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Utilize Vault & Cloud to address Your Collaboration Challenges Title

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Learning Objectives

- How to better collaborate with your customers
- Explore new ways to share data with your manufacturing suppliers
- Learn how to set up your environment to be ready for collaboration with customers and manufacturing suppliers

Description

Collaboration with customers and partners is increasingly critical for many businesses. Engineering teams need to collect feedback from customers early in the development cycle and work with partners to outsource manufacturing or other processes. In this class, we'll look at how you can rely on Vault data management software to manage your engineering data and processes together with the cloud for collaboration with outside customers and partners.

Speaker

Younes Yammouri has been with Autodesk since March 2005 and currently a Vault product manager. He spent the last 17 years absorbing and applying product data management technology as technical support, quality assurance engineer, product designer, and product manager.

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Contents

Introduction

Collaboration with customers and partners is increasingly critical for many businesses. This class will give an overview of the Vault Shared View capability to collaborate with customers as well as design data sharing capability to facilitate work with partners to outsource manufacturing workflows as well as other processes.

Simplify and Speed up review cycle with external stakeholders

Understanding the Challenge

For years, native CAD file and published pdf file sharing, has been the only answer to the collaboration challenges design engineer has been facing to get feedback on their work from stakeholders like clients, suppliers, shopfloor, or even team members.

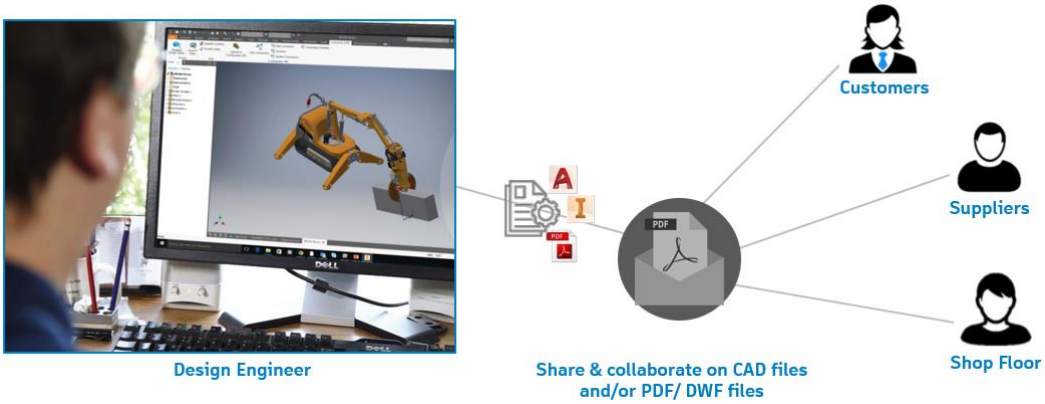

Figure 1: Current Challenges

Shared Views Capability & Workflow

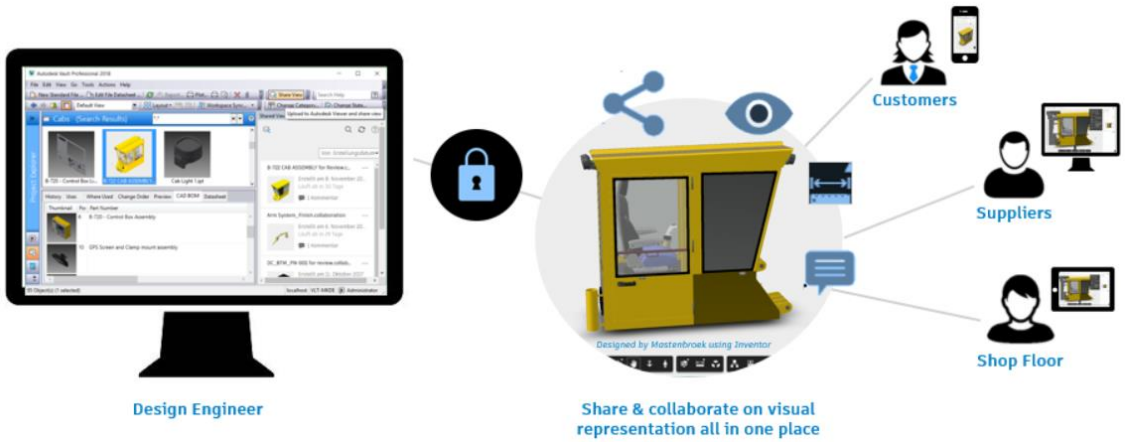

Figure 2: Shared Views Overview

The Shared Views capability is huge step forward to simplify and speed up review cycles. Using Shared Views, design engineers can collaborate with anyone, and receive comments and feedback directly inside Vault. Because shared views are visual representations, your designs or models are always protected, while collaborator can view, measure, zoom in and comments on those representations.

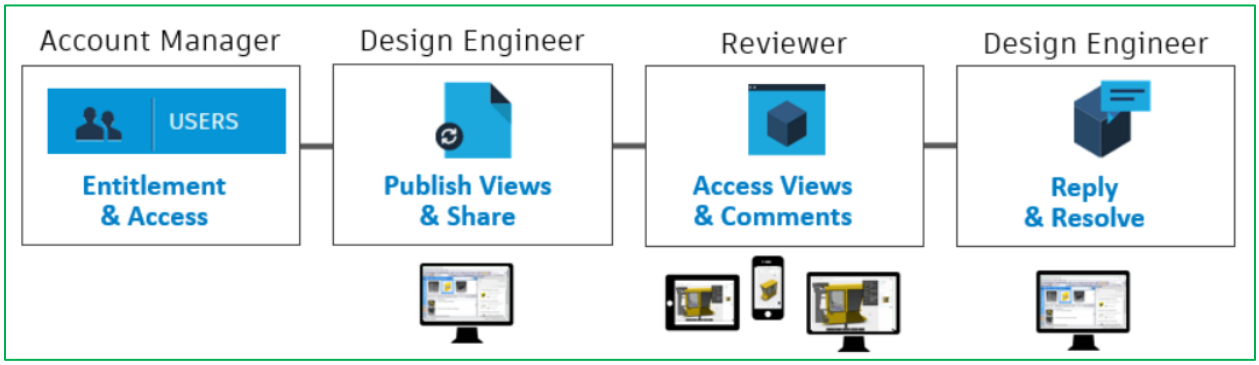

Figure 3: Shared View Workflow

Shared Views – Services Entitlement & Access

The administrator is the main point of contact on an Autodesk subscription contract.

Administrators on subscription contracts can add or remove Shared Views service to users within the user management tools on the account portal.

More details on how to assign service to users can be found here:

https://knowledge.autodesk.com/customer-service/account-management/subscription-management/users-permissions/set-user-permissions-new-view

Login into the account portal with your administrator credentials and assign Shared Views to the corresponding users who should have access to it.

