

MFG463491 – Autodesk Vault 2021 What's New

Senthil Kumar

Product Manager | @NG_SenthilKumar

Irvin Hayes Jr

Product Manager | @ihayesjr



About the speaker

Product Manager for the Data Management Group at Autodesk in Singapore. With Autodesk for the last 15 yrs. In Autodesk, worked as a Product Support Engineer, QA, QA Manager, and Product Owner before becoming Product Manager. Prior to joining Autodesk, worked for Autodesk Distributor, PTC and Delcam..

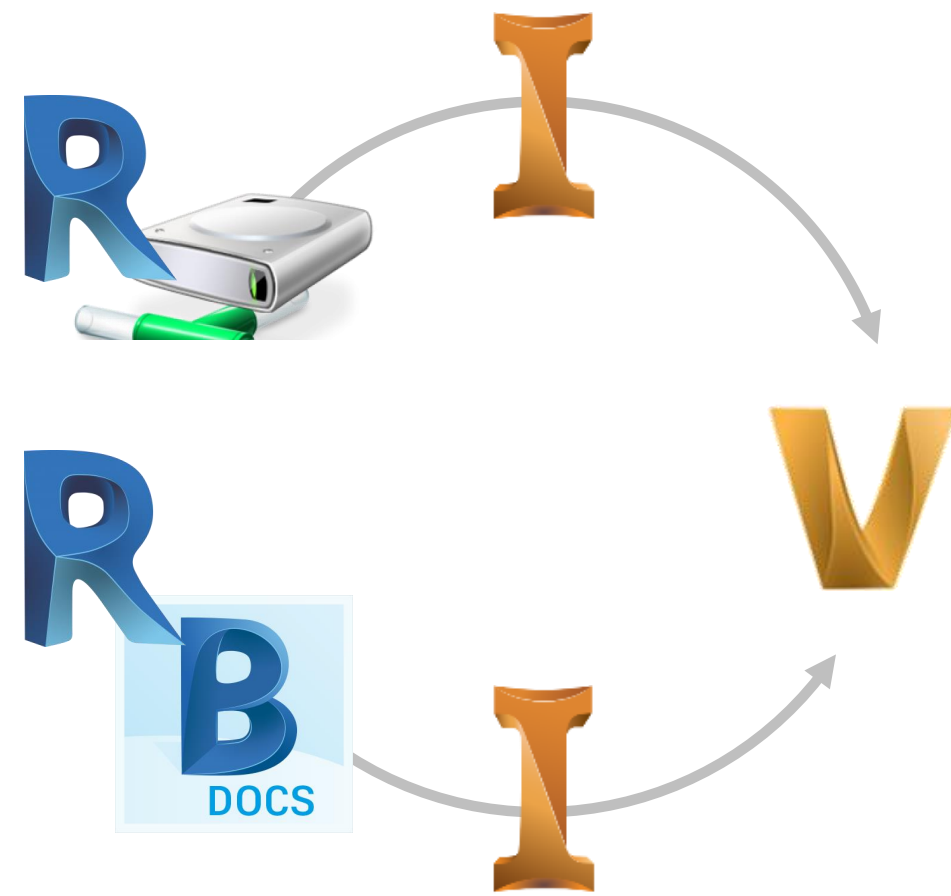


About the speaker

Irvin is a Product Manager on the Autodesk Vault team based in Novi, Michigan. He has worked at Autodesk for fifteen years starting in product support and as a user experience designer. Irvin is a Microsoft® Certified Professional and has been working in the information technology field for more than 27 years. He helps partners, consulting, and sales develop Vault deployment plans in enterprise environments and system requirements. You can find multiple classes Irvin has presented at Autodesk University, on a wide range of Vault topics.

Vault 2021: More Value for Subscribers

Productivity-boosting functionality you can expect



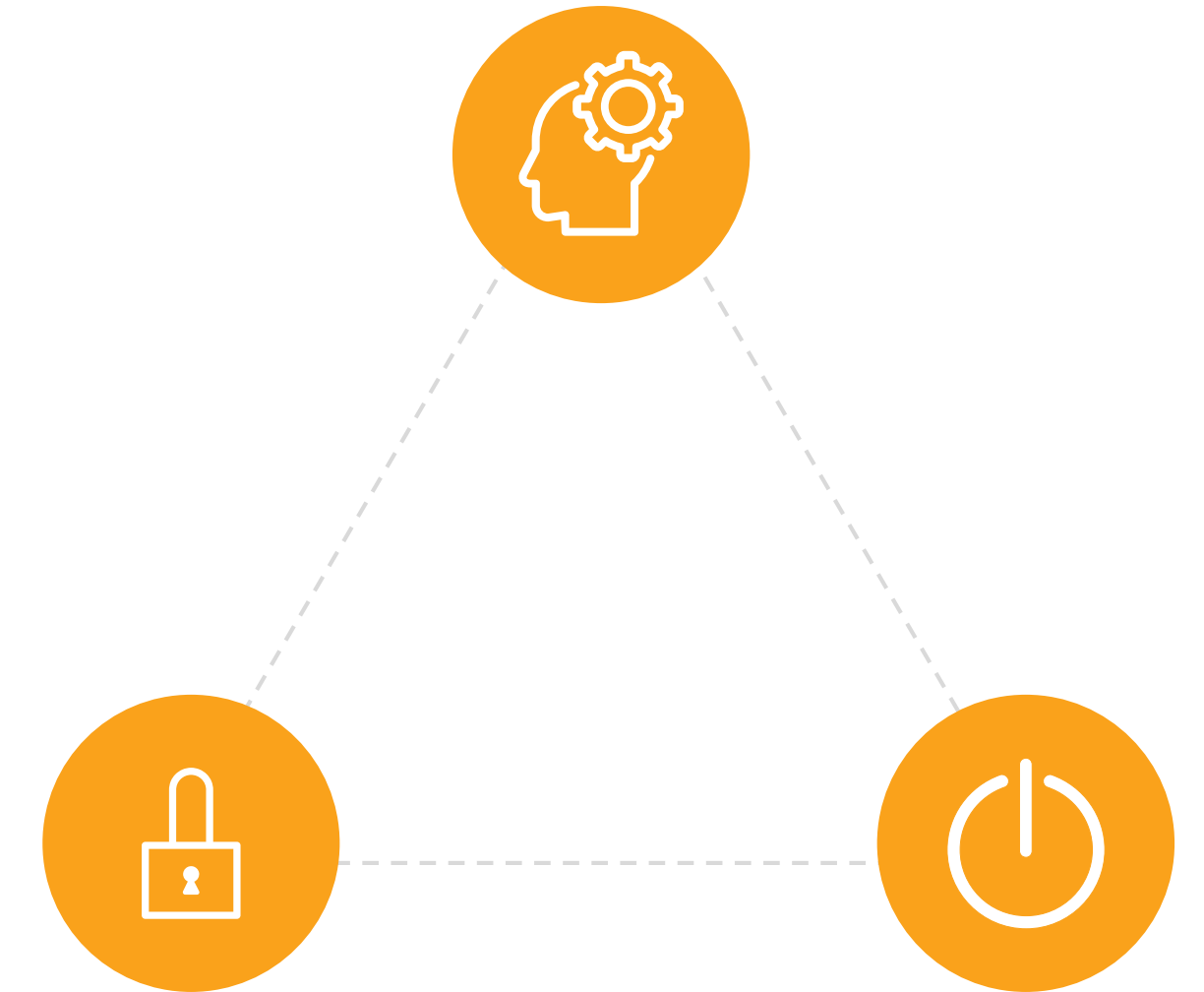
Productivity for CAD Users

Supports Inventor and Revit interoperability and adds significant workflow and usability improvements



Smart Duplicate Reduction

Compares 3D shapes and delivers insights on duplicate content



More Efficiency for Administrators

Allows more granularity within the security model and minimizes deployment and maintenance downtime



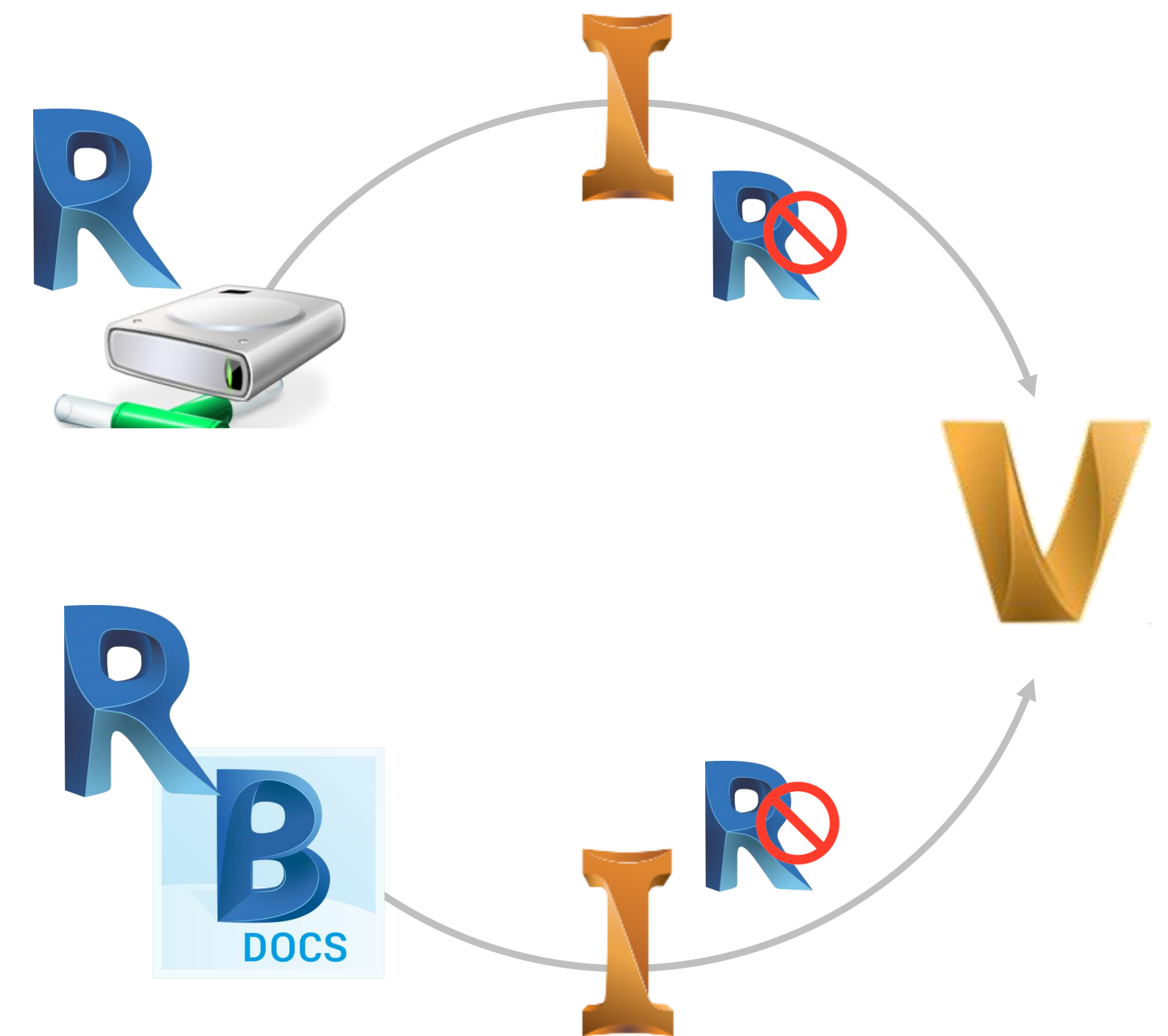
Productivity for CAD Users



Vault 2021 Supports Inventor and Revit interoperability

For custom fabricators that work in the building and infrastructure industry, Vault 2021 supports the new Inventor and Revit interoperability

- Revit data is stored and archived in Network drive or BIM 360
 - The data is referenced (incl. links) in Inventor and gets synced
- Revit data is not archived and managed in Vault, but Vault can check in Inventor files properly and open the files properly and resolve any linked Revit files



Unused document detection

Vault 2021 can help you clean up unused designs and avoid releasing them

New Property “Has Parent Relationship” to easily recognize orphaned files.
Can be used in Filter/Saved Search, state transition, and much more...

USED DESIGN

Designs (Search Results)

Multiple Properties

File Name

Comment

Author

Has Parent Relationship

Has Drawing

File Extension

Search

Clear

Add Criteria

Options

Name

Engine Case Side.ipt

Engine Case Rear.ipt

Drive Power Connector.ipt

Back Bracket.ipt

Arm_Rest.ipt

History

Uses

Where Used

Change Order

Preview

CAD BOM

Datasheet

Latest

Name

Revision

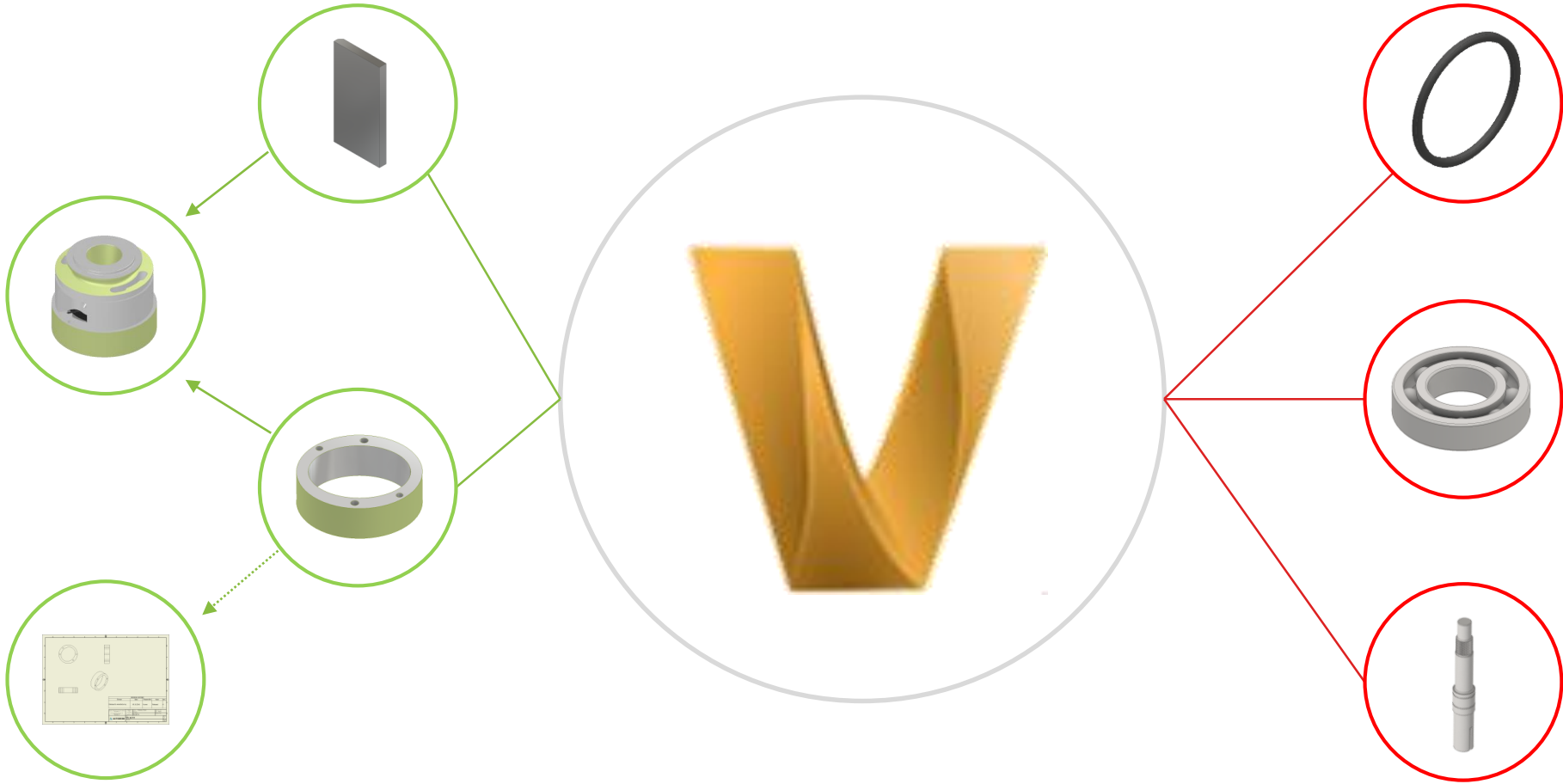
State (H...

Created...

Checked In

Comment

Back Bracket.ipt			Adminis...	12/3/2018 ...	Autoloader upload to Vault
PC Chassis.iam			Adminis...	12/3/2018 ...	Autoloader upload to Vault
Back Bracket.dwg			Adminis...	12/3/2018 ...	Autoloader upload to Vault
Back Bracket.idw			Adminis...	12/3/2018 ...	Autoloader upload to Vault



UNUSED DESIGN

Designs (Search Results)

Multiple Properties

File Name

Comment

Author

Has Parent Relationship

Has Drawing

File Extension

Search

Clear

Add Criteria

Options

Name

VE-151 LiftingLugPatchPlate.ipt

VE-151 LiftingLug.ipt

VE-151 LegPatchPlate.ipt

VE-151 LegBasePlate.ipt

VE-151 Leg DN100.ipt

VE-151 EarthingLug.ipt

History

Uses

Where Used

Change Order

Preview

CAD BOM

Datasheet

Latest

Name

Revision

State (H...

Created...

Checked In

Comment

VE-151 LiftingLugP...			Adminis...	12/3/2018 ...	Autoloader upload to Vault
-----------------------	--	--	------------	---------------	----------------------------

Transition

From State:

To State:

Criteria

Actions

Custom Job Types

Security

Show:

Property:

Condition:

Value:

Add

Replace

Remove

Has Parent Relationship is true

Has Drawing is true

OK

Cancel

Help

Condition
for state
transition

Autodesk Vault Professional 2021

Sign In

File Edit View Go Tools Actions Help

New Standard File ... Edit File Datasheet ... Report... Plot... Check In... Find... Share View Download from Cloud Drive

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

Home

Designs

Search Designs

Duplicates Dashboard

Change Order List

Item Master

Project Explorer (S)

