[MFG463491]

[What's New in Vault 2021]

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[Autodesk]

[Irvin Hayes Jr]
[Autodesk]

Learning Objectives

- [Learn about the productivity enhancements for a CAD User]
- [Learn about the features which enables administrators to be more efficient]
- [Learn about enhanced design experience]
- [Learn how to reduce duplicate designs]

Description

[Autodesk® Vault is purpose-built to help you more efficiently manage your engineering data, improve collaboration within your teams, and take control of your product development processes. Vault is tightly integrated with more than 30 Autodesk design applications and provides powerful revisioning and access control capabilities. With simplified installation and optional multi-site scalability, Vault is used by Autodesk customers worldwide to connect their people and processes so they can get more done, better, in less time. The 2021 release of the Vault Data Management software includes major enhancements in areas such as experience design, engineering efficiency, and administrative efficiency. This class will give you an overview of some of these enhancements.

Speaker(s)

Senthil Kumar

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

Irvin Hayes Jr

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.

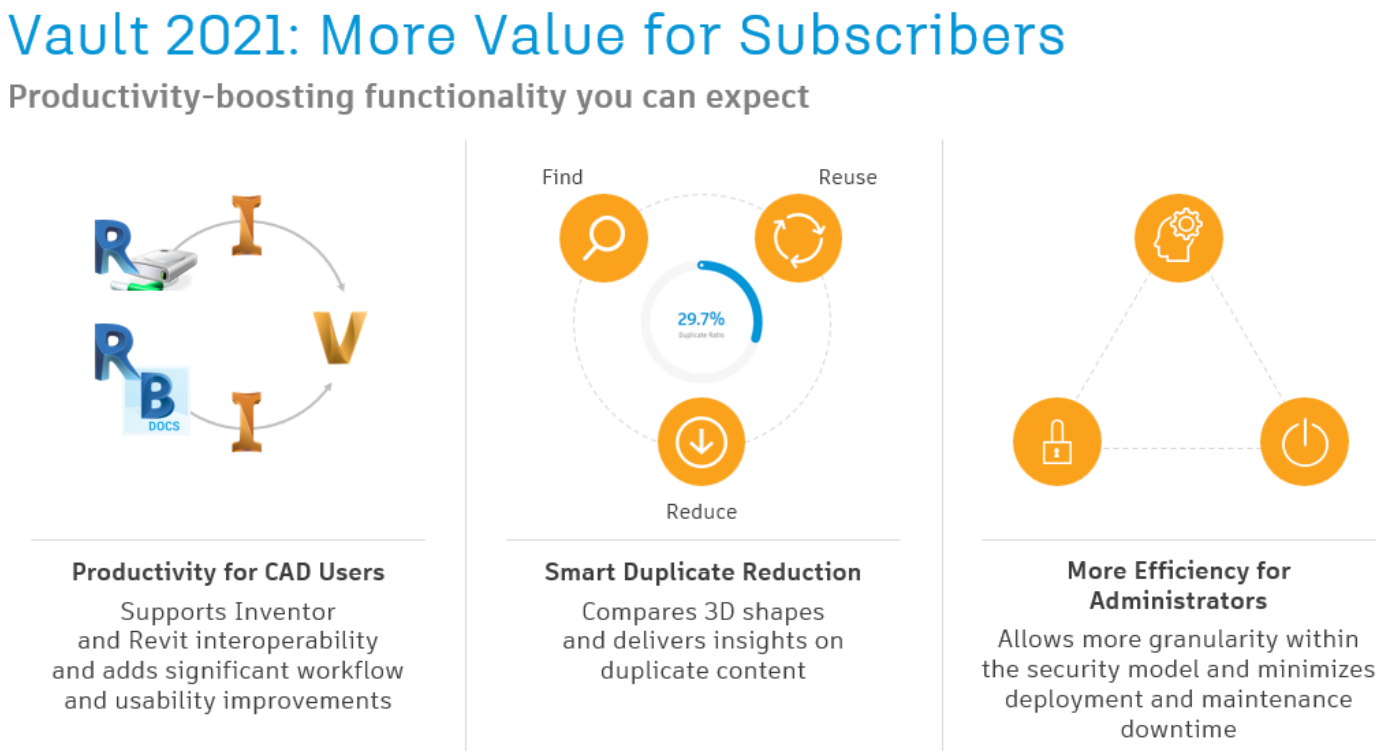
What's New in Vault 2021

Autodesk Vault 2021 continues to deliver on your feedback from live events, Autodesk Ideas, and the Vault Beta community with new customer-driven enhancements and features.

Whether you're just getting started with Vault, or you've relied on the product data management (PDM) software for years, this class will help you understand what's new in Vault 2021.

Here's a summary of the productivity-boosting functionality you can expect:

- Productivity for CAD Users
- Smart Duplicate Reduction
- More Efficiency for Administrators

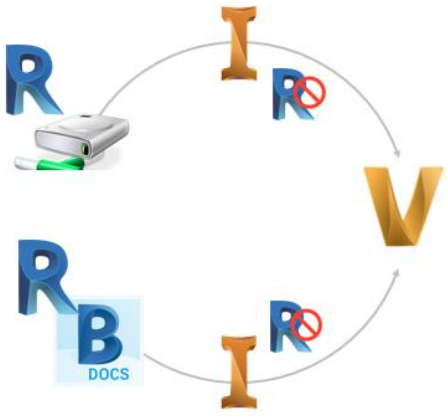


Productivity for CAD Users

When using Vault 2021 as part of your Inventor design workflows, you will notice several improvements that provide better overall design experience and increase productivity. Here are some of them:

Inventor and Revit interoperability

Vault 2021 supports the Inventor and Revit interoperability introduced in Inventor 2021. You can perform operations such as open, check-in, and check out of the Inventor files that contain Revit references, but Revit References are not managed and archived in Vault. Revit References are stored and archived in Network drive or BIM 360. Map the network drive folder where Revit Files are stored to a library folder within the Vault Project File. You need to sign in to BIM 360 and should have access the projects to be able to open the Inventor assembly properly if your Revit files are managed within BIM 360.



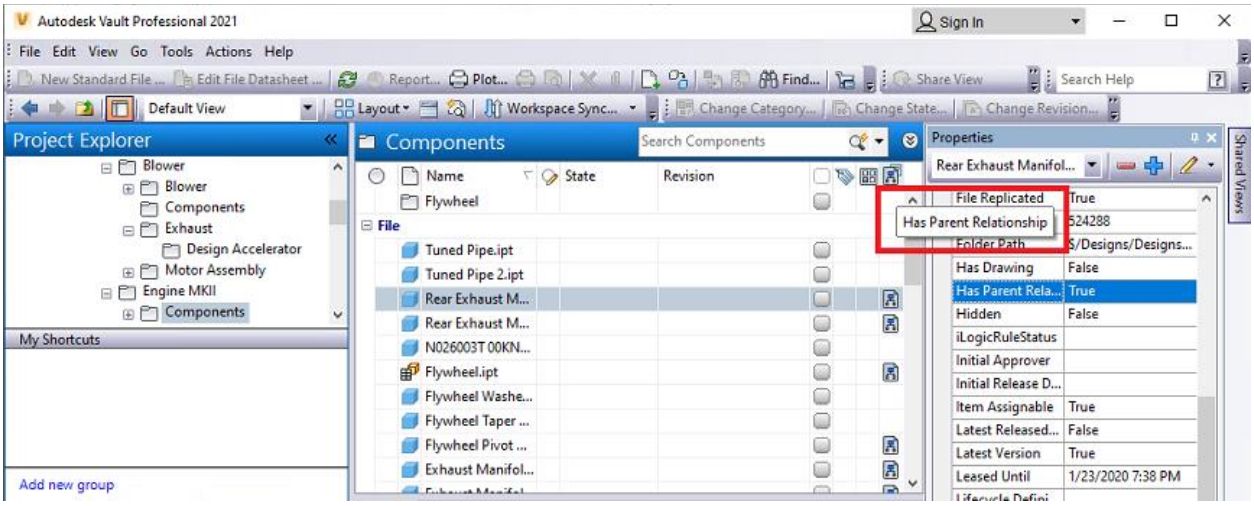
Unused document detection

Vault 2021 can help you detect and clean up unused files that are no longer required and prevent unused files from being released.

A new property has been added to help identify orphaned files. The ‘Has Parent Relationship’ property is TRUE for files that are being used, and FALSE for files that are no longer being used.

