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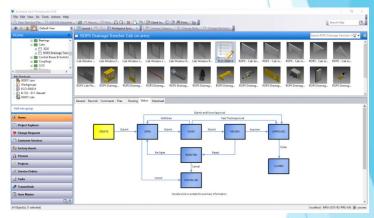
### What is Autodesk Vault Professional ?

Autodesk Vault Professional - it is a necessary tool for the customer, the general designer, the project contractor and the designer, which also allows to unite all participants into a single process of interaction when working on a project.



### What is Autodesk Vault Professional ?

The Autodesk Vault Professional project and engineering data management system is designed to organize and automate project work in enterprises. It is able to ensure uninterrupted work on a project of an unlimited number of users, even geographically separated from each other. Means of describing and controlling the development and coordination of documents, tools for defining the sequence of work, automatic tracking of changes in documents - all this guarantees the unity and safety of design data, contributes to the acceleration and increase of transparency of working processes.





For a customer.

Autodesk Vault Professional allows customer to receive design solutions from the General Designer in a structured, timely and convenient for future use form, coordinate design solutions inside and then provide them with secure access to builders for technical audit, receiving comments, production and construction.





For a general designer.

Autodesk Vault Professional allows customer to work efficiently with all project contractors, providing a clear understanding of which design solutions, by whom and when they were sent, as well as operational communication with the Customer to clearly advance the project on schedule.





For Project Contractor.

Autodesk Vault Professional for easy information sharing with other contractors and the General Designer, which allows you to:

- make external links to files of other contractors and be aware of the latest changes;
- receive new tasks and comments already completed (with the DarkStream adaptation package);
- do not be confused in the versions of design solutions.



#### For a Designer.

Autodesk Vault Professional for teamwork on the project in a single secure access point, which allows customer to:

- maintain order in the design data during the operational work with BIM (Building Information Modeling) design, classic 2D design, in files of any formats rvt, nwc, dwg, docx, pdf, xlsx, etc;
- control the transfer of tasks between departments and track their implementation (if there is an adaptation package DarkStream);
- protect design data from unintentional deletion.

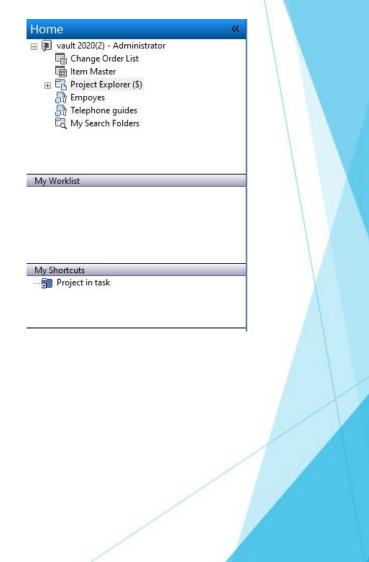
- centralized storage of information throughout the enterprise;
- means of organizing the joint work of employees and departments;
- electronic archive and electronic document management functions;
- □ different levels of user access to information;
- means of working with the history of changes in documents and variants of execution;
- □ advanced search;
- extensive automation of routine and labor-intensive operations;
- □ freeware Autodesk Vault API;
- possibility of organizing joint work of remote from each other working groups and branches.

Centralized storage of engineering data

AUTODESK<sup>®</sup> VAULT

Autodesk Vault allows customer to organize a single data warehouse within the enterprise, to manage the structure and system of information storage.

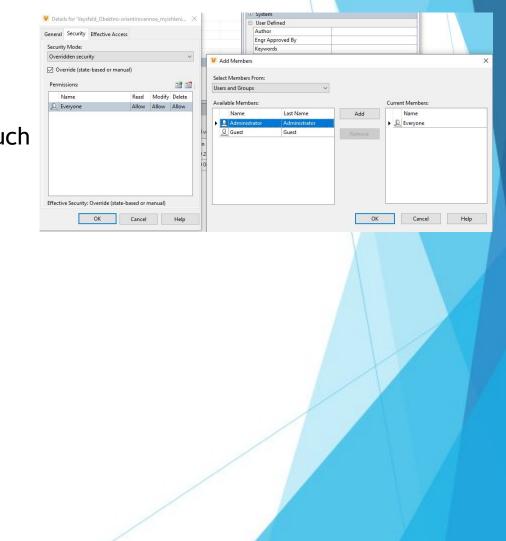
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#### Assignment of access rights