AutoCAD

Content Center Files

Designs

3D Annotation

AEC Exchange

Assemblies

Cable_Harness

Data

Fabrication

Fishing Rod Model

Jet Engine Model

Mold Design

Parts

Sheet Metal

Translation

My Worklist

My Shortcuts

Add new group

Home

Duplicates Dashboard

Project Explorer

Item Master

Change Order List

3D Annotation

AEC Exchange

Assemblies

Cable & Harness

Data

Fabrication

Fishing Rod Model

Jet Engine Model

Mold Design

Parts

Sheet Metal

Translation

Tube & Pipe

Weldments

14 Object(s) (0 selected)

localhost Vault Administrator

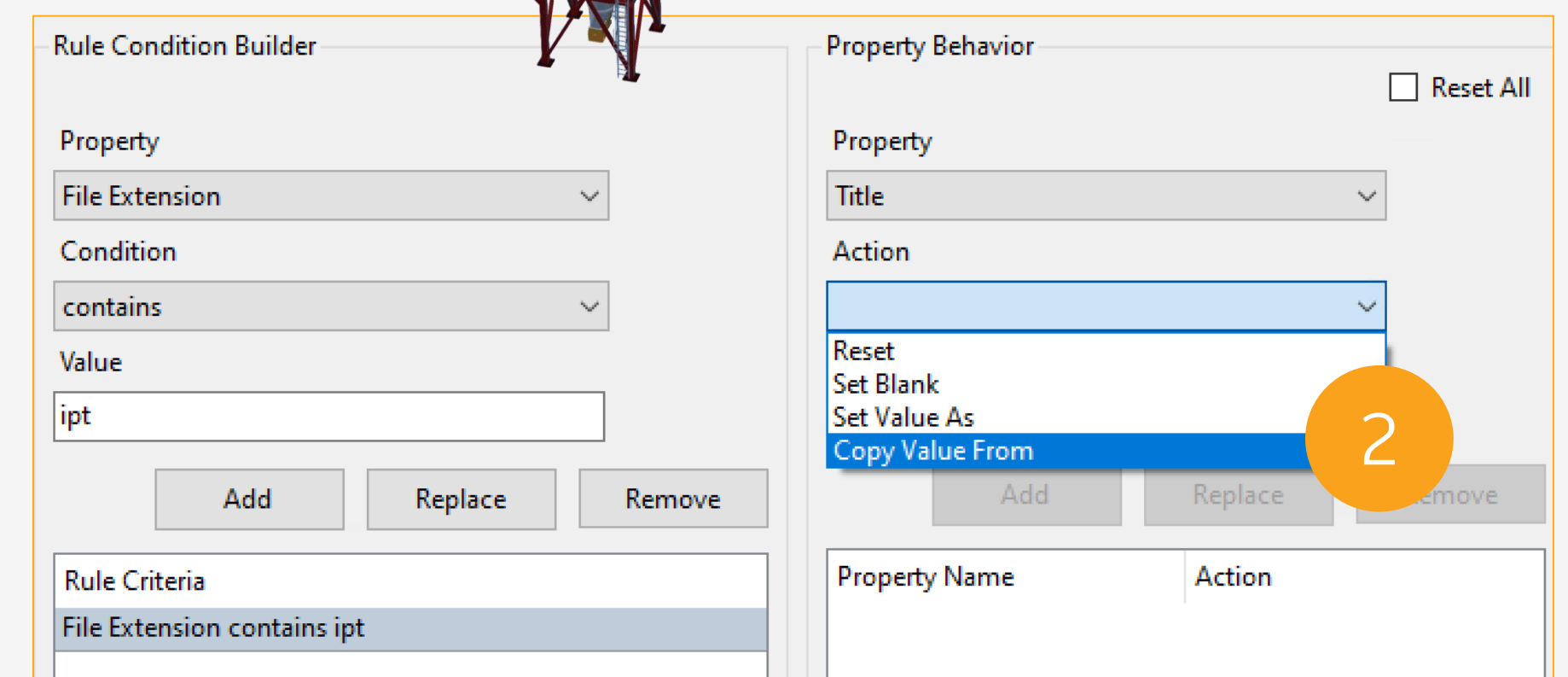
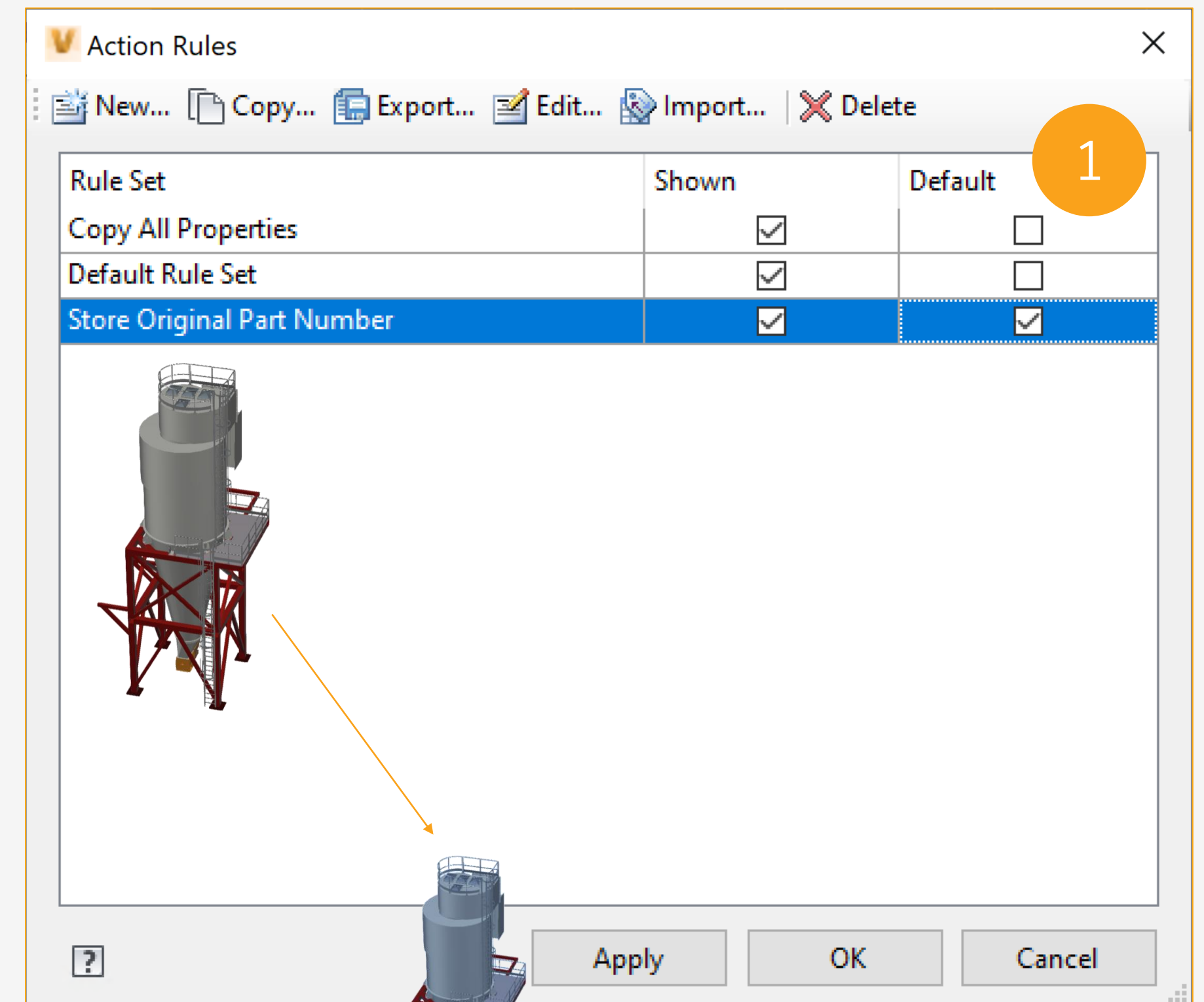
Copy design

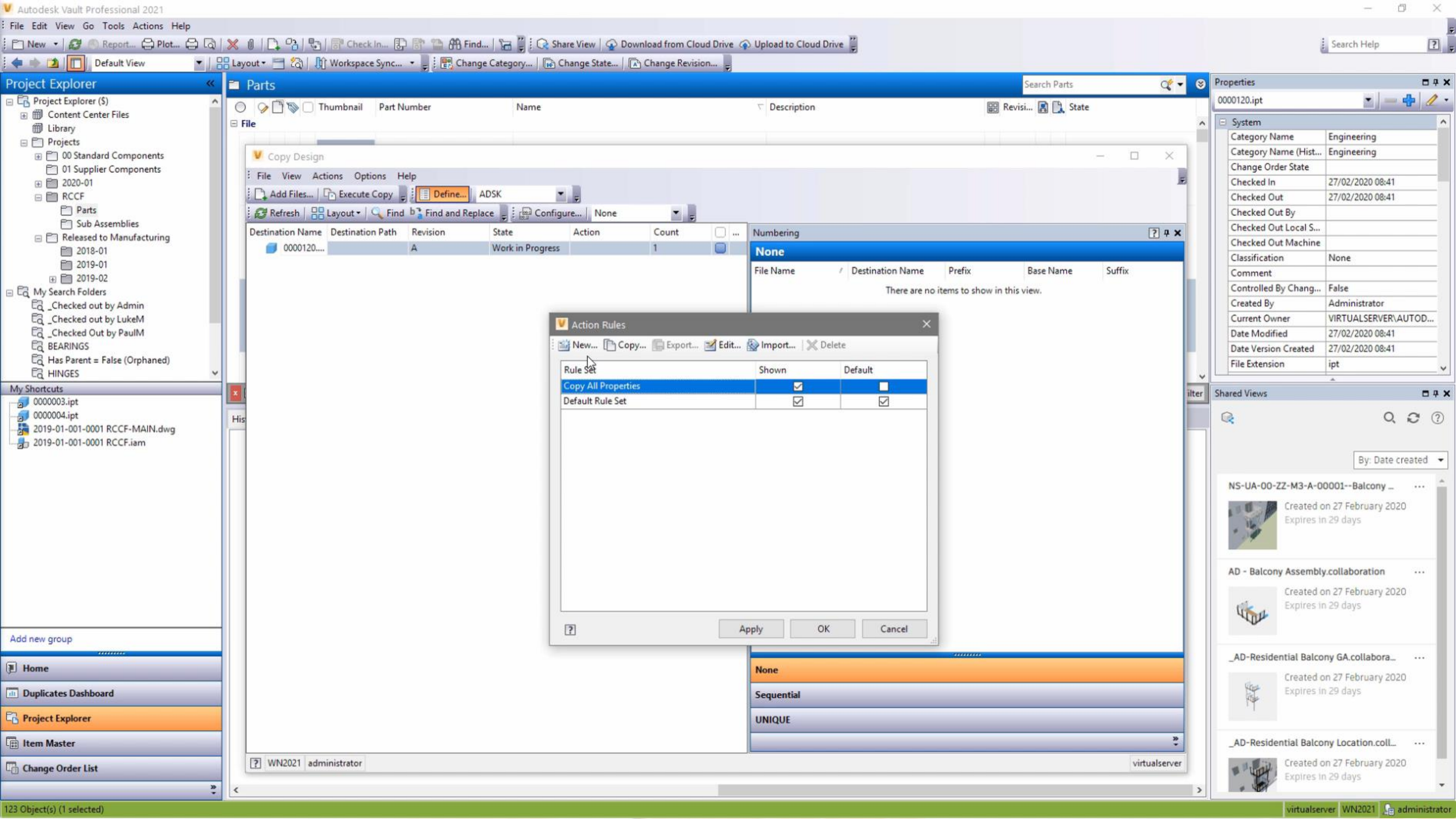
Customer Request

Many companies have very strict controls over properties and standards enforcement

Deliverable

- Copy Design Rule Sets are stored on the server instead of the local disk
 - Configure, export, import rulesets and enforce ruleset for all users
- Set a rule to copy a UDP value from the original file to a different UDP in the new file e.g. for original part number, source drawing file etc.





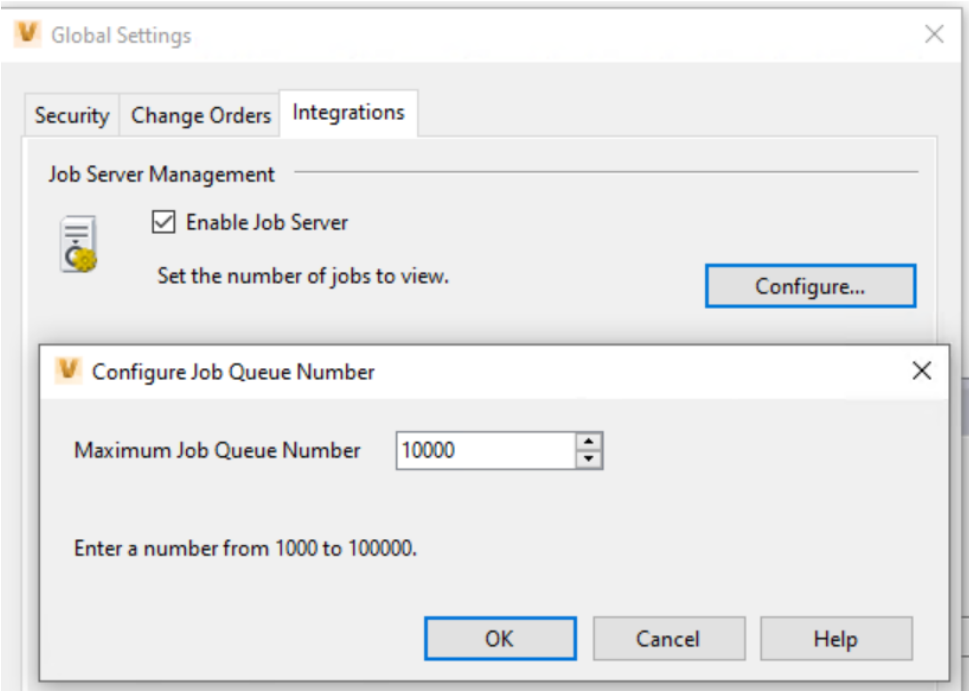
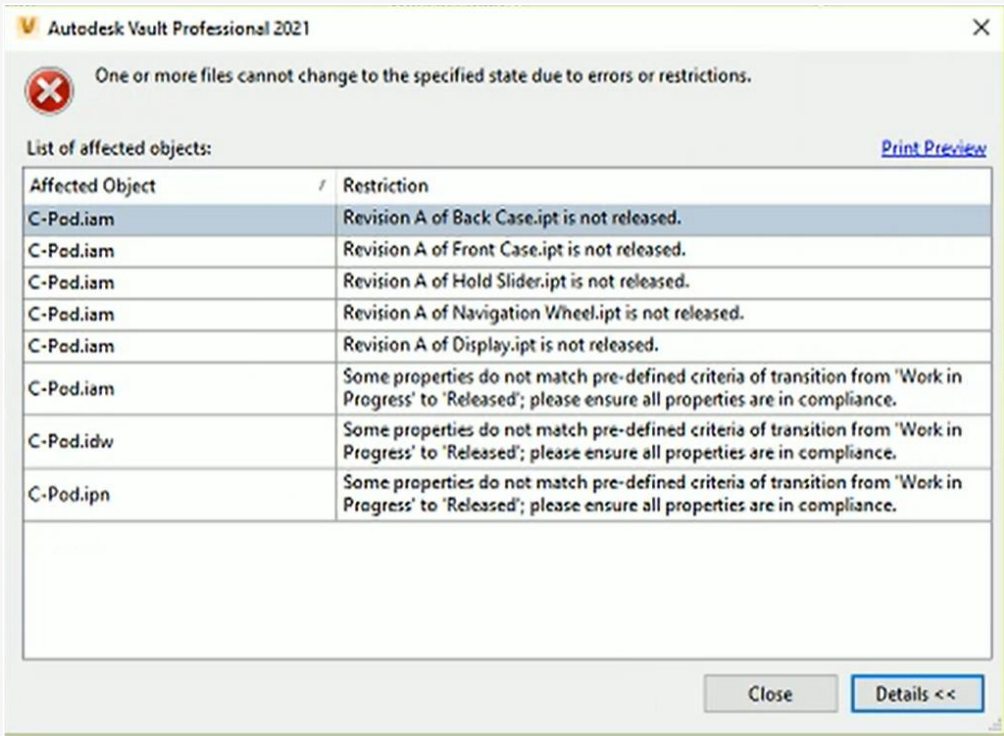
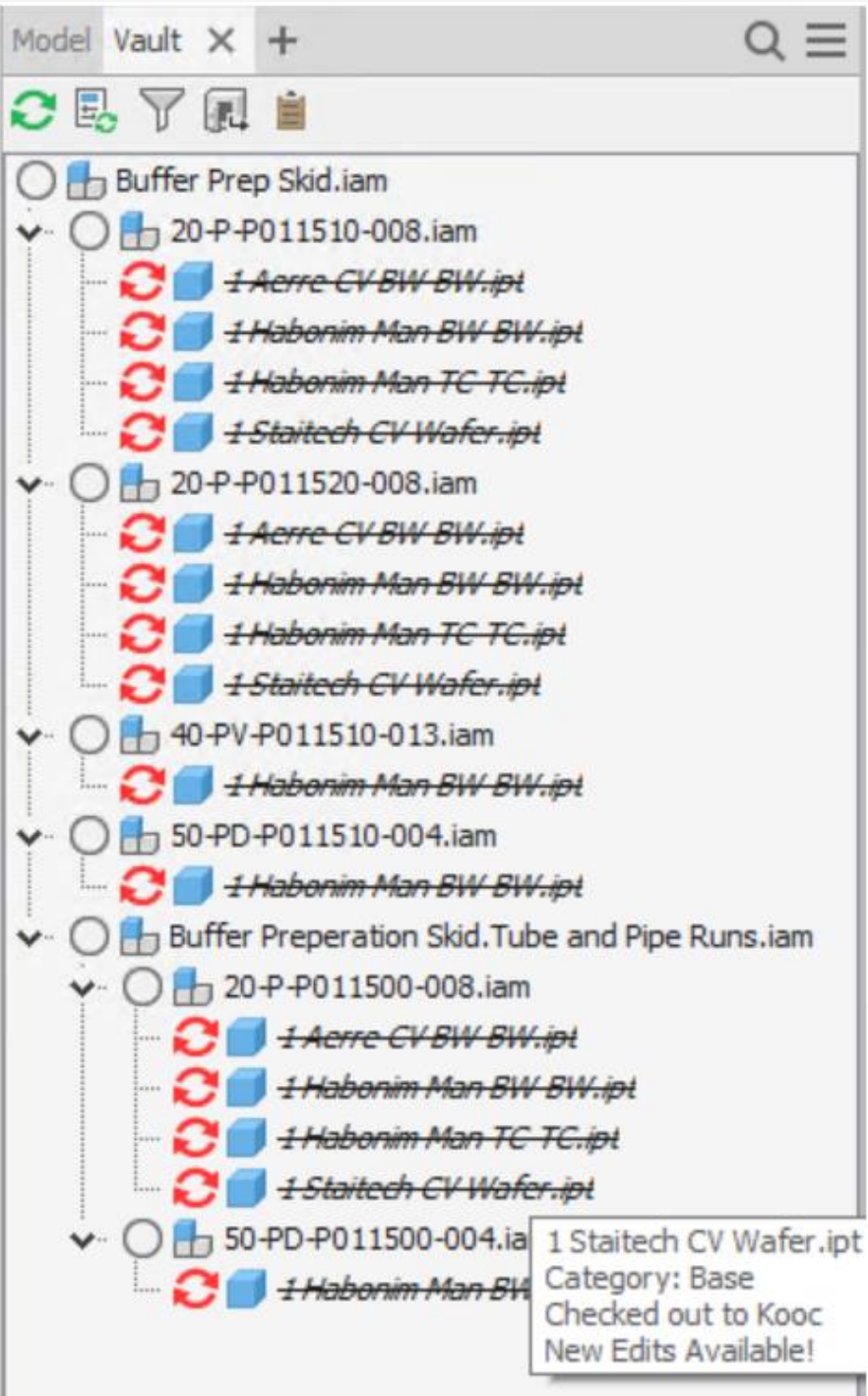
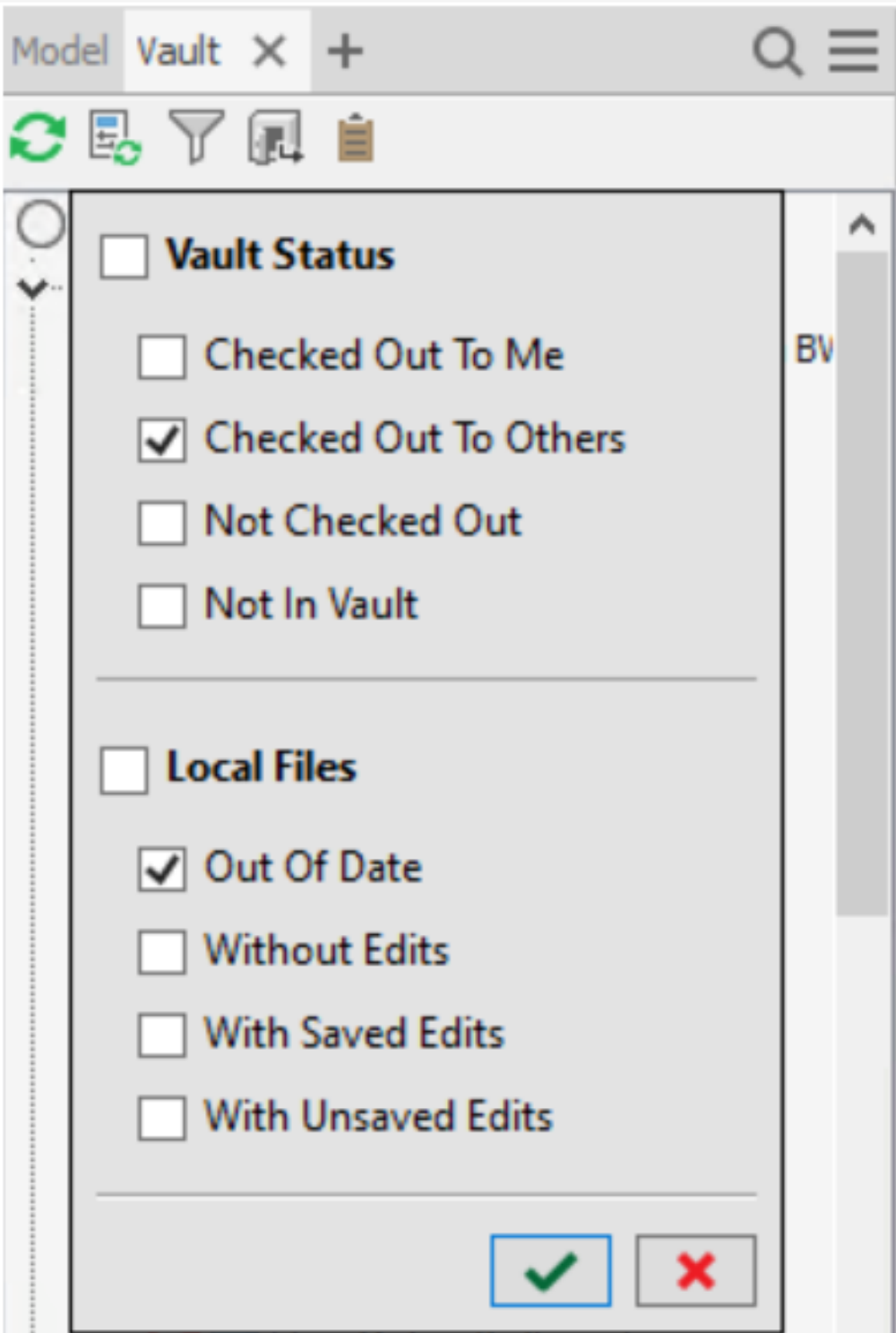
Remove friction

Value

Remove friction for more productivity

Deliverable

- Add a **New Filter** to show out of date files to quickly retrieve updated files
- Change state condition is batched for actions including Files, Folders, and Items and presented in one dialog instead of separately and every time – huge time savings
- Option to show more than 1000 jobs in Job Queue