You can use this new property as a filter, or in a saved search, or during a state change to automatically archive orphaned components.

The Value of this Property will be "True" as long as the file is used in "Any Version" of the parent. Not only the latest version.



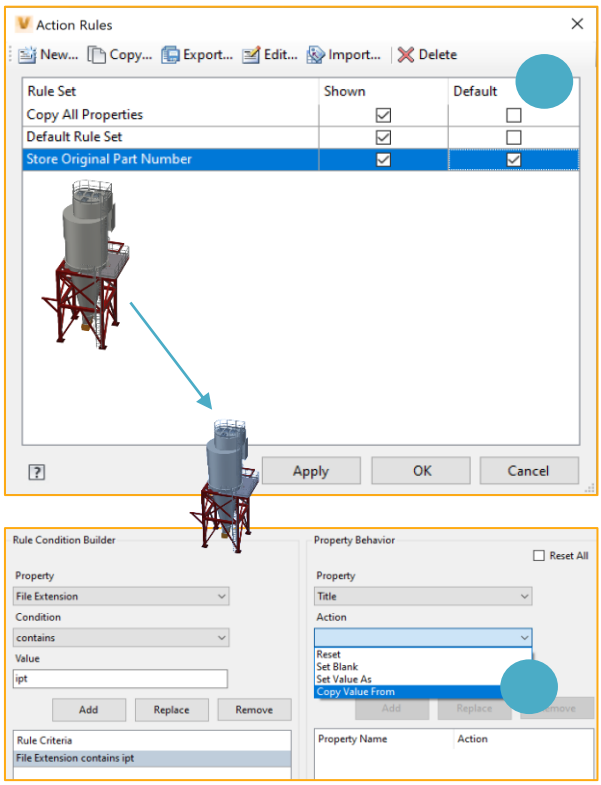
Copy Design Enhancements

For Copy Design in Vault 2021 Workgroup and Professional, rulesets are now stored on the server. This makes it possible for administrators to manage Copy Design rulesets globally and provide standard settings for Copy Design behavior.

Additionally, new functionality in Copy Design makes it possible to copy property values from the original file, to any user-defined property in the new file. For example, the original part number, or source drawing file.

Many companies have very strict controls over properties and standards enforcement and there is a need to restrict the user's ability to reuse part numbers and other file properties. Administrators are now able to enforce a specific Action Rule Set for all users. These Rule Sets are managed by the administrator to enforce desired Copy Design behavior.

The rulesets are written to the KnowledgeOption table under an entry called "CopyDesignRulesets".



Remove friction

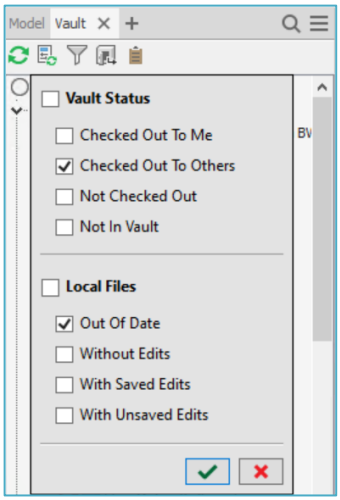
Small things matter and we are listening to our customers. What looks and feels like a small improvement, in fact, can be a big deal if it simplifies your operations every day.

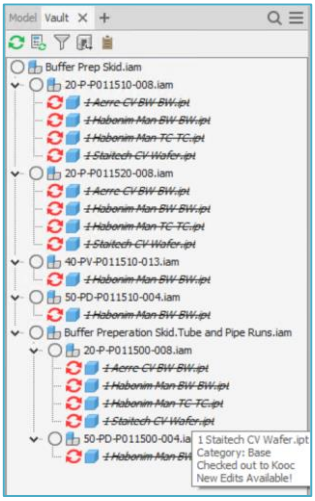
Here are some improvements we've made thanks to customer feedback:

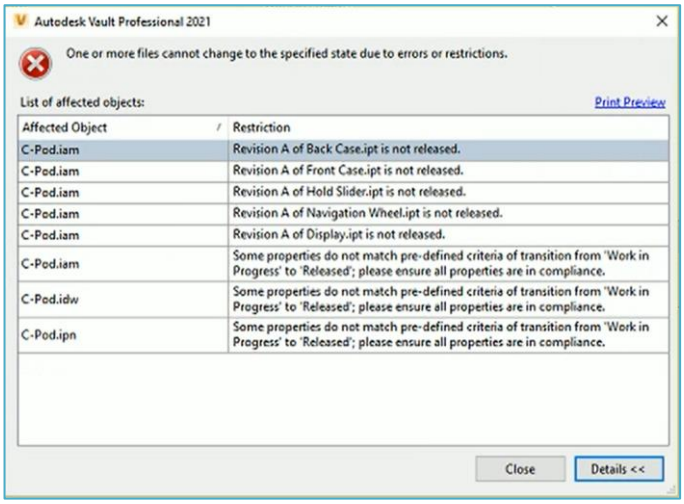
- Out of data file filters: Vault 2021 has a new out-of-date filter in the Inventor's Vault browser. When enabled, the browser filters out all out-of-date files from the tree view, so you can quickly find updated files.

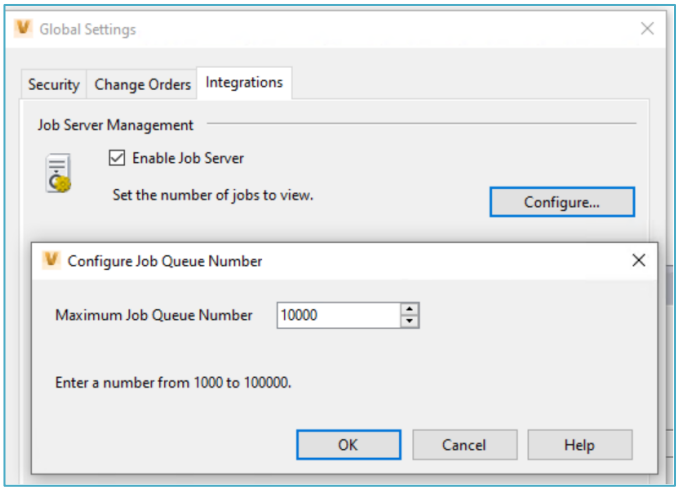
- Change state condition is batched for actions including Files, Folders, and Items and presented in one dialog instead of separately and every time – huge time savings

- And there is now an option to show more than 1000 jobs in the Job Queue: You can now set the number of jobs displayed in the Job Queue using a new option in the Integrations tab of the Global Settings dialog box. When jobs are submitted to the Job Processor's Job Queue, previously only the first 1000 jobs were displayed. In Vault 2021, an administrator can configure the Job Queue' maximum display number from 1000 to 100000.


Model
Vault
Vault Status
Checked Out To Me
Checked Out To Others
Not Checked Out
Not In Vault
Local Files
Out Of Date
Without Edits
With Saved Edits
With Unsaved Edits