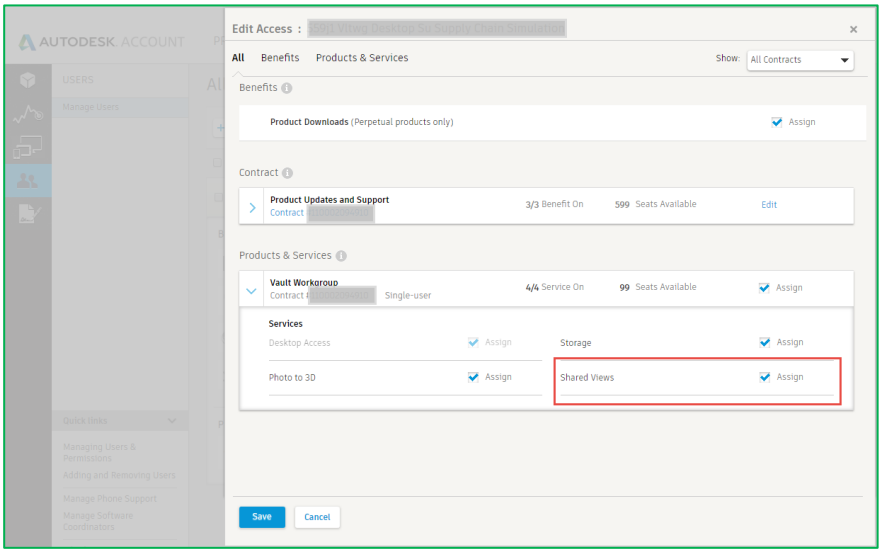

Figure 4: Shared Views User Assignment in Account Portal

Publish Shared Views

The first thing you will recognize in the Vault user interface is the new Shared View command within the toolbar. Design engineer selects the file and click the Shared View command.

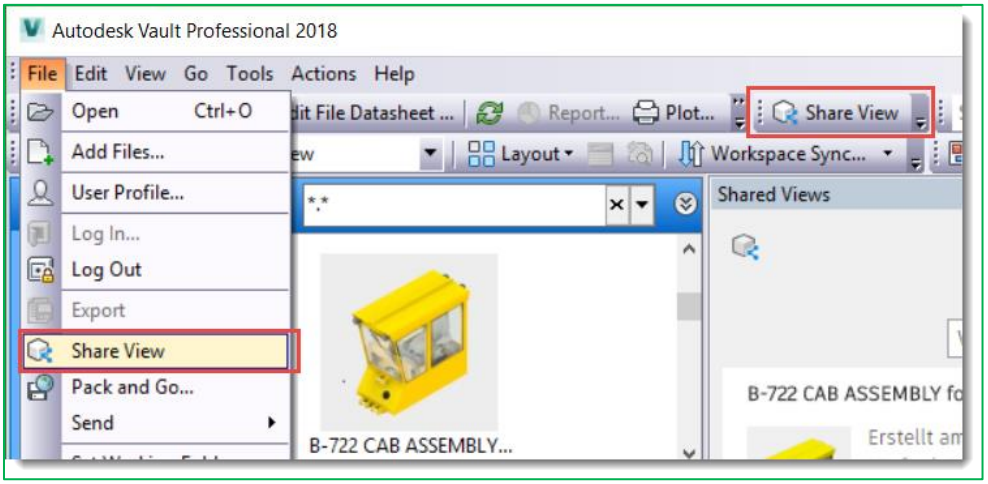

Figure 5: Shared View Command - Designed by Mastenbroek using Inventor

As next if he is not already sign in with his **Autodesk User ID**, he will be prompt to sign in. To learn more how to create an Autodesk Account, follow the instructions on this page: https://knowledge.autodesk.com/customer-service/account-management/account-access/autodesk-account/create-autodesk-account

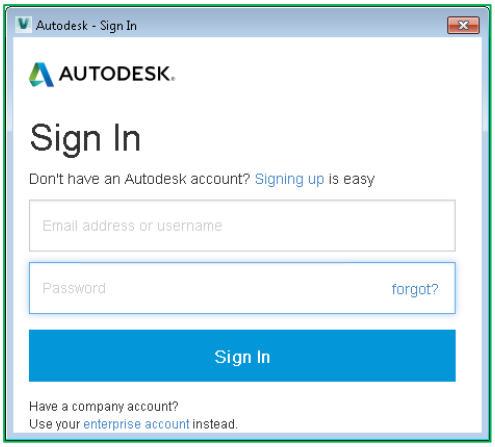

Figure 6: Single Sign On with Autodesk User ID

Once he signed in a dialog will be open where he can name the shared view or keep it as the file name and click the **Share** button to proceed:

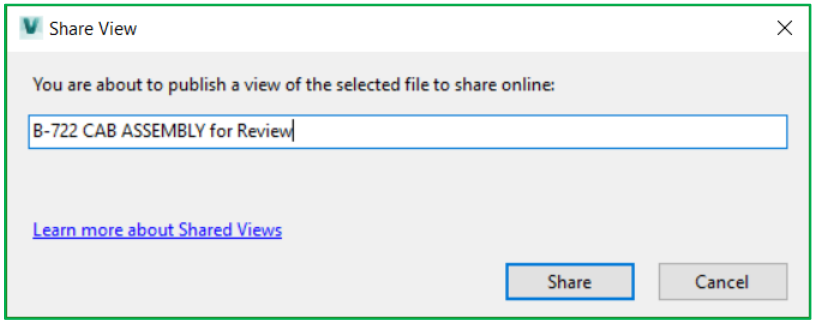

Figure 7: Share View name dialog

Once he selects the Share command, the visual representation of the selected file gets locally translated and uploaded into the format the Autodesk viewer can read:

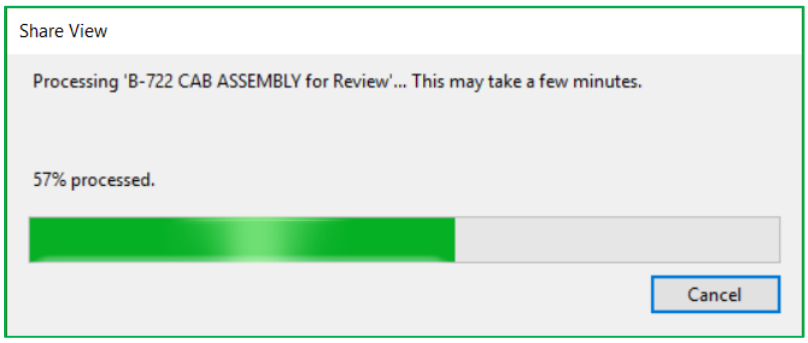

Figure 8: Progress bar during translation and upload

Once the upload is completed design engineer have the option to view in browser or copy the link to the clipboard:

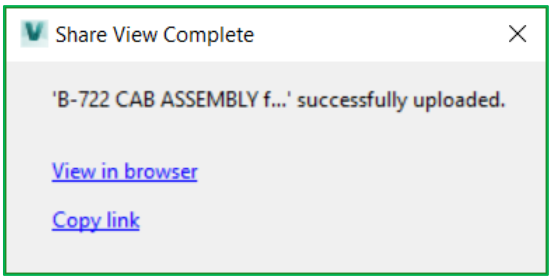

Figure 9: Copy link to share with reviewers

The design Engineer is now able to copy and send the link via email or other communication tools.

