

Technical Dive and Talk – Vault Professional Data Beyond your Firewall

Kimberley Hendrix

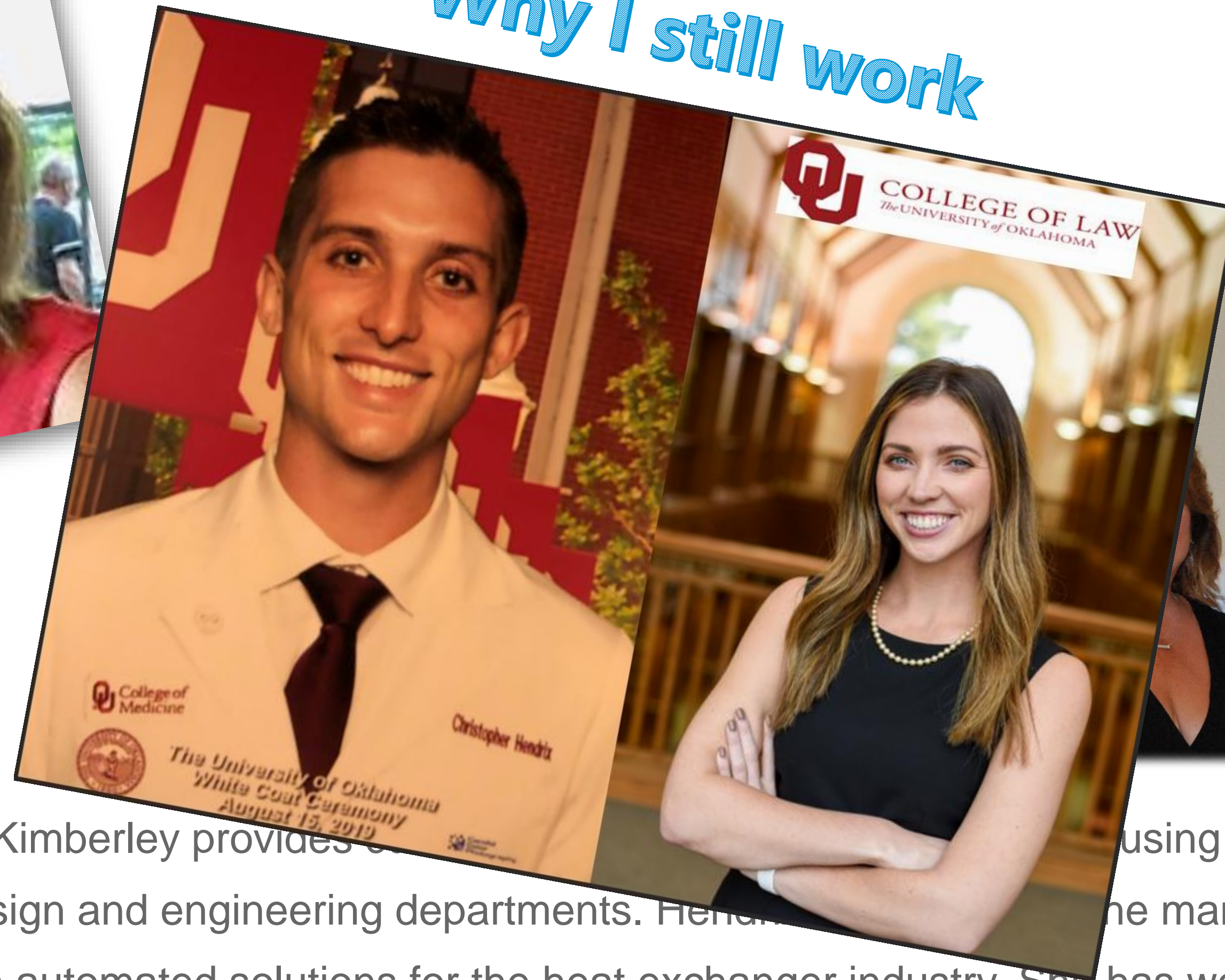
Solutions Consultant, D3 Technologies



Kimberley Hendrix

About the speaker

Why I still work

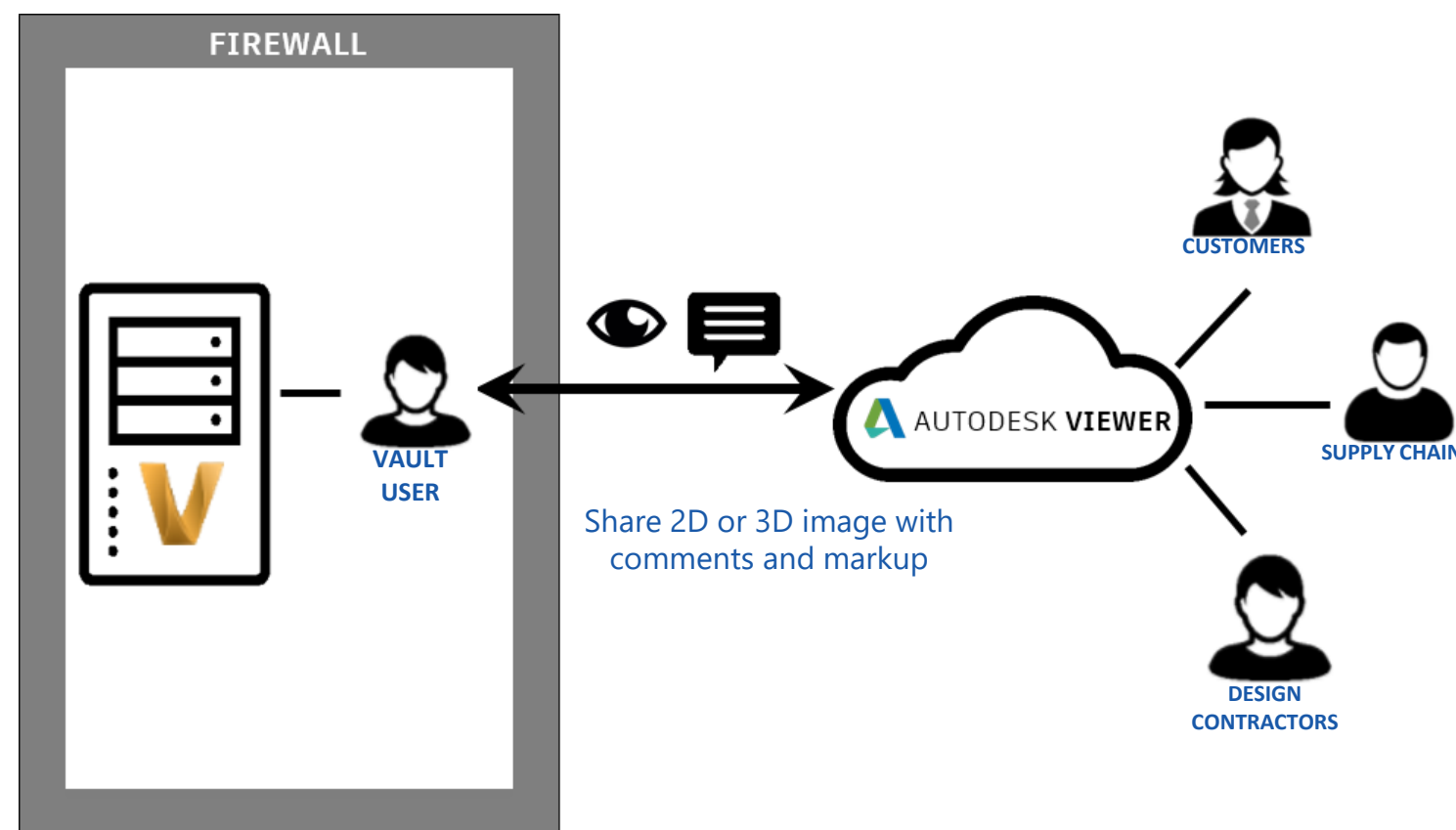


Based in Tulsa, Oklahoma, Kimberley provides consulting services using Autodesk, Inc., products and industry knowledge to streamline design and engineering departments. Hendrix has worked in the manufacturing/plant industry for over 30 years and she specialized in automated solutions for the heat exchanger industry. She has worked with Autodesk products since 1984. Hendrix is associated with D3 Technologies as a solutions consultant, focusing on data management, automation, and project management.

Learning Objectives

- Learn from real customer use cases – as described by the customer
- Learn how to use Shared Views and see use cases
- Quick explanation of Shared Data
- Learn how to setup and configure Project Sync
- Discover how and why to use Project Sync
- Autodesk Drive, Fusion Team & BIM360

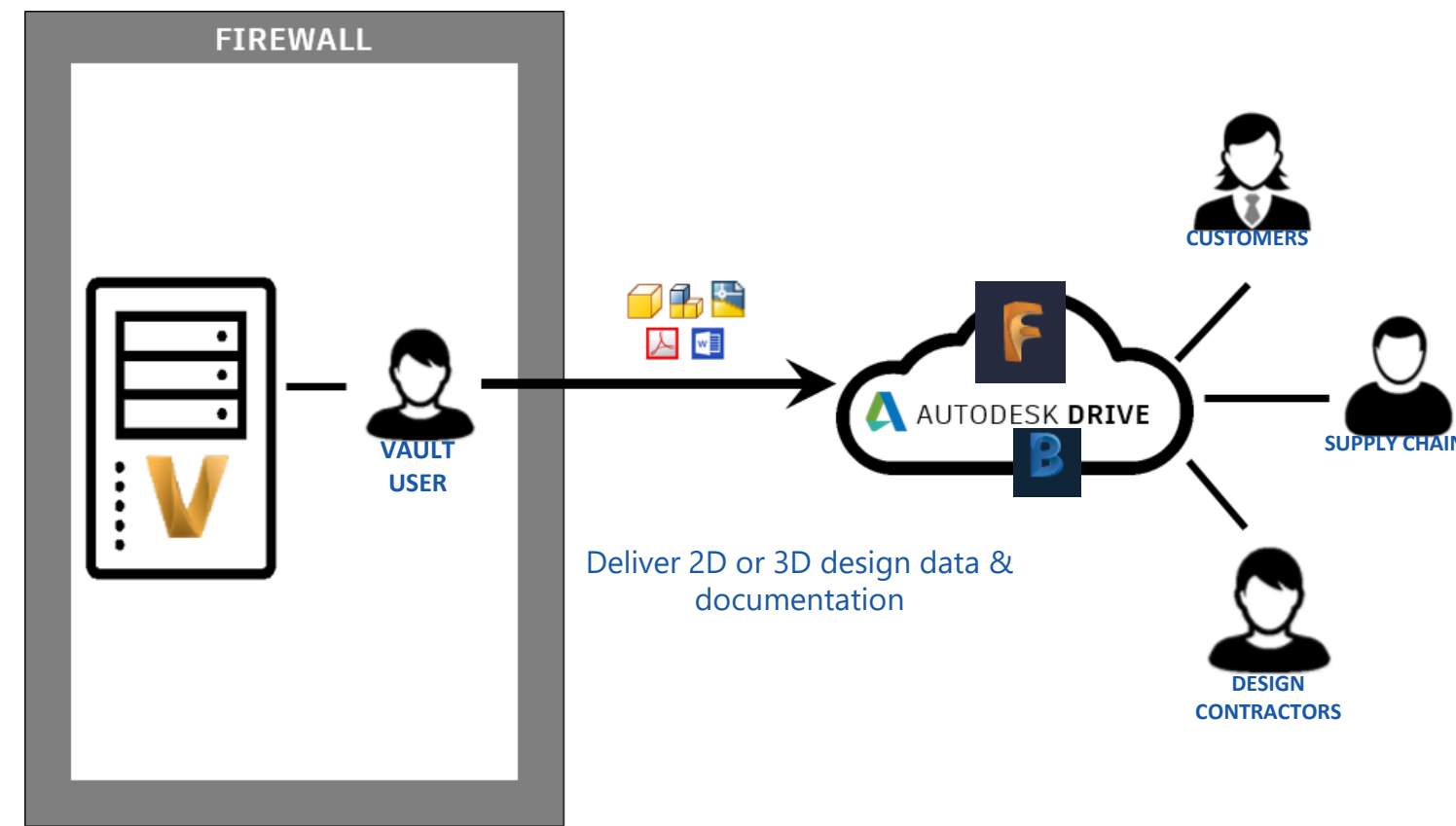
External Collaboration



Get Feedback

Share a **visual representation** and get feedback quickly and easily using Autodesk Viewer