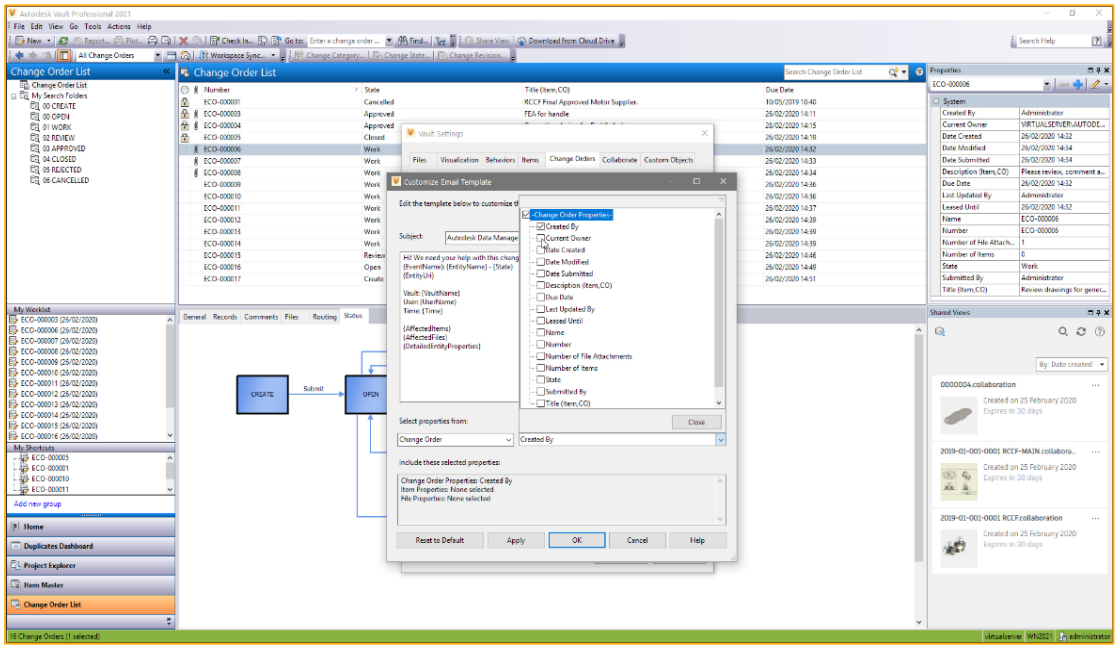

Model
Vault
Buffer Prep Skid.iam
20-P-P011510-008.iam
20-P-P011520-008.iam
40-PV-P011510-013.iam
50-PD-P011510-004.iam
Buffer Preperation Skid.Tube and Pipe Runs.iam
20-P-P011500-008.iam
50-PD-P011500-004.ia
1 Staitech CV Wafer.ipt
Category: Base
Checked out to Kooc
New Edits Available!

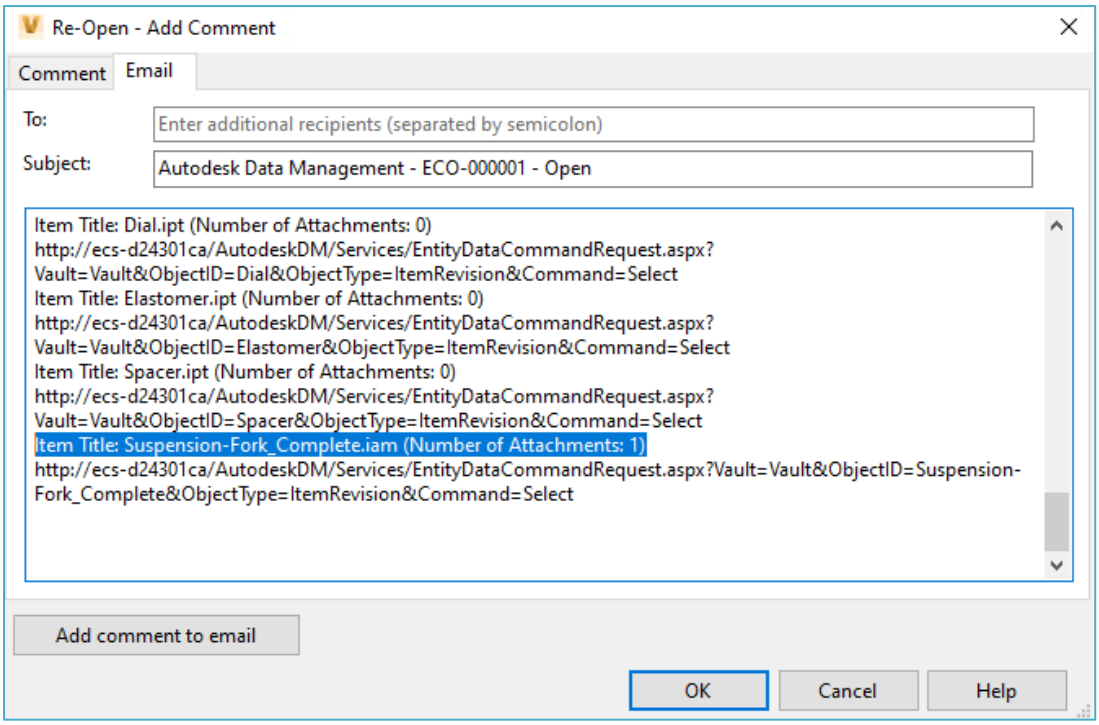

Autodesk Vault Professional 2021
One or more files cannot change to the specified state due to errors or restrictions.
List of affected objects:
Print Preview
Affected Object
Restriction
C-Pod.iam
Revision A of Back Case.ipt is not released.
C-Pod.iam
Revision A of Front Case.ipt is not released.
C-Pod.iam
Revision A of Hold Slider.ipt is not released.
C-Pod.iam
Revision A of Navigation Wheel.ipt is not released.
C-Pod.iam
Revision A of Display.ipt is not released.
C-Pod.iam
Some properties do not match pre-defined criteria of transition from 'Work in Progress' to 'Released'; please ensure all properties are in compliance.
C-Pod.idw
Some properties do not match pre-defined criteria of transition from 'Work in Progress' to 'Released'; please ensure all properties are in compliance.
C-Pod.ipn
Some properties do not match pre-defined criteria of transition from 'Work in Progress' to 'Released'; please ensure all properties are in compliance.
Close
Details <<


Global Settings
Security
Change Orders
Integrations
Job Server Management
Enable Job Server
Set the number of jobs to view.
Configure...
Configure Job Queue Number
Maximum Job Queue Number
10000
Enter a number from 1000 to 100000.
OK
Cancel
Help

ECO Email Template Customisation

To improve communications when progressing through an Engineering Change Order, support has been added to edit the automatically generated email template for ECOs. This gives you an easy way to customize your email template for easy follow up.

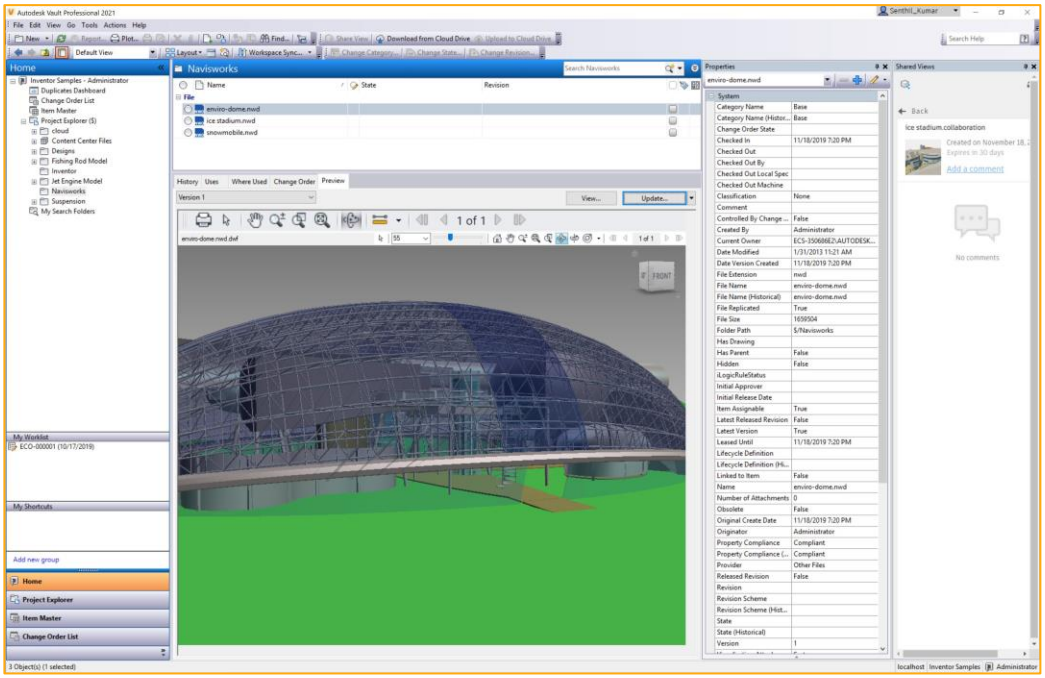




Navisworks preview and Shared Views

Shared Views was previously not supported in Vault for Navisworks files - now it is. Before, if you managed Navisworks files in Vault and you didn't have the Navisworks application on your machine you had no way to access the Navisworks file.

Now, in Vault 2021 you can view Navisworks files, and allow viewing of Navisworks files outside of Vault with Shared views.



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

Duplicate parts in your engineering supply chain can cost your company thousands of dollars in redundant design, documentation, approval, release and data management re-work.

Like an image search, but for your 3D components – Vault duplicate search smartly compares 3D shapes within the thousands of CAD files that you have within your Vault database.

It enables a team of engineers to easily run a 3D geometric search for parts, so they don't waste time and effort documenting, releasing, and managing the same parts over and over again. It has the potential to help save our customers thousands of dollars each year through better design re-use.

