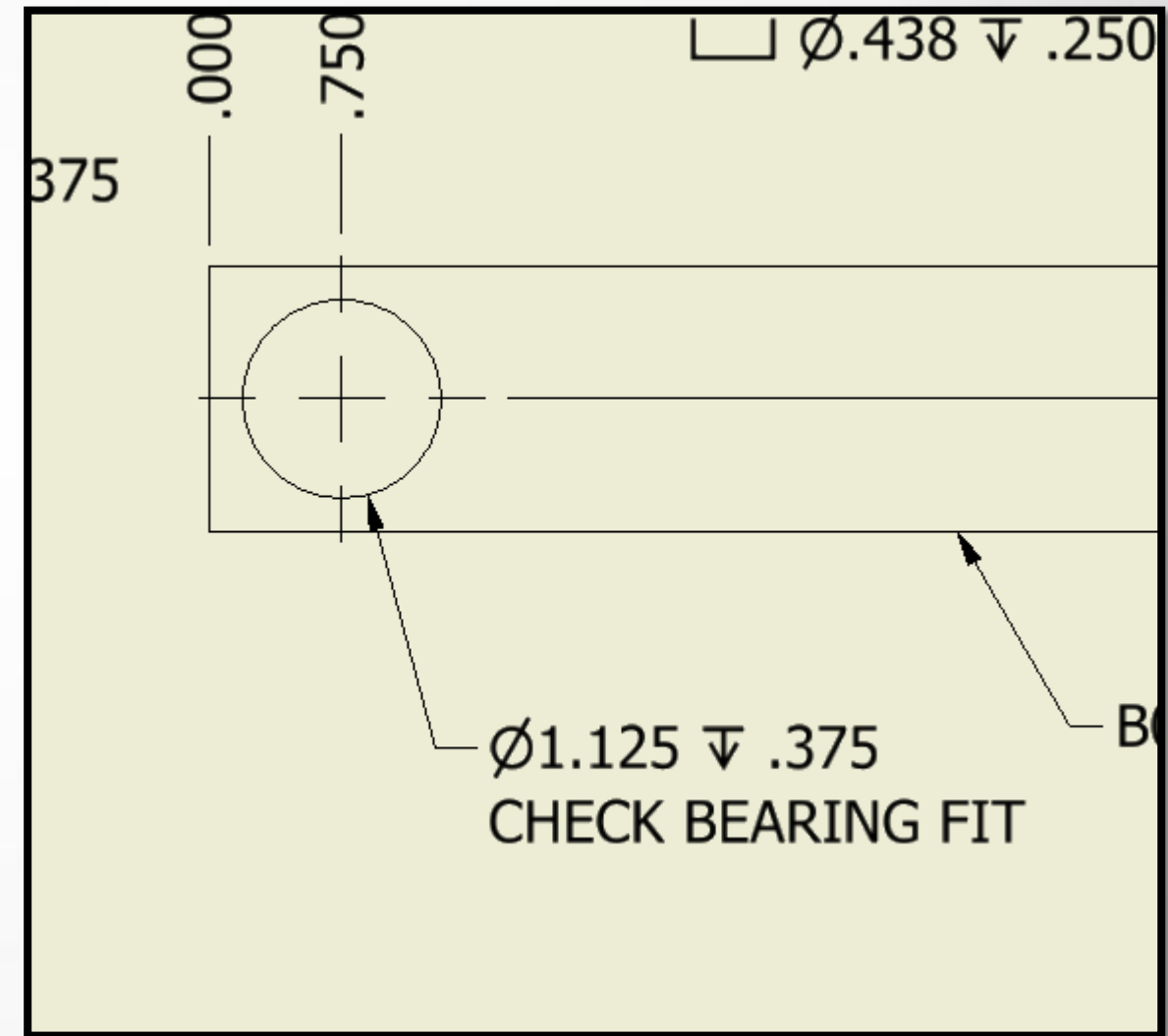
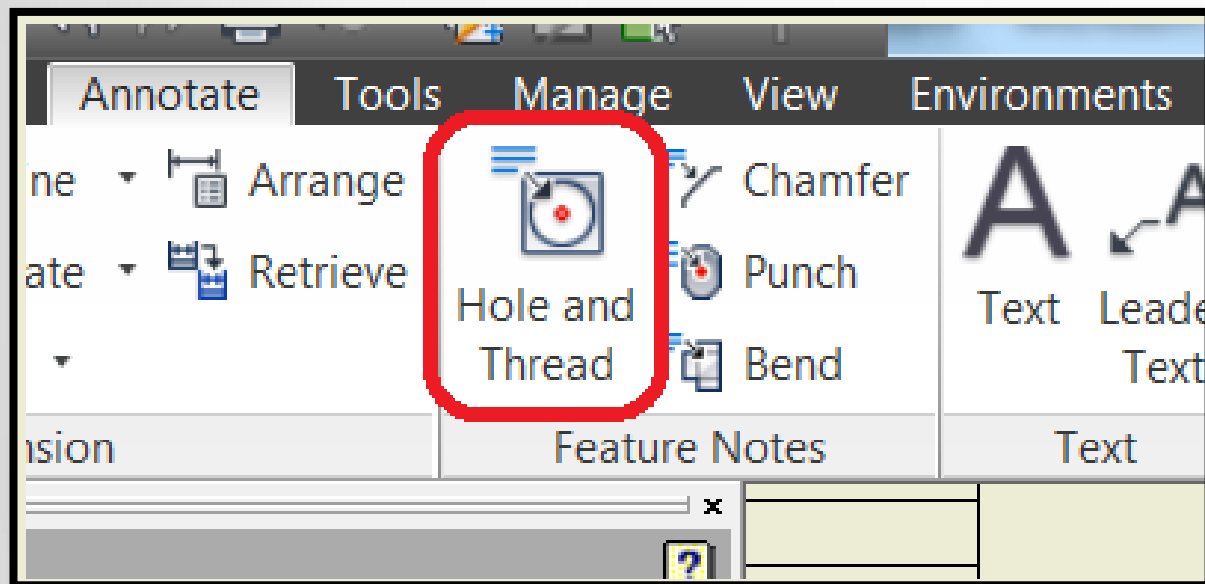
Editing Dimensions