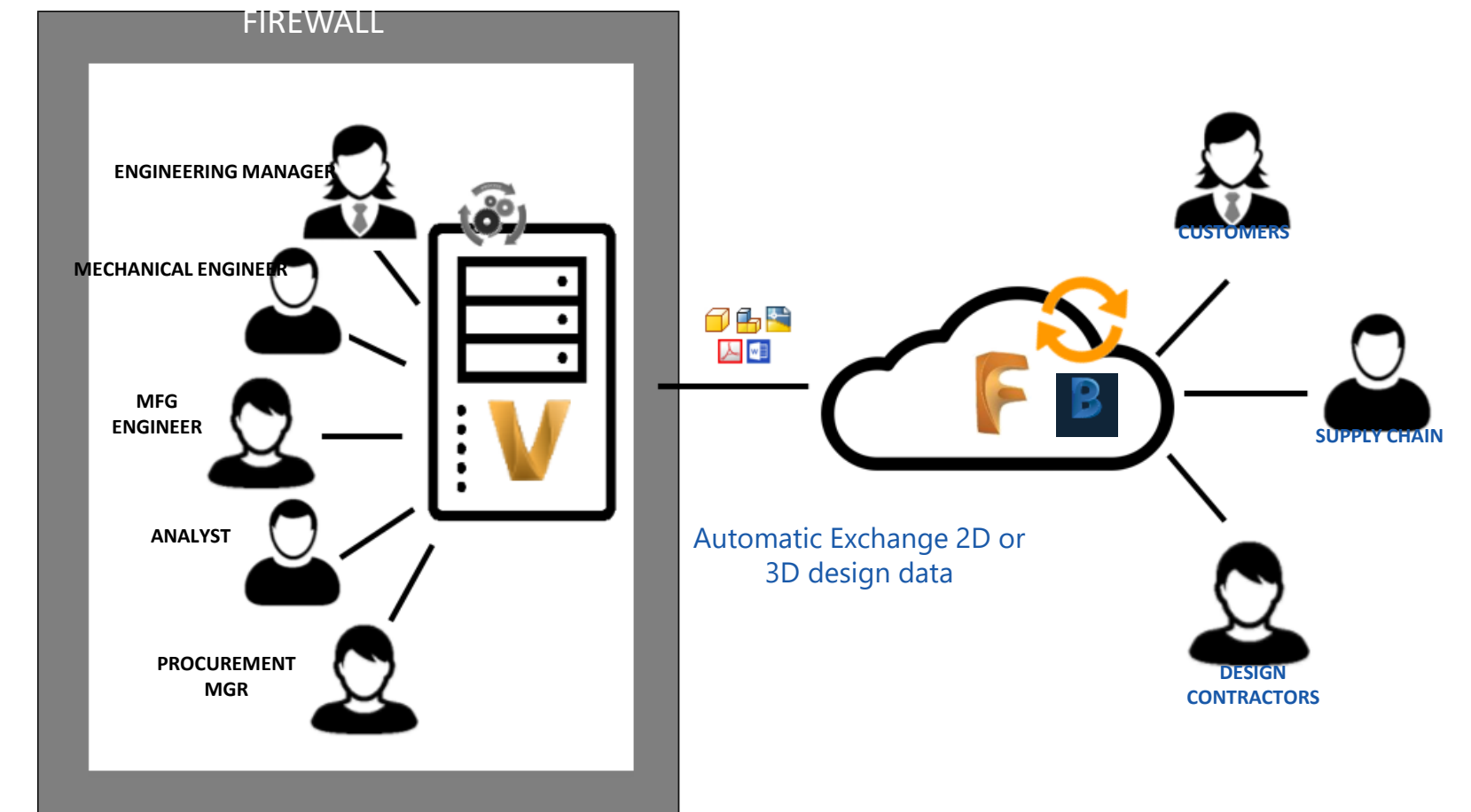
Shared Views



Deliver Design Files

Deliver files to customers and suppliers using Autodesk Drive, Fusion Team or BIM360

Shared Data



Collaborate On Designs

Automatically exchange select data with external collaborators using Fusion team or BIM360

Project Sync

A Customer Use Case



Using Fusion Team and Vault to Collaborate

Let me introduce: **Dan Goehler**
Manager of Engineering
(Legal said I couldn't use his company name)
Tulsa, Oklahoma

Dan's company has had Vault Professional in their environment since 2013 it began with 3 Servers

Tulsa, OK (US) – Main Server
Limerick, Ireland – Secondary site with full replication
India – File Store replication (ADFS)

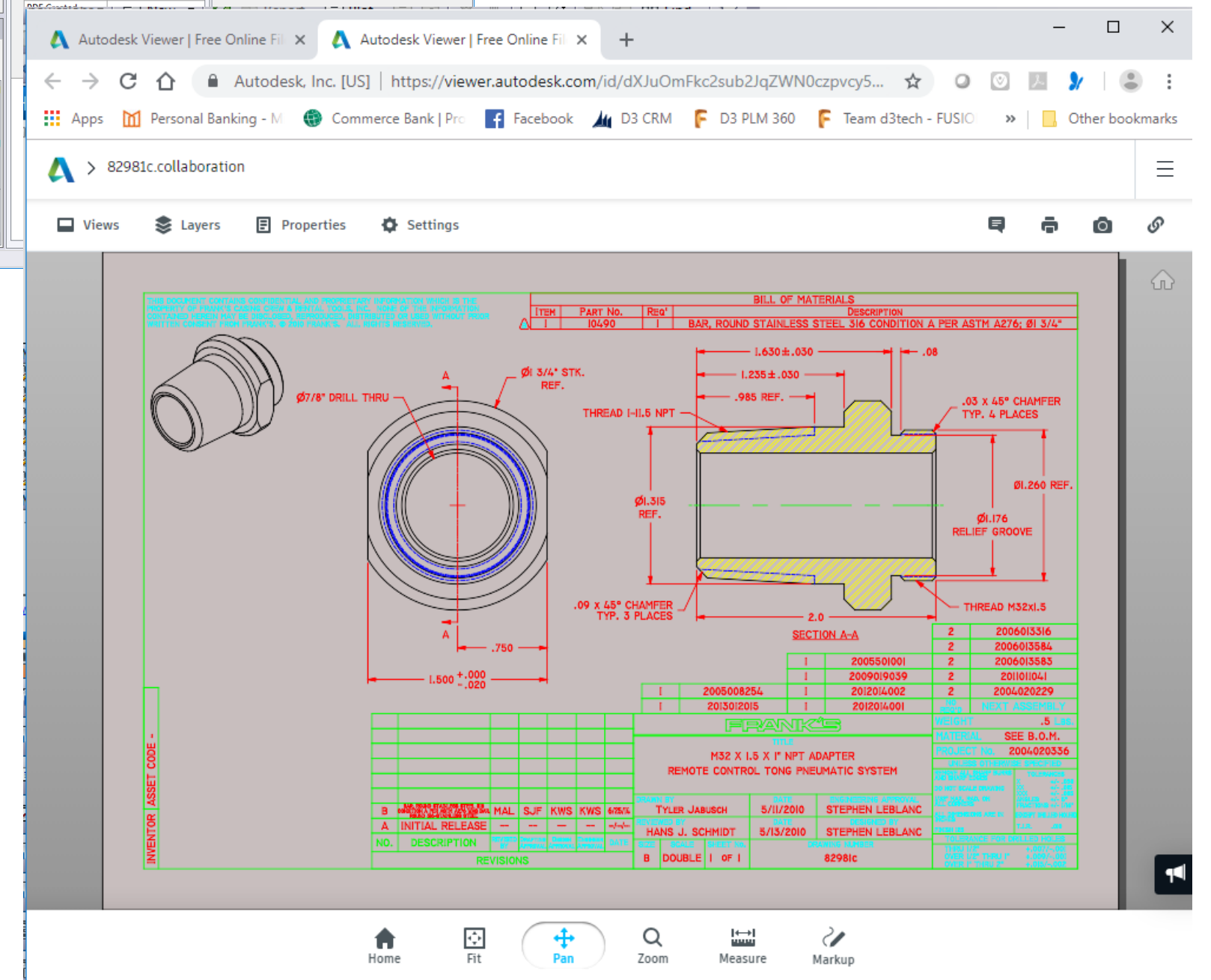
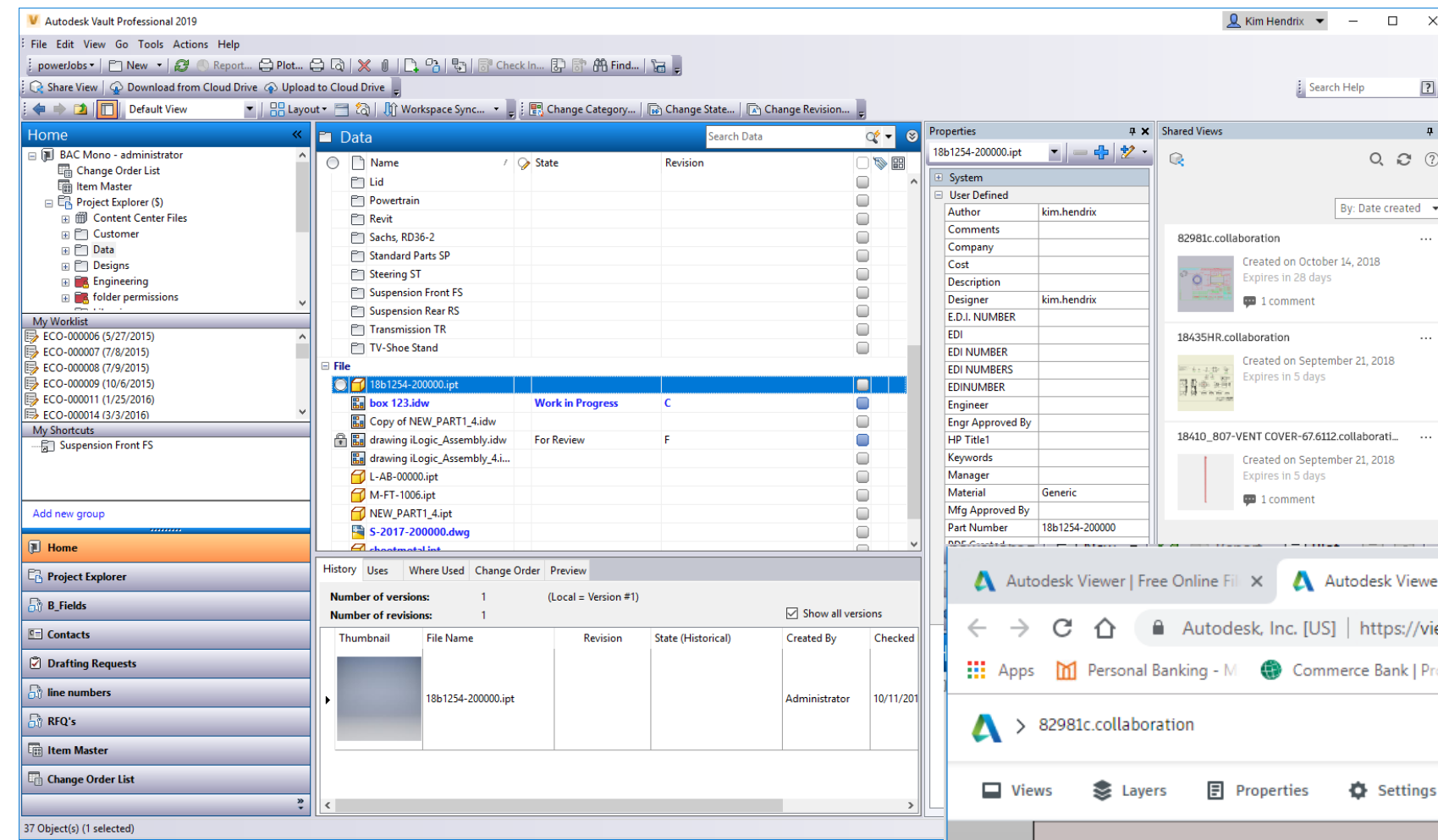
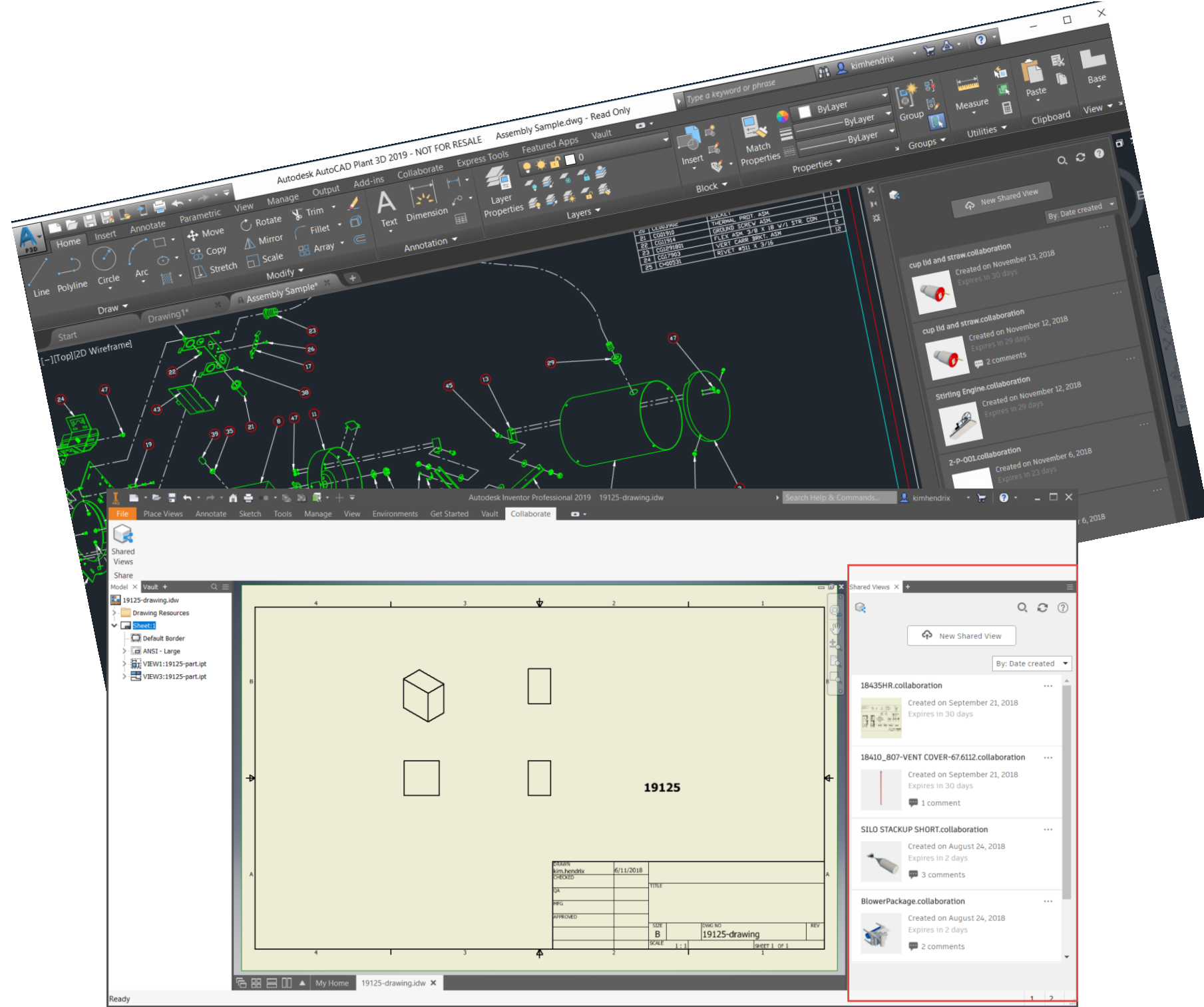
In the past 2 years, they have added Mexico & Brazil with file store replication