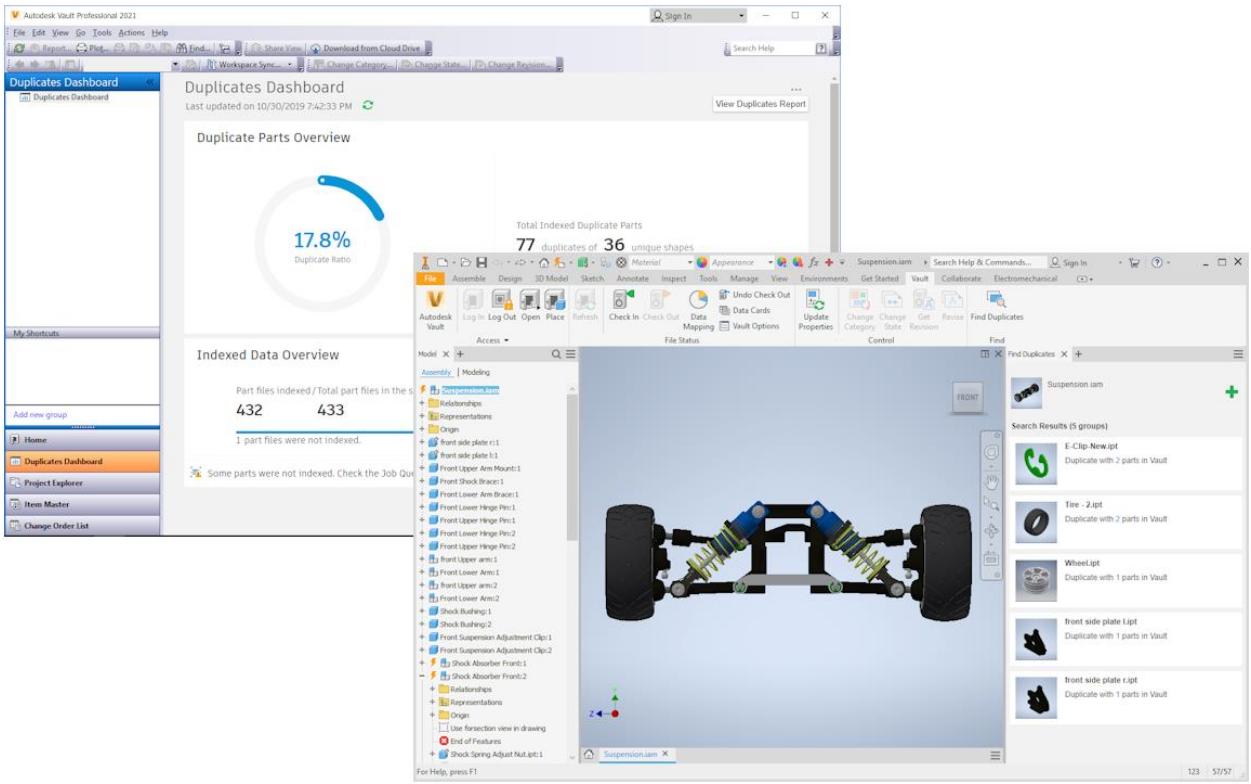
The **costs** of a **new part number is** between **$4,000** and **$23,000** per item according to a study by Aberdeen Group.
When **re-designing** instead of **re-using**, you are directly **impacting profit/time** to **market**. **Worse**, you may introduce **quality problems**.
More files = More process, more documentation, more validation and much more.

The new Duplicate Search feature enables you to easily run a 3D geometric search for parts, so you don't waste time and effort documenting, releasing, and managing duplicates. This feature is a huge new benefit. Unlike other PDM systems in the market, you don't have to pay hidden fees or anything extra for a 3rd party add-on for geometric search. Autodesk has included its powerful geometric search feature within Vault Professional to add more value for users through increased productivity and cost savings.

Save thousands of dollars each year with new Duplicate Search feature

For example, if you're an Inventor user and frustrated with data duplication issues in your company, imagine the value of running a search on a part that doesn't rely on a part number or part name. Duplicate Search uses geometry to show you all the duplicate parts in your Vault. Reuse the correct part – delete duplicates – save thousands of dollars in wasted time and effort. This feature alone is a business case for using Vault Professional. It more than pays for itself, giving you a quick return on investment as well as new capabilities. One of the many reasons you get more when subscribing to Autodesk software.

Vault 2021 also includes a Duplicates Dashboard that gives you the ability to create and export a report on duplicate part files. The dashboard can show you a ratio of duplicate parts in your Vault and help you identify and reduce duplicates. Again, Duplicate Search and Duplicates Dashboard are features that will save you a lot of time and money and worth exploring in Vault Professional.



More Efficiency for Administrators

Now, We'll take you through some of the highlights about what's new for Administrators that will increase efficiency.

You asked and we listened, Vault 2021 allows more granularity within the security model and minimizes deployment and maintenance downtime.

Here is a rundown of where you will find more capabilities and efficiency for administrators:

- 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
- And Quick file store validation

Restrict file download access

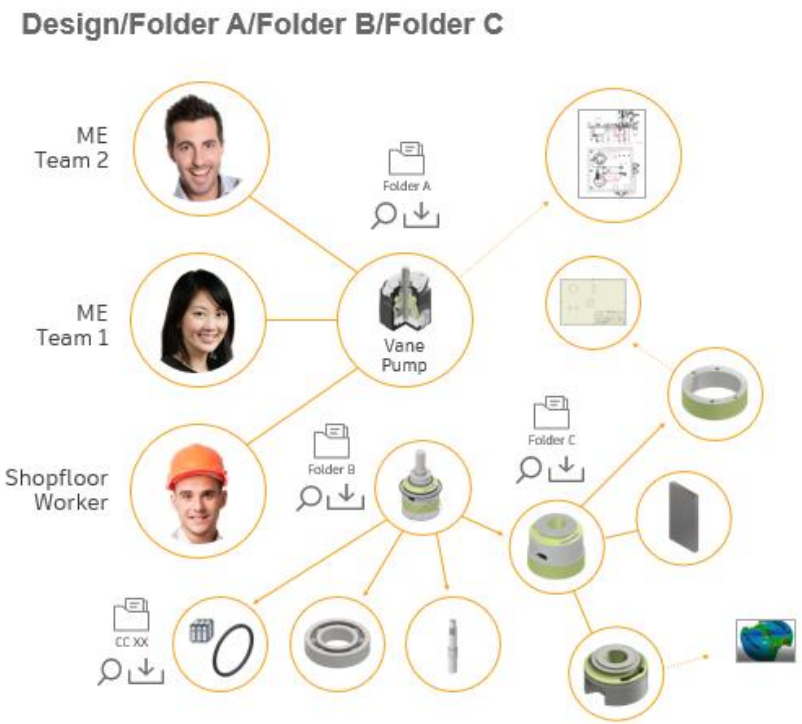
In 2021 we added a list option for folder security settings, where the folder contents are displayed to support navigation, but file download (GET) is forbidden.

This is object-based and lifecycle state-based security and Custom Roles with Download permissions.

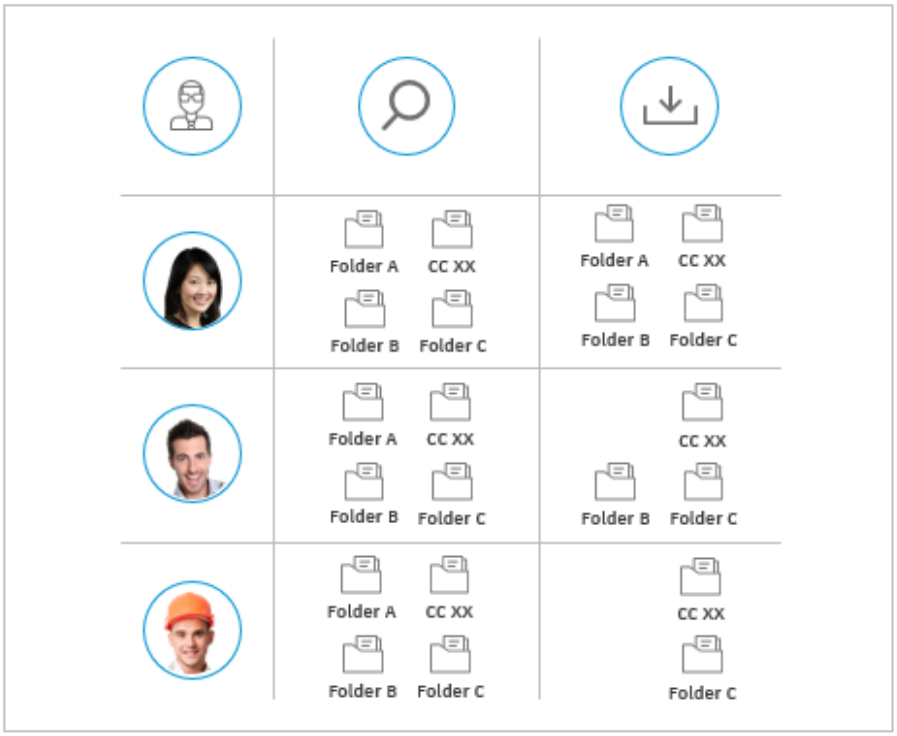
Previously, any user or group with the Read permission could download the file. Now, it is possible to grant users access to read folder content, file properties, and ‘where used’, while preventing them to download the actual files.

