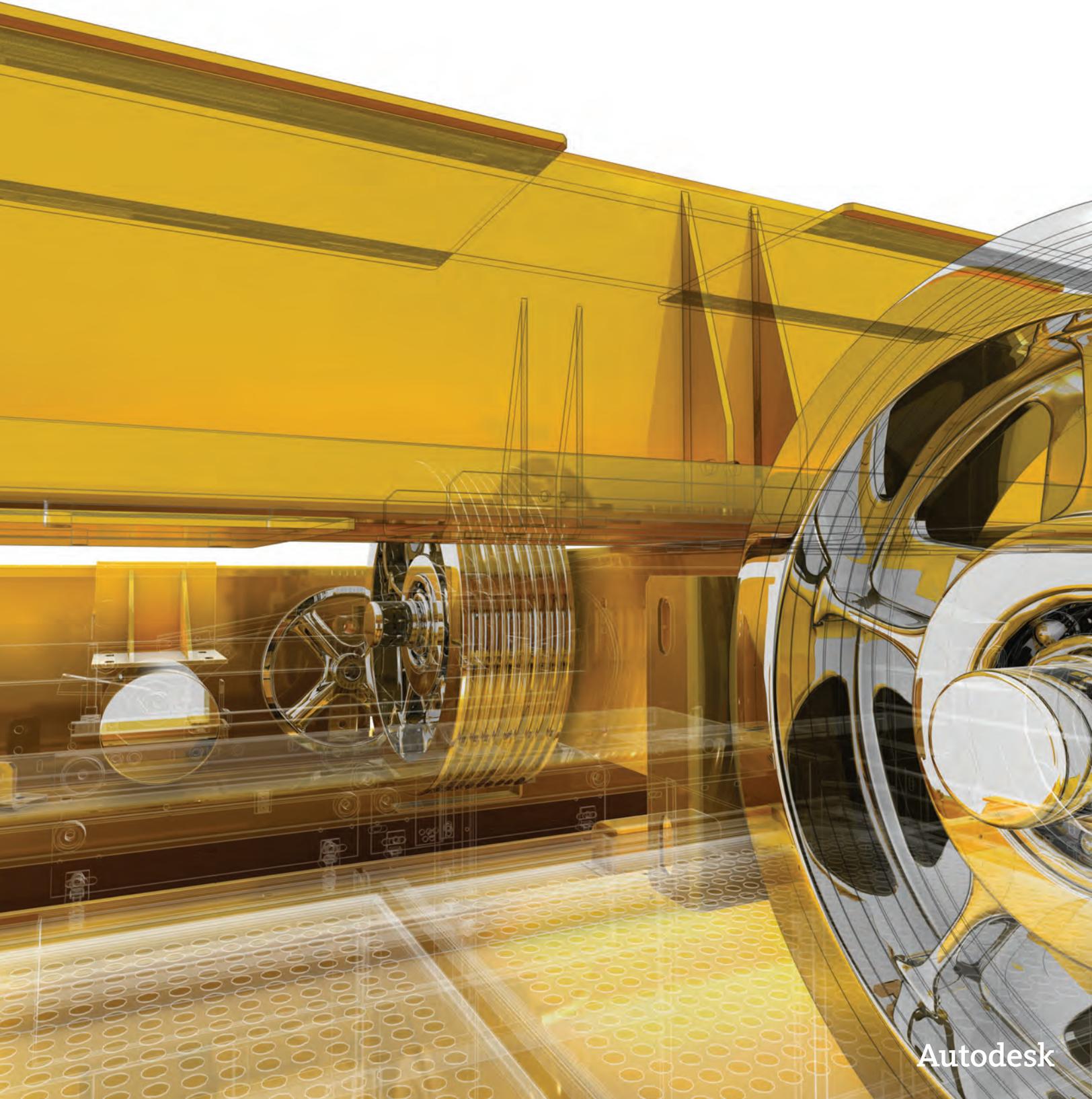


Technical What's New

Autodesk®
Vault Family



Technical What's New

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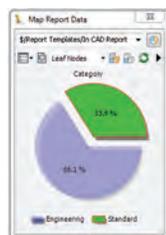
Welcome to the Autodesk Vault 2011 Family of Products

Autodesk® Vault family of products, part of the Autodesk solution for Digital Prototyping, securely stores and manages engineering information, design data, and documents—shortening the design-to-manufacturing process. It helps design, engineering, and manufacturing departments collaborate and share digital prototyping information with tools to connect workgroups across multiple locations. Take full advantage of advanced functionality by giving design departments the tools they need to track engineering change orders, manage bills of materials (BOMs), and promote earlier collaboration through integration to manufacturing business systems.