As the company continued to grow globally, a new technology was needed, we at D3 introduced Fusion Team's and setup to automatically publish needed information for the China & ssecondary India locations



Shared Views





Shared Views - Defined

Fast, and secure option to share rich multi-sheet 2D or 3D viewables opened on virtually any cloud-connected desktop or mobile devise via a simple web link. They avoid the need for reviewers to install anything and provide a built-in feed that makes comments visible right inside the client. Shared Views are temporary visualizations that automatically expire after a period of time.

Shared Views Use Cases

SIMPLE, FAST

Shared views is a simple way to speed up the design review cycles. Using Shared Views, design engineers can collaborate with anyone, receive comments and feedback quickly right inside Vault, AutoCAD or Inventor.

COLLABORATOR SETUP

None. That is the beauty of Shared Views, the reviewers like customers, suppliers and shop floor technicians are not required to install any software to access, view, measure, zoom and add comments on Shared Views.

PROTECTION

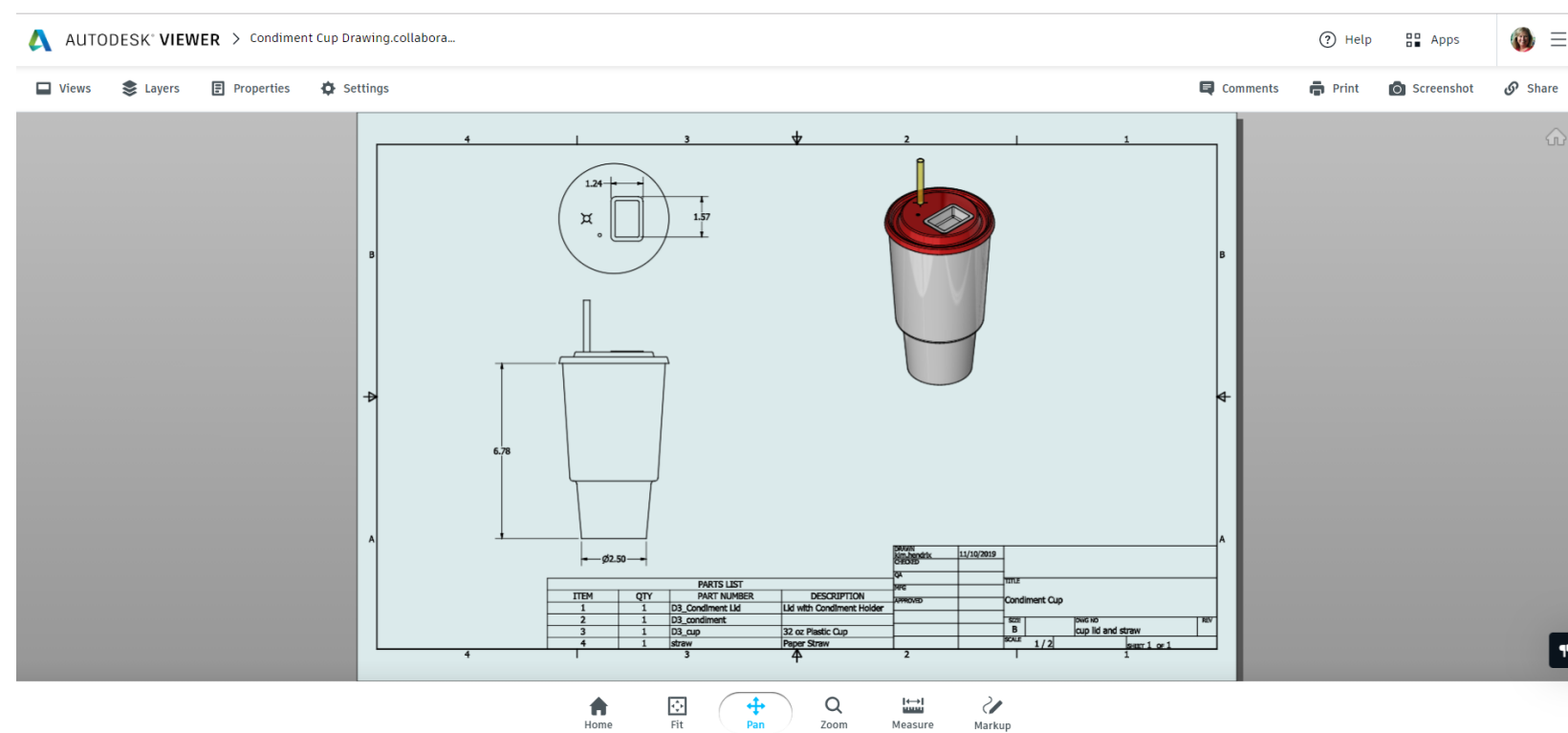
Because Shared Views are high quality representations of the CAD files, drawings & models, and not the actual CAD files, the actual designs or models are always protected. Even if printed, they print like an image, not like a quality drawing.

