

Using Autodesk Vault with a Single Autodesk Inventor Project

Introduction

Proper setup of Autodesk® Vault structure is critical to a successful and flexible vault. This white paper outlines one way to integrate Autodesk Vault within your organization without the overhead and complexity of multiple Inventor project files. This method is the most simple and most robust way to set up your vault environment for use with Inventor while continuing to offer a high level of freedom and flexibility

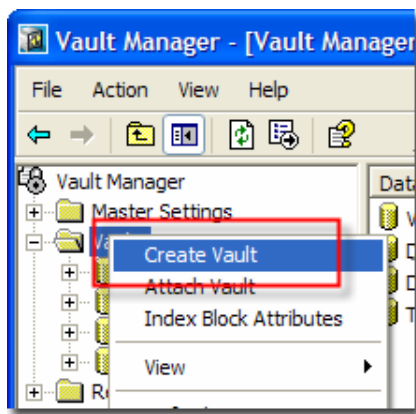
With the single project file configuration you gain:

- **Simplicity** - With a single project, you use the same project file for every design in your environment. This keeps you from having to remember what project file to use with which dataset. You also benefit from having a single common location for all of your data.
- **Reduced Resolution Failures** - Inventor can automatically search for any missing files throughout your entire data set. This greatly reduces the number of times you need to manually locate missing files.
- **Increased Design Reuse** - Greatly simplify the reuse of other data from your vault. Using this method, any data in the vault can be reused in any assembly by using the Place from Vault command. This method prevents you from having to ever worry about adding a library path or copying a file from another project.

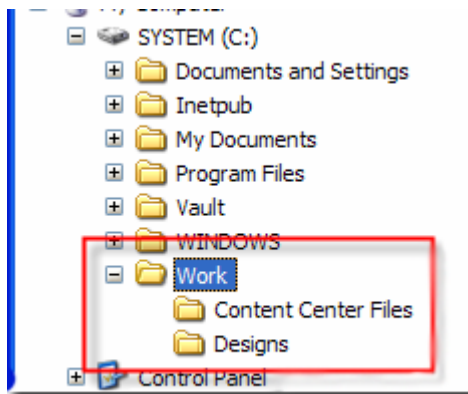
Step 1: Set Up Your Environment

Typically with Autodesk Inventor® software, you create a new Inventor Project File (*.ipj) that is unique for each job you are working on. In this scenario, you create a new folder for each design, not a new project file. In the example, we use sample data and a test vault. After you are comfortable with your configuration, you can apply this same practice to your actual design data.

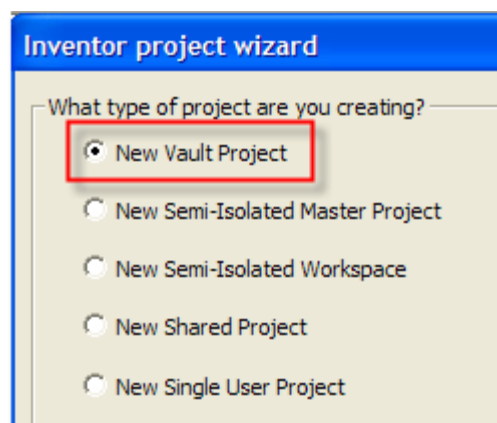
1. Open Vault Manager. On the left side of the window, right-click Vaults. Create a vault called "Test." Click OK.



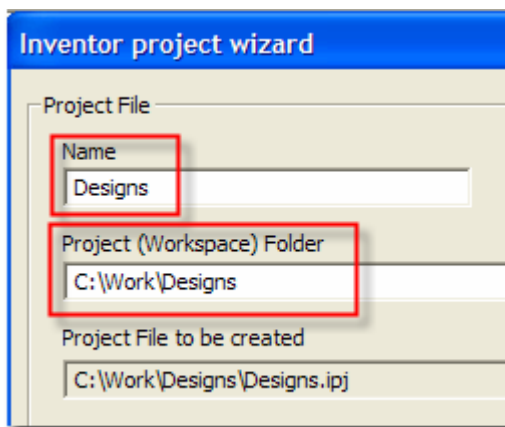
2. Open Windows Explorer. Create a folder under C:\ called "Work." This is where all work on Inventor parts will be performed. In addition, create two new folders underneath "Work" called "Content Center Files" and "Designs." These folders will store all of your design data.



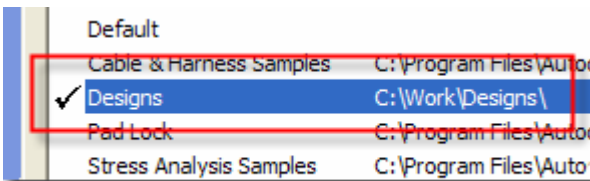
3. Open Autodesk Inventor and the Project Editor. Click the New button at the bottom and step through the wizard to create a new Vault Project.