Key areas of focus for Vault 2011 family of products are deeper CAD or Autodesk design tools integrations with the power to use a heads-up display and data mapping, enhancements that allow better connections between global workgroups, API enhancements to support client-side customization and automated events using the job server, and customer-driven usability improvements to help users increase their productivity.

Deeper CAD Integrations

See how much further you can go when you have the power to manage designs using a heads-up display and data mapping. Vault 2011 family of products introduces an innovative, new technology to evaluate and interact with your managed design data.

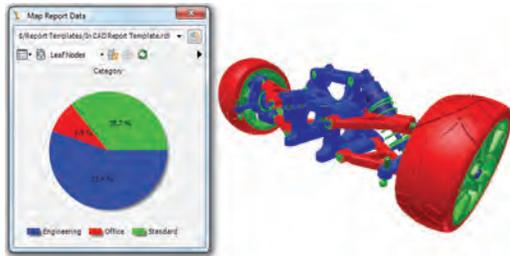


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Data Mapping

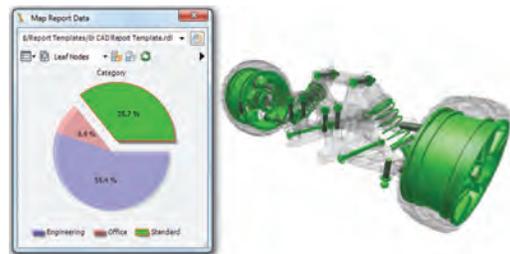
Autodesk Vault Workgroup, Vault Collaboration, and Vault Professional 2011 all employ the principles of mapping analytical report data directly to Autodesk® Inventor® models to streamline workflows, make fundamental improvements to the reporting and decision-making process, and foster faster model selection and interaction.

Data mapping offers an interactive interface that allows users to generate report data for a model and publish the results as a chart within Inventor. Users can then color code the model to see a direct correlation between the report results and the design. By enabling designers, engineers, and managers to visualize reported data directly within a model, they are able to more easily make informed decisions. Data mapping may be used to highlight such information as parts pending change, make versus buy designation, current project or design status, compliance status, component cost range, weight range, design lifecycle, and more.



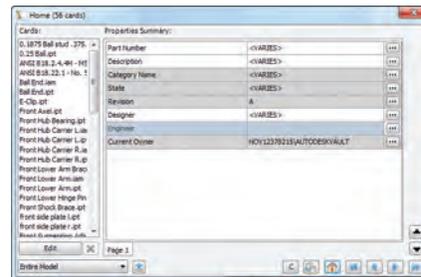
Data mapping also features report publishing, which allows users to share analysis results with other workgroup members. When a command is invoked, the analytical engine utilizes the report templates introduced with the 2010 Vault product family release, allowing you to further extend the investment made in reporting with the Vault family of products.

Finally, data mapping also provides a method for designers and engineers to intelligently select data from analytical data. With data mapping applied to a model, a subsection of the report results can be easily selected for interaction with Inventor software or added to an existing selection set. For example, data awaiting approval may be easily selected based on lifecycle state, streamlining the process for the user to approve the design.



Data Cards

Directly review vault status and property information within the Inventor graphics window with the new Data Cards feature with Autodesk Vault Workgroup, Vault Collaboration, and Vault Professional. Examine details about individual or multiple files within a single interface, and modify property values as needed without having to use the Vault stand-alone client. Users may also be confident that both their vaulted property values and iProperties values will be synchronized.



The configurable data card interface provides companies with the ability to standardize on property sets, and administrators can enforce the population of critical data fields—leveraging property policies directly within Inventor and facilitating data population by users in compliance with demanding regulations.

Enhanced Context Menus

Workflows have been streamlined within the Vault family of products and now feature integrated context menus within the Inventor modeling environment. Users are now able to directly select the desired components that require Vault interaction and select the necessary Vault command from the context menu.

Additionally, users will find the same menu directly available within the Inventor model browser, without needing to first transition to the Vault browser. This will eliminate many steps and allows users to stay focused on their designs.