ECO notification

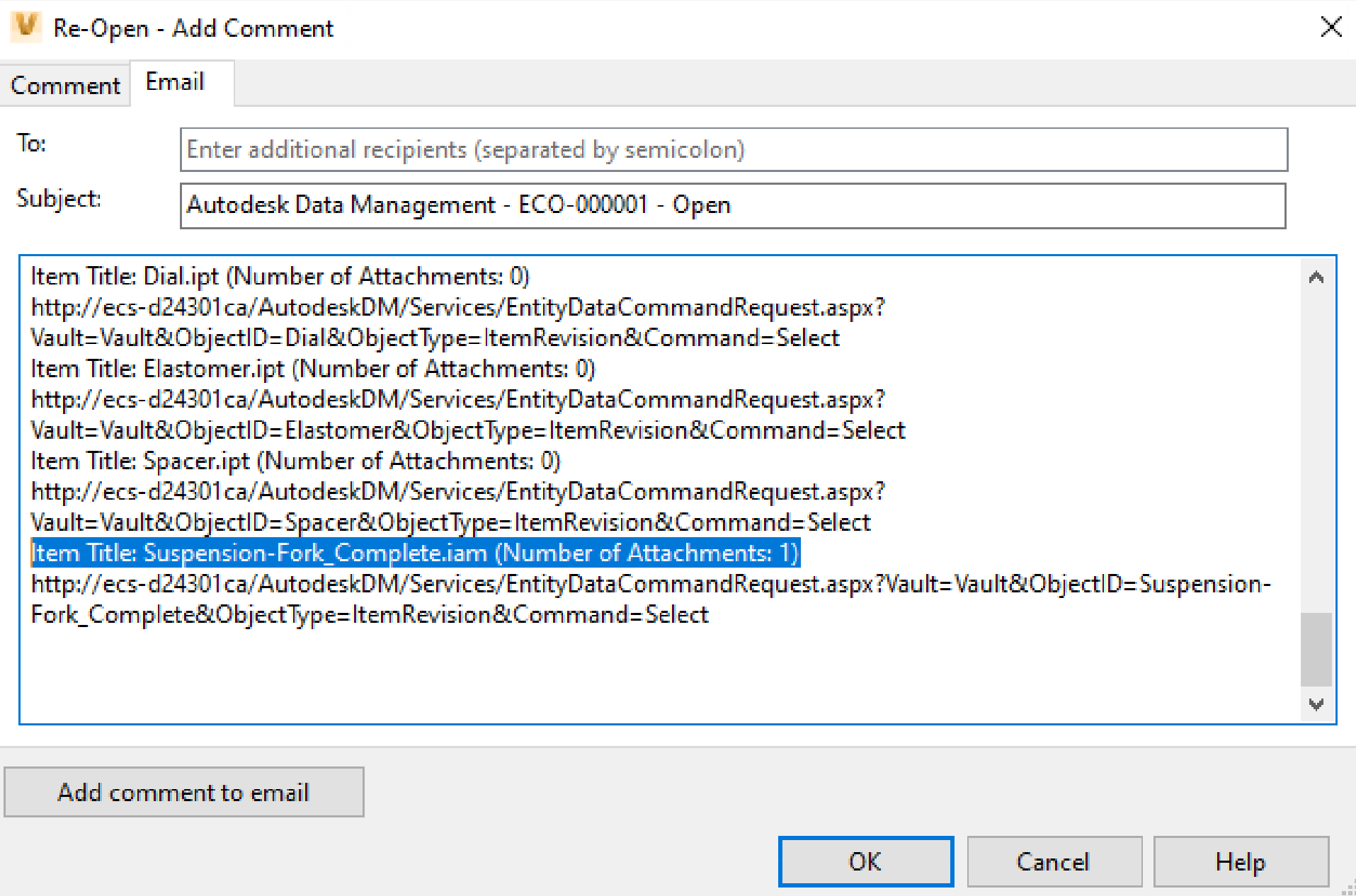
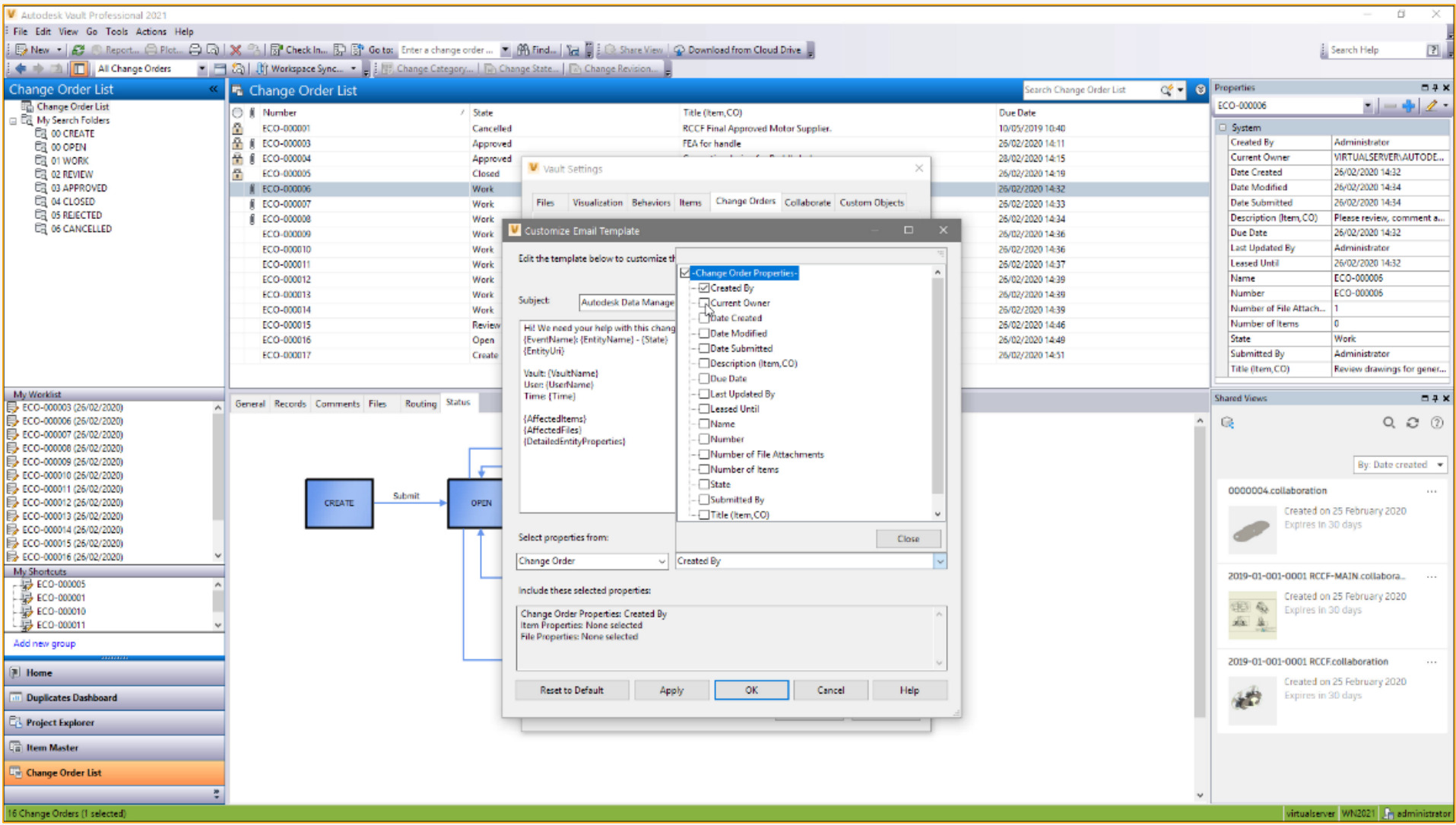
Email template customization

Value

More flexibility and information within ECO notification for easy follow up

Deliverable

- Customize the email template:
 - Include ECO properties in the subject and body of the email
 - Include links to files & Items and more
- Template is stored on the server



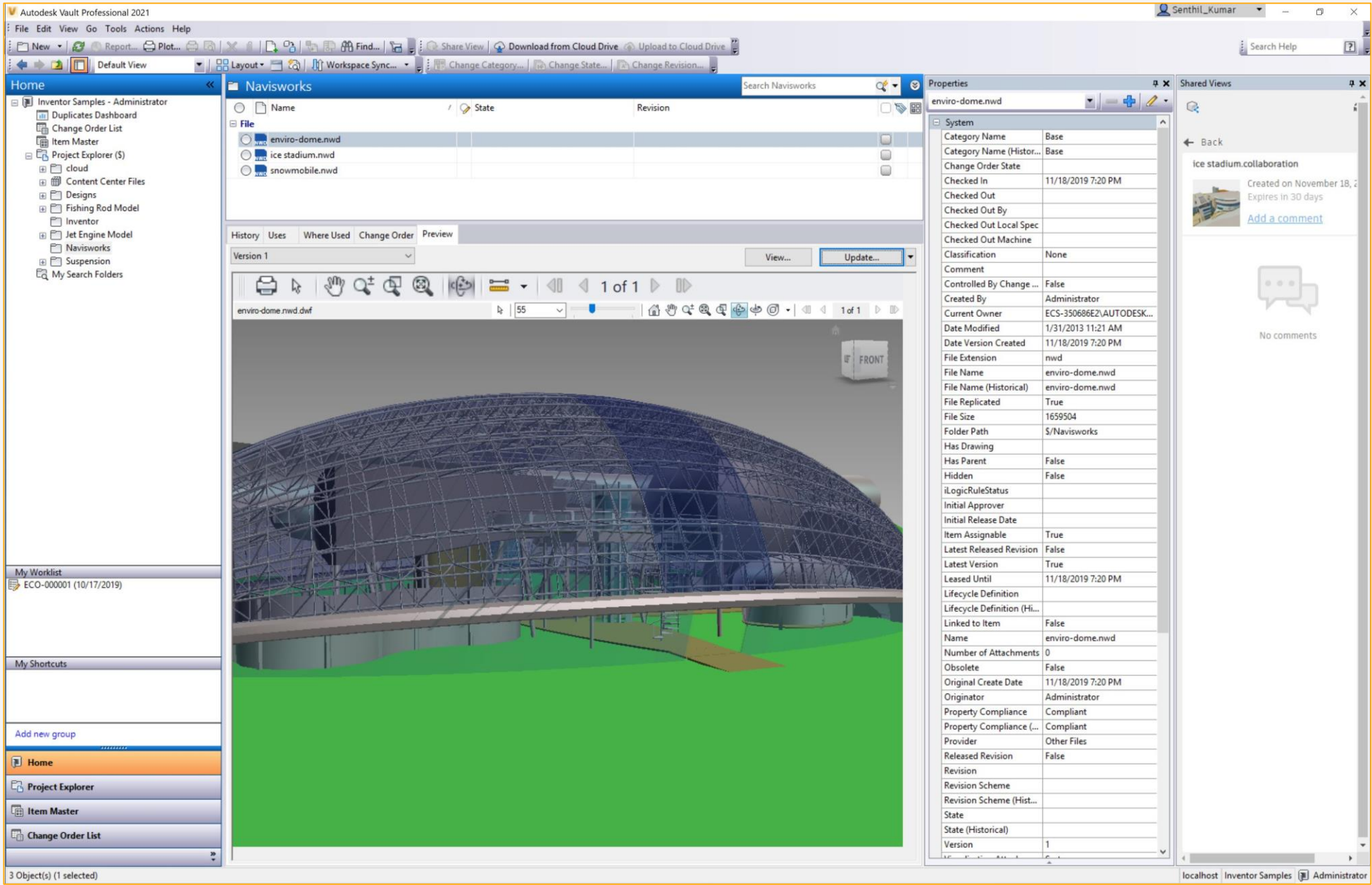
Navisworks preview and Shared Views

Value

Share Navisworks information to a wider audience for consumption and review

Deliverable

- Generate DWF files for Navisworks and expose them in the preview
- Shared Views capabilities available for Navisworks files



Visualization Attachment for Navisworks files

Currently, Vault does not create visualization attachments for Navisworks files

DWF navisworks, PDM-24117, Visualization Attachment

Report

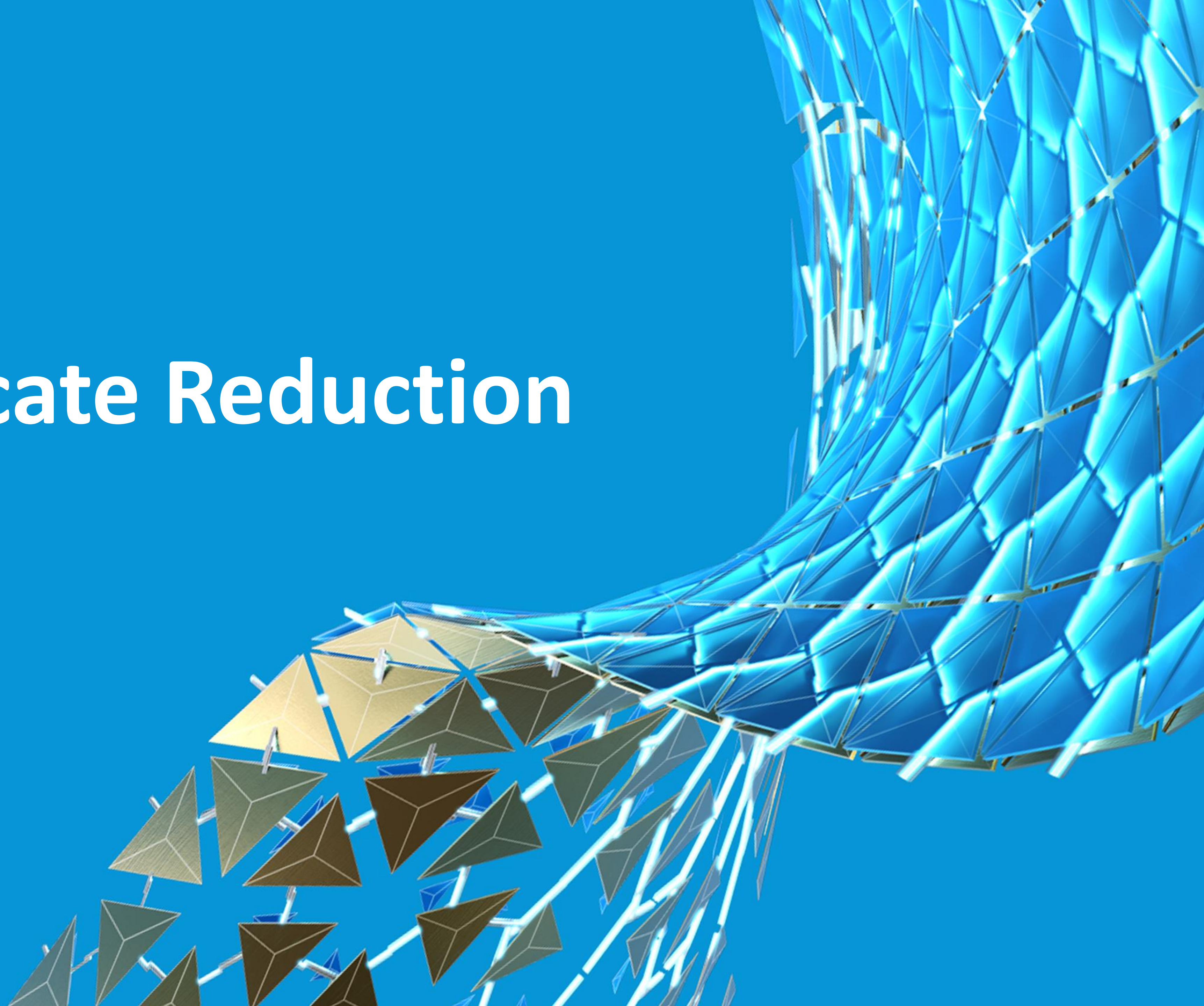
Add tags

VOTE 115 Votes

9 Comments (0 New)

POST A COMMENT

Smart Duplicate Reduction



Manage new part

Challenges

A new part is not just about design time, it is about time and costs of documenting, validating, producing and managing the same physical part again and again.



The annual carrying costs of introducing a new part number range between \$4,500 and \$23,000 per item*

✓ Prototyping

✓ Testing

✓ Production

✓ Supplying

✓ Stocking



*According to The Aberdeen Group, a leading information technology and business intelligence research analyst

Duplicate reduction

Value for subscriber

Deliverable

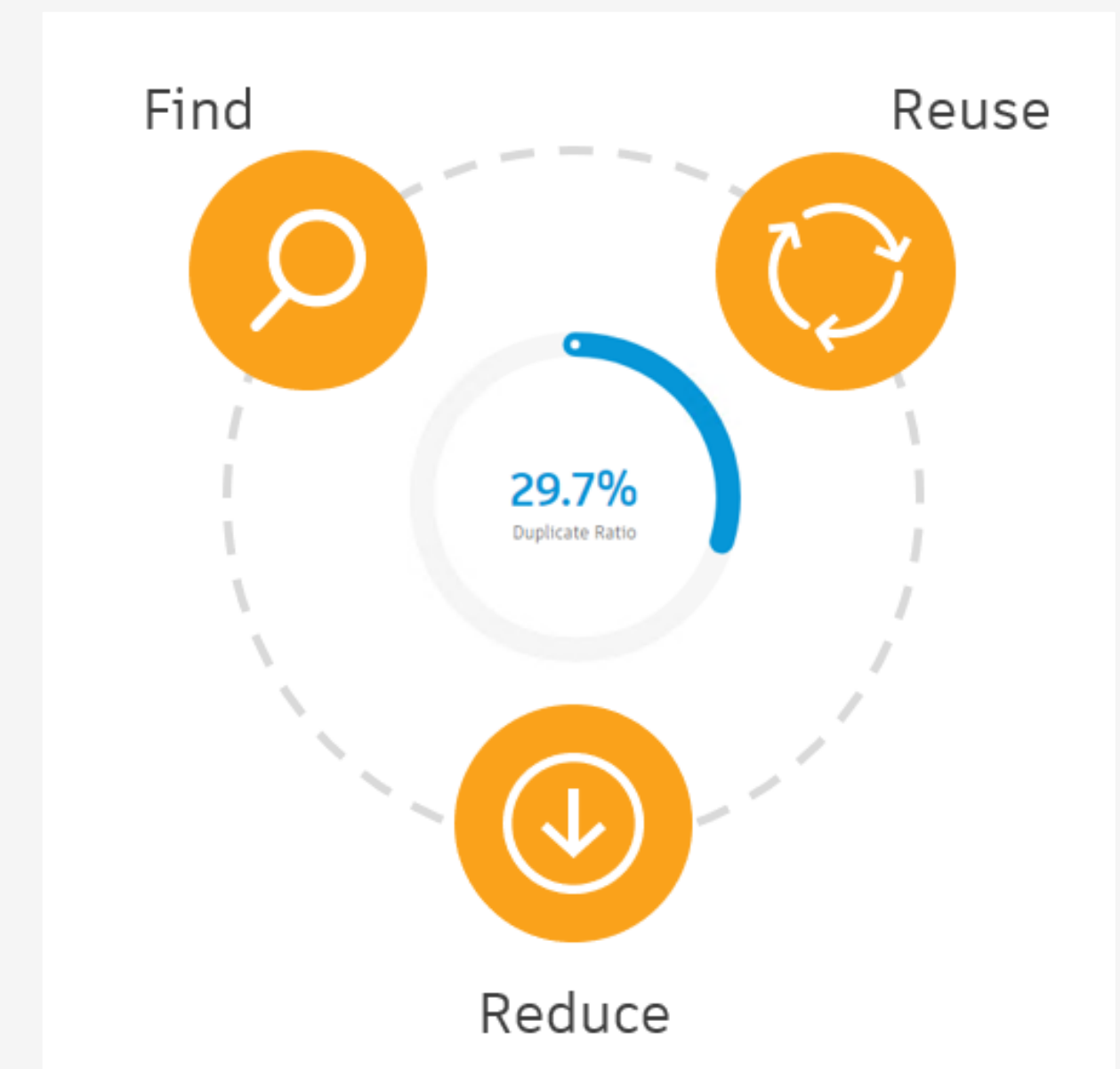
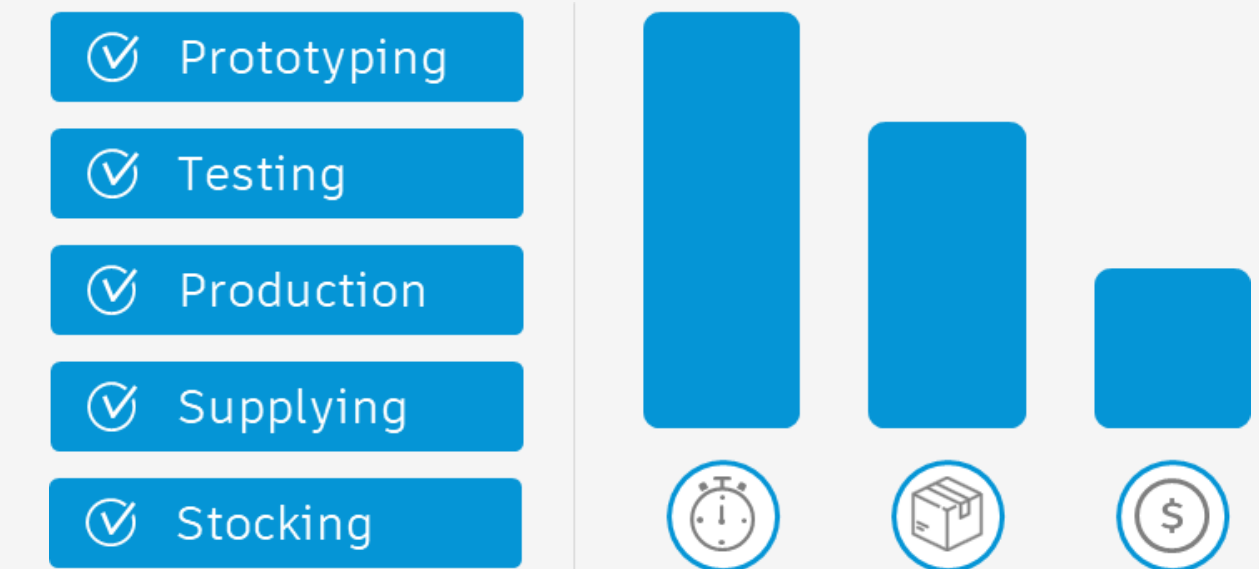
- Understand the duplicate ratio within environment
- Clean up the existing design from duplicate parts during review/ release process and before check in process for external parts

