

# MFG466271

## The Golden Ticket: Working with Vault & Fusion Team

**Lauren Drotar**

Implementation Consultant

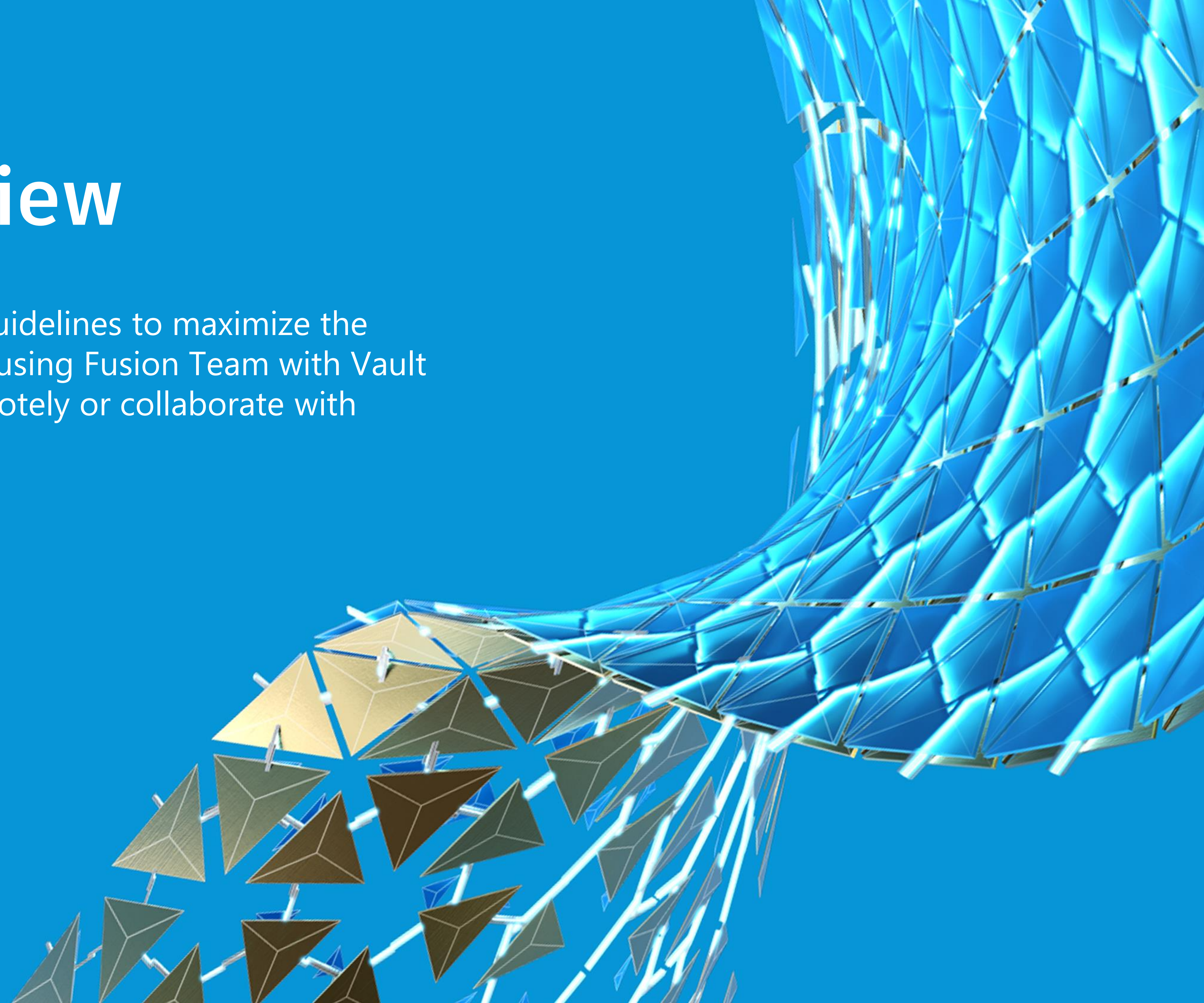
**Brian Schanen**

PLM/PDM Readiness Program Manager



# Class Overview

In this class, we will provide guidelines to maximize the efficiency and productivity of using Fusion Team with Vault software in order to work remotely or collaborate with external users.





# Key Learning Objectives



Learn how to access data remotely without requiring a VPN



Learn how to assist your team with the setup of remote access to their files



Discover the relationship and differences between Fusion Team and Vault



Learn how to set up Fusion Team to work with your Vault

# About the speakers



## Lauren Drotar

Lauren has a background in mechanical engineering from numerous sectors of the industry- including firearms, diesel engines, and fluidics. This year, Lauren transitioned from being an Autodesk customer to a member of the Autodesk partner channel when she joined D3 Technologies' Data Management team. This is her third AU and second team teaching. When she isn't working, Lauren can be found reading, hiking, or spending time with friends.

## Brian Schanen

Brian Schanen works for Autodesk, Inc., as a PLM/PDM Readiness Program Manager in the Business Strategy & Marketing division. He is responsible for evangelizing global technical and sales on PLM and PDM and the design, creation, implementation, and delivery of PLM/PDM based curriculum, technical and sales tools, and live events. With 18 years of PDM and PLM experience, he is a seasoned presenter. On any given day, you can find him coaching internal teams, prospects, mentoring new customers, and even assisting in deployments of Autodesk PLM/PDM software.







Easily view and share designs in your browser



## Find

Find all of your  
CAD data in one place



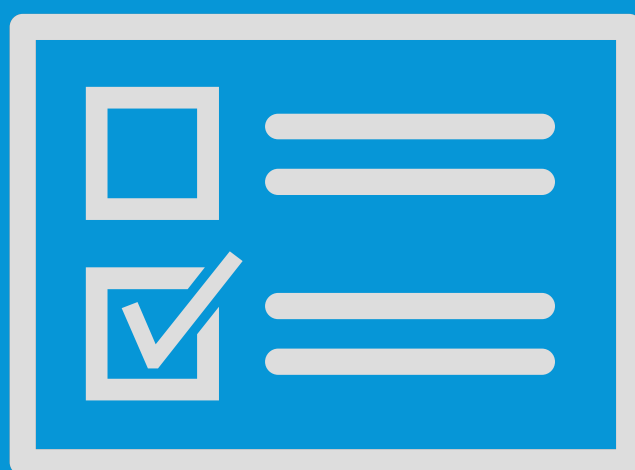
## View

View 2D and 3D  
Model **with zero  
install viewer**



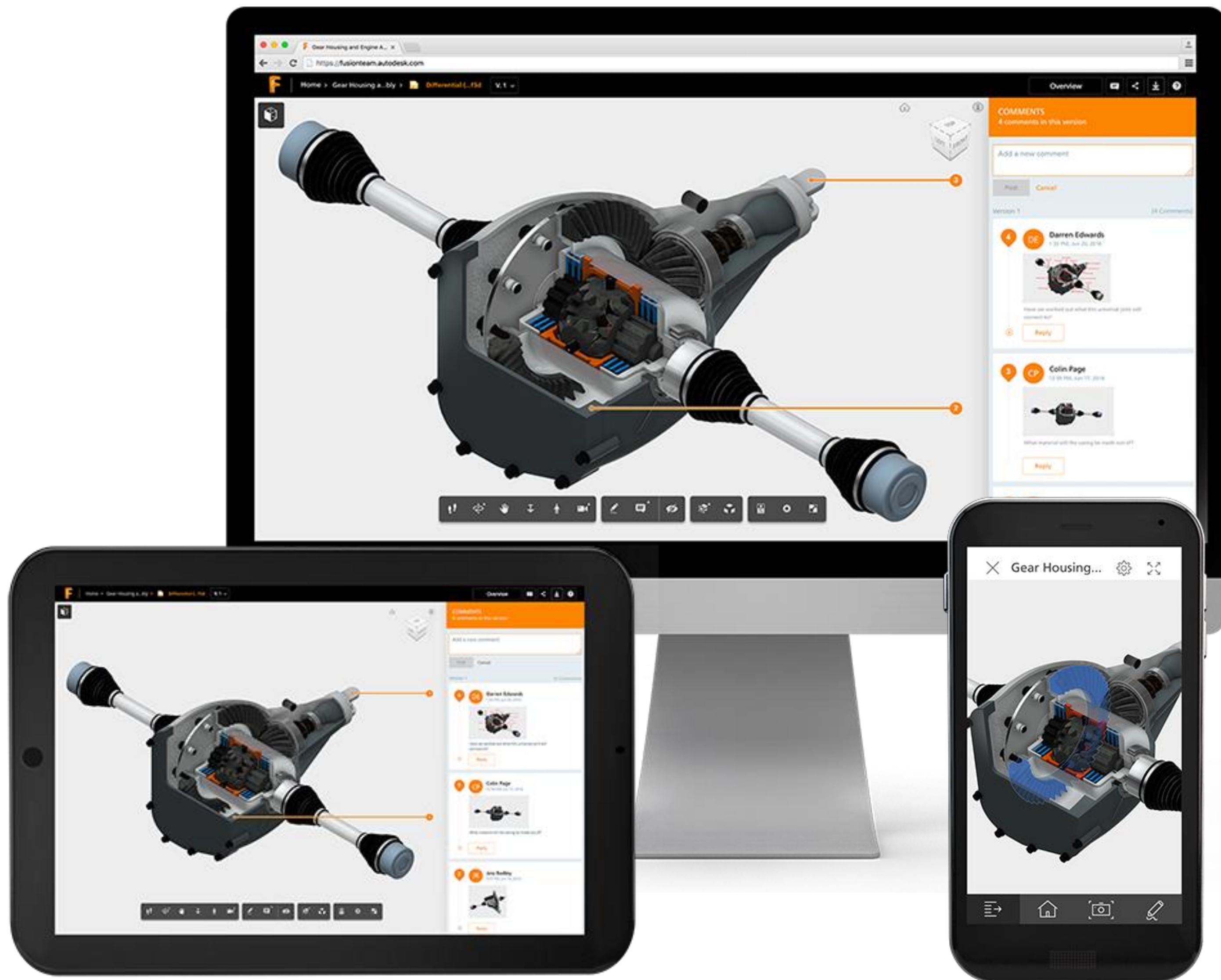
## Share

Publish design data  
and documents



## Discuss

Track conversation  
Within project folders





# Autodesk Account – manage.autodesk.com

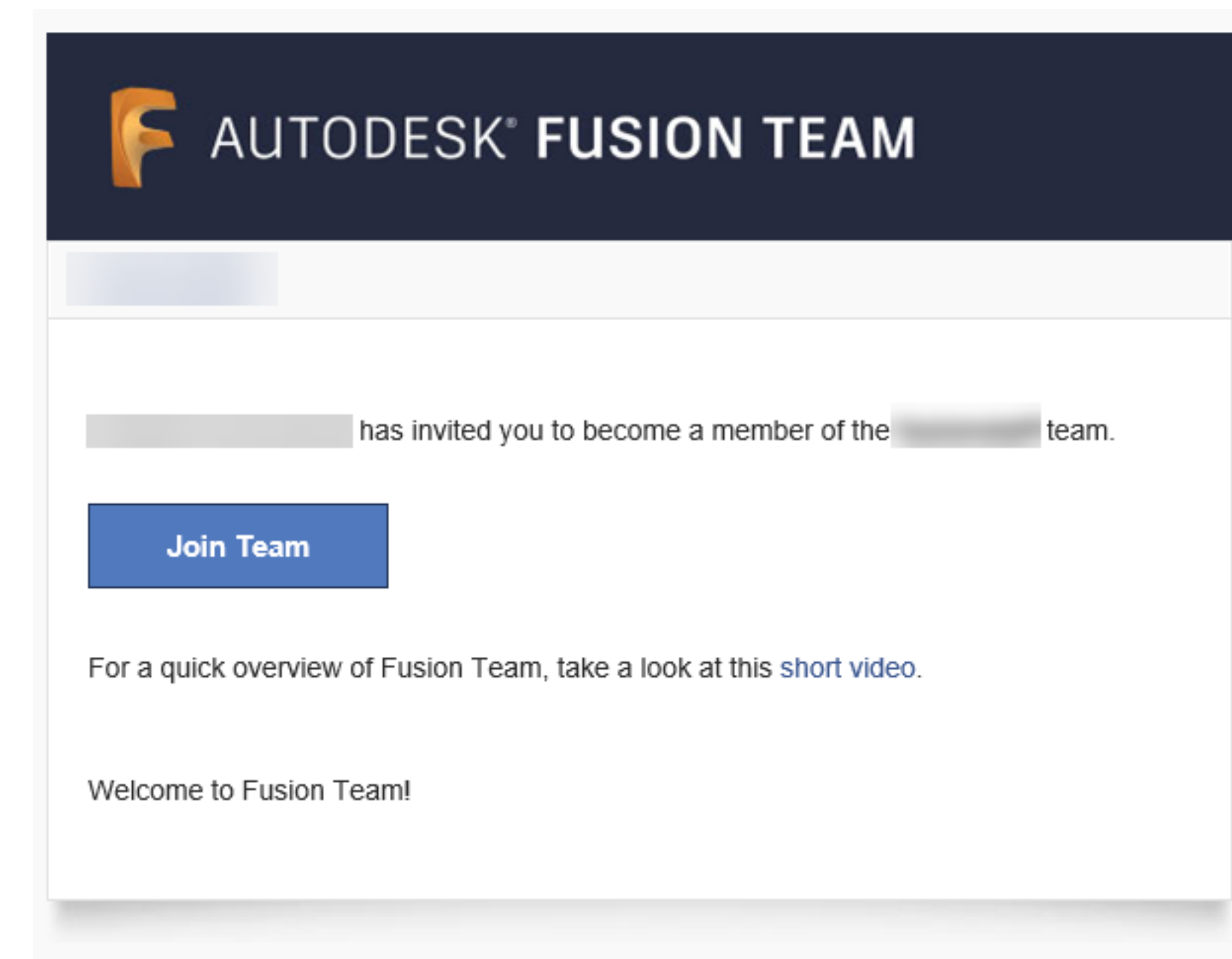
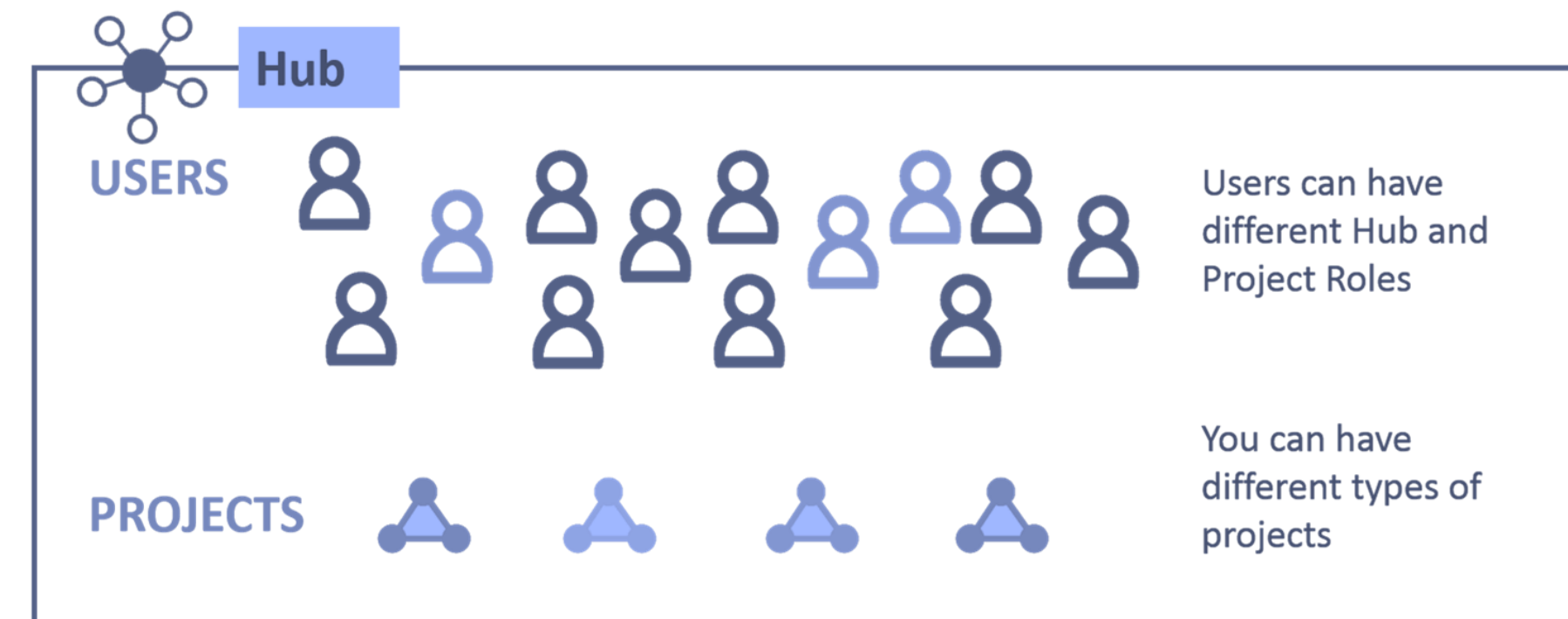
Autodesk Account is your home for everything Autodesk, where you can manage your profile, products, users, and payments



The screenshot shows the Autodesk Account dashboard. The top navigation bar includes the Autodesk logo, the text "AUTODESK ACCOUNT", and icons for notifications, help, and a user profile. The left sidebar contains a menu with categories: Home, Products &amp; Services, User Management, Billing &amp; Orders, and Reporting. The main content area features a summary of recent updates (4) and open support cases (3). Below this, there's a section for "Recently purchased products" listing 3ds Max, AutoCAD, and the Architecture Engineering and Construction Collection. A "View and download" button is present. The right sidebar offers "Help &amp; Support" links. The bottom section, "What's new in Autodesk Account", includes a video player and a list of new features like product activation by access type and enhanced subscription management.

# Fusion Team Terminology – Hubs & Projects

- **Hub**
  - A 'site' and central workplace for your projects
  - Recommended for organizations
  - Contract owner, manager, admin usually creates
- **Projects**
  - Working areas within the Hub
  - Three types
  - Permissions per Project
  - Display as top-level folders in the Hub and in Windows Explorer via Desktop Connector



# Project Types

- **Open**

- Intended for all internal Team Members
- Members can join/leave at any time
- Data is searched and access enabled to all Members

- **Closed**

- Intended for better control over data
- Membership contingent upon Moderator approval

- **Secret**

- Intended for sensitive or personal data
- Hub Owner can see it exists, but no content

## Settings

### Project Type

This setting determines who can view your project and access its data.

☒ **Open**  
Any Team Member can ask to join this project. (Please note, Projector Contributor access is restricted.)

☐ **Closed**  
Only invited members can access this project.

☐ **Secret**  
Only invited members can see this project.

Cancel

Save




# Accessing Projects

## Joining a Project

- **Open Project**
  - If Team Member, you can join
  - If Team Member, you can invite other Team Member (pending Team Admin approval)
- **Closed Project**
  - If Team Member, you can see Project and request access
- **Secret Project**
  - Cannot see other Secret Projects
  - Must be invited to these by Project Owner

### Join Project


This is a closed project. The project owner or a project admin will need to approve your request to join before you're able to view the project.