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Connect Global Workgroups

Full Replication

Autodesk Vault Collaboration and Vault Professional 2011 solutions introduce an enhanced multi-site capability, leveraging both file replication as well as vault database replication to help customers connect their workgroups globally. The full replication solution has been designed to address latency and bandwidth limitation often experienced when connecting workgroups across continents. The direct result provides each workgroup site with a high-performing experience as the vaulted data is provided to them locally.



Scalable and Cost-Effective Solution

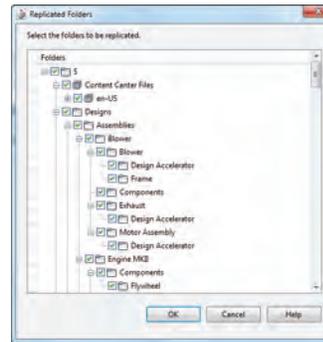
While the full-replication solution offers a scalable approach to facilitate workgroups worldwide, smaller offices may begin using file replication to reduce the investment costs required to connect their workgroups. The Vault family allows companies to evaluate the business demands for each office to determine if full replication is required to provide higher performance in order to overcome latency. As vault traffic increases at a particular site, the site can be brought online with database and file store replication, allowing the team to gain a return on investment based on user productivity and accelerated project delivery.

Coordinate Data Between Sites

Vault Collaboration and Vault Professional help companies aggregate data globally without undue concern for conflicting information. Each workgroup creates and owns their data. Other sites will receive the data in a read-only fashion and are able to consume and use the data if permitted. If modifications are required, the other locations simply request ownership of the data and can then check the data in and out as needed locally. All data is synchronized between all sites per the replication configuration, keeping all locations up to date with the latest design data.

Selective Replication

Some locations may only need light amounts of data from the vault. The replication solution found within Vault Collaboration and Vault Professional now allows administrators to configure folder-based replication. Vault administrators may configure file caching based on folders per site. This allows locations that are only working on a single project to support a local file cache for the related project files. This reduces the amount of file storage demands at locations that may have limited IT support or limited disk space.



Vault Client Customization

With the 2011 release of the Vault product family, the application programming interface (API) for the Vault Workgroup, Vault Collaboration, and Vault Professional software has been enhanced to support client-side customization and automated events using the job server.

Configurable Environment

Autodesk Vault Professional has been improved to better support companies interested in incrementally deploying product functionality. Administrators may enable the item and change order environments independently as their deployment phases roll out to the user community. Until these environments have been enabled, users will not be able to access or see items and/or change order objects, minimizing the amount of information that a new user must learn and understand.

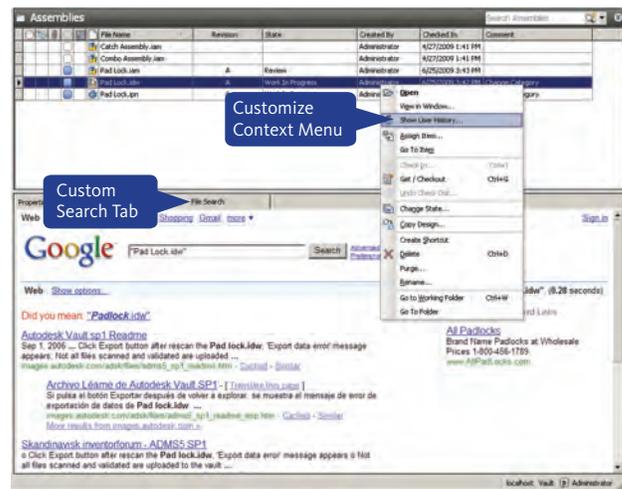
Client Extension SDK

Included in the installation of Autodesk Vault Workgroup, Vault Collaboration, and Vault Professional 2011 software is the introduction of the Vault Client Software Development Kit (SDK). This kit enables the creation and integration of custom features and user interface elements, allowing administrators to extend the Vault interface to support unique business demands.

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Customizable User Interface

Utilizing the client SDK, administrators may now alter the client interface within the Autodesk Vault Workgroup, Vault Collaboration, and Vault Professional interfaces. For starters, existing commands may be hidden or replaced with custom commands, giving administrators the ability to limit what functions users have access to, and streamlining their workflows. Administrators can also add custom commands to existing menus, allowing new custom features to be added to the product interface in order to match unique company business processes and needs.



Administrators can further enhance the Vault client interface by adding custom tabs to the details pane for files, items, and change order environments. These new tabs can be customized to include unique property data grids and custom action buttons, as well as pull and expose data from external sources, further unifying the vault client interface with other business software applications.

