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[What's New in Vault 2022 - For the Author_Contributor]

[Senthil Kumar]
[Autodesk]

[Irvin Hayes Jr]
[Autodesk]

Learning Objectives

- [Learn how to manage Inventor's Model State in Vault]
- [Learn how to Save even more time with new filters in Duplicate Search]
- [Learn how to Access and view data using the completely revamped Web Browser Experience]
- [Learn about some general enhancements made in this new release for effective workflow]

Description

[The Vault 2022 continues to deliver a more modern, connected an insightful user experience. Vault 2022 is packed with features for the Author, Administrator and Participant company roles. For authors, those of you who use Inventor and other CAD design tools, we're making sure you can focus on the work you love. Vault 2022 unlocks more design data by delivering a better-integrated data experience and BOM variants management. This keeps you better connected to your design data while working inside CAD, so you can spend more time getting your work done.]

Speaker(s)

Senthil Kumar

Senthil is a Product Manager for the Data Management Group at Autodesk in Singapore. With Autodesk for the last 16 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 2022 – For Authors and Contributors

With the Vault 2022 release, we are delivering a modern, connected, and insightful user experience.

How did we do that?

With the Vault 2022 release, we based the features on user personas and roles within the company. We made sure each role got the right set of capabilities and the best technology to access those capabilities.

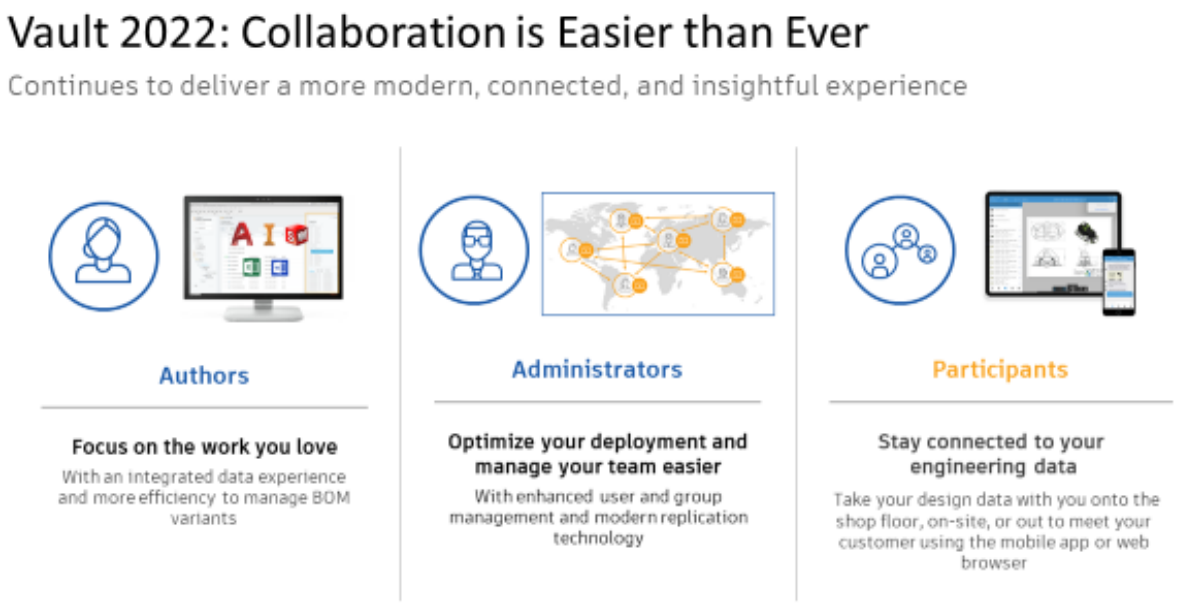
For Authors like Inventor users, we are making sure they are connected to the design data and focus on the work they love while remaining inside of Inventor.

We unlocked more design data information by delivering a better-integrated data experience and efficiently managing engineering BOM variants.

However, to make sure the whole experience for Authors and others is working smoothly, investment has been made to modernize the overall administration experience, including authentication options, replication, and enhanced user & group management.

For participants, we helped them access and work with engineering data in the office or on the go. On the desktop or with mobile devices. Within the organization or with external contractors and stakeholders. Whether with Vault's new browser experience or with the Vault mobile app, it will keep customer work moving on the top floor, on the shop floor, and beyond!

With Vault 2022 – Collaboration is Easier than Ever!



Authors

Let's start by showing how authors can stay focused on the work they love.

Integrated Data Experience

Inside of Inventor, we added an Integrated data experience to access and organize all design information in a dockable panel.

Inside of this "Show Details" panel, the designer can see where a design is used before making changes.
The designer can assign an Item and derive engineering BOM information within the environment without leaving the application.

In addition, they can access Change Order information related to the design to understand why change has been triggered & the goal of the change request.

'Show details' is a dock-able panel. By default, we'll see information about our current model. Such as its 'History', 'Uses' or 'Where used' information.