#### Class Time

Class Time

OWNED BY

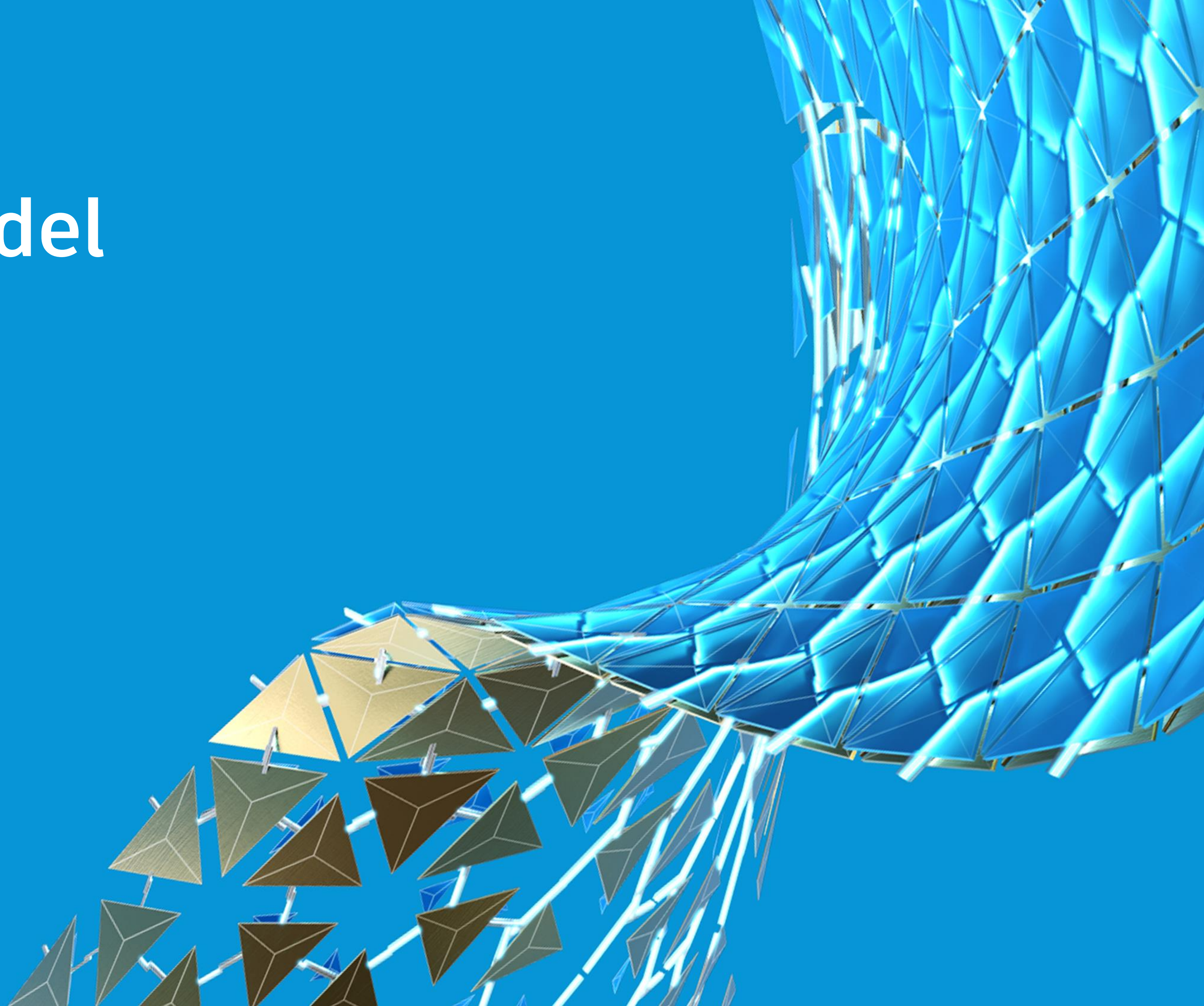
 Brian Schanen

PROJECT ADMINS (0)

CancelRequest Access



# Security Model





# Hub Roles

	Team Administrators	Team Members	Project Contributor
Project Creation	✓	✓	
Browse and Join Projects	✓	✓	
Invite Team Members * Requires Team Admin Approval	✓	*✓	*✓
Invite Project Contributor	✓	✓	
Can Upload Files	✓	✓	✓
Can See other Members	✓	✓	
Can Approve Invitations from other contributors	✓	✓	
Can approve and share public links	✓	✓	
Right to assign hub-level roles to users	✓		
Can purchase seats	✓		



# Role Types - Hub

## Team Owner

- Purchased/entitled to the Hub
- Can buy more subscriptions
- Can invite more Team Members, and Project Contributors
- Also a Team Administrator

## Team Administrator

- Change Hub name
- Change invite approval
- Invite/deactivate members
- Promote others to Admin
- Create/deactivate Projects
- Also a Team member

## Team Member

- Browse all Projects
  - Except Secret ones
- See other Members
- Able to invite (if allowed by Admin)
- Join any Open, request to join Closed
  - Must be invite to Secret
- Delete/move/copy in Projects they are members of

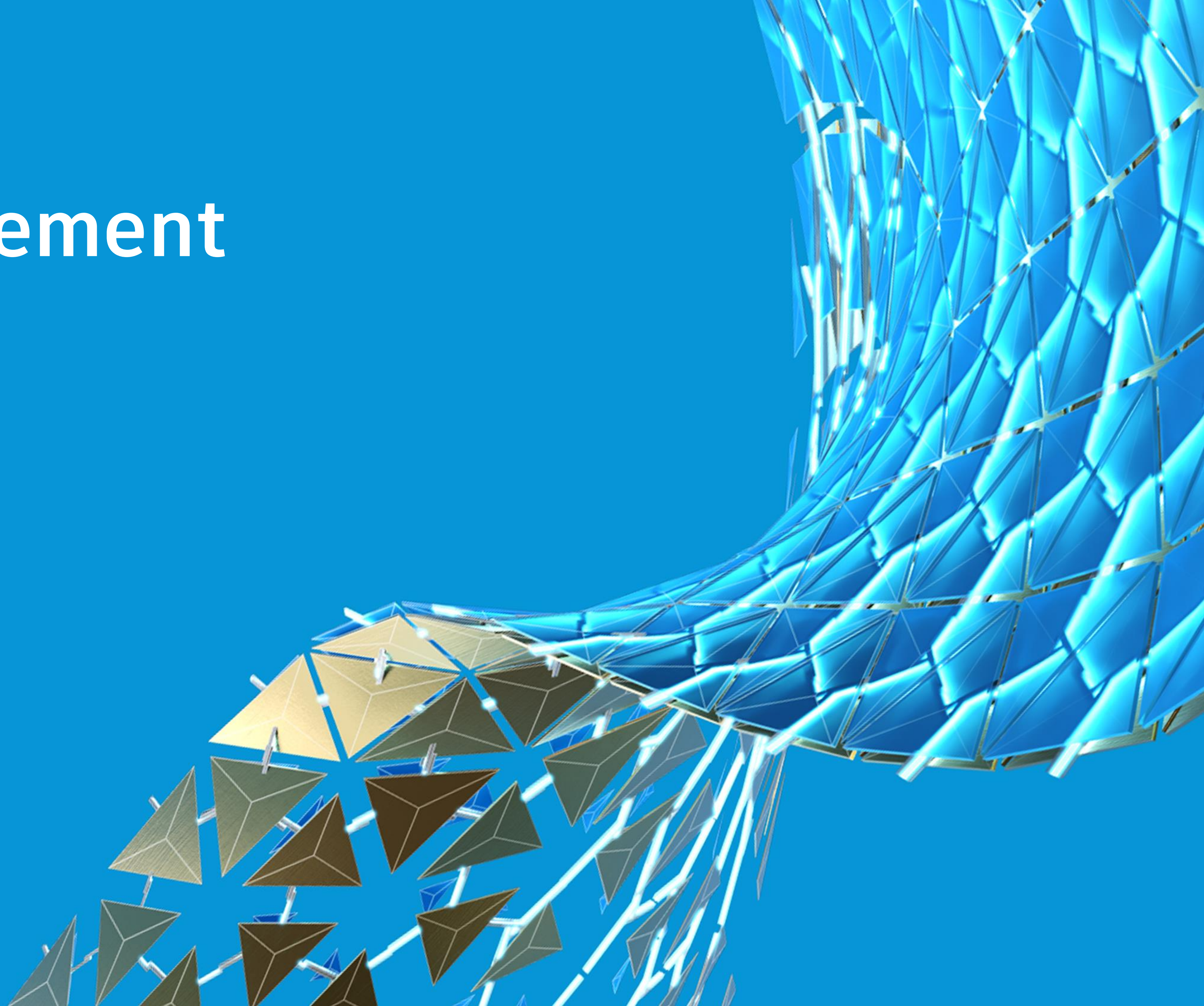


# Project Access Roles

	Project Admin	Editor	Viewer
<b>View</b> Files(online), folders, comments (view and post) and people	✓	✓	✓
<b>Get Link and Live Review</b> Get link for shared files and initiate live review	✓	✓	
<b>Edit, Upload, Download</b> Copy, move, rename, and delete files/folder	✓	✓	
<b>Manage Sharing</b> Enable and set public sharing, invite others to the project	✓	✓	
<b>Project Admin</b> Project settings, approve people in the project, set access levels	✓		

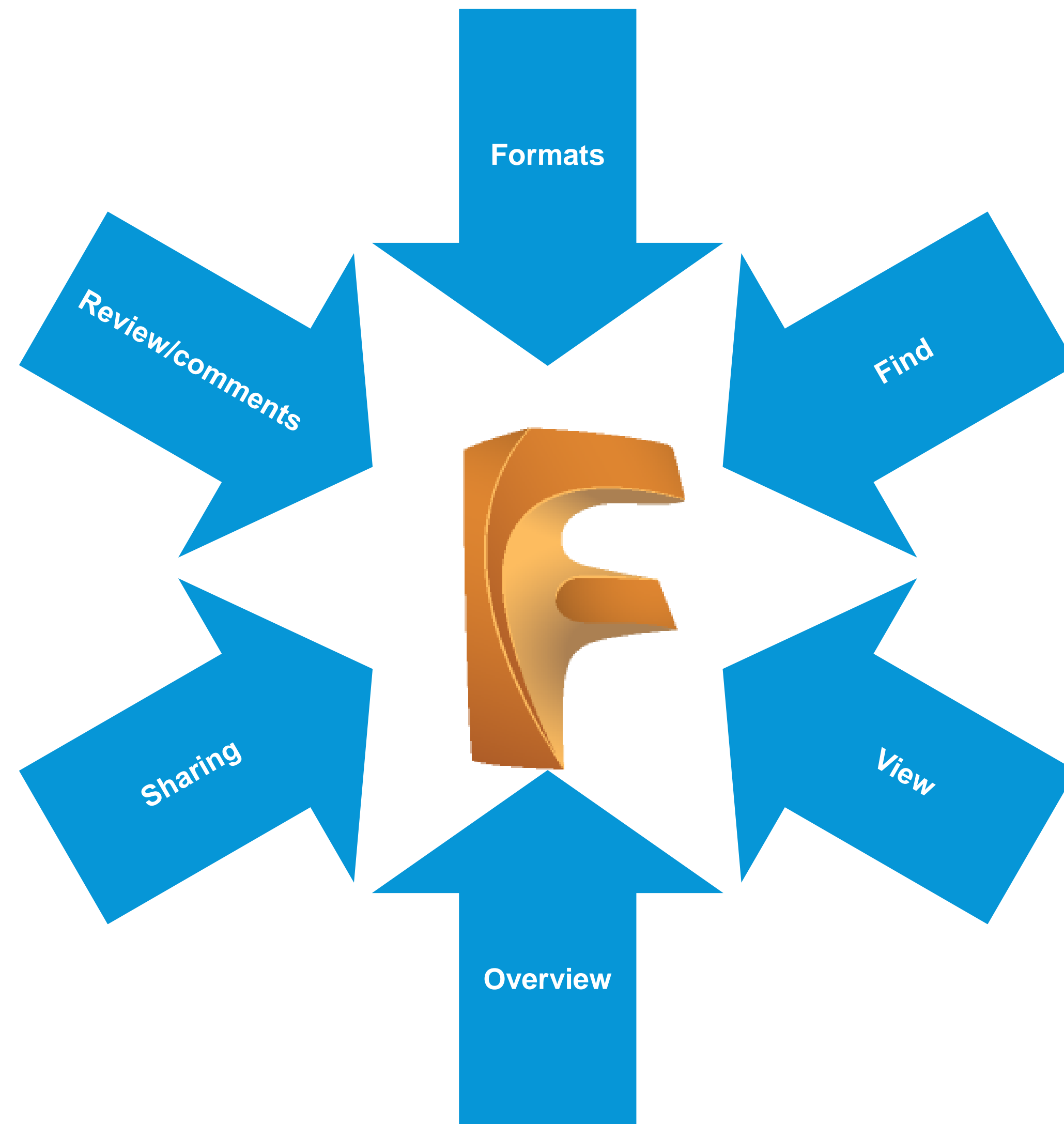


# Data Management





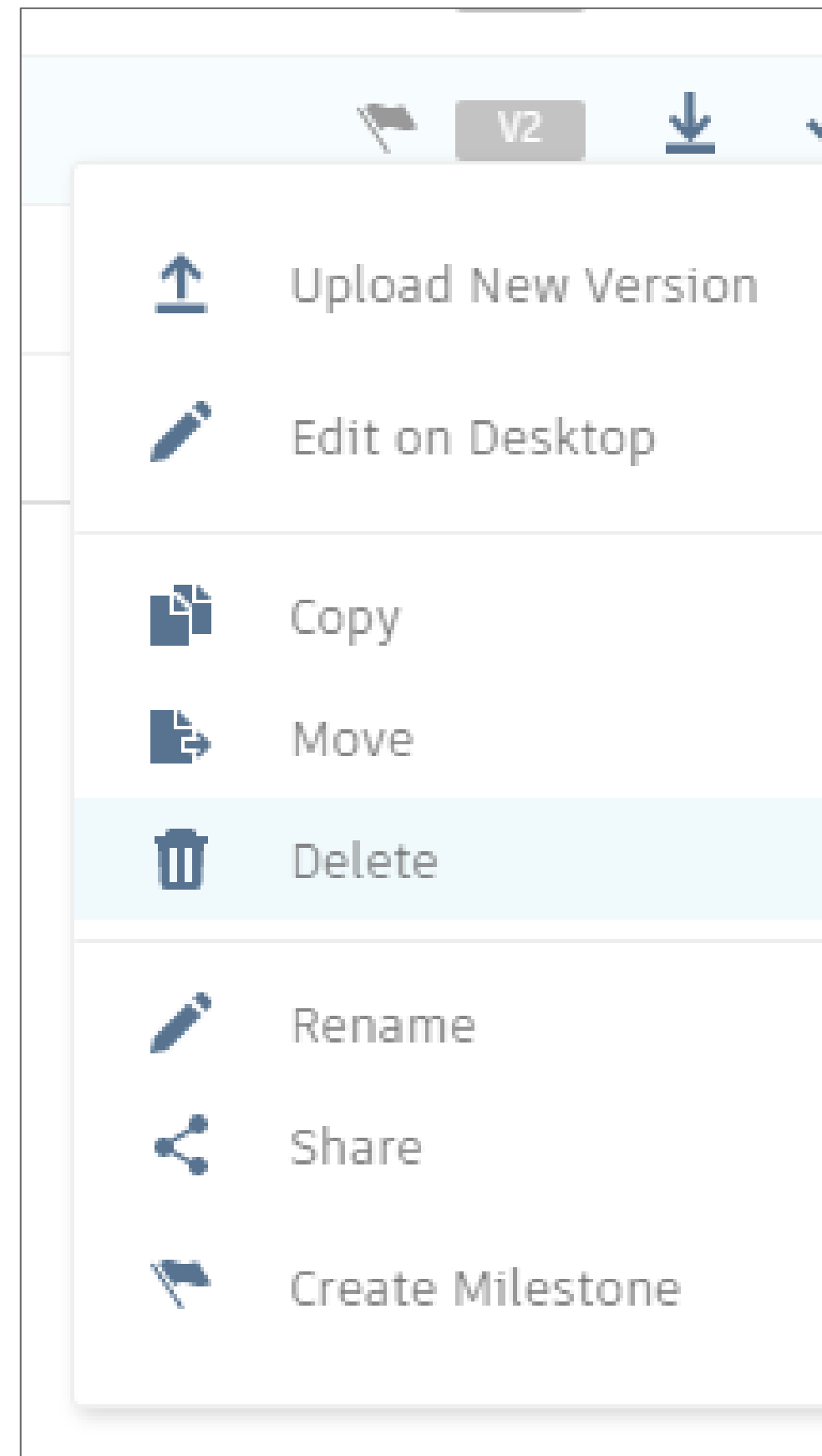
# Interacting with Data





# Managing Data

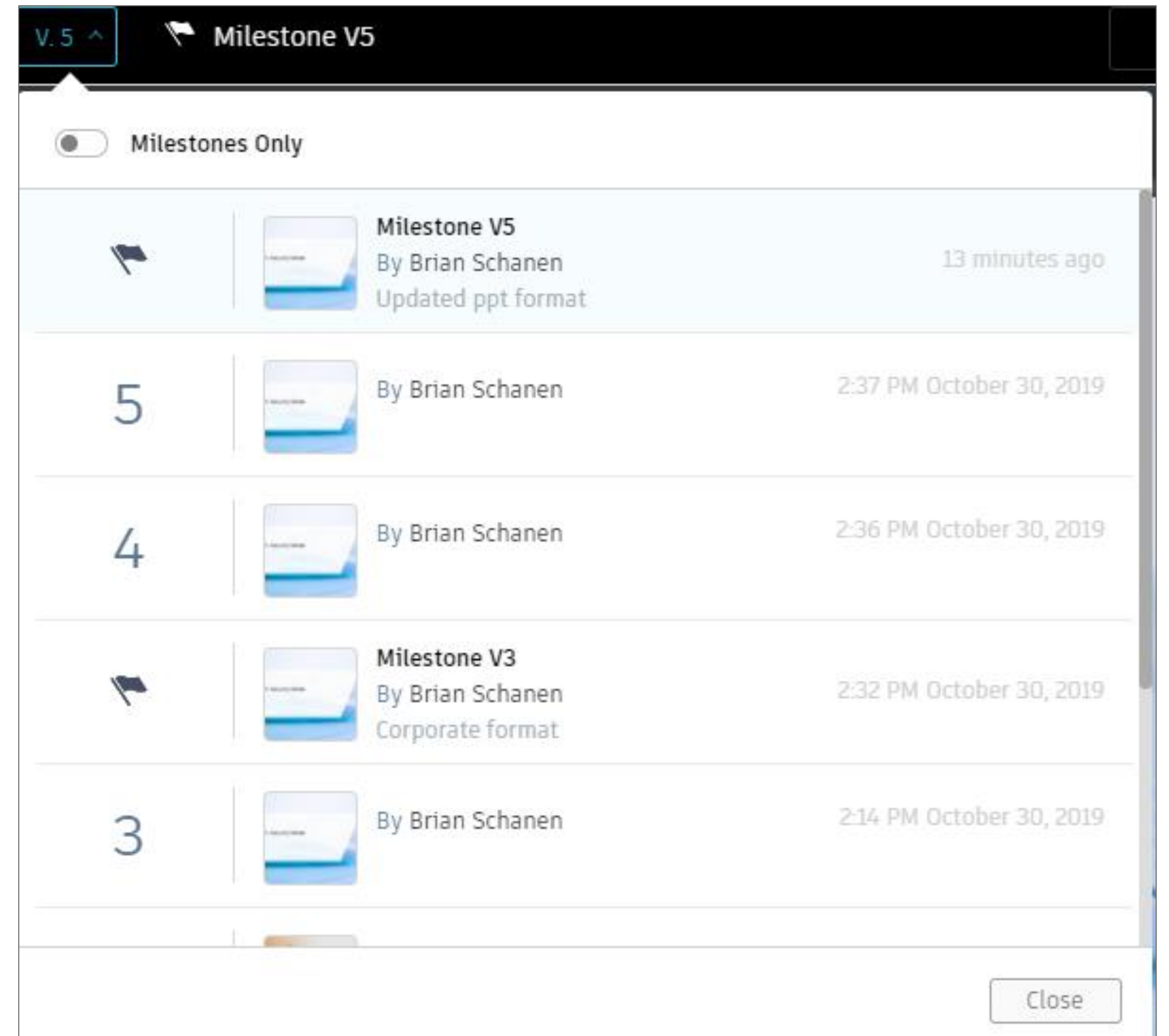
- Properties
- Retrieving Data
  - Downloading
  - Linking
- Trash
  - By Project
  - By Folder
- Archive Projects
  - Admin Restore



