



AUTODESK.

GRAITEC

What's New in Autodesk Inventor 2019



Welcome & Agenda

- ▶ Inventor 2019
- ▶ Professional Grade
- ▶ Connected
- ▶ Inventor Experience
- ▶ Accessing the update
- ▶ Q&A



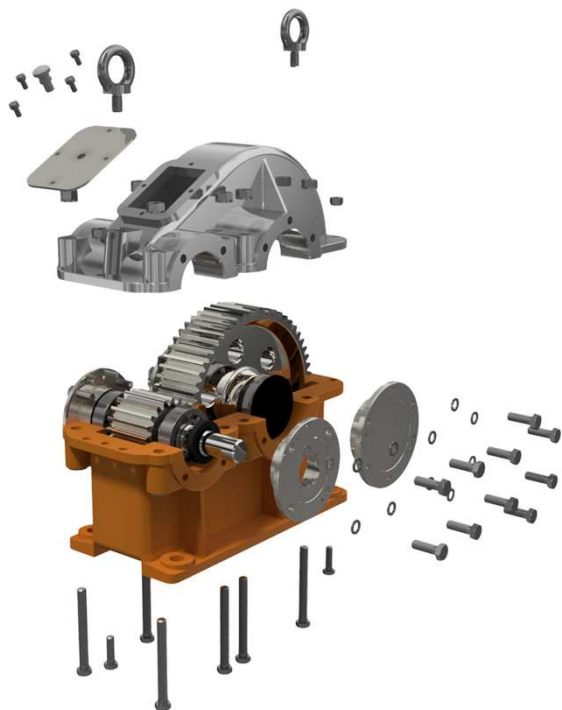
Designed in Inventor by Benoit Belleville. Available for download on GrabCAD

Autodesk Inventor 2019

Inventor 2019 is built for today's engineering and design professional.

Inventor customers from around the world continue to provide feedback and drive enhancements to the Inventor 2019 experience. This release marks a continued focus on improved performance, automation, and core modeling workflows that enable professional-grade mechanical engineering design. Inventor 2019 also connects to the Autodesk cloud to unlock collaboration, design, and supply chain user workflows.

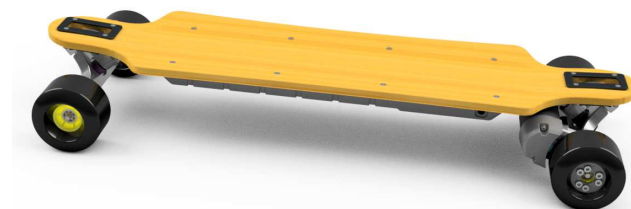
Inventor 2019



PROFESSIONAL GRADE

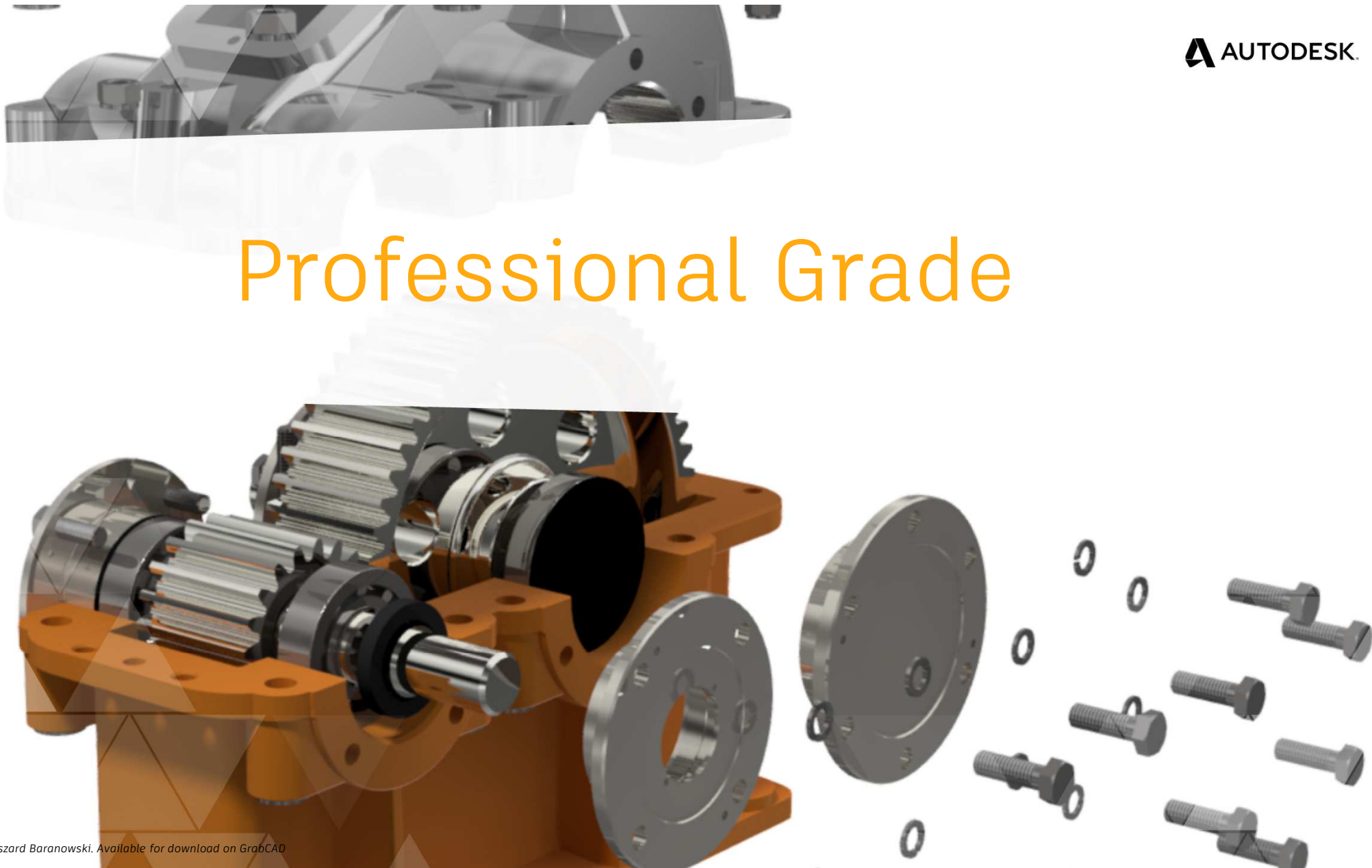


CONNECTED



INVENTOR EXPERIENCE

Professional Grade



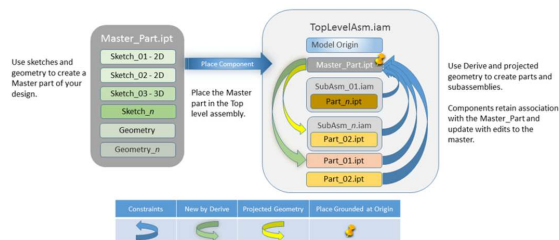
- [illegible]

Designed in Inventor by Balzer Pacific

Help Content

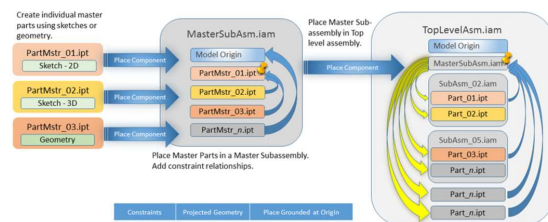
- ▶ Help Content:
- ▶ Large Assembly Best Practice
- ▶ Large Assembly Modeling Workflows

Skeletal Modeling: Single-Part



The Single-Level Process uses a single master part containing sketches and geometry that represents the final design. The Master part is Master part. Downstream, modifications to the Master part drive changes in the components associated to the Master part.