Lifecycle Event-Based Actions

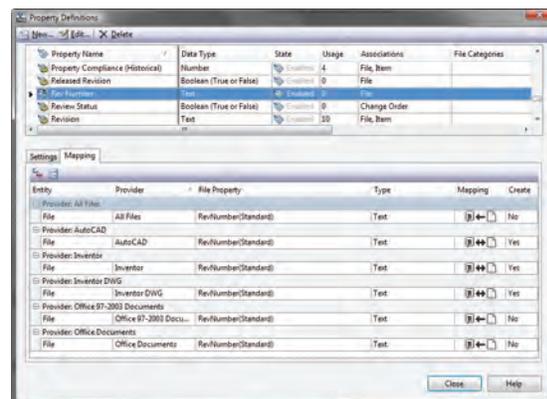
The lifecycle engine within Autodesk Vault Workgroup, Vault Collaboration, and Vault Professional 2011 software has been extended and can now initiate custom actions. Actions can be configured to be triggered based on the transition from one object's lifecycle state to another. Based on this trigger, standard or custom jobs can be queued using the Job Server, now included within Autodesk Vault Workgroup, Vault Collaboration, and Vault Professional. The Autodesk Vault Job Server helps maximize design time by offloading automated tasks. Custom job types can be created using the job handler and the job processor, allowing integration with custom commands.

Improved Usability

The Autodesk Vault 2011 family of products includes many customer-driven enhancements focused on improving usability and productivity.

Common Property Definition

Property administration has been greatly simplified in the Autodesk Vault 2011 family of products. Now, utilizing a common property definition for files, items, and change orders, the task of managing property configuration, mapping, and editing has never been easier.



The total number of property types has been significantly reduced within the vault to a single property definition. As a result, administrators need only define a property once and enable it within the environment in which they would like to utilize it, rather than creating multiple copies of the same property. Property mapping has been improved as well. As administrators begin the process of defining property definitions, they may now select a file external to the vault to initialize the file property definition without having to first add a file to the vault, making the process more intuitive. Further, property mapping may now be mapped across data types. For example, strings may be mapped to numeric property definitions and vice versa. Lastly, the default behaviors for new property definitions are to bidirectionally push and pull property values between files and your vault, making it much easier to synchronize property values.

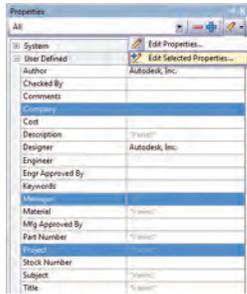
Property policies have also been improved. Administrators have more control over initial values for all user defined properties (UDPs), ensuring that new properties on an object (a file, item, or change order) can appear with no value, a predefined static value, or a value pulled from a file as an initial value when the object is created. Further, a new "required value" property policy has been added to the administration configuration. This setting allows administrators to require users to enter a property value for any given property, regardless of data type. Additionally, list values can now be generated for both string and

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numeric data types. When lists are used with no initial values, the required value setting, and the new 'Enforce List of Values' setting, they provide administrators with the comfort that users are selecting values from predefined list properties prior to releasing design data.

Enhanced Property Interaction

Users will also benefit from the property enhancements found within the Autodesk Vault 2011 family of products. User-defined property lists are now directly available within the Advanced Search functionality, making it easier to create search criteria. Plus, wildcards may now be used with these list properties in order to find multiple search results based on numerous list values.

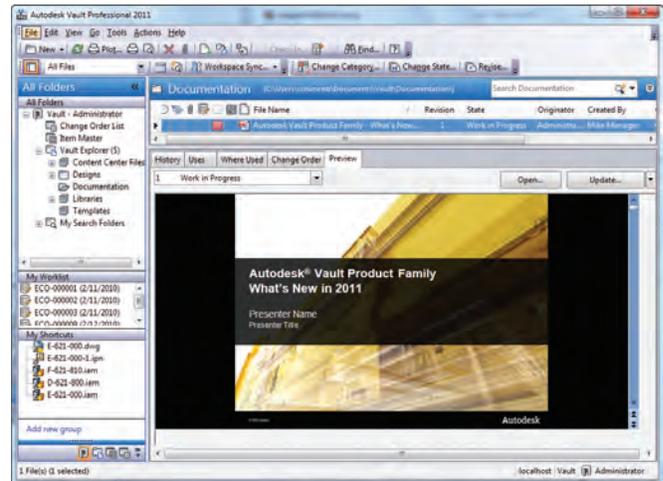


A new vertical property grid has been introduced with the 2011 Vault product family. This vertical property grid replaces the properties tab previously found within the preview panel and provides users with greater accessibility to context-specific object property data. Similar to the property panel in the previous release, the vertical property grid displays the properties associated to the selected object along with their corresponding values. However, users are now able to select multiple objects, such as files, and see the collective property sets and their corresponding values, providing more insight to where objects have duplicate or unique values.