- Editing dimensions
 - Double click the dimension
 - RMB select "edit"



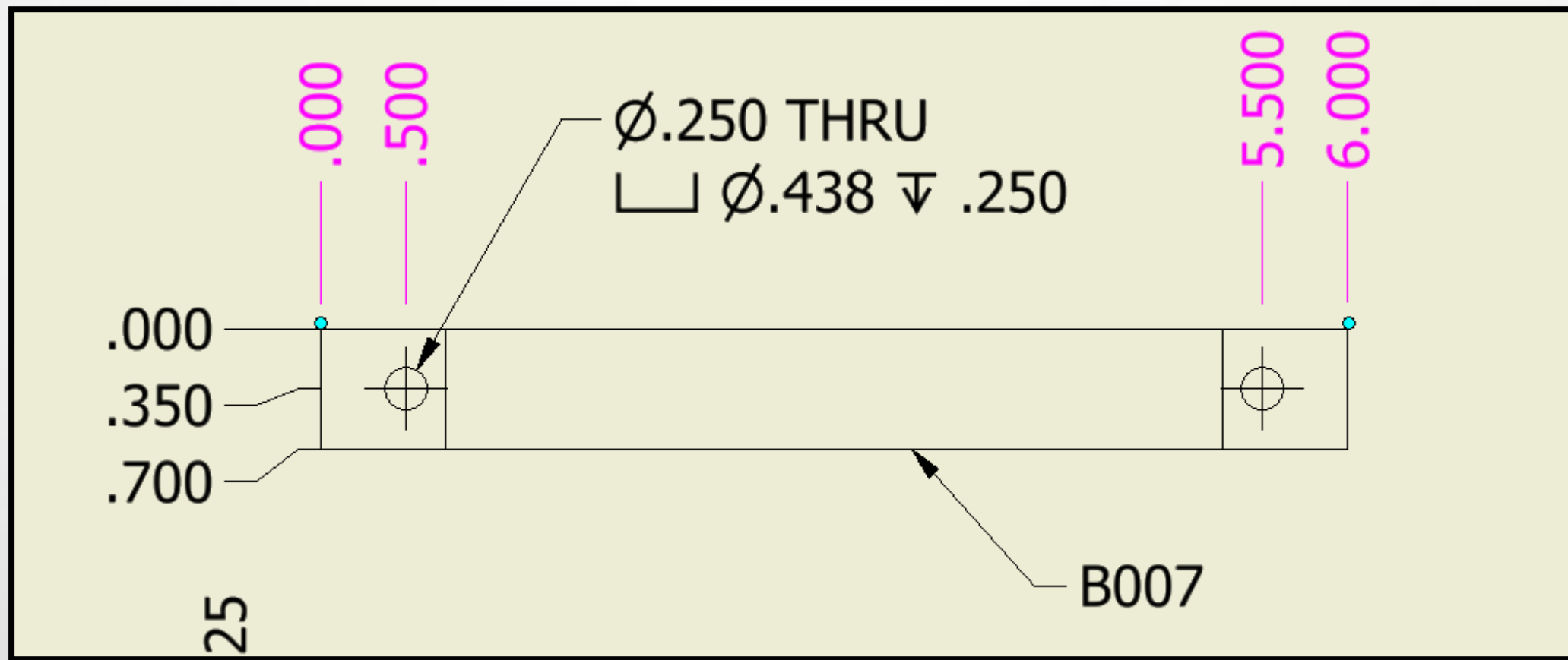
Hole Notes