Skeletal Modeling: Multi-Part



What's New

Inventor Help Topics

- Inventor Basics
- Styles and Style Libraries
- Materials and Appearances
- AutoCAD to Inventor Transition
- Work Environment
- Part Modeling Overview
- Editing Part Bodies and Faces
- About Plastic Features
- About Freeform Part Modeling
- About 3D Annotation and Model-Based Definition
- About Shape Generator
- About Part Sketching
- About Part View Representations
- Part Features
- About Part Analysis
- About Sheet Metal Parts
- Assembly Modeling Overview
 - Assembly Modeling Fundamentals
 - Physical Properties in Assemblies
 - About the Bill of Materials
- Large Assembly Best Practices
 - What are large assemblies?
 - Common Practices that may Impact Large Assembly Performance
 - About Project Planning and File Management
 - Preferences and Settings
 - Visualization Effects and Graphics

Large Assembly Best Practices

SHARE

Learn how to optimize performance, streamline your design techniques, plan your design approach, and solve issues that arise as your design progresses.

As product designs become larger and more complex, they consume more computing resources. Several tools and techniques are available to improve the following consequences of working with large data sets.

- Longer than expected load times.
- Out of memory errors.
- Poor graphics performance.
- Difficulty creating drawings.

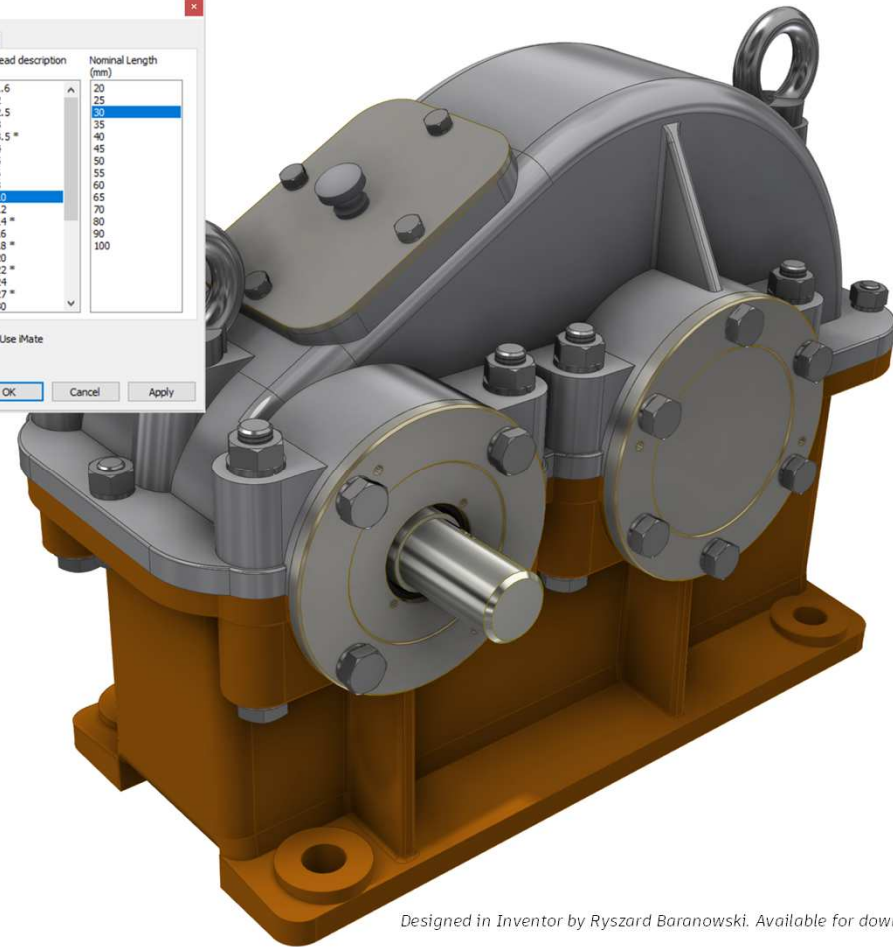
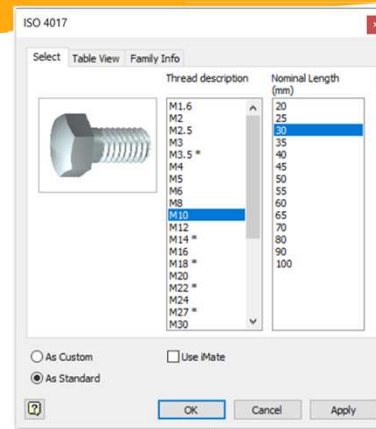
Topics in this section

- **What are large assemblies?**
- **Common Practices that may Impact Large Assembly Performance**
Learn about common practices that can impact large assembly performance.
- **About Project Planning and File Management**
Learn about project planning, folder structures, project files and libraries as they relate to large assembly modeling.
- **Preferences and Settings**
Learn which settings can be optimized for large assembly performance.
- **Visualization Effects and Graphics**
Inventor offers simple, easy to use visualization effects to enable realistic looking models in the viewport.
- **About Express Mode**
Typically, an assembly opens fully (**Load Full**), that is, all component data is loaded into memory. For large assemblies, Inventor provides an Express mode (**Load Express**) where the model opens much faster by loading only component cached graphics into memory.
- **Use Assembly Selection Filters to Improve Performance**
- **Large Assembly Modeling Workflows**
The various techniques and approaches that are available to model parts and create assemblies can affect performance. Your modeling approach determines the number of occurrences, complexity of geometry, constraint methods, and assembly creation.
- **System Hardware and Large Assemblies**
Learn about the influence of system hardware, operating system, and network on large assembly performance.
- **To Increase Capacity of System Memory**

Parent topic: Assembly Modeling Overview

Performance

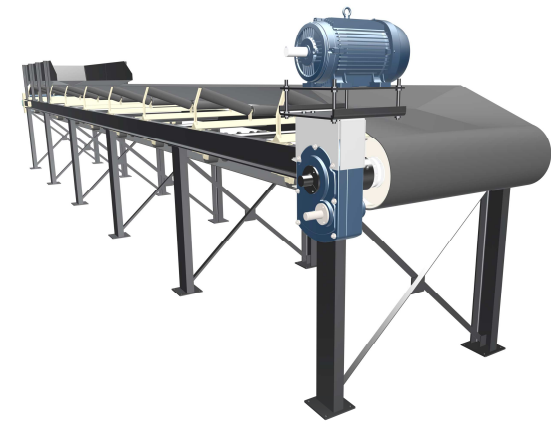
- ▶ General
 - ▶ Display of Threads
 - ▶ Mouse Wheel Zoom
- ▶ Content Center
 - ▶ In-Memory Caching