Shared Views – Live Demo

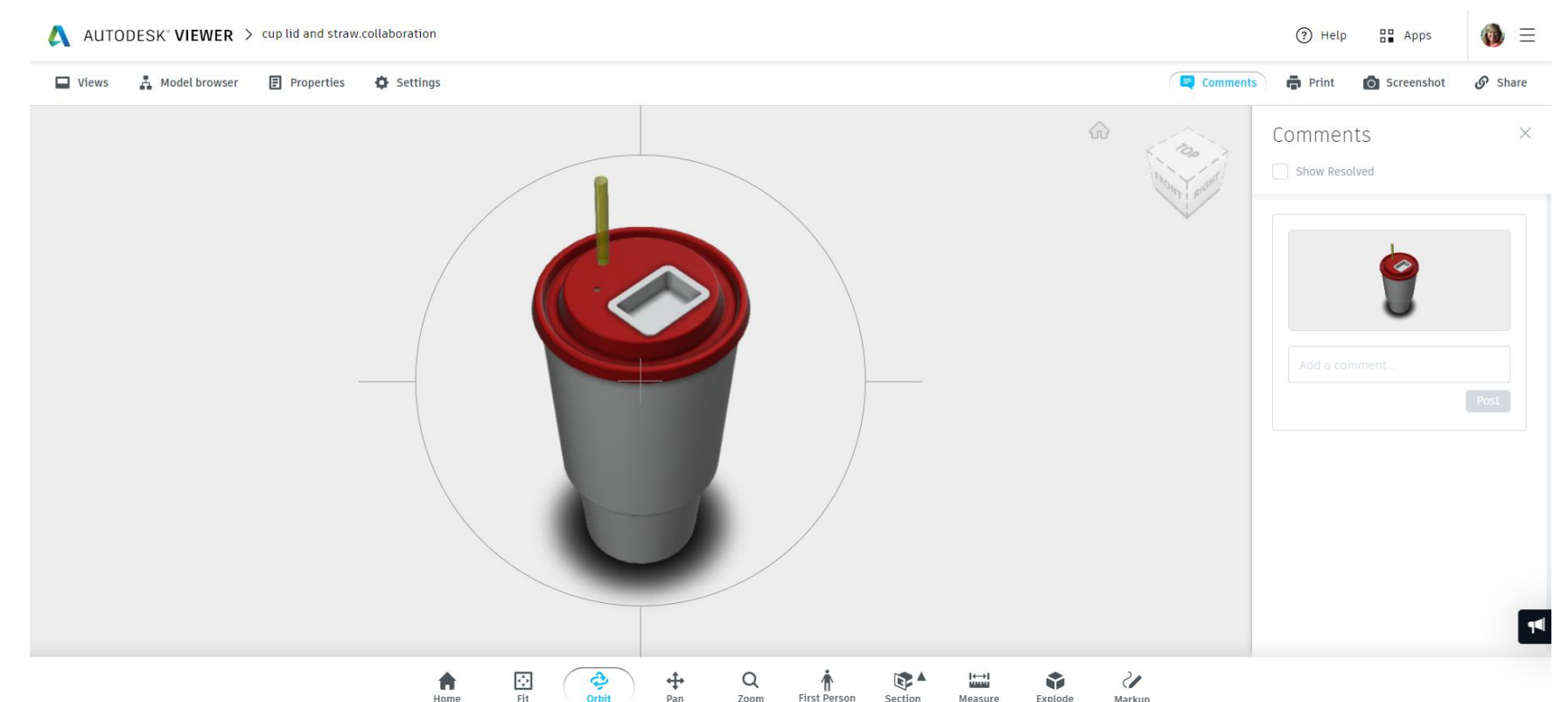
Get out your phones or tablets



<https://autode.sk/2Q4FvnF>



<https://autode.sk/2NTLIQu>

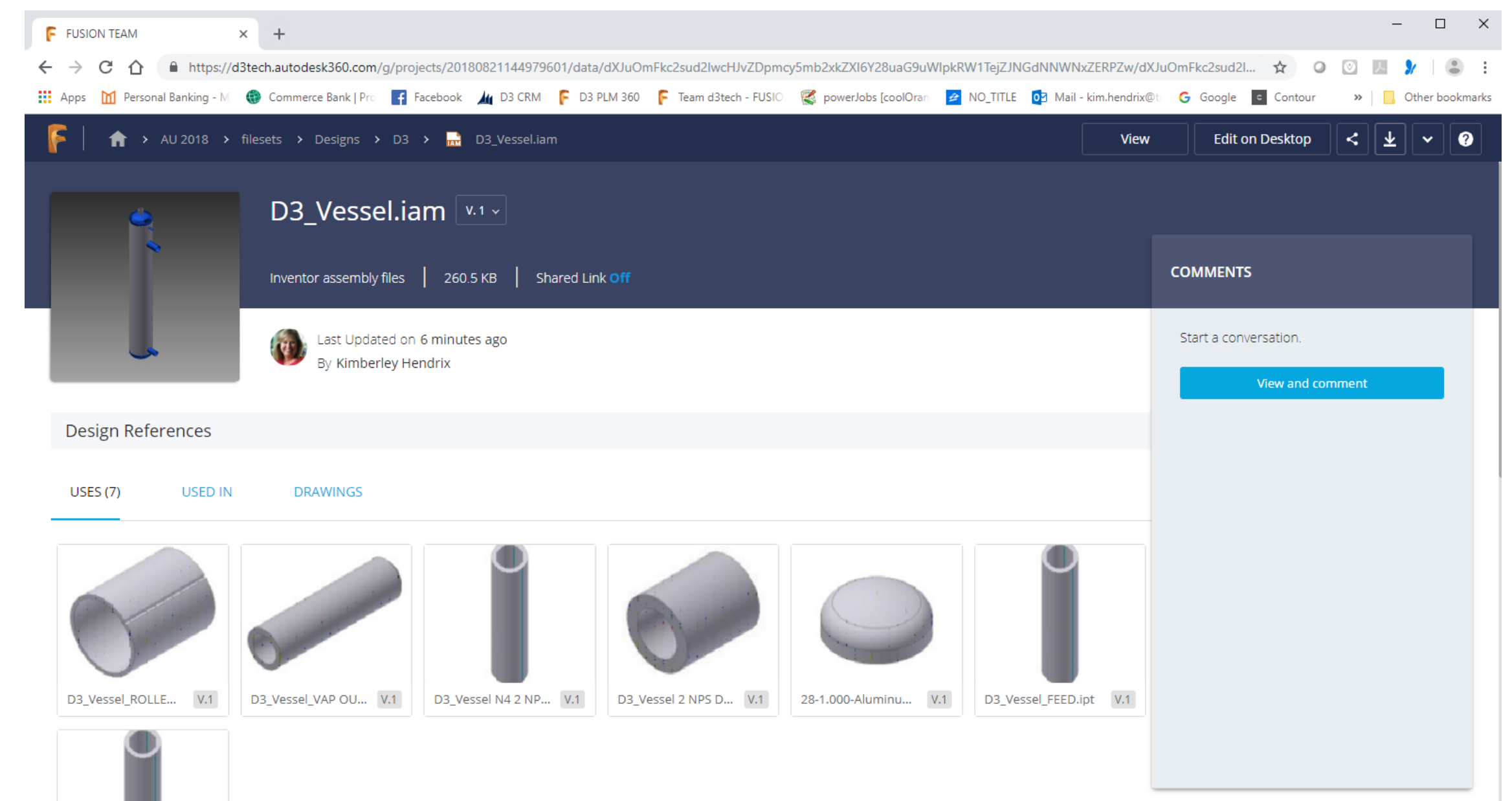
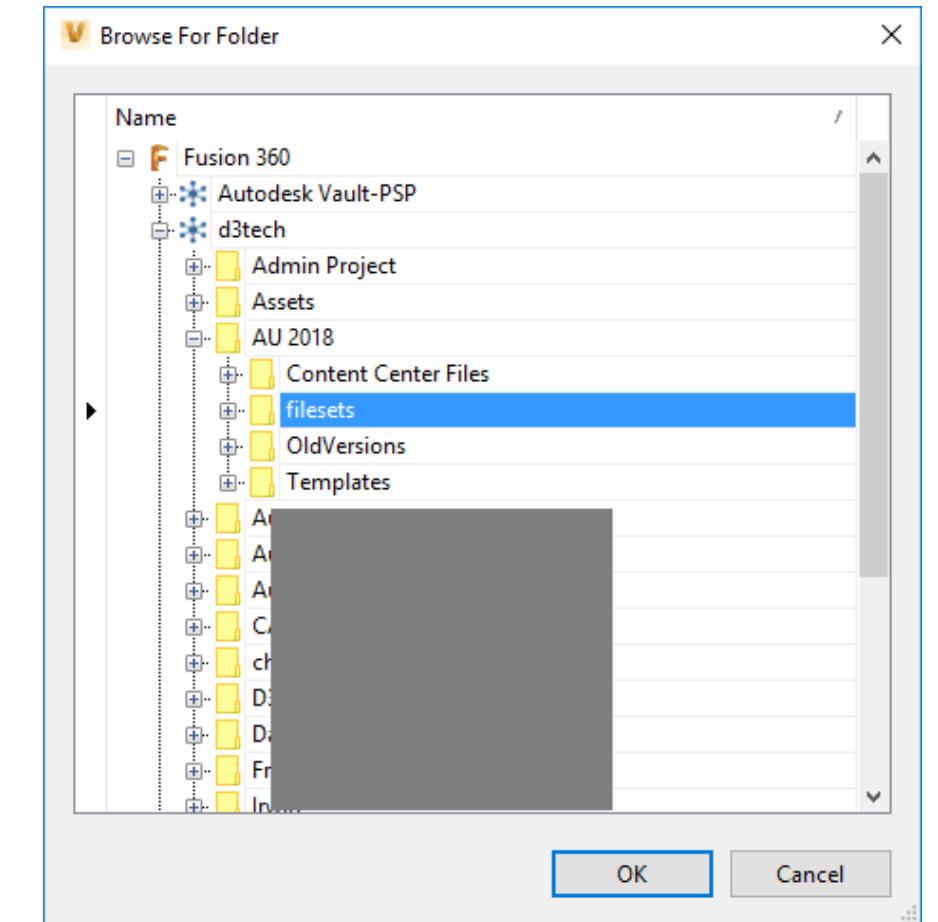
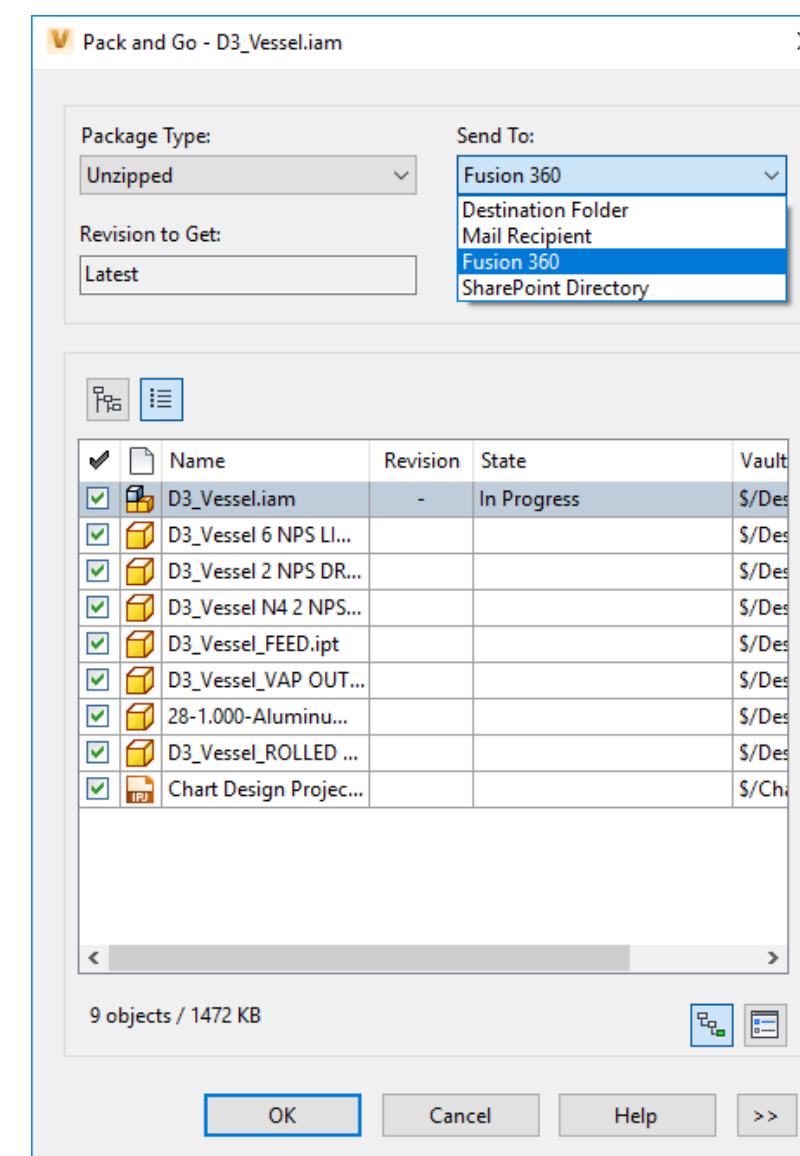


Shared Data



Shared Data - Defined

- Pack & Go capability is extended to deliver native data outside the firewall by integrating Autodesk Drive and Fusion Team which helps engineering team deliver the actual CAD data to external collaborators.



Shared Data Use Cases

TRACK CHANGES OR COMMENTS

Used in cases when you need a way to track and maintain the changes or comments that a collaborator makes, or when the native files are needed for modifications outside of your team. It is a little more robust than Shared Views as it allows for the actual models and drawings to be package natively and uploaded to Autodesk Drive or Fusion Team.

COLLABORATOR

Collaborators can then look at and make comments in the cloud or download the native files to modify and upload. This does not automatically update the files in your Vault but does allow for you to retrieve, review and decide what to re-load.

WHEN TO USE

External Collaborator can now access the design data through Autodesk Drive or Fusion Team user interface and view models instantly. They can also review designs in real time, check the Version of the file, Design References, Uses, Used In, Drawings tabs and download for downstream manufacturing workflows or archive processes.

If they are changes in Vault on the design e.g. a new revision is created, the design engineer simply selects the same assembly and does the Pack & Go command. Vault will Update the Design data in Fusion Team or Drive and creates a new iteration of the design.

Shared Data Demo

LIVE DEMO

`$\Data\TV-Shoe_Stand`

Video for future use on next slide

Autodesk Vault Professional 2020

File Edit View Go Tools Actions Help

New Standard File ... Edit File Datasheet ... TEP Reserve ... powerJobs ... Report... Plot... Find... Share View Download from Cloud Drive Upload to Cloud Drive

Default View Layout Workspace Sync... Change Category... Change State... Change Revision...

Home

KOCH Lid Powertrain Revit Rotor Sachs, RD36-2 Standard Parts SP Steering ST Stirling Engine Suspension Front FS Suspension Rear RS Transmission TR TV-Shoe Stand Designs Engineering folder permissions Hytrol Design Libraries

Mv WorklistECO-000030 (4/27/2017)

Mv ShortcutsLid

Add new group

Home

Project Explorer

B_Fields

Contacts

Drafting Requests

line numbers

RFQ's

10 Object(s) (1 selected)

TV-Shoe St...

Search TV-Shoe Stand

Name	Path	Part Number	State	Lifecycl...	Che...	Revision
File						
8x30 board.ipt	\$/Data/TV-Shoe Stand	8x30 board	Released	Flexible ...		A
8x36 board.ipt	\$/Data/TV-Shoe Stand	8x36 board	Released	Flexible ...		A
backing.ipt	\$/Data/TV-Shoe Stand	backing	Released	Flexible ...		A
brace.ipt	\$/Data/TV-Shoe Stand	brace	Released	Flexible ...		A
rack_side.ipt	\$/Data/TV-Shoe Stand	rack_side	Released	Flexible ...		A
rod.ipt	\$/Data/TV-Shoe Stand	rod	Released	Flexible ...		A
shoe_Rack.iam	\$/Data/TV-Shoe Stand	shoe_Rack				
TV Stand_Shoe Rack.iam	\$/Data/TV-Shoe Stand	TV Stand_Sho...	Work in Progr...	Flexible ...		B
weathered wood plank.ipt	\$/Data/TV-Shoe Stand	weathered w...	Released	Flexible ...		A
weathered wood plank_MIR.ipt	\$/Data/TV-Shoe Stand	weathered w...	Released	Flexible ...		A

History Uses Where Used Change Order Preview Training

Number of versions: 6 (Local = Unknown)

Number of revisions: 3

Show all versions

Thumbnail	File Name	Revision	State (Historical)	Created By	Checked In	Comment
	TV Stand_Shoe Rack...	B	Work in Progress	Administrator	5/31/2018 8:...	Available for edit...
	TV Stand_Shoe Rack...	A	Released	Administrator	5/31/2018 8:...	Released to man...

Properties

TV Stand_Shoe...

System

Category ...	Engineering
Category ...	Engineering
Change Or...	
Checked In	5/31/2018 8:3...
Checked O...	5/31/2018 8:3...
Checked O...	
Checked O...	
Classificati...	None
Comment	Available for ...
Controlled...	False
Created By	Administrator
Current O...	TECHD3-644\...
Date Modi...	5/31/2018 8:3...
Date Versi...	5/31/2018 8:3...
File Extens...	iam
File Name	TV Stand_Sho...
File Name ...	TV Stand_Sho...
File Replic...	True
File Size	203776
Has Drawi...	False
Hidden	False
iLogicRule...	
Initial App...	Administrator
Initial Rel...	5/31/2018 8:3...
Item Assig...	True
Latest Rel...	False
Latest Vers...	True
Leased Un...	6/29/2018 10:...
Lifecycle ...	Flexible Rele...
Lifecycle ...	Flexible Rele...
Linked to I...	False
Name	TV Stand_Sho...

Shared Views

Condiment Cup Drawing.coll...

cup lid and straw.collaborati...

localhost BAC Mono d3tech

F

D3 Technologies

AU 2018

Home

> AU 2018

> Data

> TV-Shoe Stand

Content

Wiki Pages

Name

Owner

Trash

IPT

8x30 board.ipt

IPT

8x36 board.ipt

IAM

TV Stand_Shoe Rack.iam

IPT

backing.ipt

IPT

brace.ipt

IPT

weathered wood plank.ipt

IPT

weathered wood plank_MIR.ipt

d3tech.autodesk360.com/g/projects/20180821144979601/data/dXJuOmFkc2sud2lwcHJvZDpncmcy5mb2xkZXI6...

Apps

Personal Banking -...

Commerce Bank | P...

Facebook

D3 Travel Site

D3 CRM

D3 PLM 360

Team d3tech - FUSI...