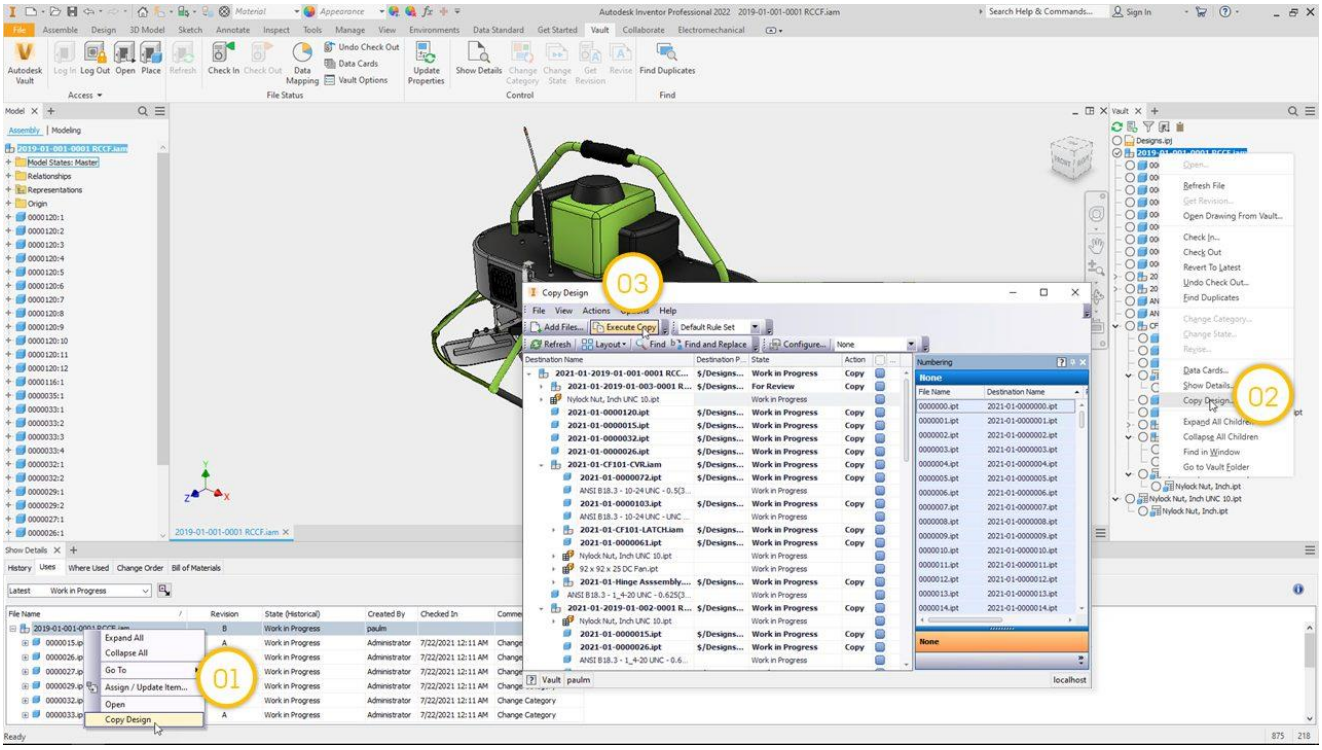
By selecting components in the Browser window, the Graphics Window, or the Vault browser we can view information about a specific component. Including it's BOM participation and any change orders.We can navigate the design with a Right Mouse button click on any component to Go to the associated Change order, BOM Item, or folder location within the Vault client. The columns shown in the panel are configurable to show just the data you need.We can open a component from the 'Show Details' panel directly inside Inventor with a right click. Additional functionality may include assigning to an Item or even running Vault copy design directly from the 'Show details' Panel.

Vault Copy Design is the easiest way to create a copy of your existing assembly and its associated files. With Vault 2022.1, you are now able to run Vault copy design directly from the Inventor interface.

Run Vault Copy Design from Inside Inventor

1. *Run copy design from the right-click menu in 'Uses' or 'Where used' in the Vault 'Show details' panel.*
2. *Run copy design from the right-click menu in the Vault browser*
3. *Copy design runs – configure your copy as usual.*

After the Copy Design is complete, you can open your new design in Inventor, directly from the copy design dialog with a right mouse button click.



Inventor Model States Management with Vault

Inventor Model States allows you to store multiple configurations within a single file, making design variation files easier to manage.

Model states could be used to represent families of similar components, manufacturing stages, simplified representations of complex models, or design variants for assemblies.

Create a model state to capture your design at different manufacturing stages - in this example - Cast , machined, drilled, and finished.

With Vault, you can check in an Inventor model state file from the Inventor Vault add-in, open and place an Inventor model state file directly from Vault and in Vault professional - assign items to model states, with different part numbers and iProperties.

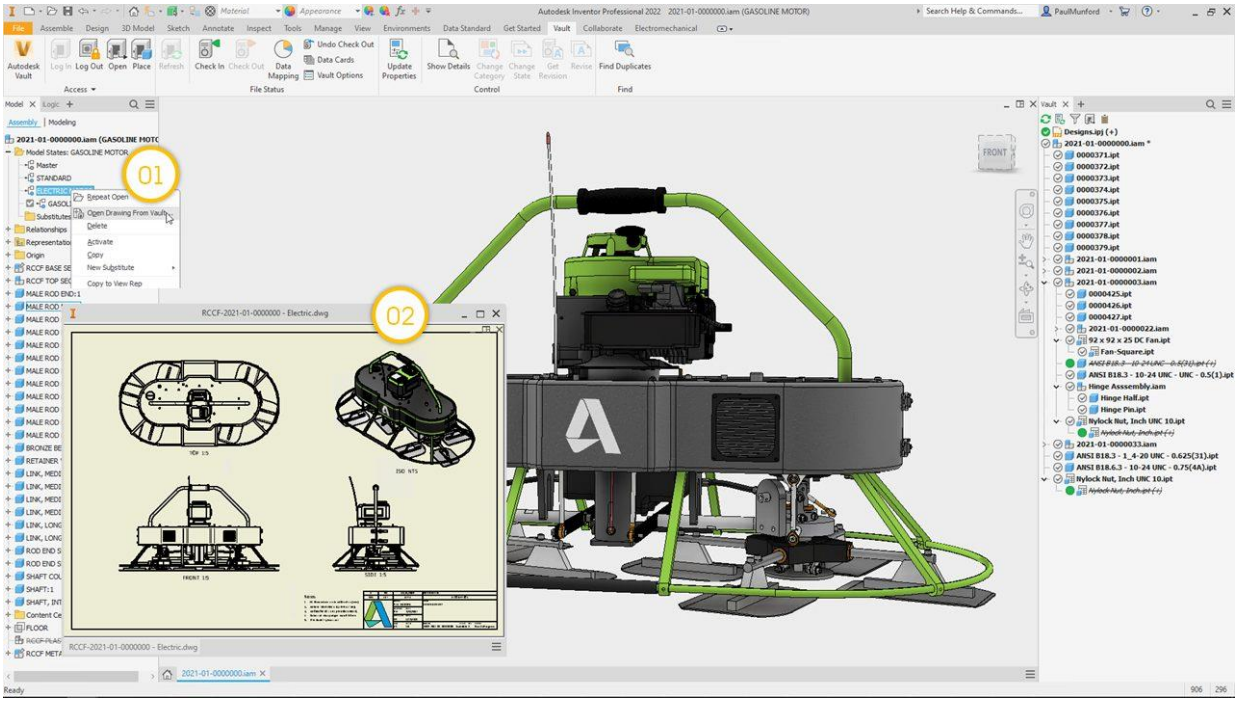
Autodesk Inventor designs which contain model states can be stored in your Vault for easy access.