> Class Time > Archived Data > Trash

# Managing Data

- Versioning files
- Milestones on versions
- Promoting versions





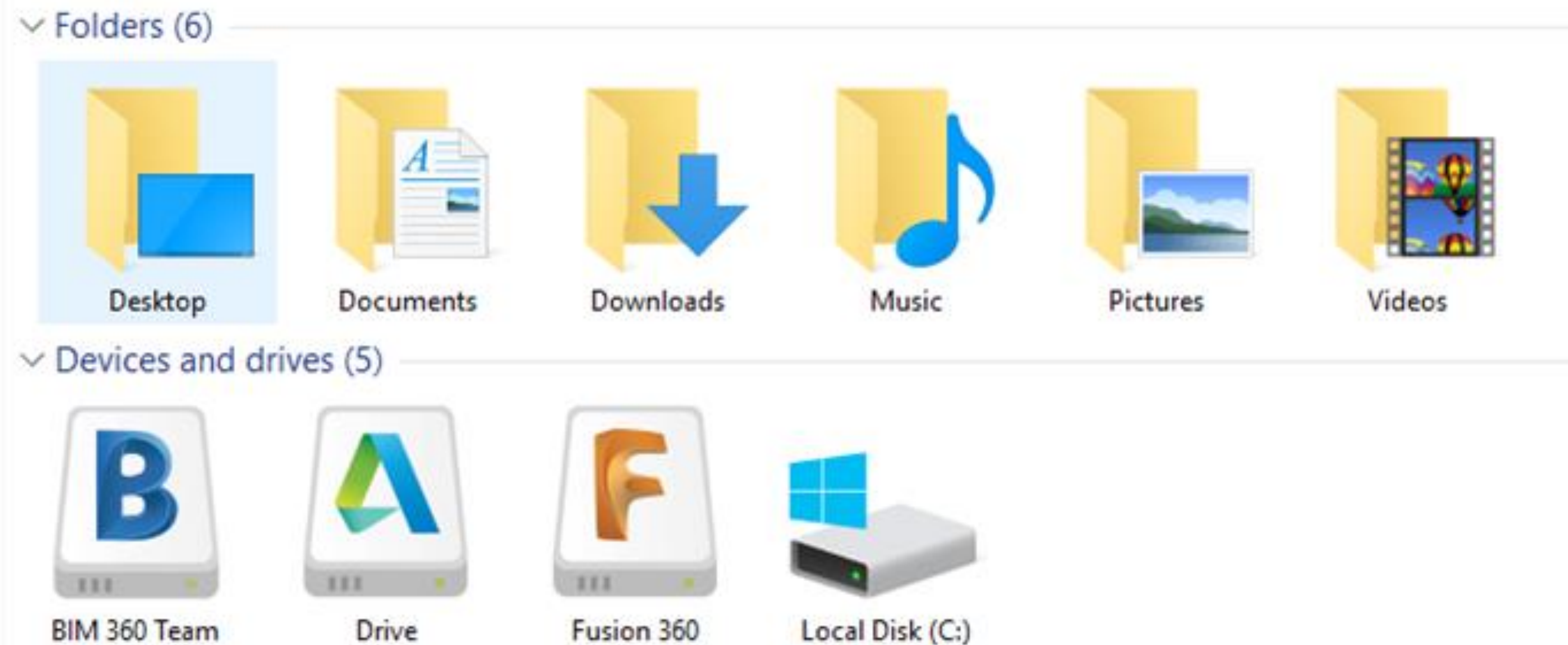
# Desktop Connector

Connect your Desktop to the Cloud



# Autodesk Desktop Connector

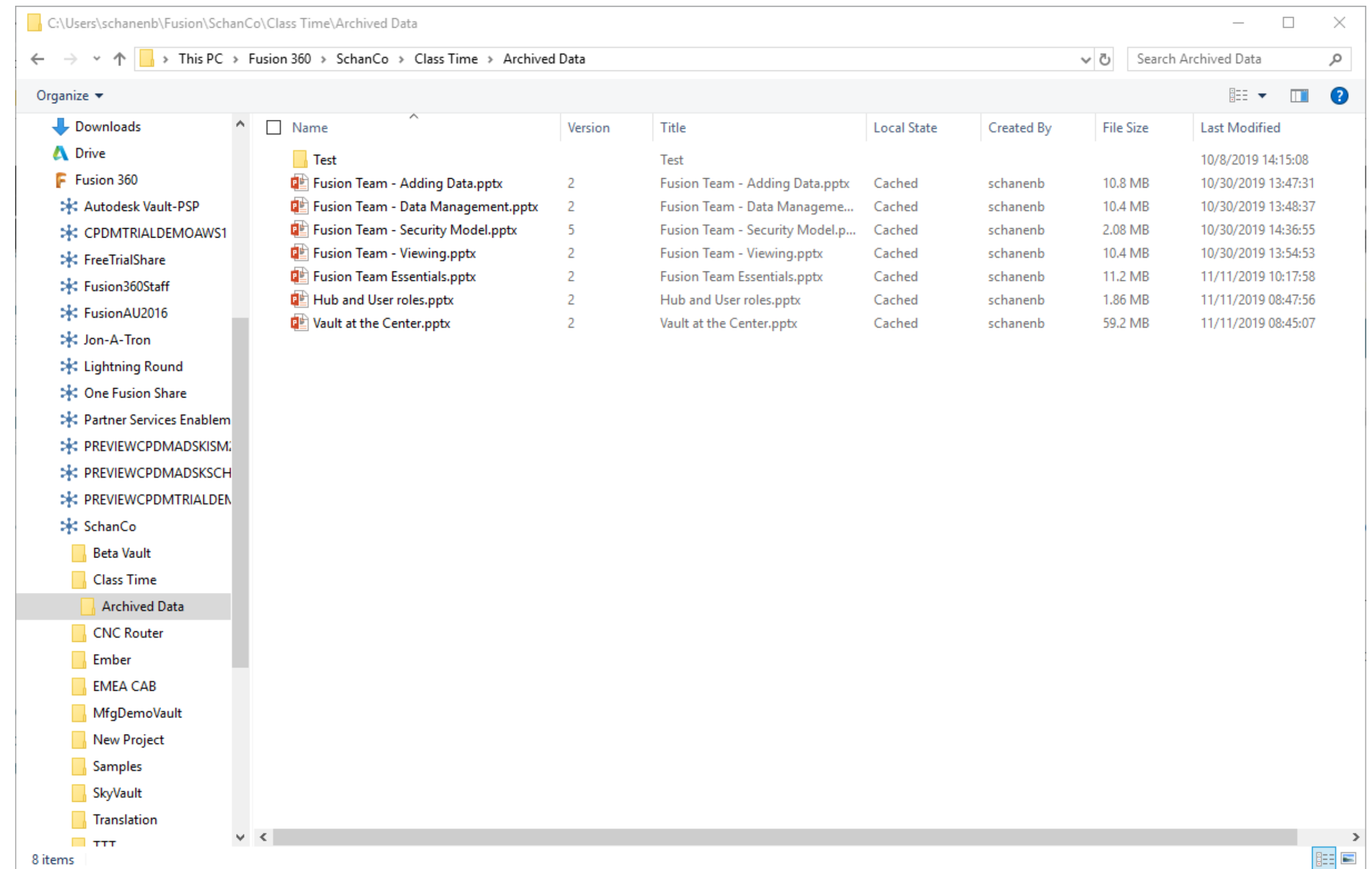
- Creates virtual 'drives' within Explorer, to directly work, open, save pack & go to / from Autodesk Drive, BIM360 Team / Docs & Fusion Team





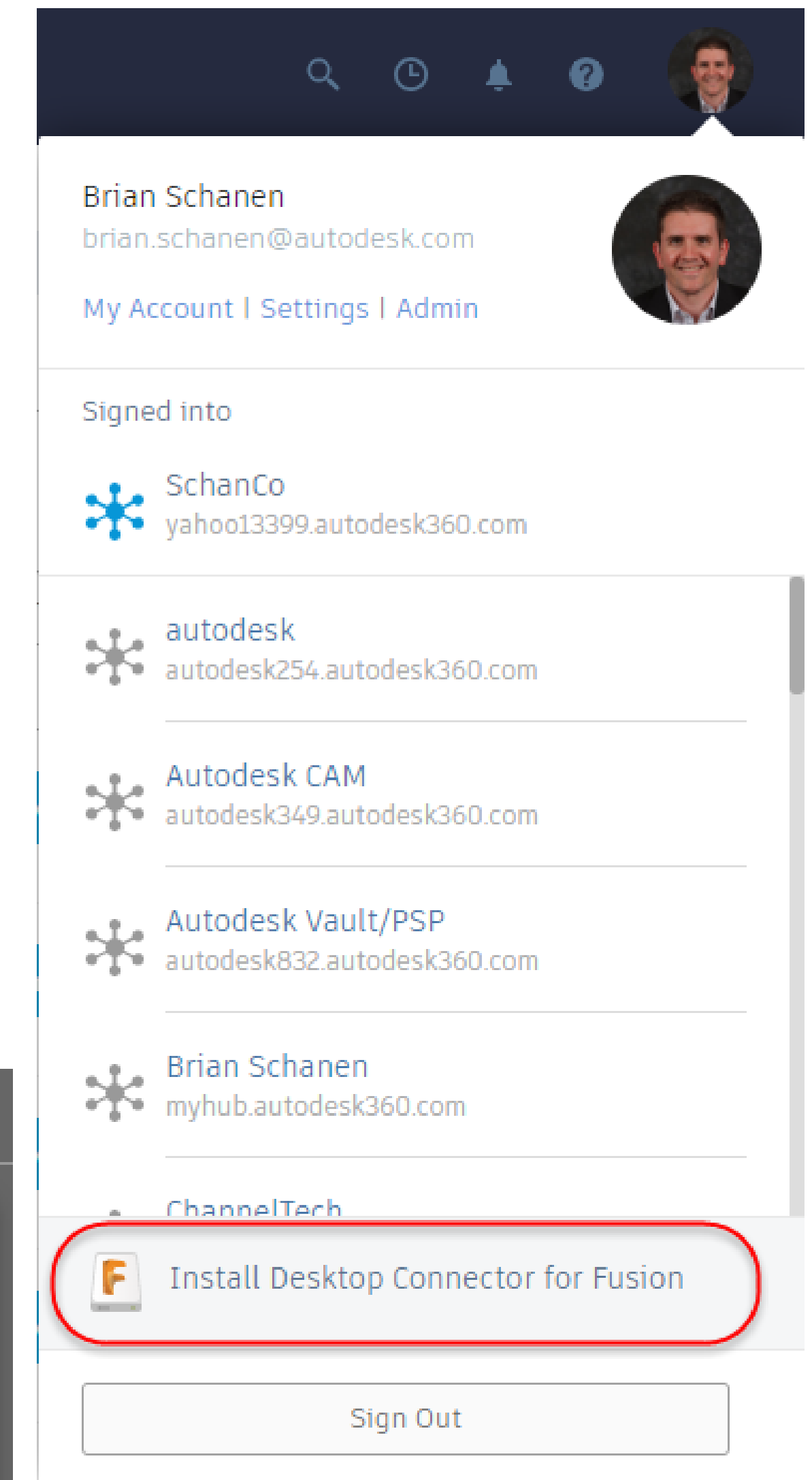
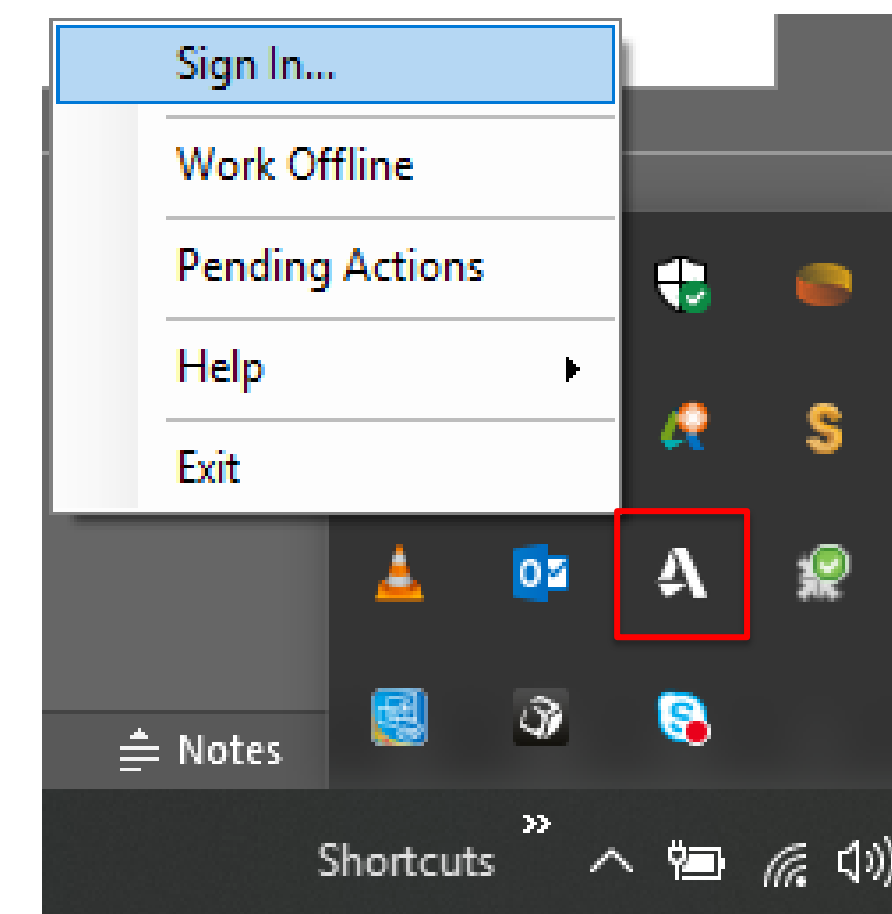
# Desktop Connector

- Only available with Windows OS
  - Modify the folder view
- Refresh / Poll time: 10 minutes
- Offline mode – 15-day stale timeout
- Diagnostic mode
  - Debugging
  - Pending Actions queue



# Configuring Desktop Connector

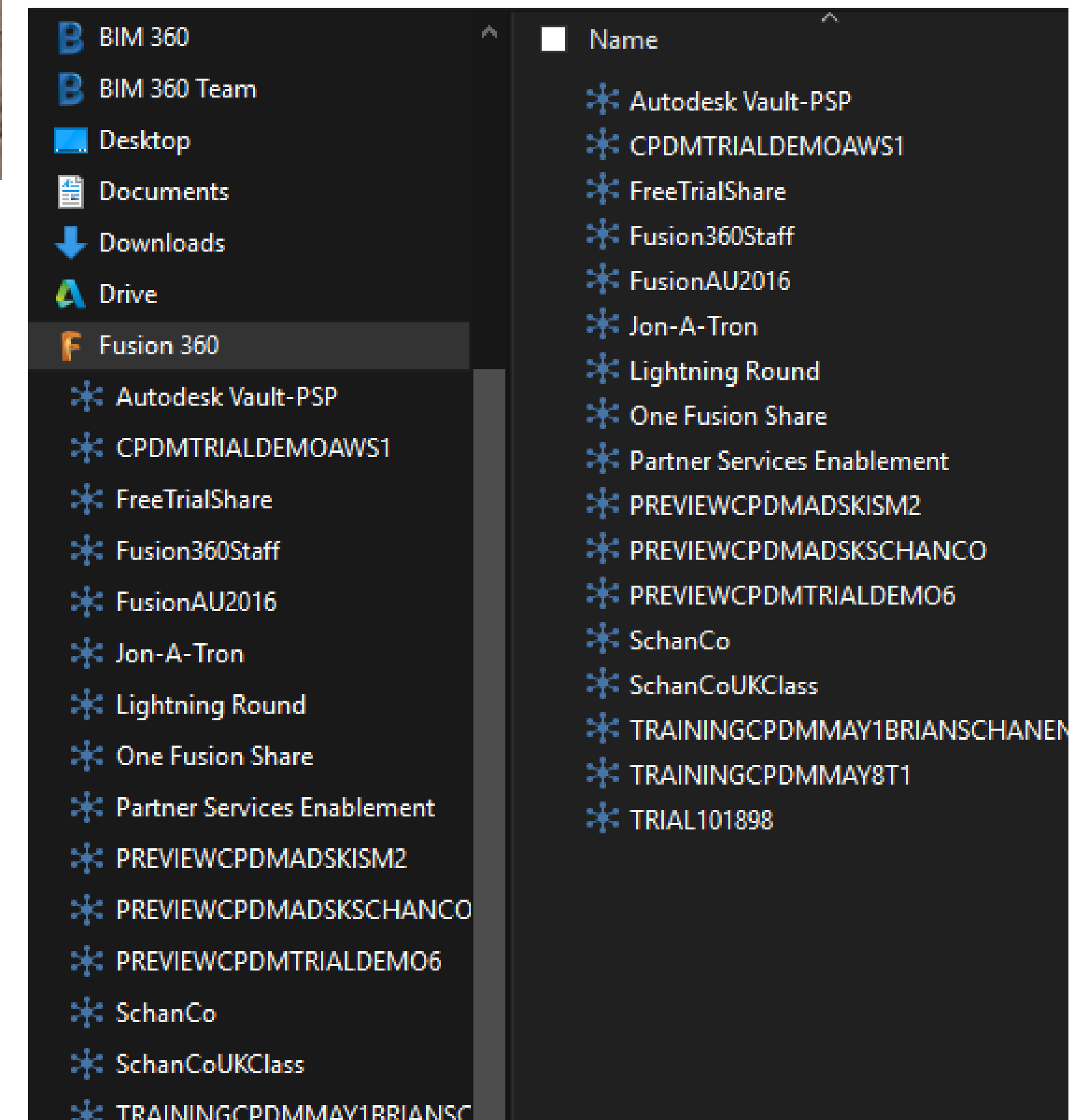
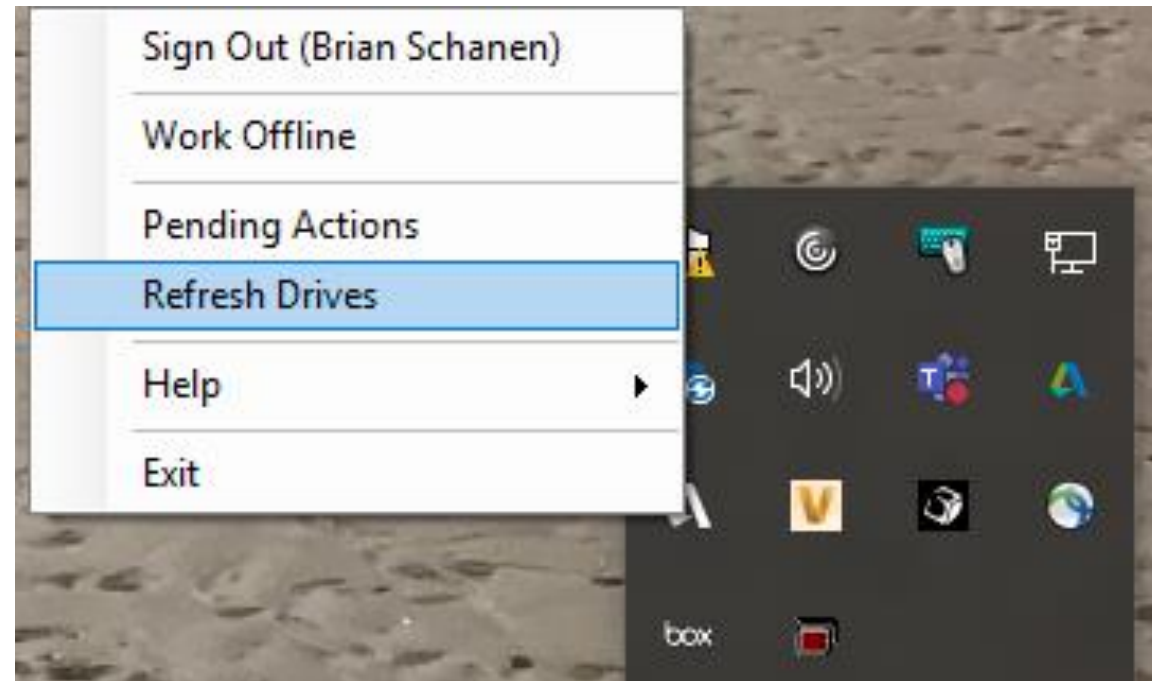
- A company's contract manager must allow user access
- Go to Fusion Team & sign in with your Autodesk ID
- Install the Desktop Connector by clicking down from your profile picture within Drive
- Sign in to the Desktop Connector with your Autodesk ID
- Load up some data or invite collaborators to share their data, and off you go.





# Within Windows Explorer

- Open Windows Explorer
- ->This PC>Fusion 360>.....
  - Verify hub is showing
- IF this hub does NOT appear
  - Go to Desktop Connector in system tray
  - Right click, Refresh Drives



# Browsers & Platforms

- Fusion Team can be accessed through

- Google Chrome
- Mozilla Firefox
- Apple Safari
- Internet Explorer 11\*
- Microsoft Edge

- Mobile – Fusion 360 App

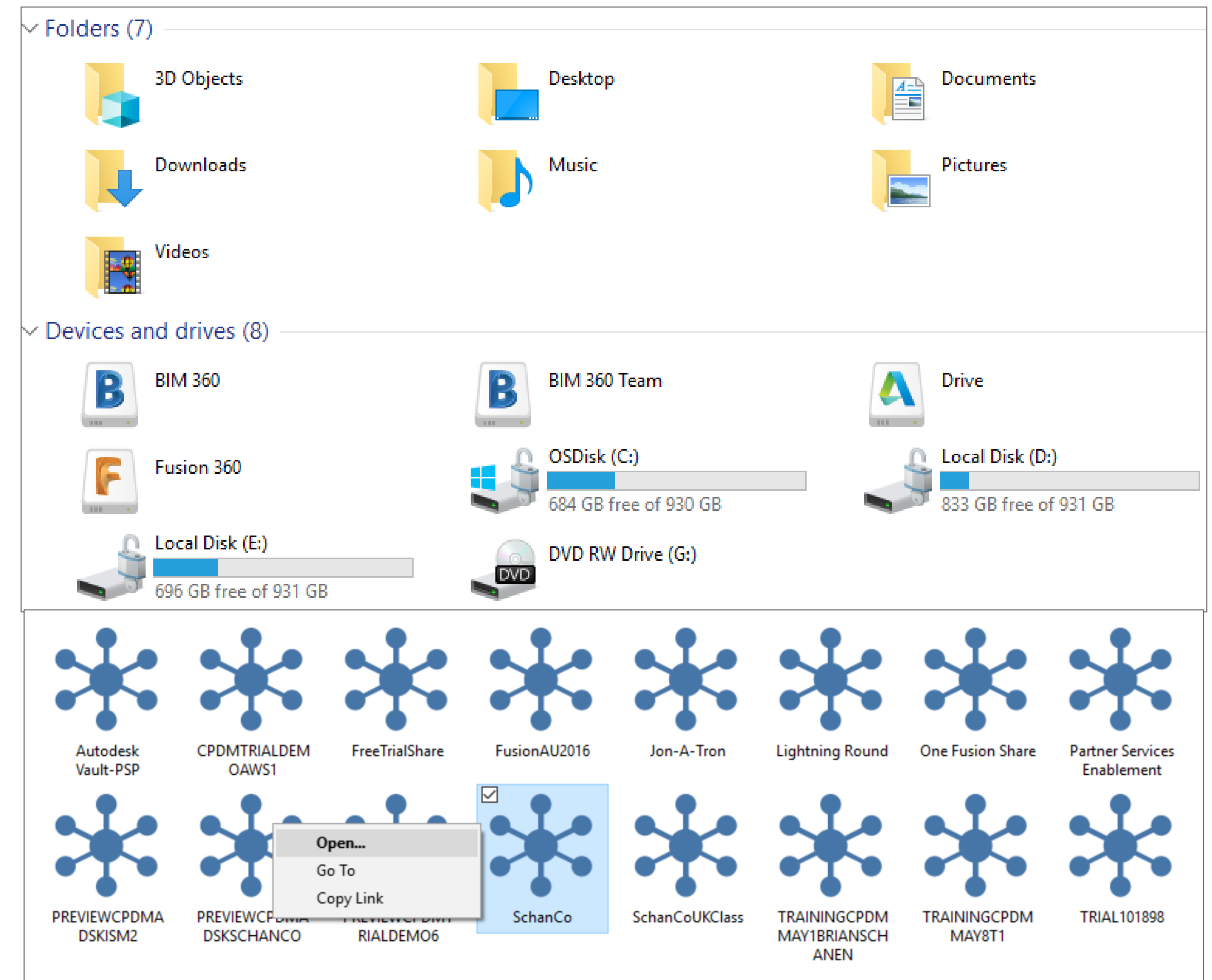
- Operating Systems

- Win 8, 10

- Note: Additional drives may appear

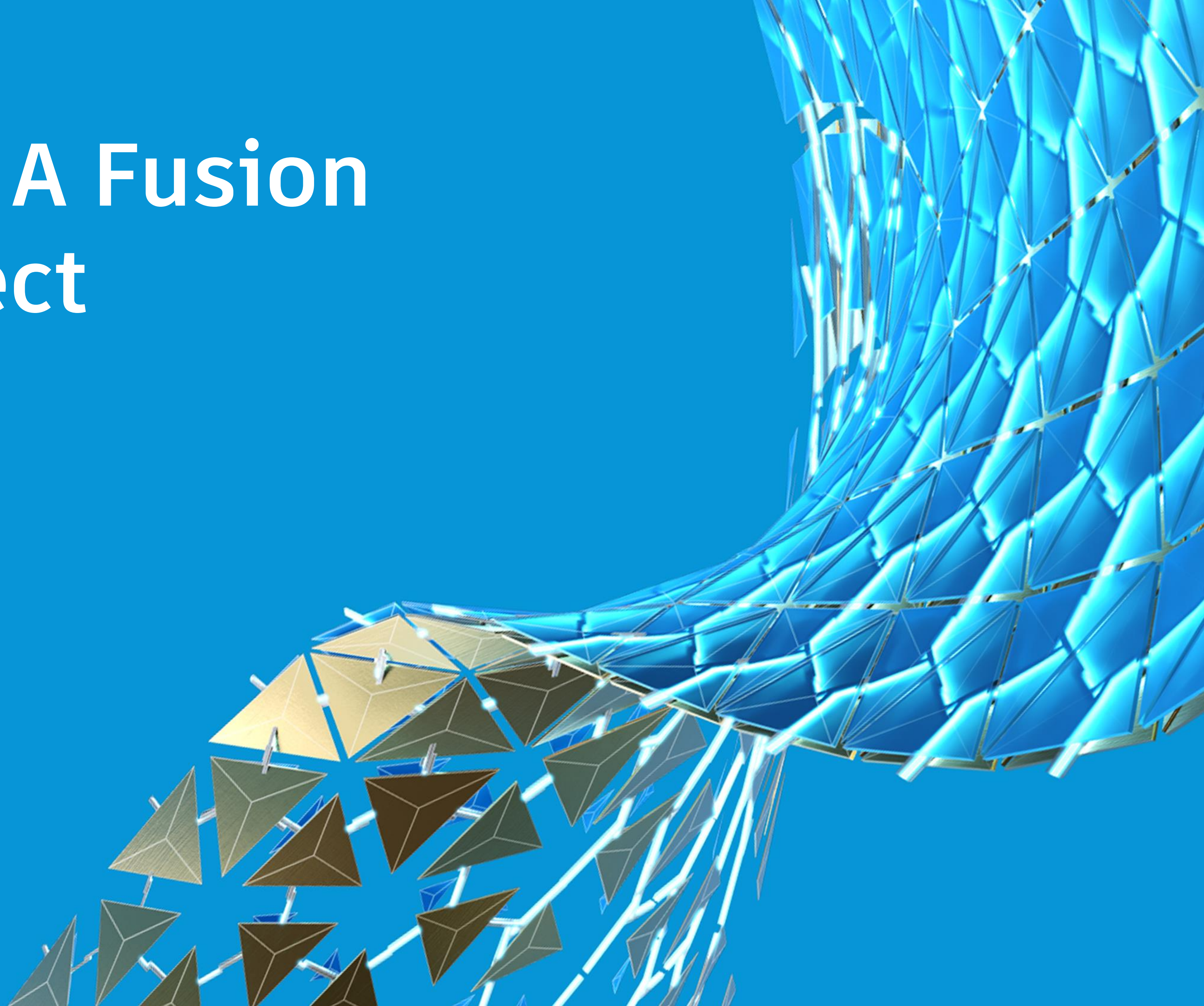
- BIM 360
- BIM 360 Team
- Autodesk Drive