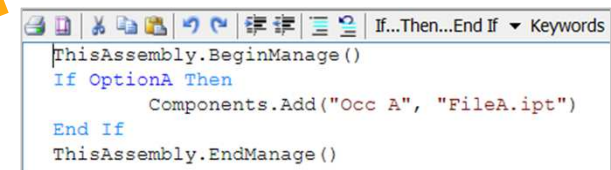
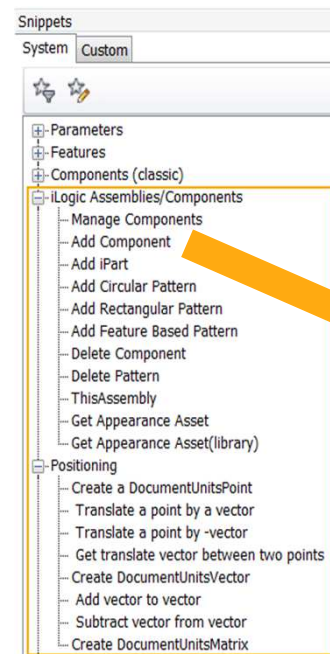
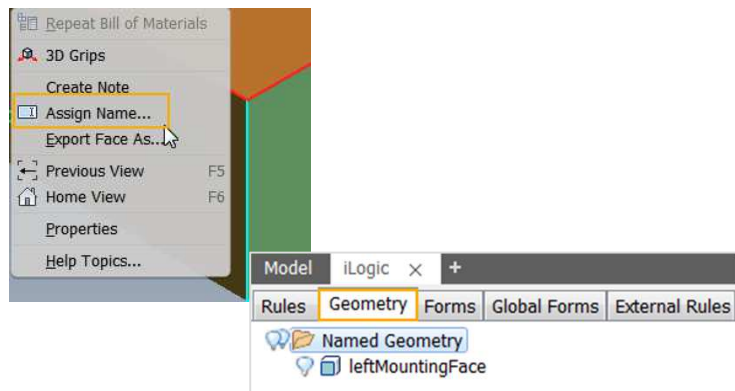
Designed in Inventor by Ryszard Baranowski. Available for download on [GrabCAD](#)

iLogic

- ▶ Component and Management
 - ▶ Add/Delete Parts
 - ▶ Add/ Delete Assemblies
 - ▶ Add/Delete Constraints
- ▶ Capture Current model state
- ▶ Assign Geometry Names