This capability opens new channels of collaboration workflows with other departments, sites, and external partners.

For example, in the diagram, ‘Team 1’ has access to read and download all the files; ‘Team 2’ has access to read files in ‘Folder A’, but no access to download them; and the ‘Shopfloor Worker’ has access to read files in ‘Folder A' and ‘Folder B’, but no access to download them.



Read records without download. This affects workflows downloading files from Vault. As of today, if the user in the given access has the “Read” permission on a folder or file, it was assumed that the user also had permission to download the files in that folder . With this change, if the user is assigned “Read” permission using the new permission model through Administrator, the user will have permission to view meta data of the files incl. references etc., but will not be able to download the associated file (e.g. Inventor file) with the record.



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

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

So – what does this change mean to your existing environment?

Now your data in Vault has a new download permission available - existing access control will now include download permissions.

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	✓	✓

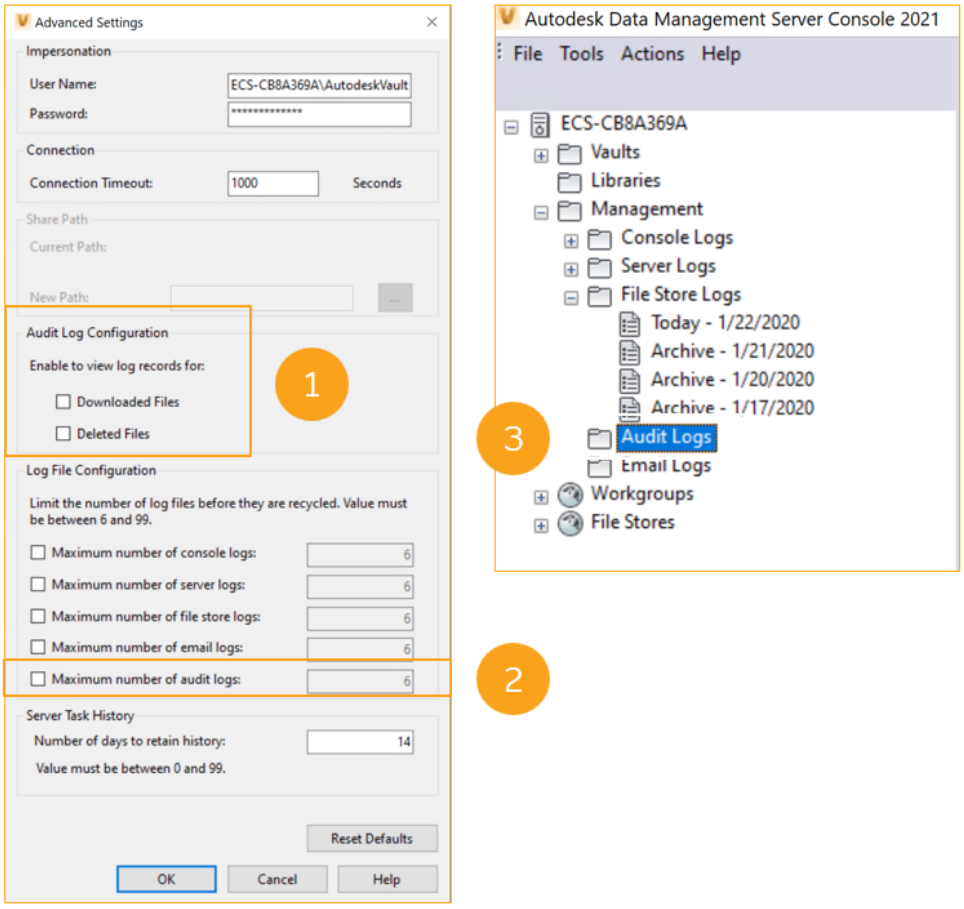
Track download and audit log

Audit logs have been enhanced to track 'real' downloads only.

For example – 'Get', Open, View and Insert into CAD operations. Pack and go, send files and share views.

There is a new UI setting to turn Logging for downloads on and off, and separate Audit logs for operations that download files and operations that delete them.

Note: operations like copy design, checkout and undo checkout, Edit Properties, Change State does not require file download & will not be tracked

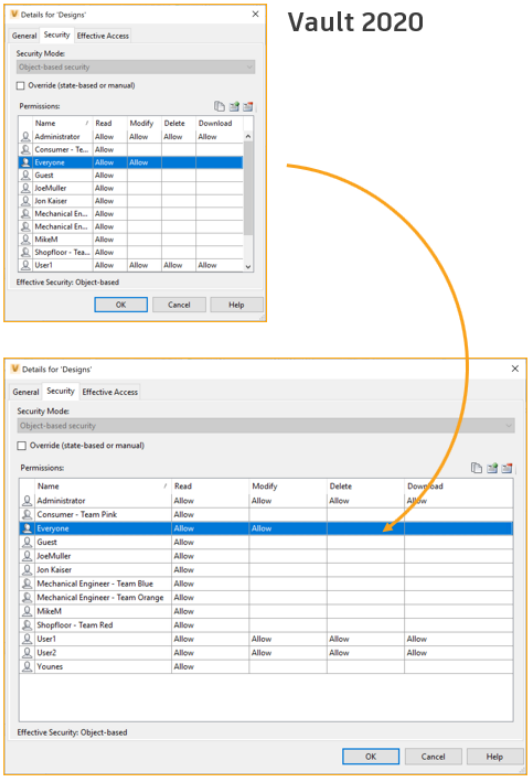


Enhancements in Object security dialog

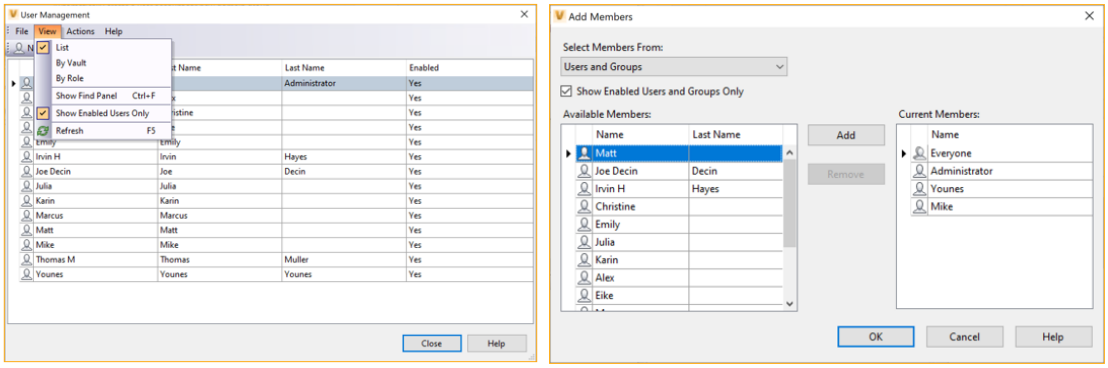
A simple UI change has been added for Vault admins who work with large numbers of users.

You can now filter 'disabled'* users from the dialoge, to help you narrow your focus to active users and re-size the dialog to help you work with large numbers of users.

