

A vault is defined as “a room or compartment for the safekeeping of valuables.” Examples include a safe or a bank safety deposit box to protect precious memories, an important document, or an expensive possession – results of months or years of hard work.

The office or work environment has the same need to keep things safe, but the demands are much more rigorous. An important document may take months to create – say a product design, presentation, proposal or layout of a large machine. In most cases, many people participate in this creation process. Historically, companies have created “vault rooms” or “document control rooms” to store the results of their hard work. The information kept in these rooms was considered reliable enough, to serve as the basis for a new project or product.

As a product design project progresses, participants make changes to the design. Mistakes may be made or corrected. And sometimes, mistakes cannot be corrected since there is no way to track changes and no way to go back. There is no history of who did what.

What if there was an electronic vault room, for the day-to-day work environment, that kept track of changes, tracked who was working on what part of a project, and, when needed, enabled you to revert to earlier versions of team’s work. This is what Autodesk® Vault does for you.

In a manufacturing design environment, Autodesk Inventor® software has significantly improved the process of creating large machines. At the same time, this ease of use enables creation of larger design models. These designs have a high number of parts, interrelated data, and many participants. It becomes practically impossible to manually keep track of such a design. Autodesk Vault provides a central repository for managing your design data.

Autodesk Vault

Most designs will also include a set of related documents, a Microsoft® Word engineering specification, or a Microsoft® Excel material spreadsheet. This related data also needs to be managed. Without proper management, this data could end up spread over multiple C-drives on workstations across the company.

Not only is Autodesk Vault a design vault, but it also manages all of the other related engineering data in one place. Autodesk Vault helps engineering and manufacturing teams increase their productivity and shorten design cycles by providing a tool for managing, organizing, and accessing accurate, timely data across the company.

With Autodesk Vault you can

- Improve engineering productivity by reducing errors, rework and time spent searching for data
- Accelerate product development cycles by reducing use of email and local hard drives as primary means of sharing engineering data
- Eliminate complex deployments and extensive IT support because it is easy to install and use

Autodesk Vault manages all your engineering files, regardless of file type. You can use Autodesk Vault to manage Autodesk Inventor, AutoCAD®, FEA, CAM, Microsoft Word, Microsoft Excel, or any other file used in the design process (including files from other CAD systems). You can organize all your files and keep them in one location for easy access. All file versions are retained, so you never misplace or overwrite past versions. Autodesk Vault stores each version of a file, along with all the file dependencies – giving you a living history of the project as you work on it. Autodesk Vault also stores properties such as the user name, date, mass, part number and comments for rapid searching and retrieving.

In a design team, all the files and associated data are stored on the server so all users have access to the information and its history. Team members check out files to prevent more than one member from editing

the same file at the same time. Once a file is checked back into the vault, team members can refresh their local copies of the model to ensure that everyone is working with up-to-date data.

Autodesk Vault Components

Autodesk Vault consists of two components: a server and a client. The server stores the master data files of all your design information. By storing all your data in a common, centralized location, you can easily share and manage all your information throughout your design team. The client is used to access the files stored on the server.

There are two client components:

Autodesk Vault add-in for Autodesk Inventor (Figure 1): Enables you to perform many of the same Vault tasks as Vault Explorer in Autodesk Inventor so that you can manage parts, assemblies and other Autodesk Inventor files directly from the Autodesk Inventor interface.

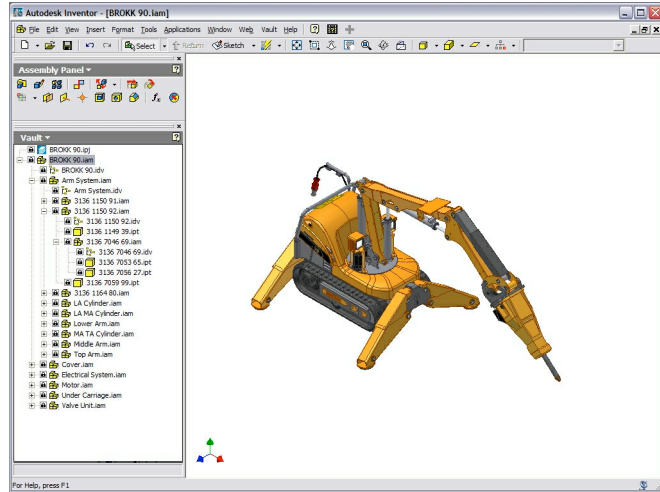


Figure 1: Autodesk Vault add-in for Autodesk Inventor

Autodesk Vault Explorer (Figure 2): A stand-alone client providing full access to the vault.