*\*limited viewing support in IE11*





# Setting Up A Fusion Team Project





# Disclaimer

- Fusion Hub needs to already be set up before doing any of this. This should be set up by your IT administrator.
- Must have the rights to be able to create projects
  - Hub role: Team Administrator or Team member





# Steps to create a project

1. Click "Create Project"
2. Name project, select project type & choose avatar

## Create Your New Project

Project Name (required)

You have 60 characters left

Project Type

Closed

Open


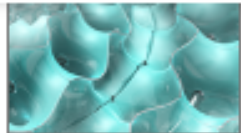



Any Team Member can ask to join this project. (Please note, Project Contributor access is restricted.)

Closed

Only invited members can access this project.

Secret

Only invited members can see this project.



Cancel

Create Project

# Assigning Users to Projects

- Add users & assign roles by email address
- Once created, user can be elevated to project admin

Who do you want to invite to this project?

Email addresses or names of the people you'd like to invite (required)

Role ?

Editor ▼

(Don't use mailing lists.)

Cancel

Send Invitations

FUSION TEAM

https://yahoo13399.autodesk360.com/g/projects/20200911331805481/members

Superchart 2.0 - Mi... SQL Versions fahrenheit to celsiu... SQL Server Versions... DAM PDM-PLM Re... Vault Build Number... Autodesk Universit... Foolproof Publish G... Slack | ! Slackbot [...]

SchanCo



AU 2020

LD

Home > AU 2020

Content Project Members (2) Wiki Pages

Invite

Name and Email	Title	Company	Role ?
<div></div> <div>Brian Schanen brian.schanen@autodesk.com</div>	PLM/PDM Readiness Program Man...	Autodesk	Project Admin
<div></div> <div>Lauren Drotar lauren.drotar@teamd3.com</div>	Implementation Consultant	D3 Technologies	Editor

Project Details

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# Finishing Touches

- And just like that- you can start working!
- Begin creating folder hierarchy
- Continue adding users and adding folder structure



# Project Folder Structure: Best Practices

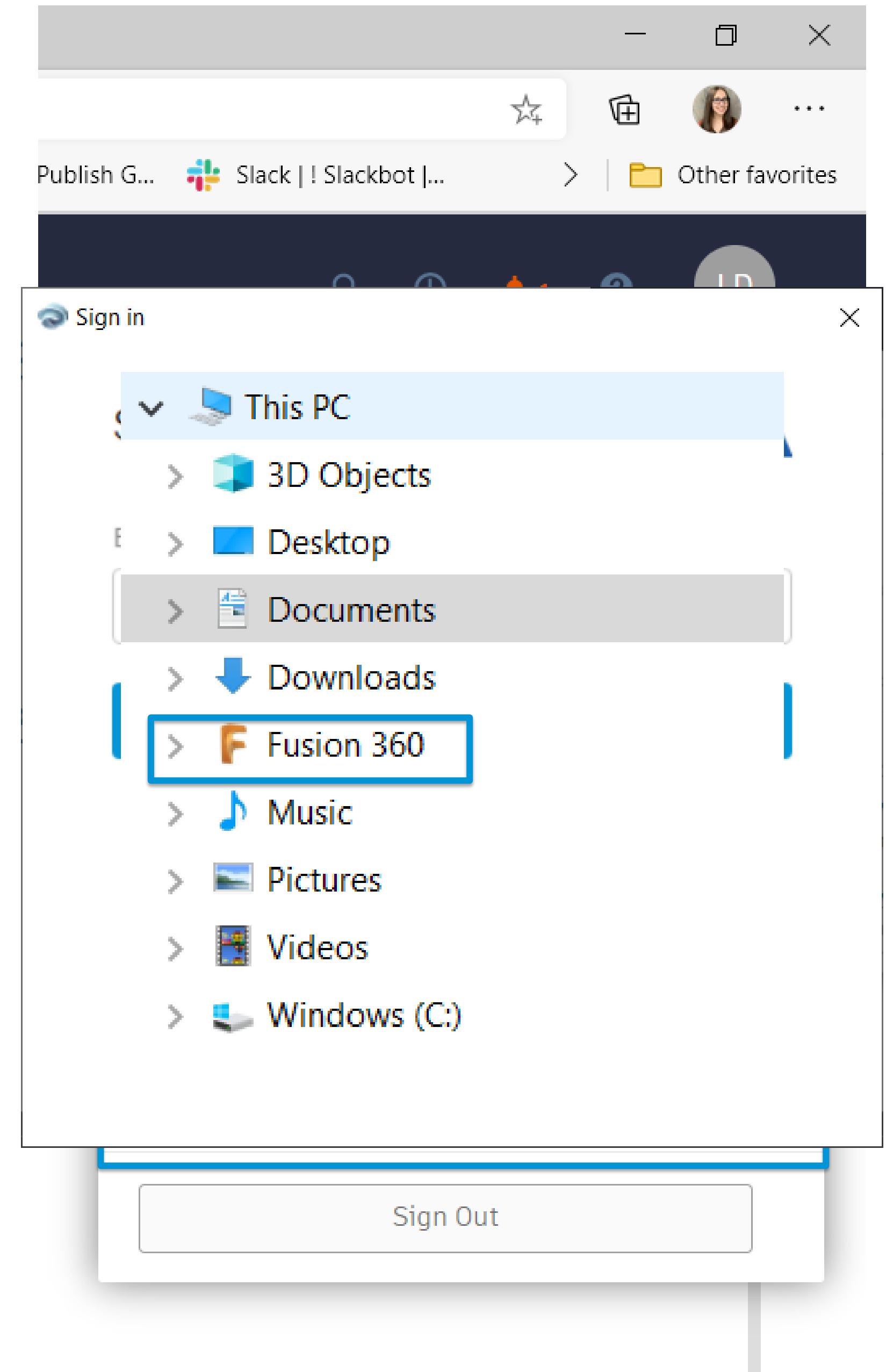
- Create the following folders directly within the Project:
  - Content Center Files
  - Design Data
  - Libraries
  - Templates
  - Designs

🏠 > Fusion Team Demo			
Content   Project Members (2)   Wiki Pages			
<input type="checkbox"/>	Name ▲	Owner	Type
	Trash		
	Content Center Files	Lauren Drotar	Folder
	Design Data	Lauren Drotar	Folder
<input type="checkbox"/>	Designs	Lauren Drotar	Folder
	Libraries	Lauren Drotar	Folder
	Templates	Lauren Drotar	Folder



# Desktop Connector

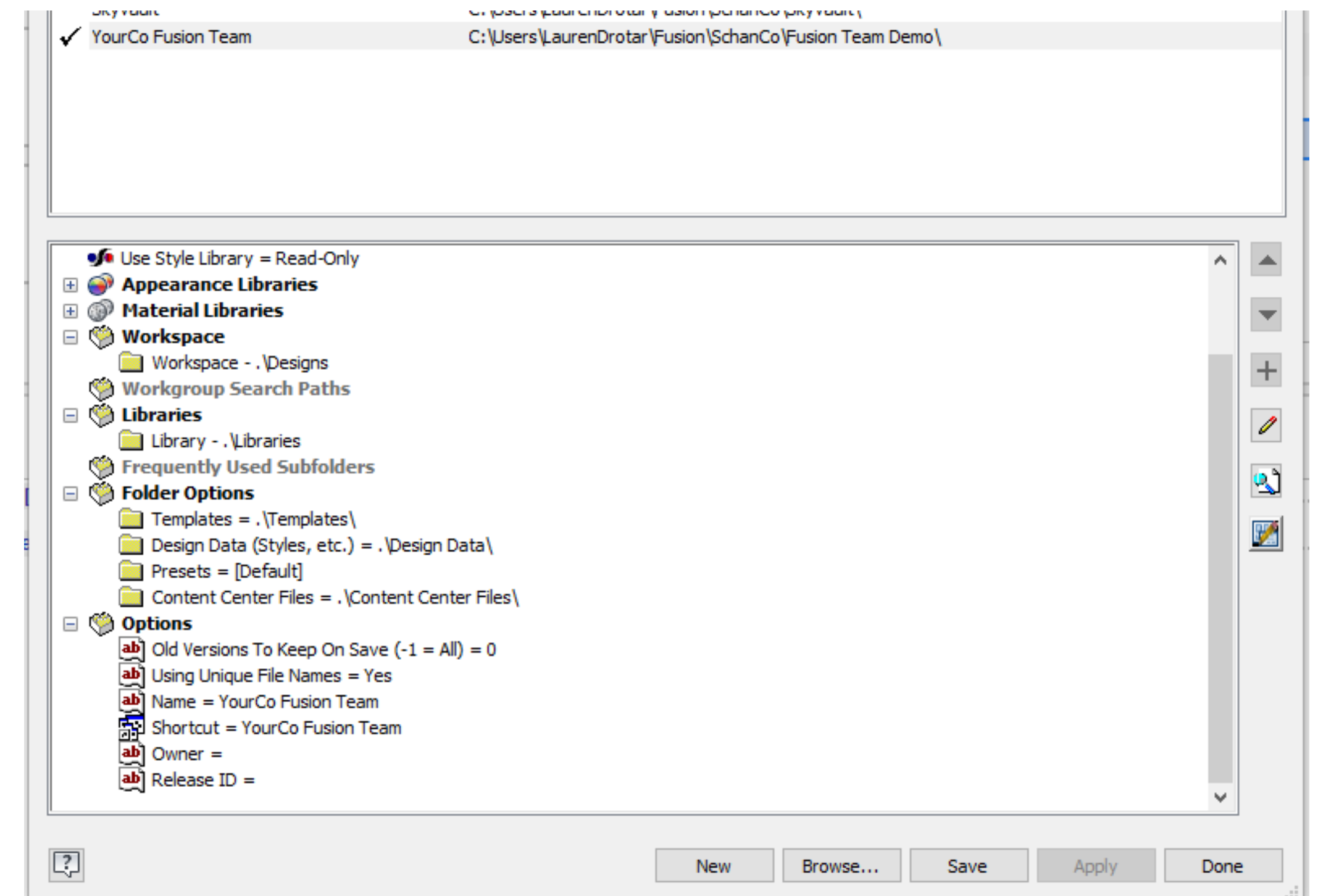
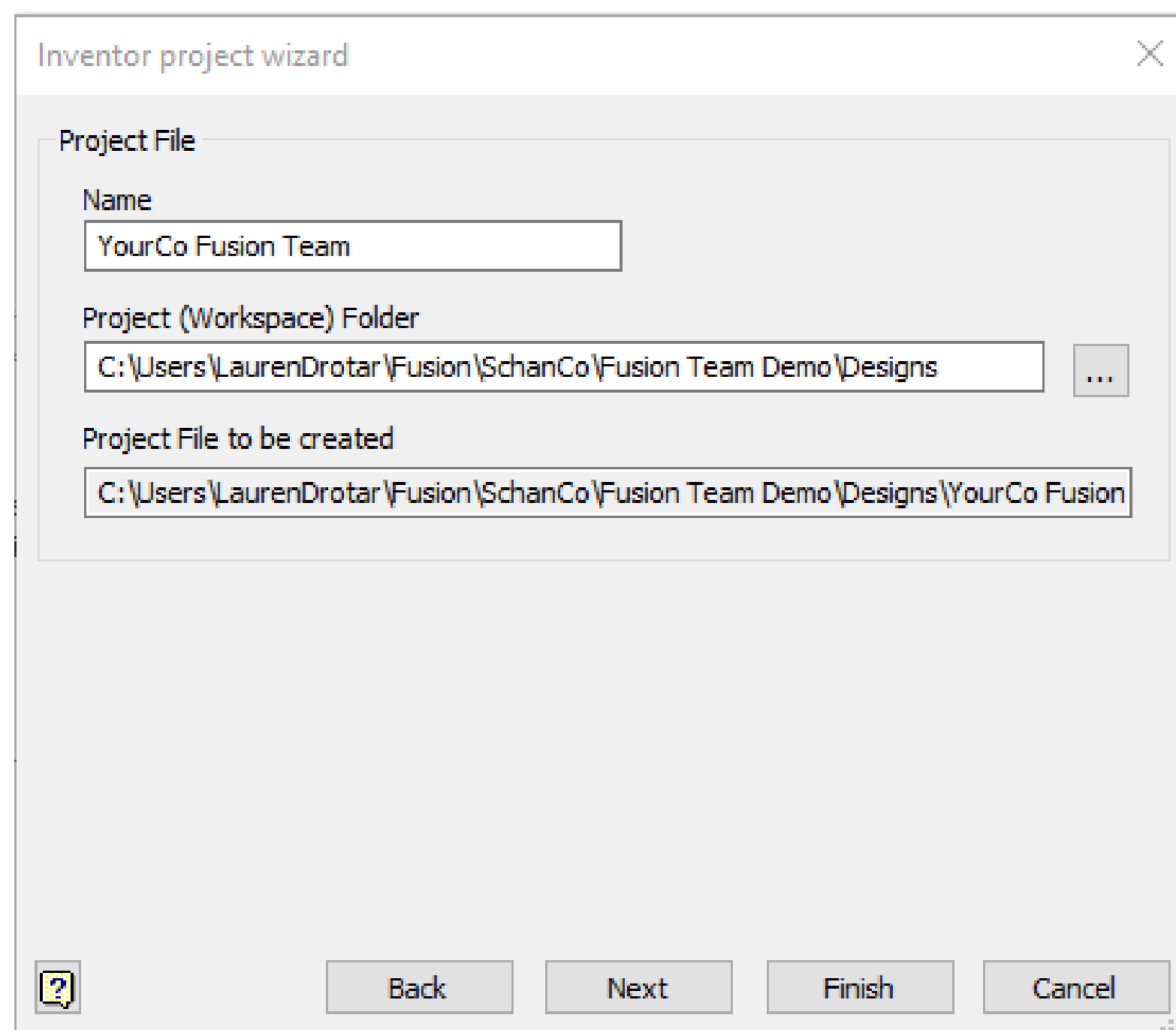
1. Download & install from Fusion Team
2. Sign in with Autodesk account
3. Verify the hub shows in Windows Explorer



# Create Inventor .ipj for Fusion Team

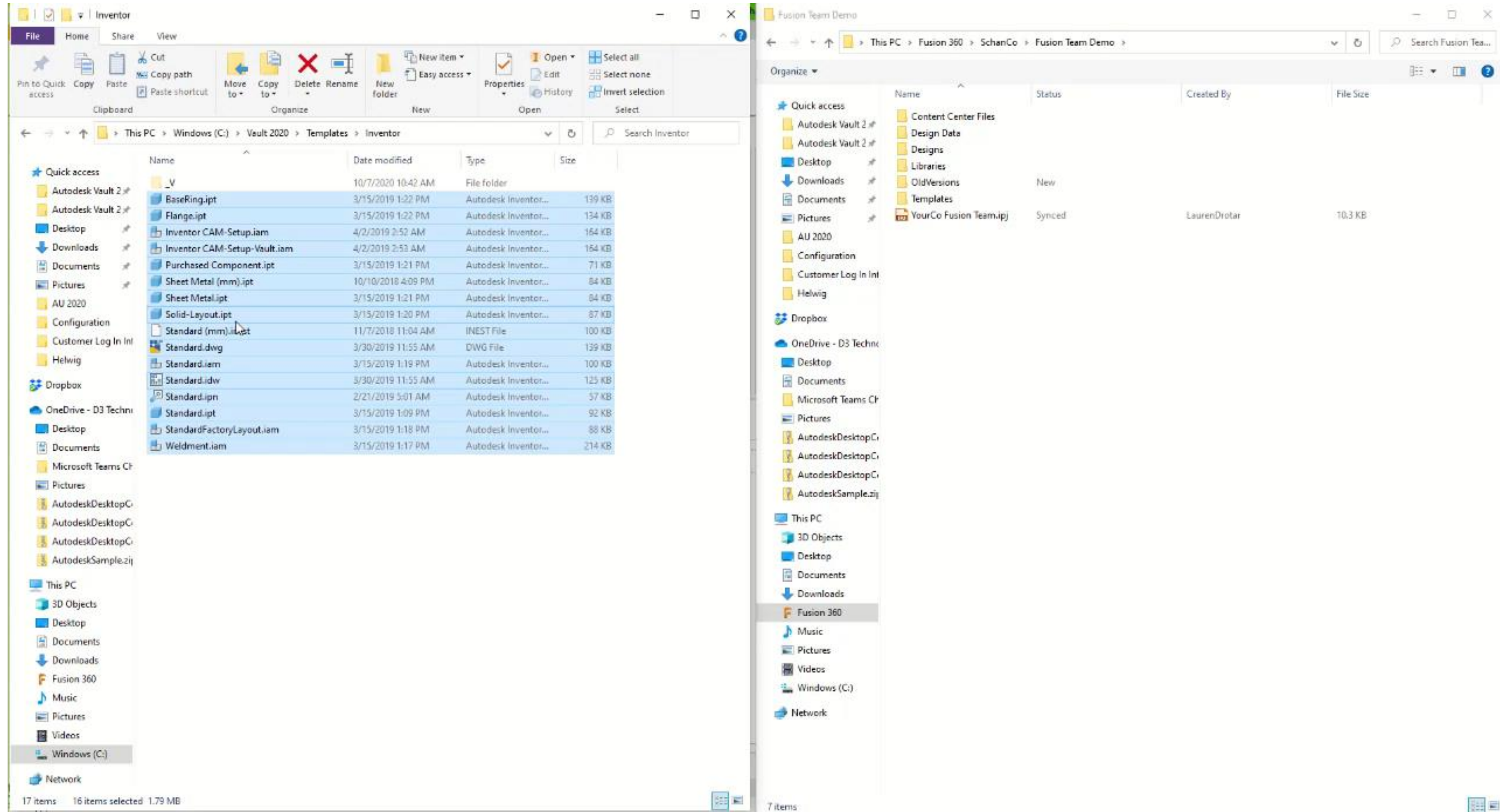
- Say yes to copying all Design Data to this location
- Copy templates, libraries, etc. to Fusion hub location in

DC





# Create Inventor .ipj for Fusion Team



# Let's Look Back at Fusion Team

is PC > Fusion 360 > SchanCo > Fusion Team Demo > Templates

Search Templates

Name	Status	Created By	File Size
BaseRing.ipt	Synced	LaurenDrotar	139 KB
Flange.ipt	Synced	LaurenDrotar	134 KB
Inventor CAM-Setup.iam	Synced	LaurenDrotar	163 KB
Inventor CAM-Setup-Vaul...	Synced	LaurenDrotar	163 KB
Purchased Component.ipt	Synced	LaurenDrotar	71.0 KB
Sheet Metal (mm).ipt	Synced	LaurenDrotar	84.0 KB
Sheet Metal.ipt	Synced	LaurenDrotar	83.5 KB
Solid-Layout.ipt	Synced	LaurenDrotar	87.0 KB
Standard (mm).inest	Synced	LaurenDrotar	100 KB
Standard.dwg	Synced	LaurenDrotar	138 KB
Standard.iam	Synced	LaurenDrotar	100 KB
Standard.idw	Synced	LaurenDrotar	125 KB
Standard.ipn	Synced	LaurenDrotar	56.5 KB
Standard.ipt	Synced	LaurenDrotar	91.5 KB
StandardFactoryLayout.iam	Synced	LaurenDrotar	87.5 KB
Weldment.iam	Synced	LaurenDrotar	213 KB

https://yahoo13399.autodesk360.com/g/projects/20201007340555256/da... ☆

Superchart 2.0 - Mi... SQL Versions fahrenheit to celsiu... SQL Server Versions... DAM PDM-PLM Re... Other favorites

SchanCo Fusion Team Demo

Search ⌚ 🔔 1 ? LD

Home > Fusion Team Demo > Templates

Content Project Members (2) Wiki Pages

Upload New Folder

Name	Owner	Last Updated
Trash		
BaseRing.ipt	V1 Lauren Drotar	2 minutes ago
Flange.ipt	V1 Lauren Drotar	2 minutes ago
Inventor CAM-Setup-Vault.iam	V1 Lauren Drotar	2 minutes ago
Inventor CAM-Setup.iam	V1 Lauren Drotar	2 minutes ago
Purchased Component.ipt	V1 Lauren Drotar	2 minutes ago
Sheet Metal (mm).ipt	V1 Lauren Drotar	2 minutes ago
Sheet Metal.ipt	V1 Lauren Drotar	2 minutes ago
Solid-Layout.ipt	V1 Lauren Drotar	2 minutes ago
Standard (mm).inest	V1 Lauren Drotar	2 minutes ago
Standard.dwg	V1 Lauren Drotar	2 minutes ago
Standard.iam	V1 Lauren Drotar	2 minutes ago
Standard.idw	V1 Lauren Drotar	2 minutes ago
Standard.ipn	V1 Lauren Drotar	2 minutes ago
Standard.ipt	V1 Lauren Drotar	2 minutes ago
StandardFactoryLayout.iam	V1 Lauren Drotar	2 minutes ago
Weldment.iam	V1 Lauren Drotar	2 minutes ago

Project Details

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And just like that-  
you're done!