Value

- Reduce time to market and increase profitability by reducing cost after design phase and avoid introducing quality issues
- No disruption for mechanical engineers by allowing them to continue to have the freedom to design the way they want



The annual carrying costs of introducing a new part number range between \$4,500 and \$23,000 per item*



Data analytics and duplicate reduction

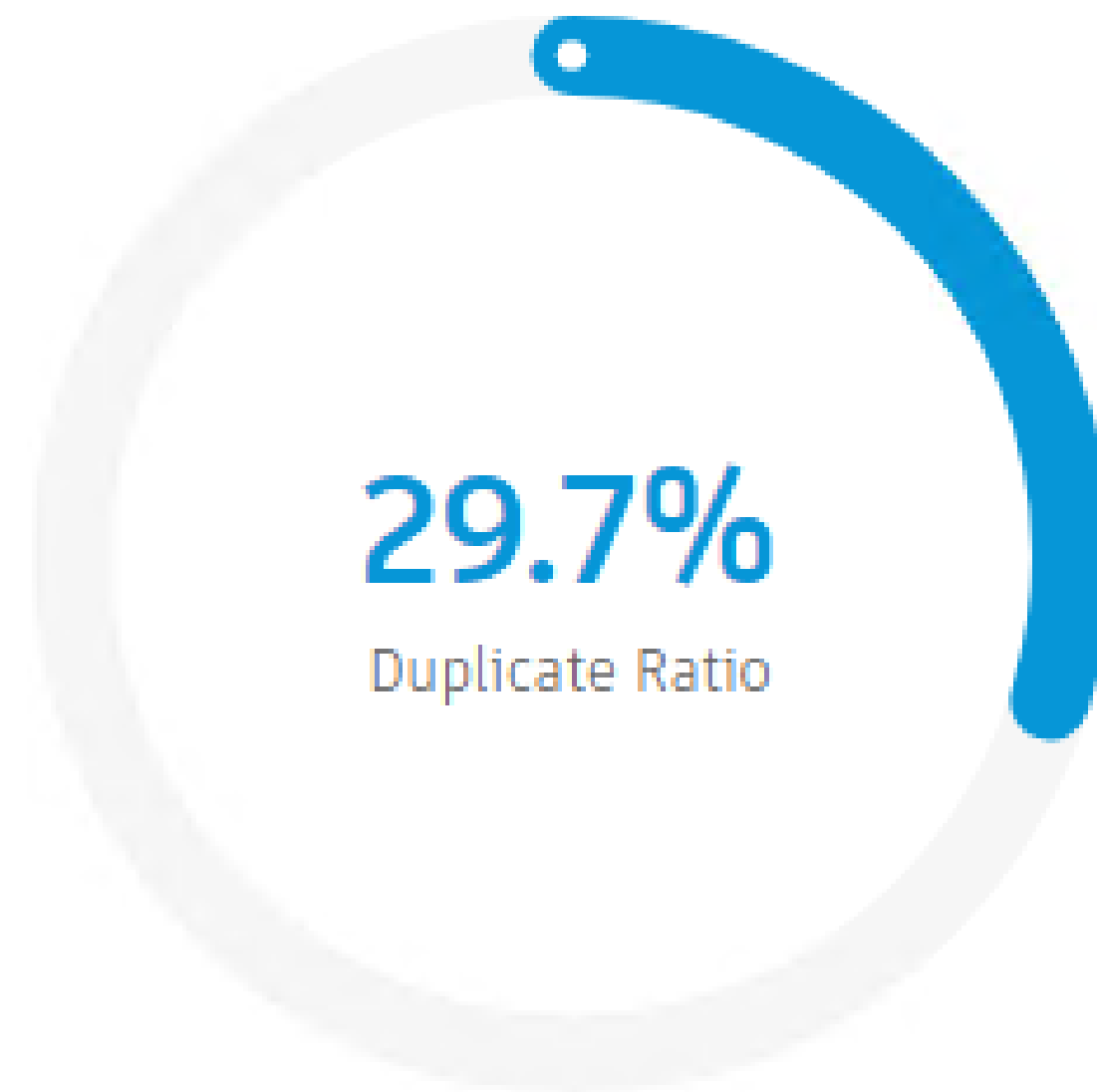
New functionality

Tell me about my data. I need more insights.
How big is the problem in my environment?
Do I need to take any action? If so which actions?

DATA ANALYTICS & INSIGHTS



Tom
Engineering
Manager



Detect duplicates and
promote more re-use

I want to continue to have the freedom to design how I want,
but before releasing the design I want
to know whether duplicate parts are available?

DUPLICATE REDUCTION



Christina
Mechanical
Engineer



Perform geometric search in Inventor and easily
replace duplicate parts workflow



More Efficiency for Administrators



More efficiency for administrators



Vault 2021 allows more granularity within the security model and minimizes deployment and maintenance downtime

Restrict file download access

Audit log

Hide disabled users and groups

Resizable security dialog

Easily identify user with Admin role when logged in

Flexible instance name

Purge historical data

Quick file store validation

Vault 2020 security model

Need more granularity

Design/Folder A/Folder B/Folder C



Read access also allows file download
Shopfloor worker and ME from Team 2 can access and download all files including sensitive data



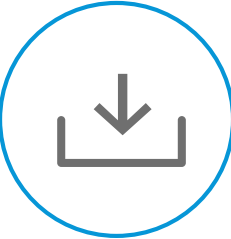



Security model in 2021



More granularity!

Design/Folder A/Folder B/Folder C



		
	<div>Folder ACC XX</div> <div>Folder BFolder C</div>	<div>Folder ACC XX</div> <div>Folder BFolder C</div>
	<div>Folder ACC XX</div> <div>Folder BFolder C</div>	<div>CC XX</div> <div>Folder BFolder C</div>
	<div>Folder ACC XX</div> <div>Folder BFolder C</div>	<div>CC XX</div> <div>Folder C</div>

Read access: meta data like Used/Where Used, Thumbnail

Download access: appropriate groups and users download the right design data

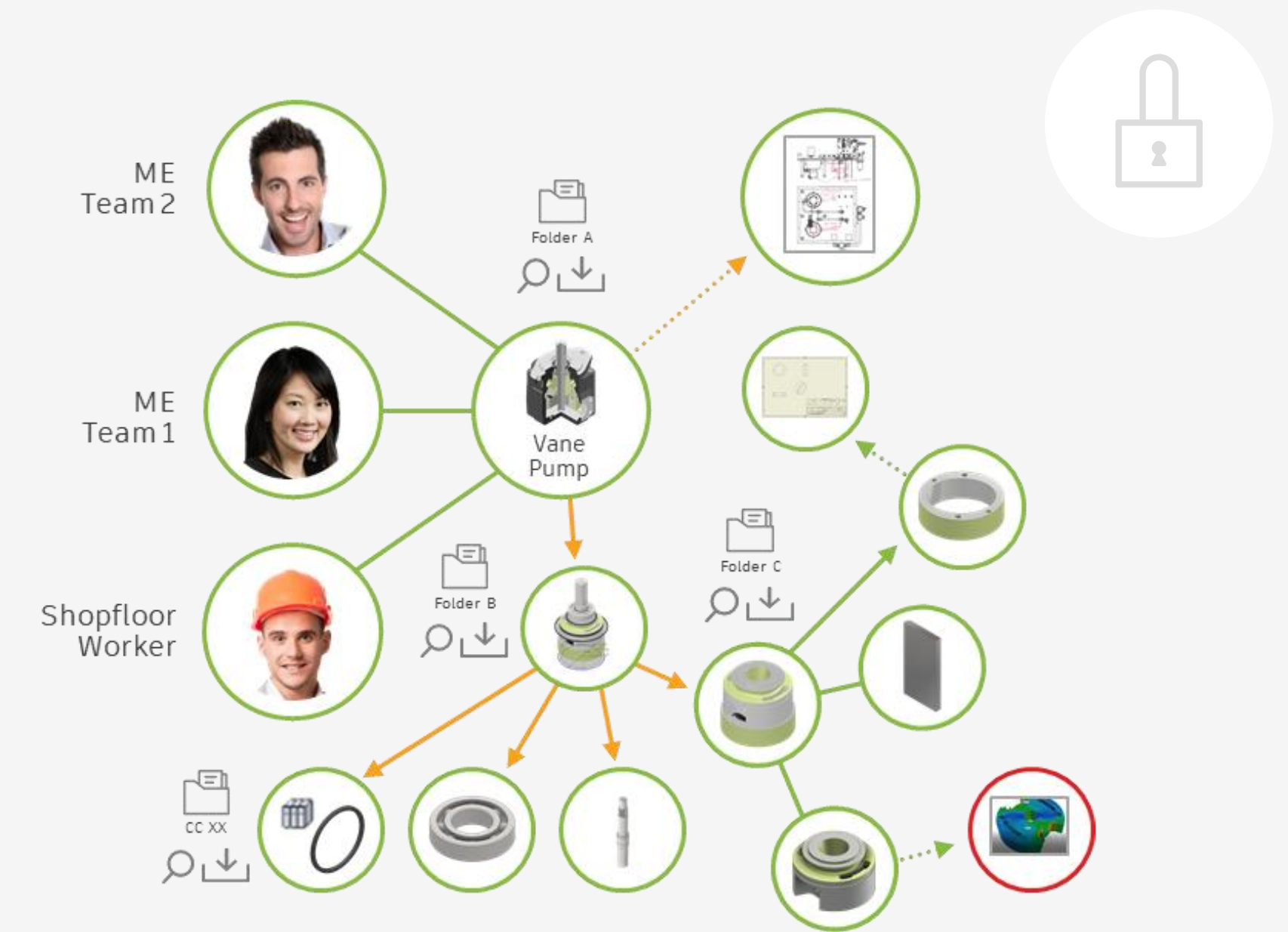
More granularity benefits







Value

- Increase cross department and external collaboration while continue to protect your data
- Eliminate extra work to re-organize your data to fit security system requirements
- Separate audit logs & configure the system with ease
- Address the most requested ideas in the forum

What

- Grant read access to the appropriate groups and users role based while preventing data download
- Flexibility to restrict download access to sensible design data while continue to allow read access for meta data for search, reports etc. object & Lifecycle based
- Track download & Audit Log & several usability enhancements (resizable dialog, hide disabled users and much more)



		
	<div>Folder A CC XX</div> <div>Folder B Folder C</div>	<div>Folder A CC XX</div> <div>Folder B Folder C</div>
	<div>Folder A CC XX</div> <div>Folder B Folder C</div>	<div>CC XX</div> <div>Folder B Folder C</div>
	<div>Folder A CC XX</div> <div>Folder B Folder C</div>	<div>CC XX</div> <div>Folder C</div>

What does this mean for your existing data?











You have a new download permission

Migrate existing roles, objects, and lifecycle security read permission to read plus download permissions

Flexible

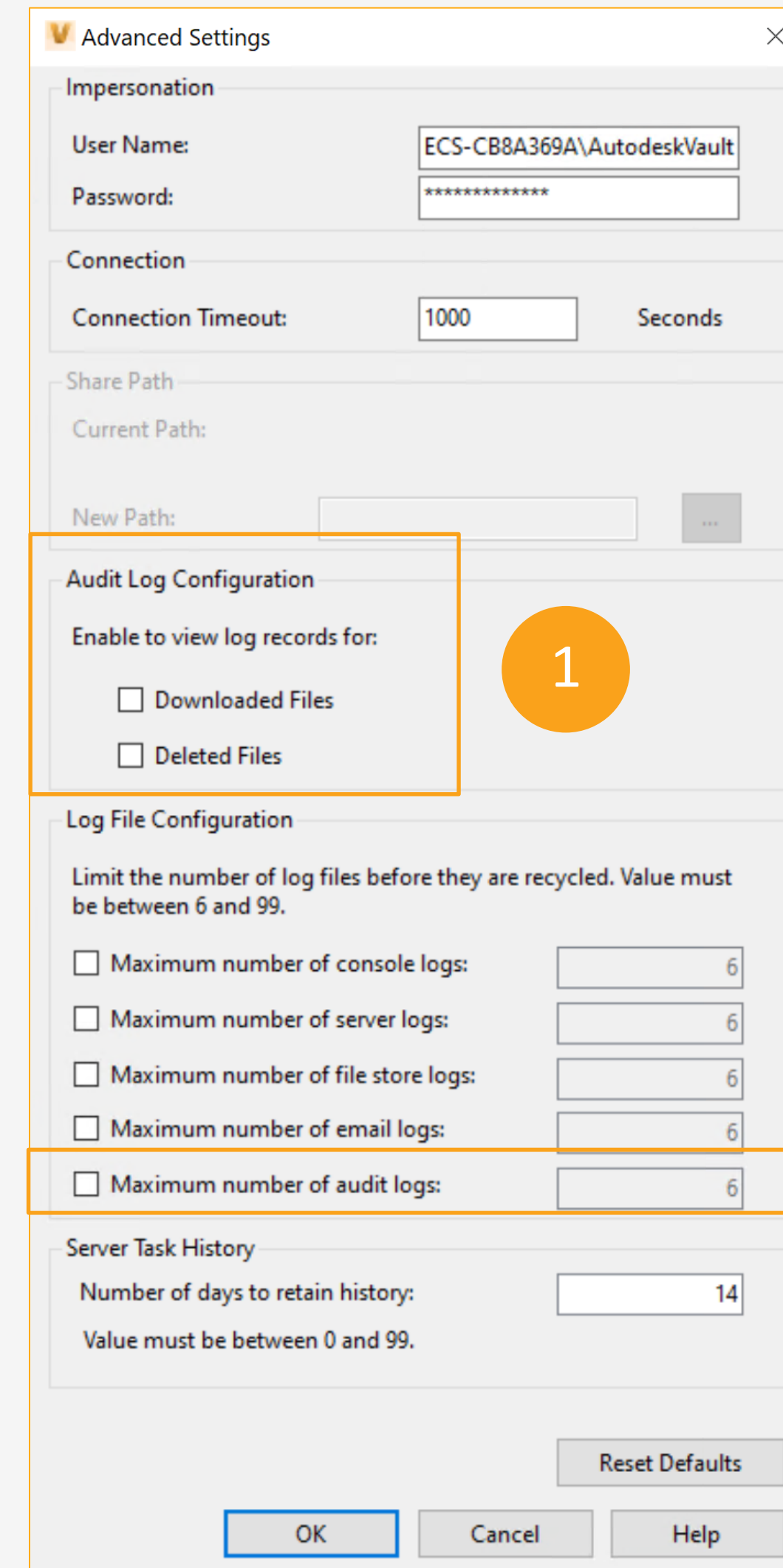
Read/Download permissions can be applied to roles, objects, and lifecycle state

Note: DWF & PDF files continue to have a different ACL than CAD files

Operation	Read	Download
Properties Read (incl. Thumbnail)		
Search, Reports, Send a link		
Open, View in Window, Insert into CAD		
GET, File Download in Thin Client, Pack & Go, Copy Design		
Create PDF, DWF, Edit/ Update Properties, Job Processor		
Share Views, Update View, Manual Upload to Cloud Drive, Job Processor		

Track download and audit log

- Enhanced logging for download to track “real” download operations only
 - GET, Open, View in Window, Insert into CAD, Update View
 - Pack & Go, Send File, Share Views
- UI setting to turn on/off logging for download and delete
- Separate Audit Logs file for download and delete



The 'Advanced Settings' dialog box is shown with several sections. The 'Audit Log Configuration' section is highlighted with an orange box and a red circle with the number 1. It contains two checkboxes: 'Downloaded Files' and 'Deleted Files'. The 'Log File Configuration' section is also highlighted with an orange box and a red circle with the number 2. It contains five checkboxes, each with a corresponding input field set to 6: 'Maximum number of console logs', 'Maximum number of server logs', 'Maximum number of file store logs', 'Maximum number of email logs', and 'Maximum number of audit logs'. The 'Server Task History' section is highlighted with an orange box and a red circle with the number 3. It contains a text field for 'Number of days to retain history' set to 14. At the bottom, there are 'OK', 'Cancel', 'Help', and 'Reset Defaults' buttons.

Advanced Settings

Impersonation

User Name: ECS-CB8A369A\AutodeskVault

Password: *****

Connection

Connection Timeout: 1000 Seconds

Share Path

Current Path:

New Path:

Audit Log Configuration

Enable to view log records for:

☐ Downloaded Files

☐ Deleted Files

Log File Configuration

Limit the number of log files before they are recycled. Value must be between 6 and 99.

☐ Maximum number of console logs: 6

☐ Maximum number of server logs: 6

☐ Maximum number of file store logs: 6

☐ Maximum number of email logs: 6

☐ Maximum number of audit logs: 6

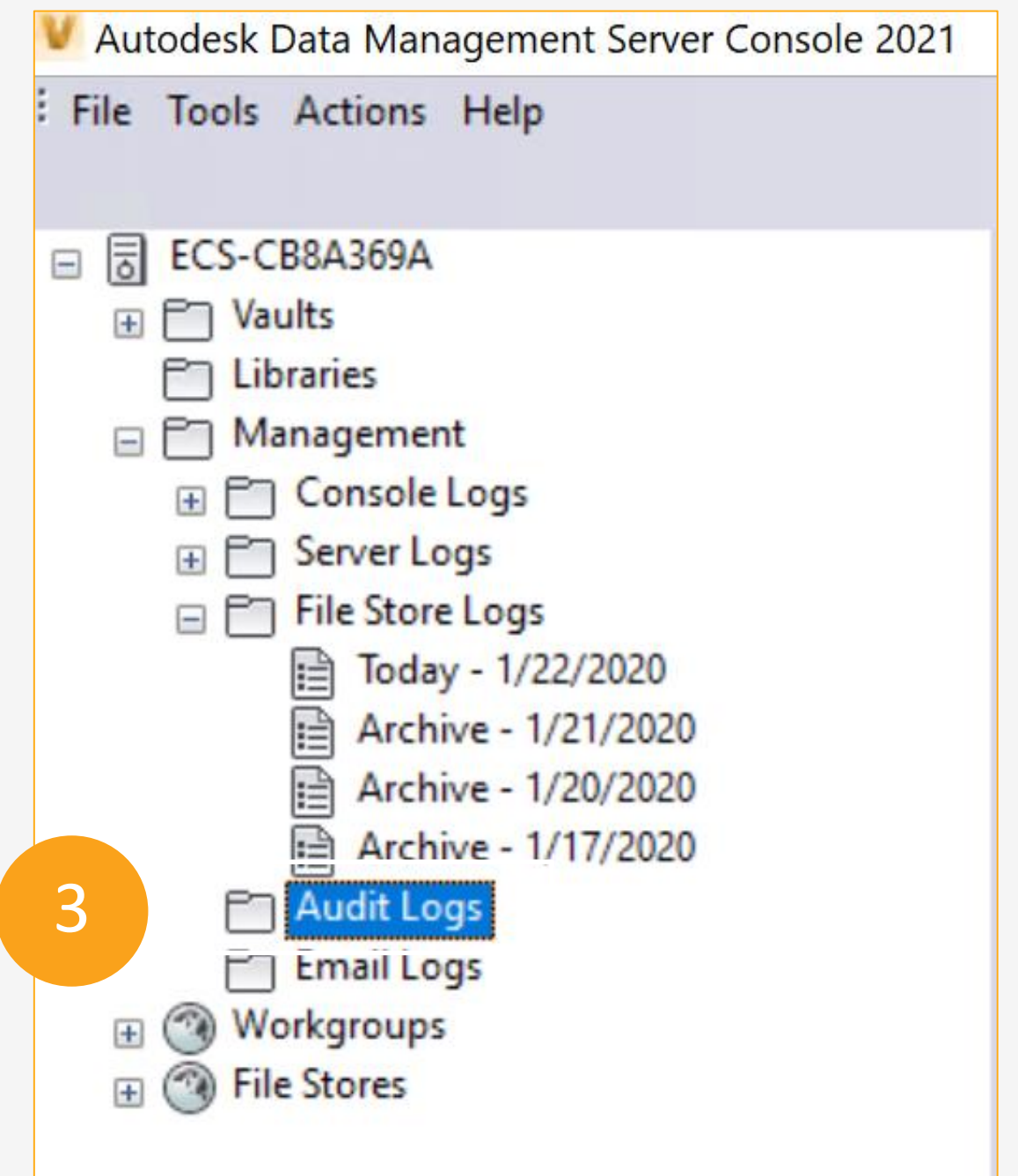
Server Task History

Number of days to retain history: 14

Value must be between 0 and 99.