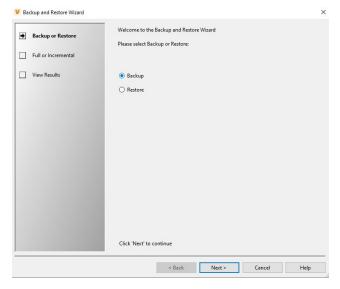
Autodesk Vault tools allow customer to assign user access rights to data based on their assigned roles, such as the role of administrator, editor of objects and documents, and others.

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Create and manage users	Manage Users
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Create and manage user groups	Manage Groups
d Permissions	
Create and manage roles	Manage Roles
	Automatically create a user account members upon login Create and manage user groups d Permissions



#### Backup and restore data

Autodesk Vault's built-in backup and recovery tools minimize the risk of project data loss and can be configured to run automatically according to a predetermined schedule.





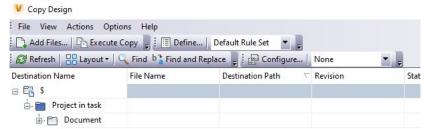
Storing the history of changes and options

Vault provides a complete set of tools for storing, tracking and managing the history of the development and modification of documents. Automatically created during the work version of the documents allow at any time to return to the previous state of the project or re-use data in other projects. The tools for creating and working with editions allow you to combine several versions of objects.

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#### **Project Copy Wizard**

The Copy Design tool, included in the standard functionality of Autodesk Vault, provides a procedure for copying already developed projects with full preservation of their structure and related data. This reuse of information eliminates the need to re-develop existing solutions.

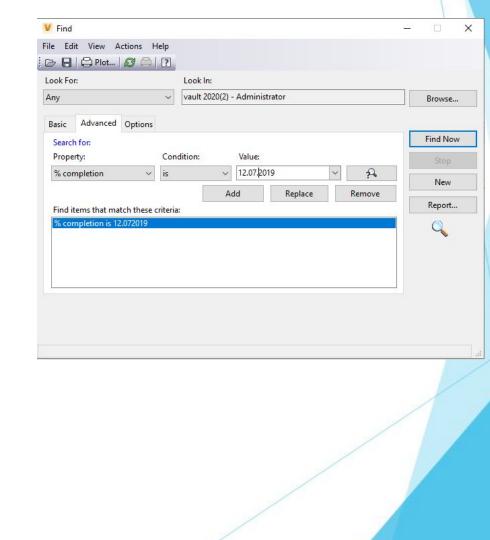




#### Advanced search tools

AUTODESK<sup>®</sup> VAULT

Simple and advanced search, implemented in Autodesk Vault, allows customer to quickly find the actual data that users need at the current time. According to statistics, engineers in a week spend half a working day searching for the necessary information. Using Vault allows customer to free up this time and spend it on productive work.



Effective data management

Autodesk Vault has simple and clear ways to manage data, which ensures effective use of the system by both experienced engineers and novice specialists.



#### **Batch printing**

Autodesk Vault-implemented batch printing tools make it as easy as possible. If you need to print large amounts of documentation, users do not need to run every single application; in Vault, this can be done right from the electronic archive window.

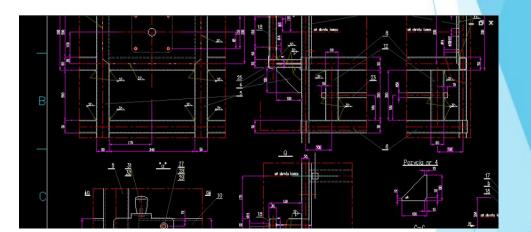
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#### Deep integration with CAD systems

For user convenience, Vault integration utilities with various CAD systems have been developed. Thanks to them, the user has the opportunity to work with the archive directly from the window of his CAD systems, gaining access to the necessary data and commands. Such integration mechanisms relieve engineers of the need to switch from one program to another, reduce development time and contribute to faster development and implementation of systems.