- Now you really can start working now
- Otherwise, load data and continue to configure to your desire (folder structure setup, invite users, etc.)



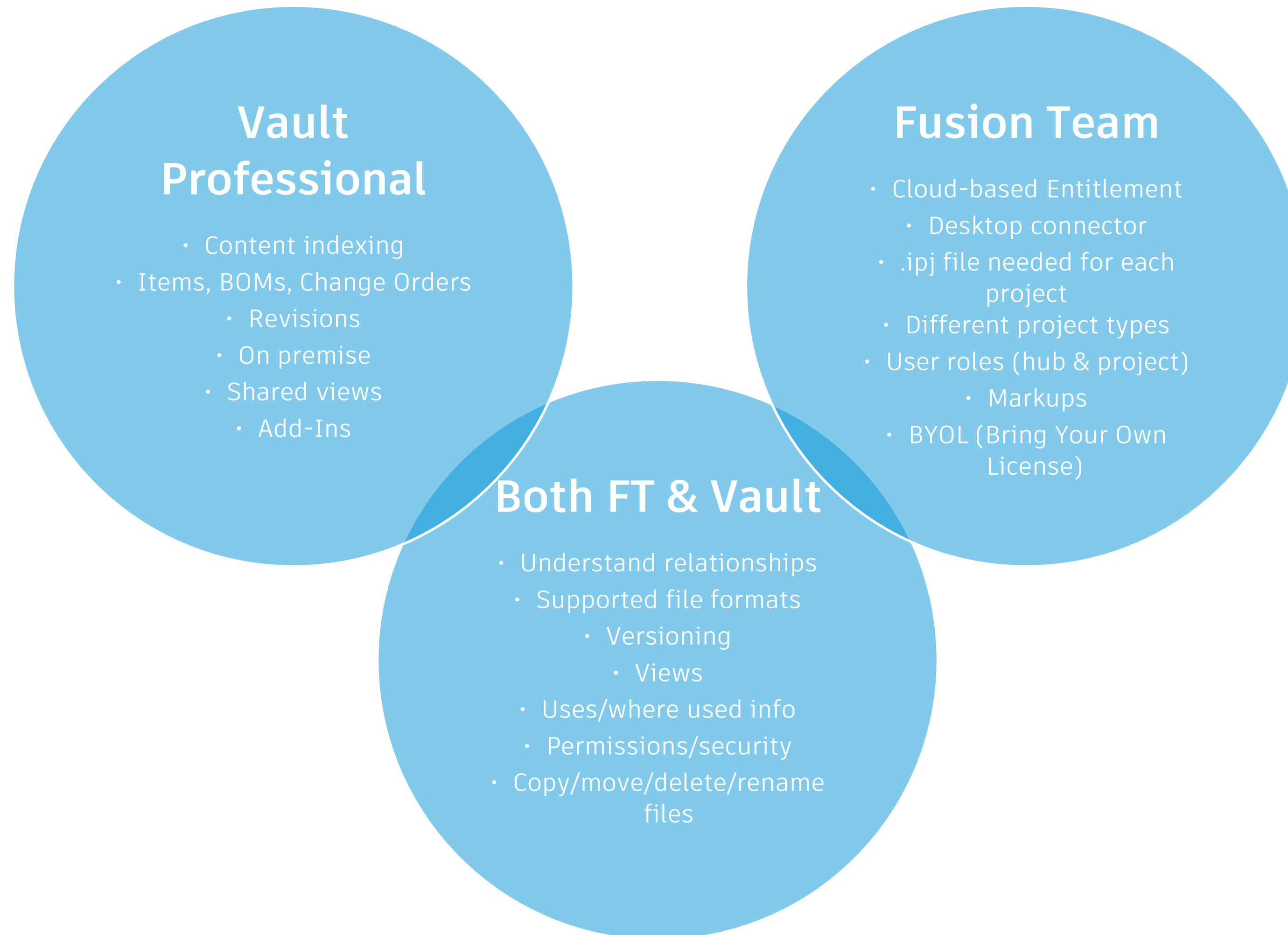


# Fusion Team & Vault: Differences & Similarities





# Compare & Contrast Fusion Team with Vault

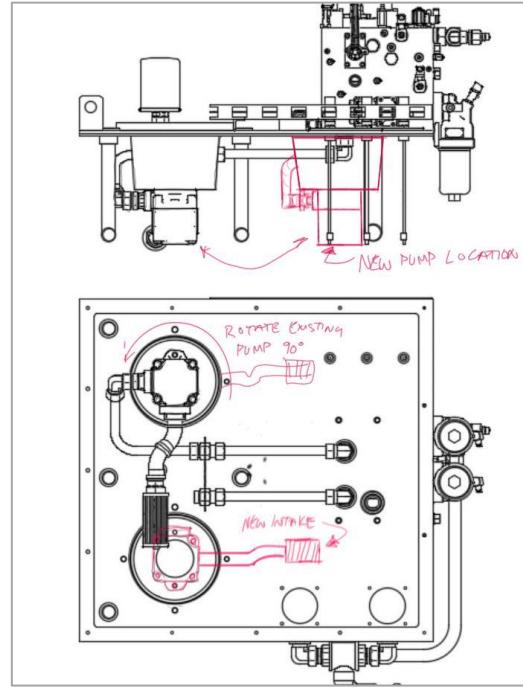




A



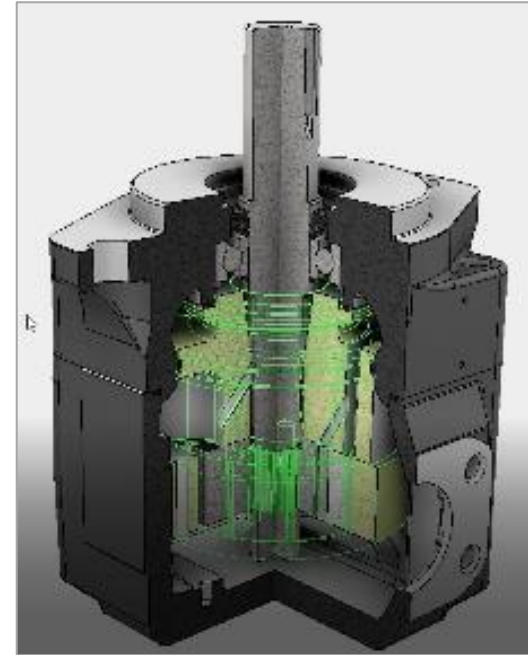
Drafter/  
Detailer



I



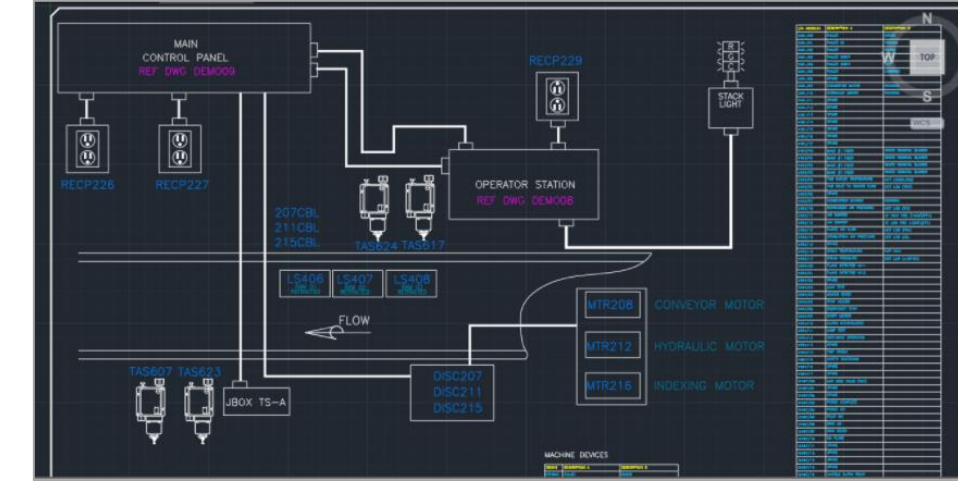
Mechanical  
Engineer



A



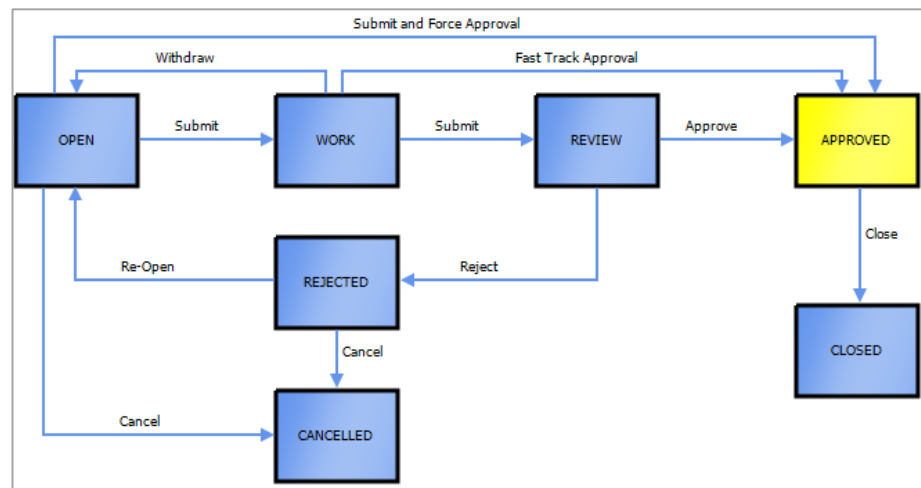
Electrical  
Designer



V



Engineering  
Manager

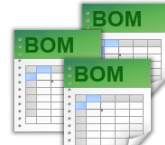


PTC  
creo



PDM

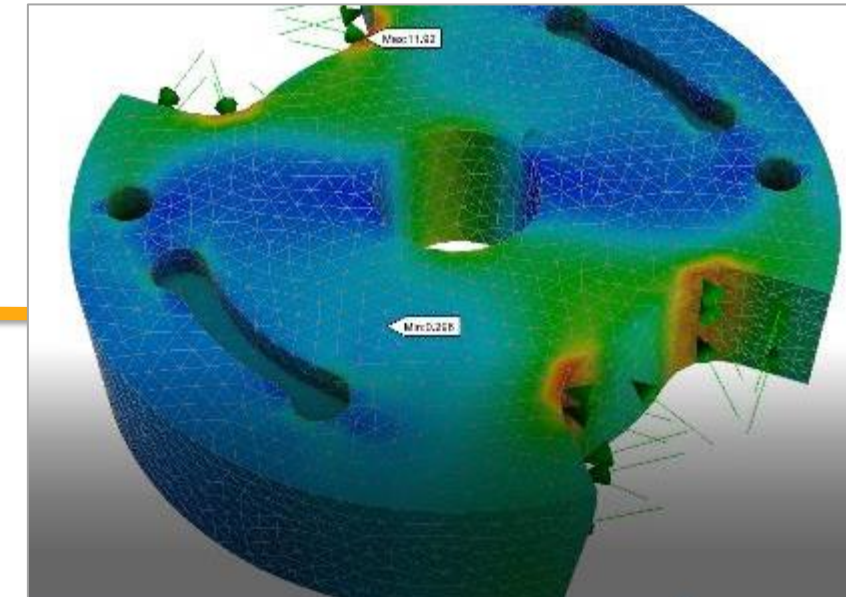
Engineering Data in  
central location



N



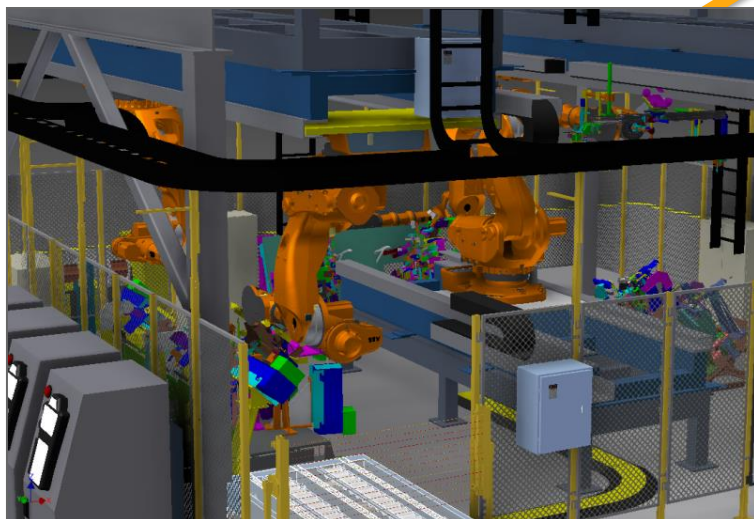
Analyst



FN



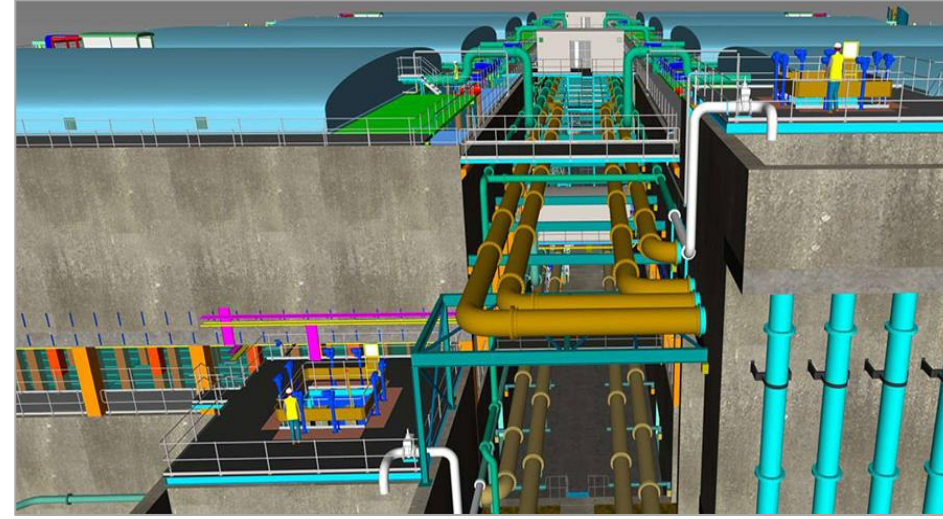
Factory  
Planner



A



Plant  
Engineer



A

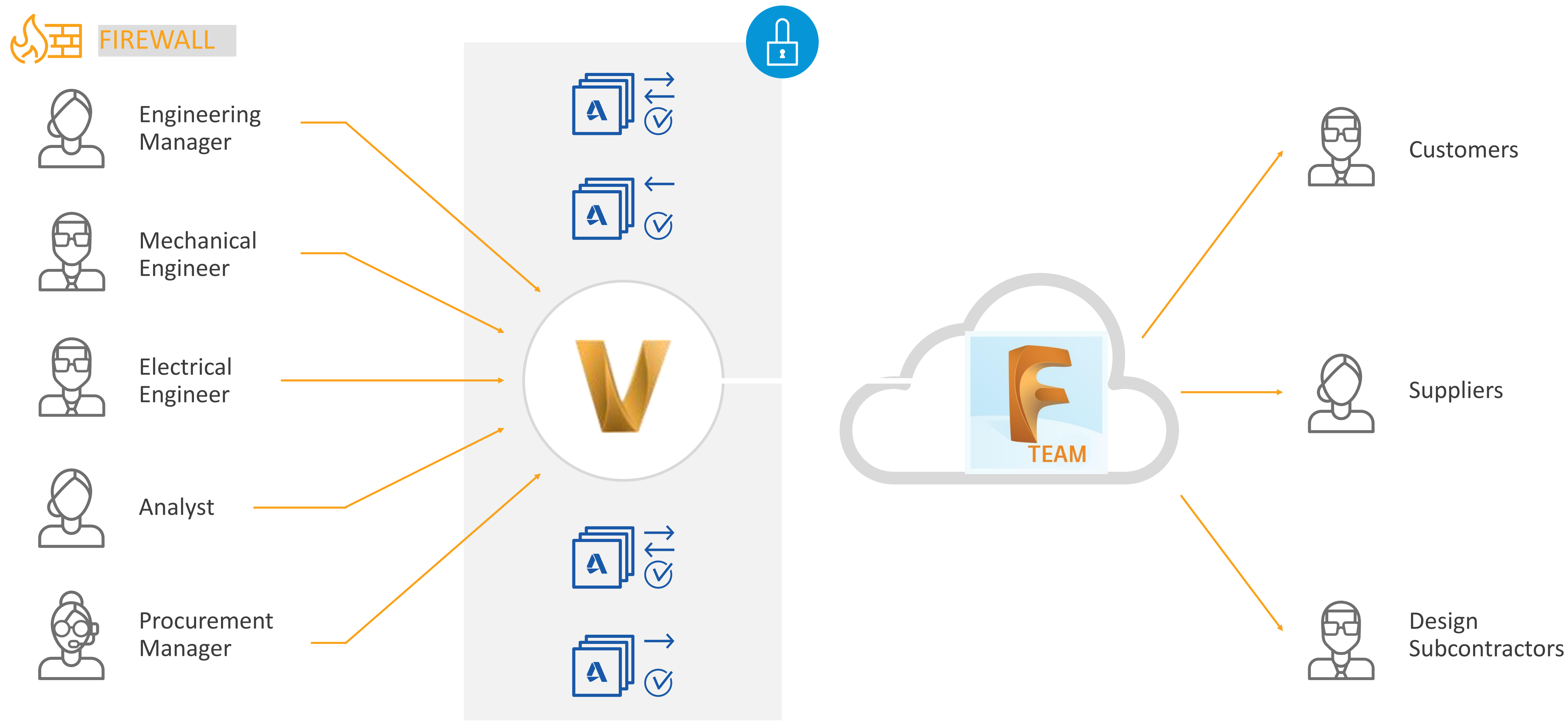


Civil  
Engineer



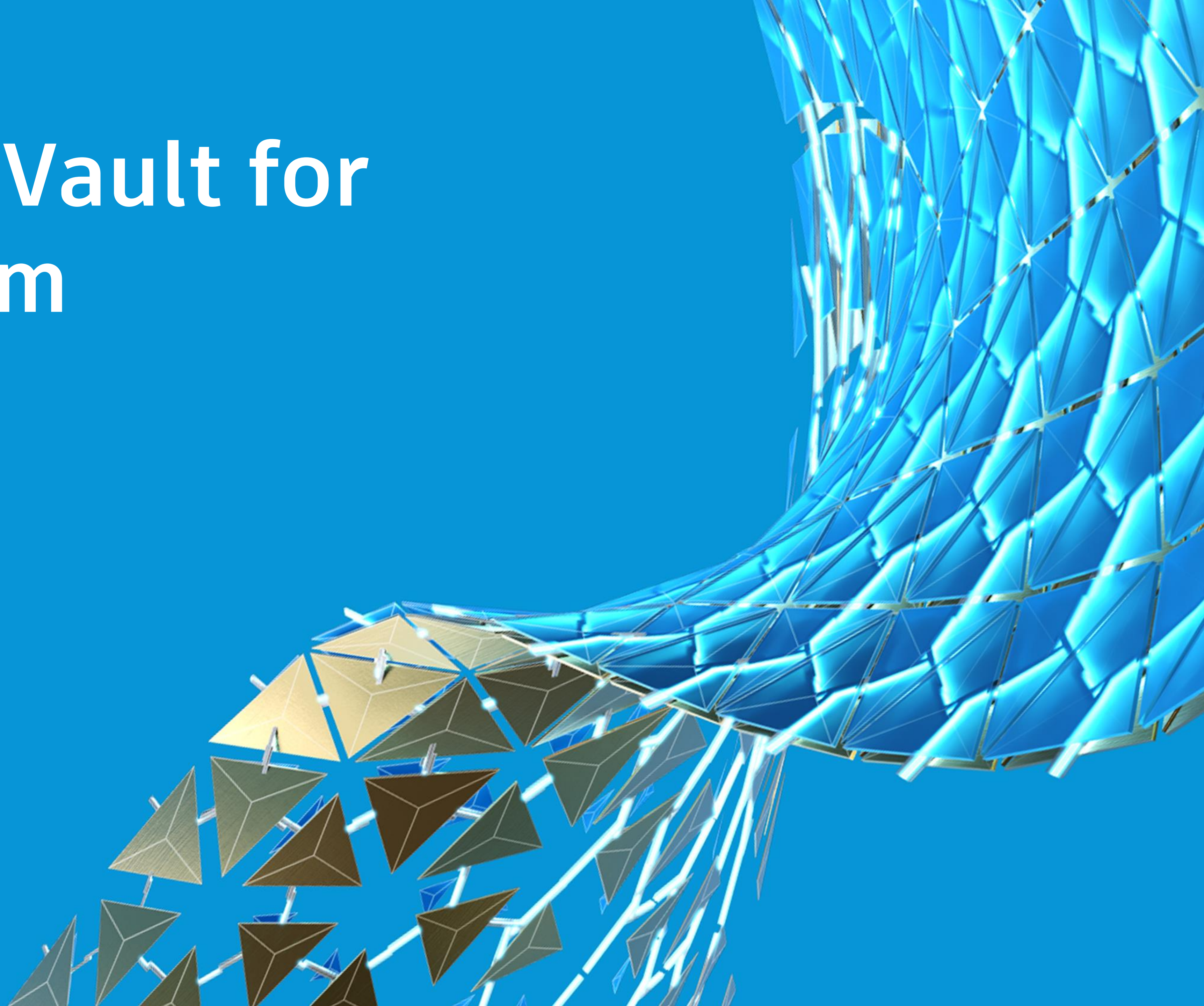


# Collaborate





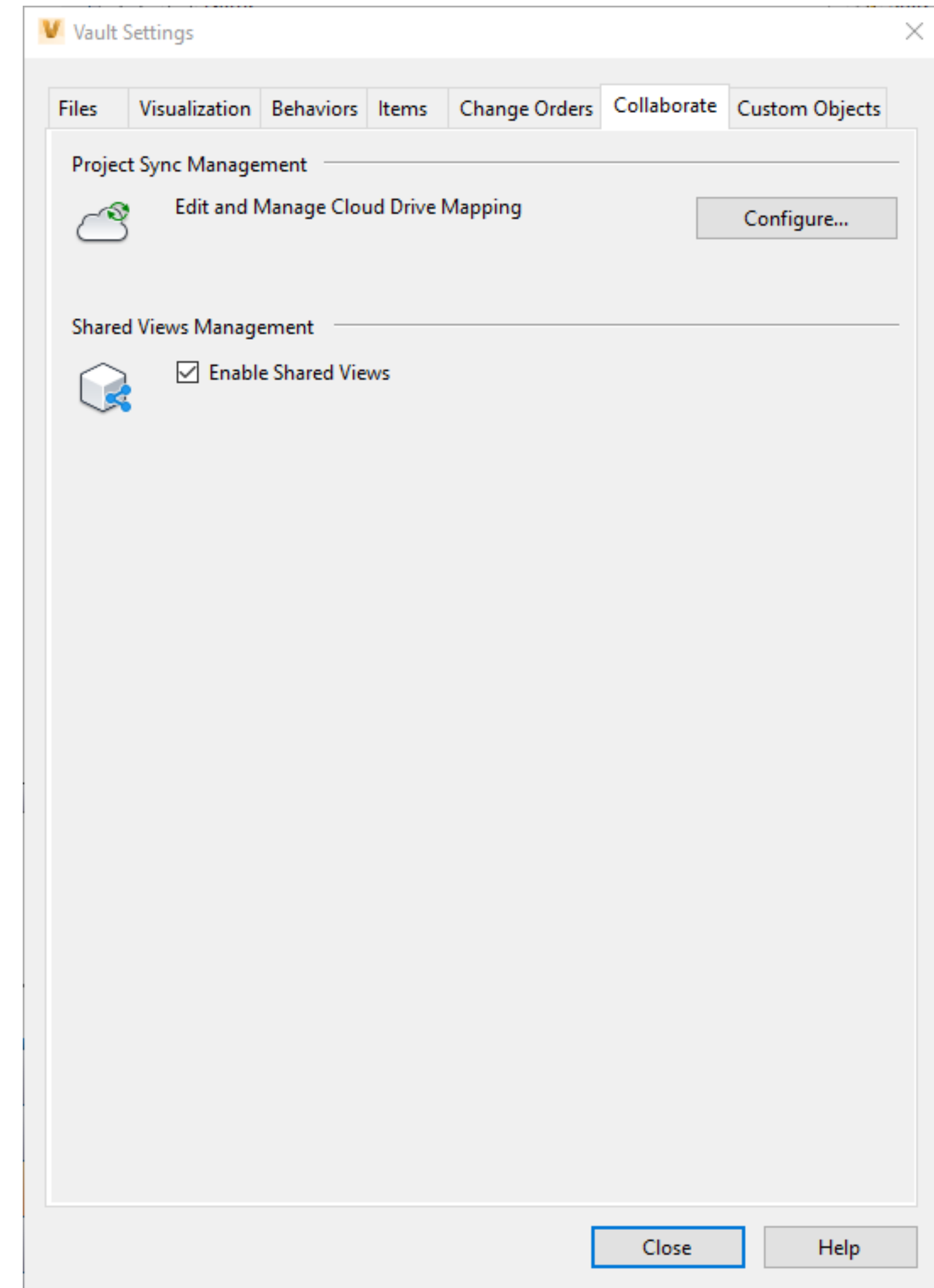
# Setting up Vault for Fusion Team





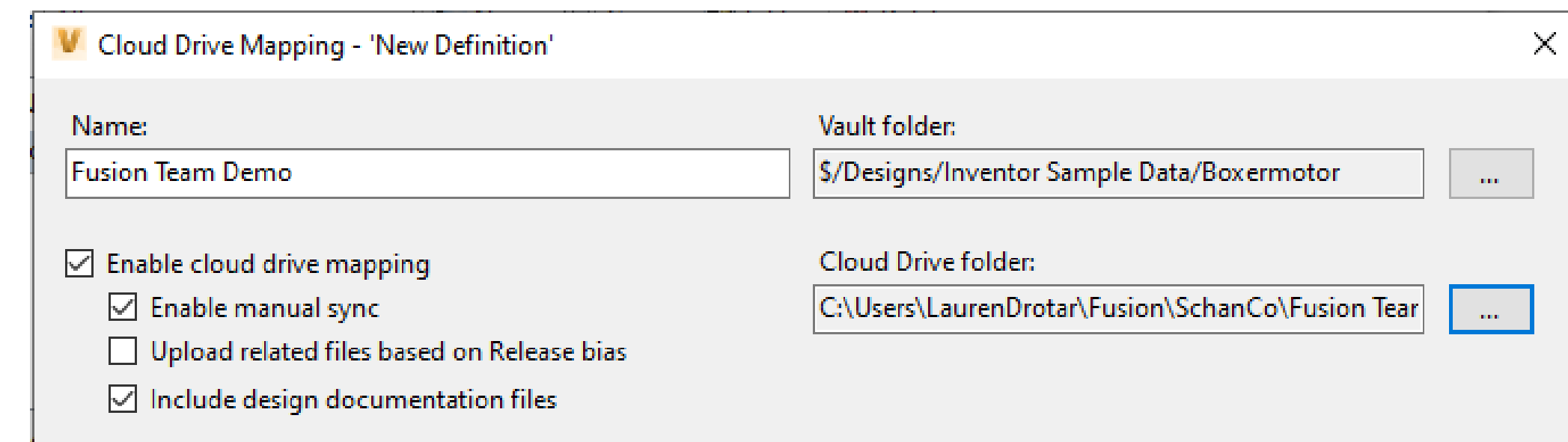
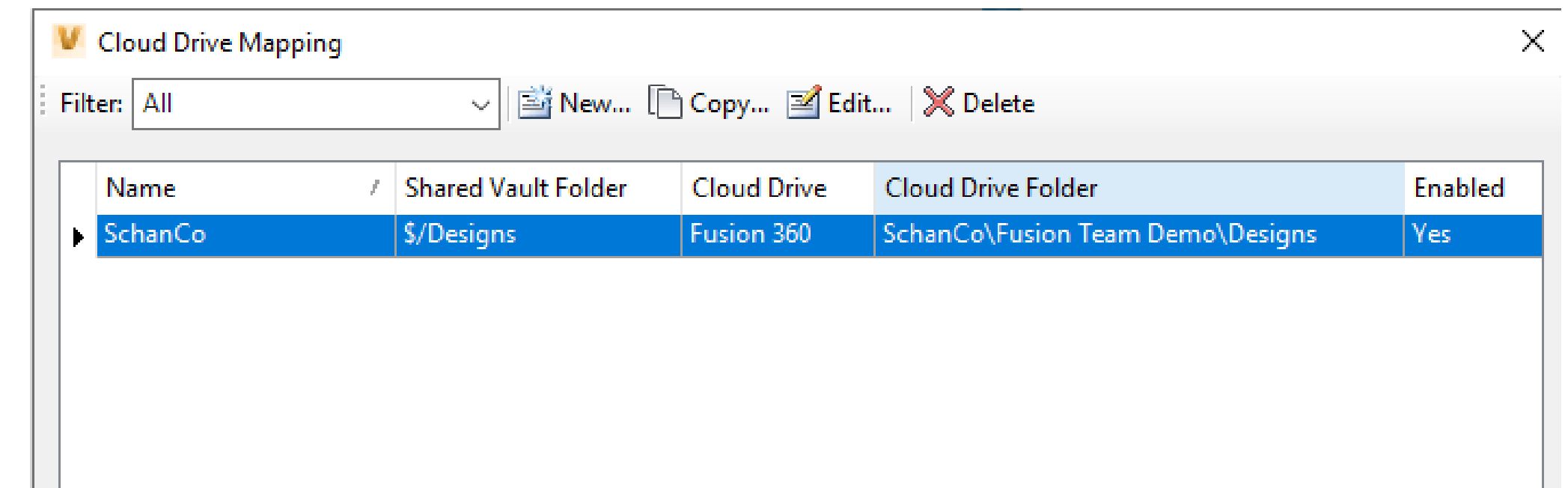
# Selective Exchange of CAD documents

- From the Vault client, go to the Collaborate tab within Vault Settings
- Select Configure to begin setting up the project sync configuration



# Selective Exchange of CAD documents

- **Cloud Drive Mapping** delivers the flexibility to exchange with each collaborator the relevant projects design data
- Disable **Enable Manual Sync** option to trigger sync based on processes
- **Disable Cloud drive mapping** after project completion





# Selective Exchange of CAD documents

- Synchronization can work in either direction or both directions
  - Option to apply to subfolders
- **Scheduled Exchange** based on interval or daily time
- Filter capabilities helps administrator make sure collaborator has access only to the subset of project data he needs for his tasks