*For example users who no longer work at the company, so their accounts have been disabled



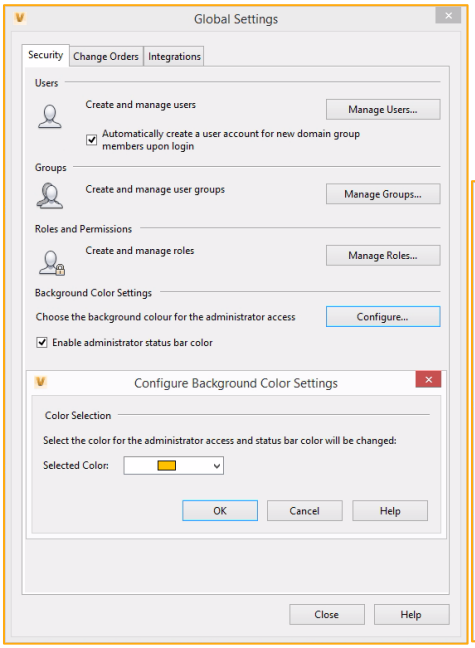
Filtering on diabled users can also be found in the User and Group management dialogs, as well as object, state and security transiations dialogs.

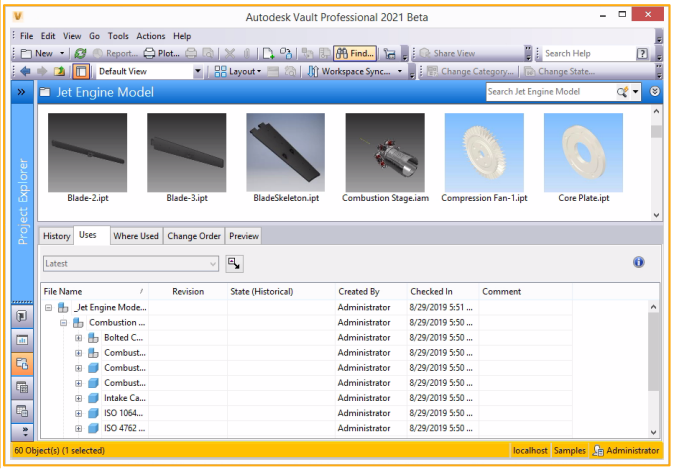


Usability enhancements for vault admins

To help remind Vault admins of whether they are logged in as an Admin, or a user – an option has been added which will color the status bar for Vault Admins only.

This provides a easy visual check on your log in status.





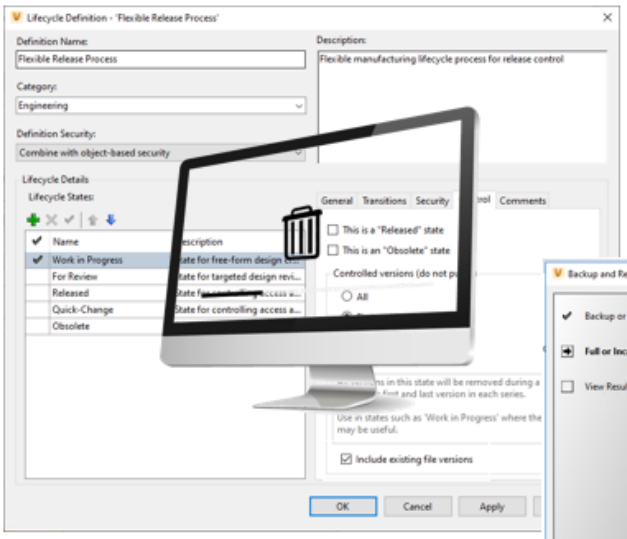
Minimize downtime for backup / maintenance

Customers with large databases and file-stores executing the purge command takes very long time (days/weeks), especially in replicated environments.

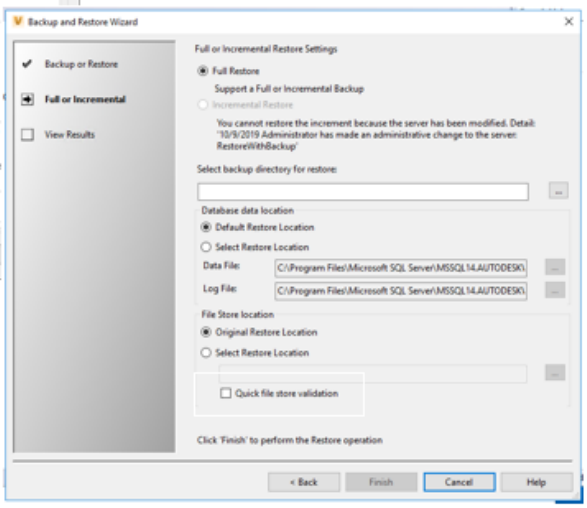
With a constantly growing amount file versions, customers require the ability to control the amount of data. The built in command works well but only to a point. This also decreases the ability to backup and restore successfully and within an acceptable amount of time, as well as the added cost of storage to accommodate large datasets.

Customer are requesting to allow purge for legacy versions which are under lifecycle control. Today those control are limited to purge new added file iterations only. Moving forward we are going to allow admin to control the purge of legacy file versions after changes in the lifecycle control.

Check the Quick file store validation box to perform a quick file validation (only a check if file exists without checking the checksum) for attach and restore workflows.



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

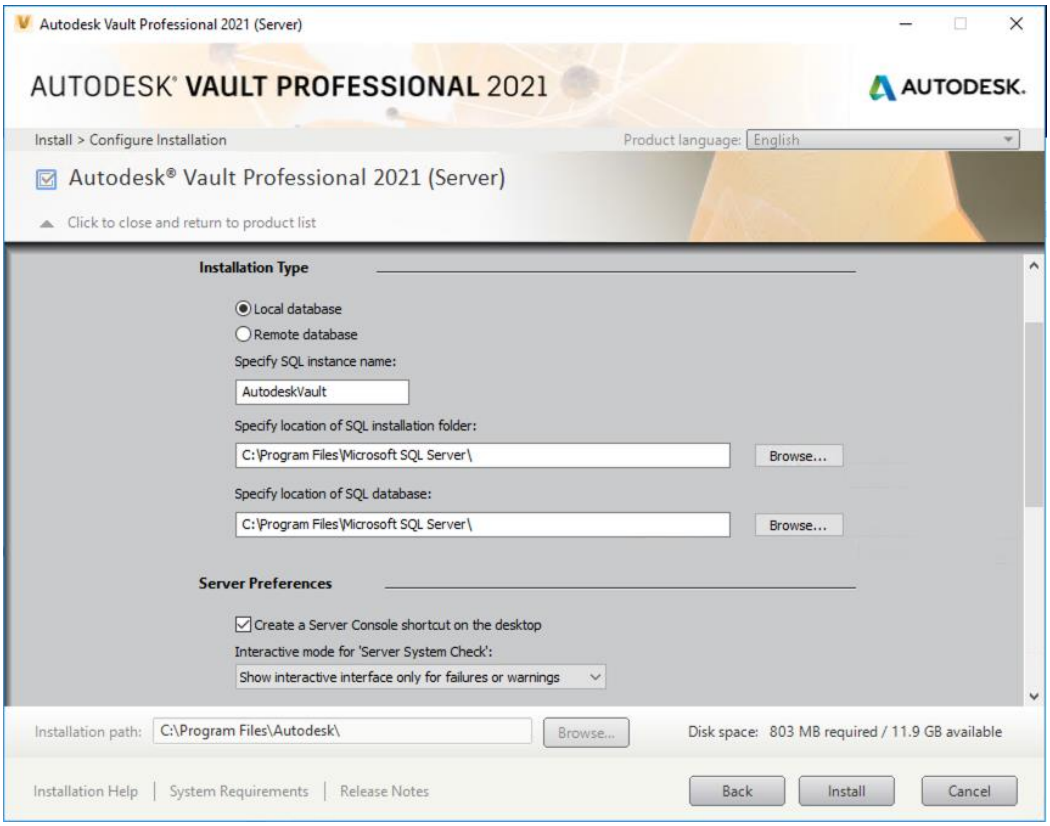


Quick File store validation option within attach and restore

More Flexible Deployment

Vault can now connect to an SQL database Instance not named AUTODESKVAULT.

Use case 1: when several Vault server residing in the same IT infrastructure
Use case 2: Separate DEV/ QA environment that is running a mirror image of production Vault.
Use case 3: Several Vault Server version within the same SQL Server
Use case 4: Naming conventions that must be kept for SOX and Company standards.



Let's summarize the new functionality in Vault 2021 to help Vault administrators and the collaboration workflows that you manage.

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 Enhancements

Recently we released Vault 2021.1 Update. Let us look into the enhancements that went in that update.