When placing files into Inventor from Vault, you can easily pick the model state appropriate to your design.

Model states in parts can be mapped to model states in assemblies to build up entirely configurable designs.
The configuration data is stored within the design file and no additional files are created on disk.
Families of components can be represented using Model states - each member having its own part number and metadata.

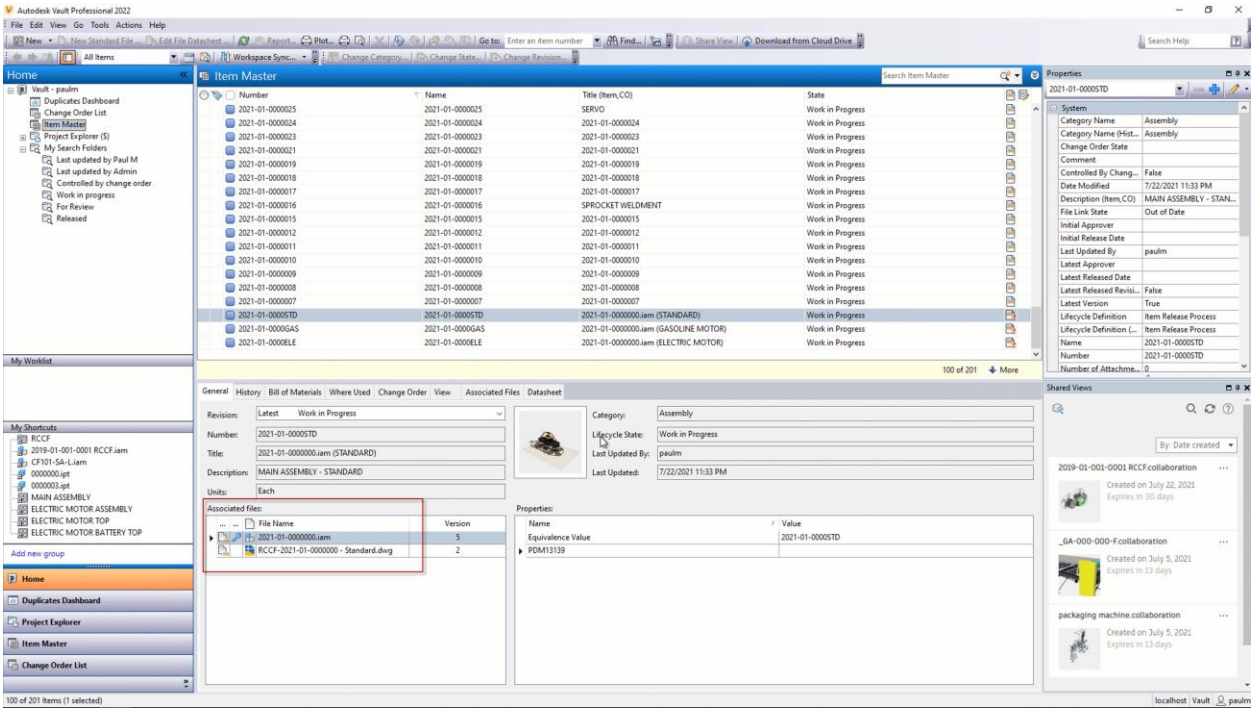
Each part represented by a member in the model state can be tracked using the Vault Professional Item Master.

Now with Vault 2022.1 Update, when you Right Mouse Button click on a model state node from the Inventor browser, you'll open the drawing file that contains the drawing for that Model state.



When creating an item from an Inventor model that has model states, Vault will create a unique item for each model states that has a unique part number.

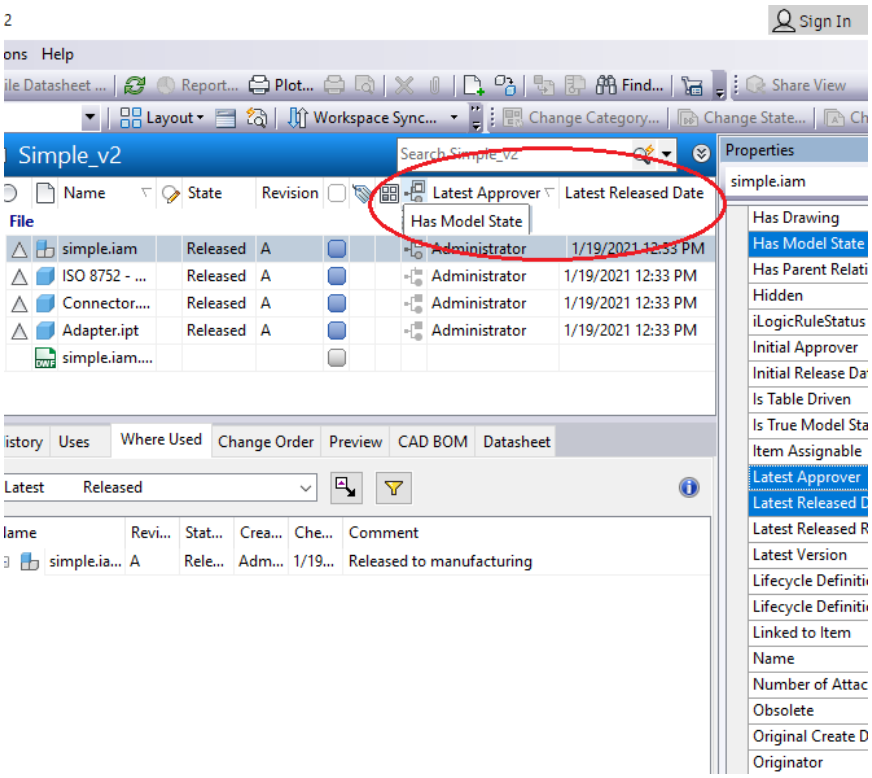
In Vault 2022.1 support has been added to make sure that associated drawing (IDW & DWG) files referencing the appropriate model states are also linked to the items.