#### Work with files

AUTODESK<sup>®</sup> VAULT

Autodesk Vault provides tools for controlling the use of data files, maintaining current document versions, controlling access to them, protecting against simultaneous editing, and much more, which is simply impossible to implement without using an engineering data management system.

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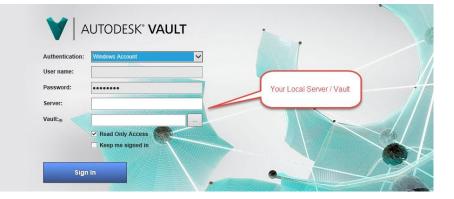
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	Created By	Administrator
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Purge... Rename... Replace...

Autodesk Vault Web client

The Web Client allows customer to perform read-access tasks in a vault, such as searching the vault and viewing file history. If you have a Vault Office license, you can also perform file management tasks, such as:

- □ add files to the vault
- □ check files into the vault
- check files out of the vault





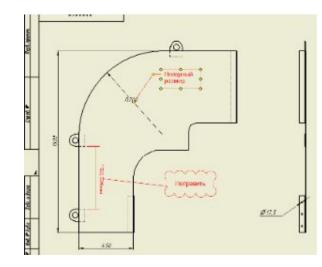
#### Workflows

With the help of Autodesk Vault, you can describe the business processes adopted by the company for the coordination and approval of documents and data. This approach allows customer to standardize the work of enterprise services, to speed up and simplify business processes.



Verification and approval of projects

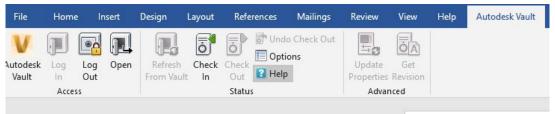
Means of automated verification, analysis and comparison of information about objects at different stages of the life cycle, which provides Autodesk Vault, provides ability customer to track the process of the project and identify bottlenecks, prevent the timing of the issuance of design results.





#### Integration with Microsoft Office

Vault makes it possible to work in a single information space of an enterprise not only to those users who use computer-aided design systems, but also to users of office applications. Add-in Vault Office provides work with archives directly from the windows of office applications (such as Word, Excel, PowerPoint and Outlook), allows customer to access files and data, participate in the coordination process, etc.

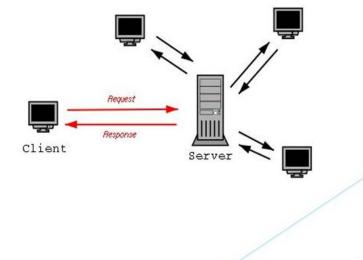




### Vault Architecture

Autodesk Vault consists of two main components: a client and a server. Additional components, such as add-ins, the file server, and the job processor, help create a cohesive data management ecosystem.

The Vault client allows customer to perform document management functions. The server stores the master copies of all your documents and designs.





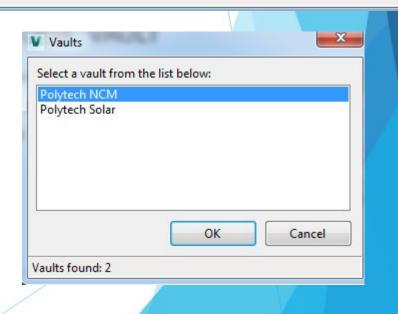
# **Repository Vault**

AUTODESK<sup>®</sup> VAULT

By storing all your data in a common, centralized location, you can easily share and manage information with your design team. This centralized location is called a vault. When you first launch the Vault client, you must select the vault that you want to log into before you can start managing your data.

A vault is a repository where documents and files are stored and managed. It has two principle components: a relational database and a file store.