File property editing has also been streamlined. Rather than having to step through a wizard as in previous releases, this function has been consolidated to a single step. Users may start the feature as before and add the necessary files, or now use the new vertical properties grid to activate the feature. In fact, users may not only select multiple files to populate the vertical properties grid, but if they have specific properties highlighted in the grid and activate the Edit Properties command, the Edit Properties dialog will pre-populate with the preselected properties of the preselected files, making it easier for users to quickly edit the intended property values.

Office Document Preview

Users are now able to quickly preview the office documents that are associated with their designs. Specifications, customer quotes, engineering calculations, customer proposals, and all other office documents that have been created as part of a design project may now be viewed directly within the Preview tab within the Autodesk Vault stand-alone thick client. The integrated native viewer supports the Microsoft® Office 2003 and 2007 editions of Microsoft® Word, Excel®, and PowerPoint®.



Enhanced Title Block Mapping

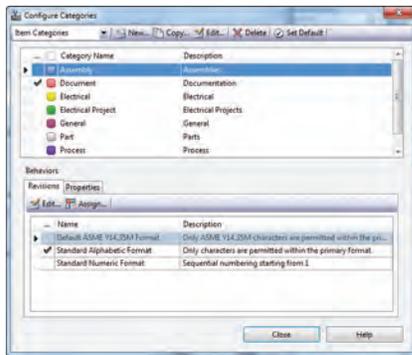
Four new system properties have been added to Autodesk Vault Workgroup, Vault Collaboration, and Vault Professional, providing administrators with the ability to map critical release process data to title blocks. This enhancement now supports pivotal property value synchronization from vault to drawings, enabling title blocks to reflect:

- Initial release date – the date when the file was released for the first time
- Initial approver – the user that released the drawing for the first time
- Original creation date – the date when the file was first checked into the vault
- Originator – the user who first checked in the file

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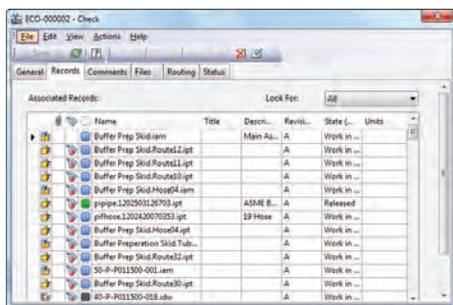
Category and Revision Consistency

Administrators and users alike will find more consistency between the file environment and the item environment with Autodesk Vault Professional 2011. Property sets are now based on categories for file and item objects, making the administration and creation workflows consistent between the two environments. Further, just as files used rules to assign categories to a file object in the previous release, rules may now be used to determine which category gets assigned to an item, adding more configurability and flexibility to your deployment. Finally, categories bring the added benefit of exposing multiple revision schemes to items, now giving users the flexibility they need to change the revision scheme on an item as business demands.



Change Order Improvements

A number of enhancements have been introduced to the Change Order environment for Autodesk Vault Professional 2011 in order to help improve overall workflows and flexibility. For starters, there are a number of new points of entry to add items to existing change orders or to create new change orders. Users will find these options in context menus for items as well as within the Assign Items and Update Items dialog boxes.

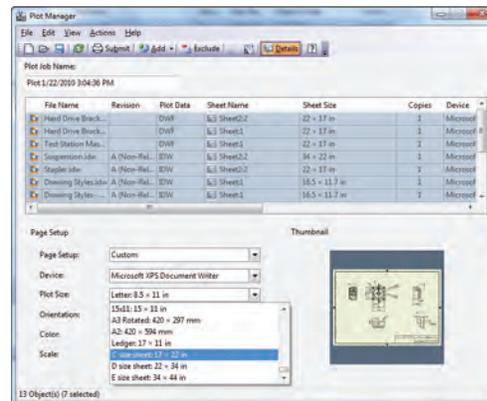


Users are also now able to customize the email notification message and subject that is sent to notify other users during the transition from one change order state to another, providing them with the flexibility they need to properly communicate the next steps to the rest of the team. Users are also able to add additional recipients to the message, allowing for more ad hoc communication as business requires.