“Has Model State” Property

A new "Has Model State" system property is added to files to identify whether the file has an associated model state

You can use it to search and customize the views

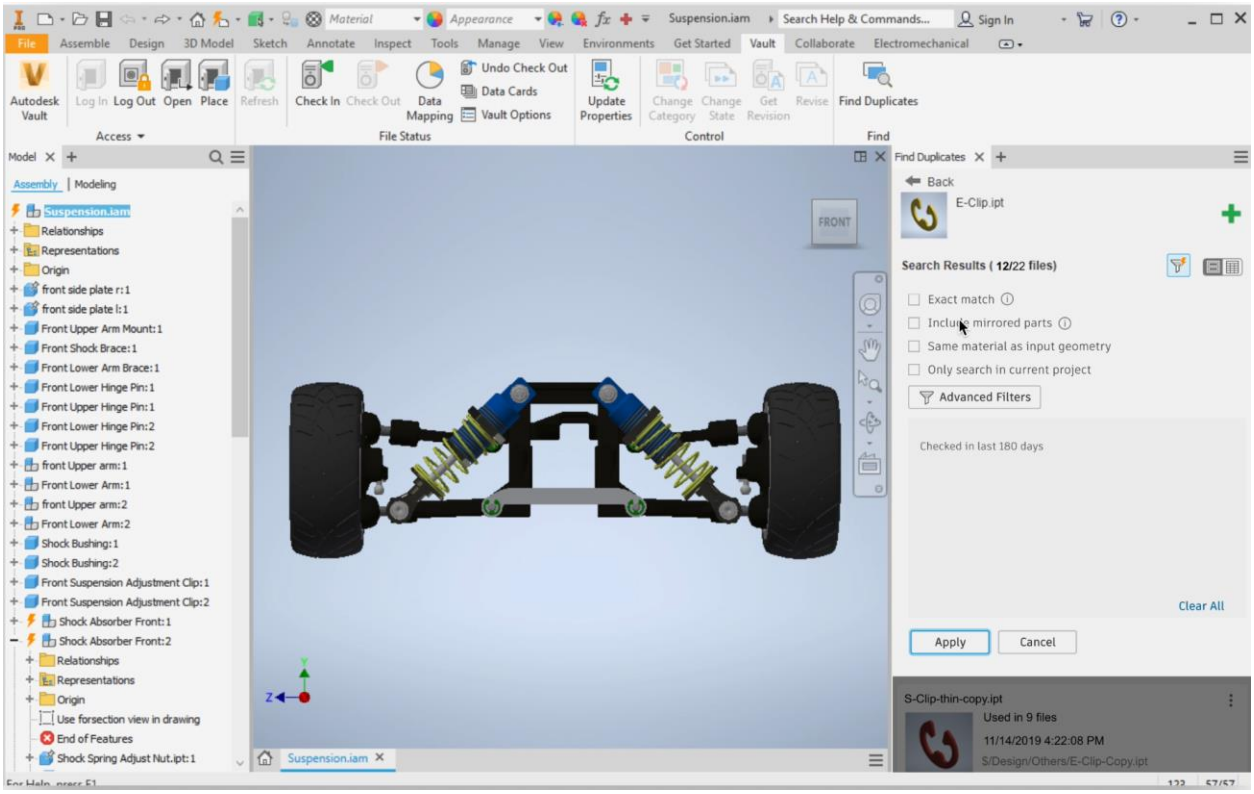


Duplicate Reduction

The Duplicate Search feature increases profitability by indicating identical models, reducing the number of duplicates, and allowing mechanical engineers to continue to have the freedom to design the way they want.

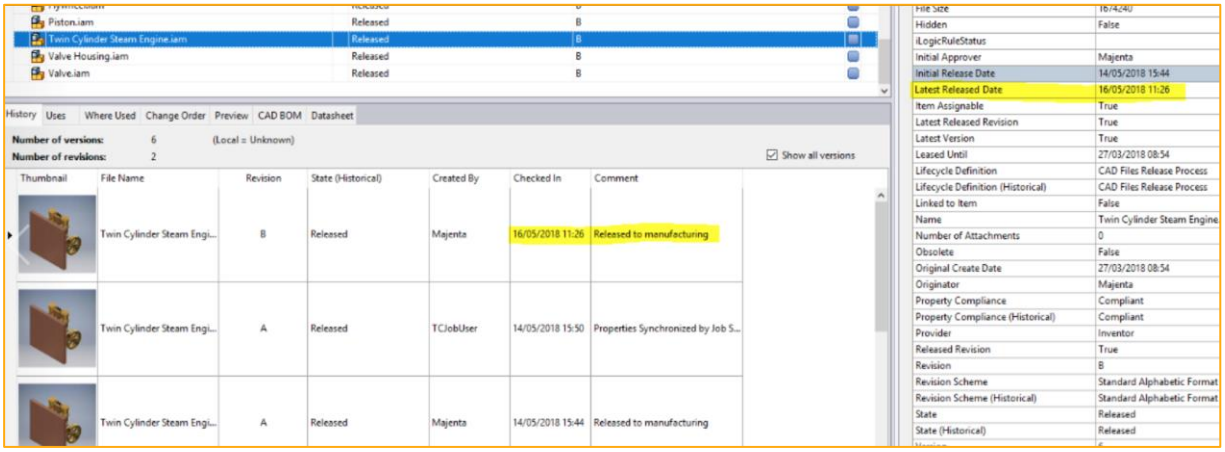
New filter criteria are added to the Duplicate Search feature so you can filter your results better, such as:

