An Introduction to Vault

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PL-11424   Do you know what Vault software is? Do you know what Vault software is really for? Do you know why you should use it? This class will answer those questions. Come and join us as we give an introduction to the Vault software products. We'll start with a quick overview of the products and then progress into what they are and why you should use them. Knowing why you use the features can be just as important as the way that you use them. If you are anything but a "power user" of Vault software, this class is for you.

Learning Objectives

At the end of this class, you will be able to:

- Discover why you need to use Vault software and how it fits into your workflows

- Gain a foundation of Vault software knowledge that will help you to use it to its full extent

- Understand the differences between the Vault software products from Autodesk, and identify the most suitable fit for you

- Learn how to use real-world examples and course documentation to educate your team

About the Speaker

Adam is a Principal User Experience Designer and has been with Autodesk for over 12 years. Years of experience with Autodesk's data management software has allowed Adam a significant role in improving the user's experience and product quality along the way. Each year, educating and interacting directly with the user community at Autodesk University has been a top priority for Adam.

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Introduction

Autodesk University is full of great courses that are rich in feature content, in-depth product knowledge, and demonstrations that replicate exactly the environment you work in. **This is not one of those courses.**

This course takes a big step back and answers the more important questions that you have about Vault. We'll show what it is, but more importantly, why you need to use it. This course is instructed through 4 stories that should sound very familiar to most of the attendees. **This class is not for the Vault power users.**

Has this ever happened to you?

I.   One Source of Truth

Dan Designer is designing against a model that does not have the latest changes. What's worse, Sam Onelse is making parts based on that design.

Problem: There can only be one source of the "truth". Collaboration without control creates multiple copies.

Demo: *See how Autodesk Vault allows you to manage one version of the truth.*

So what?

A single source of truth. This is a critical factor in managing your data. If there is only one source of truth, or one place that the file exists, then you can drastically reduce your chances of being Shop Floor Shawn or Dan Designer.

II.   Back in Time with Vault

You have a team of designers. Your team works with very complex data and you have long standing relationships with your customers. After a meeting with a customer, you find that they want to go with a design from 4 weeks ago. It's not just one design file. That one file references previous versions of all of the referenced files.

Problem: You can't easily create a snap shot in time without using back-ups.

Demo: *See how Autodesk Vault allows you to manage historical versions of your data.*

So what?

Vault is always recording file history. In addition, it watches the historical relationships so you don't have to. There is no need to keep track of the relationships between your files. Vault does this for you:

- Records the relationships when the file is added to the Vault.
- Adds all of the related files for you.
- Repairs the relationships when you choose to make changes like move or rename.
- Ensures you get the **right versions** of the right files…past or present.

III.   Save Your Time with Copy Design

Dan designer needs to design the newest bike model at Acme Bikes, Inc. The design uses 75% of the same components that are used in last year's model. Dan does not have any interest in copying the data or trying to rebuild assembly files with new and reused files.

Problem: Manually copying data sets is time consuming and intense.

Demo: See how Autodesk Vault's copy design feature makes massive changes in short amounts of time.

So what?

The copy design feature in Vault allows you to create new design objects by copying existing data within a vault. Depending on which design application you are using, copying a design involves copying a drawing and its related files, or copying an entire design structure along with the related 2D drawings for 3D models.

- Copy design data into any desired location
- Reuse components
- Copy associated 2D drawings

IV.   Move – Rename - Reconfigure

Ken is a general contractor on a large AEC project and the designs are about complete. Ken the contractor has met with the customer and they have come in late with a change. The customer would like to make the fifth floor the second floor.

Problem: Manually moving CAD data while managing references is laborious and likely to result in error.

Demo: See how Autodesk Vault allows you to move and rename files without opening the design application.

So what?

Using Autodesk Vault, you can use commands like move and rename. These commands allow you to make changes to the location and naming of the files without even opening your design application.

- Move files and folders and let Vault repair the relationships for you

- Rename files and let Vault repair relationships for you

V.   The Autodesk Vault Suite

Vault data management software is available in different configurations. Compare Vault Basic software to the advanced functionality and features in Vault Workgroup or Vault Professional software.