- Creating Hole Notes



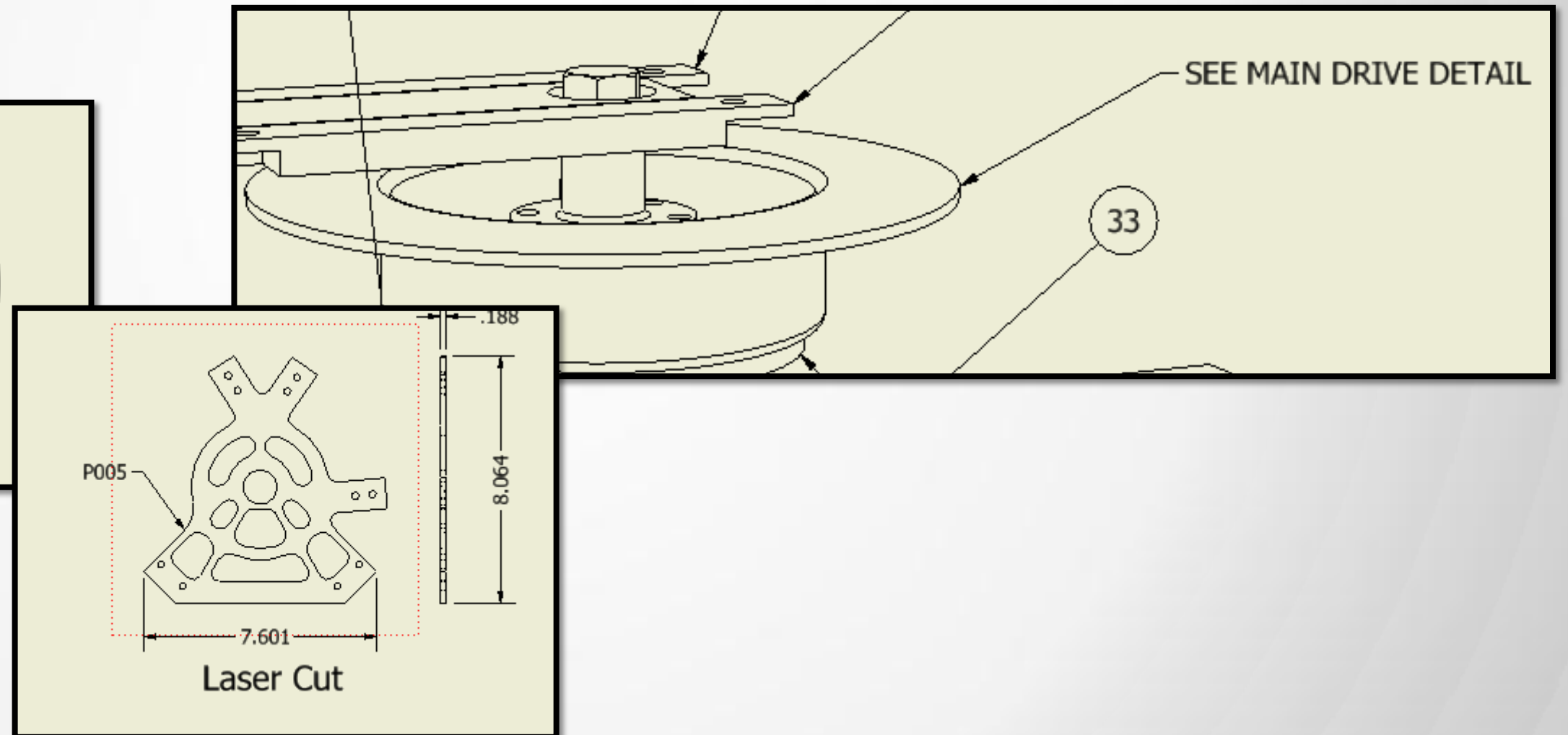
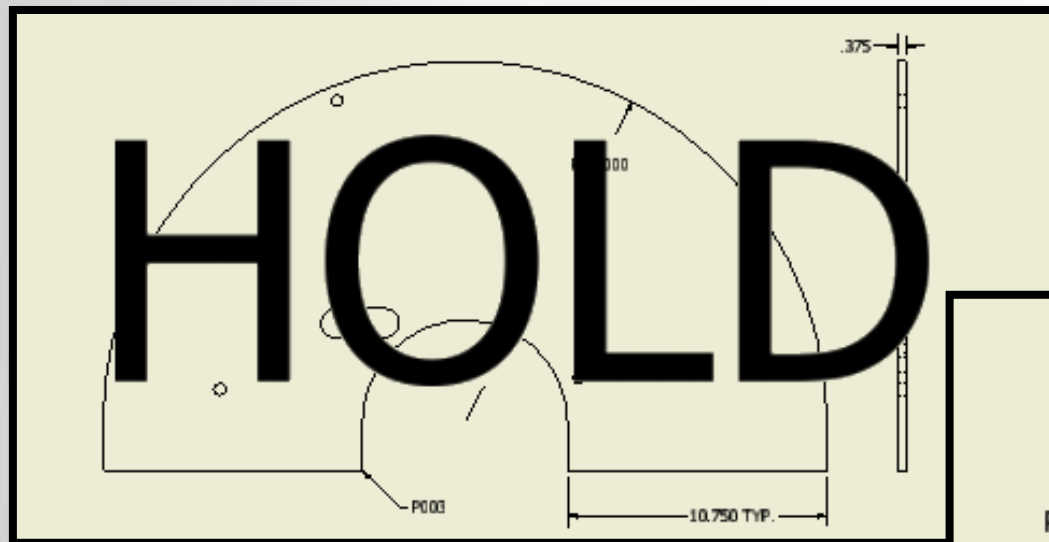
Repairing Sick Dimensions