Overview

Edit on

Desktop

V. 1

TV Stand_Shoe Rack.iam

Hand

Move

Rotate

Zoom

Reset

Isolate

Unhide

Lock

Unlock

Print

Settings

Fullscreen

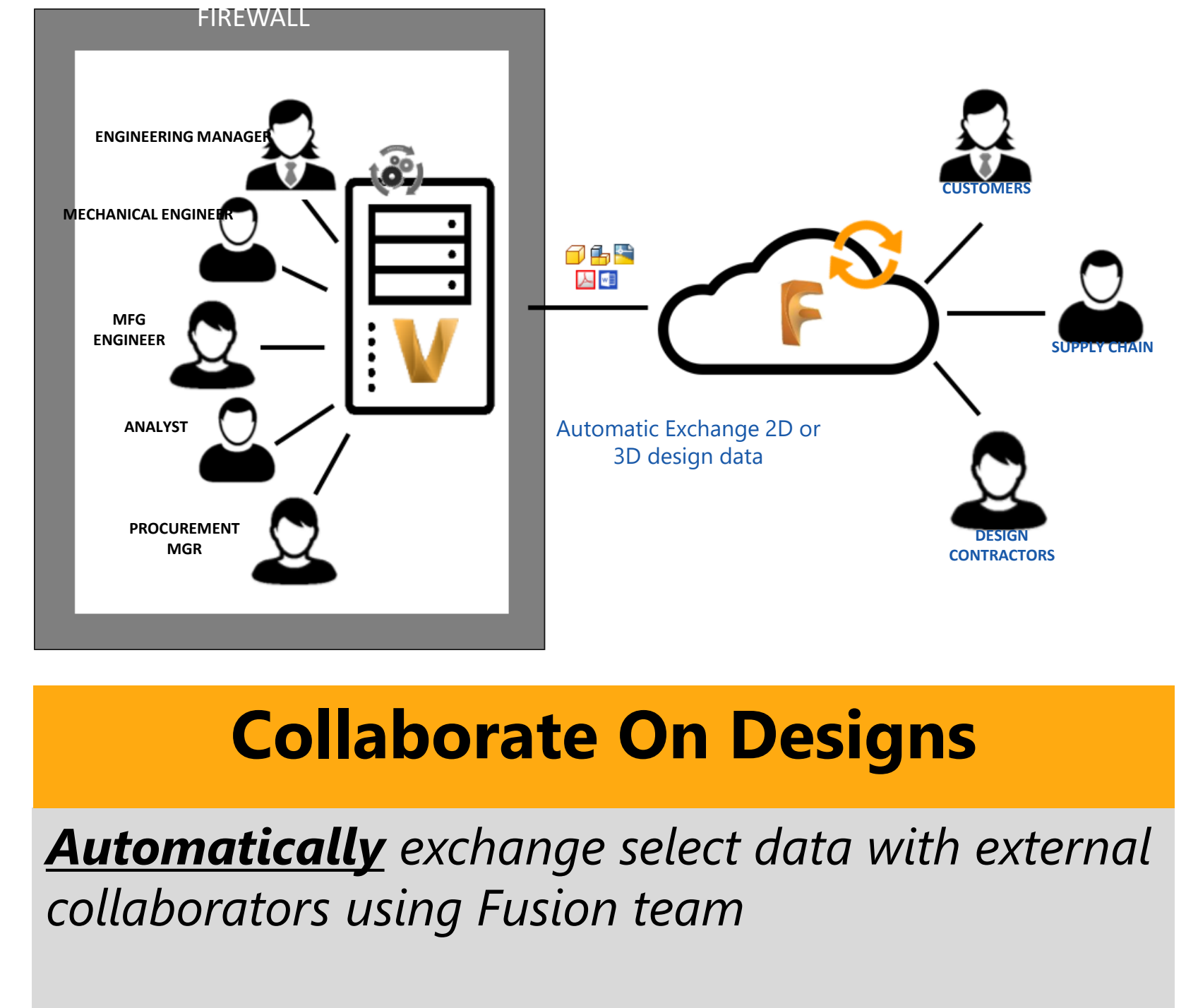
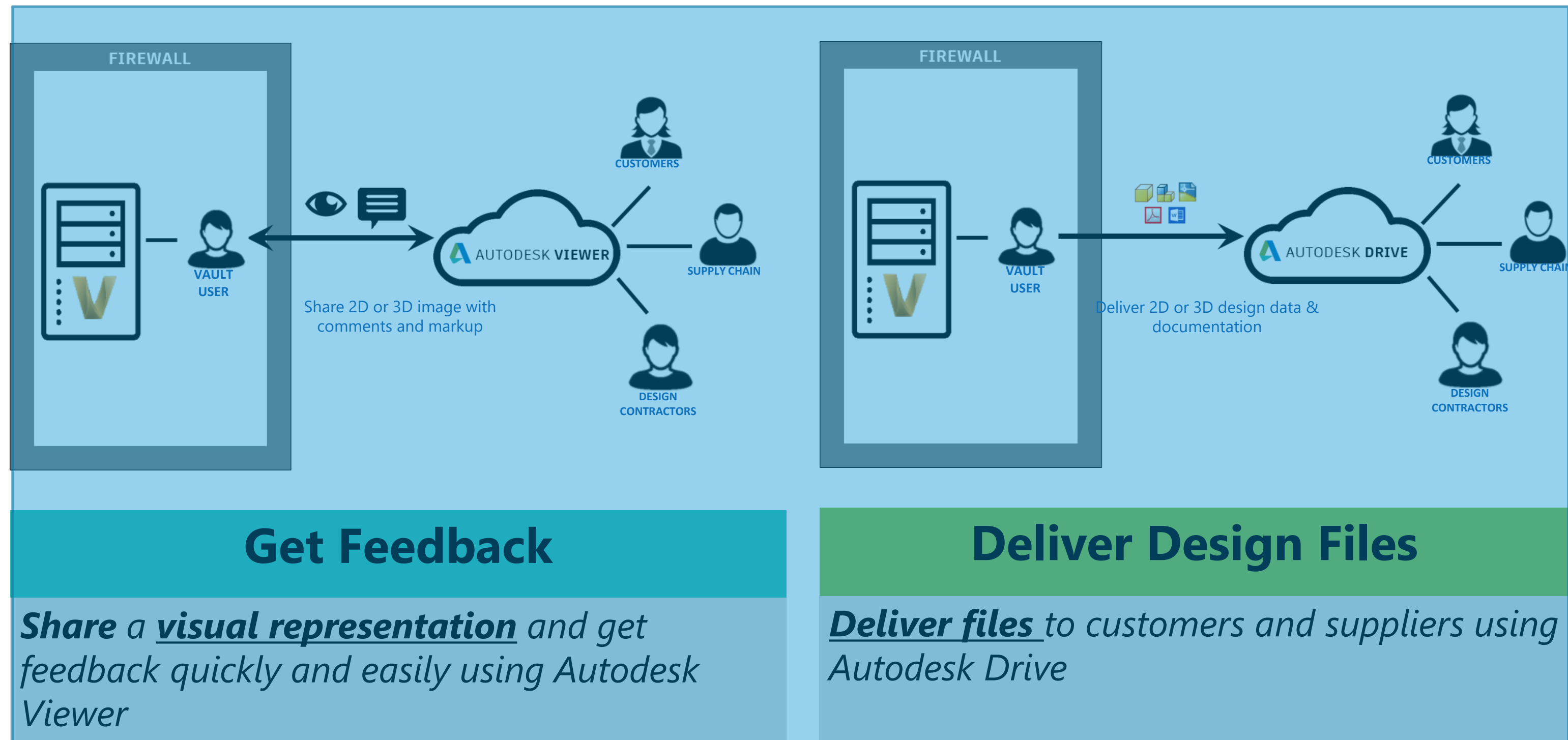
Data in BIM360

[Link to Data in Fusion Team](#)

Shared Data Issues, thoughts

- If you are using Inventor Assemblies – the parent child relationship is not respected in BIM 360
- Fusion Team does respect parent child for Inventor

External Collaboration

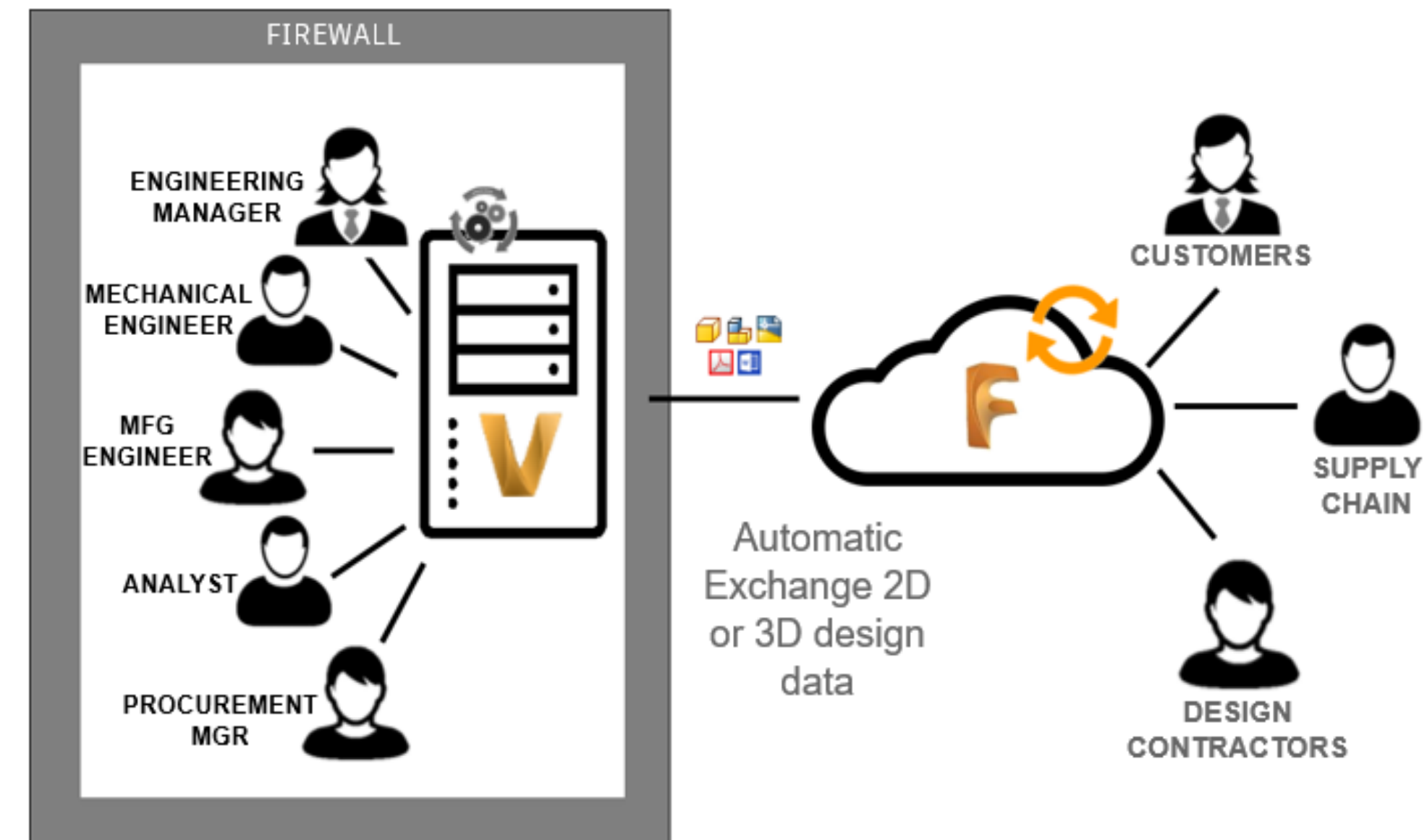


Project Sync



Project Sync- Defined

- The Project Sync feature provides file and folder synchronization between Vault and supported Autodesk cloud drives
- This capability enables Vault users to either automatically or manually synchronize files from a folder in Vault with a folder in a cloud drive. The synchronization can be configured to work in either direction or both directions providing simple and reliable two-way communications between project team members.



Collaboration on Designs – Challenges

- Design Engineers need an easy and **triggered** way to share project related **up-to-date released** design files with their outside suppliers or customers for consumption. This is required to be triggered and not based on the user interaction.
- User would like to outsource some CAD files and their references to another company so that they can **clean up** the assemblies, **create the drawings** and get them back to Vault **without any loss of CAD references**. This enables round trip design work.
- The last use case is when a customer would like to contract external firms with **design tasks for sub assembly** due to time constraints, leveraging available **up-to-date templates and standard components** managed in Vault



Suppliers



Customers



Design
Contractors

Project Sync Demo

File Edit View Go Tools Actions Help



Inventor Files

N09-02875.iam

N09-02875-01.ipt

N09-02875-02.ipt

N09-05220.ipt

N19-1128

N19-30184.Route...

N19-30184.Route...

N19-30184.Run0...

N19-30184.Run0...