Reviewer Access and comment on the viewable

Now from the reviewer's perspective what they need is to be able to review the design visual. The reviewers don't need to have an Autodesk-based product to view the drawings nor the native data. Also, they don't need to install any specific viewer to access the viewable.

Once he clicks on the web link provided by the design engineer the Autodesk Viewer will be opened in a web browser and display the visual representation of the view of the model or design uploaded. The viewer facilitates design review enabling reviewers to view, measure, explode, zoom in, walk through, and orbit from any angle.

More details on the Autodesk Viewer can be found here:

https://viewer.autodesk.com/ and
https://autodeskinstantviewer.uservoice.com/knowledgebase/articles/1196281

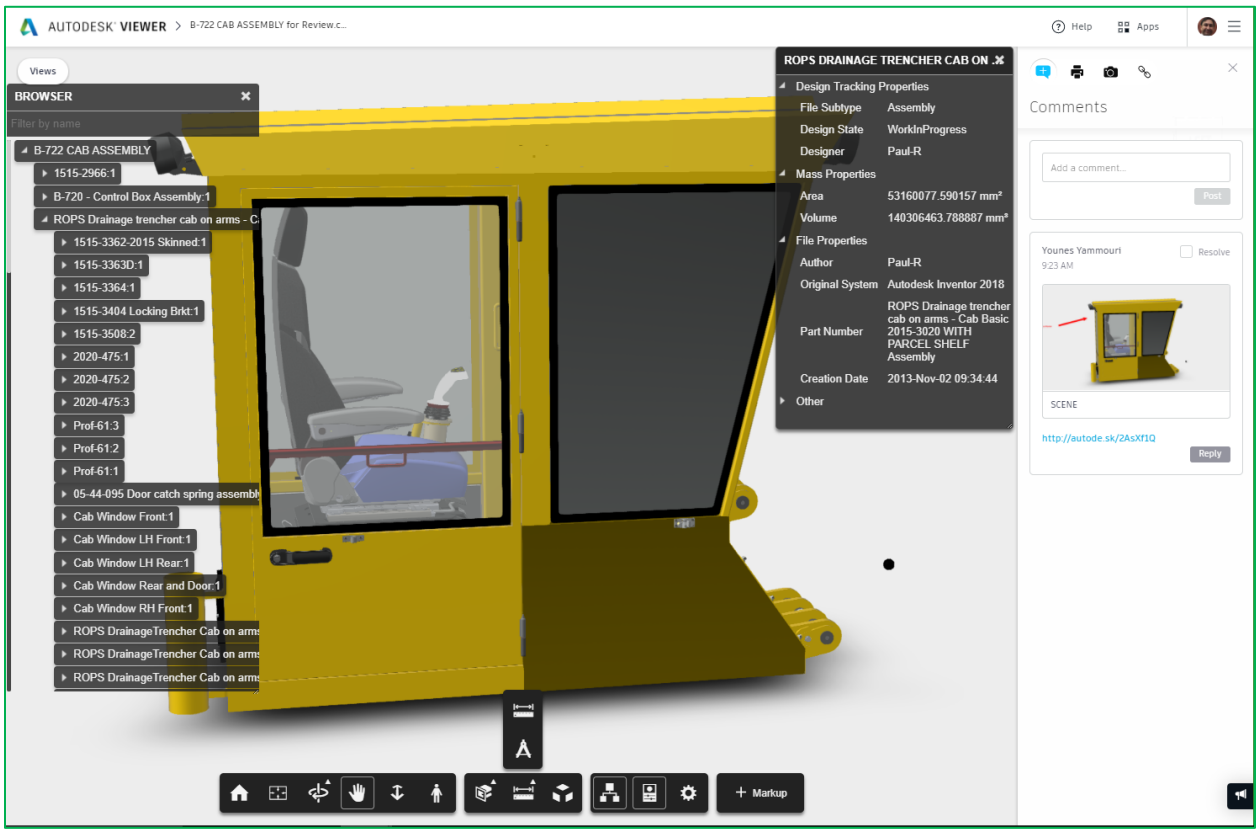

Figure 10: Autodesk Viewer - Designed by Mastenbroek using Inventor

Once Reviewer want to use the commenting feature included as part of Shared Views for conveying detailed feedback, he will sign in with his Autodesk User ID:

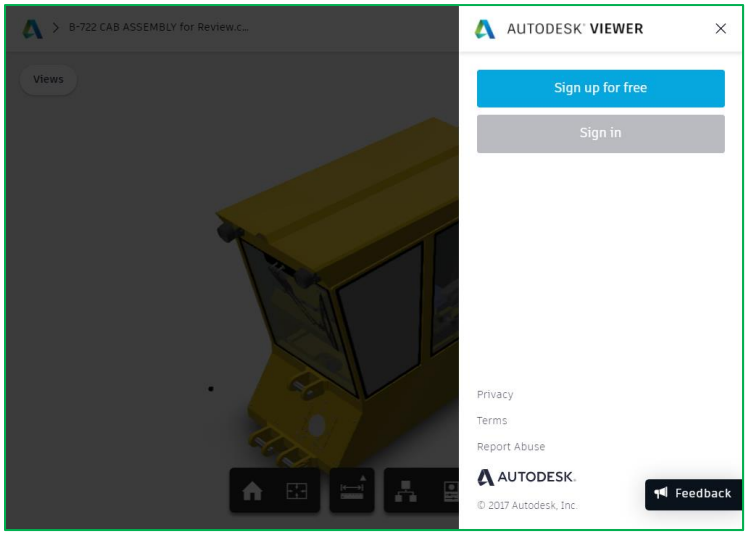

Figure 11: Reviewer Sign in with his Autodesk ID

In this case reviewer agrees on the design and will add a short comment:

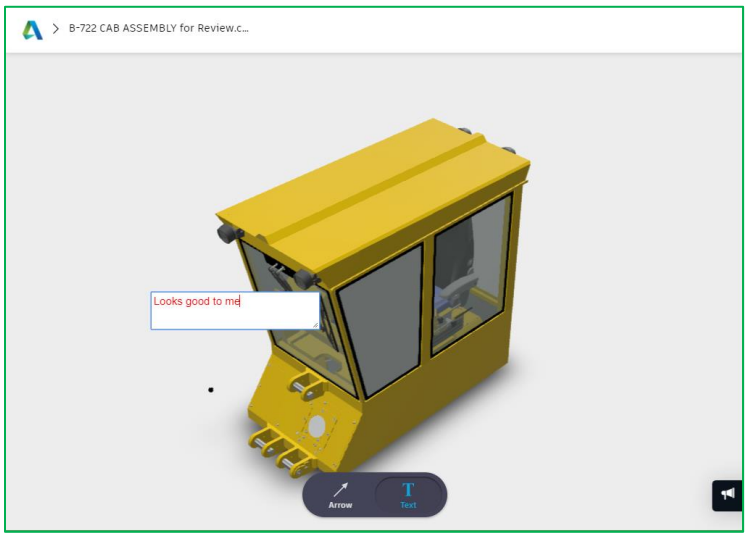

Figure 12: Reviewer comment - Designed by Mastenbroek using Inventor

When reviewer add a comment, the person who created the shared view receives an email notification.