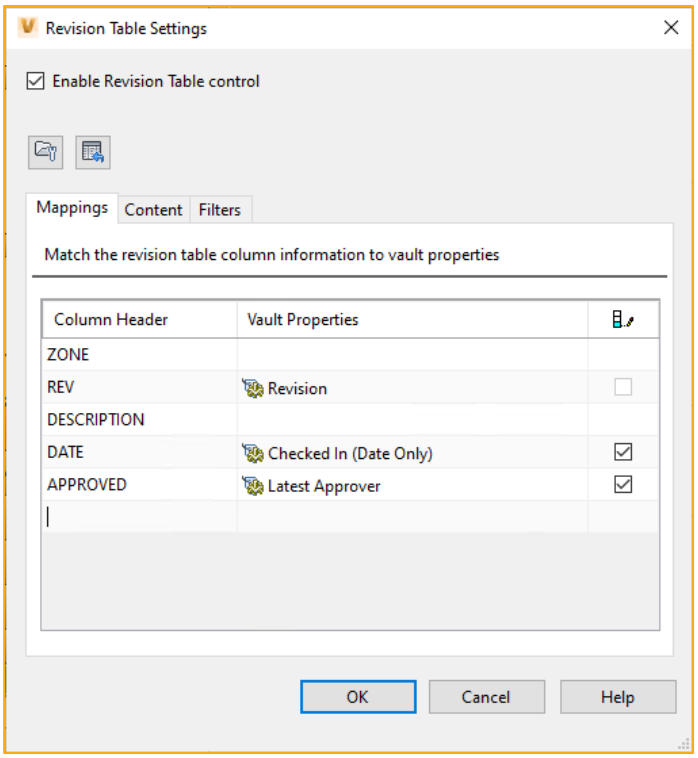
- Same material
- Mirrored parts
- Exact matches



Finding out who is the Last Approver and when it was Last Approved

It is essential to know who has approved the final design and when it was improved. In the 2022 release, we added the Latest Approver and Latest Released Date properties to track this information. These property values can be added to drawing revision tables and title blocks for historical recorded keeping.



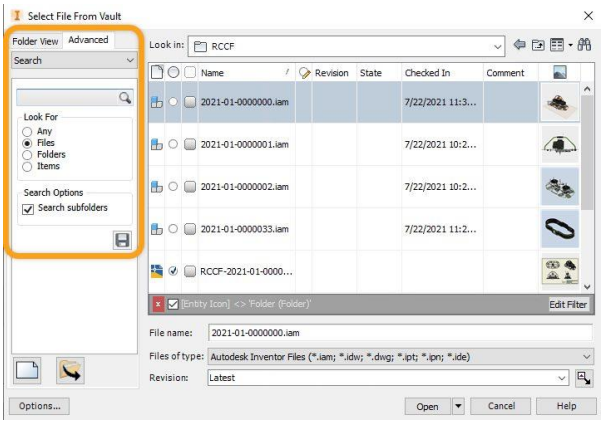


Advanced Tab in Select Dialog

With Vault 2022.1 Update the advanced options for file selection are now available consistently across all ‘File > Open’ dialogs – in both the Vault desktop client and inside Inventor.

You now have consistent access to Advanced search, shortcuts, and saved searches from the Vault client in the File > Open dialog for Vault Client (Copy Design, Attachments, Purge, Rename, Replace, Item, Plot Manager etc.) and when opening files for editing in CAD (Inventor, AutoCAD).

Advanced options are now available consistently across all Vault file dialogs.

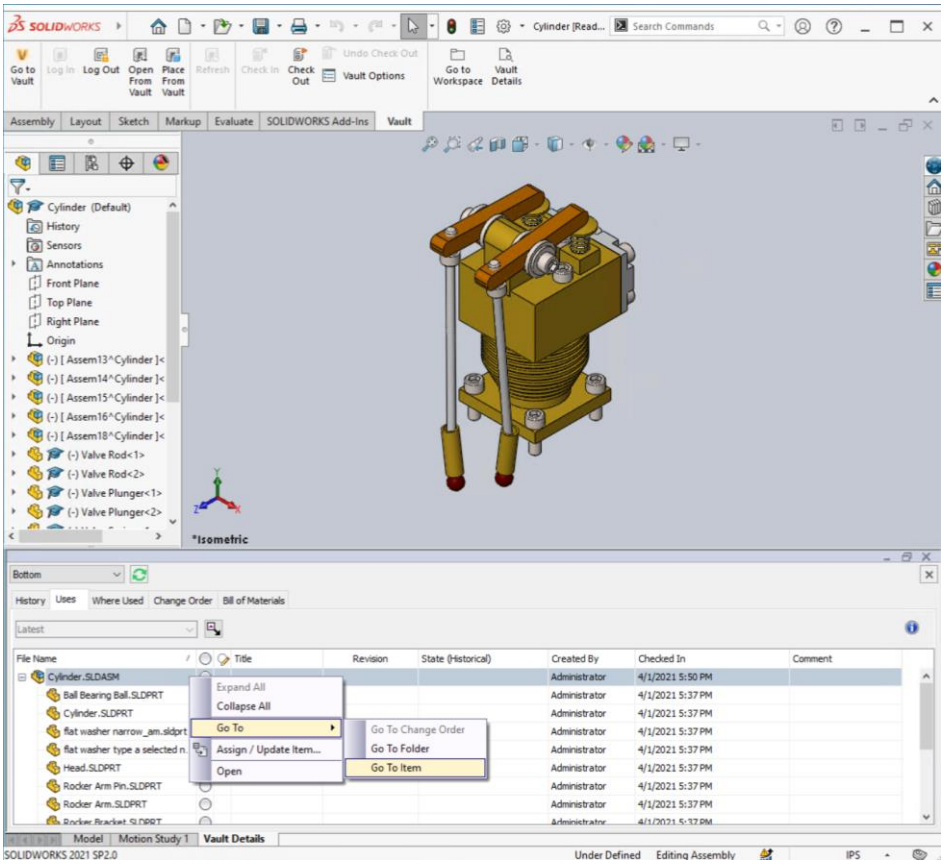


Support for 3rd Party Add-ins

Now Vault 2022 add-ins are available for all the three 3rd party applications SolidWorks, Creo and MicroStation.