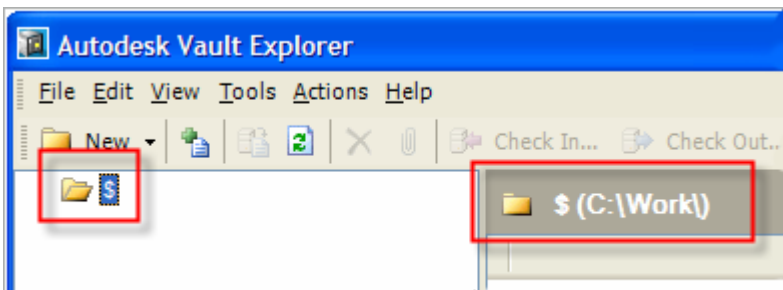
4. Enter "Designs" for the project name and set the Project Workspace location to C:\Work\Designs.



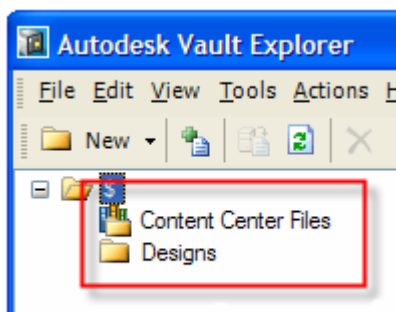
5. Click Finish to create the project file.
6. Double-click Designs.ipj to activate it and make it the default project.



7. Open Vault Explorer. Log into the vault named Test. Note that the vault is empty and the working folder has not been set. Right-click on the \$ folder and then select Set Working Folder. Browse to C:\Work.



8. Right-click the \$ folder and select New Folder. Enter "Designs" and click OK. Make sure the folder name you type matches the folder name in Windows Explorer exactly. Create a Library Folder called "Content Center Files." Once again, make sure the name you enter is exactly the same as the name of the folder you created earlier.

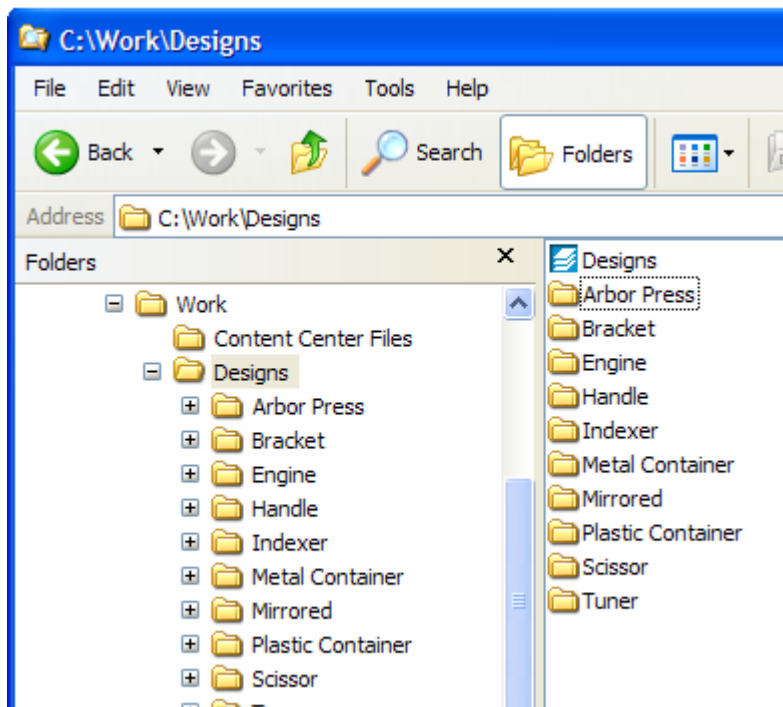


You now have the starting structure in Vault Explorer for adding Inventor documents. Note: `$/Designs` in Vault Explorer is equal to `C:\Work\Designs` in Windows Explorer. The structure inside and outside the vault must match. (Do you want to explain why it is important that the names match?)

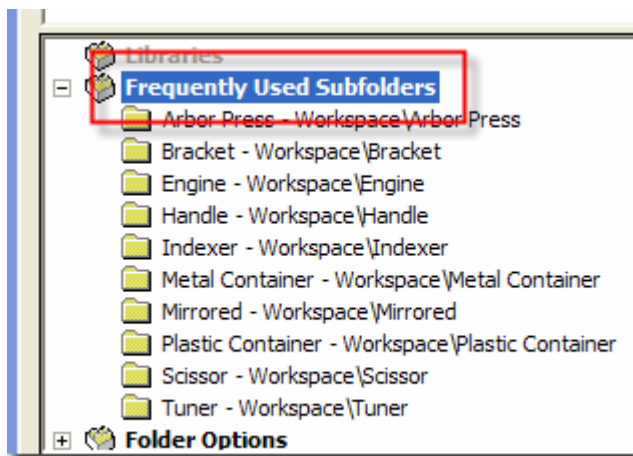
Step 2: Add Data to the Vault

Now you are ready to add files from inside Autodesk Inventor. For this example, use the assembly sample models that install with Inventor.

1. In Windows Explorer, copy the entire group of folders under *C:\Program Files\Autodesk\Inventor 9\Samples\Models\Assemblies* to *C:\Work\Designs*. Notice that we didn't bring the original project file to our new location. We are going to rely on the new project file we created earlier. (Isn't this the first step?)