Reply and resolve within Shared Views Panel

Within the Vault user interface, design engineer has quickly access to shared Views and can now see any comments provided by his reviewers directly in product vs. going to another document.

The Shared View can be accessed from the View menu and can be detach, float, pinned, unpinned and reattach into new screen positions. The panel can be also hidden or consistently shown in the user interface.

The panel include all shared views created by the specific design engineer. He is able within the panel to search on file name, sort by Date Created, Title & Expiration Date and sync to get any new comments on his shared views:

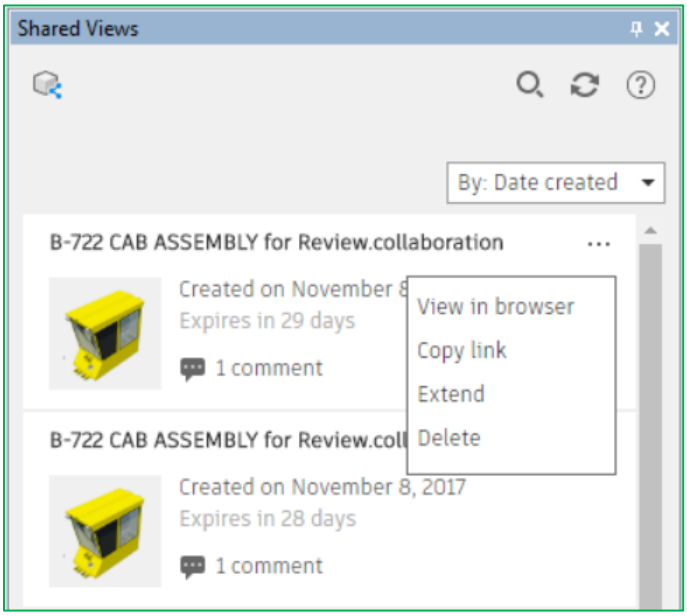

Figure 13: Shared Views Panel

He can now access specific thread and reply to reviewer's comment within the Shared Views Panel. An email notification is sent to you whenever a collaborator comment in Autodesk Viewer. In addition, an email notification is sent to all collaborators whenever design engineer comment on the shared view.

Once the design engineer resolves the feedback coming from the reviewer, he will be able to reply with details and set the shared view comment as resolved and move on to the next feedback into the review cycle:

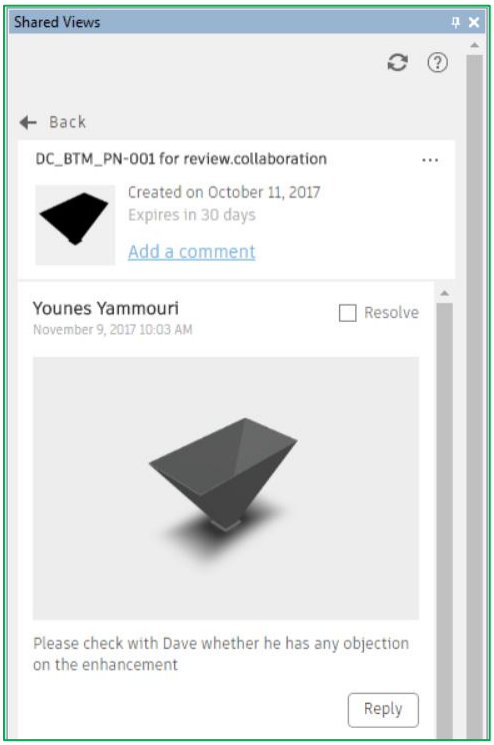

Figure 14: Issue Resolved

Design engineer has the option to extend the expiration date if the review process is taking longer than 30 days.

Once the review process is completed, design engineer can delete the shared views. If the user does not delete them manually the Share Views will be deleted and expiration date:

Supported CAD application for Shared Views Capability within Vault

Vault integrate with a very large number of applications and with that manage many file types today.

However, the Shared Views capability is focus on the most used and useful applications in context of Vault. Those are obviously Inventor, AutoCAD, AutoCAD Mechanical, AutoCAD Electrical as well as Civil 3D.

Few applications which are not supported today by Shared Views for various reasons and might be supported in the future: Navisworks, Alias family of products, Moldflow, Solidworks, Microstation and Revit.

Figure 15: Supported Application with Shared Views

Share design data with external collaborators

Understanding the Challenge

How would design data be shared to people outside your company network?
Email, copy data on ftp site or on Box can be used. However, all those proposal are not CAD aware and can't handle properly CAD references when sharing such data, which lead to lost of information and missing tracking what has been share, when and to whom.

Sharing design files leveraging Fusion to authorized external collaborators like customers, suppliers and 3rd parties increase satisfaction and transparency and decrease losses from miscommunication.

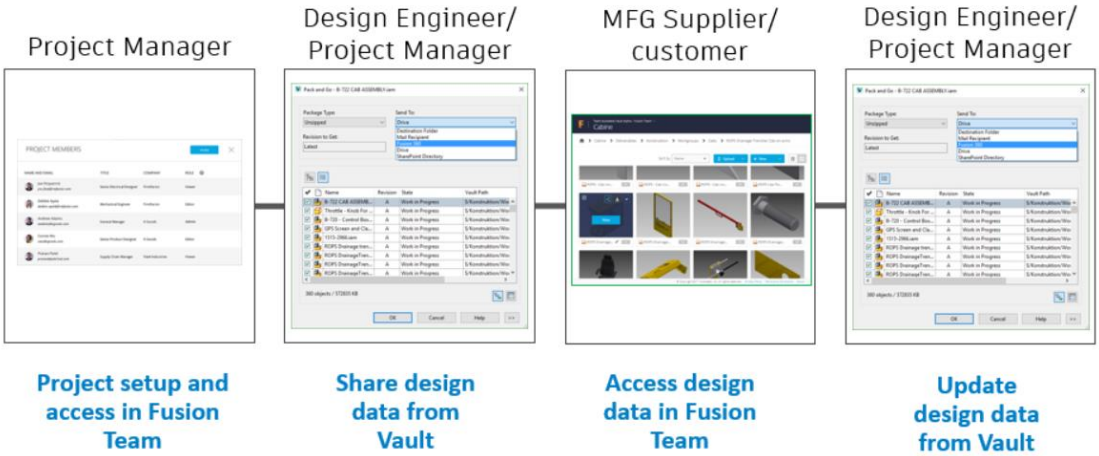

Figure 16: Share design files workflow

Subscribe to Fusion Team & Setup a Project

Connect and share files securely with your suppliers. Suppliers can view models instantly and review designs in real time and much more. More details: https://fusionteam.autodesk.com/ & https://fusionteam.autodesk.com/pricing/index.html

Desktop Connector for Fusion

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.