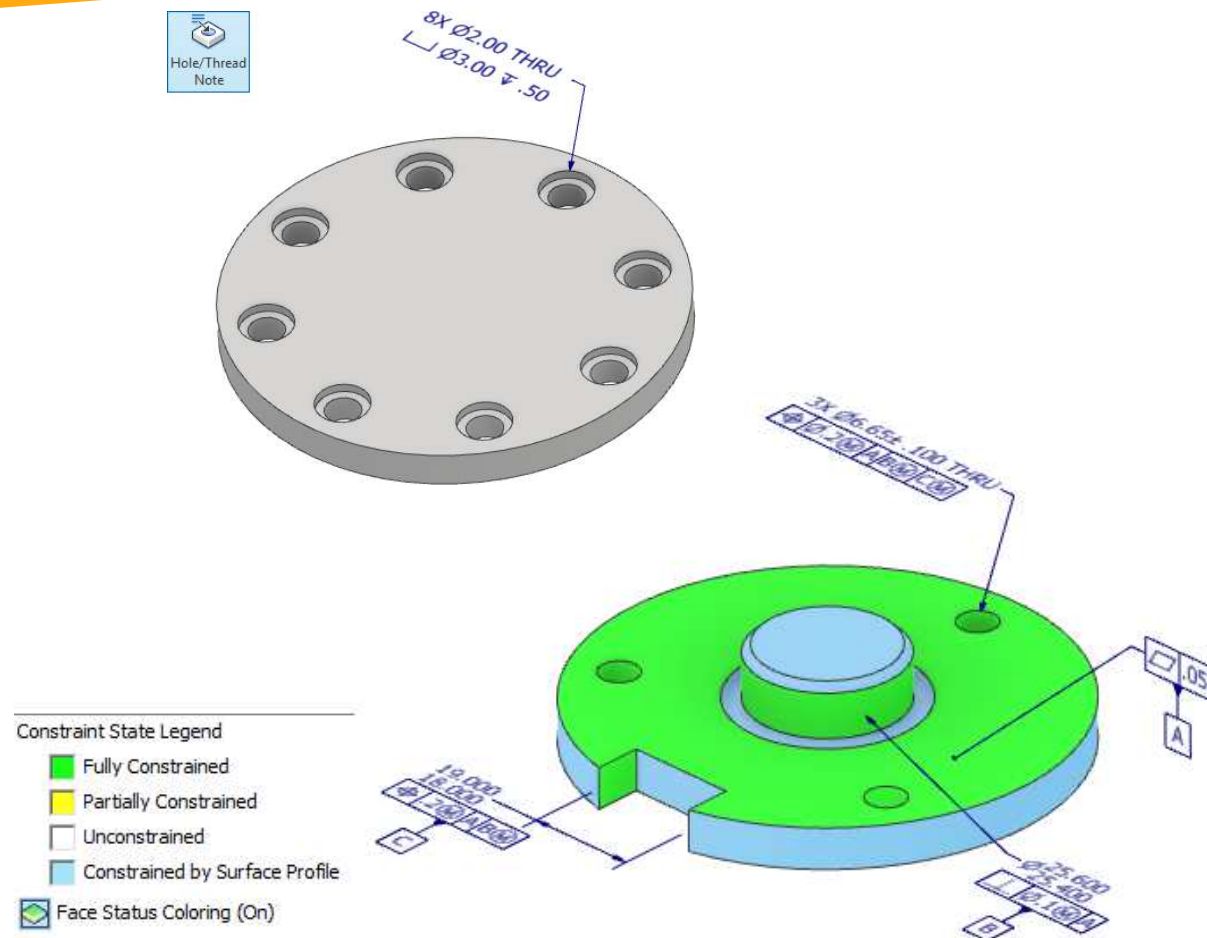


Designed in Inventor by Balzer Pacific



Model Based Definition

- ▶ Tolerance Advisor Face Status
- ▶ 3D Annotation Hole/Thread Quantity





Connected

Shared Views

Create

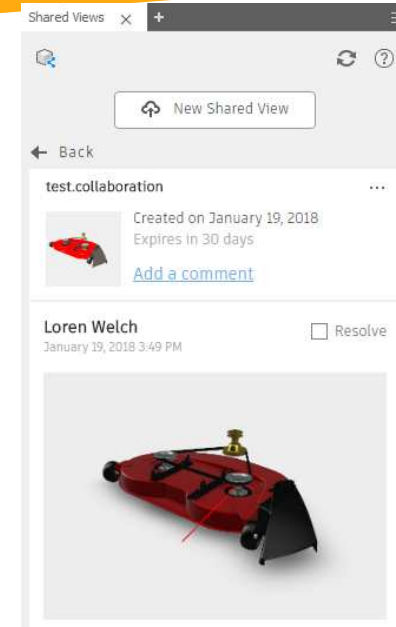
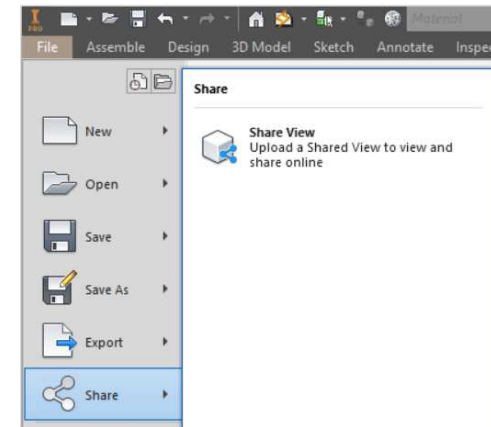
- ▶ Curate and share viewable to Autodesk Viewer
- ▶ Unique URL with 30-day expiration

Share

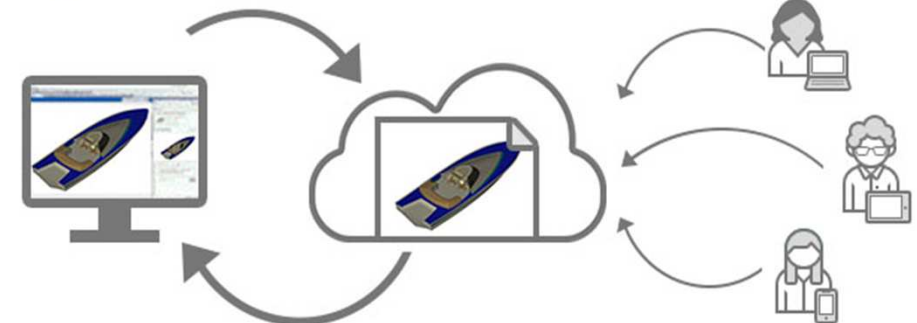
- ▶ View/Comment/Markup in Autodesk Viewer
- ▶ Activity feed in-product panel

Same experience across Autodesk Products

- ▶ AutoCAD, Vault, Inventor, Civil 3D, Alias, Plant3D, DelCAM, Moldflow, 3ds Max and Infravworks product lines



Owners upload a visual representation of a design to share online



Owners manage shared views and respond to comments from within the product

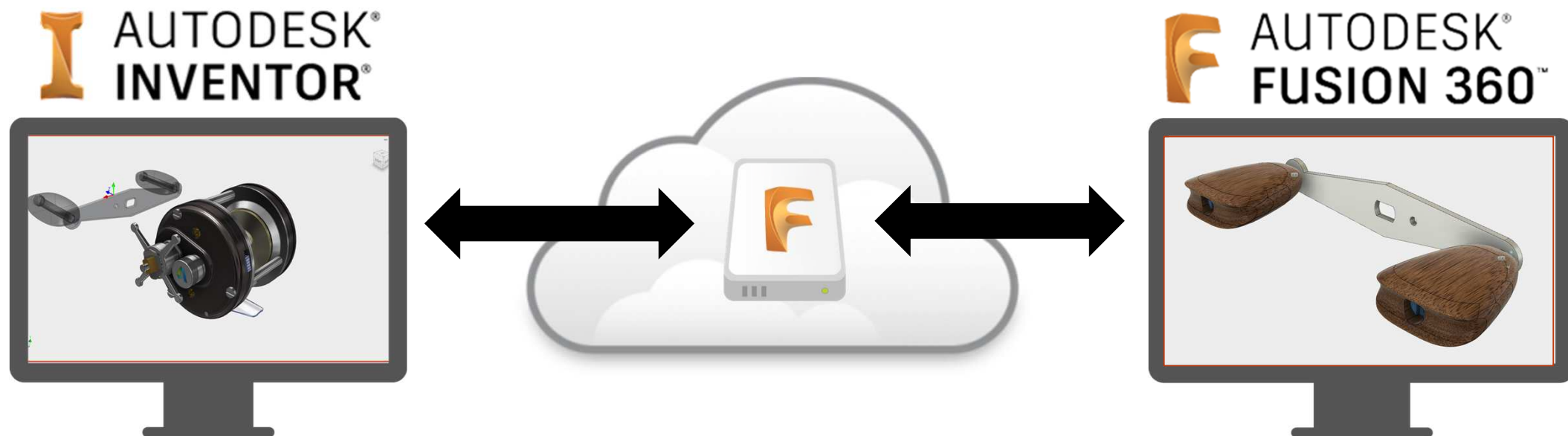
Collaborators view and post comments from desktop or mobile

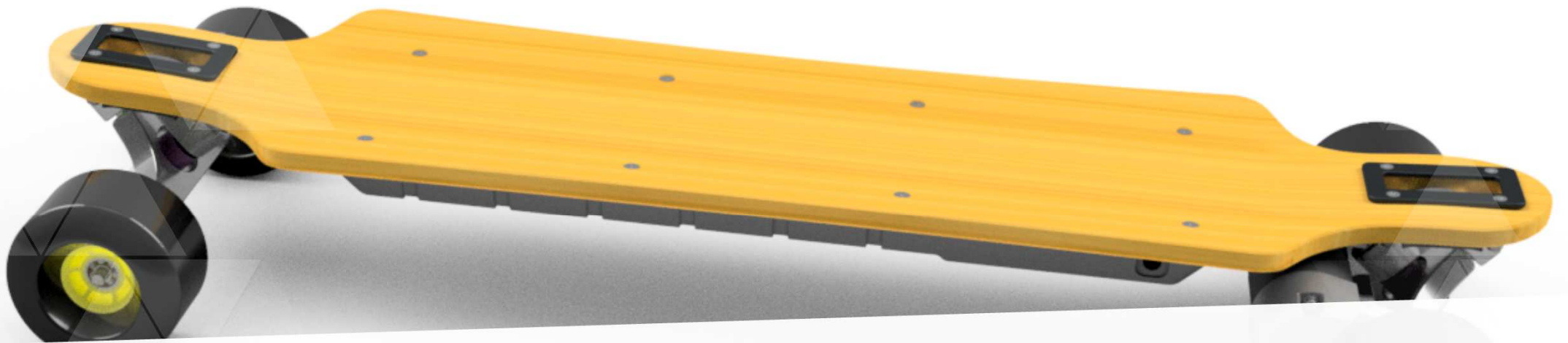
Autodesk Drive

- ▶ CAD-aware cloud storage for individuals and small teams
- ▶ Supports over 60 types of Autodesk and 3rd party files
- ▶ View and organize files stored in Autodesk Drive from your desktop