- Sick dimensions will show up in magenta with a teal dot showing where the dimension needs to be resolved



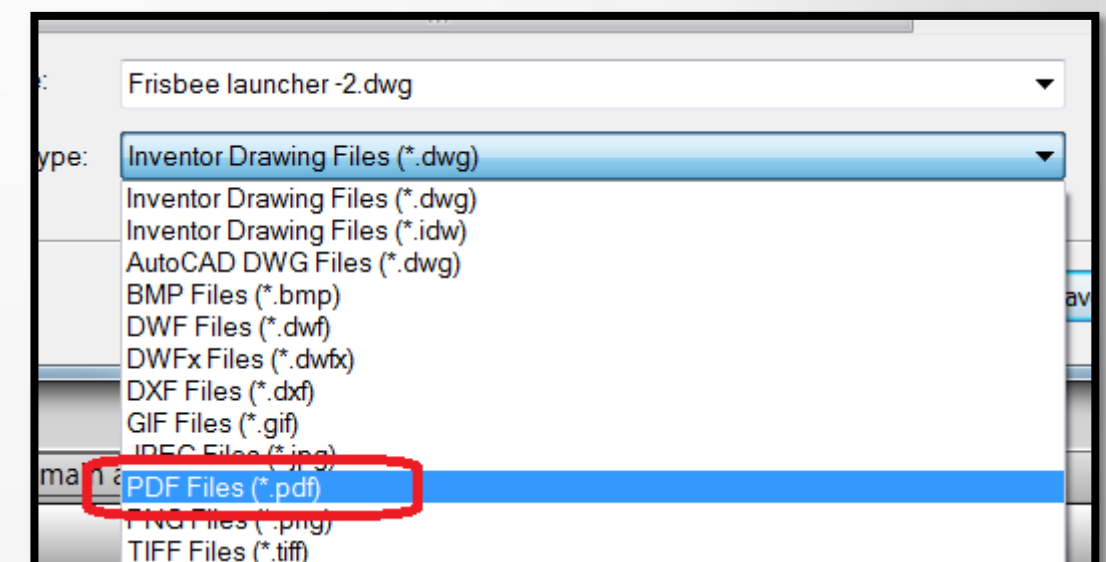
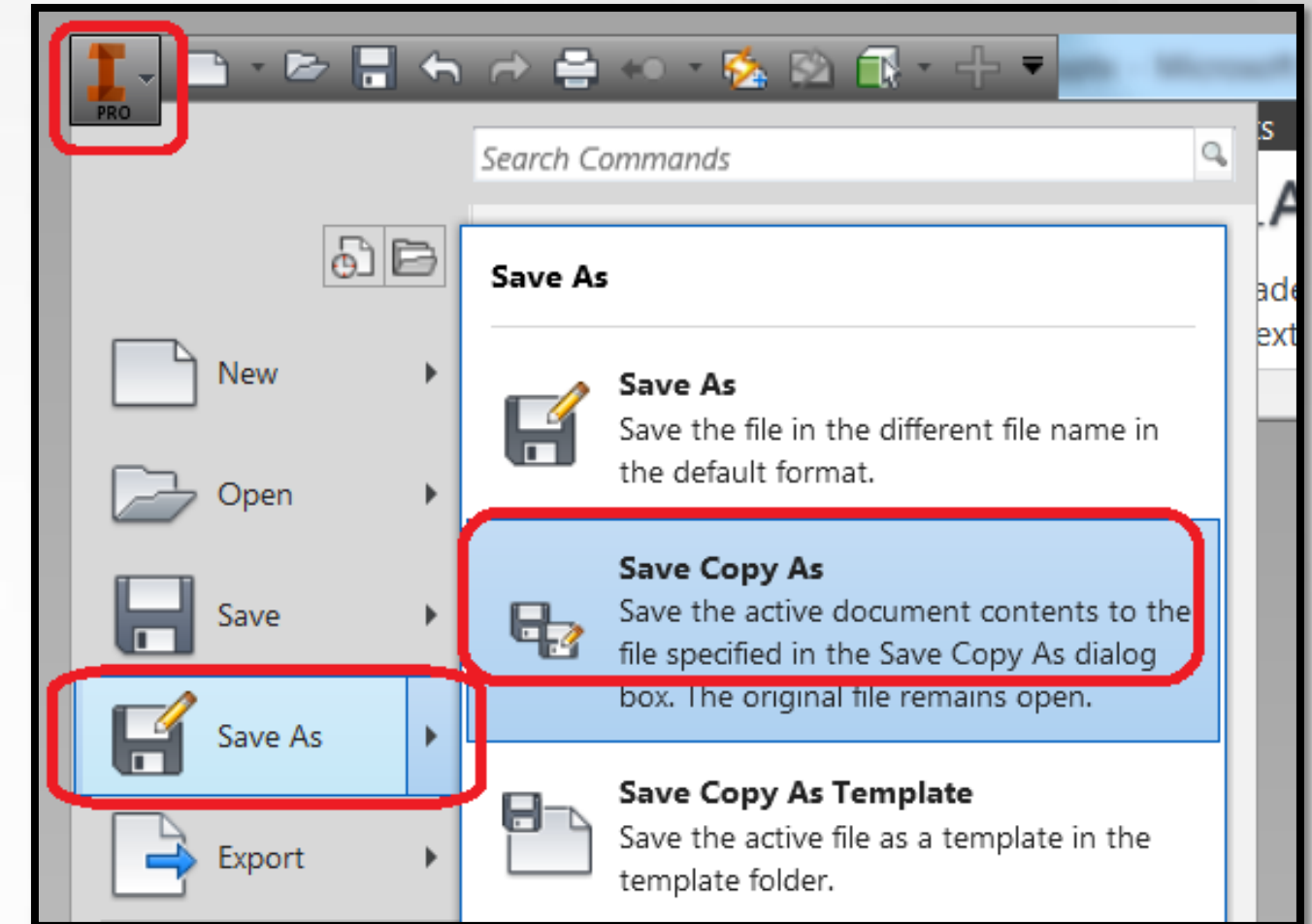
Annotations

- Annotations help get information to the manufacturer
 - Text Notes
 - Leaders Notes



Save as PDF

- Saving as PDF benefits
 - Everyone can open it (people manufacturing your parts)
 - Use them to keep track of revision history



Dimensions and Annotations

- Demo – Dimensions & Annotations

Thank You!

- Questions?



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