

Sharing Fusion 360 files through to Autodesk Vault

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About the speaker

Robert Savage

Robert Savage is a Senior Education Specialist at IMAGINiT Technologies. He is a 30-year design veteran who has designed everything from molds and molded parts to robots. At Remotec, a division of Northrop Grumman Corporation, he spent 5 years as a lead designer in the research and development group, as well as CAD and Vault Administrator. He is an Autodesk Certified Instructor and a Certified Inventor Professional. He has used Inventor software since its inception, as well as being well-versed in a variety of other design software. He has 20 years of experience teaching 3D design software, including AutoCAD Electrical, Product Design Suite Ultimate software, Factory Design Suite Ultimate software, Simulation Moldflow software, Fusion 360, Nastran In-CAD and Vault Professional software.

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Sharing Fusion 360 files through to Autodesk Vault

Last year we did a class (How to Use Fusion 360 and Inventor for Effective Designs) where we linked Fusion 360 files with Autodesk Inventor using Desktop Connector. The most requested addition to that was to link those files into the Vault so this year we are going to go through some of the different configurations for how we can load and manage these fusion files in Autodesk Vault. Some of the things we will look at is how we can create the connection and add the files, managing the files, and discuss version and revisions of the files in Vault.

Sharing Fusion 360 files through to Autodesk Vault

REVIEW DESKTOP CONNECTOR AND THE PROJECT FILE

We are going to look at the setup and configuration of Desktop Connector to connect Fusion Team with your desktop.

ADDING THE FILES TO THE VAULT

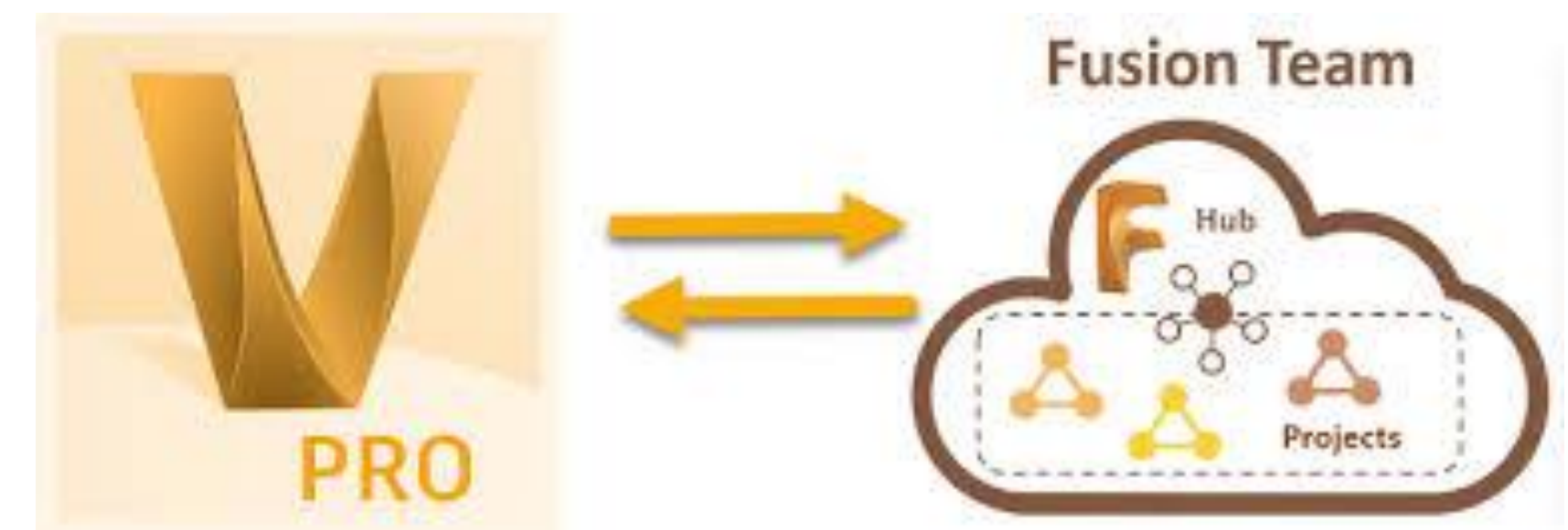
Create an assembly with Inventor and Fusion files and put it in Vault.

MANAGING THE FILES IN THE VAULT

Connect your Vault data to Fusion Team and upload files.

VERSIONS AND REVISIONS OF THE FILES

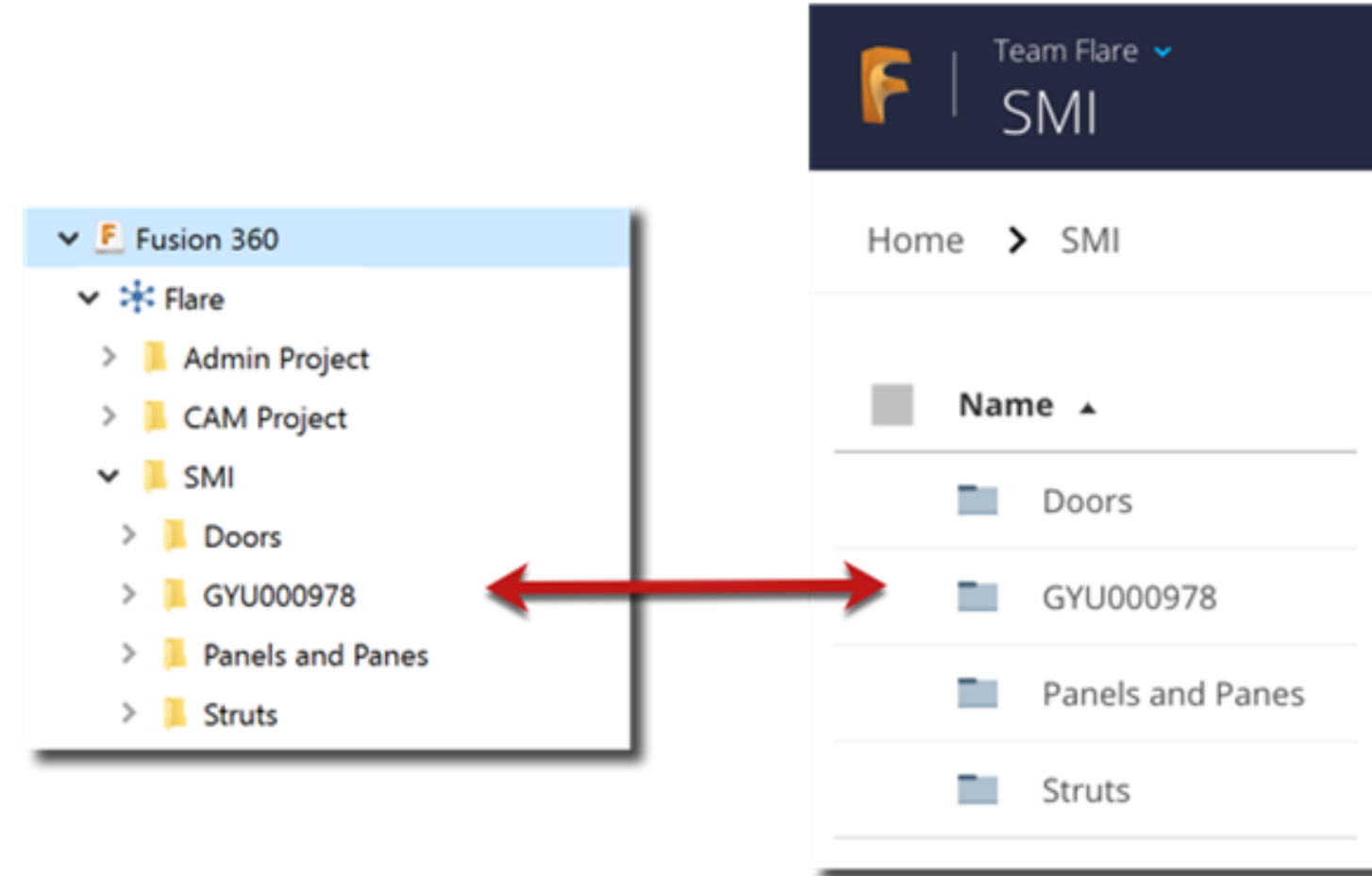
Review Changes and upload updates to Fusion Team



Review Desktop Connector and the Project file

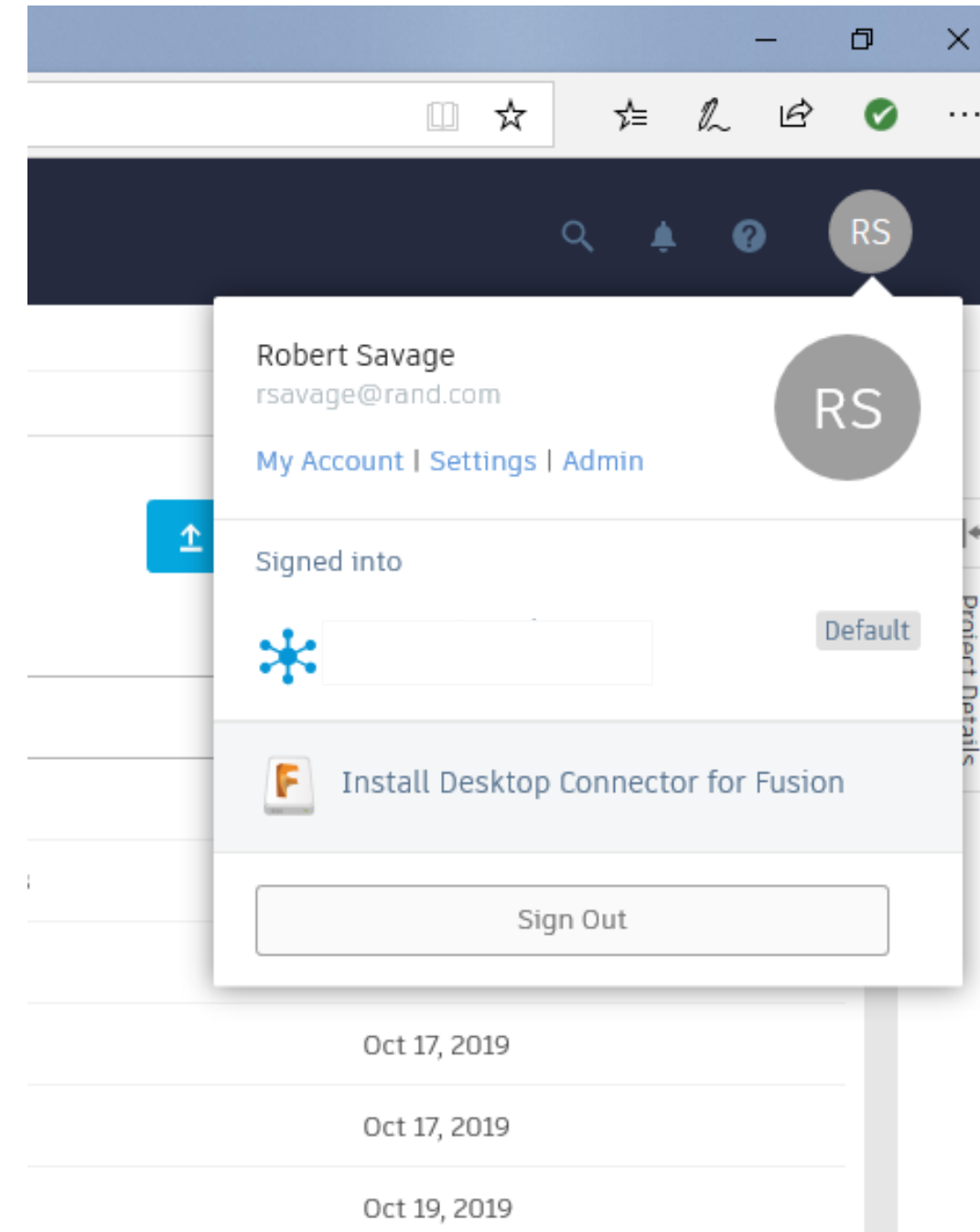
Desktop Connector is a desktop service that integrates an Autodesk data management source (or data source) with your desktop folder and file structure for easy file management.