N19-30184

History Uses Where Used Change Order Preview

Latest Work in Progress

FileName	Revision	Status (Historisch)	Erstellt von	Eingeche
PK400_05_07.ipt	A	Work in Progress	Administrator	21.09.20
T7DS-00M0.iam	A	In Review	Administrator	21.09.20
N19-30184.Tube and ...	A	Work in Progress	Administrator	21.09.20
N19-00506.iam	A	Released	Administrator	21.09.2017

110 Object(s) (1 selected)

Vault Settings

Files Visualization Behaviors Items Change Orders Collaborate Custom

Options

☐ Enforce Unique File Names

☐ Disable Check In of Design Files

Find Duplicates

Working Folder

Define Working Folder Options

Define...

PDF Options

Configure PDF Publishing Options

Options...

Close Help

Search Inventor Files

N19-30184.Route...

N19-30184.Route...

PIPE_N07-04140.i...

PIPE_N07-04155.i...

Shared Views

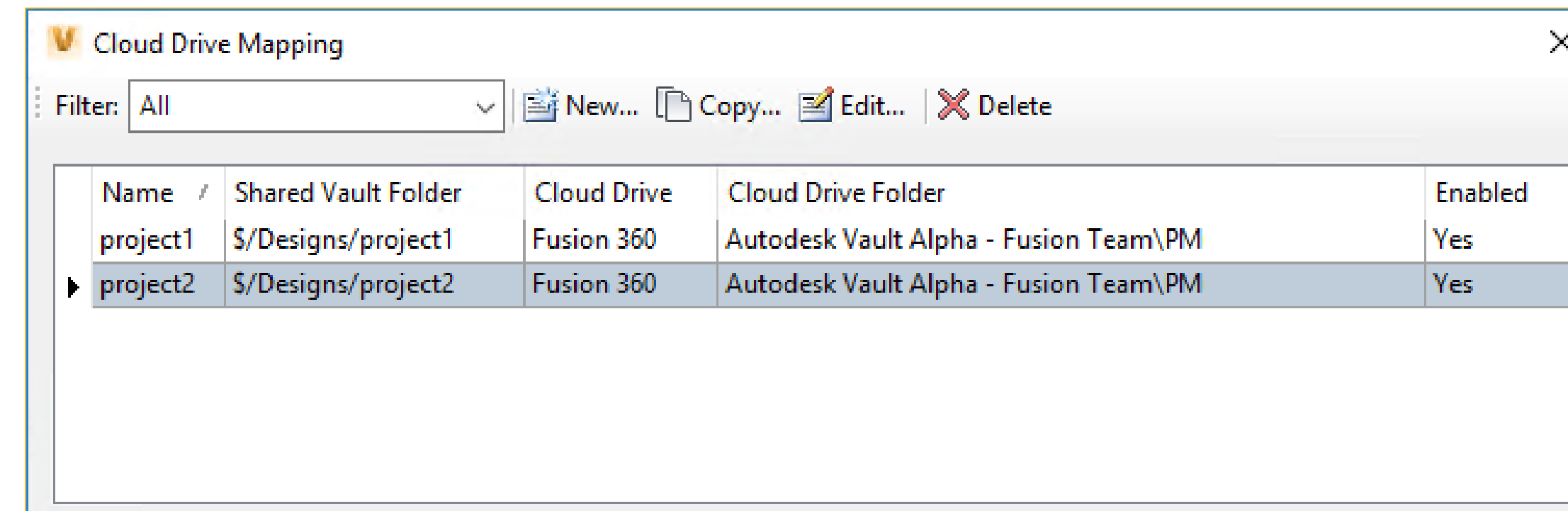
Von: Erstellungsdat

GX620-Dip_Stick.collaboration
Erstellt am 5. Februar 2018
Läuft ab in 8 Tage

GX620 Housing.collaboration
Erstellt am 5. Februar 2018
Läuft ab in 8 Tage

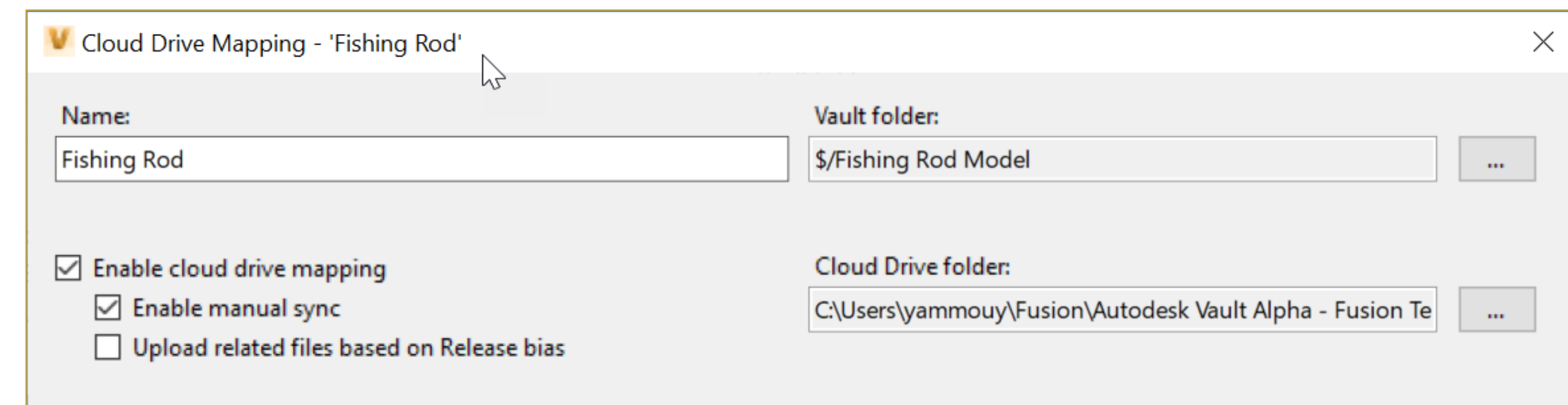
Selectively Exchange of CAD documents

- **Cloud Drive Mapping** delivers the flexibility to exchange with each collaborator the relevant projects design data
- „**Enable Manual Sync**“ option to trigger sync based on processes
- CAD aware and Upload related files based on Release bias
- Collect all **project links** supports customers to exchange project relevant design data independent from where the files reside
- **Disable Cloud drive mapping** after project completion



The screenshot shows the 'Cloud Drive Mapping' window with a table listing two projects. The table has five columns: Name, Shared Vault Folder, Cloud Drive, Cloud Drive Folder, and Enabled. Project 1 and Project 2 are both mapped to Fusion 360 and have manual sync enabled.

Name	Shared Vault Folder	Cloud Drive	Cloud Drive Folder	Enabled
project1	\$/Designs/project1	Fusion 360	Autodesk Vault Alpha - Fusion Team\PM	Yes
project2	\$/Designs/project2	Fusion 360	Autodesk Vault Alpha - Fusion Team\PM	Yes



The screenshot shows the configuration window for 'Fishing Rod'. It includes fields for Name, Vault folder, and Cloud Drive folder. There are checkboxes for 'Enable cloud drive mapping', 'Enable manual sync', and 'Upload related files based on Release bias'.

Name: Fishing Rod

Vault folder: \$/Fishing Rod Model

Cloud Drive folder: C:\Users\yammouy\Fusion\Autodesk Vault Alpha - Fusion Te

☒ Enable cloud drive mapping

☒ Enable manual sync

☐ Upload related files based on Release bias

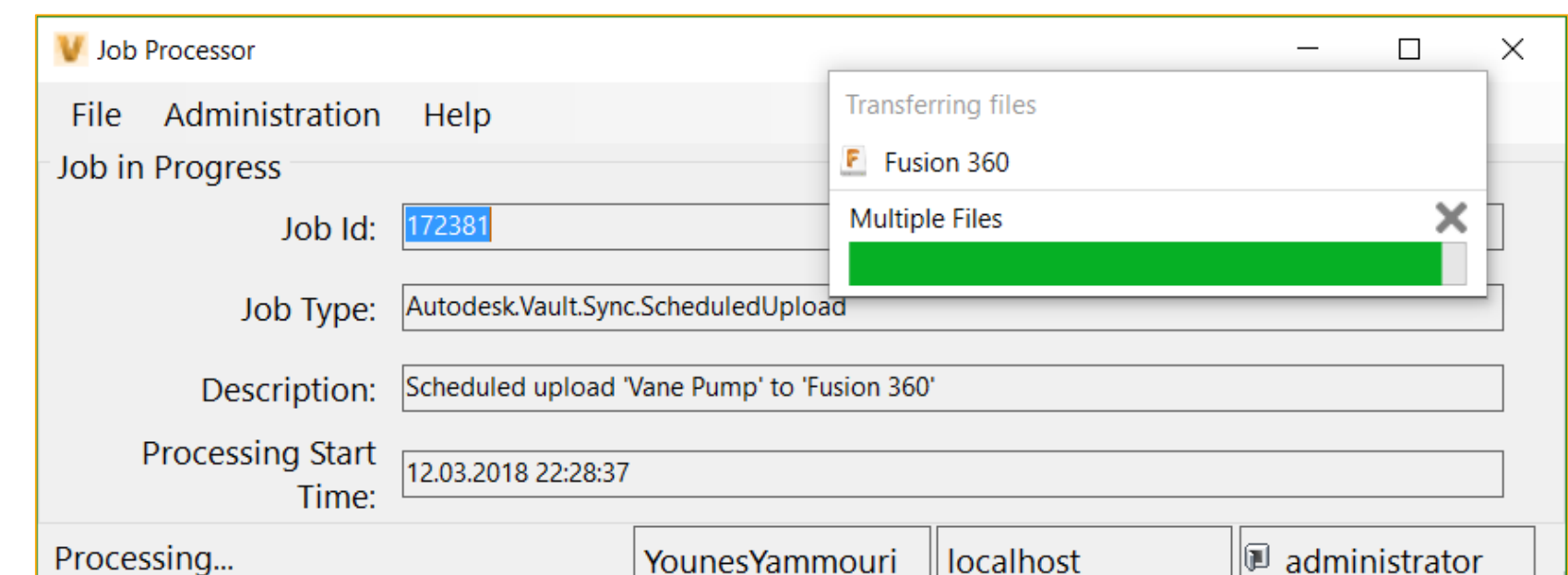
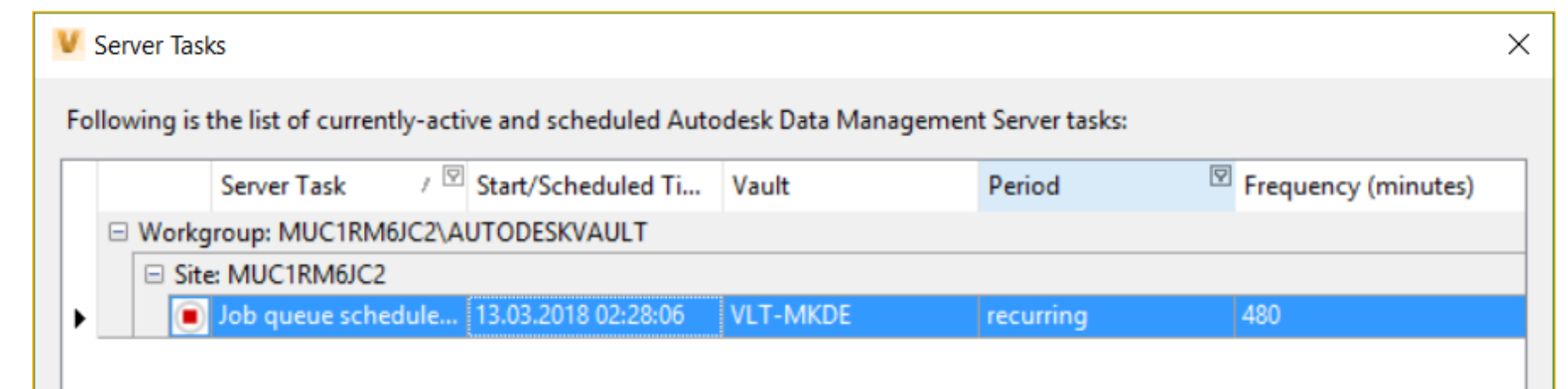
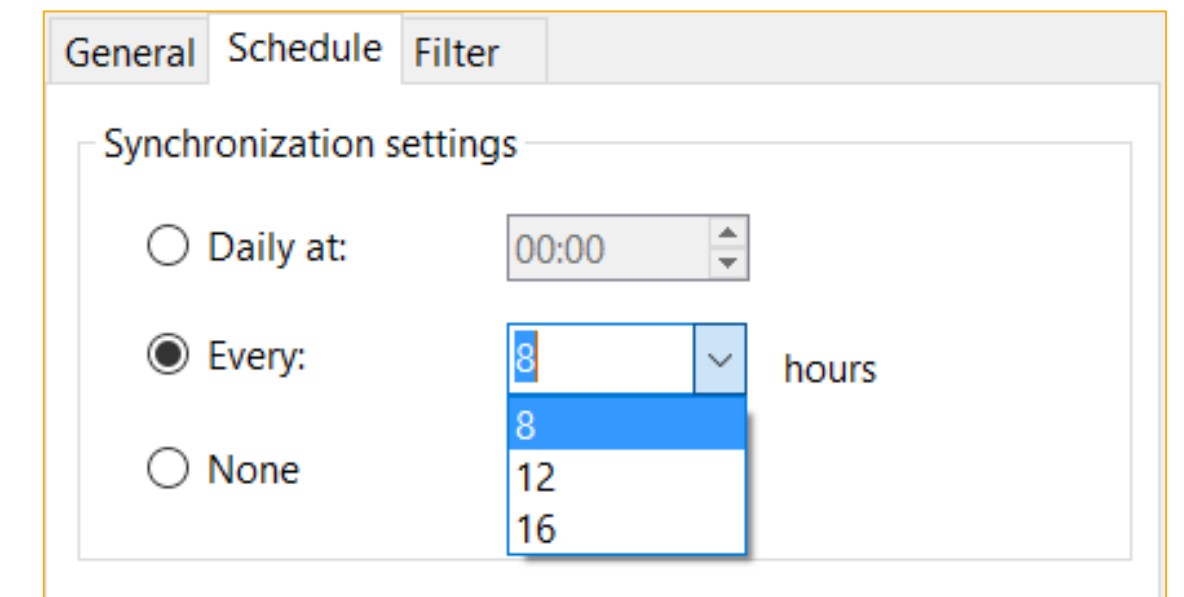
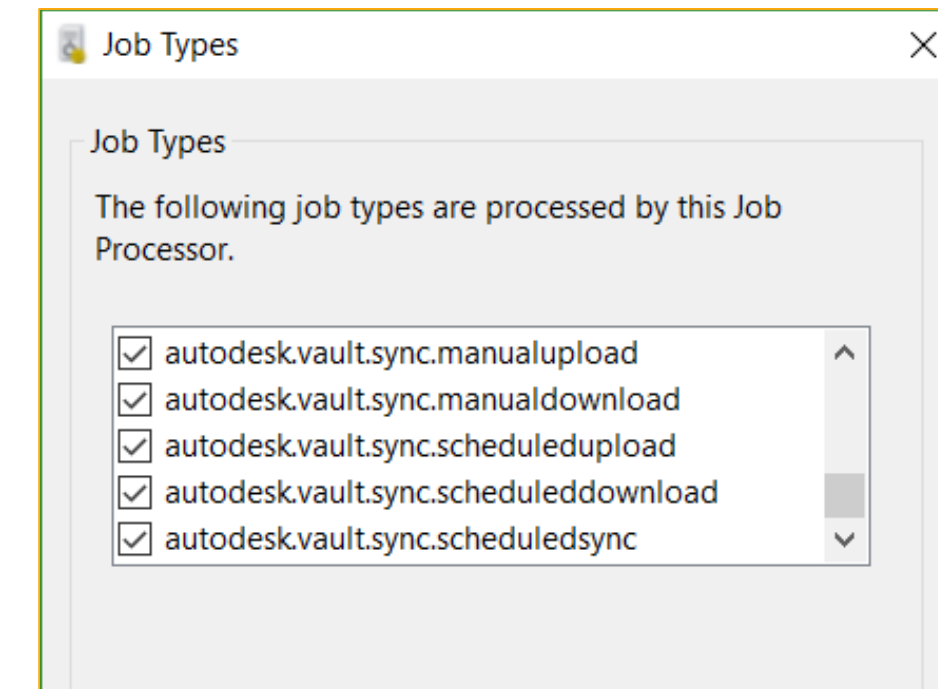
Selectively Exchange of CAD documents