Finally, the change order environment can now manage files, enabling a formal approval process to be applied to the release of design documents. The change order environment has been updated to manage both item and file records and provides an interface for users to change file lifecycle states directly within the new Records tab, enabling files to be managed within change orders.

Enhanced Batch Plotting Usability

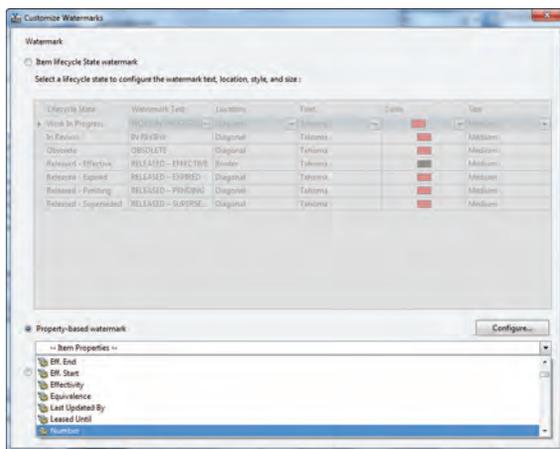
Batch plotting within Autodesk Vault Workgroup, Vault Collaboration, and Vault Professional 2011 software has been enhanced to more easily allow for the editing of larger plot sets. Multi-selection within the sheet list now enables the plot configuration options for the entire selection set, giving the user the ability to update the plot settings of multiple sheets simultaneously. Further, where possible, the actual sheet size will now be provided within the display, helping users to make more informed decisions about the appropriate paper size to apply for printing.



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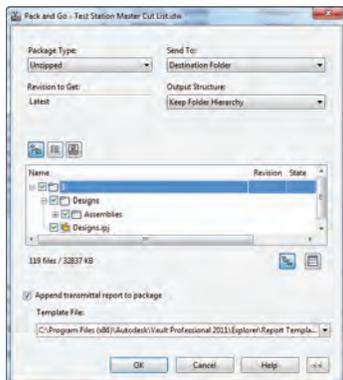
Property Driven Watermarks

As with past releases, Autodesk Vault Professional 2011 can apply watermarks to 2D DWF™ renditions of drawing files to communicate to downstream consumers the current status of the design, helping to alleviate accidental production against an incomplete article. In addition, the 2011 release introduces the ability to utilize vault properties as part of the value of the watermark, providing users with more dynamic watermarking information within the visualization file and helping to keep them up to date. Further, watermarks may now be multiple lines of data, providing even more useful information.



New Transmittal Report

Pack and go has been enhanced within Autodesk Vault Workgroup, Vault Collaboration, and Vault Professional 2011 software to include a report on the data contained within the pack and go deliverables. This new transmittal report utilizes the existing reporting technology and templates introduced within the 2010 release, providing even more return on investment. Now when users create a 'Pack and Go' or use the 'Send File' feature, they can include a PDF that describes the contents of the data they are sending and provide your organization with a record of what was sent.



Learn More or Purchase

Stay ahead of the competition with Autodesk's practical approach to data management using the Autodesk Vault family of products. Gain access to technical expertise, utilize training and support programs direct from Autodesk, stay up to date with the latest product releases, and give us your feedback. Not only does Autodesk want to help you use the Autodesk Vault family of products more effectively, but we want to make sure our products are working effectively for you. For more information, visit www.autodesk.com/vault-family.

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Feedback

Autodesk Vault customers can interact with the Autodesk development team through a number of methods, including:

- Keep up to date on what is happening in your industry, stay in touch with other industry professionals, and take advantage of a host of online resources at the Autodesk Manufacturing Community Portal at <http://mfgcommunity.autodesk.com/>
- Talk with your Autodesk Authorized Reseller and support staff

Your input is crucial to our success, and we look forward to receiving your comments. For more information on making the most of your software investment, visit www.autodesk.com/consulting.

Purchase Autodesk Vault products through your Autodesk Authorized Reseller. To locate the reseller nearest you, visit www.autodesk.com/reseller.

Conclusion

We thank you for your continued support of the Autodesk Vault product family: Autodesk Vault, Autodesk Vault Workgroup, Autodesk Vault Collaboration, and Autodesk Vault Professional. We strive to listen to your needs, and we trust that the new and enhanced product functionality helps make you more productive and your company more competitive while returning true value to your bottom line.