	Vault Basic	Vault Workgroup	Vault Professional
File store	✔	✔	✔
Versions	✔	✔	✔
Properties	✔	✔	✔
Security	✔	✔	✔
Dependencies	✔	✔	✔
Move & Rename	✔	✔	✔
Copy Design	✔	✔	✔
Visualization	✔	✔	✔
Reporting		✔	✔
Non-CAD Access		✔	✔
Release Management		✔	✔
Integration			✔
Replication			✔
Bill of Material/Change Orders			✔
Web Access			✔

A. **Vault Basic**

Vault basic is the base level of the Autodesk Vault suite. It comes full of great functionality and is included, for free, with your CAD application install or a Vault Office license.

File Store

The file store and the database server work with each other. The database provides the index information for the location of the files. The file store is the secure location on the server where the files are located.

Versions

Versioning of files means to store historical "snap-shots" allowing you to revert to them if needed.

Properties

Properties are attributes associated with a file. Property management means to pull properties from your files, allow you to search on them, and even edit them.

Security

Security can be configured by roles in Vault Basic. In the pay-for Vault products, security can be overridden by folder as well as lifecycle states.

File Dependencies

File relationships are stored and managed in the Vault.

Move and Rename Commands

Moving and renaming of files might seem like a simple task. But Vault is doing even more. The Vault is repairing the relationships of the files.

Copy Design

The copy design feature in Vault allows you to create new design objects by copying existing data within a vault. Depending on which design application you are using, copying a design involves copying a drawing and its related files, or copying an entire design structure along with the related 2D drawings for 3D models.

Visualization

Visualization files are created and attached to data files automatically when files are checked into the vault. Visualization files are only created for files that have changed or for files that do not have visualization files published already. Automatic publishing can be turned off to save room and keep the size of the vault down.

B. **Vault Workgroup**

Vault Workgroup includes all of the functionality listed for Vault Basic plus the added benefits of revision control and release management.

Reporting

Create Vault project reports to help you manage your vault data. Vault Project reports contain information on files, sub-projects, items, and change orders within the project.

Non-CAD Access

Vault basic users can only install Vault if there is a qualified product on the machine. This can be a constraint for people that want to use Vault but do not use a qualifying CAD design application. With Vault Workgroup, Vault can be installed without this restriction.

Release Management

Lifecycles and States to automatically drive behaviors and differentiate file statuses in the design process. Examples of states are Work in Progress, For Review, or Released. An object moves from one state to another based on the lifecycle definition's transition rules. These transition rules determine when the state change happens, if it can occur manually or automatically (or both), based on criteria determined by the administrator.

C. **Vault Professional**

Vault Professional includes all of the functionality listed for Vault Basic and Vault Workgroup plus the added benefits of Bill of Material management, replication, and web access. It is the most fully loaded Vault product available.

Integration

ERP (Engineering Resource Procurement) systems track a bill of materials (BOM) after it has been released to manufacturing. ERP systems track information on all purchased materials. Vault Professional bridges the gap between tracking CAD design development and ERP management tools. The integration of an ERP system into Vault Professional allows item and BOM information to be exchanged between Autodesk Vault Professional and other products.

The focus of Vault Professional on the design data and the focus of ERP on financial and inventory data allows data for the manufacturing process within a specialized system to be managed and also keeps the ERP system accurate and up-to-date.

Replication

Replication is the process of copying data from one server to another server usually located in two different physical locations. This process allows the setup of a Vault environment which has two different locations and users will not have to spend time downloading large CAD files across their Wide Area Network (WAN) connection.

Bill of Material & Change Order

A BOM summarizes the information needed for manufacturing a specific revision of a part or product. The summary of items includes the item numbers, quantities, part descriptions, lifecycle state, and other properties that are required throughout the design release and manufacturing processes.

Vault professional extracts BOM data from design files and allows you to manage the BOM from within the Vault product.

Web Access

The Autodesk Vault Web Client allows you 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.