- 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 managing CAD document synchronization. The top-left screenshot shows the 'General' tab with a 'Select folder:' field set to '\$/Designs' and three radio button options for 'Action': 'Upload to cloud drive' (selected), 'Download from cloud drive', and 'Bi-directional sync'. A checkbox 'Apply selected action to subfolders' is checked. The top-right screenshot shows the 'Schedule' tab with 'Synchronization settings' including 'Daily at: 00:00', 'Every: 8 hours' (with a dropdown menu open showing options 8, 12, and 16), and 'None'. The bottom screenshot shows the 'Filter' tab with 'Property:' set to 'Project' and 'Condition:' set to 'contains'. Below these are 'Add', 'Replace', and 'Remove' buttons. A text area lists criteria: 'State contains Released' and 'Project contains Vane Pump'. A 'Preview...' button is at the bottom right.

Selectively Exchange of CAD documents

- 5 new 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 machine to configure the mapping



Autodesk Drive Fusion Team BIM 360



Differences

- BIM 360 Docs
 - Customer base in the AEC
 - Is required when you use Collaboration for Revit (BIM 360 Build)
 - Now needs a license for project contributors
- Fusion Team
 - Customer base in MFG
 - Can be used for working in Fusion 360
 - Is required for Fusion 360 <> Inventor AnyCAD workflows.
- Autodesk Drive
 - Personal space

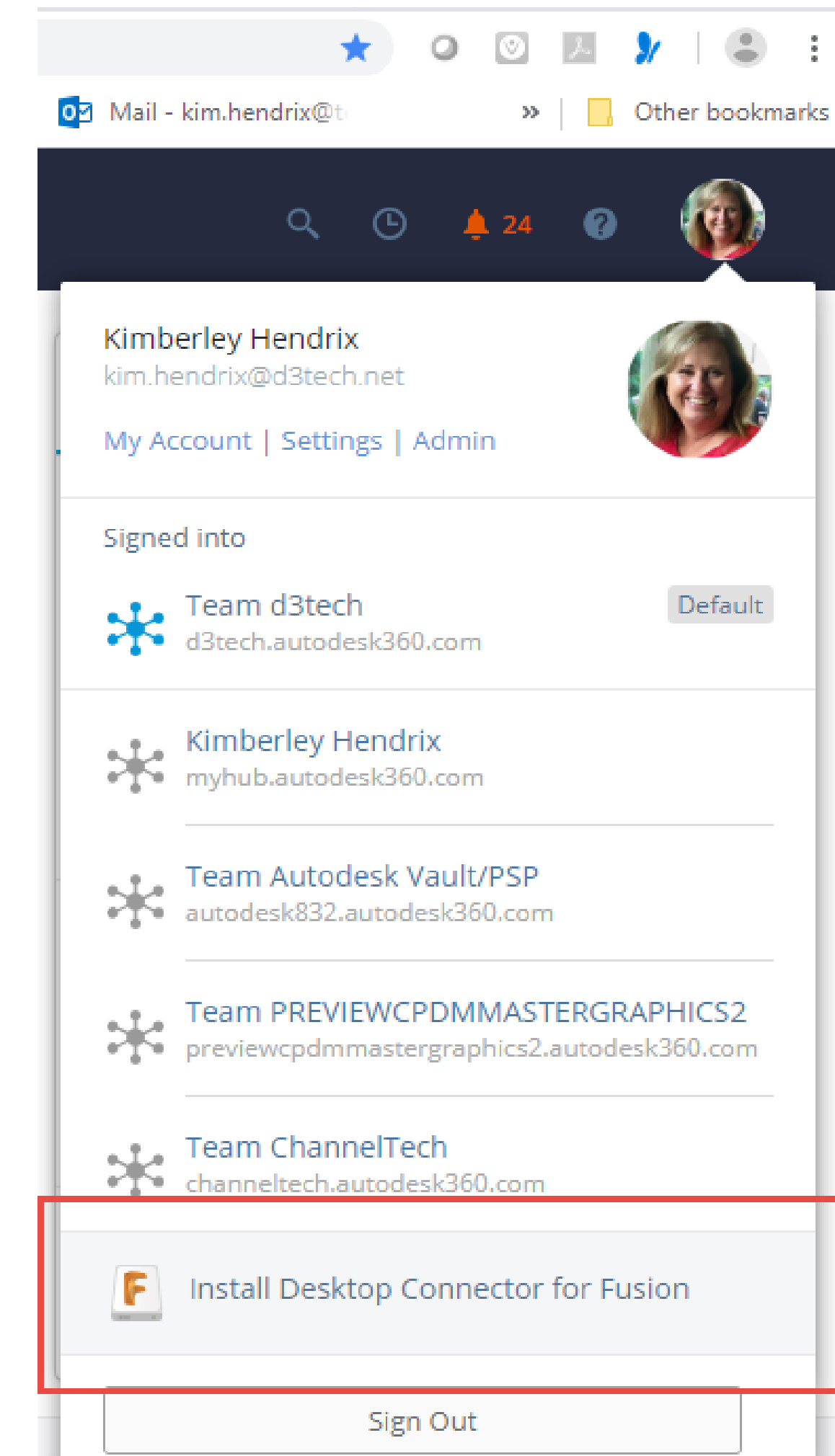
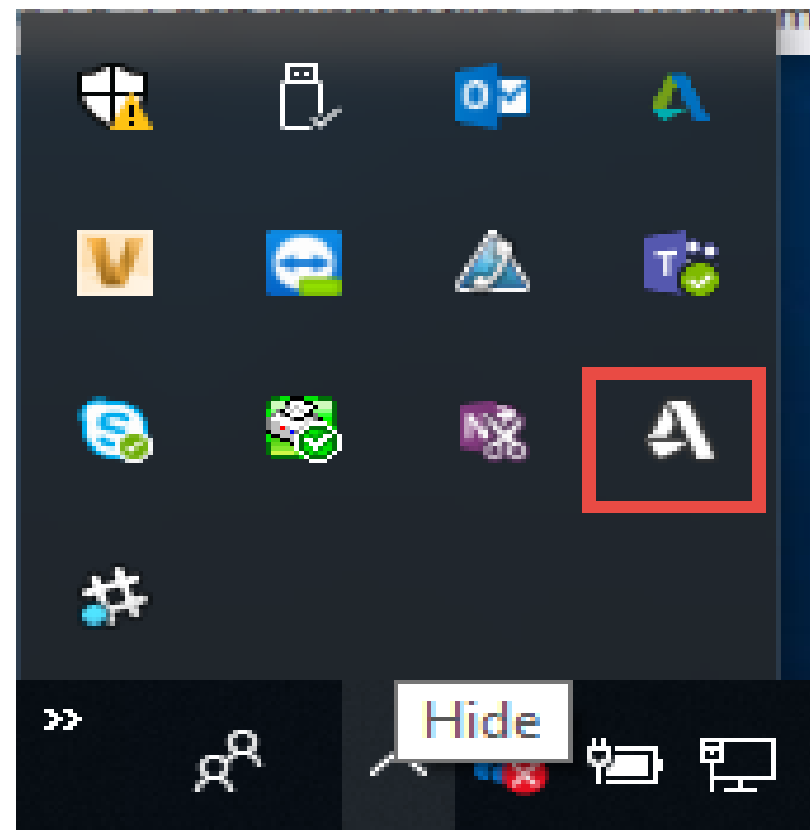
All 3 can be published to via the Autodesk Desktop Connector, manually, or via Vault Sync tools

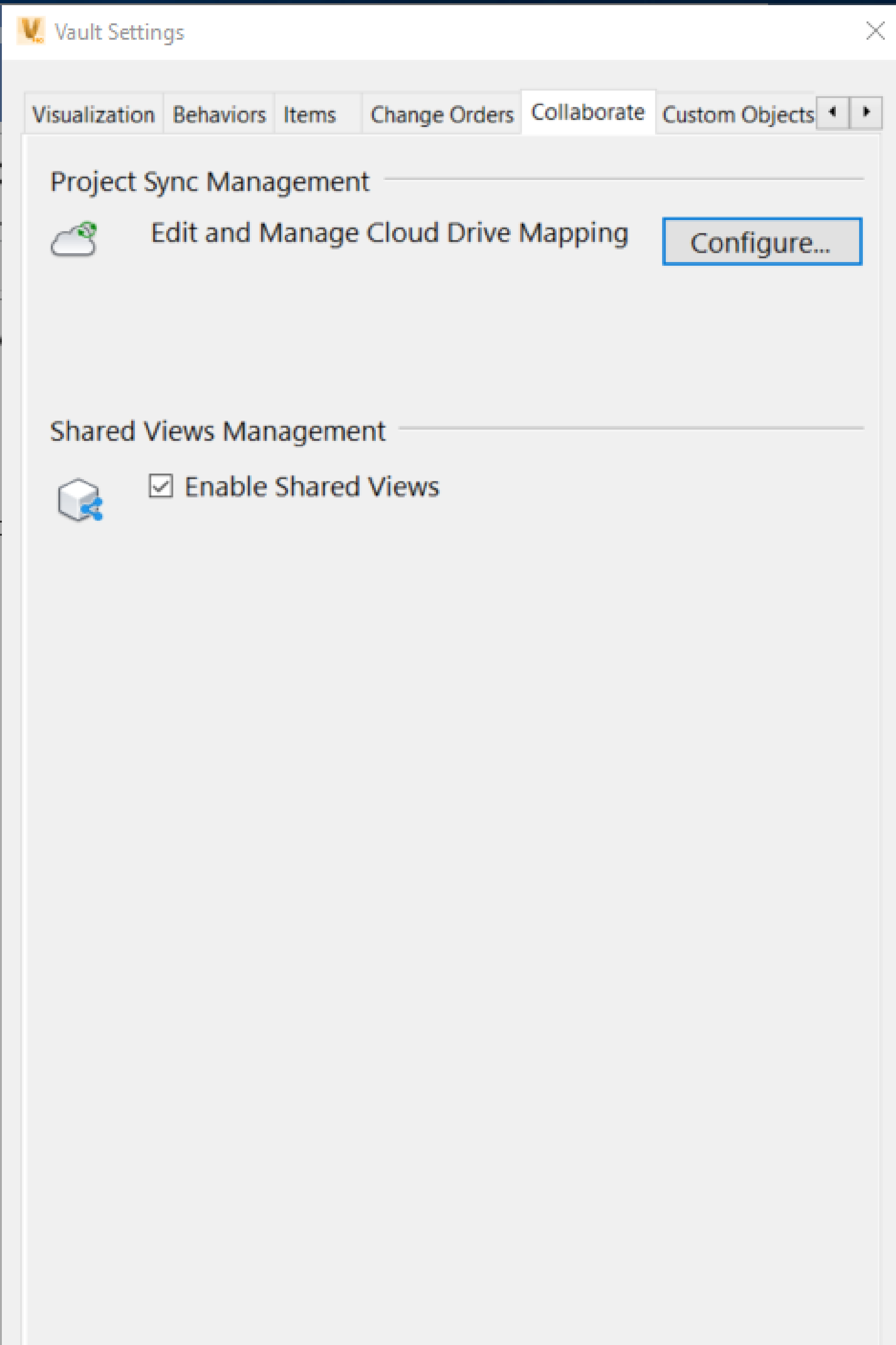
Configuration



Autodesk Desktop Connector

- Is required to sync files using Shared Views or Project Sync. It can be downloaded from Autodesk and runs in the system tray
- <https://www.autodesk.com/vignette-connect-toast-enu>.
- It can also be installed from your Fusion Team page as shown