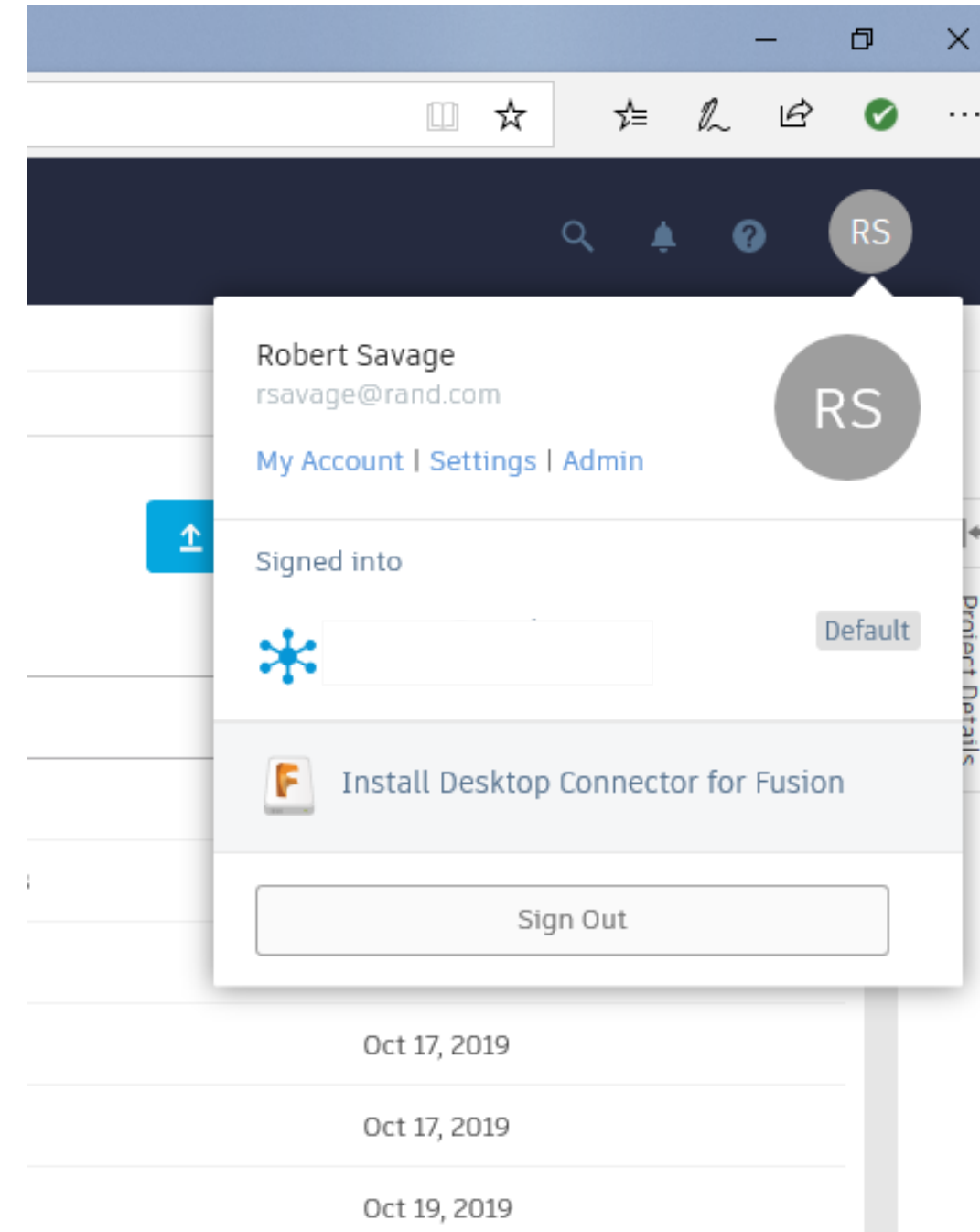
Desktop Connector

The files in the data source are replicated in a connected drive. You can manage files in the data source through the connected drive, just as you would any other folder on your machine. Changes made in the connected drive are automatically uploaded to the data source.



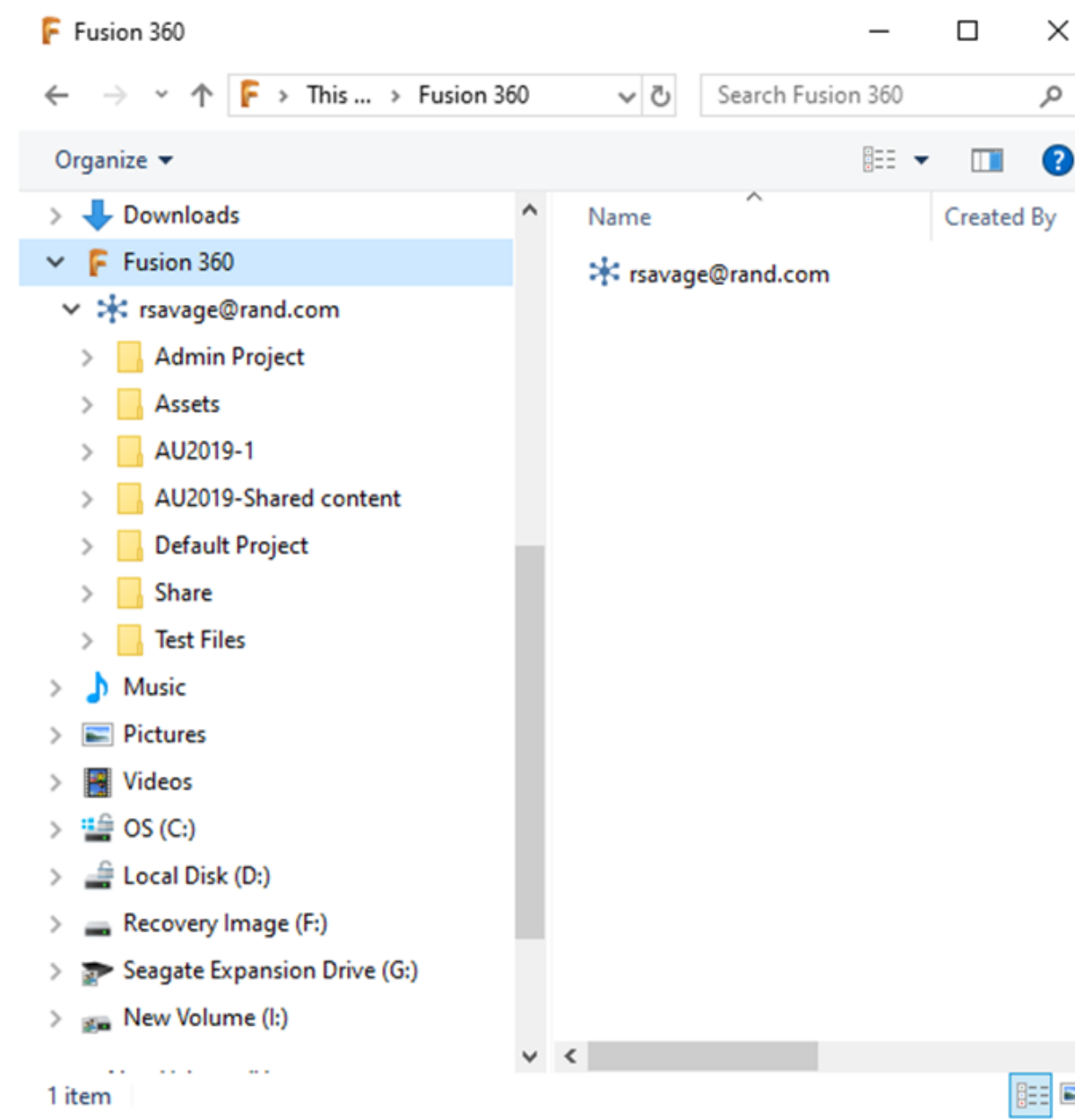
Installation

To install desktop connector, you must first go to your Fusion desktop folder select on a project folder then, in your Fusion desktop folder select on your icon and then select install desktop connector. This will create a location on your hard Drive referred to as Connected Drive where it will replicate files added or updated in your Fusion projects and folders.



Installation

To install desktop connector, you must first go to your Fusion desktop folder select on a project folder then, in your Fusion desktop folder select on your icon and then select install desktop connector. This will create a location on your hard Drive referred to as Connected Drive where it will replicate files added or updated in your Fusion projects and folders.



Using Desktop Connector

In the taskbar, right-click on the Desktop Connector icon and select Sign In. On the Autodesk-Sign In screen, enter your Autodesk credentials and click Sign In.

A connected drive is created for each supported data source associated with your Autodesk credentials. The data source's icon is used to represent the associated connected drive. Any hubs inside the connected drive are marked with an * icon.