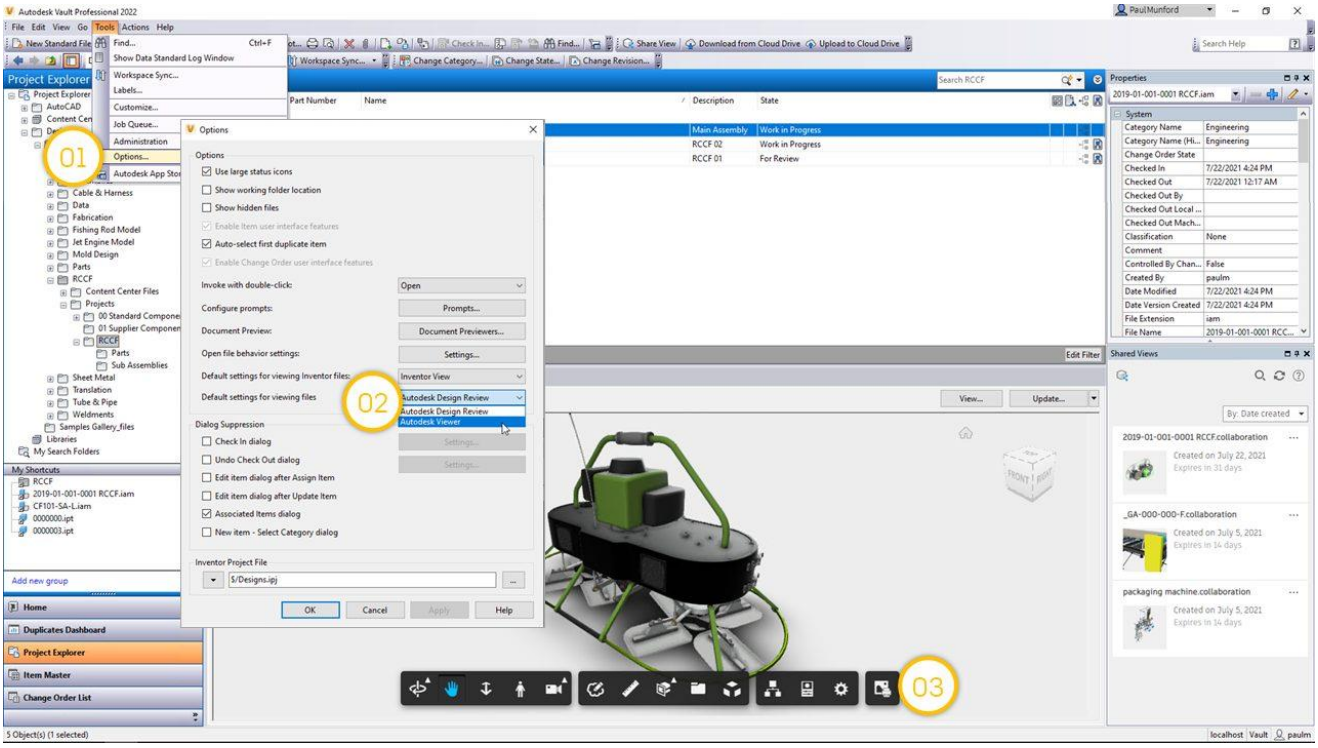
What's new in these new add-ins:

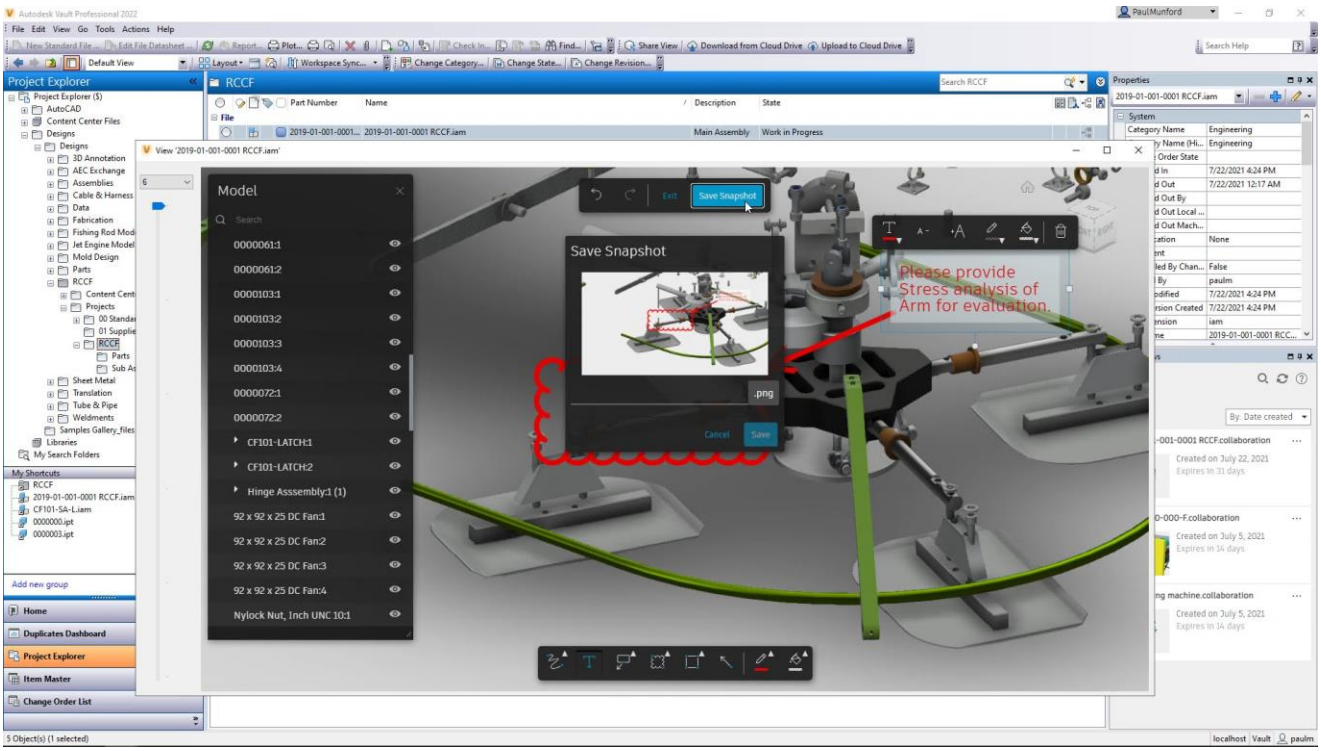
- "Vault Details" Panel in SolidWorks Add-in
- SolidWorks 2021 Support
- Creo 7 Support for Creo add-in
- Connect Edition 14 and 15 Support for MicroStation Add-in



Autodesk (Forge) Viewer

With Vault 2022.1 Update we are delivering a new viewer – Autodesk Viewer. The addition of the Autodesk viewer includes print and markup functionality. When viewing files with the Autodesk viewer, you can now browse the model structure, explode or section the model and take dimensions.
You can also markup the image of the model with text, arrows, clouds, and shapes to add your own notes or feedback. You can save or print a snapshot image (.png) of your 2D or 3D files including their markups, for your own reference or to include in an approval workflow.