The image displays three overlapping screenshots of a software interface for configuring CAD document synchronization. The top-left screenshot shows the 'General' tab with 'Select folder:' set to '\$/Designs' and 'Action' set to 'Upload to cloud drive'. The top-right screenshot shows the 'Schedule' tab with 'Synchronization settings' set to 'Every: 8 hours'. The bottom screenshot shows the 'Filter' tab with 'Property:' set to 'Project', 'Condition:' set to 'contains', and a list of criteria: 'State contains Released' and 'Project contains Vane Pump'. A 'Preview...' button is visible at the bottom right of the filter section.

**General** | Schedule | Filter

Select folder:  
\$/Designs

Action

- ☒ Upload to cloud drive
- ☐ Download from cloud drive
- ☐ Bi-directional sync

☒ Apply selected action to subfolders

**General** | Schedule | Filter

Synchronization settings

- ☐ Daily at: 00:00
- ☒ Every: 8 hours
- ☐ None

**General** | Schedule | Filter

Property: Condition:

Project contains

Add Replace Remove

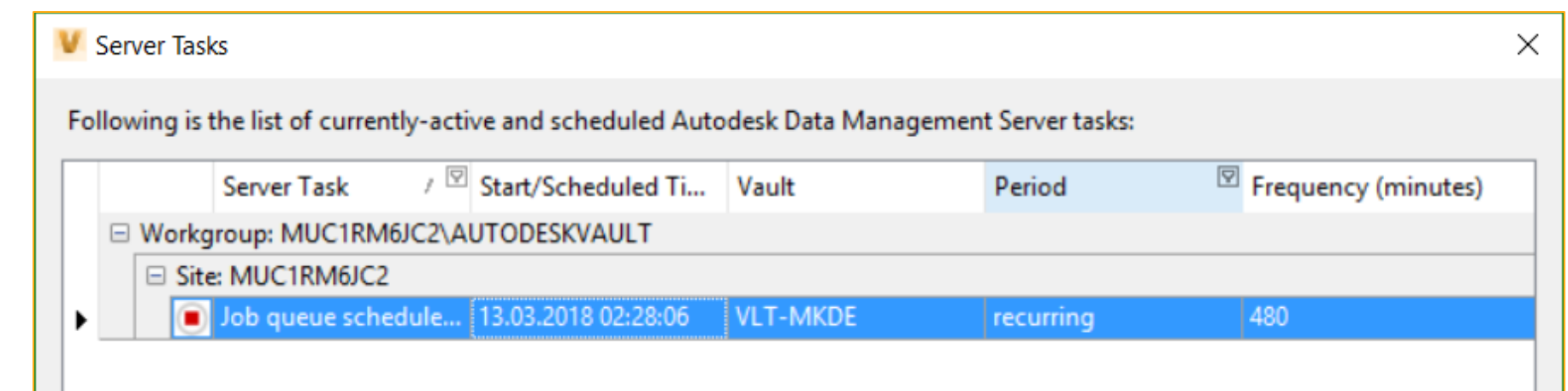
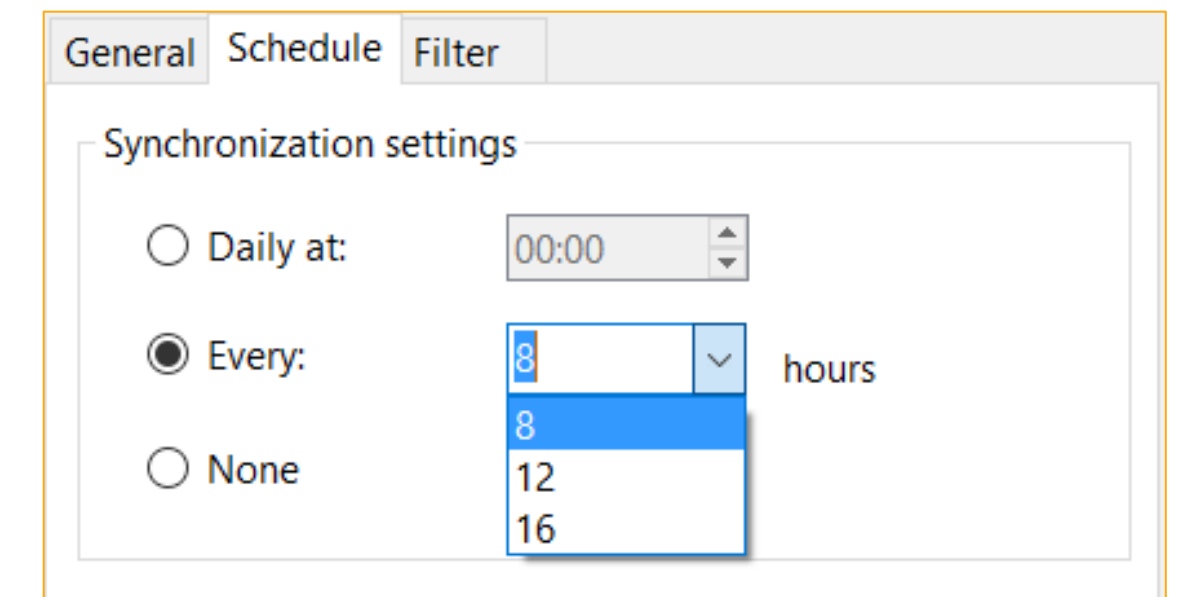
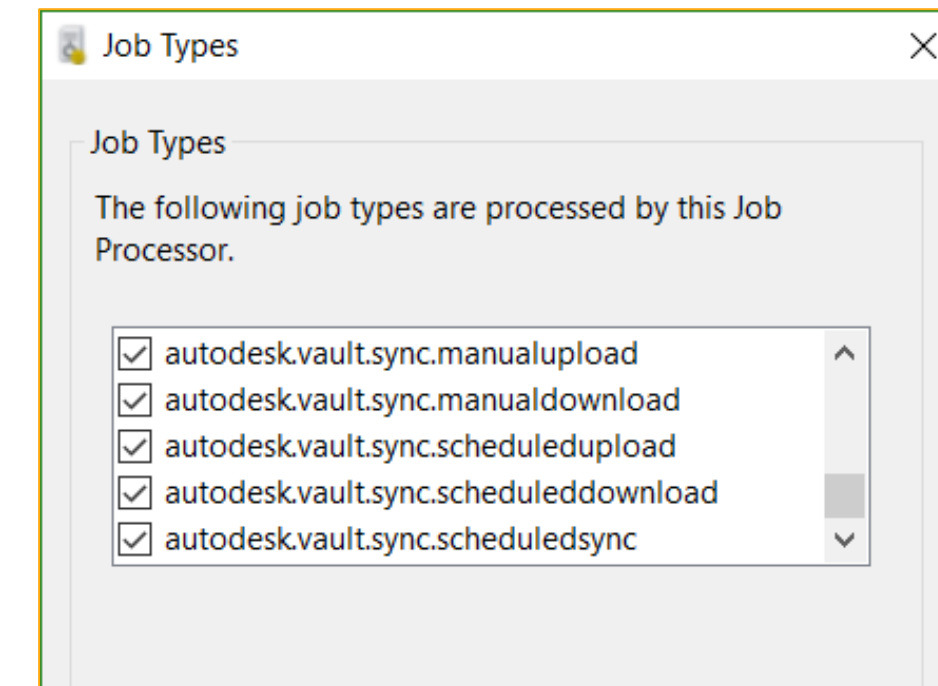
Upload files that match these criteria:

State contains Released  
Project contains Vane Pump

Preview...

# Selective Exchange of CAD documents

- **5 OOTB job types**
  - Manual upload and download
  - Scheduled upload and download
  - Scheduled sync (bi-directional)
- At scheduled times, a job is added to the queue for execution / consumption
- Scheduled jobs can be viewed with other background tasks in ADMS console
- Desktop Connector is required to be installed on Job Processor machine as well as admin's machine to configure the mapping





# Nitty Gritty Setup Tasks

- Folder setup in Fusion Team should mirror the Vault folder structure
  - Only necessary for the folders you are planning on syncing
  - If you have 45 folders in Vault but only syncing 2, only copy the folder structure for those 2 folders

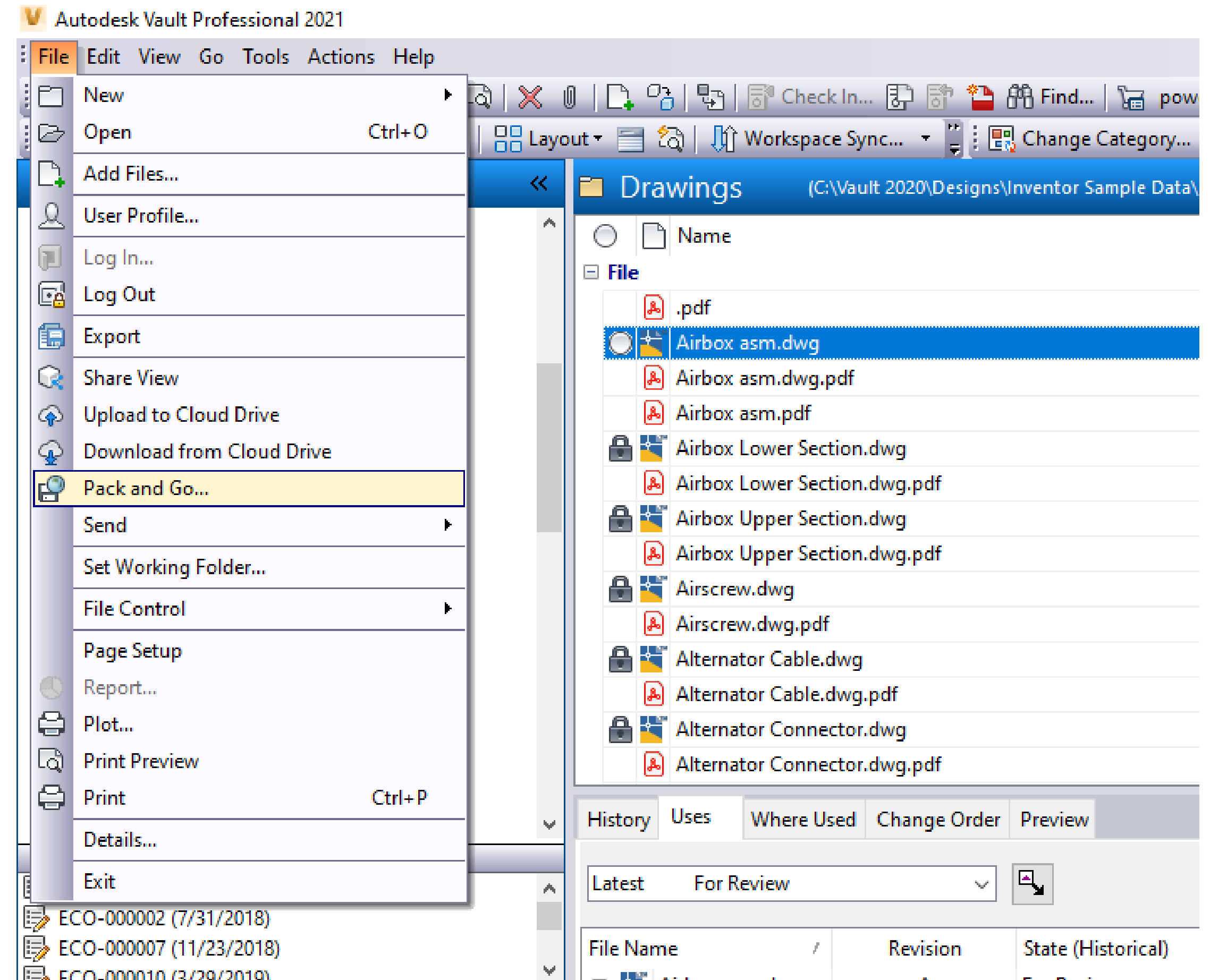
# Nitty Gritty Setup Tasks

- This can be done in a few different ways:
  - Pack and Go assemblies/drawings/parts to Fusion 360
  - Manually sync the folder to Fusion 360