ProjectsShortcutsFile Details

AU2018 ✓

Cable and Harness Design

Default

Default

Inventor Designs

Inventor Electrical Project

Inventor Electrical Project

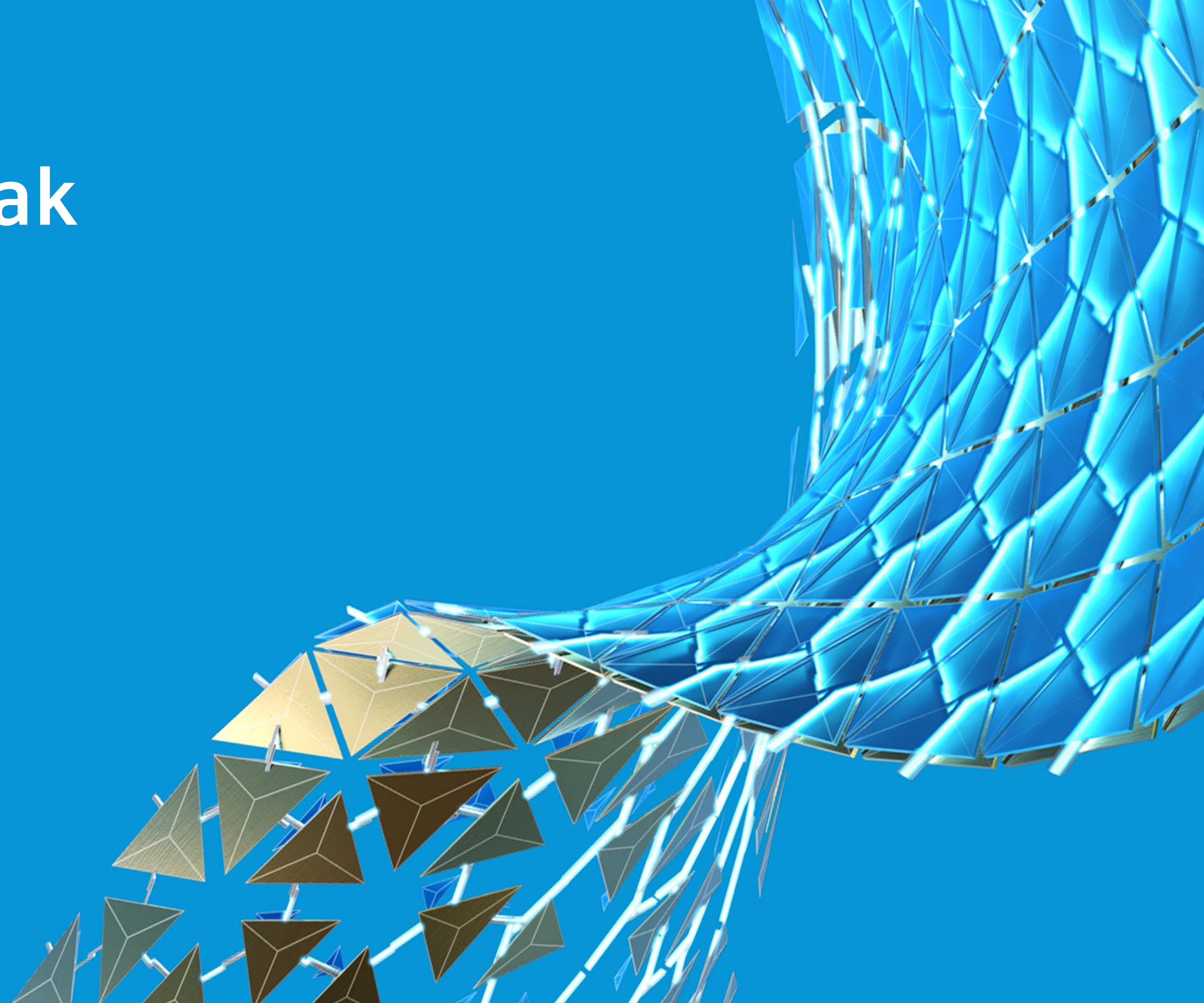
Name	AU2018
Type	Single User
Location	D:\Share\AU 2018\Generative\AU2018.ipj
Workspace	Workspace: .
Workgroup Search Paths	Workgroup: C:\Users\rsaec\Fusion\rsavage@rand.com
Libraries	(None)
Frequently Used Subfolders	(None)

☐ Open shortcuts using Windows Explorer

Using Desktop Connector in Inventor

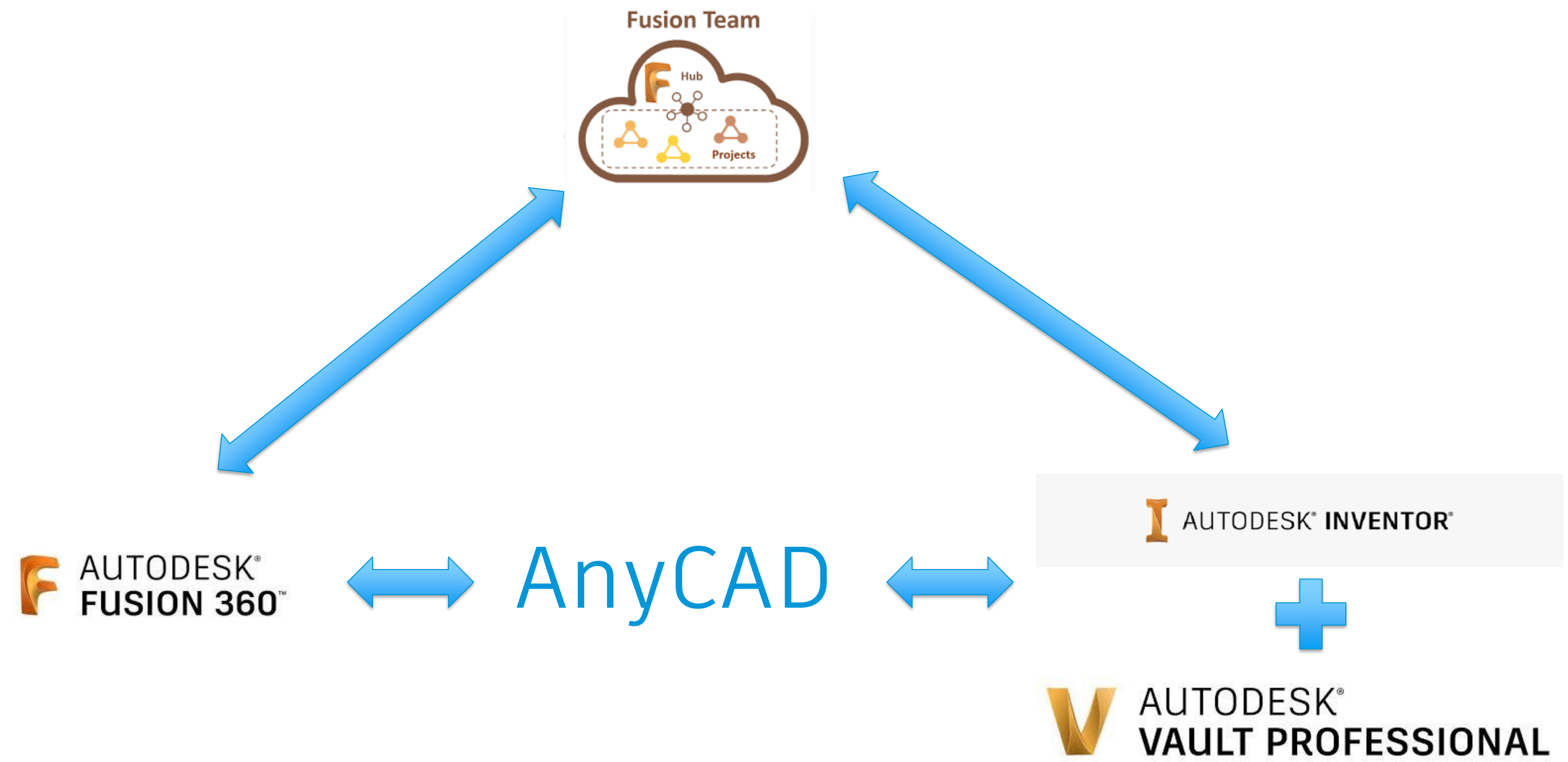
Once you have the files Downloaded onto the connected drive. You can learn using your project file connect your inventor to this location using your workspace location. You will have access to place those files is either an import or a reference into your inventor assemblies if you do them as a reference in the file is updated in Fusion it will then get updated in your inventor once your local drive is updated. **This Does not work with Vault Pro.**

Section Break

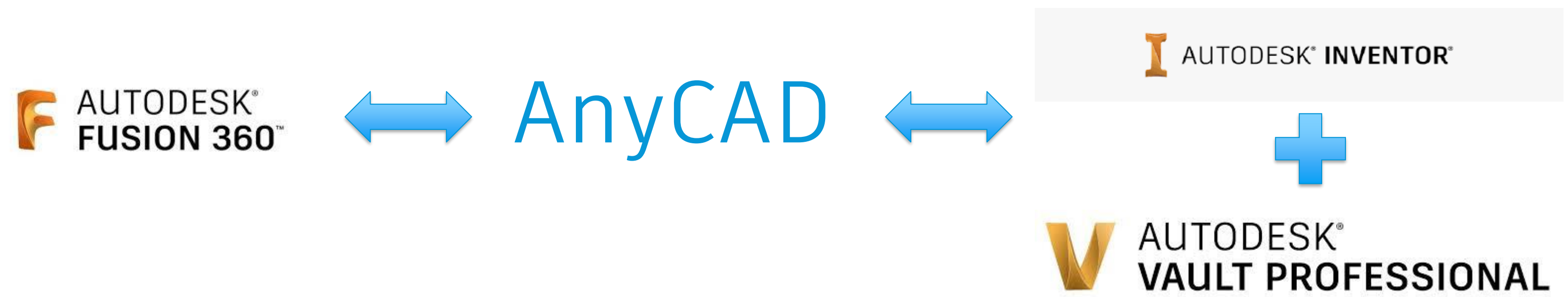


Adding the Files to the Vault

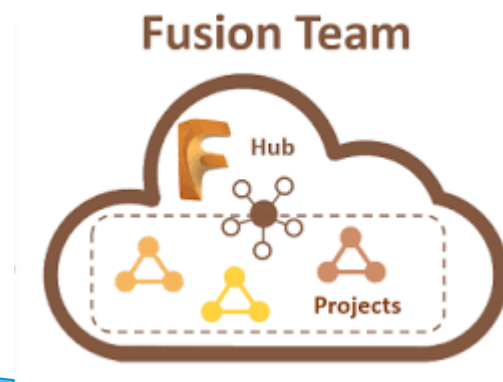
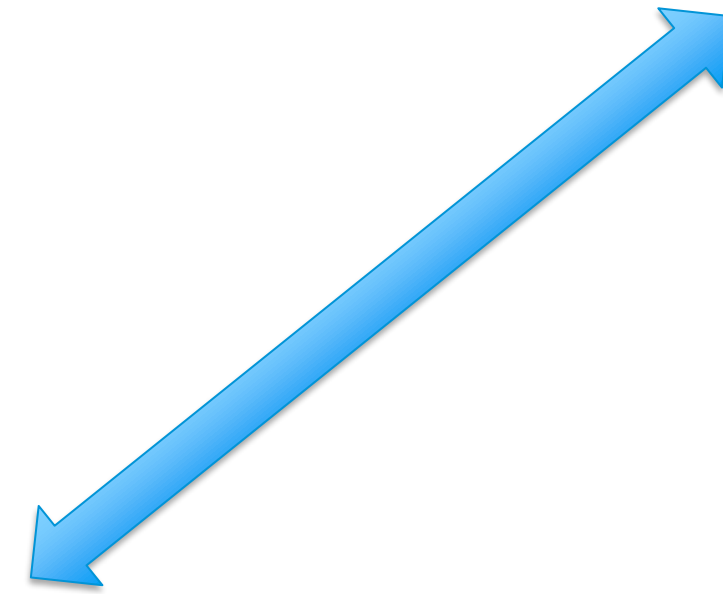
Desktop Connector is a desktop service that integrates an Autodesk data management source (or data source) with your desktop folder and file structure for easy file management.