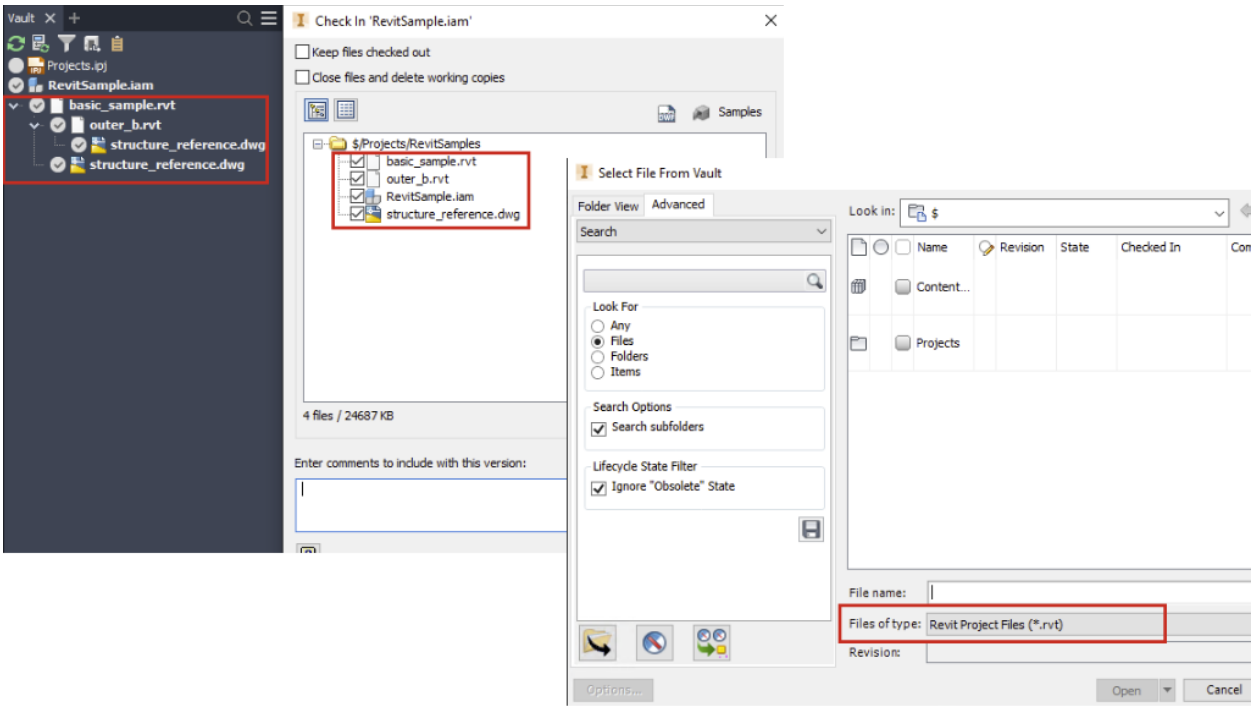
Did you know that many of the new features in each release of Vault data management software start as a customer suggestion? If you have an idea for a new feature or enhancement to share with our Vault team, visit the Vault Ideas Forum.

Now, let's take a look at what's new in Vault 2021.1. There's a video at the end so you can see all the new productivity-boosting functionality in action.

Inventor Revit Interoperability

Inventor 2021 gives building product manufacturers new tools to collaborate with architectural designers with Inventor AnyCAD for Revit models, allowing Revit project files to be referenced into Inventor assembly models for coordination of the design.

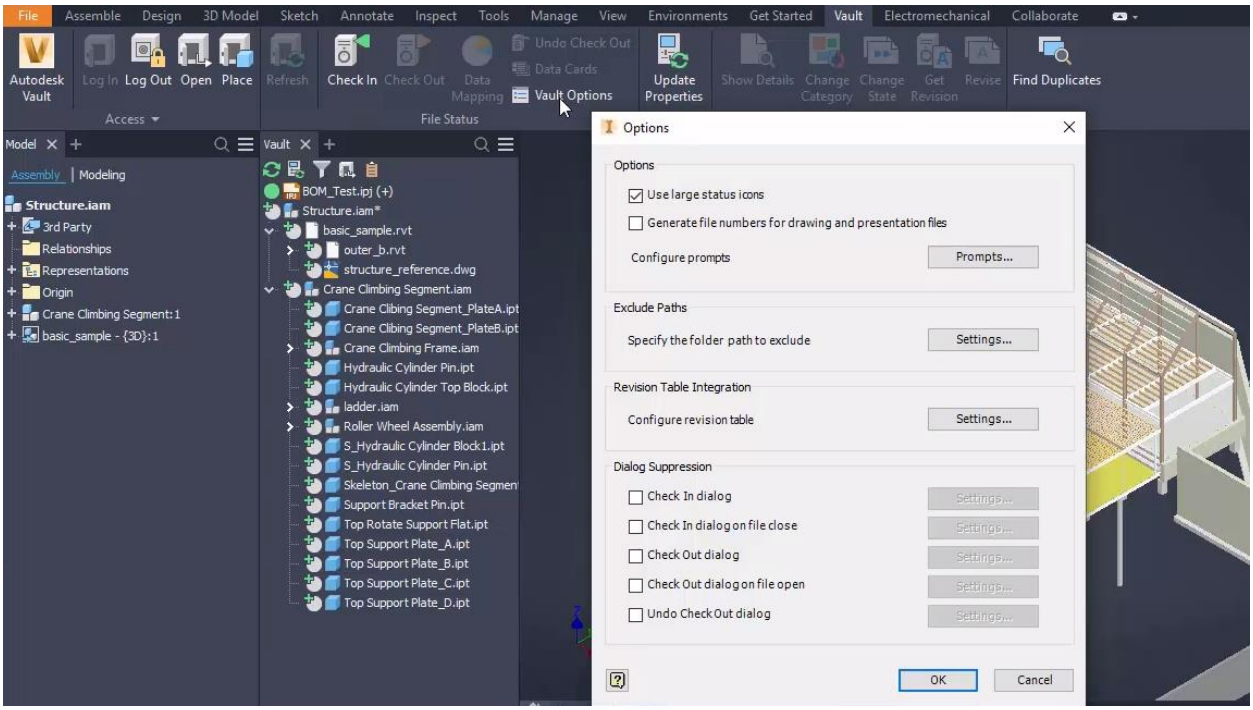
Now with Vault 2021.1, you can check in the Revit files within the Inventor assemblies, and also add the Revit file type using the Open from Vault and Place from Vault dialogs. This allows you to manage your referenced Revit models in Vault Professional for concurrent design and revision control.



Inventor Vault Add-In Exclude Path

A new Exclude Path option allows you to exclude files from being checked into Vault that you would like to manage separately. Excluded files will be loaded into Inventor from your local disk or network as normal but will not participate in the check in process. You can add, remove, or modify the excluded path under the Excluded Paths settings. You can also view files with excluded status in the Vault browser.

Additionally, if you are working on the data with missing files linked, you have the provision to place the missing files path in the exclude paths list, and those files will be ignored during check-in. Select Vault Options from the Autodesk Vault ribbon. Click Settings to configure exclude path settings.