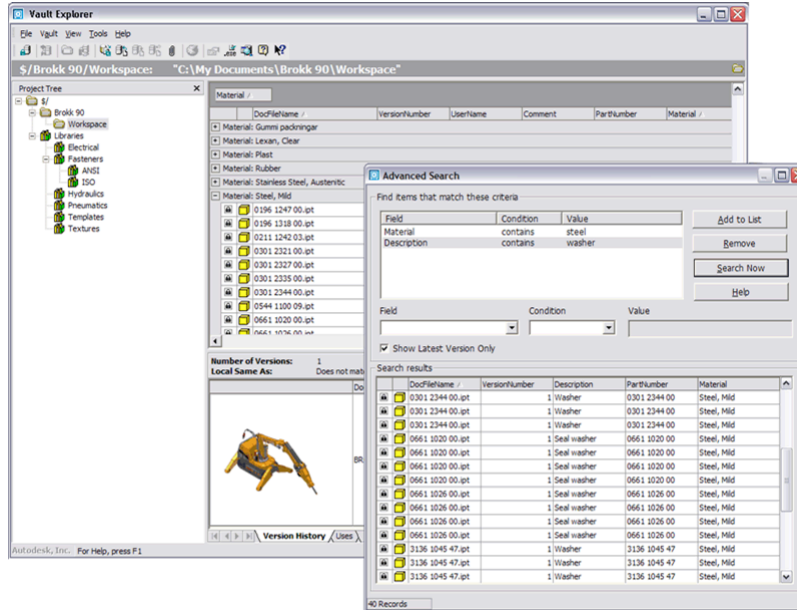


Figure 2: Autodesk Vault Explorer

Autodesk Vault Integration with Autodesk Inventor

Autodesk Vault is integrated and works within Autodesk Inventor Series (AIS) and Autodesk Inventor Professional (AIP), and is available at no additional cost to AIS or AIP customers. The Autodesk Inventor add-in brings the basic file management functionality of Autodesk Vault into the Autodesk Inventor environment. Using Autodesk Vault with Autodesk Inventor, you can store and manage all your Autodesk Inventor files, including:

- Assemblies
- Drawings
- Parts
- Presentations
- Project files
- Linked documents
- Libraries

When all of your Autodesk Inventor files are stored in the vault, you ensure more accurate where-used information. Team members can perform comprehensive searches on all files. Most importantly, you ensure that all team members have access to the latest version of your design.

Autodesk Vault Adoption

Autodesk Vault can be configured and used for workgroups and large design teams, as a “work in progress” solution or as a data management solution for the complete lifecycle of design projects. Many Autodesk Inventor Series customers have installed Autodesk Vault and are using it for these purposes with great success. In fact, more than 75 percent of those who have installed Autodesk Vault are already in or are planning to use it in production. One example is a large aerospace manufacturer that is using Autodesk Vault for mission-critical programs, with close to 50 users and Autodesk Inventor data sets of more than 5,000 components.

Conclusion

Engineering data management is one of the biggest challenges that engineering and manufacturing teams face. Most implementations of large enterprise systems start by managing the engineering data, but many never progress beyond this state. Autodesk Vault is purpose-built to solve the problem of engineering data management.

As your next step, please refer to the “Managing Your Data” book, included within your Autodesk Inventor Series and Autodesk Inventor Professional box. Not only will this book help you with installation and configuration of the Autodesk Vault, it also includes tips and tricks to help you use the software most efficiently.



Autodesk, Inc.
111 McInnis Parkway
San Rafael, CA 94903
USA

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