Inventor and Fusion 360 AnyCAD

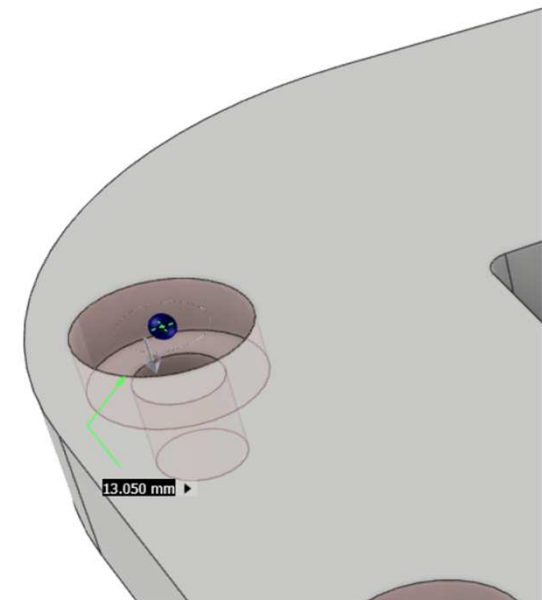
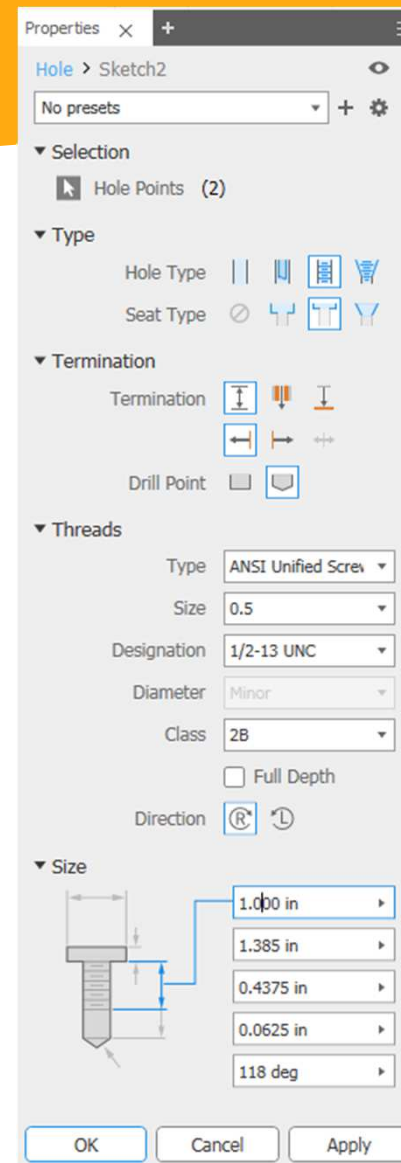




Inventor Experience

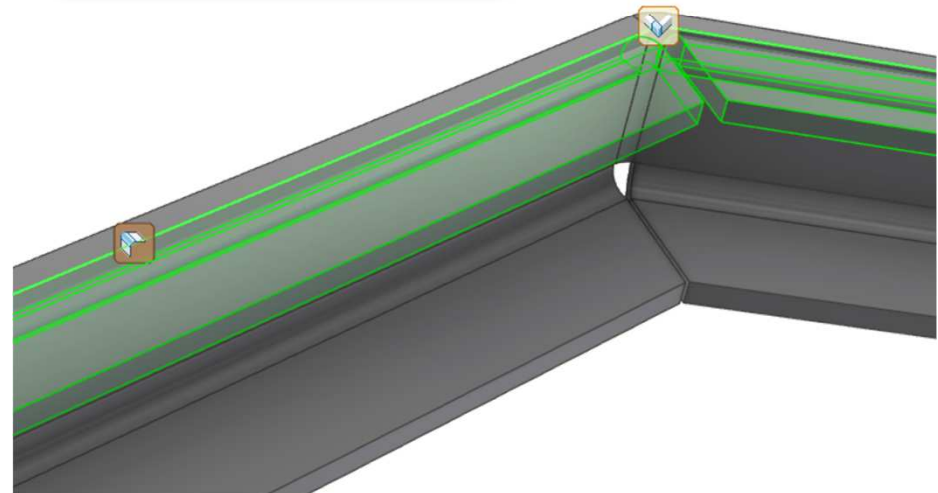
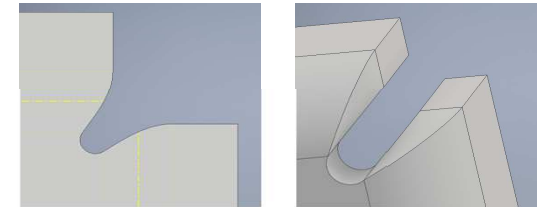
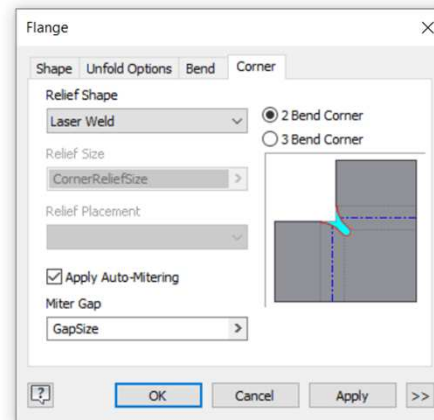
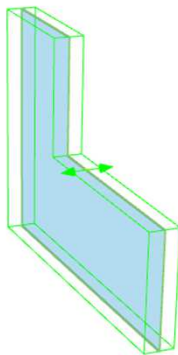
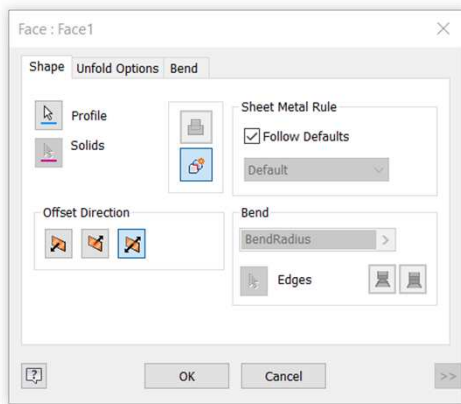
Hole Command

- ▶ Panel UX
- ▶ Presets for:
 - ▶ Hole Type Group
 - ▶ Termination
 - ▶ Threads/Fasteners
 - ▶ Size
 - ▶ Advanced Settings
- ▶ Create & Edit Sketch



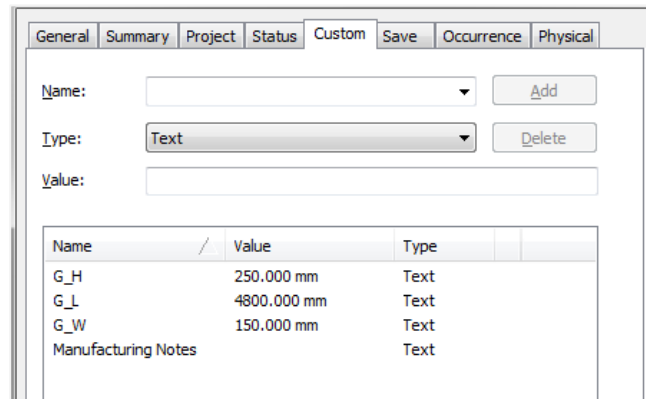
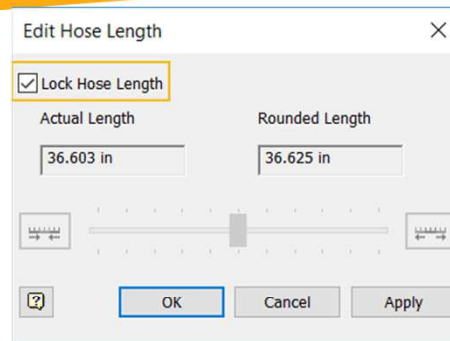
Sheet Metal