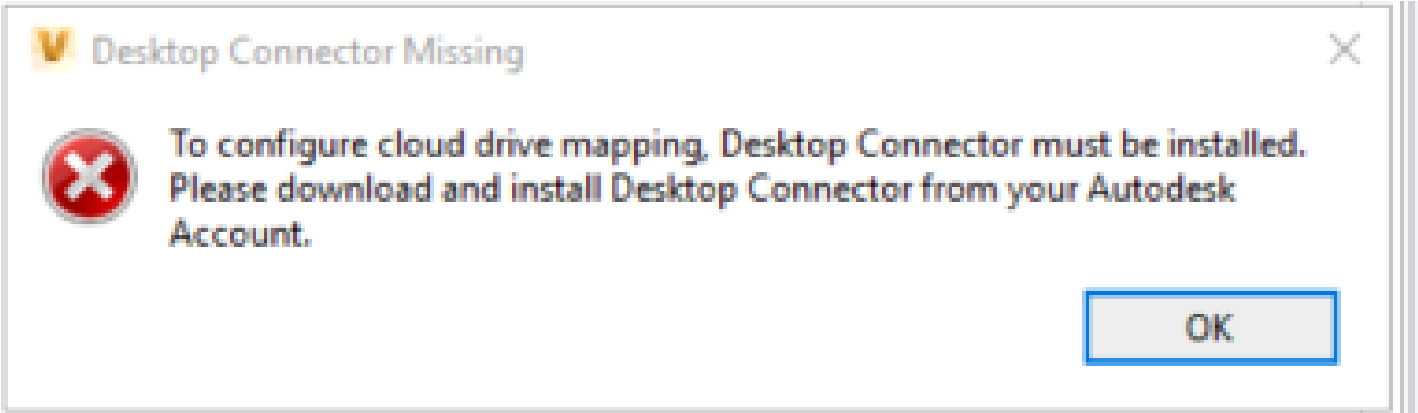




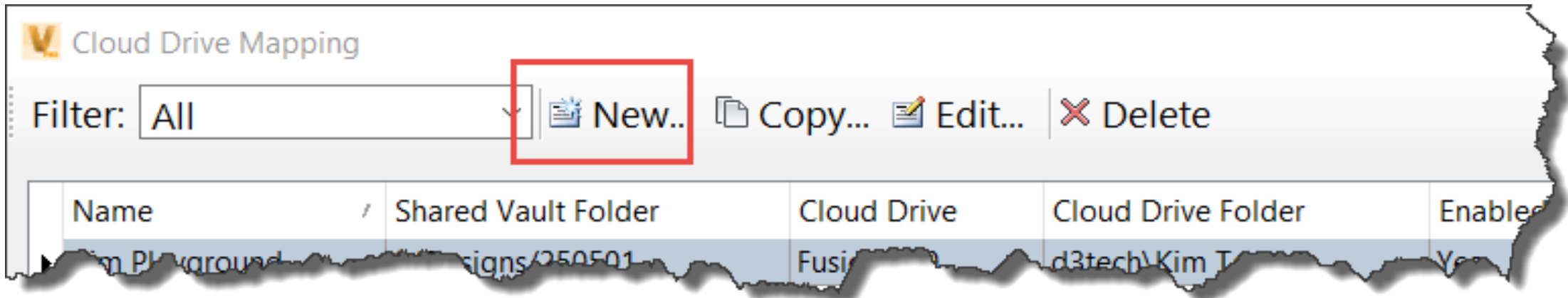
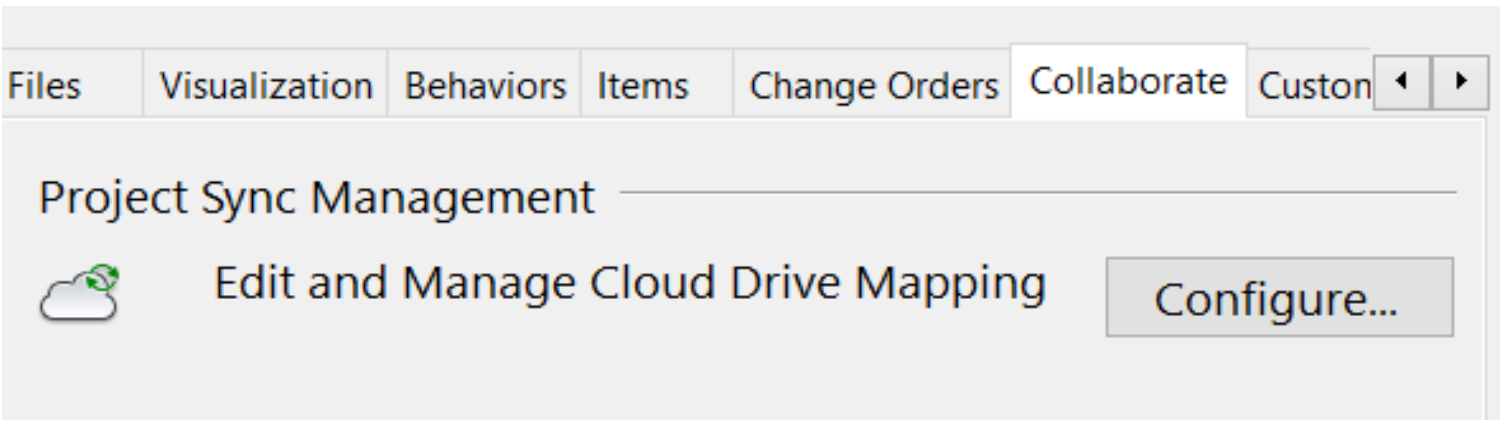
Collaboration Settings

- From the Vault Client select
- Tools > Administration > Vault Settings > Collaborate (tab)
- Enable Shared Views with the check box
- Select the Configure button to map Cloud Drives

Mapping Cloud Drives



Autodesk Desktop Connector must be installed to configure mappings



Mapping Cloud Drives

Cloud Drive Mapping - 'New Definition'

Name: Vault folder:

☒ Enable cloud drive mapping

☒ Enable manual sync

☐ Upload related files based on Release bias

Cloud Drive folder:

Schedule Folder Sync

Sync Folder:

Folder Path	Scheduled	Action
\$/Designs/AU 2018	No	Bi-directional Sync

Define Folder Sync

Select folder:

Action

☐ Upload to cloud drive

☐ Download from cloud drive

☒ Bi-directional sync

☒ Apply selected action to subfolders

OK Cancel Help

General Schedule Filter

Select folder:

Action

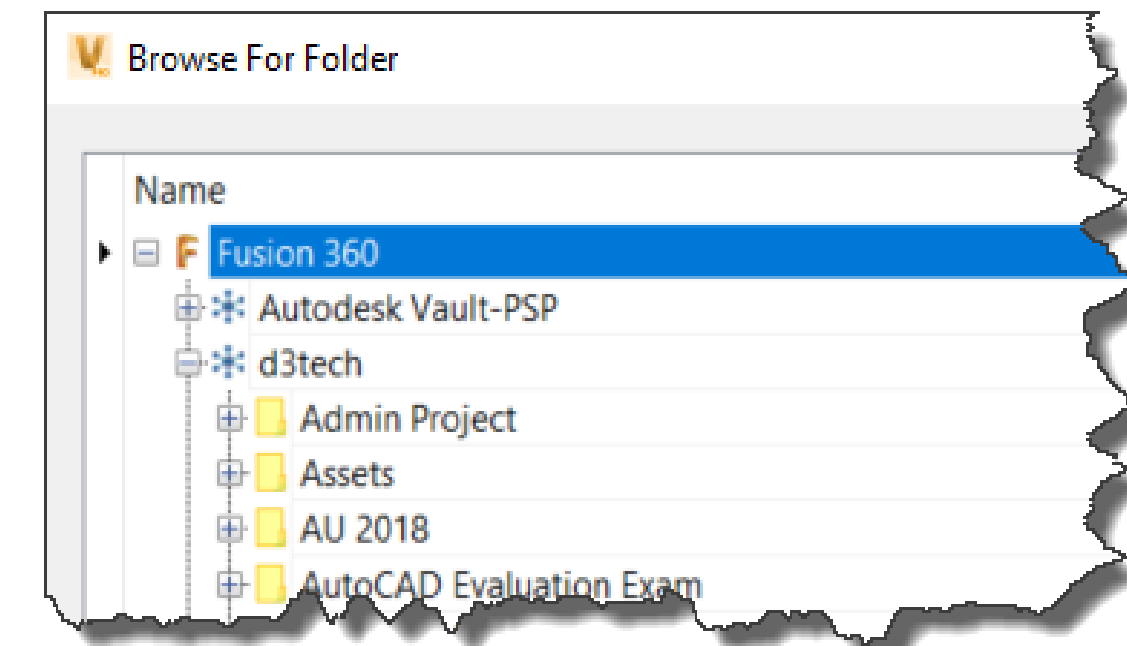
☐ Upload to cloud drive

☐ Download from cloud drive

☒ Bi-directional sync

☒ Apply selected action to subfolders

OK Cancel Apply Help



General Schedule Filter

Synchronization settings

☒ Daily at:

☐ Every: hours

☐ None

General Schedule Filter

Property: Condition: Value:

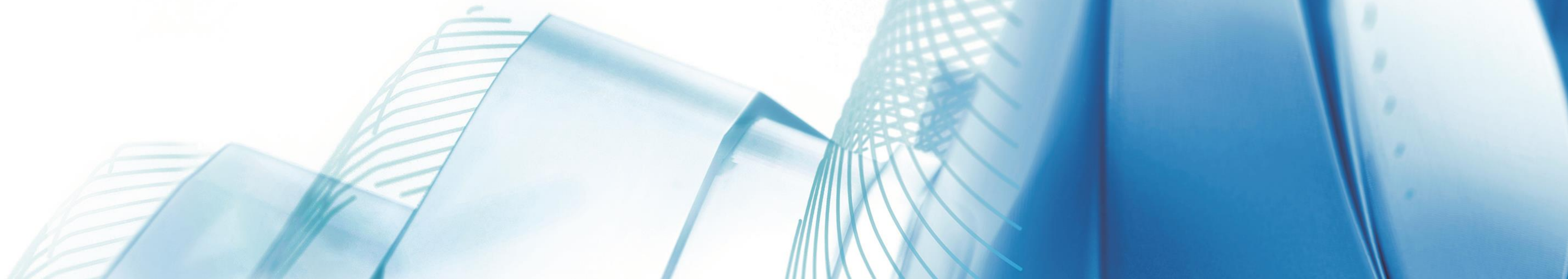
State contains

Add Replace Remove

Upload files that match these criteria:

State contains Released

Questions?



15 minutes for a chance at some Autodesk Bling and a \$200 Amazon gift card?



Take the Data
Management/Collaboration Survey

Just follow this link!

<https://www.surveymonkey.com/r/AU2019CollabSurvey>

Don't forget to include your name
and contact information for a chance
to win**

Drawing will be held at 2:00 PT on Thursday, November 21st

**Must pick up prize in person (more info in the survey)

***Autodesk employees, Autodesk Partners (Resellers, SI's, ADN, etc.) are not eligible





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