01
Options
02
Autodesk Design Review
Autodesk Viewer
03


Model
Save Snapshot
Please provide Stress analysis of Arm for evaluation.

Participants- Stay connected to your engineering data anywhere and in real time

In this next section we are going to cover how participants can access and work with engineering data in the office or on the go.

Let's talk about solving participant challenges by providing a more connected digital experience. Participants are non-CAD designers who need to access design data and engineering documentation.

In many scenarios, the primary goal is to reduce the need to print off paper documents on the shop floor, before visiting a customer, or in the field.

All users want is to feel confident that they are accessing and viewing the correct and up-to-date information without going back and asking designers for data.

Also, they want to have an easy way to search for design and engineering data without remembering a part number or other important information.

Whether the participant is on the shop floor, at a customer site or in the field, the Vault 2022 release allows them to access and contribute to project-relevant data.

Now let's take a look at what we are talking about.



Brand New Browser Experience

Participants can now use a more modern Thin Client that provides a better user experience. Because the Thin Client is browser based, there is zero deployments for the administrator to manage.

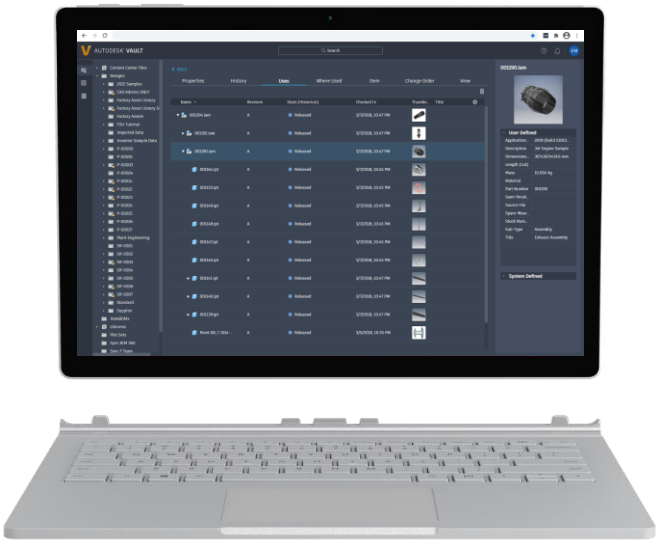
Participants can use the Thin Client on the desktop or tablet giving them a lot of flexibility. For example, we integrated the Autodesk Viewer into the Thin Client, allowing the user view multiple 2D and 3D designs in separate browser tabs.

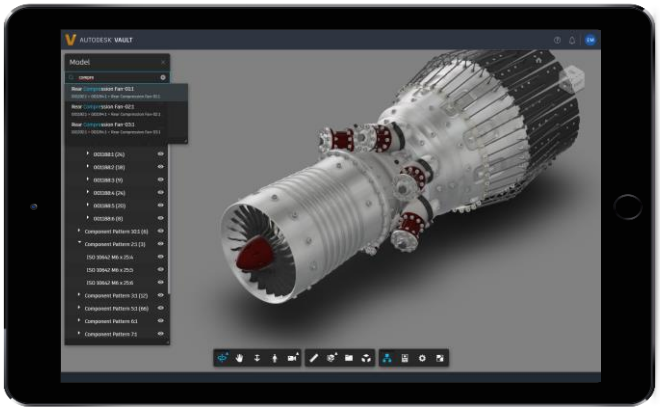
The Thin Client user has access to Change Order information, folder\project links, the ability to multi-select files for viewing or downloading.

Users can also share desktop or web browser links via email.

I have only touched on a few way the browser experience with the Thin Client increases productivity.

There is so much more to discover.



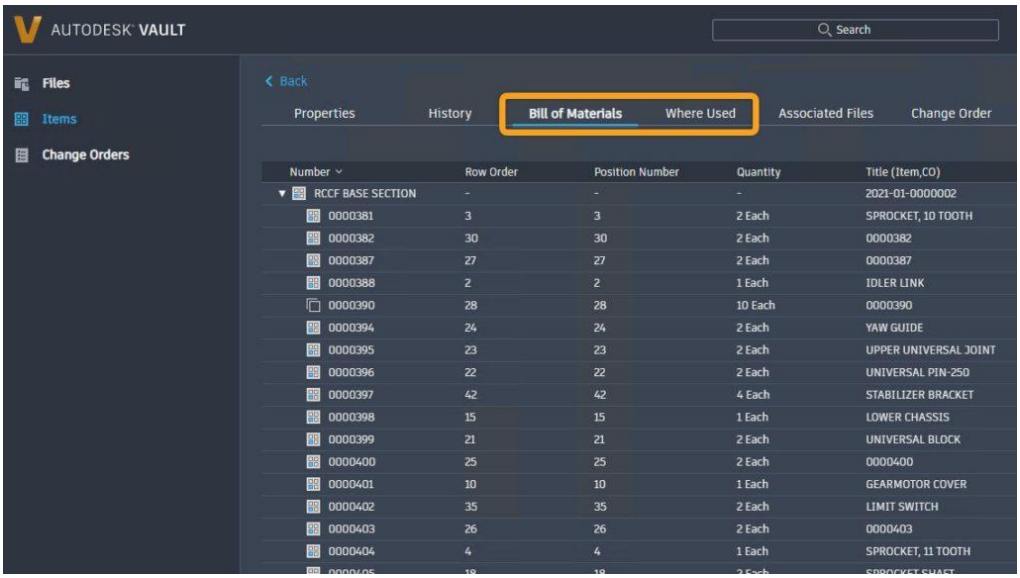


Vault Thin (browser) Client support for Items and BOMs

The Vault Thin Client 2022.1 includes support for Item Bill of materials, and Item ‘where used’. When viewing item details, the browser client now includes the familiar ‘Bill of Materials and ‘Where Used’ tabs.