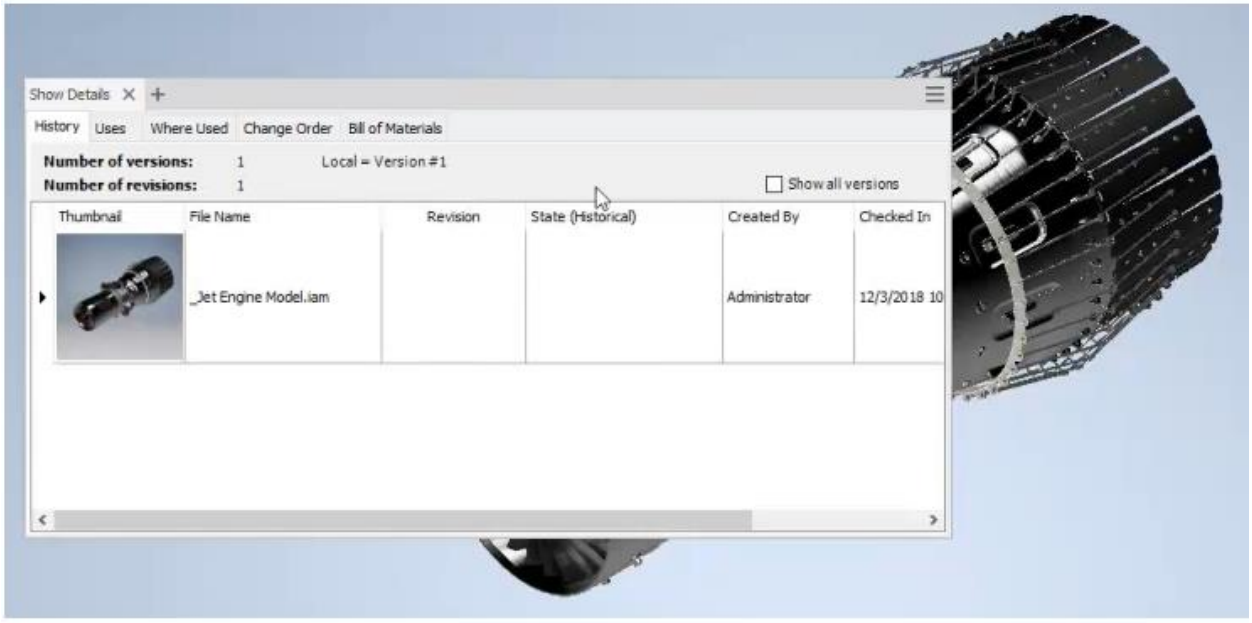
Show Details in the Inventor add-in

With Vault 2021.1 release, the Show Details dialog box for the Inventor add-in was vastly improved. Changes that you make in the Vault Client are immediately reflected in Inventor which saves a lot of time and streamlines the design process.

When you're in Inventor the Show Details panel allows you to view information from Vault about your designs and perform Vault workflows – without having to leave the Inventor Interface. Also, the Show Details dialog box is now floating and dockable.

The columns shown in the Show Details dialog are configurable to show just the data you need. You can see details about your current model, such as its history, uses, where used, BOM, and ECO information.

Also, it is now possible to assign items directly from the Inventor add-in using the command in the Uses tab of the Show Details dialog. You can go to the associated item, change order and a folder location directly in the Vault Client.

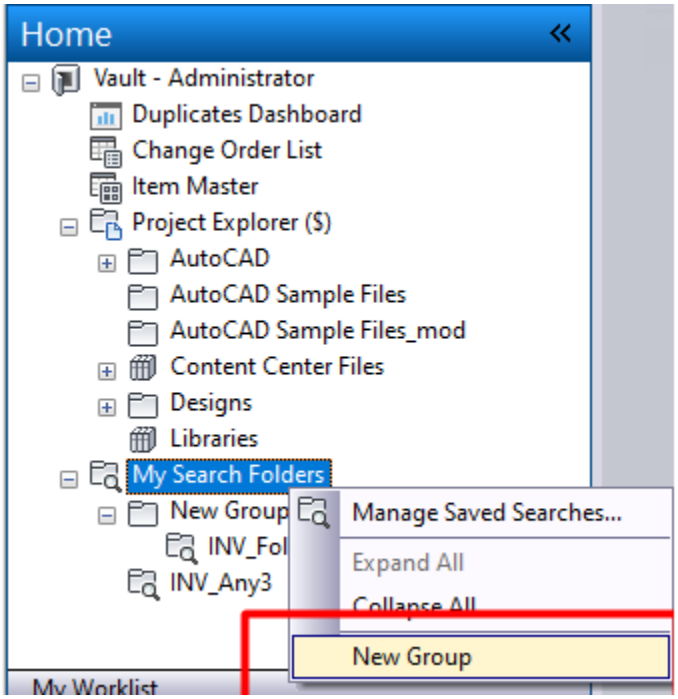


Saved Search Enhancements

Vault 2021.1 now brings the ability to group saved searches in the Vault Client and Inventor. This allows you to organize your saved searches in a way that makes sense to you, such as by type, functionality, or category.

You also have the flexibility to rename groups and drag and drop searches into your groups as well as nest and organize them.

Vault 2021.1 also includes new custom views for saved searches so you can save settings such as fields, custom filters, and grid lines. This new functionality allows you to apply your custom views to your saved searches or create new custom views.

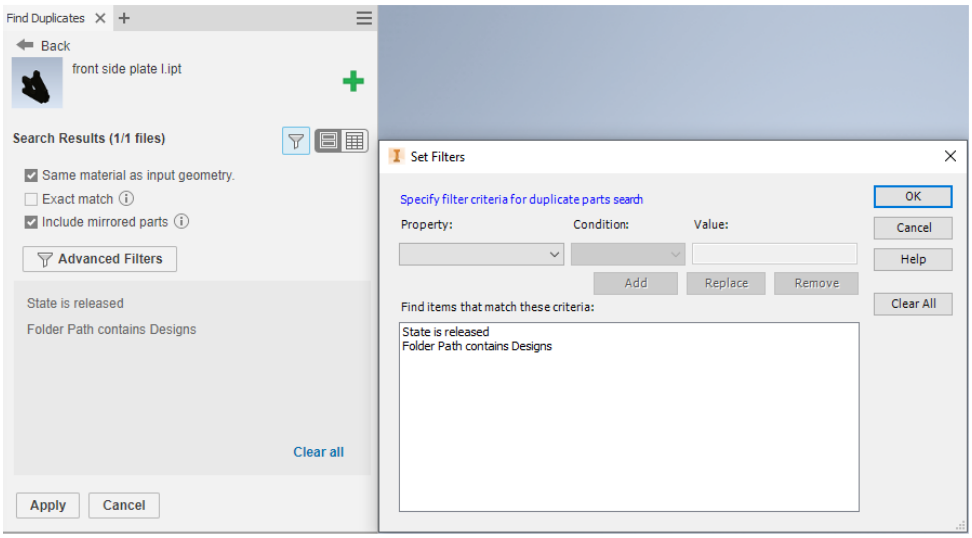


Duplicate Search Enhancements

First seen in Vault 2020.2, the Duplicate Search feature enables you to easily run a 3D geometric search for parts, so you don't waste time and effort documenting, releasing, and managing duplicates.

Now in Vault 2021.1, you can filter duplicate search results in the Find Duplicates panel within Inventor. Advanced filters help you identify duplicate components based on criteria such as a time period. For example, how long they have been checked into Vault or by their current release status.

After a duplicate search is run, advanced filters like same material, mirrored parts, or exact matches can be updated, and the duplicate search refreshed.



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

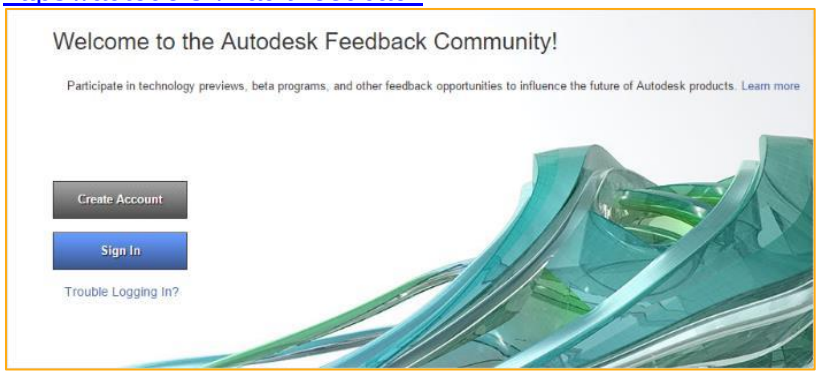
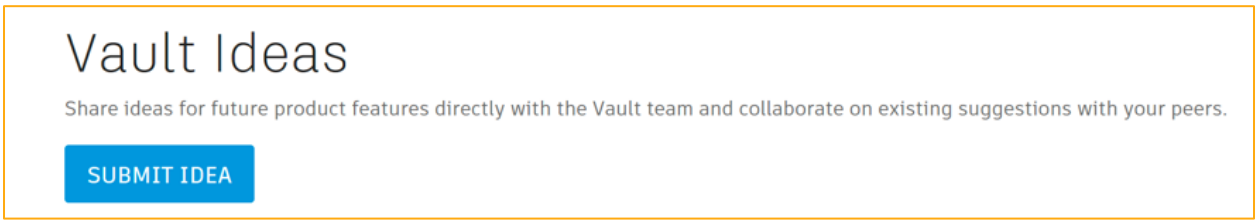
Autodesk Vault 2021 What's New
https://www.youtube.com/watch?v=UZdaknmjThE

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

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

More Questions? Please reach out to us using one of the following ways.

Vault Feedback Community
https://autode.sk/VaultFeedback



Vault Ideas Page
https://autode.sk/vaultidea