Reset Defaults

OK Cancel Help



Usability enhancements in Object security dialog

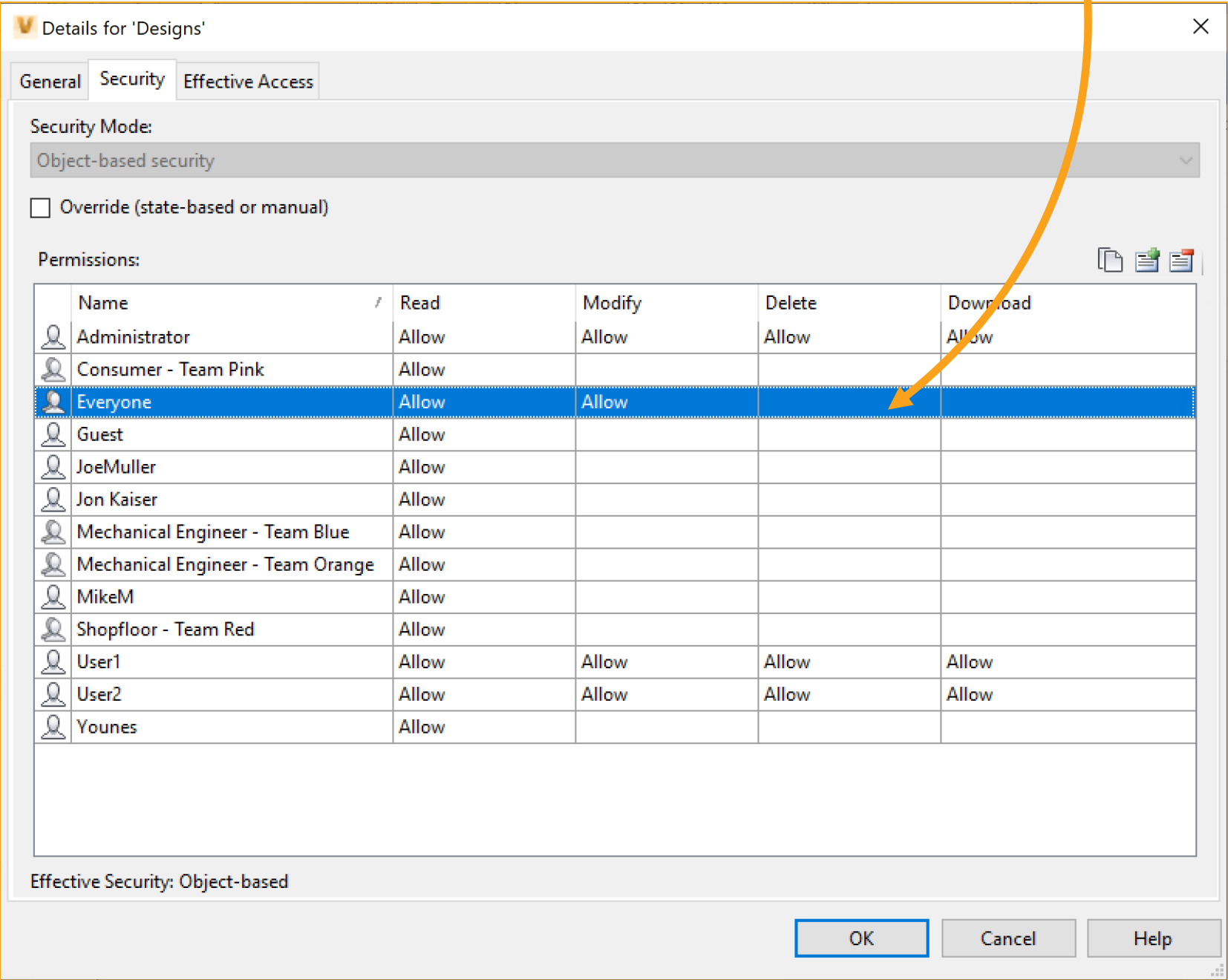
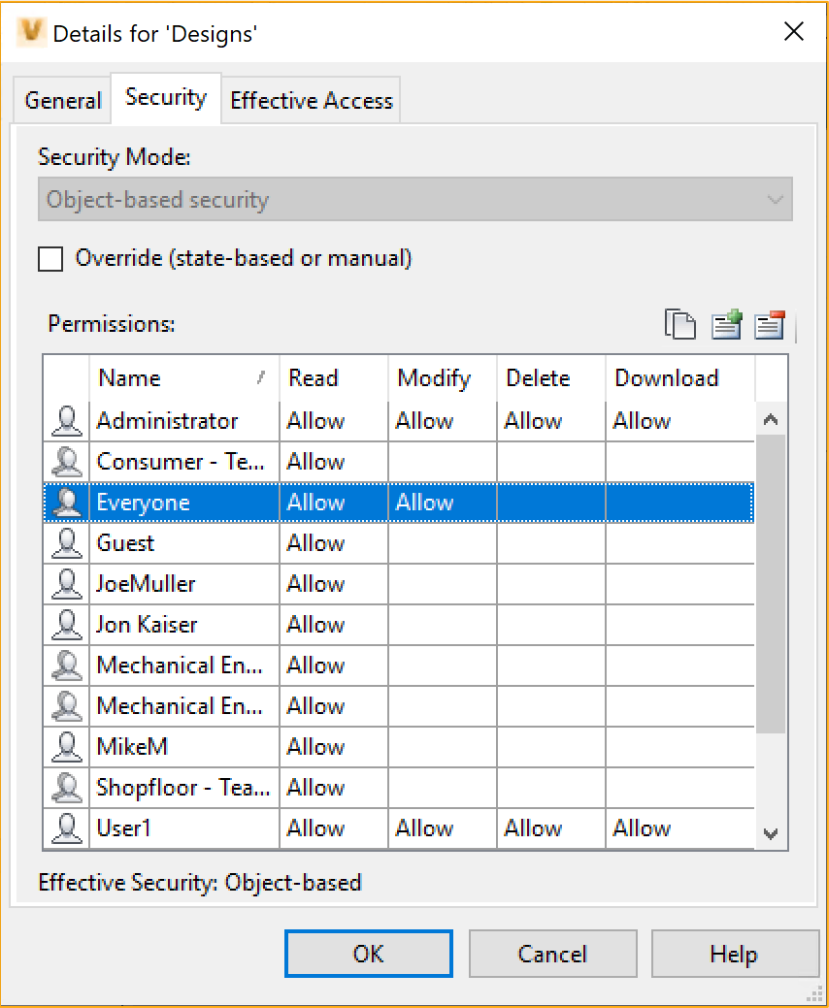
Customer request

Very difficult today if you are managing 100's of users to navigate through the Object security dialog

Deliverable

Resizable Details dialog for better usability on Security Tab

Vault 2020



Vault 2021

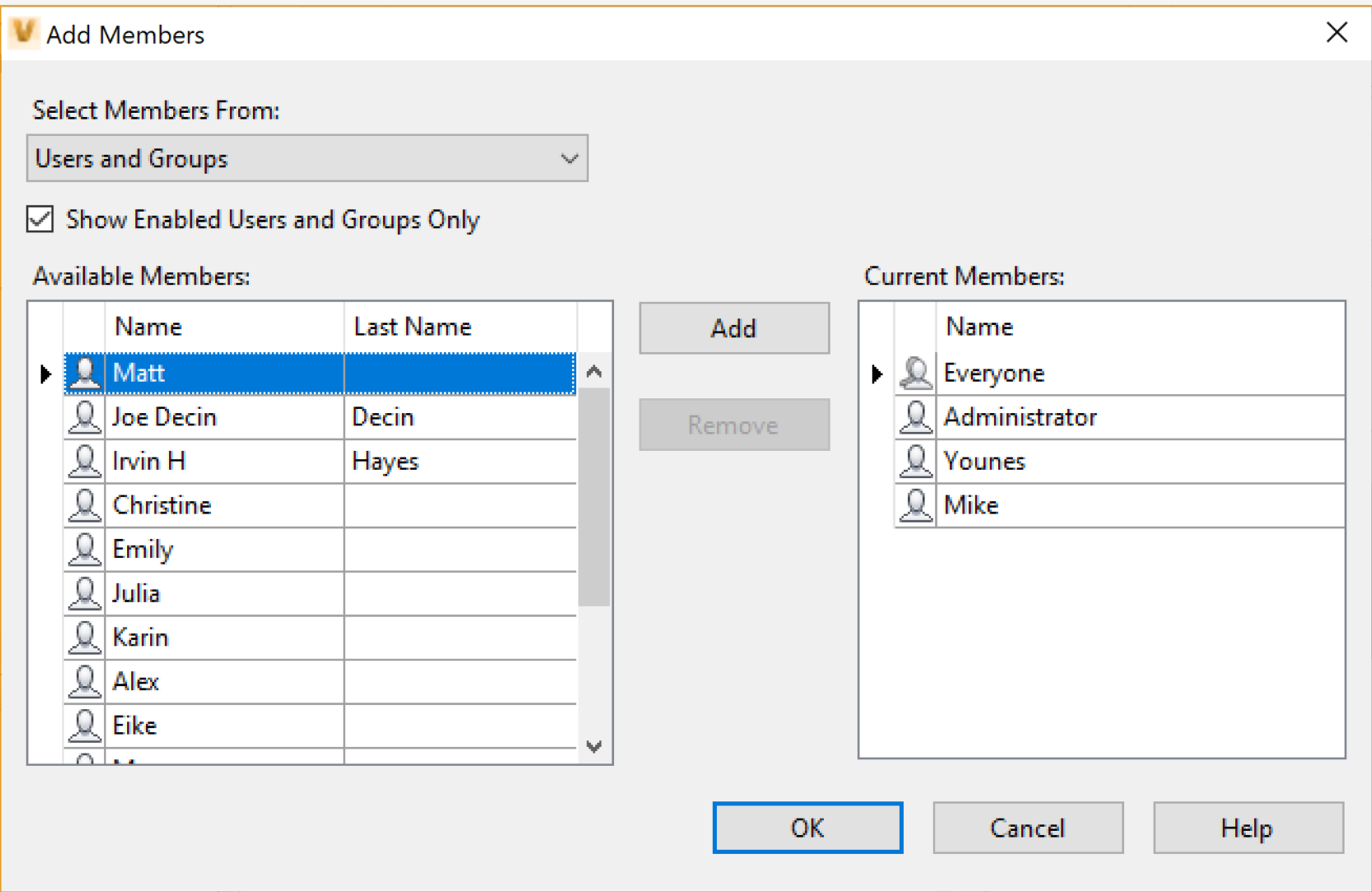
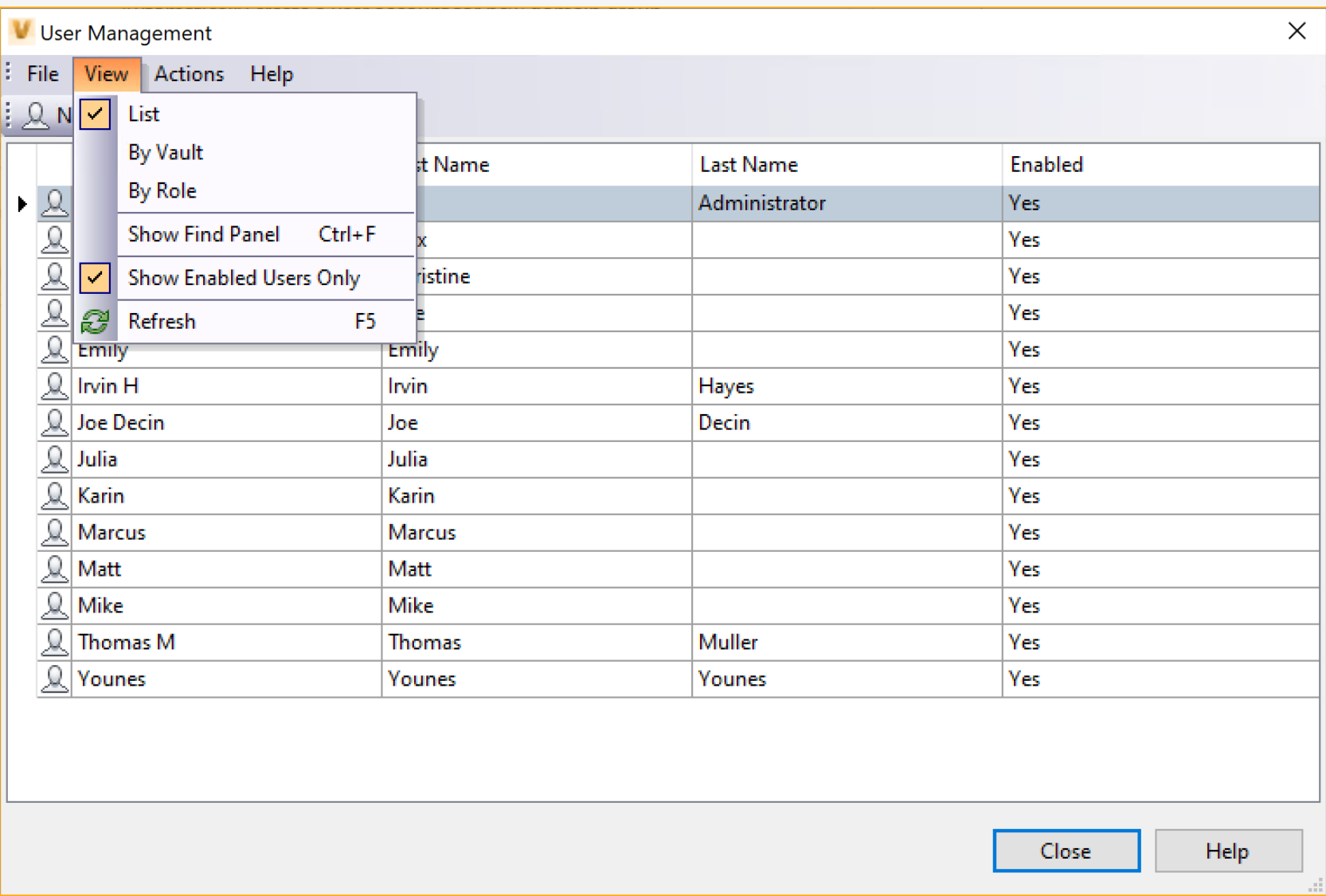
Usability enhancements in user management dialogs

Customer request

Easy administration of disabled users

Deliverable

Option to filter out disabled users and groups in Users, Groups management dialogs as well as in “add Members dialogs” within object security tab, state security tab, transition definition, etc.



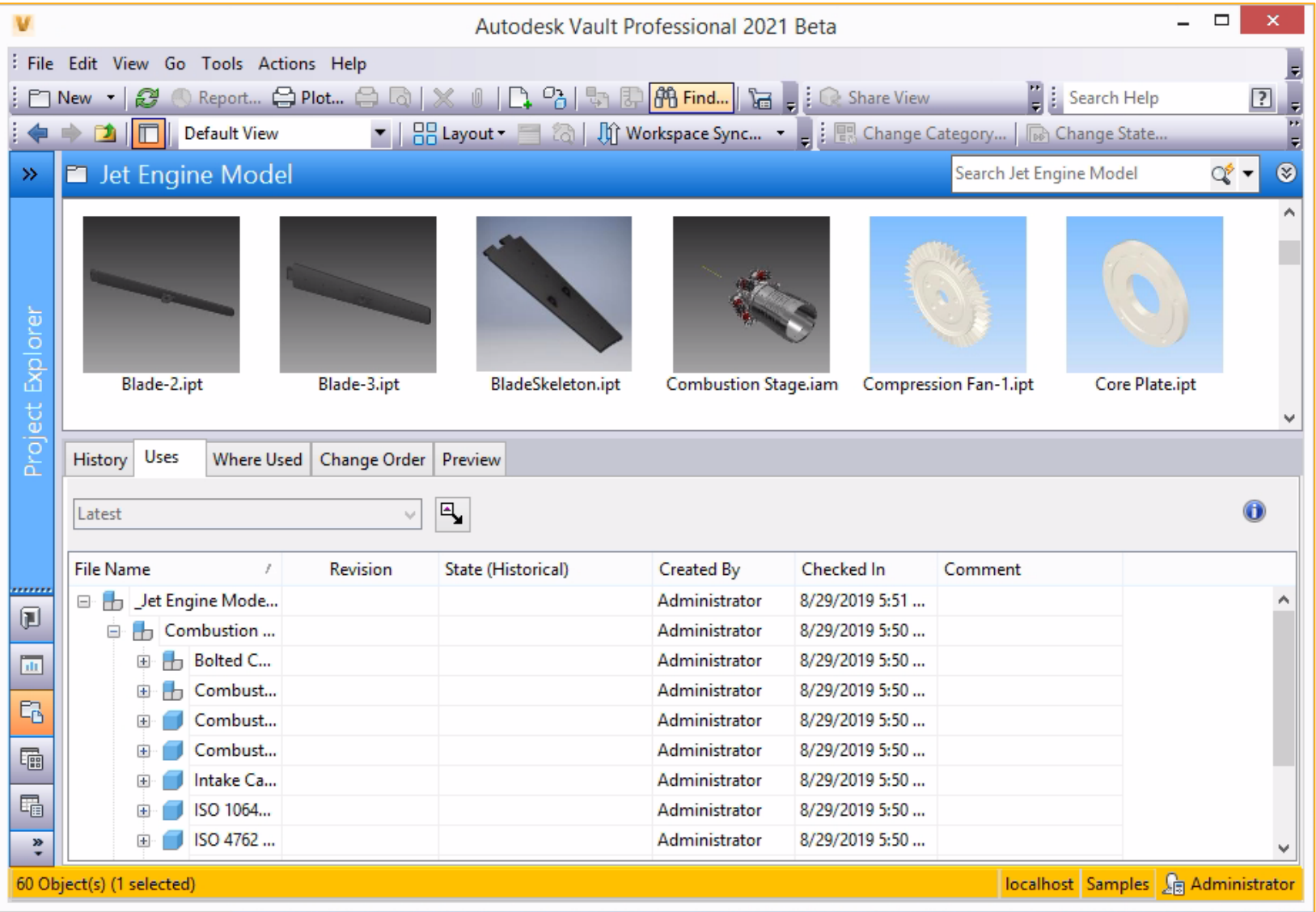
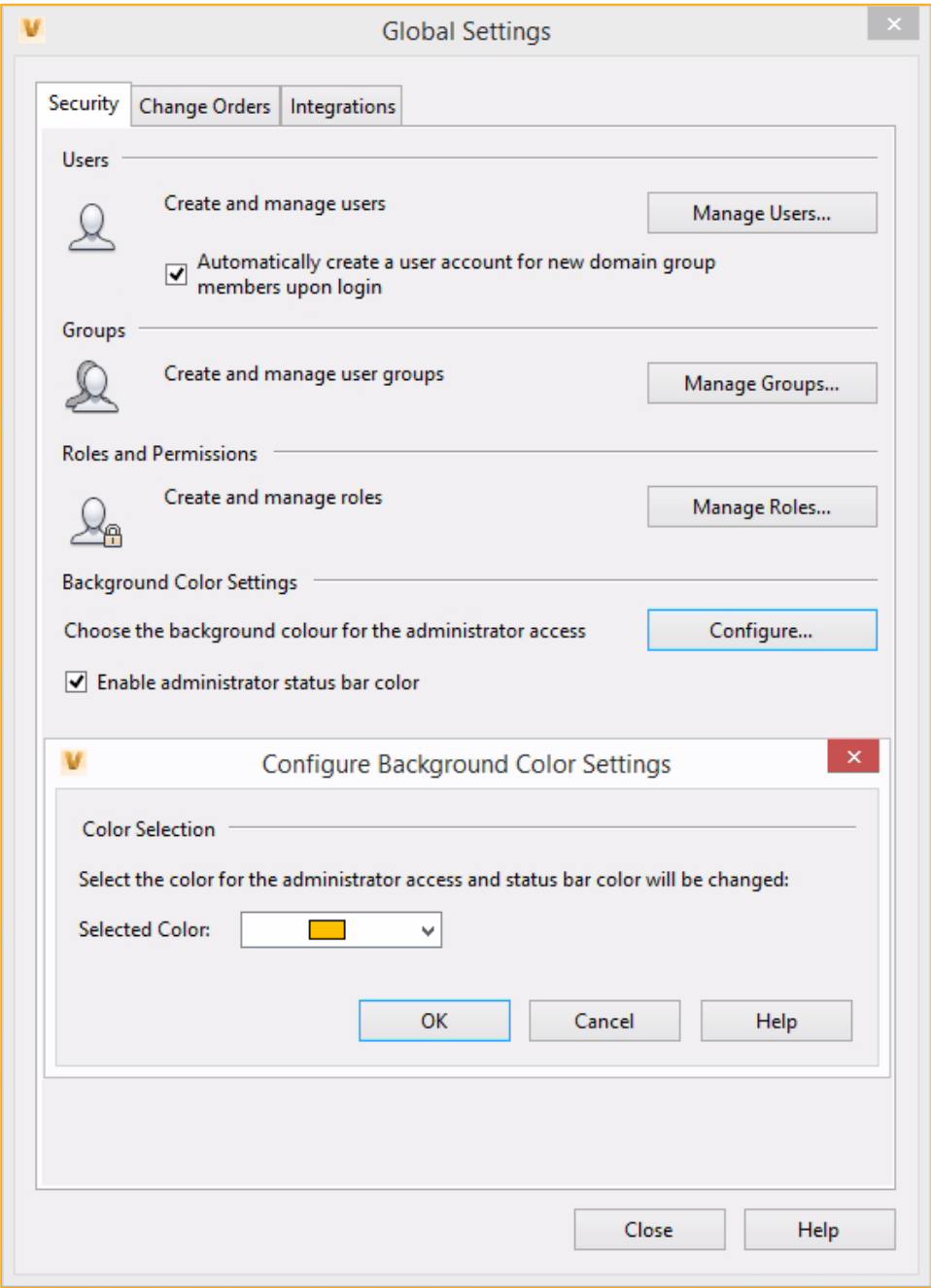
Usability enhancements for vault admins