- ▶ Mid-Plane Face Extrude
- ▶ Corner Enhancements
- ▶ Laser Weld Relief Shape



Tube & Pipe and Frame Generator

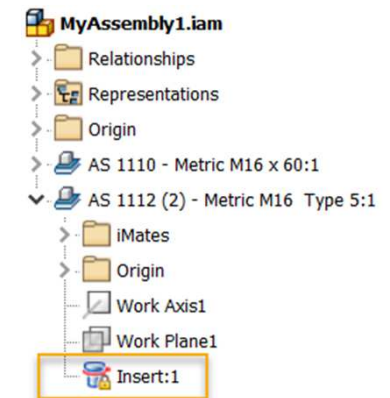
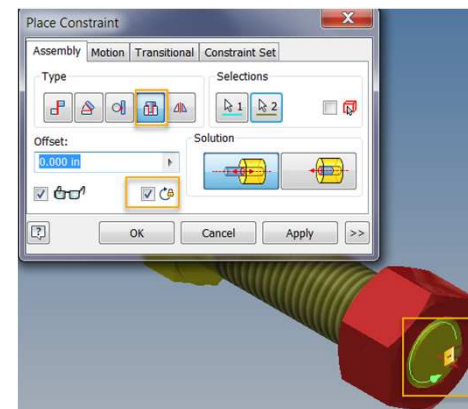
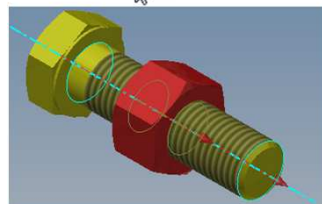
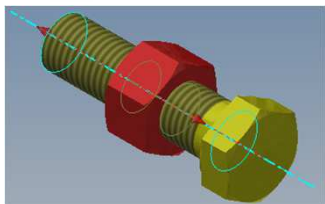
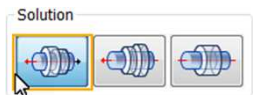
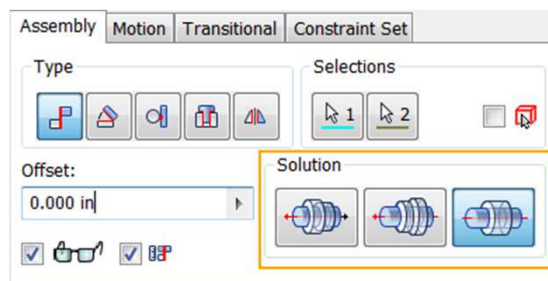
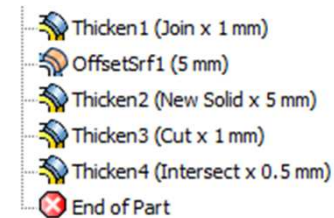
- ▶ Tube & Pipe
 - ▶ Lock Hose Length
 - ▶ Performance
- ▶ Frame Generator
 - ▶ CUTDETAIL enhancement for members with multiple end treatments



Designed in Inventor by Ivo Jardim. Available for download on GrabCAD

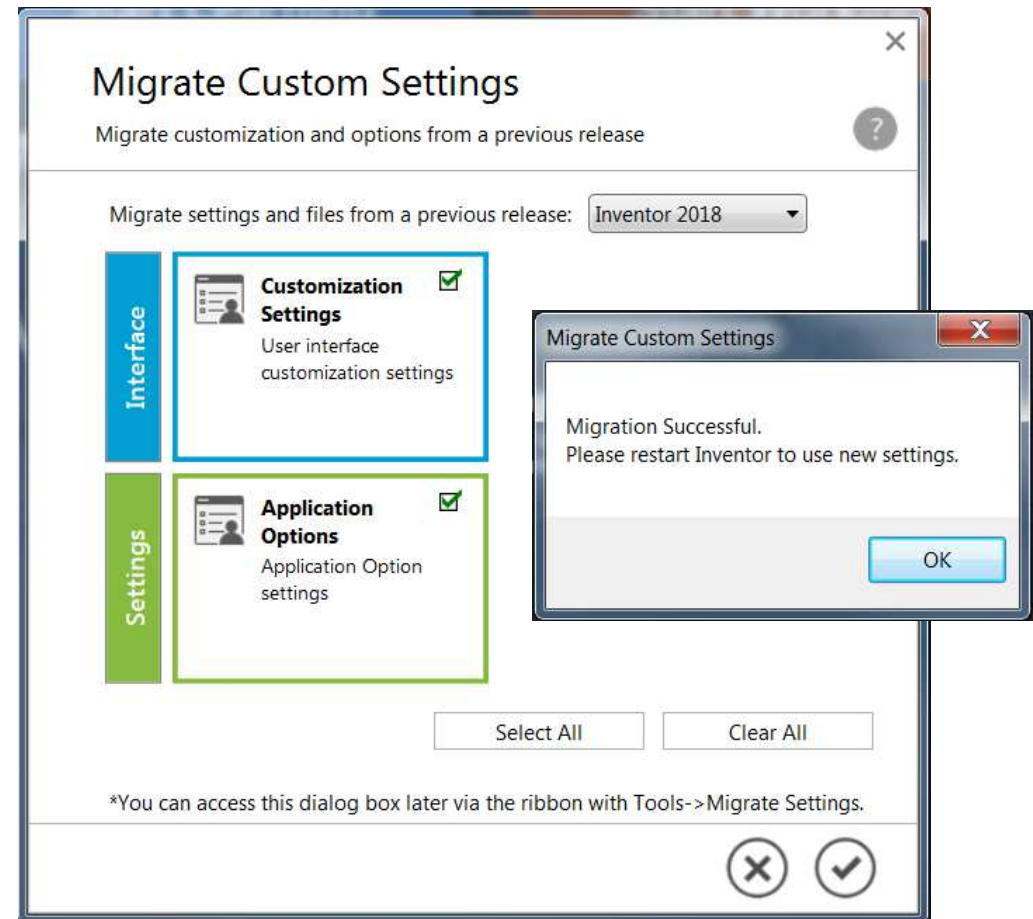
Inventor Ideas

- ▶ Display Extended Browser Information
- ▶ Assembly Constraints
 - ▶ Lock Rotation
 - ▶ Opposed, Aligned & Undirected