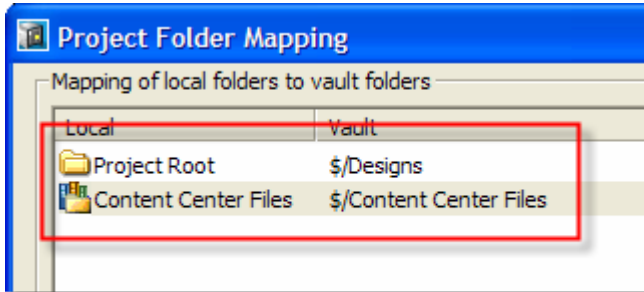


1. Open Inventor and open the Project Editor.
2. Right-click on Frequently Used Subfolders and select Add Paths from Directory. Browse to `C:\Work\Designs` and click OK. Frequently used sub folders will help you quickly navigate to each of your new project folder instead of using an individual *.ipj for each project.

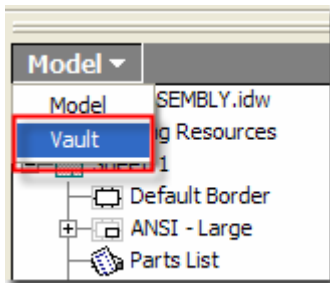


4. Open the ARBOR PRESS drawing from under the Arbor Press shortcut under Frequently Used Subfolders. In this example, this drawing is our top level file and can be used to add the entire assembly to the vault.
5. Save your assembly. This step is very important since the files were moved. When you move files, you can potentially change the way that Inventor resolves related files. Saving these changes now prevents other users who access this data from the vault from having issues with opening the files.

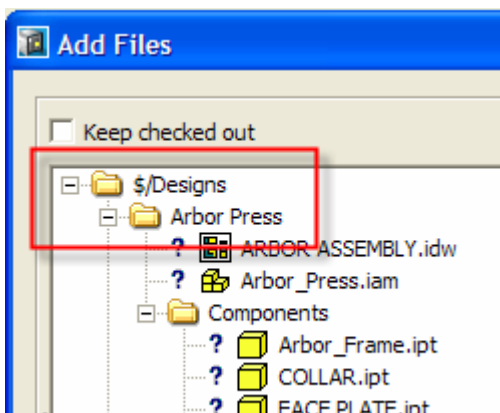
6. The next step is to specify where the vault stores these files. From the File menu, select Vault > Map Folders and map the two paths to their corresponding folders we created in the vault earlier. This step only needs to be done once. After this is complete, every other user that works with the vault leverages this same information. Click OK to save your changes.



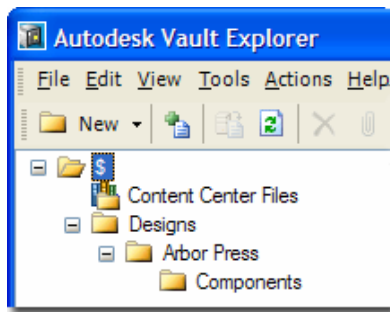
7. In Autodesk Inventor, switch to the Vault browser.



8. The question mark icons in the Vault browser indicate the files are not in the Vault yet. Right-click anywhere in the Vault browser and select Add Files.
9. The Add Files dialog box is displayed. Note how the vault is displaying the proper folder structure, including the Arbor Press folder. Add any comments as necessary: e.g., Initial Add to Vault, and click OK to copy your files to the vault.



10. Open, or switch to Vault Explorer and click the \$ folder. On the toolbar, click Refresh to see the newly added files and folders.



11. The ARBOR PRESS drawing and all of its children have been added to the Vault. More importantly, the structure has been preserved. Note the creation of the Engine subfolder under \$/Designs.
12. Repeat this with each design or Project as needed.

Step 3: Share Data with Other Users

The next step is to get all of the other users up and running with the vault. For each user, follow these steps:

1. On each user's computer, create a working folder. It is always easiest to use the same folder for every computer; however, this is not required.
2. Using Vault Explorer, set the working folder of the \$ folder in the vault to the newly created folder.
3. Have each user use the Get Latest Version command on the Designs.ipj file from the vault. Note that the proper directory structure (e.g. C:\Work\Designs) is automatically created.
4. Open Inventor and set the Designs.ipj file to be the current active project file in Inventor.
5. Have the users use the "Open from Vault" command in Inventor to start working on their designs.

Other Notes

Adding additional Inventor files using the Single Project Method involves creating sub folders under C:\Work\Designs and placing the new Inventor files there. In general, open the top level document and ensure it loads and resolves successfully.

Upon adding files to populate the vault, always verify the structure before adding the files.

It is important that you understand that you will rely less on Windows Explorer and more on Vault Explorer daily to work with Inventor files outside of Autodesk Inventor. Windows Explorer will still play a minor role in file management when working with Inventor and Vault, but you will end up using it less and less. Your working folder (C:\Work) should be considered a temporary folder for storing files. When you are finished working on a design and you have added the files and folders to the vault, you can clean up your working folder by deleting the files and folders from your workspace.

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