Customer request

“Easy Recognize” login user with administrator permissions

Deliverable

Configure status bar color in security tab for users assigned to admin roles



Minimize downtime for backup / maintenance



Customer challenge

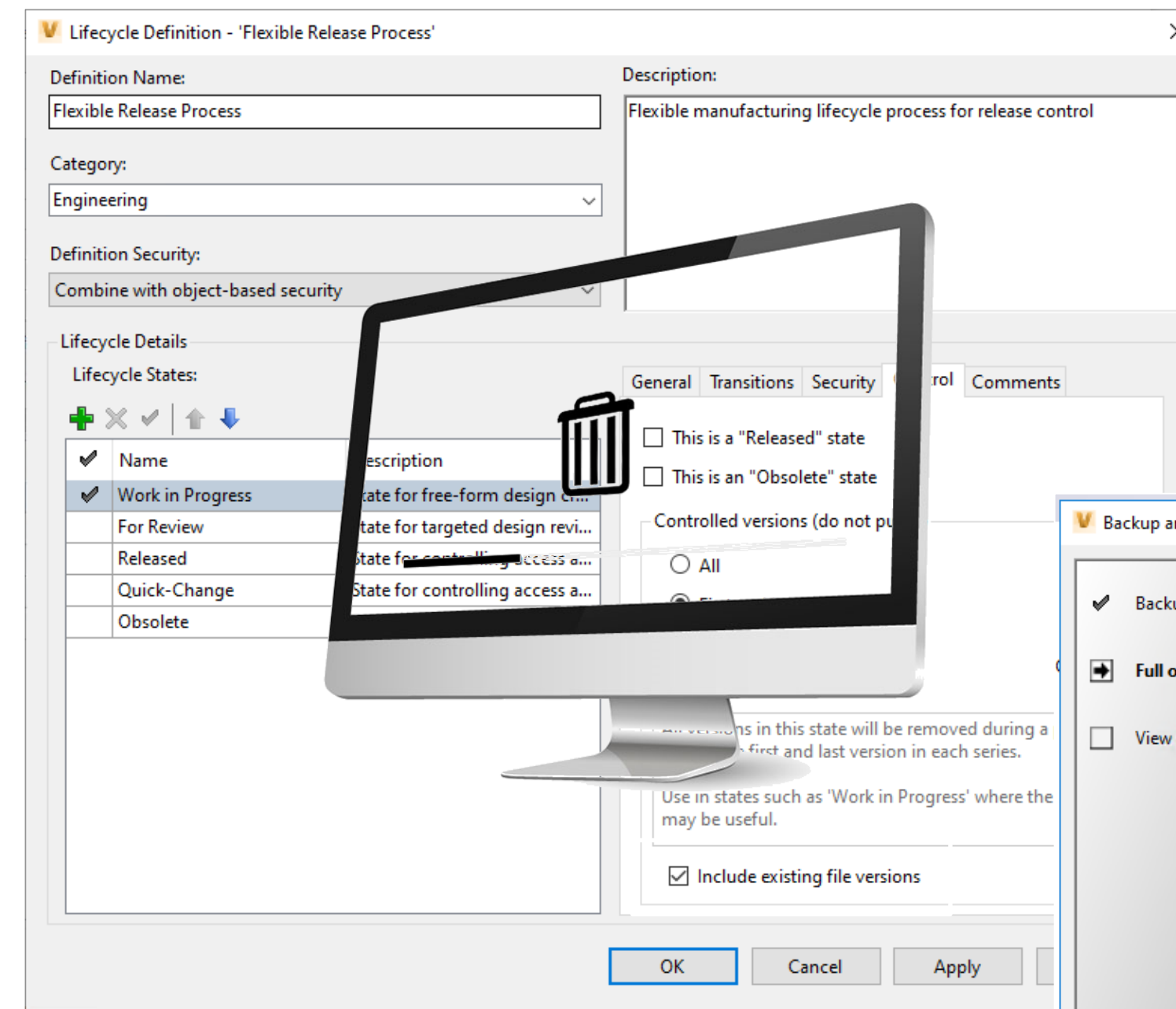
Backup, restore upgrade workflows are taking a very long time by big databases and file-stores

What

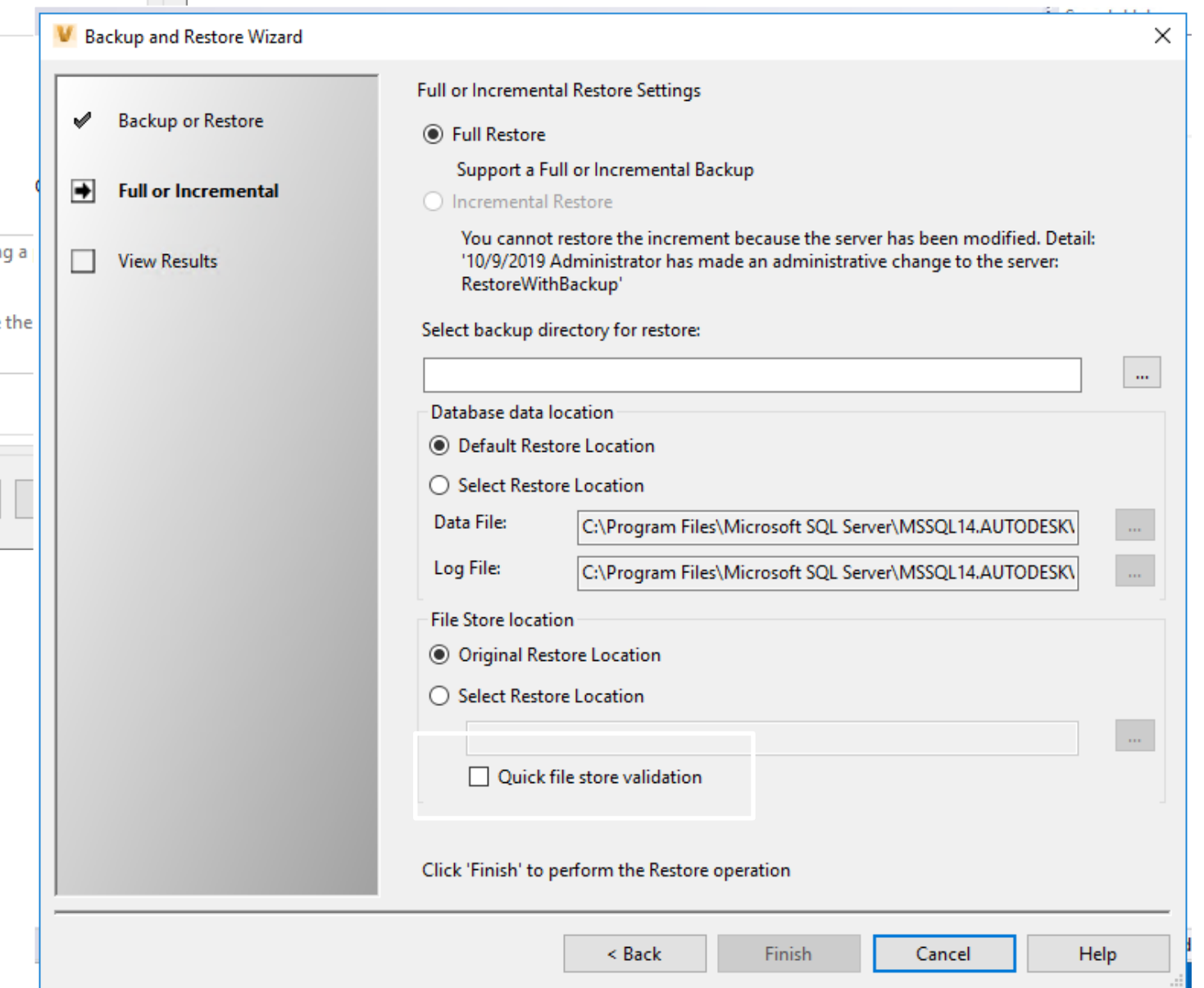
- Allow purge for legacy versions which are under lifecycle control
- File store validation is optimized
- You can also use quick file store option for quick validation

Value

Minimize downtime during Backup, Restore, and upgrade by reducing file stores and database size



New purge option to include existing file versions per state in the control tab

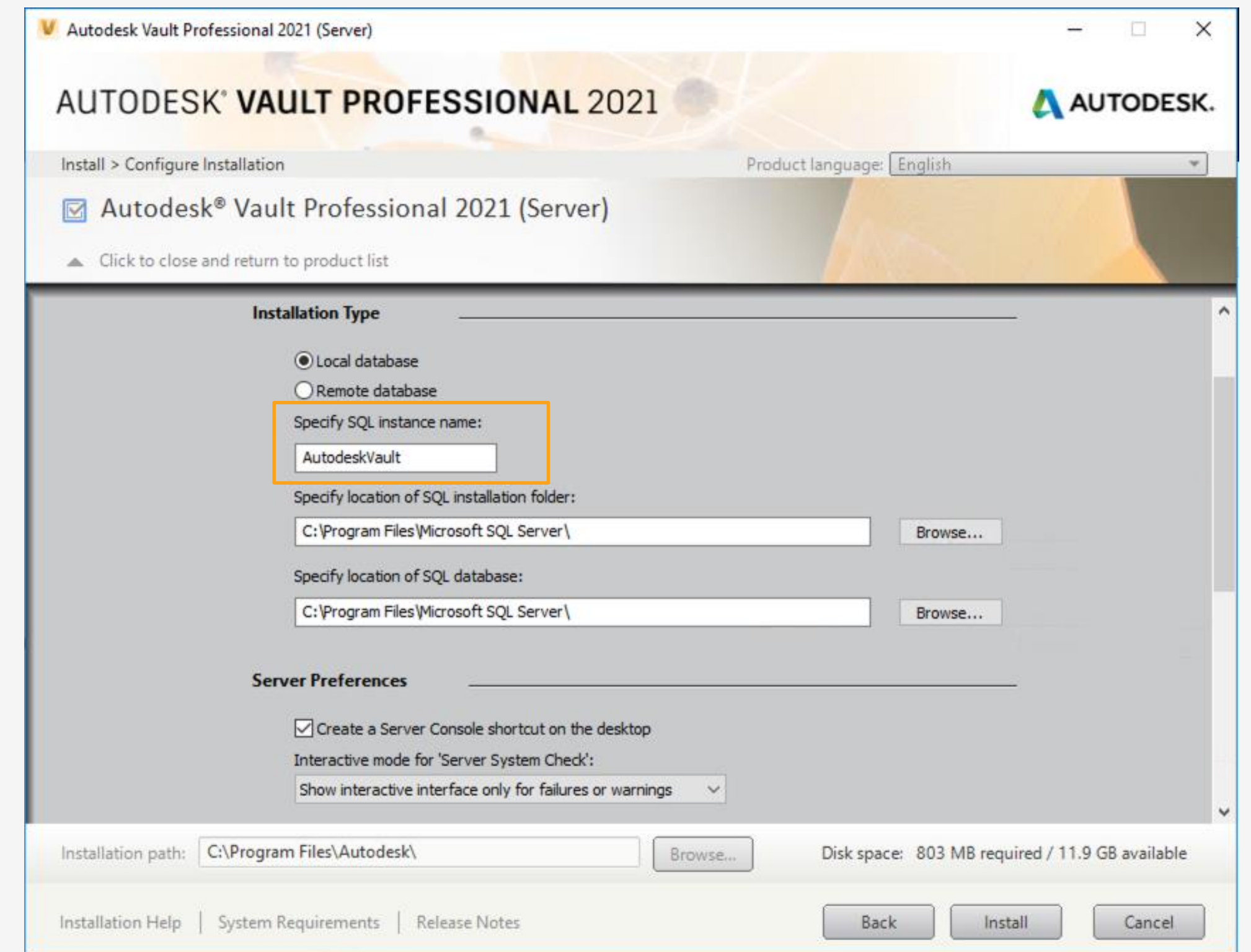


Quick File store validation option within attach and restore

More Flexible Deployment

Allows Vault installation/configuration to connect to an Instance not named AUTODESKVAULT

- Naming conventions that must be kept for company standards
- When several Vault Servers reside in the same IT infrastructure
- Separate DEV/ QA environment that is running a mirror image of production Vault
- Several Vault Server versions within the same SQL Server



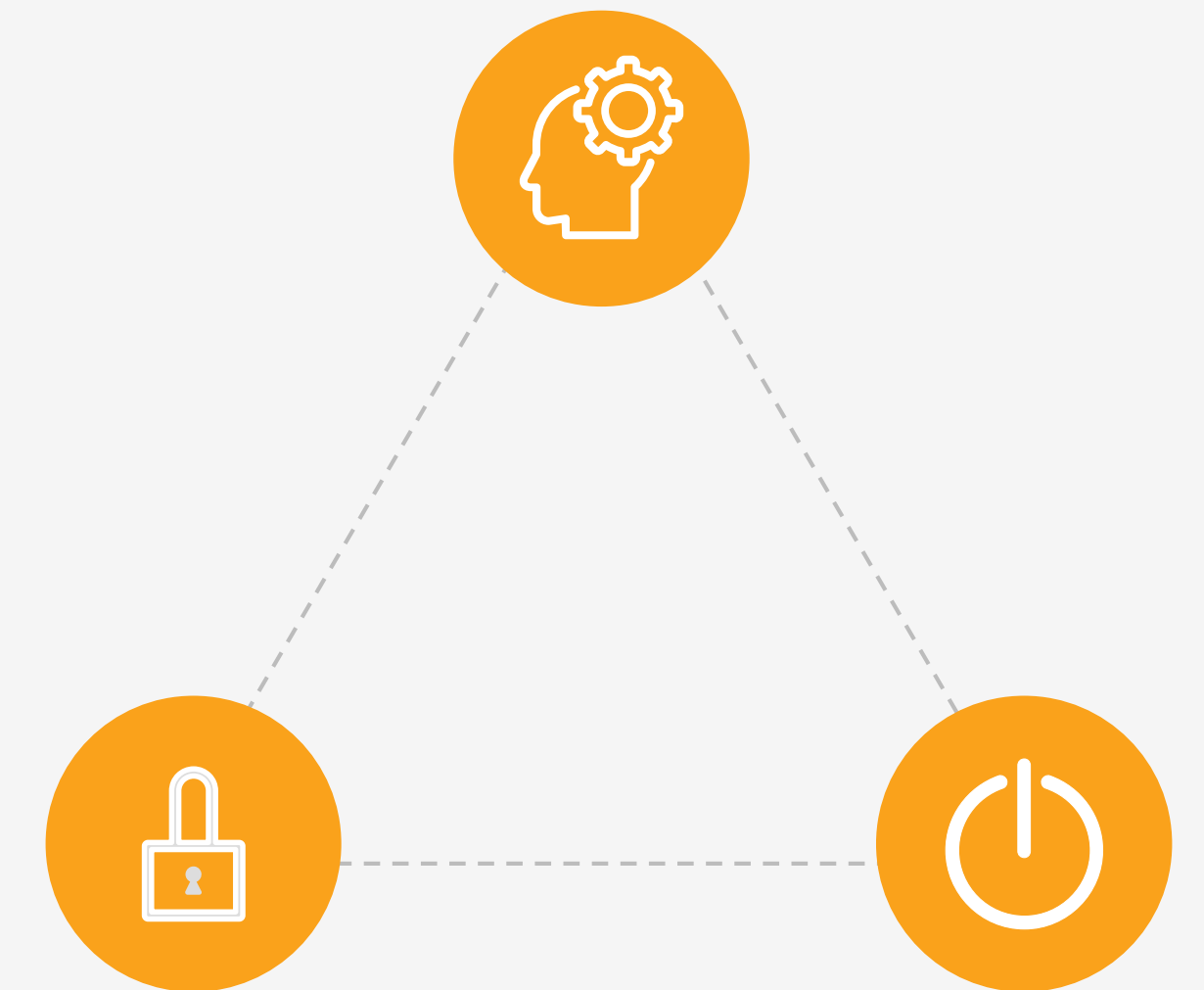
More efficiency for Administrators and collaboration workflows

Value

- Increase cross-department and external collaboration while protecting data and eliminating extra work to reorganize data to fit security system requirements
- Separate audit logs and ability to configure the system with ease
- Reduce file store size impact downtime during Backup and Restore
- Comply and IT naming converting and maintenance costs for test environment

Deliverable

- Grant read access to the appropriate groups and user roles while preventing data download
- Flexibility to restrict download access of sensitive data while allowing read access of meta data for search, reports, etc. by object and lifecycle
- Track download and audit log and several usability enhancements (resizable dialog, hide disabled users, and much more)
- Quick file store validation and purge historical data functionality
- Flexible instance name



Vault 2021.1 Update

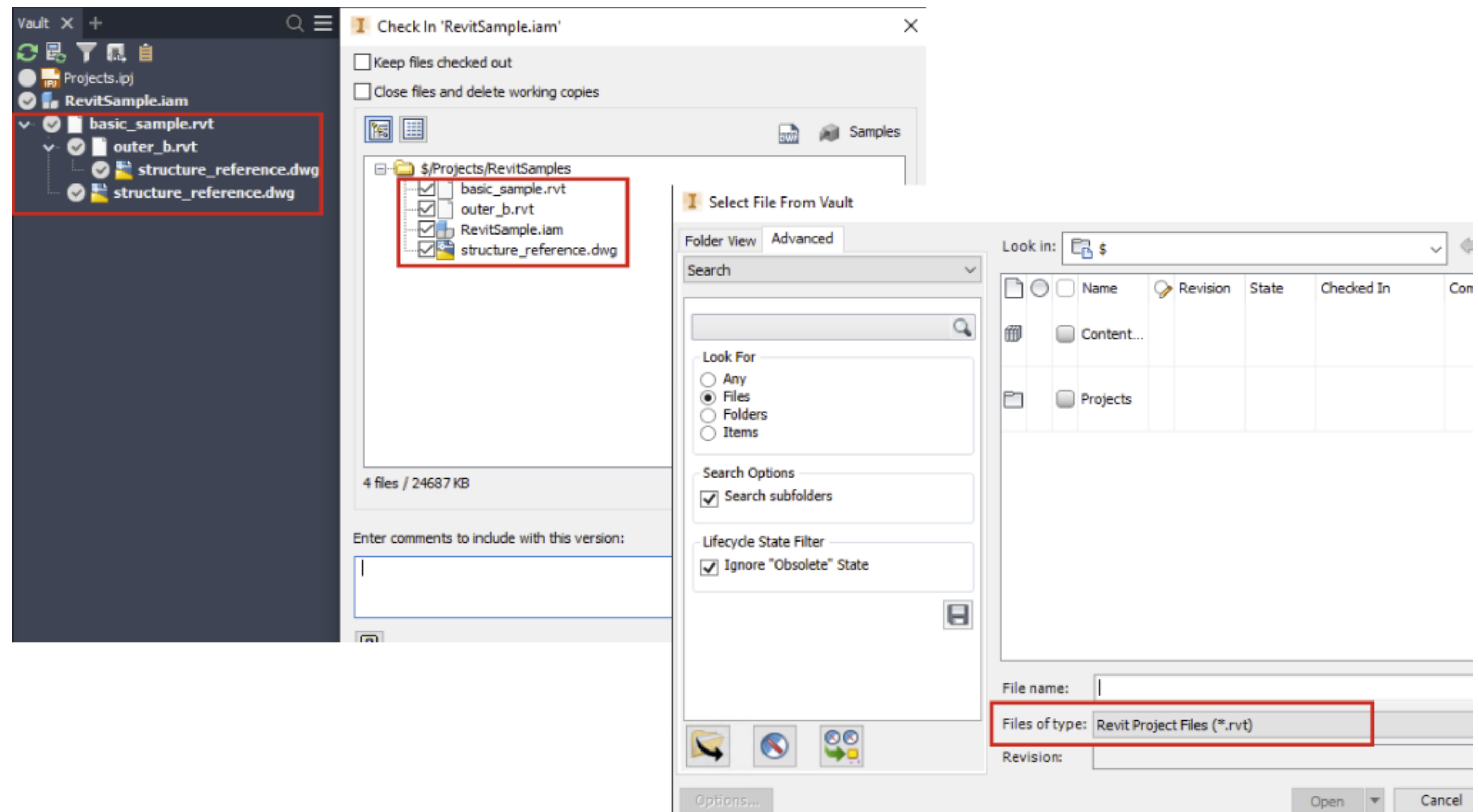




Vault 2021.1 Update - Productivity for CAD Users

Inventor Revit Interoperability

- Check in the Revit files within the Inventor assemblies.
- Add the Revit file type using the Open from Vault dialog.