# Pack & Go to Fusion 360

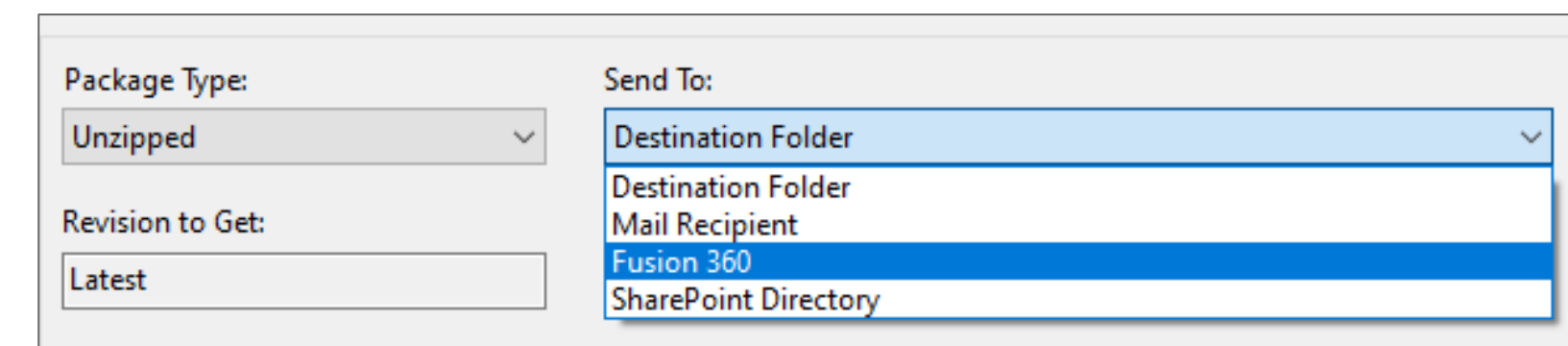
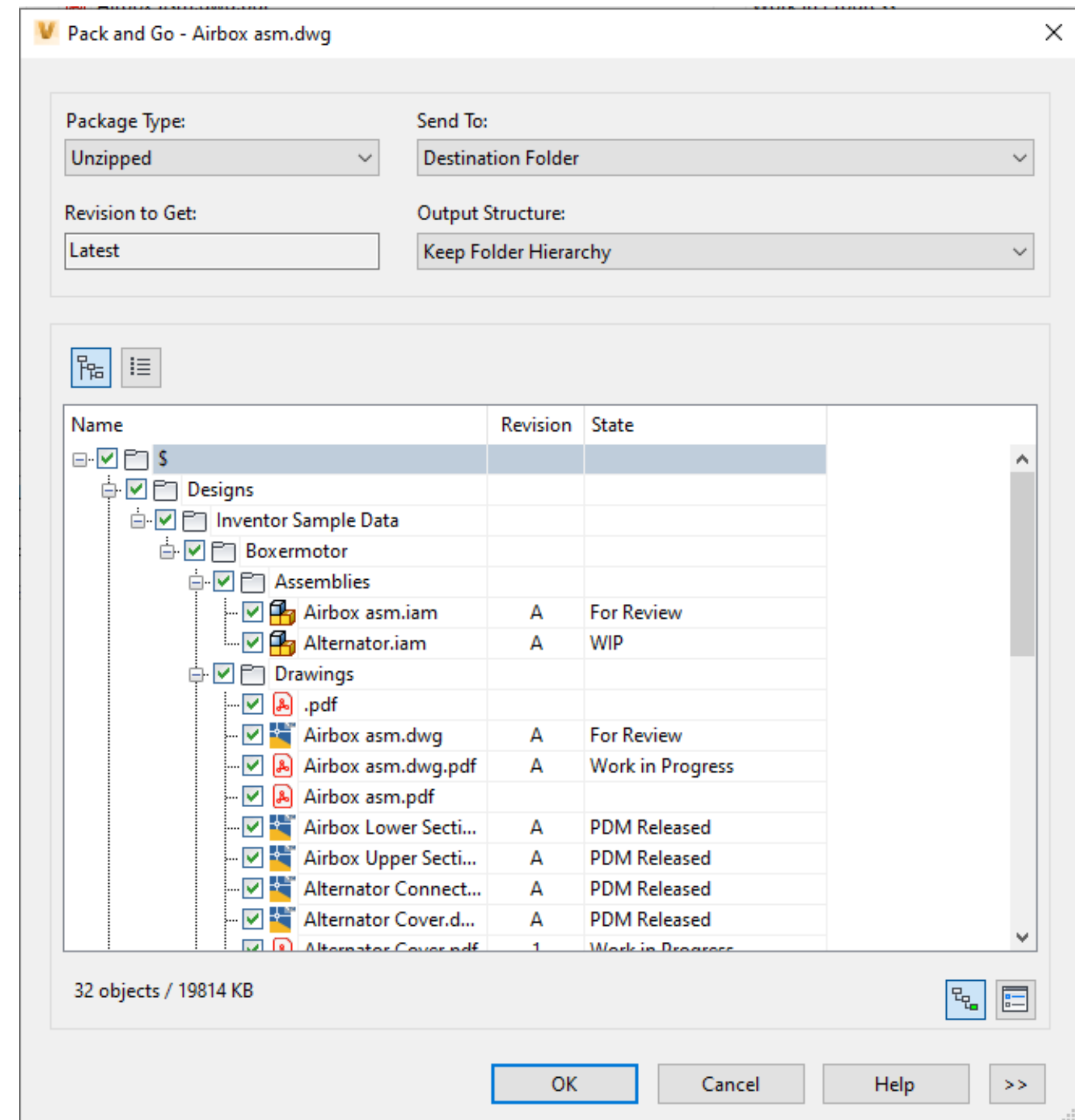
1. Find the file (or files) in Vault & select File->Pack and Go



# Pack & Go to Fusion 360

## 2. Configure the Pack and Go options

- Select the package type as Unzipped
- Send to Fusion 360
- Output Structure: Keep folder hierarchy

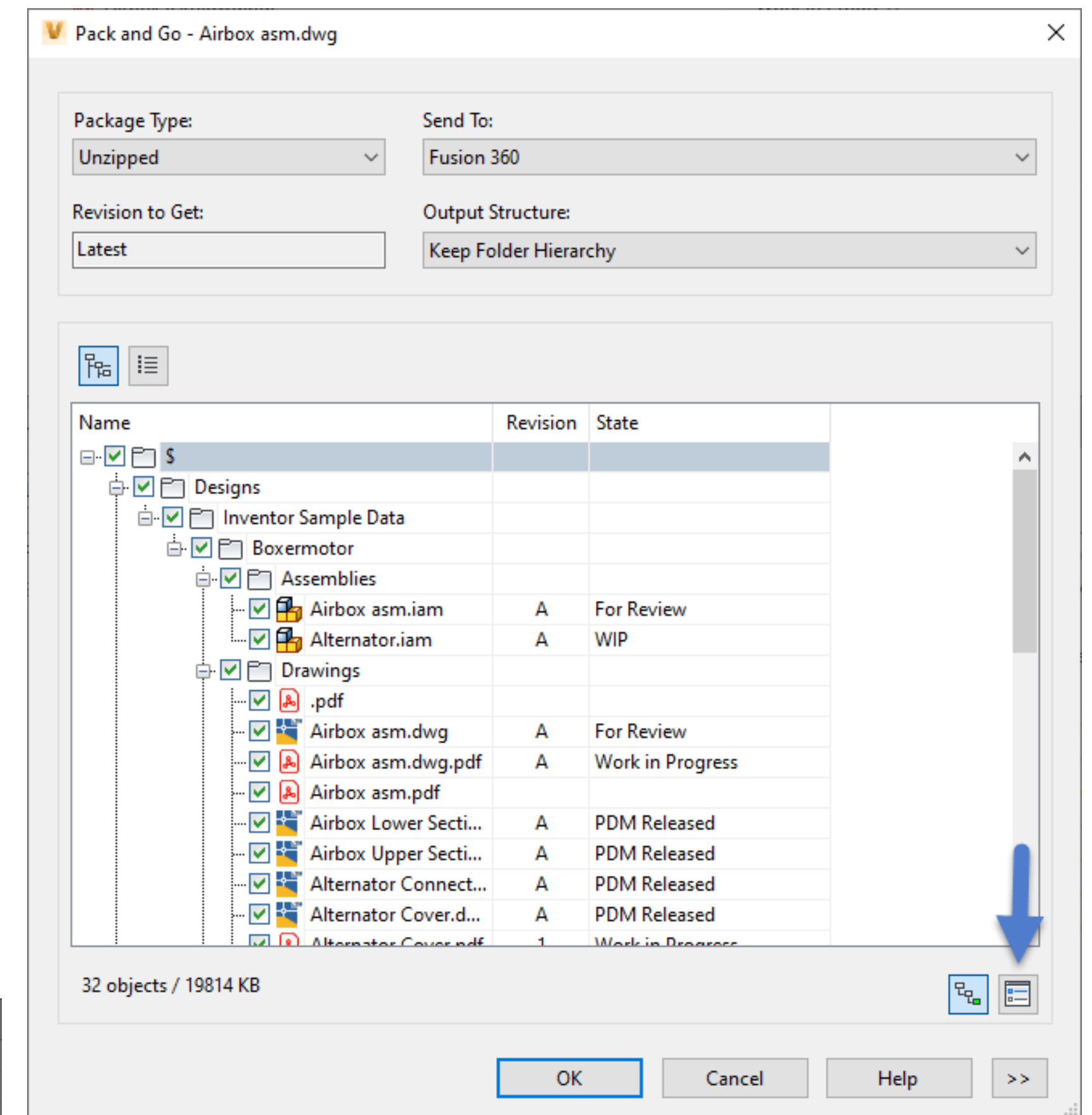
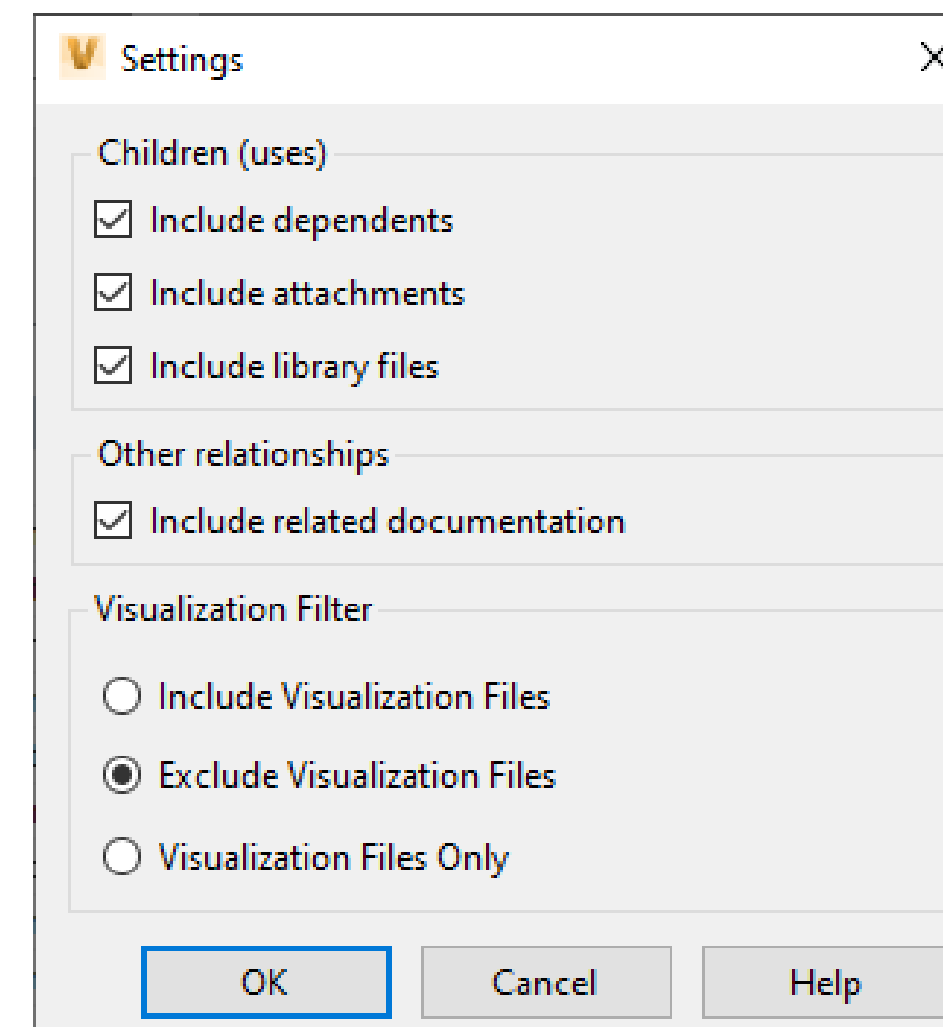




# Pack & Go to Fusion 360

## 2. Configure the Pack and Go options

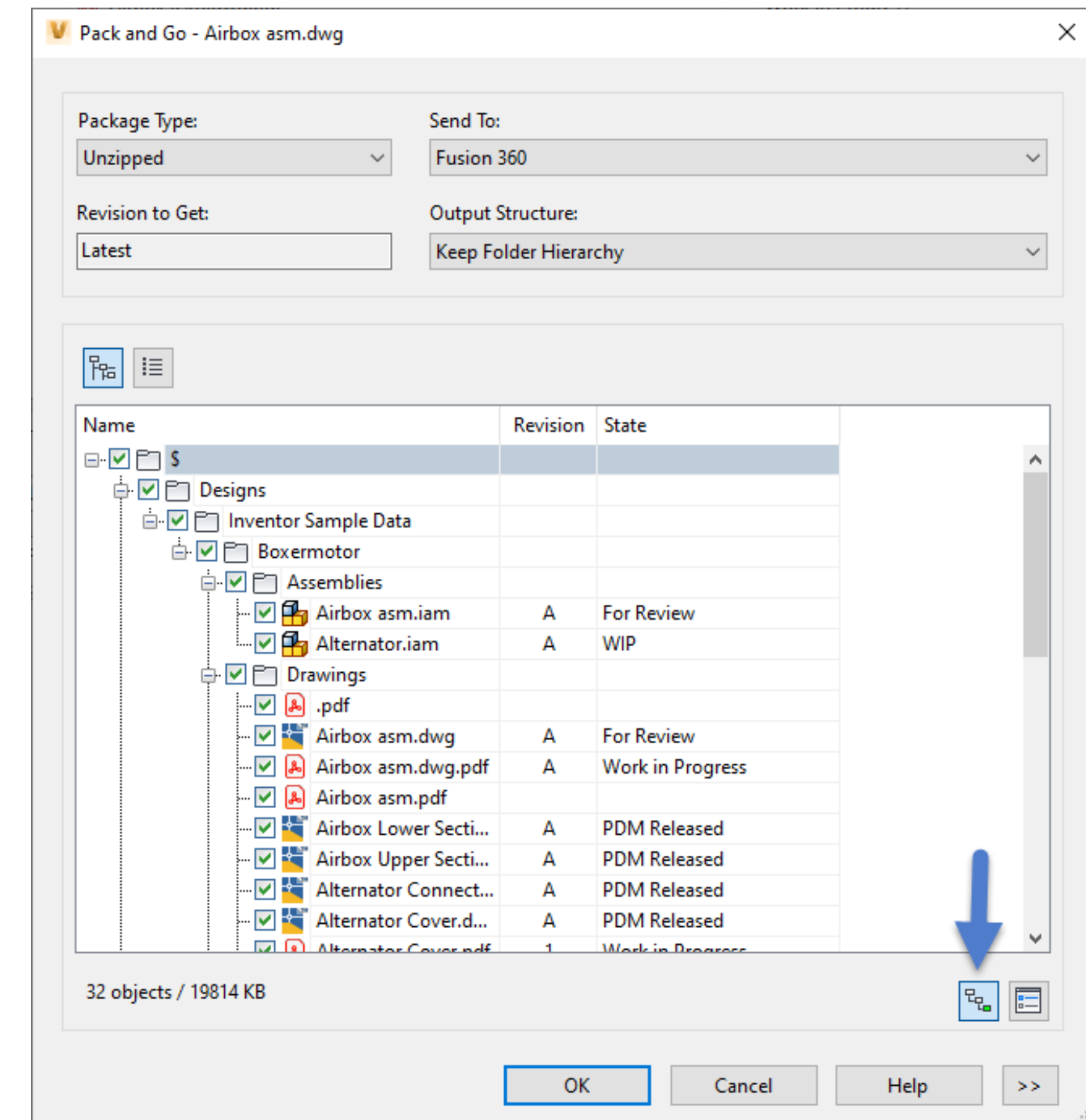
- Select Settings
- Choose which children or other related files will be included



# Pack & Go to Fusion 360

## 2. Configure the Pack and Go options

- Select whether or not to include dependent files



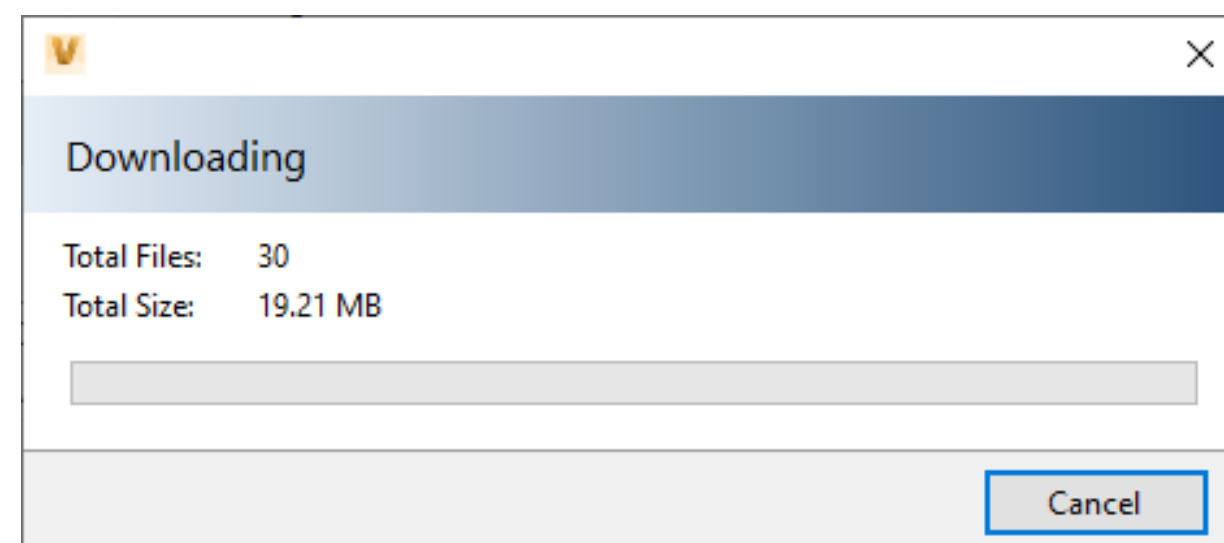
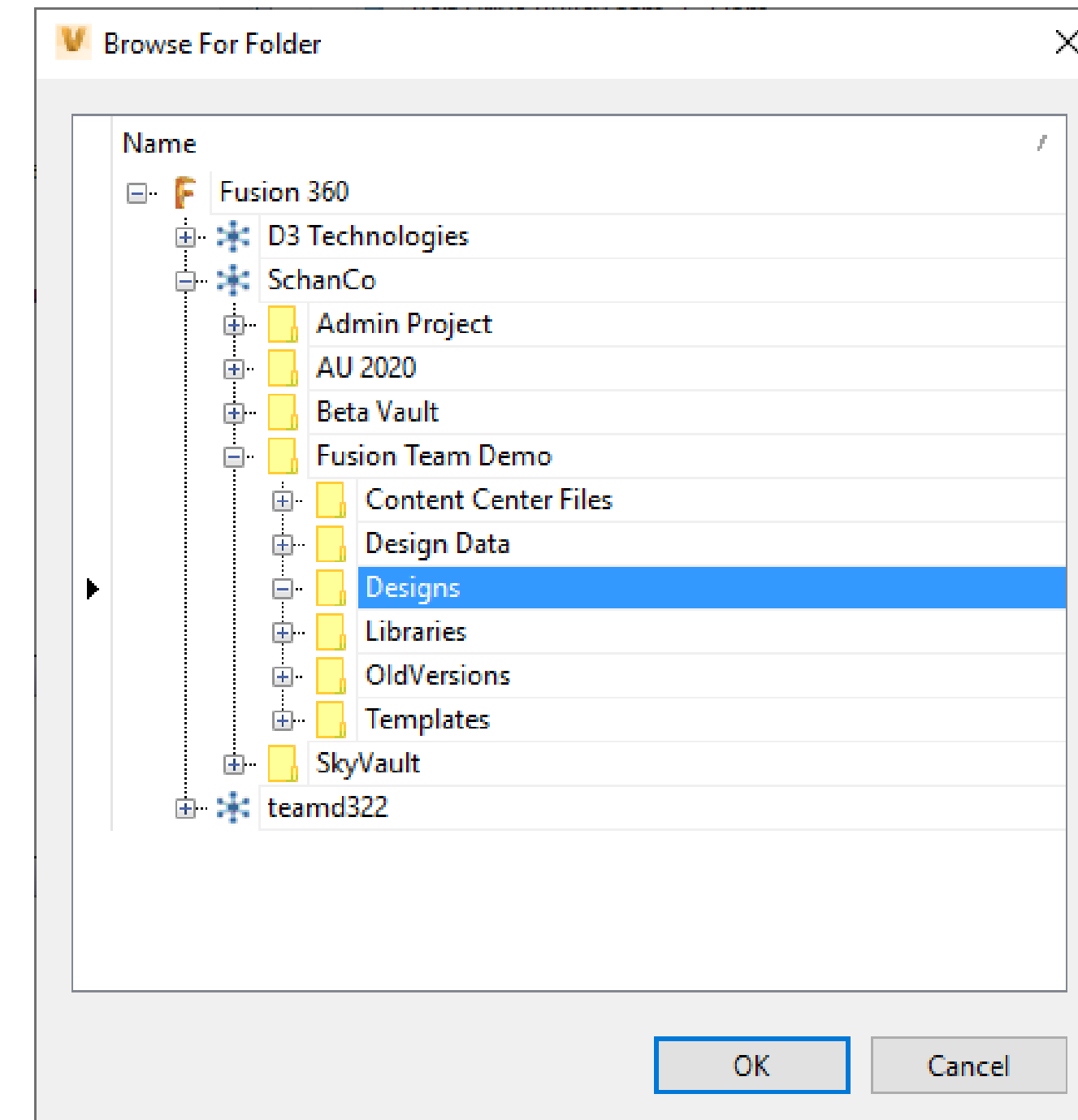