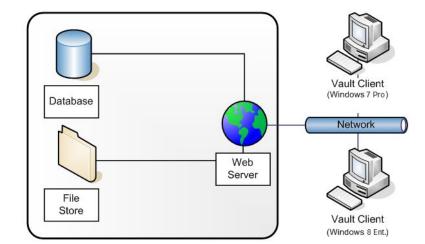
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Authentication:	Vault Account	•
User Name:	n.surname	
Password:		
Server:	1-PC	•
Vault:	Polytech NCM	
	Automatically log in next session	$\sim$
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# **Types of repository**

- The relational database stores information about the files. Information stored in the database includes current file status, file edit histories, and file property data.
- The file store is hierarchy of folders where the Vault server stores the physical copies of the files managed by Autodesk Vault . The vault maintains a copy of each version of a file and saves them to the file store in a proprietary configuration. The vault server uses the database and file store to provide users with a collaborative working environment.



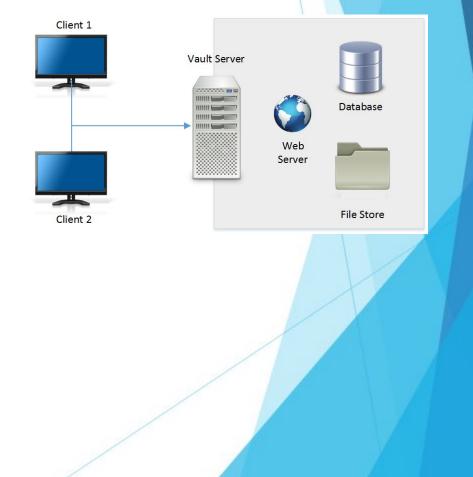


### Vault Server

AUTODESK<sup>®</sup> VAULT

Three primary components make up the Vault server:

- the database server tracks all the relationships between data. It acts like a library card catalog, containing indexes and pointers of where to find related information.
- the file store and the database server work with each other. The database provides the index information for the location of files. The file store is the secure location on the server where the files are located.
- Autodesk Data Management Server requires that Windows Internet Information Services (IIS) is installed.



### Vault PDM or PLM

Autodesk Vault gradually includes an ever-growing volume of corporate information. Official information from Autodesk regarding Vault focuses on data management, CAD integration, collaboration, update management and distributed solutions. In my opinion, such a spectrum covers quite a lot of the capabilities of PDM systems that are part of PLM. Differences with PLM can occur at the advanced data modeling level. Another aspect of the difference is the life cycle.

Data management, and in particular PDM, is a key element of any PLM strategy. I do not exclude that the capacity of the Autodesk Vault system in the field of PDM is quite sufficient for the implementation of the basic scenarios of the work of many clients. As I understand it, Autodesk customer requests go beyond what manufacturers today call PLM.



# Apply backup / restore utility

Autodesk Vault includes a backup / restore utility that packs all the necessary data in case of server crashes. The utility is called from the Vault Manager. During the backup and restore process, user access to the repository is prohibited.

Autodesk Vault Manager backs up and restores all vaults stored on the server. The ability to select individual vaults for backup or recovery is not provided.





### How does the Vault work

Learn about the steps Autodesk Vault takes when a user checks a file out of a vault:

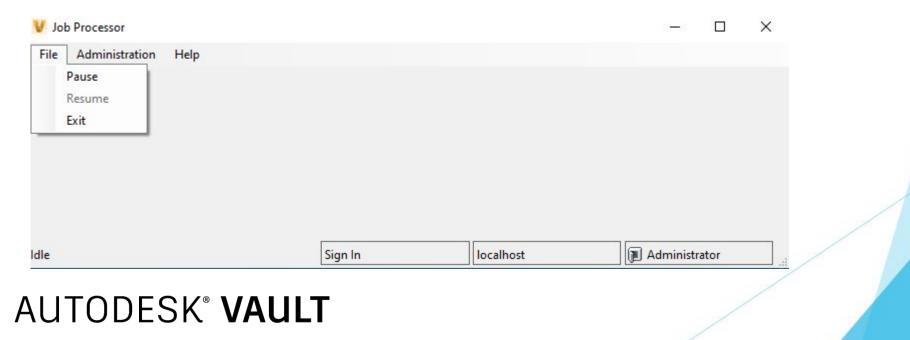
- □ Vault client checks out a file.
- □ Vault client sends a request for the file to the Vault server.
- □ Vault server sends a query to the database.
- □ Vault server copies the files from the file store to the client.
- it is important to note that the client computer does not directly communicate with another client computer at any time.