Vault 2021.1 Update - Productivity for CAD Users

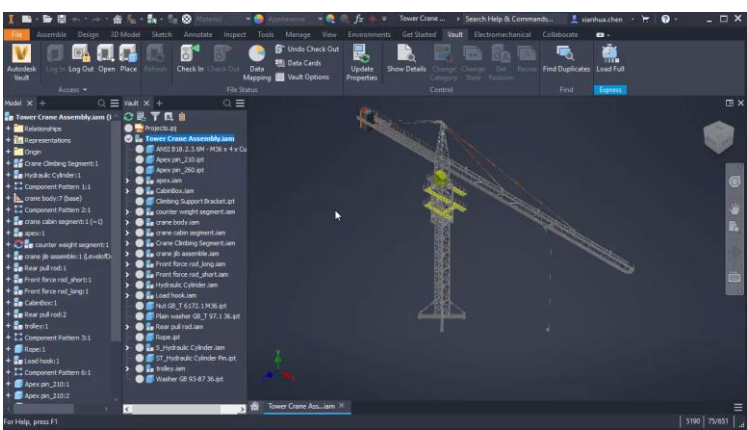
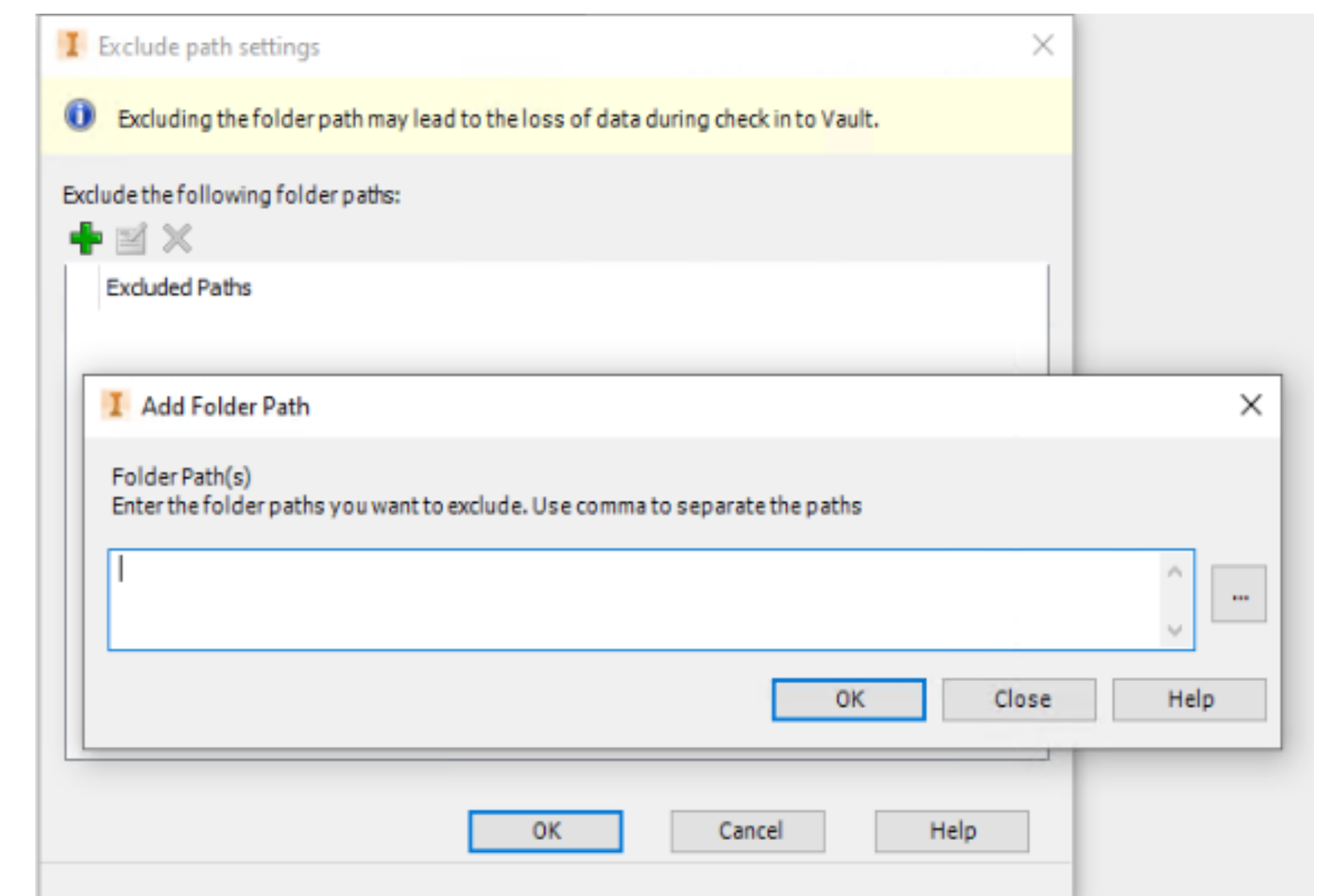
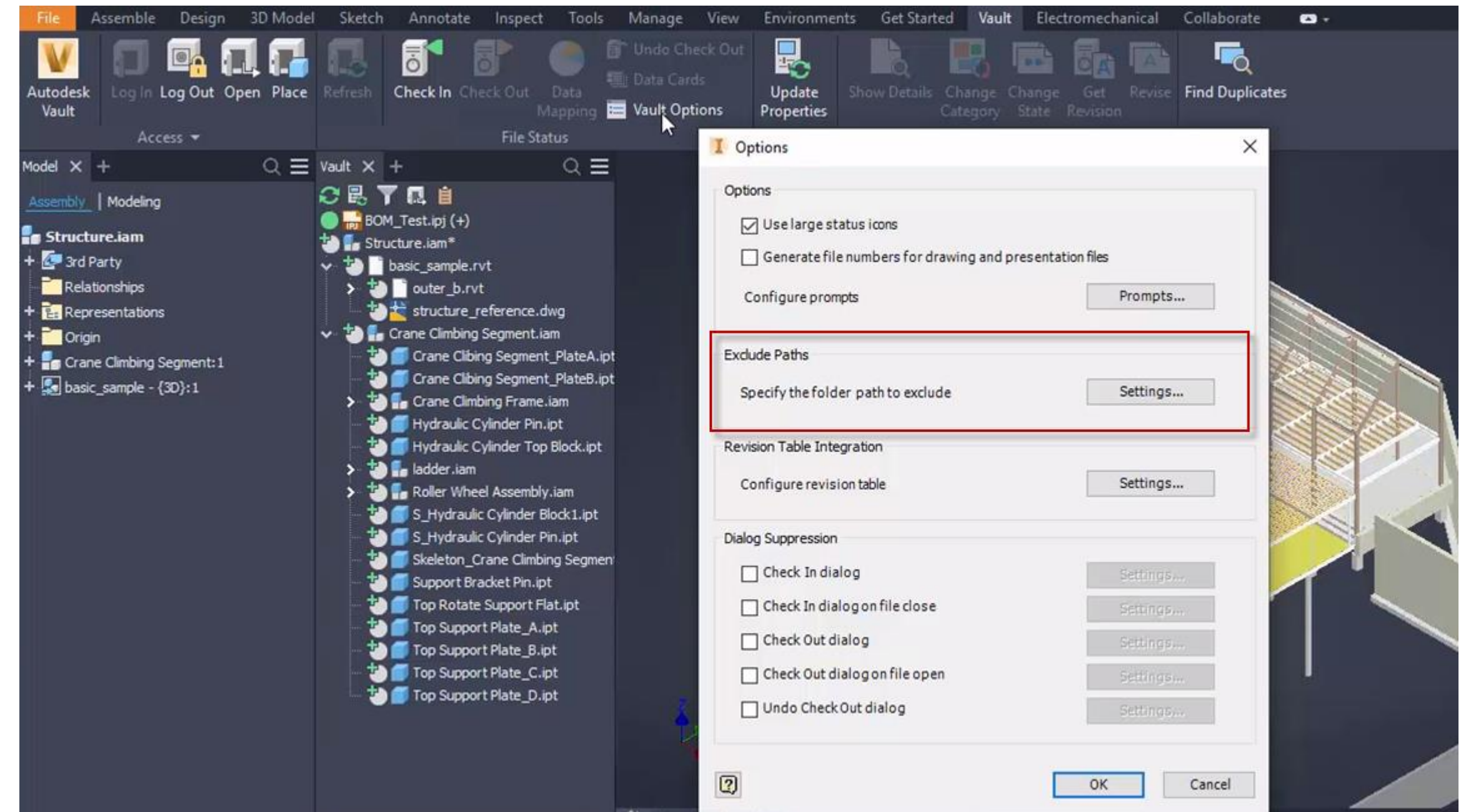
Exclude Path – Inventor Vault Add-in

As a CAD Admin, I want to exclude path by using Vault Options within Inventor/Vault Add-in.

Those files within the excluded paths will not be included during check-in.

Example:

- Revit files managed in BIM 360
- Point Cloud

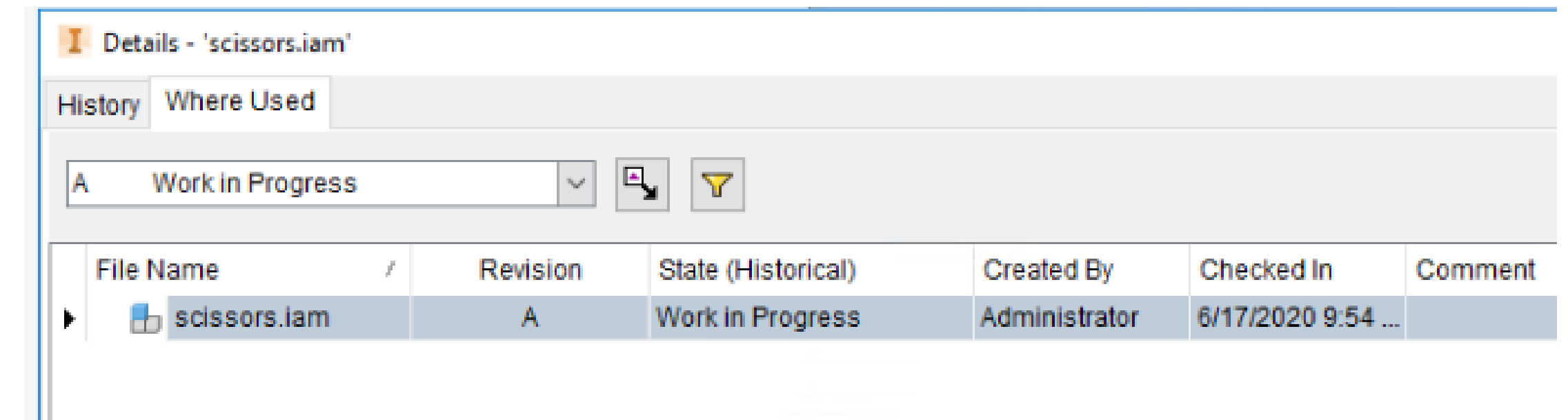


Vault 2021.1 Update - Productivity for CAD Users

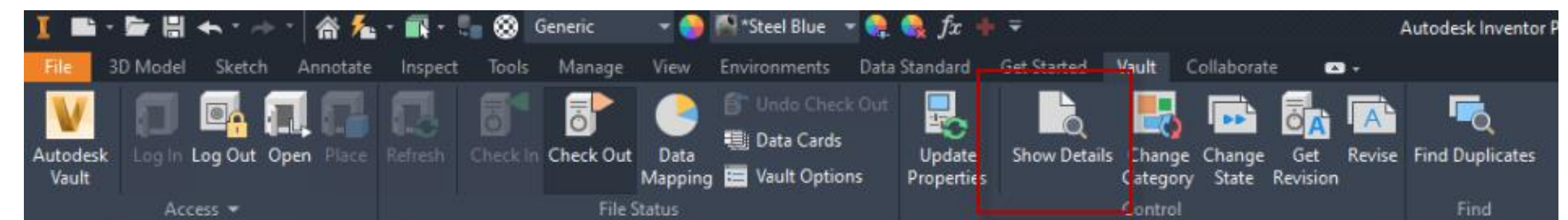
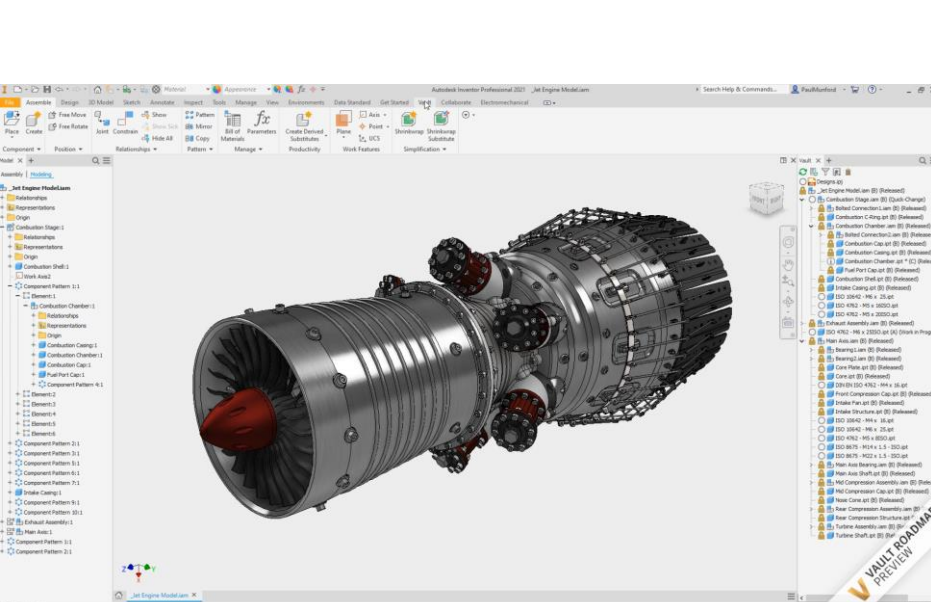
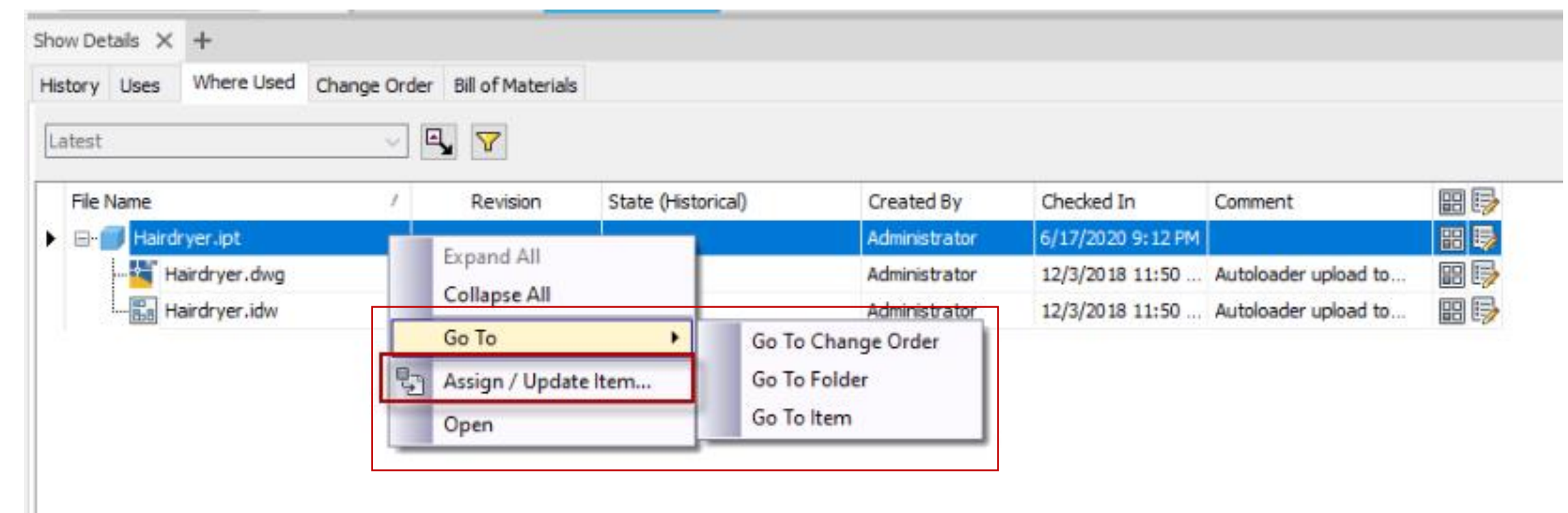
Access Contextual Data

- Enhancements to Show Details
 - Show Details dialog box is also floating and dockable.
 - New tabs are added (Uses, Change Order, and Bill of Materials) to display information about the model.
 - Assign Items directly from Uses Tab
 - Commands to Go To Item and Go To ECO

BEFORE



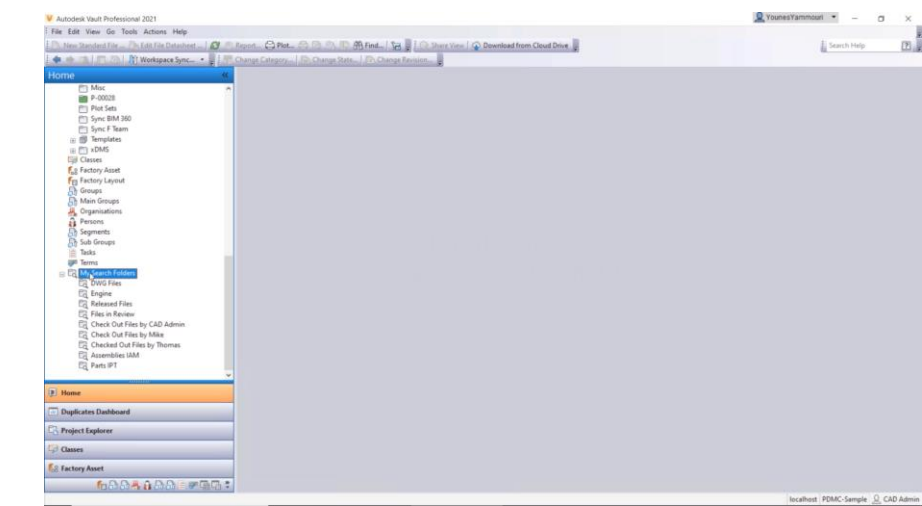
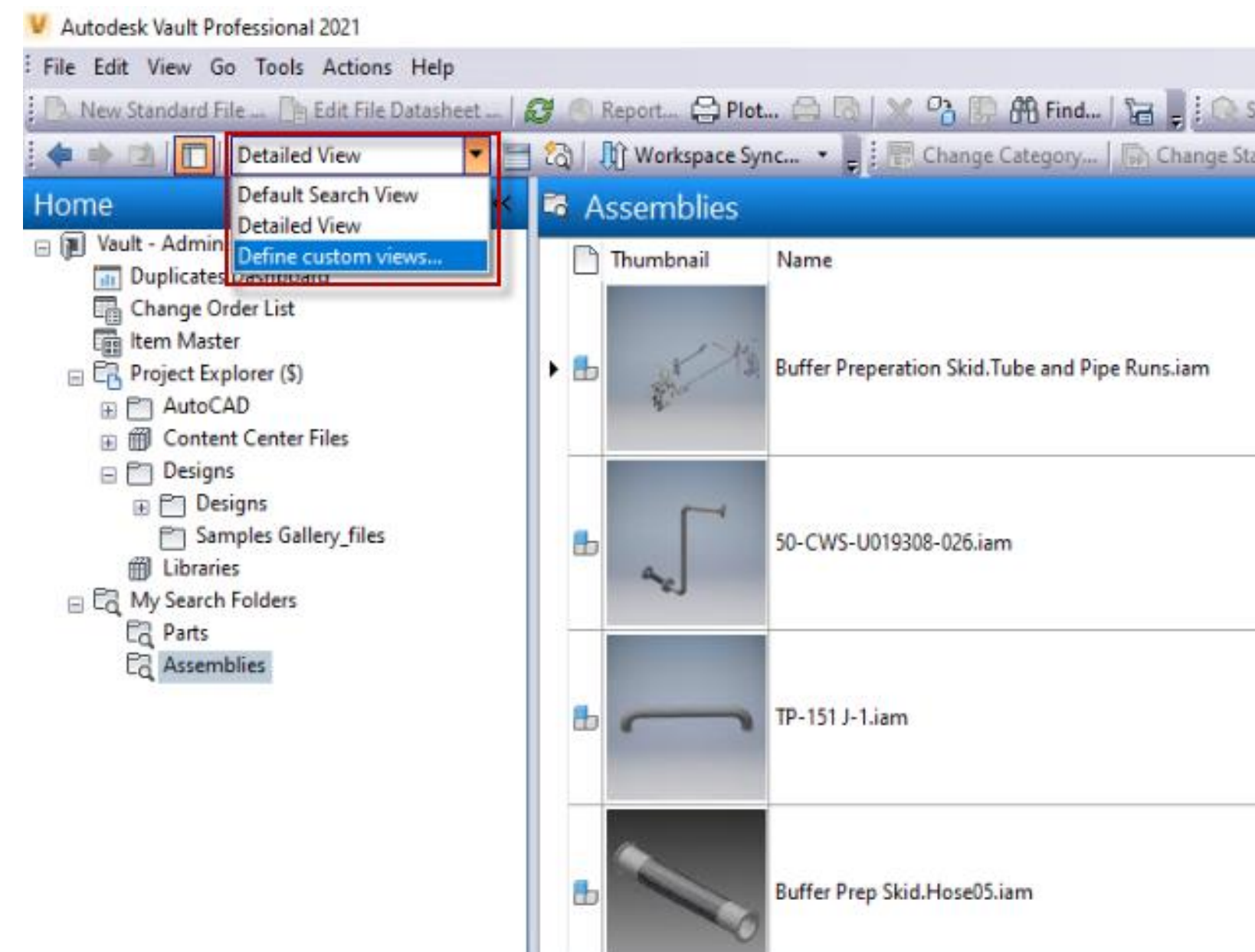
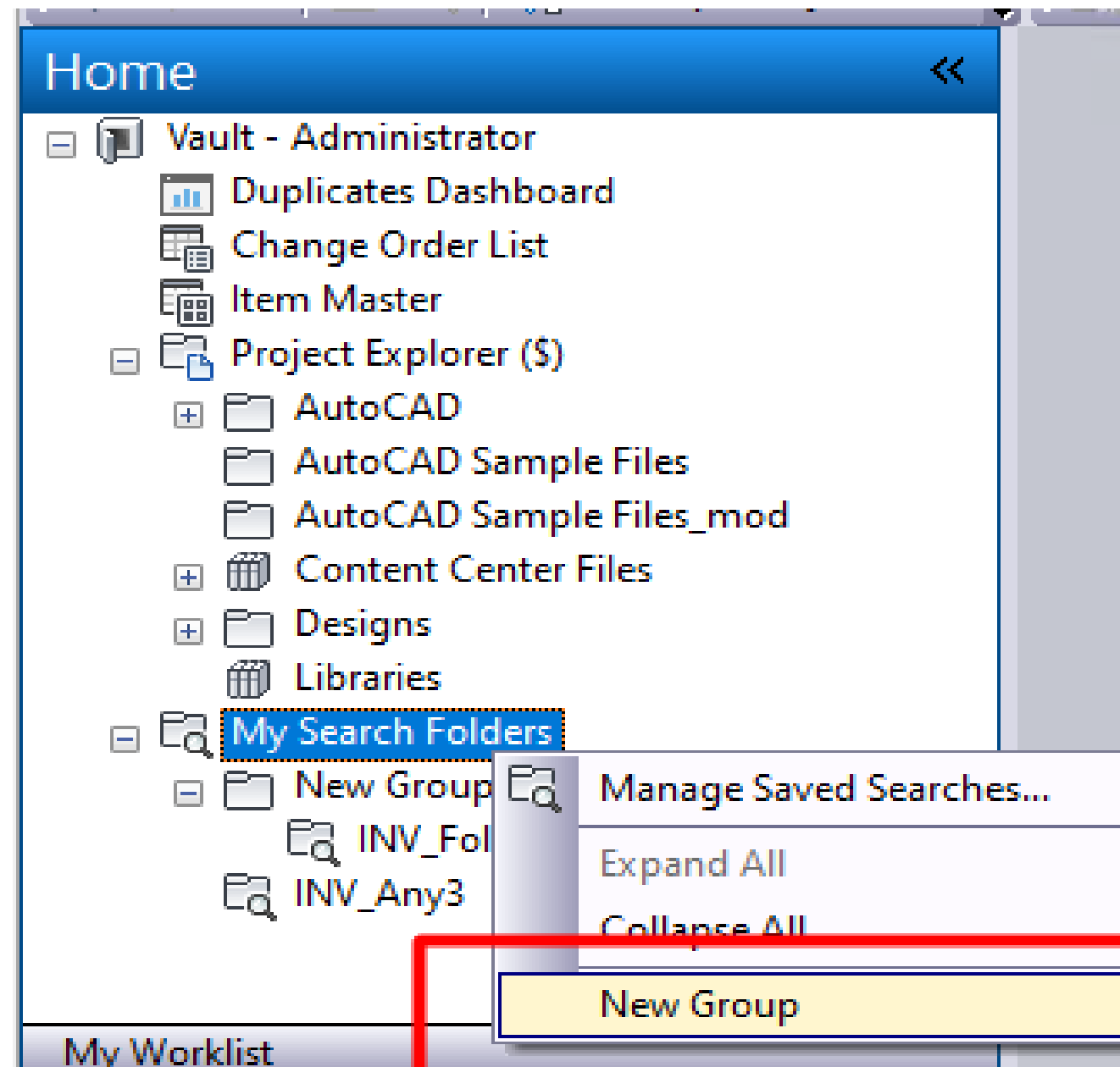
AFTER