# Pack & Go to Fusion 360

## 3. Choose Fusion 360 destination

- Folder hierarchy will be created under this folder

## 4. Files will download to Fusion 360 drive



# Pack & Go to Fusion 360

## 3. Double check location in Fusion 360

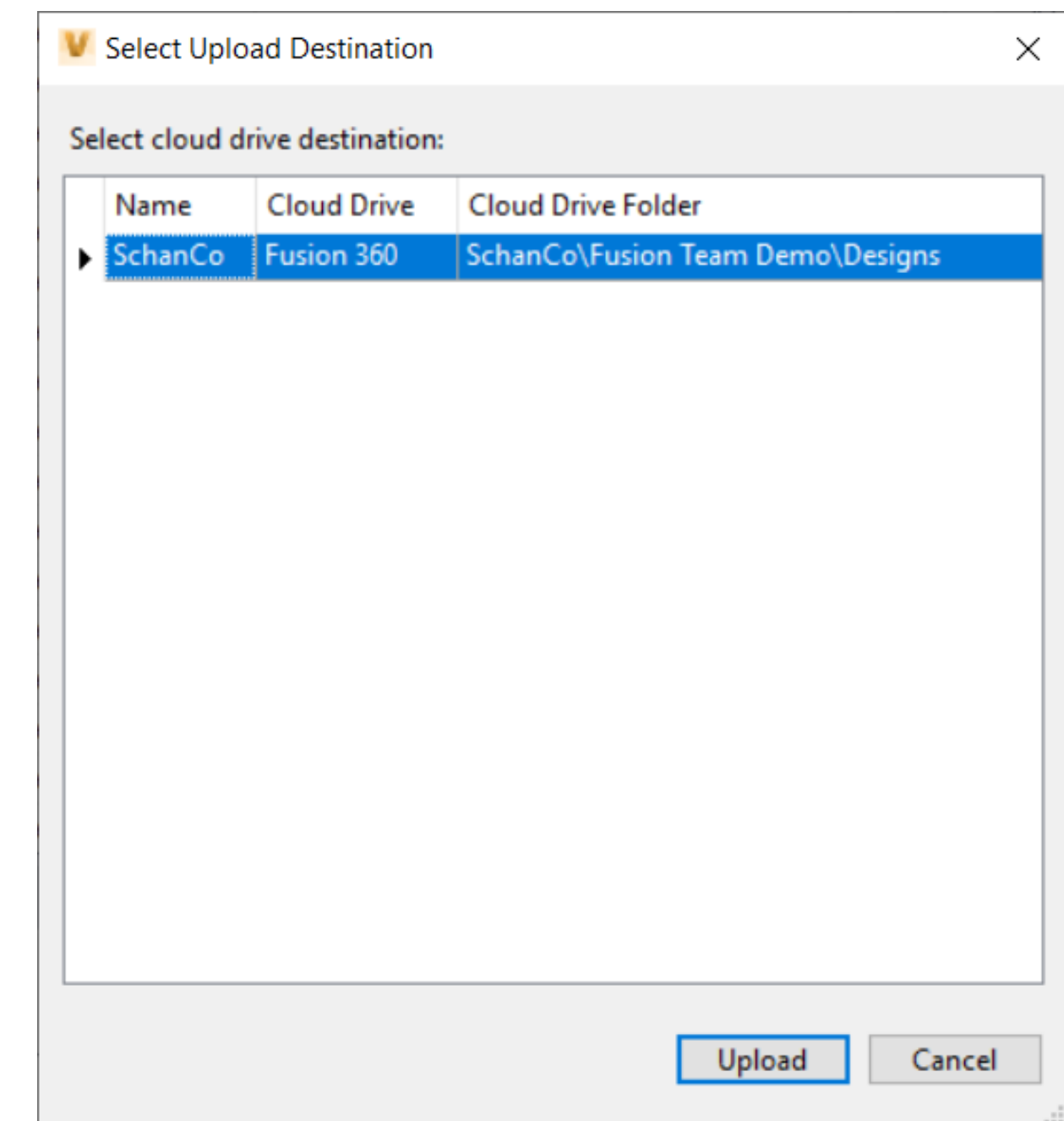
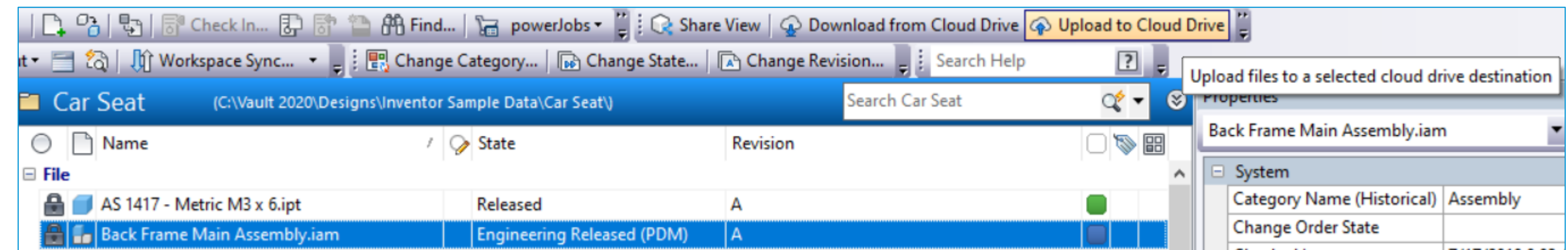
- Easy to place files in the wrong location!

Assemblies				
<div>← → ▾ ↑</div> <div>📁 &gt; This PC &gt; Fusion 360 &gt; SchanCo &gt; Fusion Team Demo &gt; Designs &gt; Designs &gt; Inventor Sample Data &gt; Boxermotor &gt; Assemblies</div>				
Organize ▾				
<div>★ Quick access</div> <div>📁 Autodesk Vault 2020 SDK ⚙</div> <div>📁 Autodesk Vault 2021 SDK ⚙</div>	Name ^	Status	Created By	File Size
	📁 Airbox asm.iam	Synced	LaurenDrotar	126 KB
	📁 Alternator.iam	Synced	LaurenDrotar	118 KB

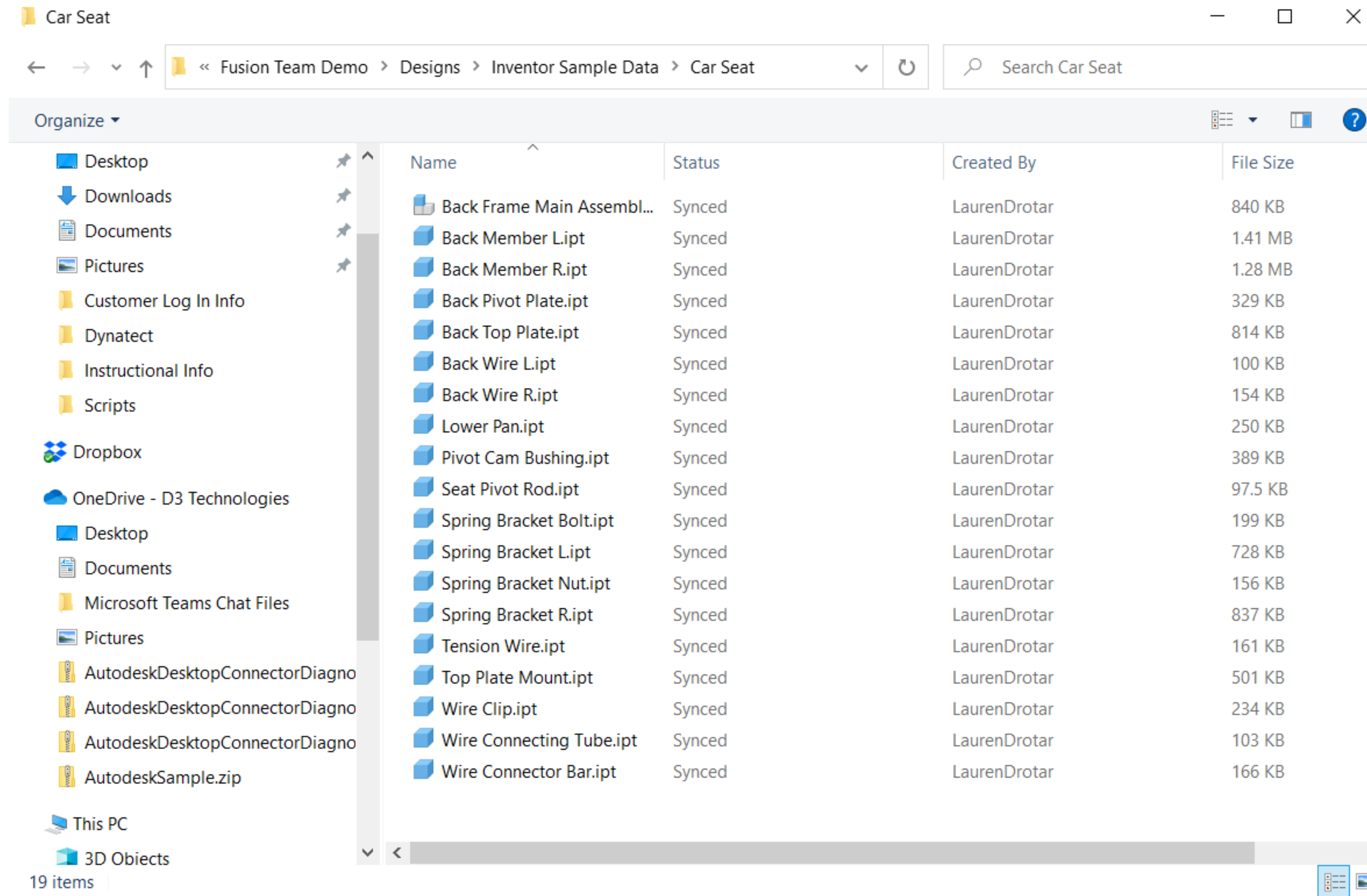


# Manual Sync to Fusion 360

- Highlight the desired file in the Main Pane
- Select Upload to Cloud Drive
- Confirm the Cloud Drive destination and click OK



# What Does the Manual Sync Create?



Car Seat

« Fusion Team Demo » Designs » Inventor Sample Data » Car Seat

Search Car Seat

Organize

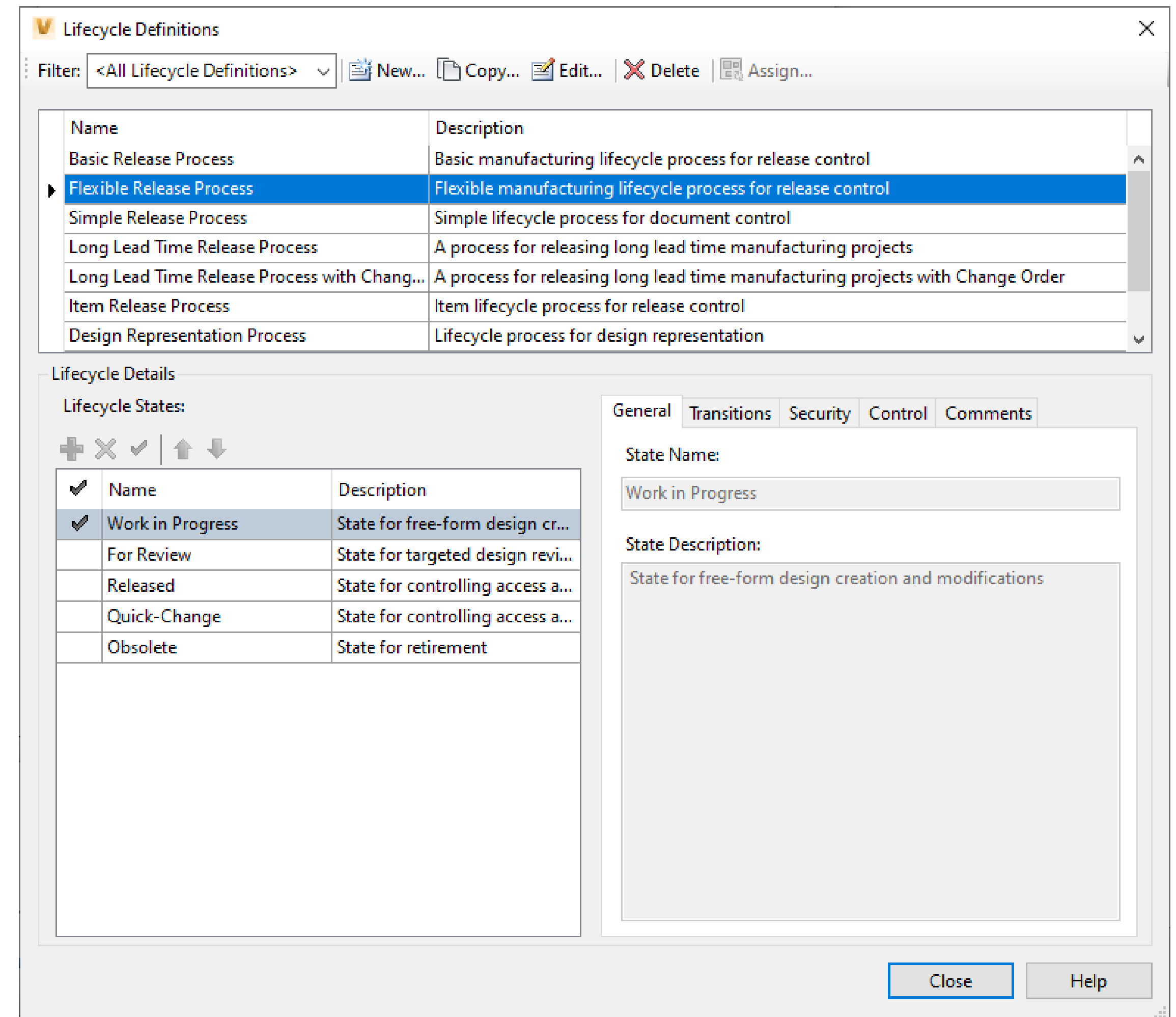
Name	Status	Created By	File Size
Back Frame Main Assembl...	Synced	LaurenDrotar	840 KB
Back Member L.ipt	Synced	LaurenDrotar	1.41 MB
Back Member R.ipt	Synced	LaurenDrotar	1.28 MB
Back Pivot Plate.ipt	Synced	LaurenDrotar	329 KB
Back Top Plate.ipt	Synced	LaurenDrotar	814 KB
Back Wire L.ipt	Synced	LaurenDrotar	100 KB
Back Wire R.ipt	Synced	LaurenDrotar	154 KB
Lower Pan.ipt	Synced	LaurenDrotar	250 KB
Pivot Cam Bushing.ipt	Synced	LaurenDrotar	389 KB
Seat Pivot Rod.ipt	Synced	LaurenDrotar	97.5 KB
Spring Bracket Bolt.ipt	Synced	LaurenDrotar	199 KB
Spring Bracket L.ipt	Synced	LaurenDrotar	728 KB
Spring Bracket Nut.ipt	Synced	LaurenDrotar	156 KB
Spring Bracket R.ipt	Synced	LaurenDrotar	837 KB
Tension Wire.ipt	Synced	LaurenDrotar	161 KB
Top Plate Mount.ipt	Synced	LaurenDrotar	501 KB
Wire Clip.ipt	Synced	LaurenDrotar	234 KB
Wire Connecting Tube.ipt	Synced	LaurenDrotar	103 KB
Wire Connector Bar.ipt	Synced	LaurenDrotar	166 KB

19 items



# Now What?

- Need to create a lifecycle to prevent Vault users from editing files being worked on in Fusion
- Will be using the Flexible Release Process as an example



# Editing Lifecycle for Fusion Team

- Create a state for when files are being edited by external members
  - Out to Contractor
  - Sent to Fusion Team
- At this state, files should be locked for editing to all except administrators & the job processor



# Editing Lifecycle for Fusion Team

Lifecycle Details

Lifecycle States:

+ ✖ ✓ | ↑ ↓

✓	Name	Description
✓	Work in Progress	State for free-form design cr...
	Sent to Fusion Team	At this state, files are locked f...
	For Review	State for targeted design revi...
	Released	State for controlling access a...
	Quick-Change	State for controlling access a...
	Obsolete	State for retirement

General Transitions Security Control Comments

Add... Remove

	Name	Read	Modify	Delete	Download
👤	ENGINEERIN...	Allow			Allow
👤	ENGINEERIN...	Allow			Allow
👤	ADMINISTR...	Allow	Allow		Allow
👤	JobProcessor1	Allow	Allow		Allow

☐ No state-based security

Options

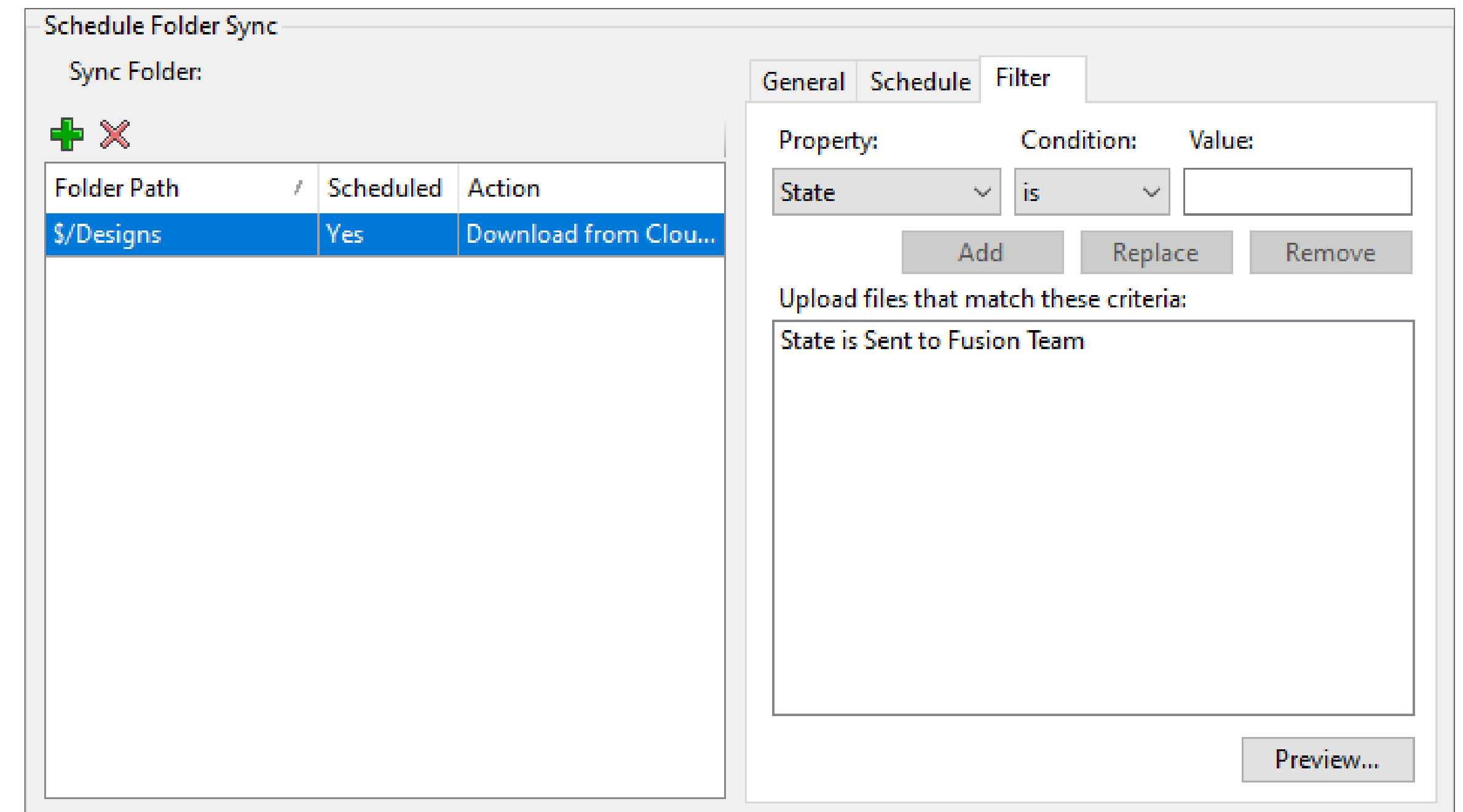
☐ Security for associated files of items Configure...

☐ Security for files inside folders Configure...

- Engineers can read or download the files, but cannot make changes
- Slightly manual process:
  - When no longer being used by Fusion Team, users should communicate the files can be used by Vault again

# Pro Tip: Filter Scheduled Sync

- Configure the cloud drive mapping to synchronize files which meet certain criteria
  - Ex: State is Sent to Fusion Team





# Vault with Fusion Team Summary

- Vault can work with Fusion Team to collaborate with external or remote users
  - No VPN required
- Communication is key!
  - Need to communicate when files are OK for Vault use again
- Not a customization of Vault, just a configuration



# Revisiting Class Objectives

- Can now use Fusion Team for remote data access
- Able to assist your teammates or external stakeholders with access to Fusion Team hub and projects
- Have awareness of similarities and differences between Fusion Team & Vault
- Can now work with Vault Professional and Fusion Team





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