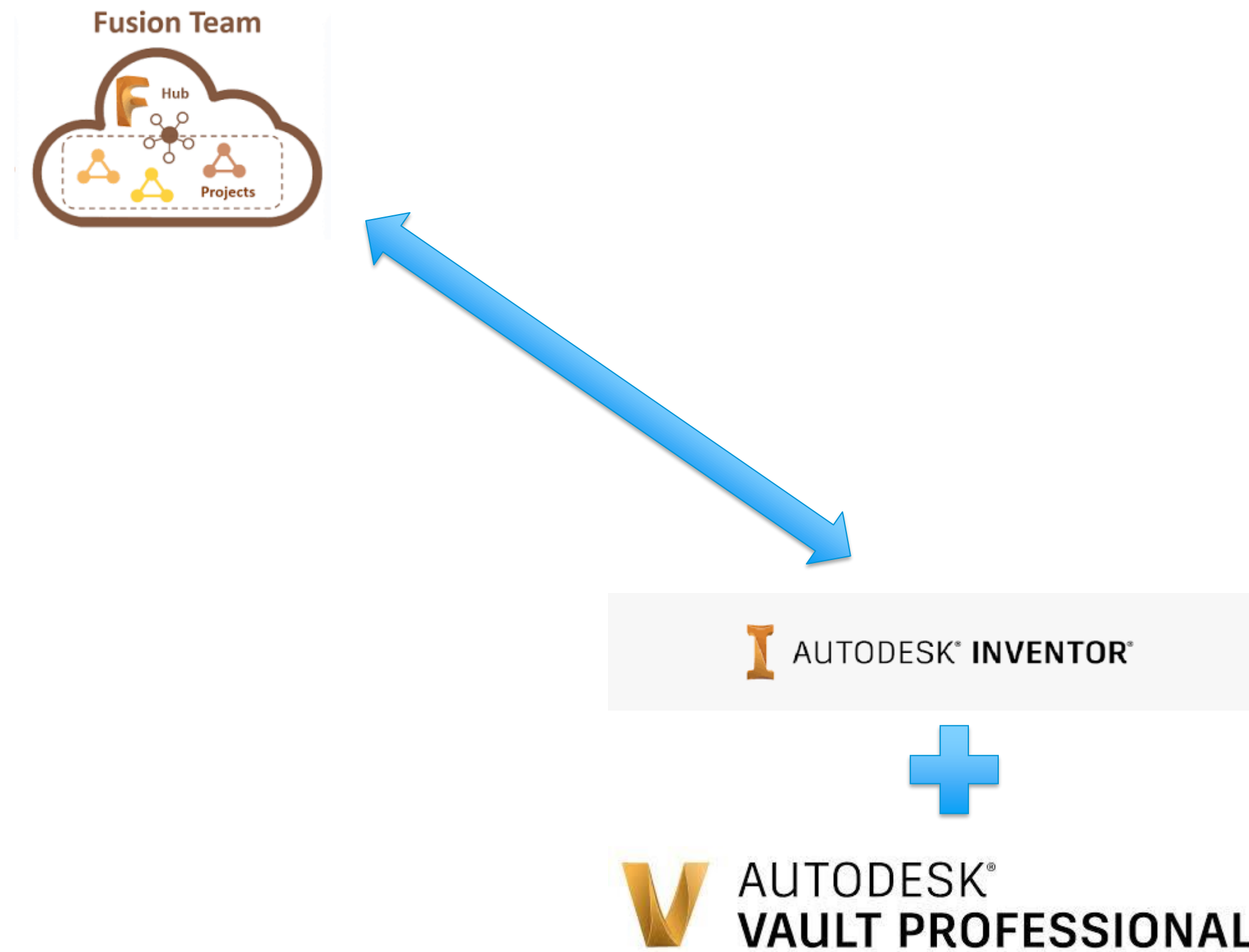
Let's look at the process not as a circle but as a triangle.



Inventor and fusion can share file as either an import (Convert) or as a reference.

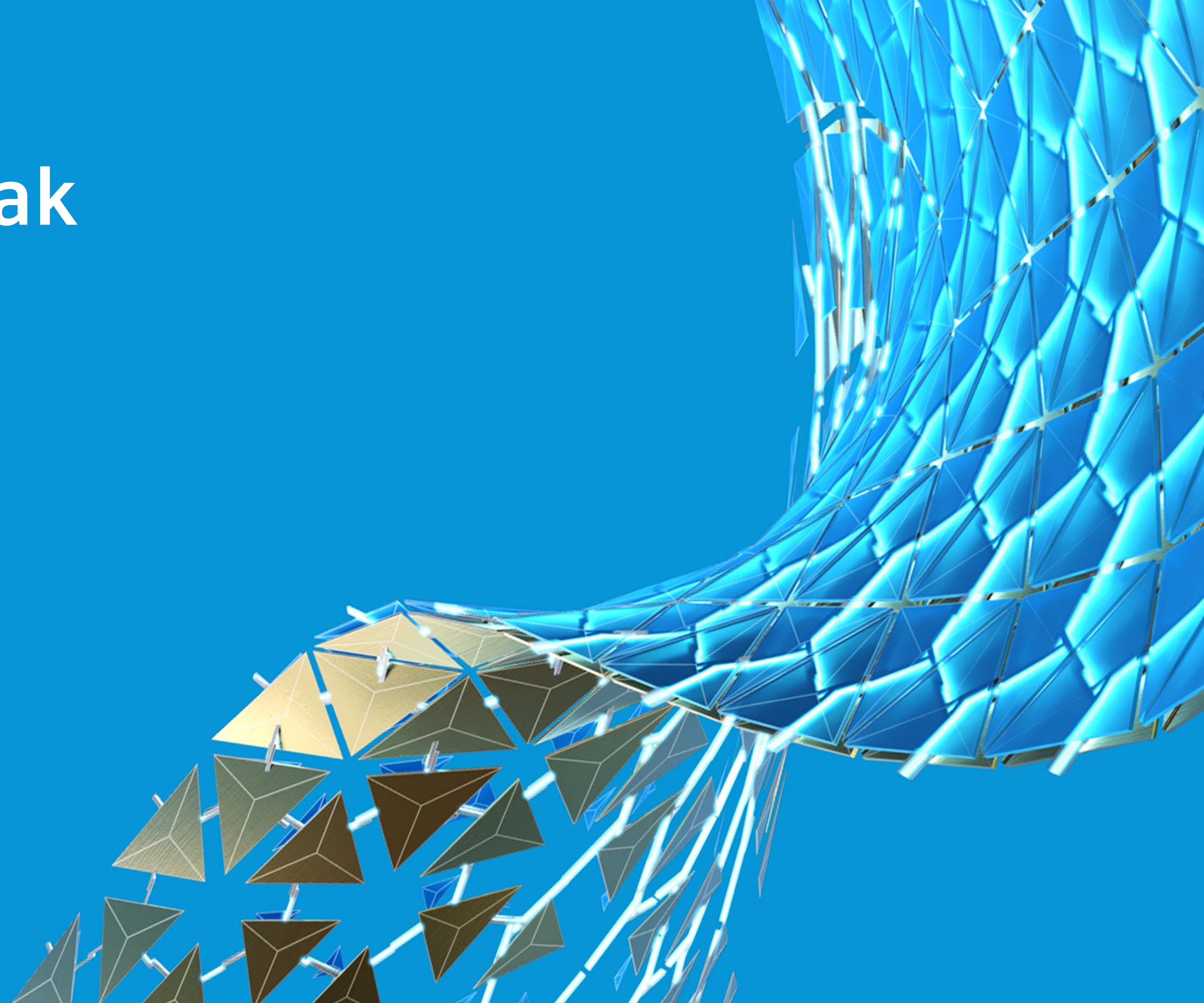


Fusion stores and manages its files on the cloud and can be accessed outside of Fusion through Fusion Team.



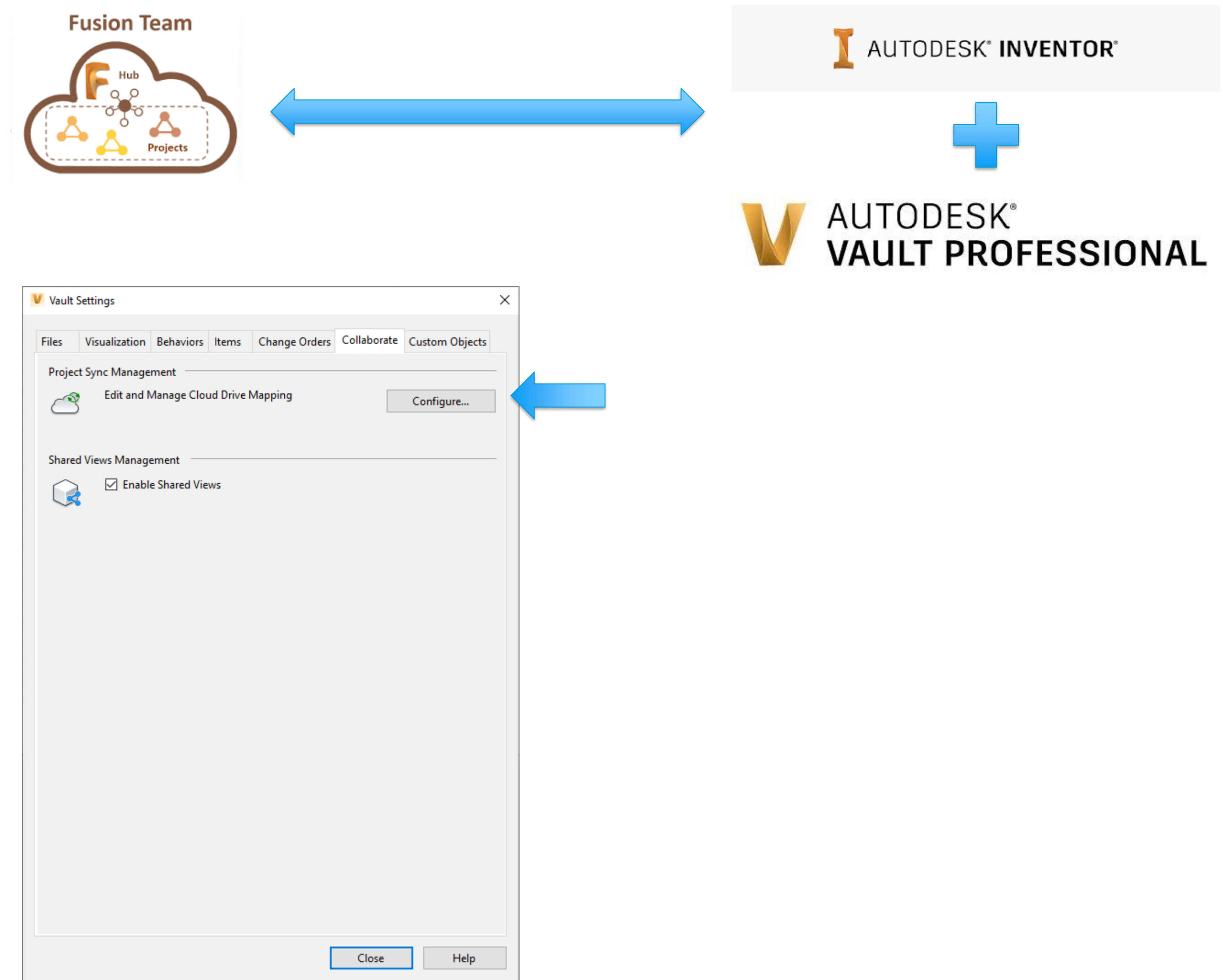
Inventor (for the purposes of this class) stores its files in Vault Professional. We can also connect Inventor Files to Fusion team using an upload and job processor in Vault Professional.