# Workflow Management

A workflow is an application that reserves held jobs and deletes them from the queue server for processing. Since the Job Processor is installed with the Vault client, any computer with the appropriate version of the Vault application can be used to process jobs.

In the Job Processor dialog box, you can pause and continue processing, configure the Vault user account used to process jobs, and view the job types that are configured to process the Job Processor.



### Autodesk Vault API set

Vault has three application programming interfaces (APIs).

- The Web Service API provides connectivity to the Autodesk Data Management Server (ADMS). Use this API every time you need to get or assign server parameters.
- The Vault Client API allows customization for the Vault client application. Use this API to add custom commands and tabs to the user interface.
- Job Processor API allows you to adapt the Job Processor application. This API is used to add custom job type handlers to the job service queue.
- The Web Service API is available in all versions of Vault. The Vault Client API and Job Processor APIs are only available for the Vault Workgroup and Vault Professional versions.

### **Others similar products**



- Depth PTC Windchill;
- Siemens Team Center;
- Dassault Systems Enovia;
- □ Aras Innovator;
- Other;





### Aras Innovator vs Autodesk Vault

- ✓ Support for AnyCAD
- ✓ Visual data management for Inventor
- Projects and reporting
- ✓ Revision Control
- ✓ BOM management
- ✓ Automated engineering change orders
- Enhanced data security
- ✓ Multisite scalability
- $\checkmark$  Batch plotting for automated tasks
- $\checkmark$  Unified item and file lifecycle engine
- ✓ Support for raw material workflow
- Cloud connection with Buzzsaw
- Active Directory authentication

- Document management for non-CAD users
- ✓ Vault Office Web and Thick Client
- Central location for project data
- Direct CAD injection
- ✓ Fast data searching
- 🗸 Data reuse
- ✓ Streamlined PDM workflows
- ✓ Concurrent design
- High performance data management
- Easy administration and configuration
- Data standardization
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### **PTC Windchill vs Autodesk Vault**

- ✓ Product Management
- ✓ Product Configuration and Change Management
- ✓ Quality Management
- ✓ Reliability Management
- Integrations
- ✓ Design details
- ✓ Outsourcing Management
- ✓ Process Management
- Technical Knowledge base and Assistance
- ✓ Suppliers' Management
- Design Generation
- Collaboration Management
- ✓ Customer Experience and Feedback Management
- Data Visualization and Analysis
- $\checkmark$  Cost Estimation and Analysis

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### Dassault Enovia vs Autodesk Vault

- ✓ Bill of material management
- ✓ Design management
- Configuration and change management
- ✓ Global Product Development
- ✓ High-tech design management
- ✓ Product planning
- ✓ Program management
- IP classification and management
- Quality and compliance
- ✓ Strategic customer relationships
- ✓ Strategic supplier relationships

AUTODESK<sup>®</sup> VAULT

Centralized approach

- Document management for non-CAD users
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### Siemens Team Center vs Autodesk Vault

- ✓ Design & Simulation Management
- ✓ Document & Content Management
- ✓ BOM Management
- PLM Process Execution
- ✓ Requirements Management
- ✓ Service Lifecycle Management
- ✓ Manufacturing Process Management
- ✓ Supplier Integration
- ✓ Quality Issue Management with CAPA
- Product Cost Management
- ✓ Environmental Compliance & Product Sustainability
- ✓ Systems Engineering
- ✓ Rapid deployment
- Easier to use
- ✓ Multi-CAD environment
- ✓ Schedule management
- Project collaboration
- Budgeting and financial planning
- ✓ Asset management

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# THANK YOU FOR YOUR ATTENTION