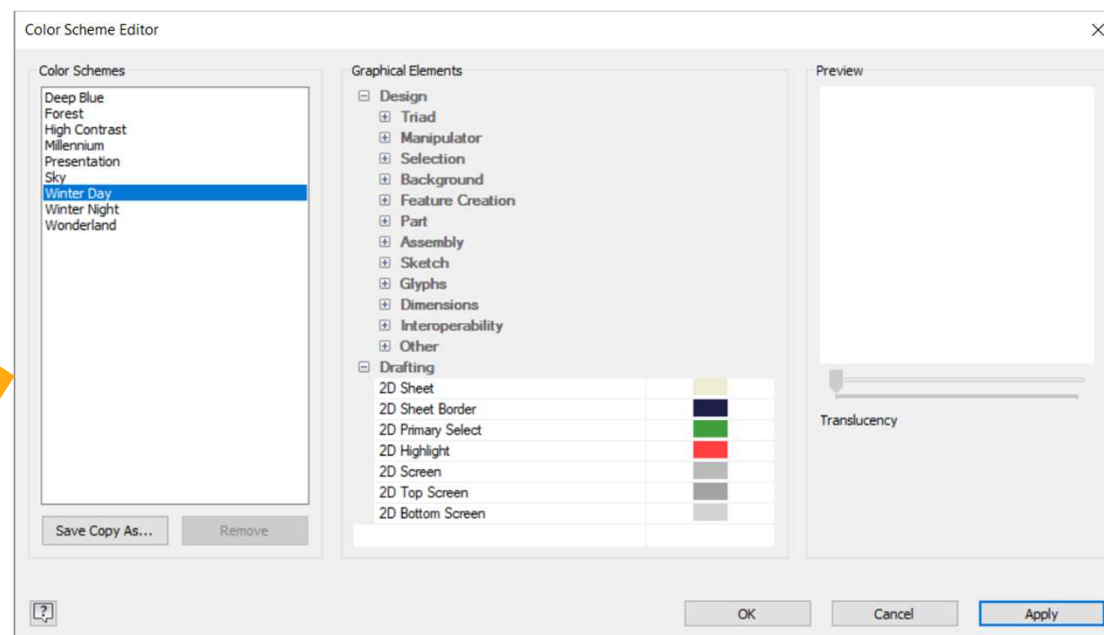
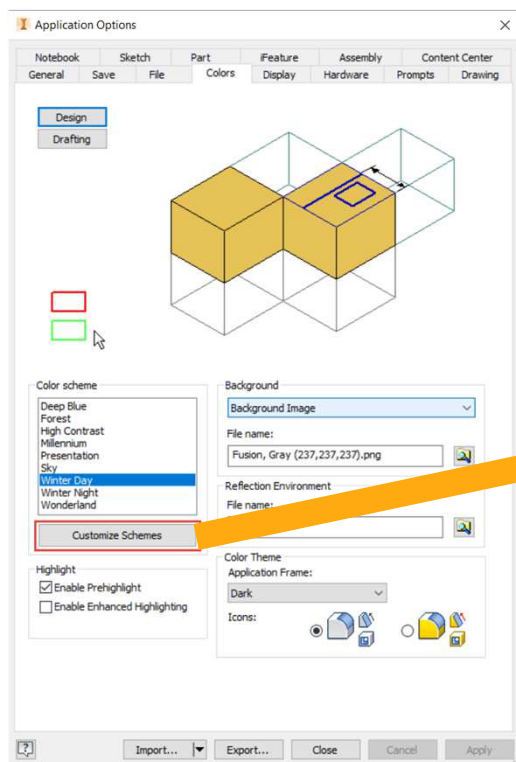
Migrate Custom Settings Tool

- ▶ Initiated on first run of Inventor 2019
- ▶ Execute on demand later
- ▶ Migrate Customization Settings
- ▶ Migrate Application Options



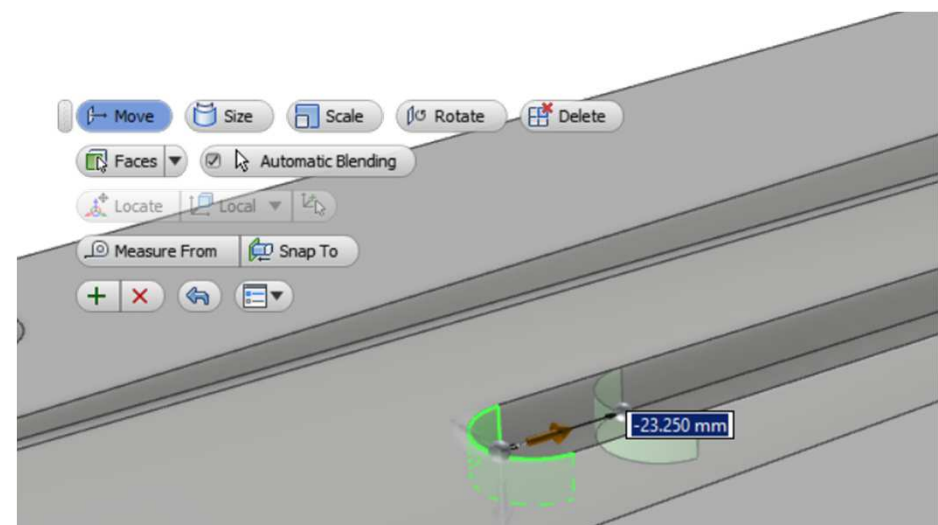
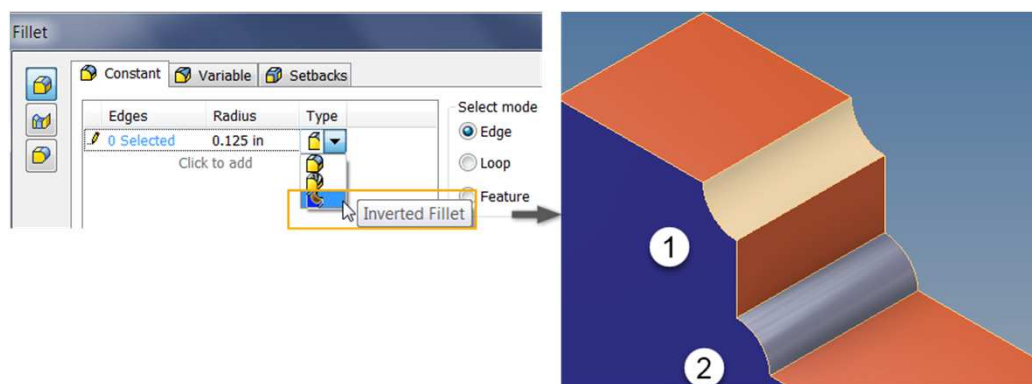
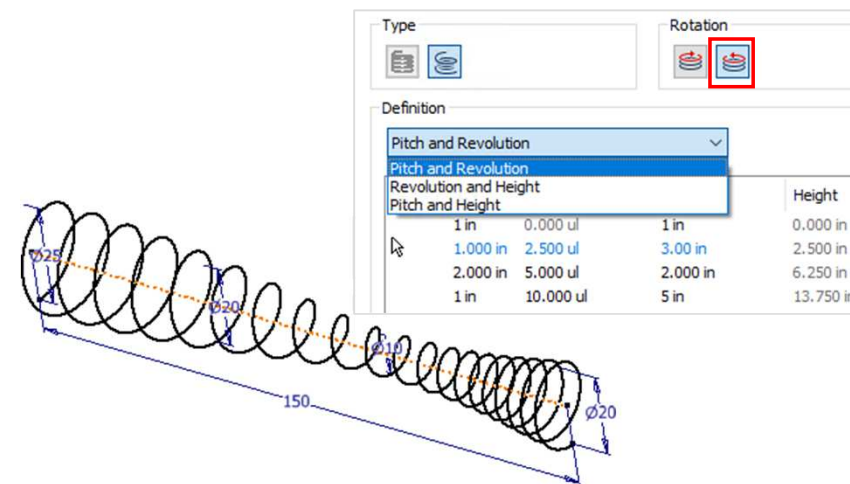
Color Schema Editor