The Bill of Materials tab lists items in a Multi-Level or Parts Only view. Rows in the multi-level hierarchy can be expanded to view nested items.

The Where Used tab shows the bottom-up hierarchy of a single part, which also contains nested items that you can expand and collapse.



Number	Row Order	Position Number	Quantity	Title (Item,CO)
RCCF BASE SECTION	-	-	-	2021-01-0000002
0000381	3	3	2 Each	SPROCKET, 10 TOOTH
0000382	30	30	2 Each	0000382
0000387	27	27	2 Each	0000387
0000388	2	2	1 Each	IDLER LINK
0000390	28	28	10 Each	0000390
0000394	24	24	2 Each	YAW GUIDE
0000395	23	23	2 Each	UPPER UNIVERSAL JOINT
0000396	22	22	2 Each	UNIVERSAL PIN-250
0000397	42	42	4 Each	STABILIZER BRACKET
0000398	15	15	1 Each	LOWER CHASSIS
0000399	21	21	2 Each	UNIVERSAL BLOCK
0000400	25	25	2 Each	0000400
0000401	10	10	1 Each	GEARMOTOR COVER
0000402	35	35	2 Each	LIMIT SWITCH
0000403	26	26	2 Each	0000403
0000404	4	4	1 Each	SPROCKET, 11 TOOTH

Vault Thin client support for Markup

You can now markup your model in the Vault Thin Client, with text, arrows, clouds, and shapes to add your own notes or feedback.

You can save or print a snapshot image (.png) of your 2D or 3D files including their markups, or your own reference or to include in an approval workflow



Vault Mobile App

The world we live in is mobile and you need access to data quickly and easily no matter where you are. Let's talk about the Vault mobile app.

If you have been following our Vault updates, we introduced the Vault mobile app in February this year.

The Vault mobile application is now available on both the Apple App store and Google Play store.

The application is compatible tablets and phones running IOS version 12 & later or Android version 8 & later.

It is compatible with Vault Professional 2020, 2021 and 2022 servers.

A Vault Professional or Vault Office subscription is required to use the mobile application.

In order for a participant to use the app, they will need to ask their product license administrator to turn on the Vault Mobile Entitlement for their Autodesk account.

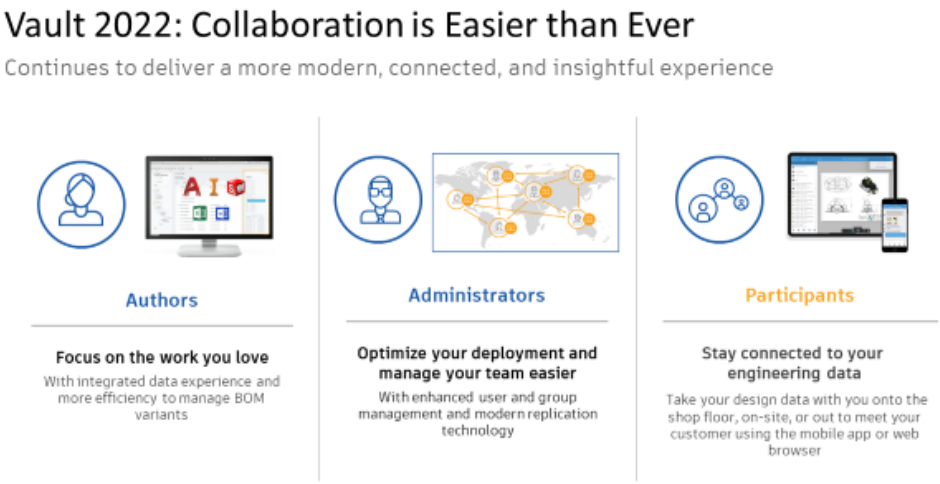


In conclusion, we discussed how the Vault 2022 release allows authors to focus on design work with a better-integrated data experience.

Enhancements that help administrators optimize their deployments and manage their teams easier.

Also, how Vault 2022 allows participants to stay connected to the correct engineering data at the right time with a modern Thin Client interface and a mobile app for phone or tablet use.

Vault 2022 and its update 1 are packed with many features to help every user's role and responsibility.



Here are the Links to Videos on the New Features

Autodesk Vault 2022 What's New - Overview
https://www.youtube.com/watch?v=rfdwB_e26Qk

Autodesk Vault 2022 What's New Mobile App
https://www.youtube.com/watch?v=dngLXP0P3pc

Autodesk Vault 2022 What's New Model States
https://www.youtube.com/watch?v=cfeNt_sdUy4

Autodesk Vault 2022 What's New Accessibility - Thin Client
https://www.youtube.com/watch?v=gWB_c7n6Qz0

Autodesk Vault 2022.1 What's New – Overview
https://www.youtube.com/watch?v=rYDDReBaPNw

Make Your Voice Heard

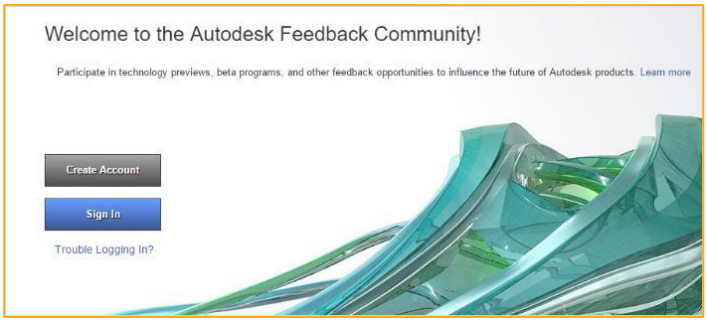
You can influence new features and enhancements too.

Make your voice heard by providing your feedback and ideas directly to the Vault product team.

The Vault Feedback Community gives you early access to alpha projects and beta versions of Vault.

The Vault Ideas Page is where you can share, vote and see updates on feedback to improve Vault from users like you!

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



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