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.

Download Desktop Connector from the Profile Menu:

when you click on your profile menu, you have the option to download and install Autodesk Desktop Connector.

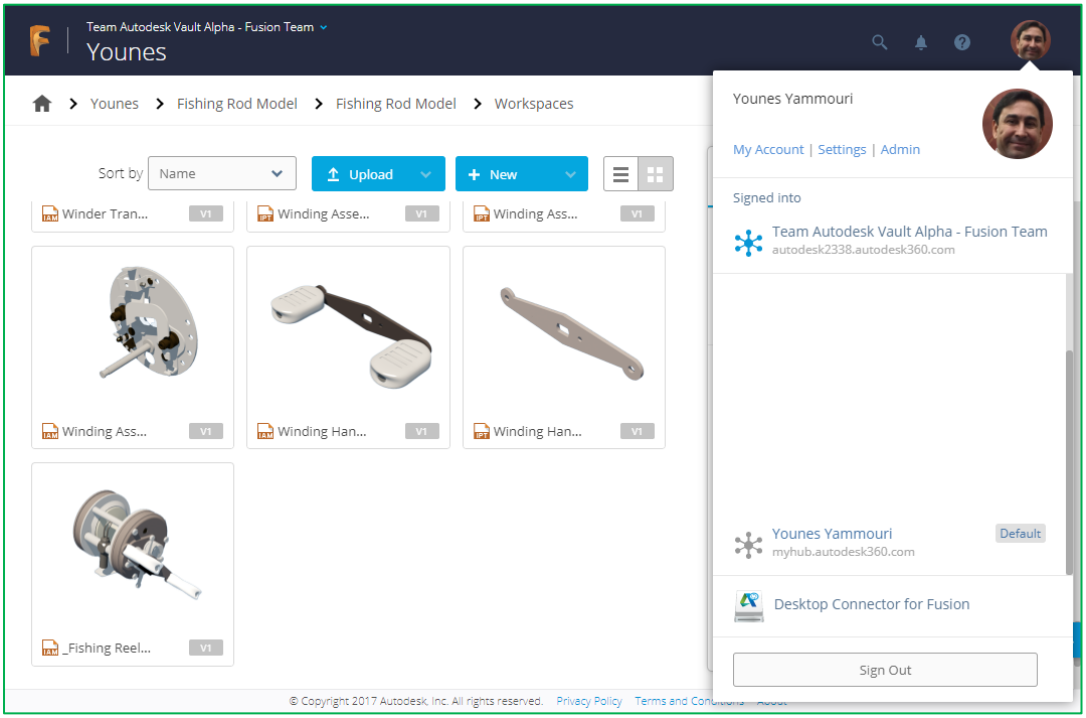

Figure 17: Download Desktop Connector for Fusion

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 (such as for Fusion 360).

Share files from Vault to Fusion Team

Pack and Go collects a file and all of its referenced files into a single package. All files that are referenced by a selected file are included in the package unless otherwise specified in the Pack and Go dialog box.

Design engineer selects a file or multiple files from the file list, the Uses tab, Where Used tab, or the Quick Search and select the **Pack & Go**:

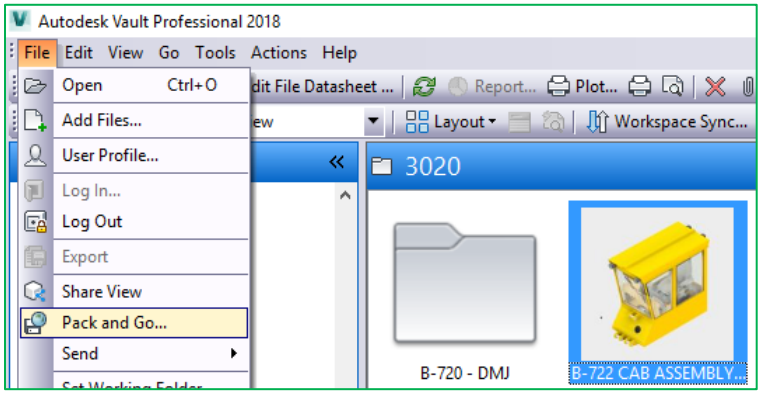

Figure 18: Pack & Go command

In the Pack and Go dialog box, design engineer is able to select the type of package to create as well as the package destination:

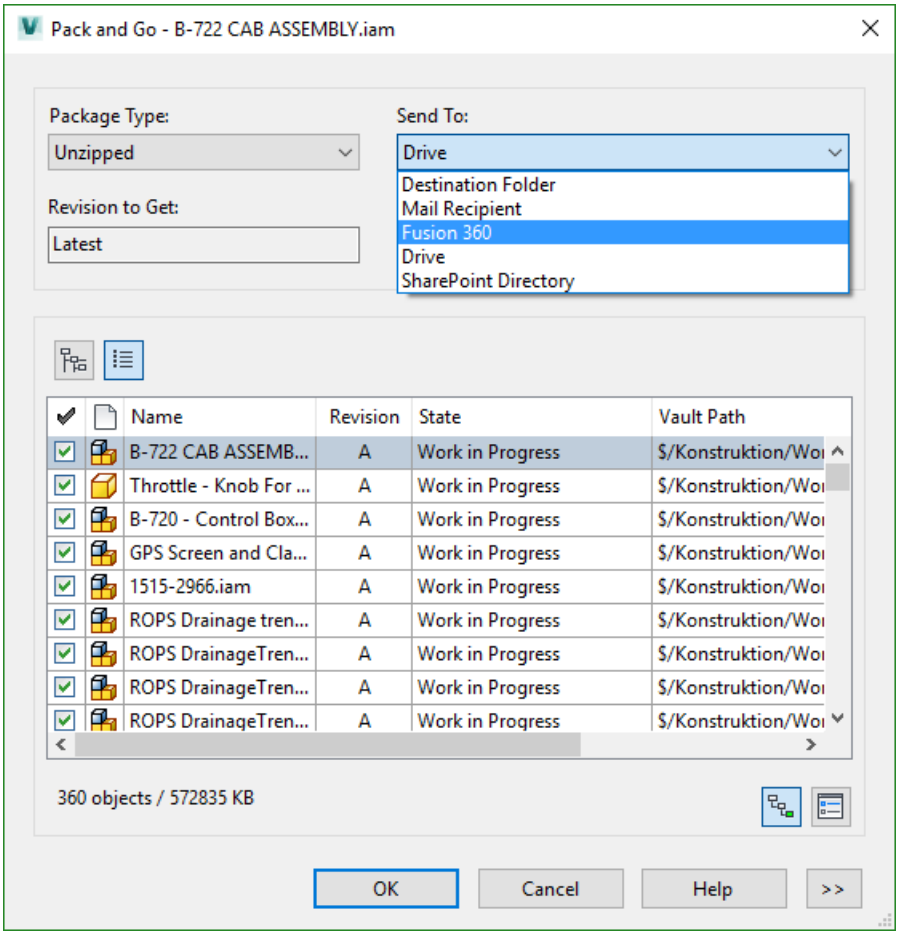

Figure 19: Pack & Go dialog

Design engineer makes sure to include related documentation, so related drawings are also shared:

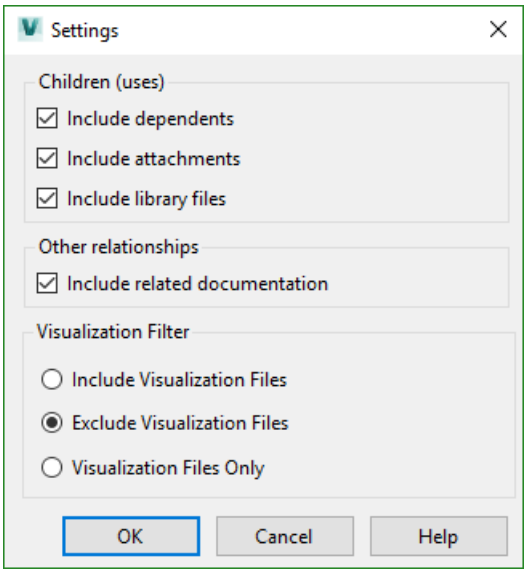

Figure 20: Pack & Go Setting dialog

Browse to the project inside of Fusion and select the destination folder:

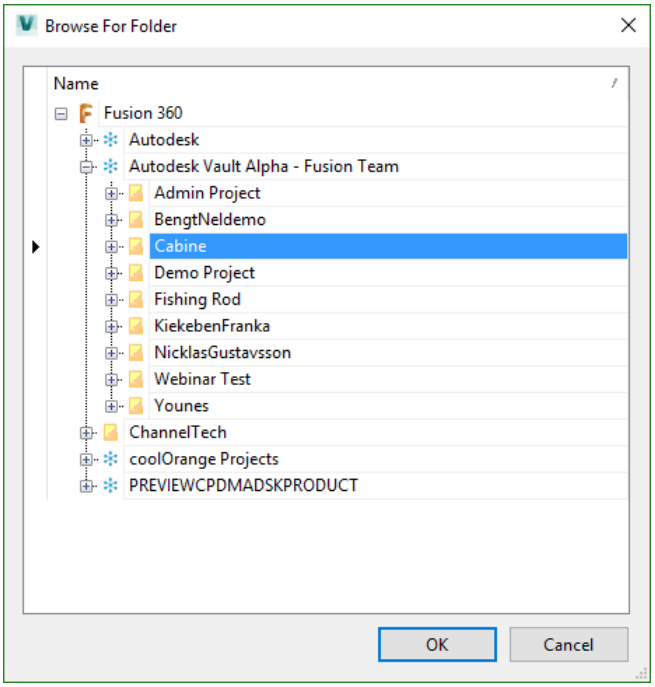

Figure 21: Fusion Browse dialog for destination folder

Design Engineer select the >> button and select the Append transmittal report to package check box to include a report of all of the files in the package:

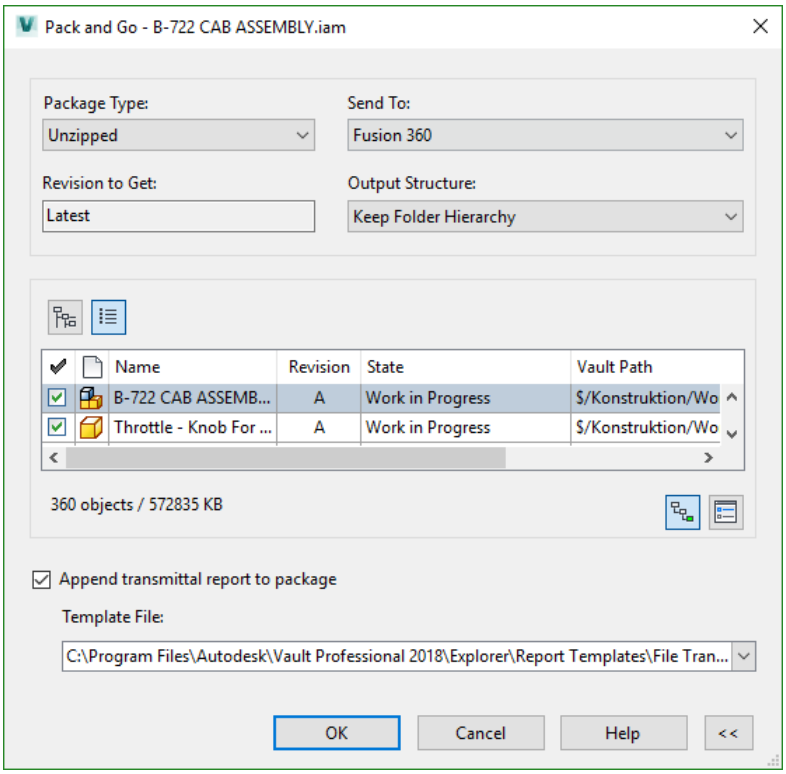

Figure 22: Transmittal Report append option

Design Engineer click the ok button. All files are now copied to the Fusion Cloud Drive location.

Desktop connector uploaded all files to the Fusion Team storage:

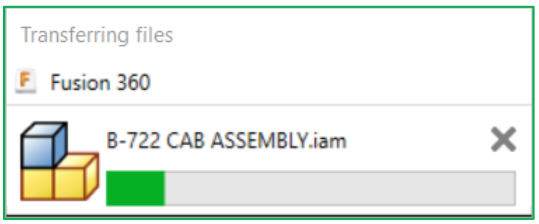

Figure 23: Files transfer to Fusion Team

Design engineer select **Go To** to view the folder and its details in Fusion team.
The assembly and all references has been uploaded to Fusion Team:

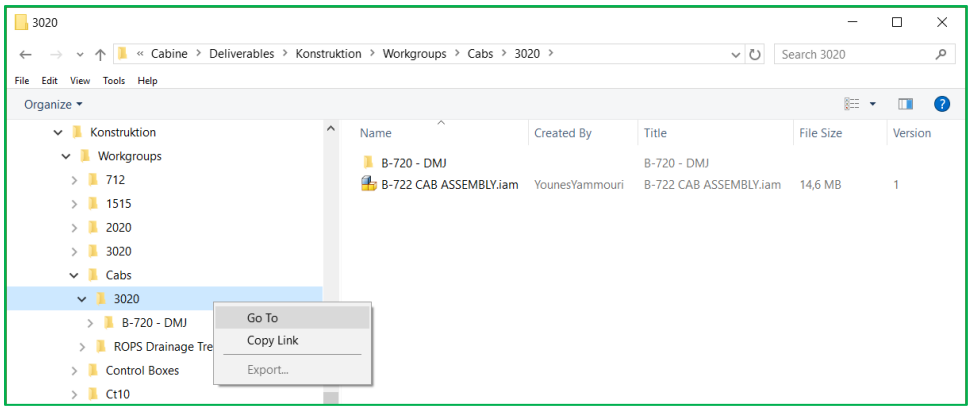

Figure 24: Fusion Drive files access

Within Fusion Team Design engineer can check the Version of the file, Design References, Uses, Used In and Drawings tabs:

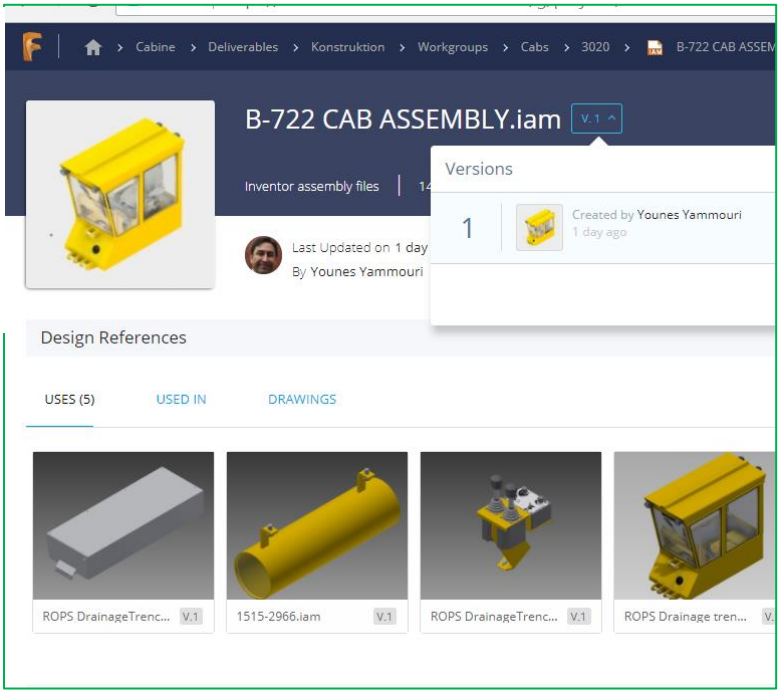

Figure 25: Fusion Team Uses, Used In

Transmittal report is available within Fusion Team to track what has been shared:

AUTODESK.

Transmittal Report

Generated By : Administrator
Date : 09.11.2017 14:57:24
Source : $/Konstruktion/Workgroups/Cabs/3020/
Action : Pack and Go
Destination : C:\Users\yammouy\Fusion\Autodesk Vault Alpha - Fusion Team\Cabine\Deliverables

Transmitted Files:

Name	Revision	State	Vault Folder	Date Version Created
B-722 CAB ASSEMBLY.iam	A	Work in Progress	$/Konstruktion/Workgroups/Cabs/3020/B-722 CAB ASSEMBLY.iam	07.11.2017 15:39:36
Throttle - Knob For Handle.ipt	A	Work in Progress	$/Konstruktion/Workgroups/Control Boxes & Switches & Handles/Throttle - Knob For Handle.ipt	07.11.2017 14:29:31
B-720 - Control Box Assembly.iam	A	Work in Progress	$/Konstruktion/Workgroups/Control Boxes & Switches & Handles/B-720 - Control Box Assembly.iam	07.11.2017 15:10:34
GPS Screen and Clamp mount assembly.iam	A	Work in Progress	$/Konstruktion/Workgroups/Laser & Hydraulic/GPS Screen and Clamp mount assembly.iam	07.11.2017 15:10:34
1515-2966.iam	A	Work in Progress	$/Konstruktion/Workgroups/1515/1515-2966.iam	07.11.2017 15:03:34
ROPS Drainage trencher cab on arms - Cab Basic 2015-3020 WITH PARCEL SHELF Assembly.iam	A	Work in Progress	$/Konstruktion/Workgroups/Cabs/ROPS Drainage Trencher Cab on arms/ROPS Drainage trencher cab on arms - Cab Basic 2015-3020 WITH	07.11.2017 15:38:17

Figure 26: Transmittal Report

Design engineer select **Share** to share the design with stakeholders or collaborators.

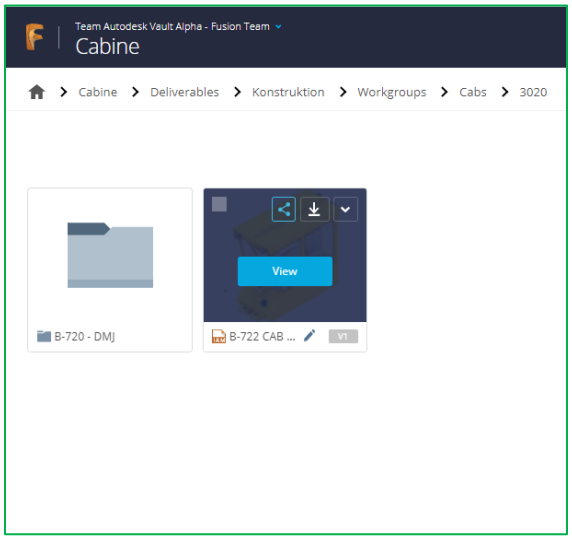

Figure 27: Share dialog

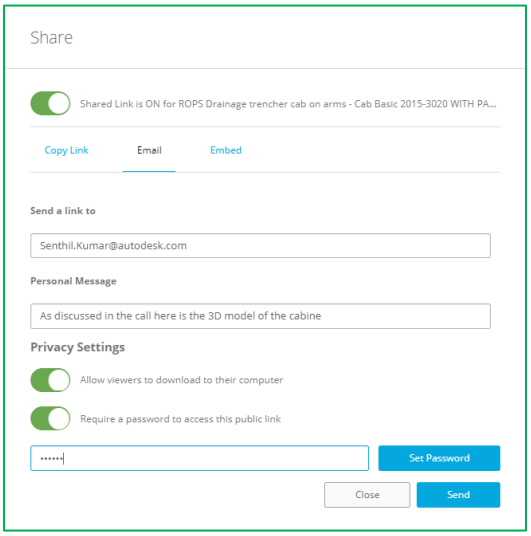

Figure 28: Fusion Team Share Command

Access Design data in Fusion Team

External Collaborator can now access the design data through Fusion Team user interface and Suppliers can view models instantly and review designs in real time and download for downstream manufacturing workflows or archive processes:

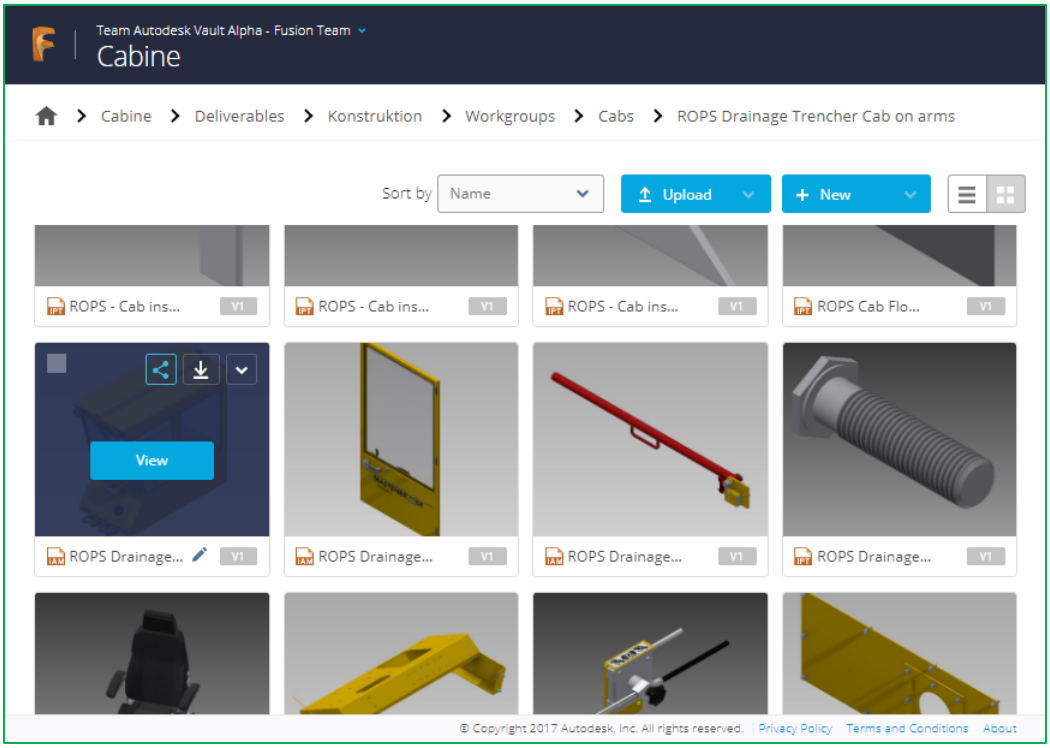

Figure 29: External Collaborator access Design Data in Fusion

Update Design data from Vault to Fusion Team

Design engineer selects the same assembly and the Pack & Go command.

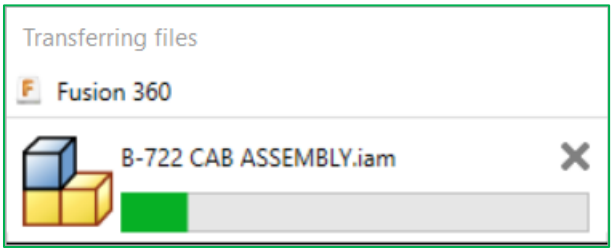

Figure 30: File update to Fusion Team

Updated design files get version 2:

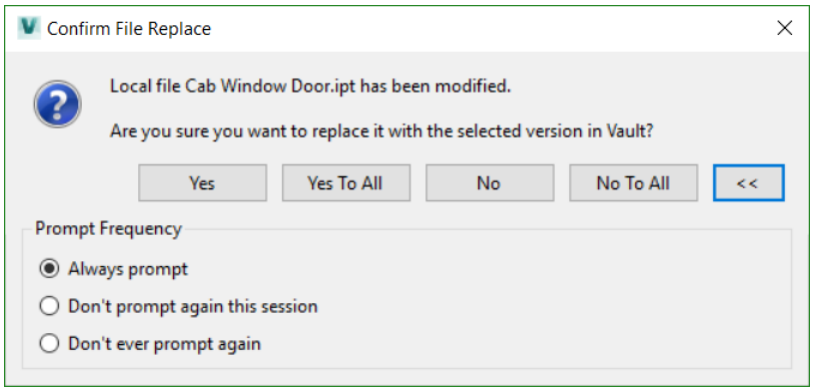

Figure 31: Vault to replace existing one with new version

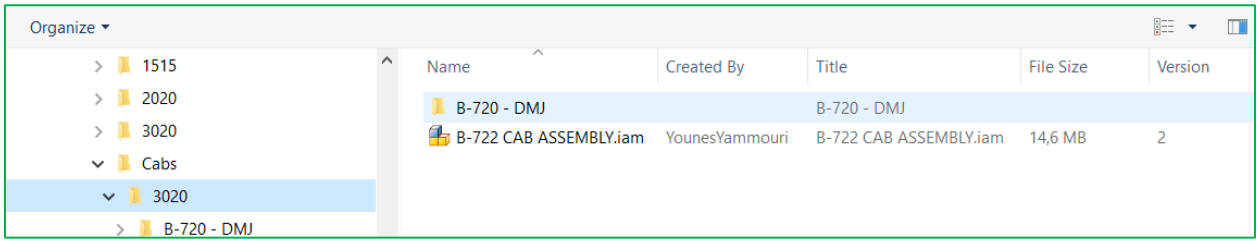

Figure 32:Desktop Connector shows new file version

Now external collaborator can access the updated design within Fusion Team and use this for his downstream workflows:

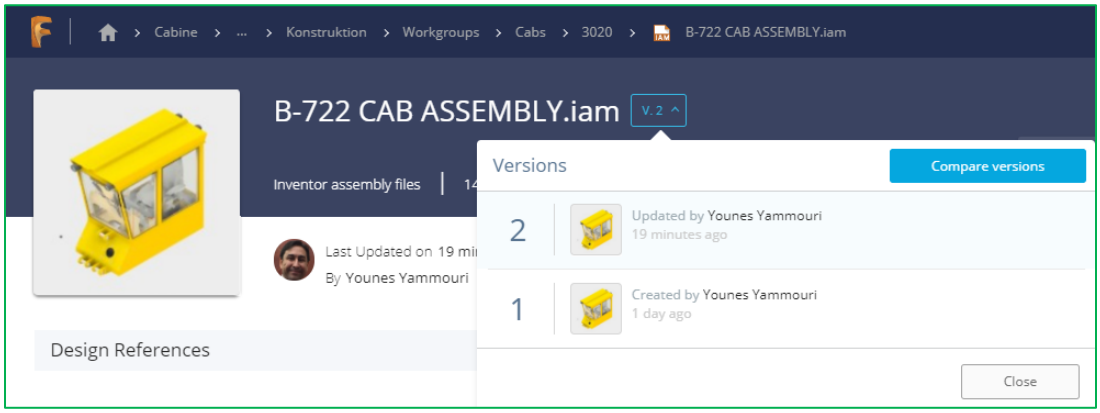

Figure 33: New version is created in Fusion Team