- Customize and save color schemes for Inventor 2019



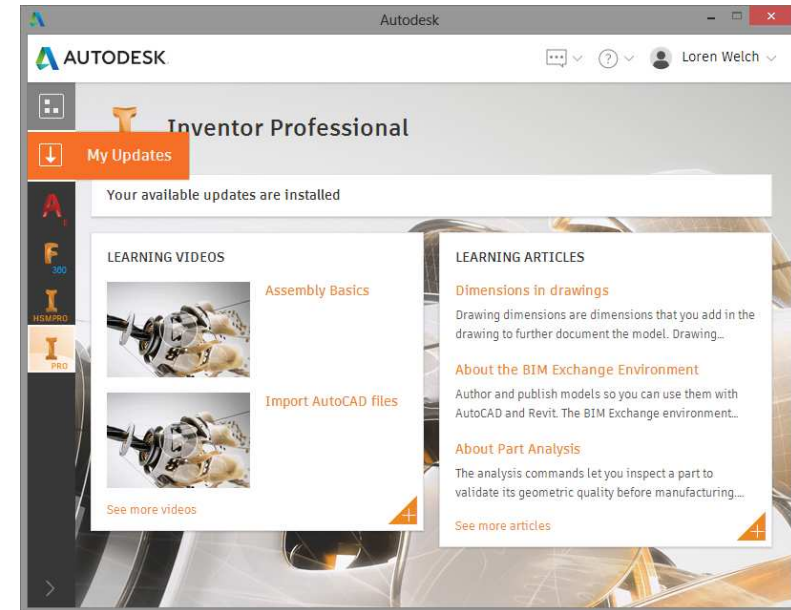
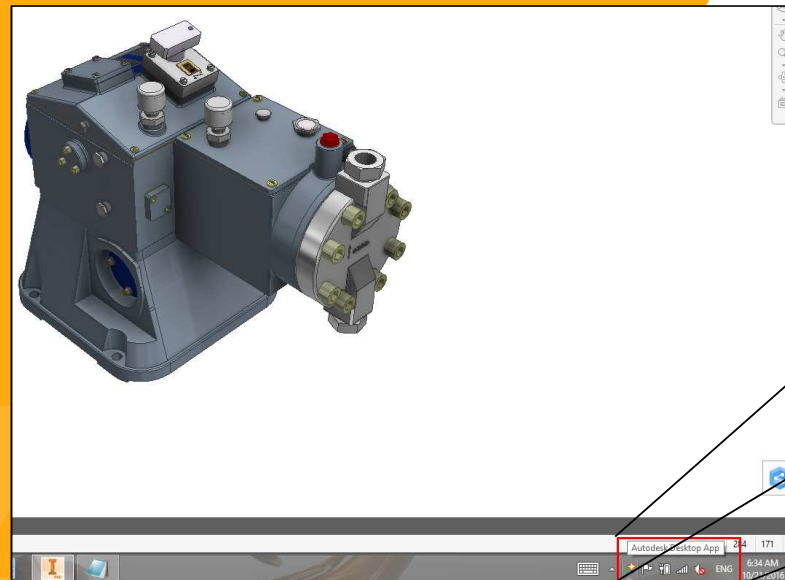
Inventor Ideas

- ▶ Variable Radial/Helical Curve
- ▶ Inverted Fillet
- ▶ Automatic Blend for Direct Edit



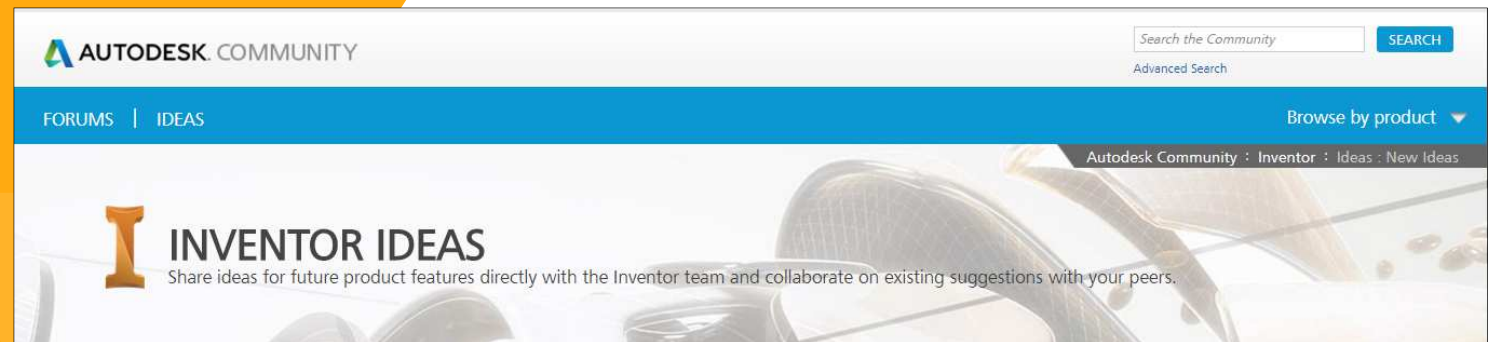
Inventor 2019 Accessing Update

- ▶ Autodesk Desktop App
- ▶ Autodesk Account



Make your voice heard

- ▶ Inventor Feedback Community
<https://autode.sk/InventorBeta>
- ▶ Inventor Ideas Page
<https://autode.sk/InventorIdeas>



Q&A

Thank You

- ▶ Learn More
 - ▶ Contact your Autodesk Authorized Reseller
 - ▶ www.autodesk.com/resellers
 - ▶ Autodesk Inventor
 - ▶ www.autodesk.com/products/inventor
- ▶ Presenter Information
- ▶ First/Last Name
- ▶ Title
- ▶ Email
- ▶ Twitter/facebook/LinkedIn



Autodesk and the Autodesk logo are registered trademarks or trademarks of Autodesk, Inc., and/or its subsidiaries and/or affiliates in the USA and/or other countries. All other brand names, product names, or trademarks belong to their respective holders. Autodesk reserves the right to alter product and services offerings, and specifications and pricing at any time without notice, and is not responsible for typographical or graphical errors that may appear in this document.
© 2017 Autodesk. All rights reserved.