Vault 2021.1 Update - Productivity for CAD Users

Saved Search Enhancements

- Ability to group Saved Searches
- Ability to create custom view for Saved Searches

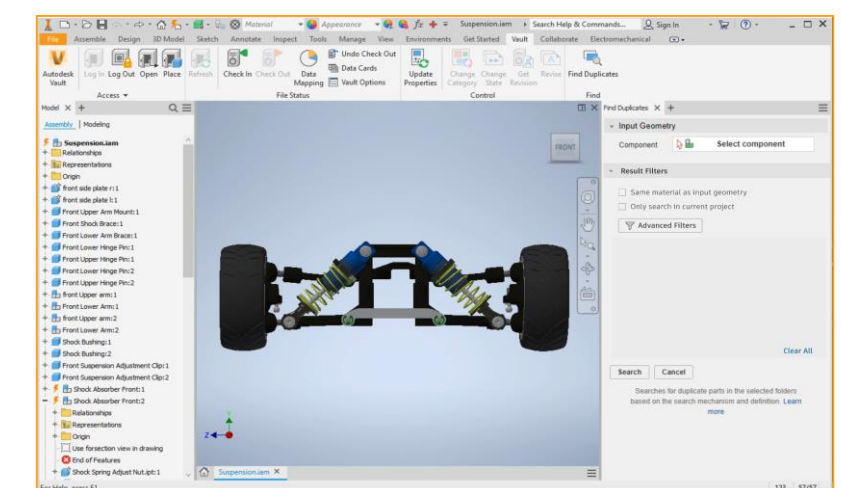
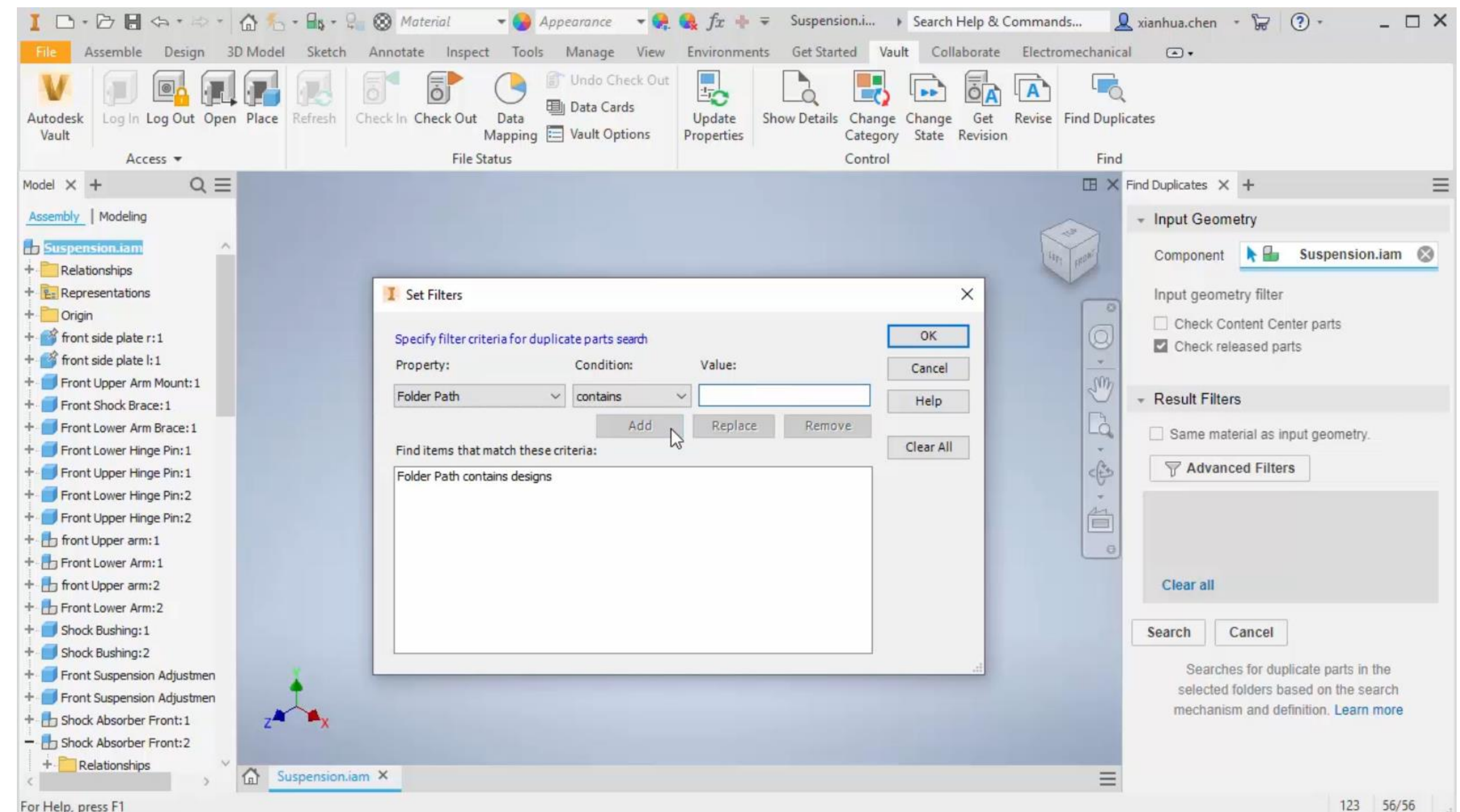


Combined Geometric & Properties Filtering



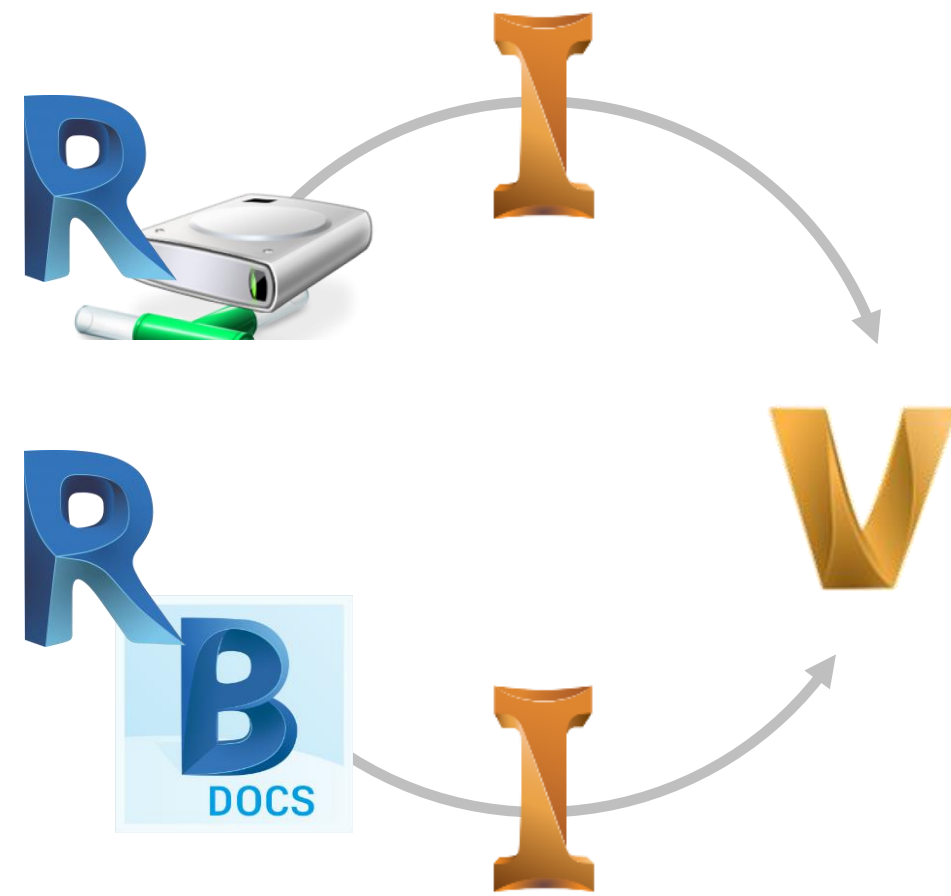
Properties Filtering supports the Mechanical Engineer to find quickly the right part for replace workflow

- Advanced Search
- Exclude different Materials
- Identify the exact match
- Exclude mirror parts
- The process can now be done before the replace workflow for all files within one group



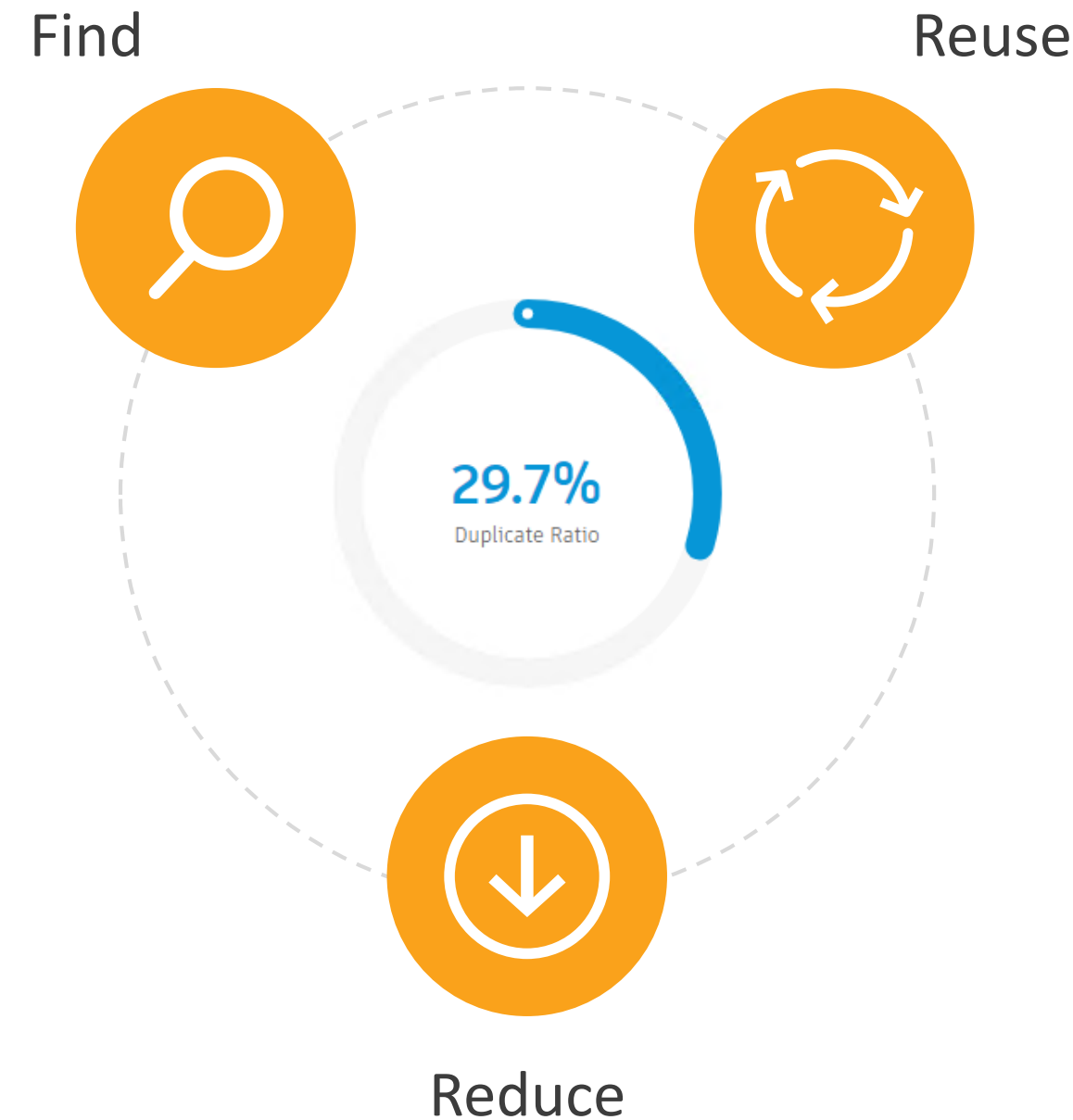
Vault 2021: More Value for Subscribers

Productivity-boosting functionality you can expect



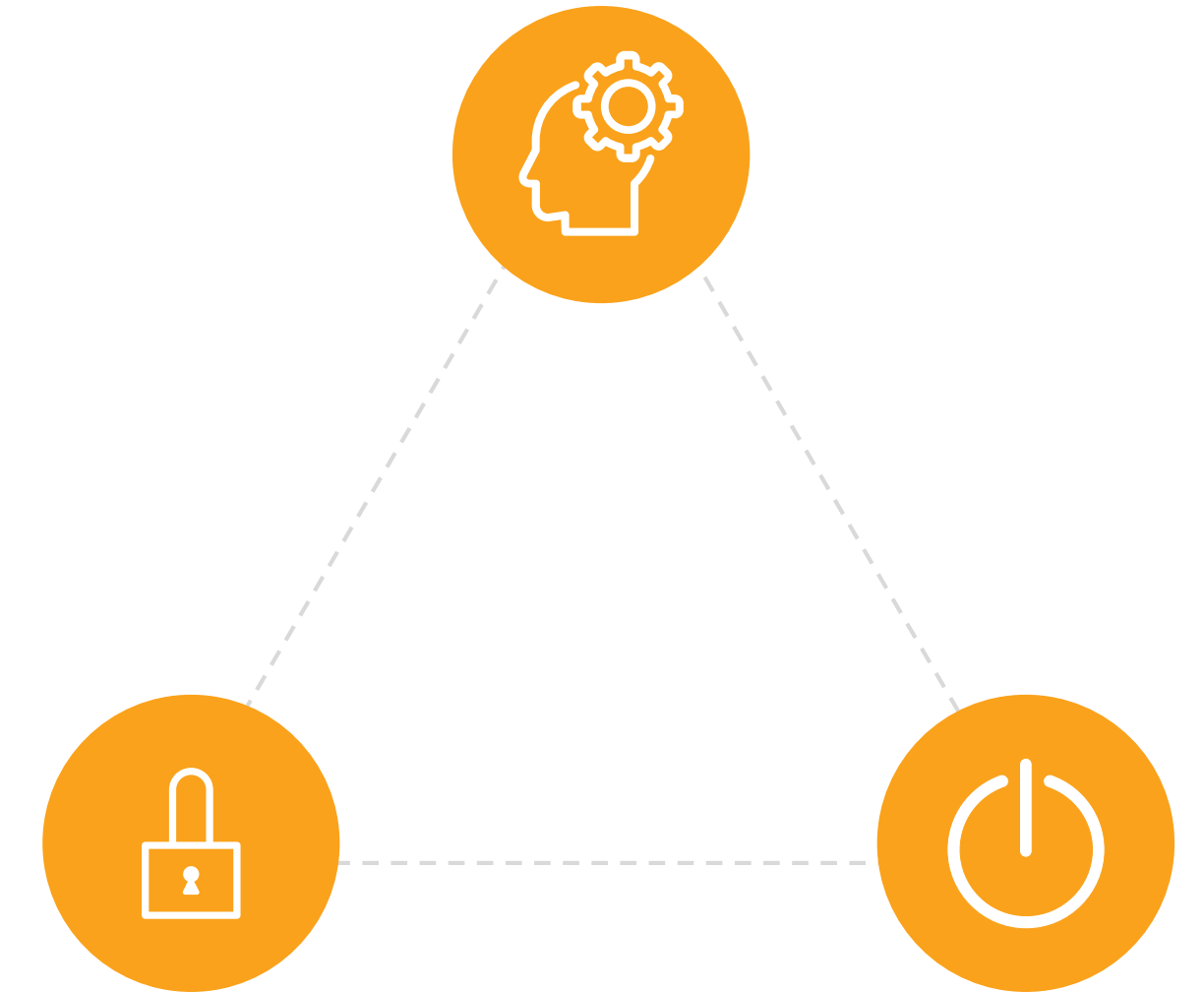
Productivity for CAD Users

Supports Inventor and Revit interoperability and adds significant workflow and usability improvements



Smart Duplicate Reduction

Compares 3D shapes and delivers insights on duplicate content



More Efficiency for Administrators

Allows more granularity within the security model and minimizes deployment and maintenance downtime

Video Links

Please visit the following links for all the videos featured in the Presentation.

Autodesk Vault 2021 What's New

<https://www.youtube.com/watch?v=UZdaknmjThE>

<https://www.autodesk.com/campaigns/vault-roadmap/overview>

<https://www.autodesk.com/products/vault/features?plc=VLTM&term=1-YEAR&support=ADVANCED&quantity=1>

Make Your Voice Heard

Vault Feedback Community

<https://autode.sk/VaultFeedback>



Vault Ideas Page

<https://autode.sk/vaultidea>

Vault Ideas

Share ideas for future product features directly with the Vault team and collaborate on existing suggestions with your peers.

[SUBMIT IDEA](#)



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.

© 2020 Autodesk. All rights reserved.