Section Break

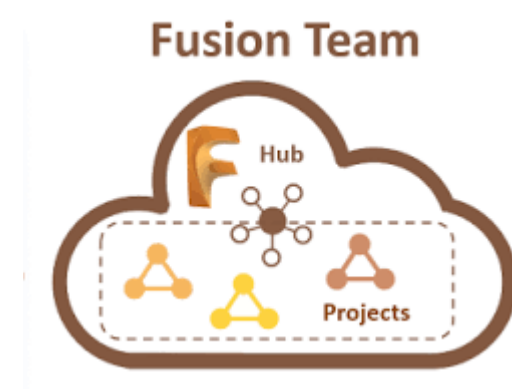


Managing the files in the Vault

So now let's look at how we get files in Vault and move them up to Fusion Team so that they can be shared outside the firewall.



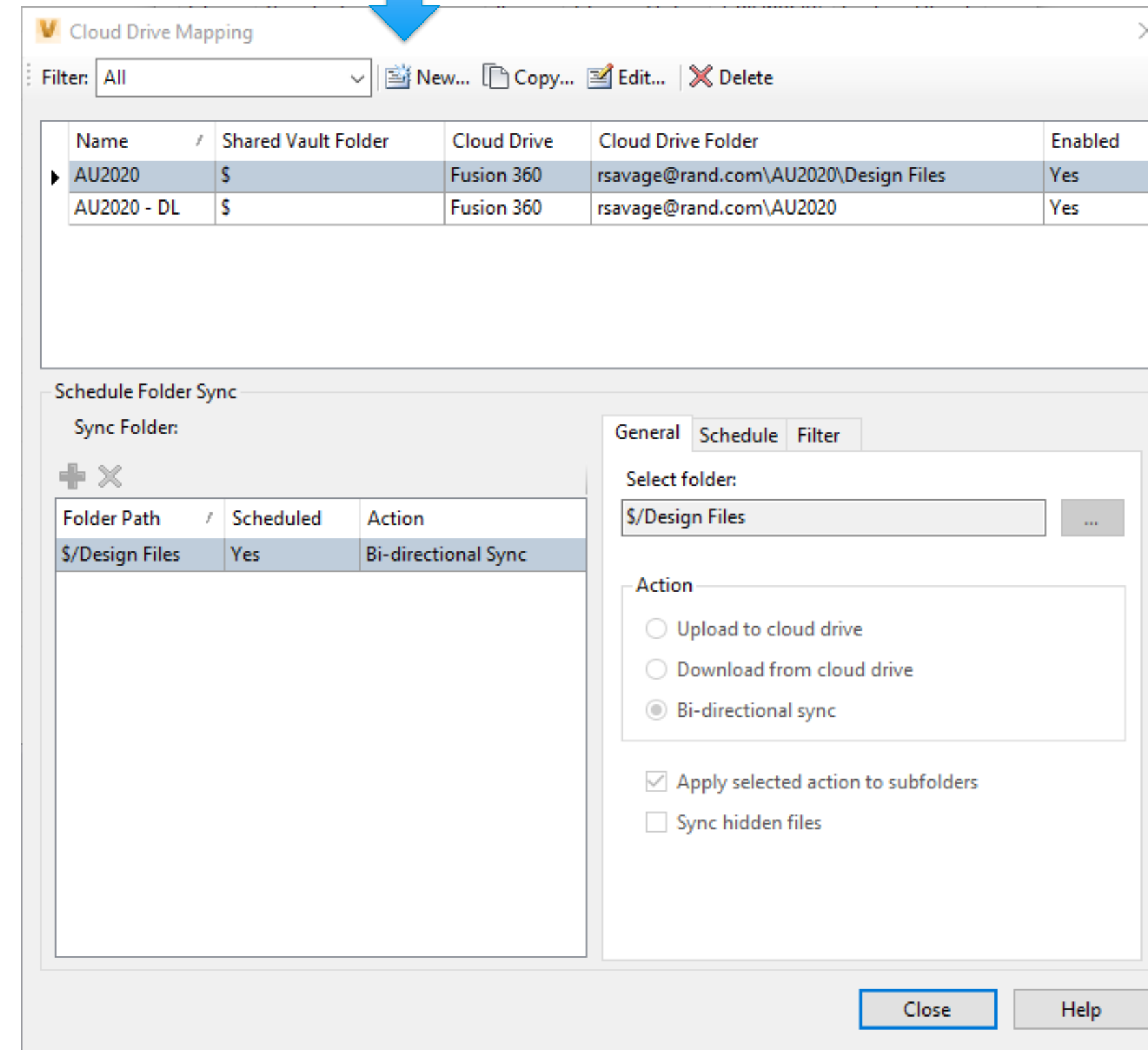
The first step in the process is to configure Vault Professional you do that in the Collaborate tab of the Vault Settings (Tools, Administration, Vault settings).



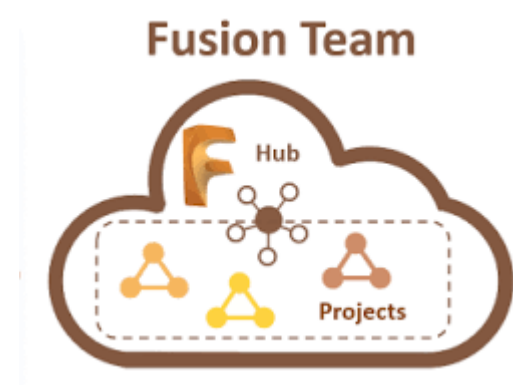
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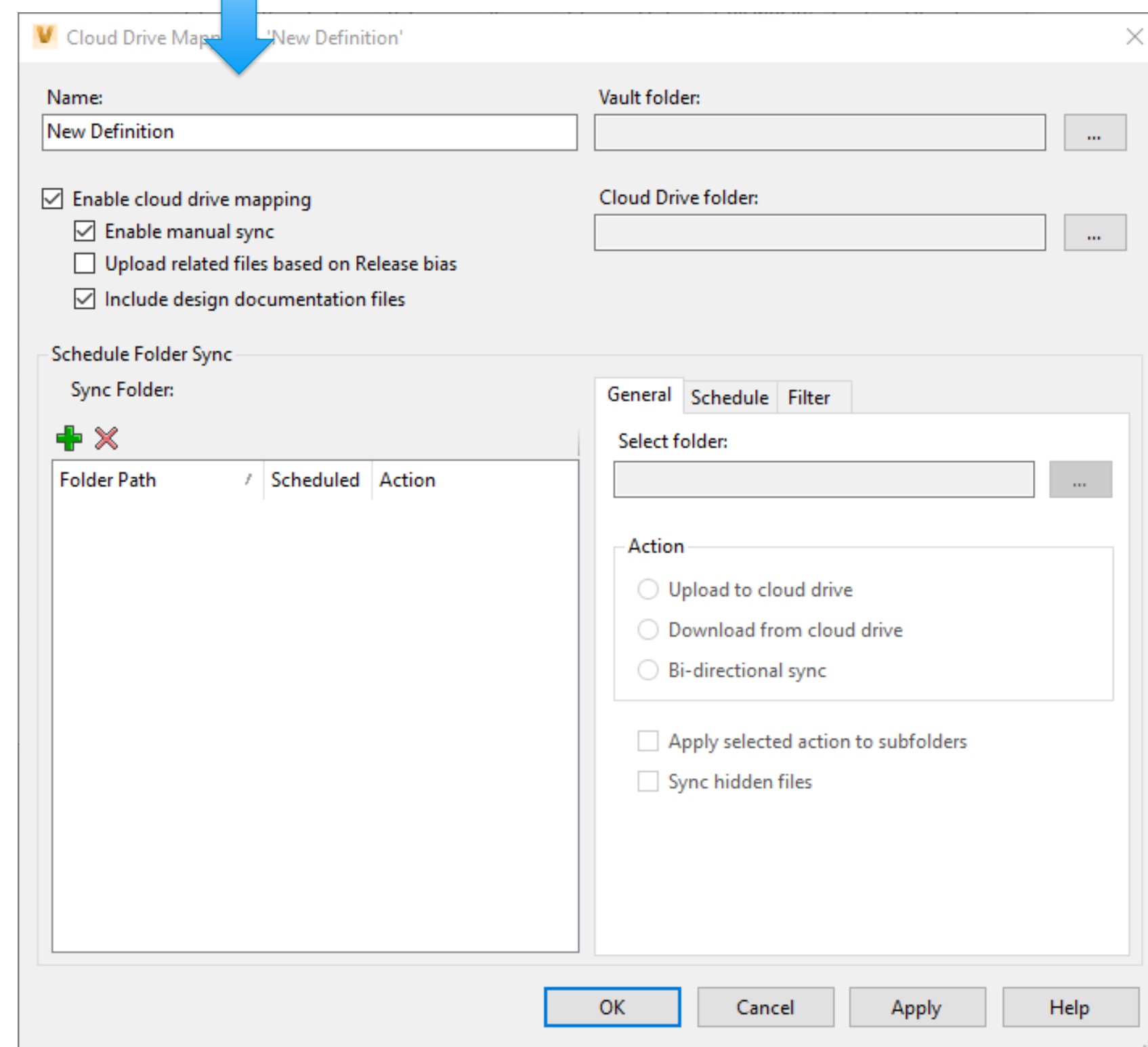
Select the Configure Button, in the Dialog Box select New to configure a new “Cloud Drive Mapping”



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Cloud Drive Mapping - 'New Definition'

Name:

Vault folder:

☒ Enable cloud drive mapping

☒ Enable manual sync

☐ Upload related files based on Release bias

☒ Include design documentation files

Cloud Drive folder:

Schedule Folder Sync

Sync Folder:

Folder Path	/	Scheduled	Action
<div>+ X</div>			

General | Schedule | Filter

Select folder:

Action

☐ Upload to cloud drive

☐ Download from cloud drive

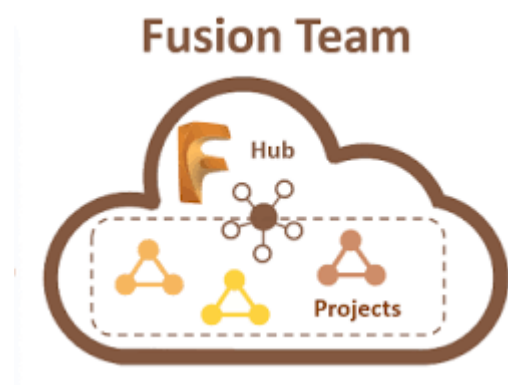
☐ Bi-directional sync

☐ Apply selected action to subfolders

☐ Sync hidden files

OK Cancel Apply Help

In here you will name the configuration and define the Vault Folder and Cloud Drive Folder you wish to Map.



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Cloud Drive Mapping - 'New Definition'

Name: Vault folder:

☒ Enable cloud drive mapping
☒ Enable manual sync
☐ Upload related files based on Release bias
☒ Include design documentation files

Cloud Drive folder:

Schedule Folder Sync
Sync Folder:

Folder Path	/	Scheduled	Action
<div><div><div>+</div><div>×</div></div></div>			

General | **Schedule** | **Filter**

Select folder:

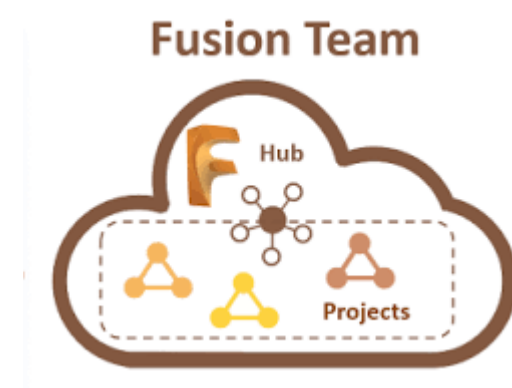
Action

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

☐ Apply selected action to subfolders
☐ Sync hidden files

OK Cancel Apply Help

Next you would select the “Plus” icon to add a Sync Configuration



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Define Folder Sync [X]

Select folder:
 ...

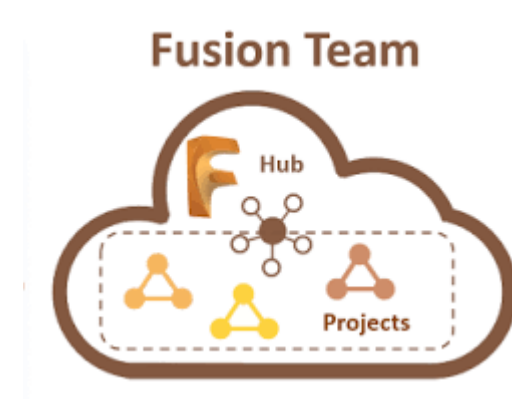
Action

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

☐ Apply selected action to subfolders
☐ Sync hidden files

OK Cancel Help

Then you would select the folder you want to pull from, the action or direction you want to sync and the sync settings.



General Schedule Filter

Synchronization settings

☐ Daily at: 12:00 AM

☒ Every: 8 hours

☐ None



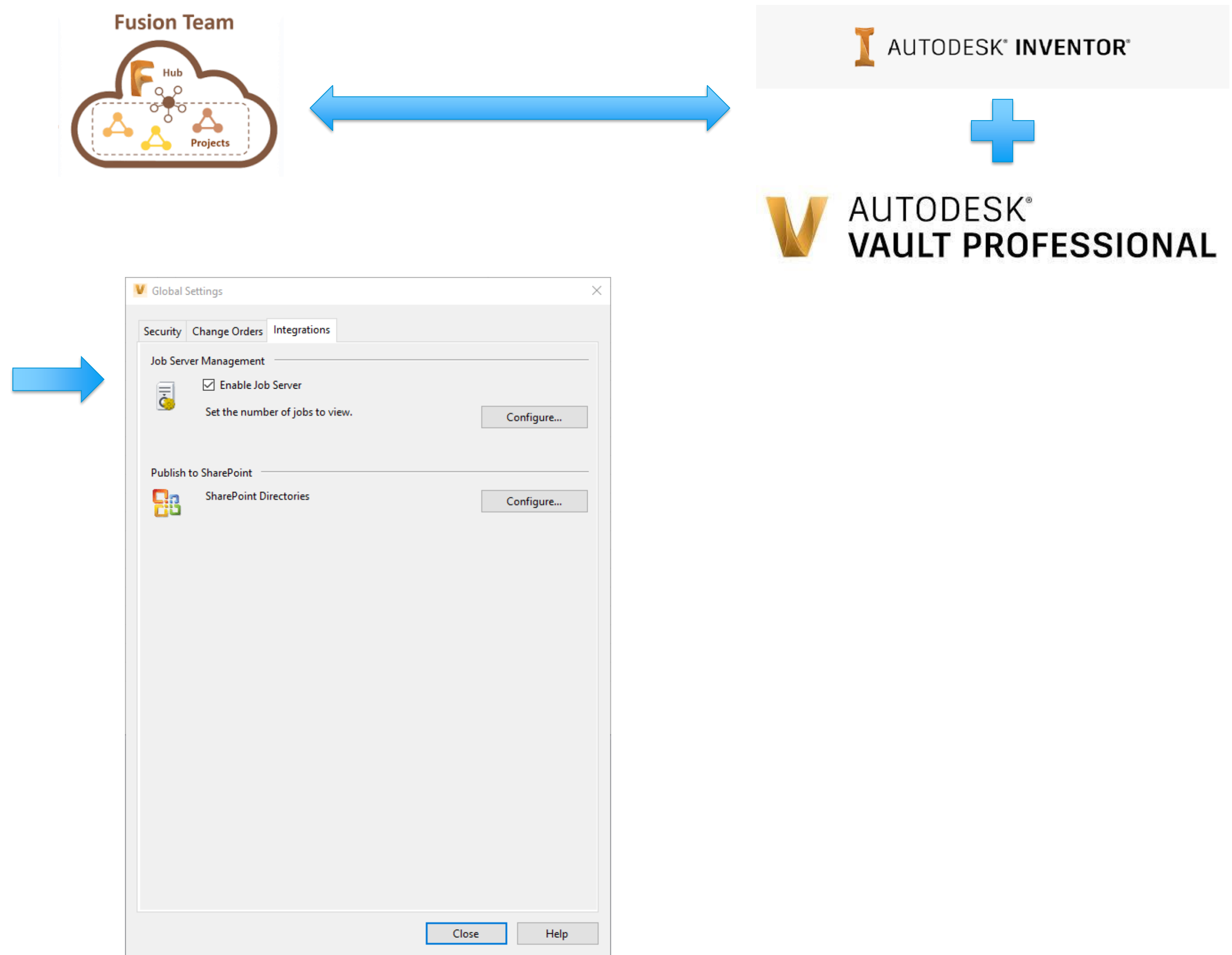
General Schedule Filter

Property:	Condition:	Value:
<input type="text"/>	<input type="text"/>	<input type="text"/>
<div>Add Replace Remove</div>		

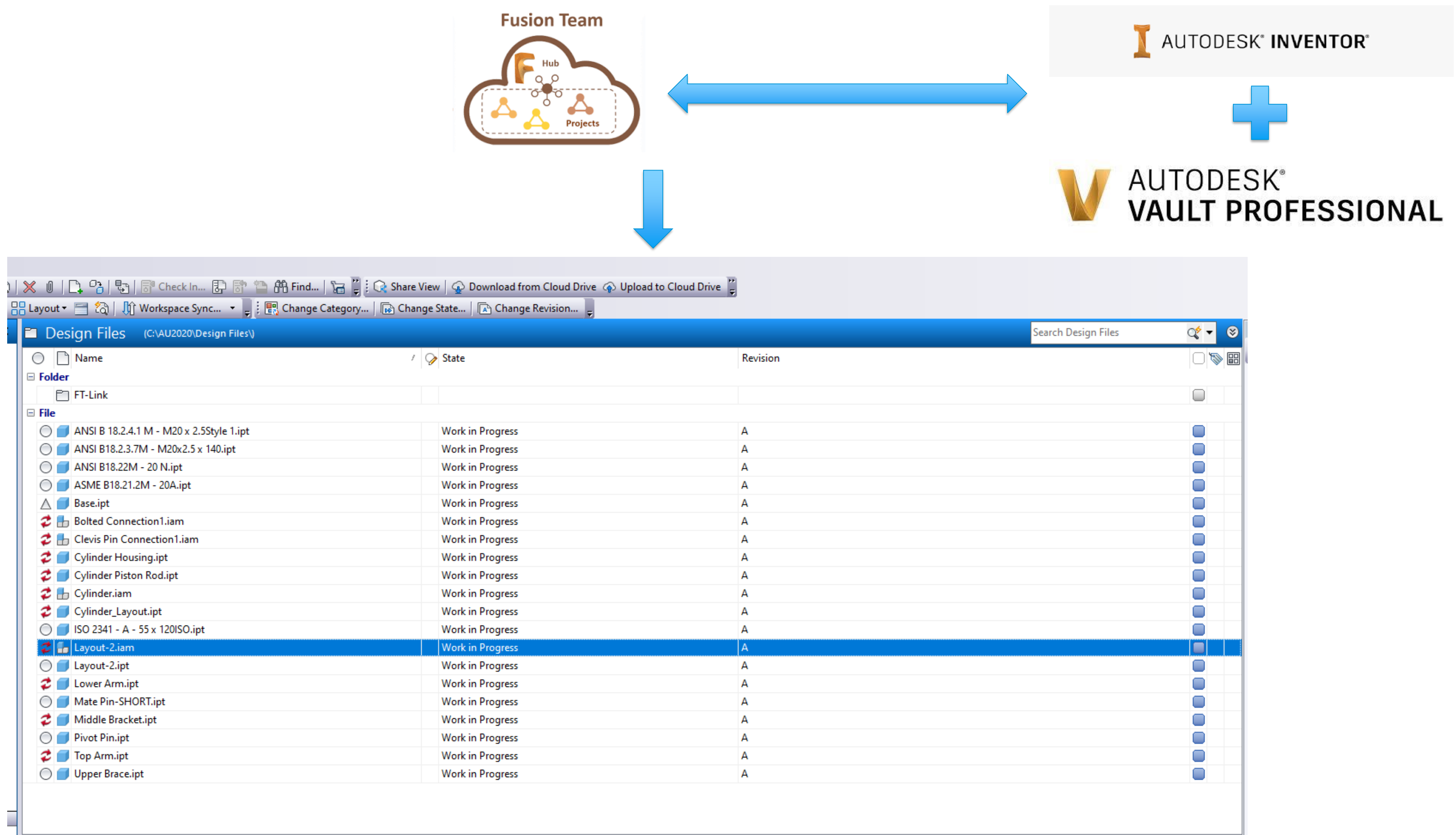
Upload files that match these criteria:

Preview...

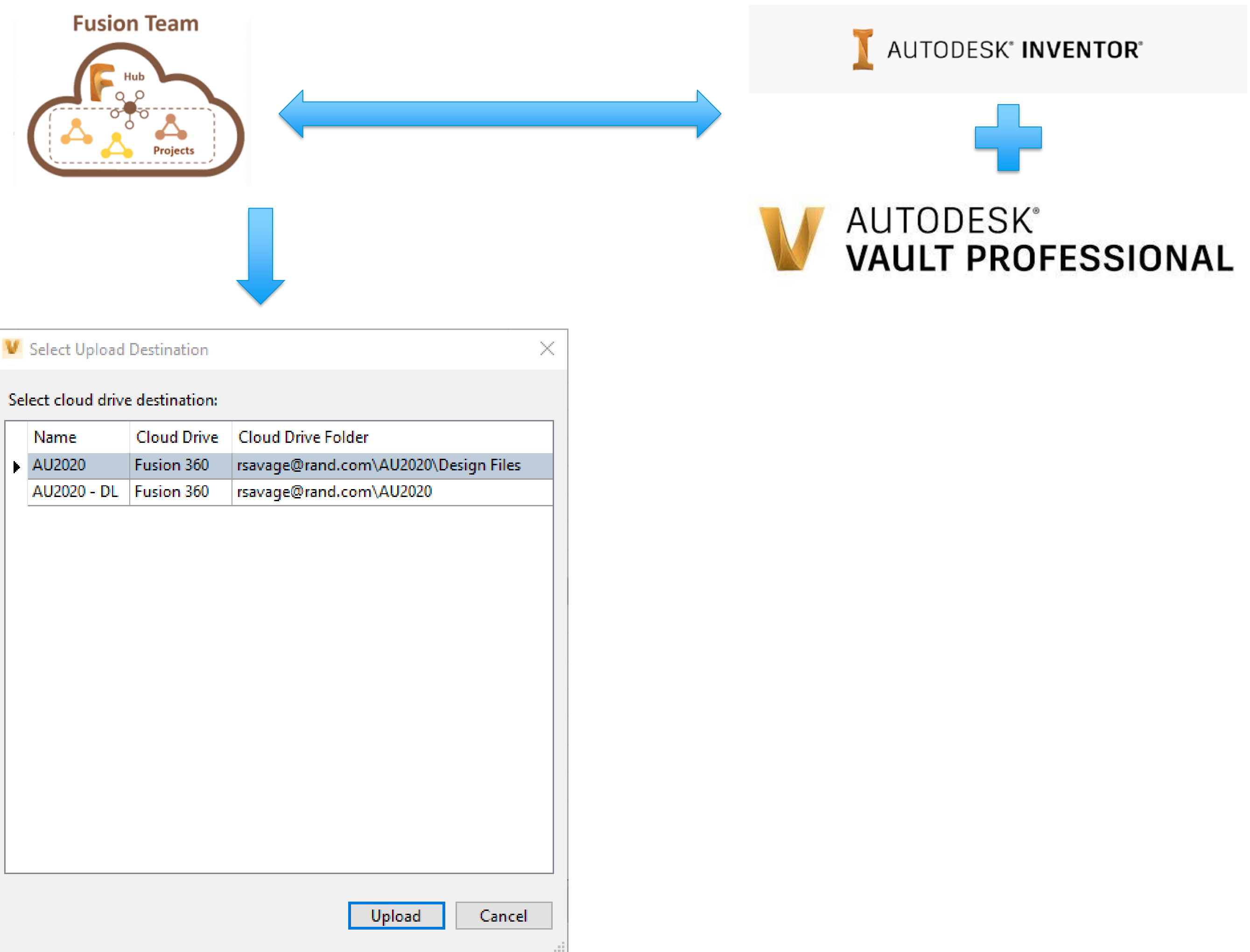
You also have tabs to set the schedule of the sync and to filter to narrow the process.



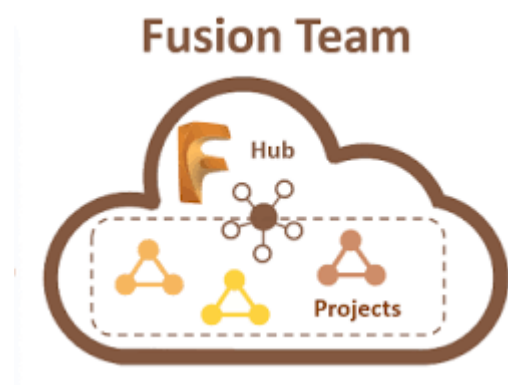
Next you must enable the Job Server on the system that will process the files. This is done in the Integrations tab of the Global Settings (Tools, Application Options, Global Settings) by selecting the check box.



Select the file or files to upload and pick “Upload to Cloud Drive) from the toolbar or in the right click menu.



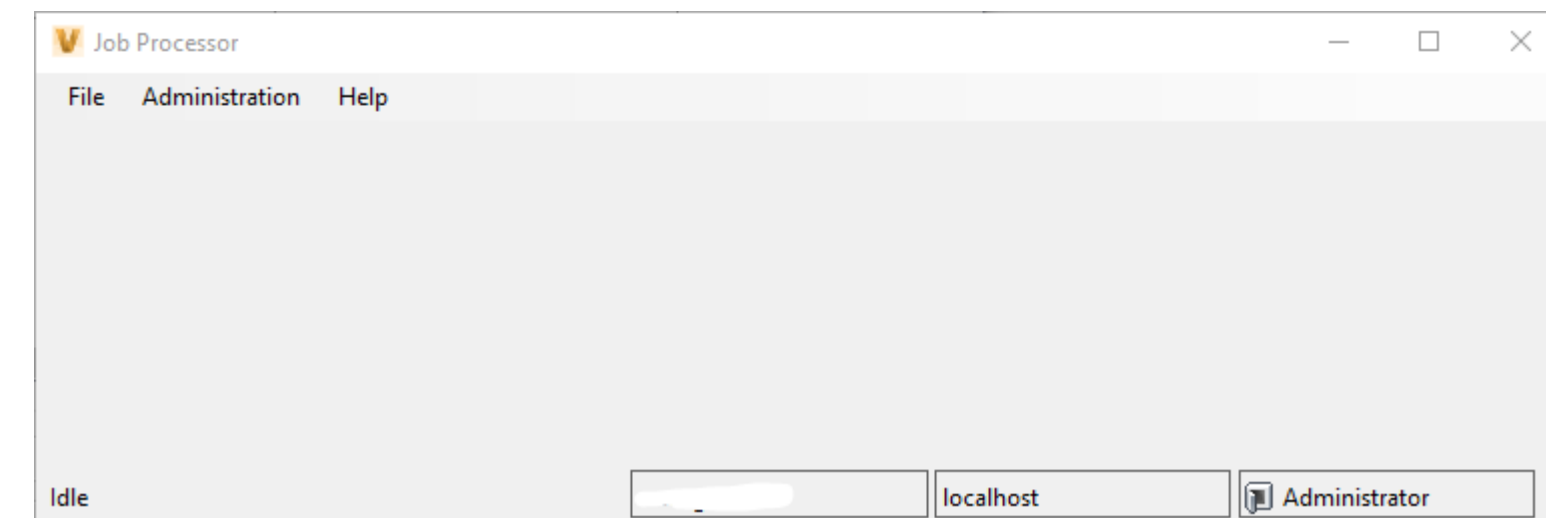
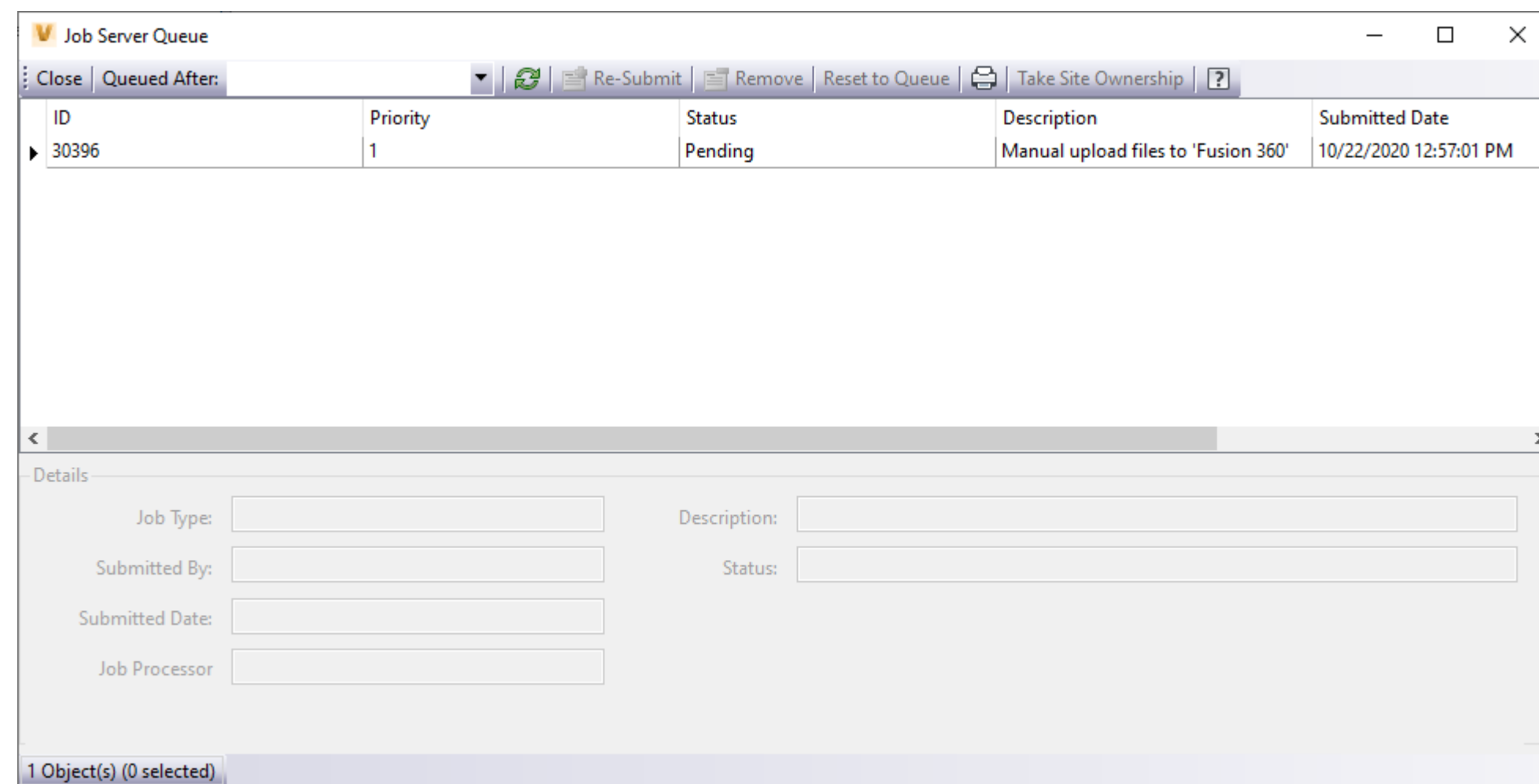
Select the Cloud Drive Destination from the list you created and select Upload. This will send the information to the Job Processor to be uploaded.



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Select the Cloud Drive Destination from the list you created and select Upload. This will send the information to the Job Server Que to be uploaded. If you want this completed immediately you will have to go to the server that is, you Job Processor. Log into the Job Processor to start the process use the file drop and select Pause the Restart this will force the system to run the job.



Home > AU2020 > Design Files

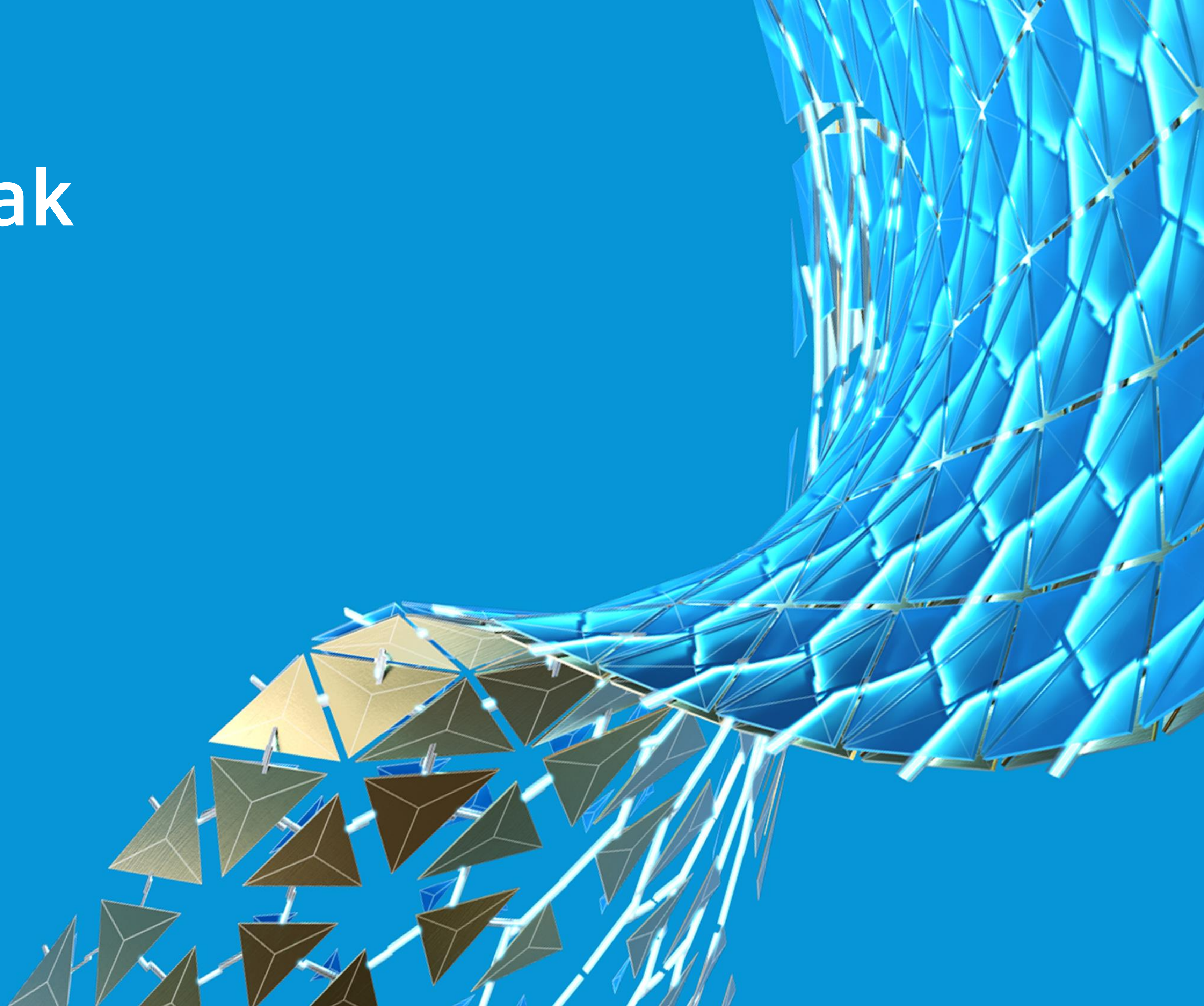
ContentProject Members (1)Wiki Pages

UploadNew Folder

<input type="checkbox"/>	Name	Owner	Type	Size	Last Updated
	Trash				
	Design Files	Robert Savage	Folder		4 hours ago
	ANSI B 18.2.4.1 M - M20 x 2.5Style 1.ipt	Robert Savage	Inventor part files	173.5 KB	20 hours ago
	ANSI B18.2.3.7M - M20x2.5 x 140.ipt	Robert Savage	Inventor part files	199.5 KB	20 hours ago
	ANSI B18.22M - 20 N.ipt	Robert Savage	Inventor part files	104.0 KB	20 hours ago
	ASME B18.21.2M - 20A.ipt	Robert Savage	Inventor part files	145.5 KB	20 hours ago
	Base.ipt	Robert Savage	Inventor part files	100.0 KB	4 hours ago
	Bolted Connection1.iam	Robert Savage	Inventor assembly files	148.5 KB	20 hours ago
	Clevis Pin Connection1.iam	Robert Savage	Inventor assembly files	244.0 KB	20 hours ago
	Cylinder Housing.ipt	Robert Savage	Inventor part files	154.5 KB	20 hours ago
	Cylinder Piston Rod.ipt	Robert Savage	Inventor part files	131.5 KB	20 hours ago
	Cylinder.iam	Robert Savage	Inventor assembly files	125.0 KB	20 hours ago
	Cylinder_Layout.ipt	Robert Savage	Inventor part files	93.0 KB	20 hours ago
	ISO 2341 - A - 55 x 120ISO.ipt	Robert Savage	Inventor part files	127.5 KB	20 hours ago
	Layout-2.iam	Robert Savage	Inventor assembly files	258.0 KB	4 hours ago

You will now have access no the file you uploaded and any children files that is needed to make the file in Fusion Team.

Section Break



Versions and Revisions of the files.

Versions and Revisions are still managed by the CAD software that owns the file.



 AU2020.ipj	V1  
 Output 1	V1
 Output 1	V1
 Plate 1	V3
 Plate 1C	V2
 Plate 1b	V1
 Plate 2	V1
 Setup1	V10
 Setup1_Existing	V1
 Setup1_Existing 2	V4
 Team.ipj	V1





Fusion 360 Files

For Fusion Files Fusion 360 manages its own versions that are created on the save of a file.

History Uses Where Used Change Order Preview

Number of versions: 6 (Local = Version #5)

Number of revisions: 2

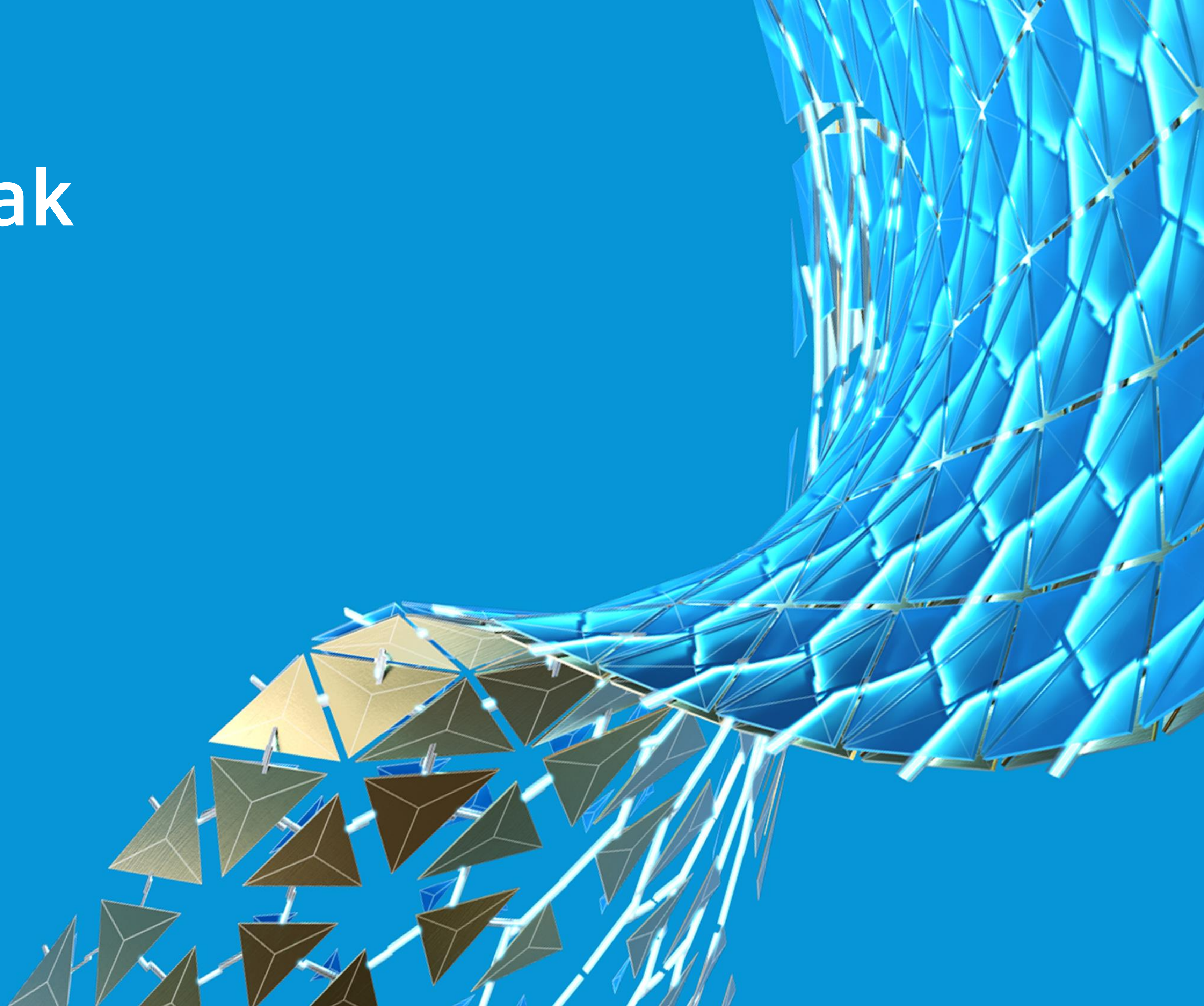
Thumbnail	File Name	Revision	State (Historical)	Created By	Checked In	Comment
	Layout-2.iam	A	Work in Progress	Administrator	10/22/2020 8:59 ...	Downloaded from Cloud Drive
	Layout-2.iam			Administrator	10/21/2020 3:16 ...	Test



Inventor Vault Files

For Inventor, Vault will manage the Version / Revision of the file that is uploaded, if a change is made to the file it will version up on the download.

Section Break





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