

Inventor 2009 Projects Overview

Project File Locations

Project files in Inventor are XML files that define folder locations. Think of it as a simple mapping file for Inventor. As an example, if you hit “New” in Inventor to start a new part or assembly file, Inventor looks in the Project file to find out where the template files are located. There are 5 folder locations that the project file controls that the administrator needs to be aware of.

- Workspace
- Libraries
- Design Data / Styles
- Templates
- Content Center Files

Workspace

The Workspace location is the top level folder location that all user design files should be stored. Any Inventor design files that are not Templates Library parts or Standard Content Center Parts should be stored under this Workspace folder. The folder level under this Workspace folder is not restricted. You do not have to change your way of storing files or current folder structure. Simply recreate your current folder structure under the new Workspace folder. For example, if your company currently stores files on a network drive by Sales Order Number, then create folders for each Sales Order Number under the Workspace folder and store the corresponding Inventor files in their Sales Order Number folder. The Workspace folder doesn't have to be named “Workspace”. It can be called “Inventor Design Files”, “My Companies Designs”, etc.

Libraries

The Libraries location allows you to designate a folder location for all library files. In Inventor, Library files cannot be edited and will behave as read only files. This is intended to be the location for standard components such as a bracket that is used on several different designs or product lines. The Library folder does not have to be named “Library” “Libraries” in order to work, however, it does make it easier to locate and identify these files and folders if using Windows Explorer.

Design Data / Styles

The Design Data location is where all the configuration and options for a styles library are stored. When using Inventor in a multi-user environment, it is best to use a styles library instead of storing the configuration for styles in a single document (see D3's Styles Library Whitepaper for more details). When using a styles library, a location needs to be specified as to where these settings will be saved. This is done by defining the folder in the project file. There are also some sub folders in that will be located here for other tools in Inventor like the Frame Generator, Gear Generators and the spreadsheets that control the threads in Inventor.

Templates

The Templates location is used to store all Inventor template files. Inventor templates do not need a different extension, they just need to be placed in the template location or in a subfolder under the template location, and then have the project file recognize that location as the template directory.

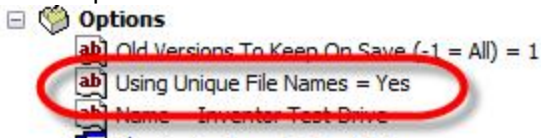
Content Center Files

The Content Center Files location is a folder location used for storage of Content Center part files after they are created. Before the first use, each component in the Content Center is simply a collection of dimensions and other part data found in the Content Center database tables. When you place a part from Content Center, Inventor first checks this location to see if it exists. If it does, then that file is used, if not the part file is generated on the fly by the data in the Content Center databases. The Content Center Files location in the project file is where these newly formed part files will be stored after they are created.

D3 Recommendations

Inventor project file configuration is a very important part of implementing Inventor. If the project file is not configured properly, end users can experience many issues. The primary role for the project file is to define the search paths used by Inventor to look for parts files that are referenced by drawings and assemblies. When an assembly is opened in Inventor, the entire path of all the part files that are referenced by the assembly are not hard-coded, instead the assembly only holds the file names. Inventor will look for the file in the last known location first, but after that, it will search the entire workspace location for the referenced part files.

D3 recommends the use of just one project file, set to use unique file names for all Inventor designs. The picture to the left shows where to set the project to use unique file names in the project settings dialog



under Options. There are two reasons for the use of just one project instead of using multiple projects. First, using just one project makes it easy to start the implementation and easy to make changes. Second and most importantly, by using only one project, the transition to a data management system such

as Autodesk Vault will be much easier. There are instances where creating a new project file for each job, customer or product line is the right choice, but those situations are rare. Instead, using just one project file to control all of your Inventor data is typically your best bet.

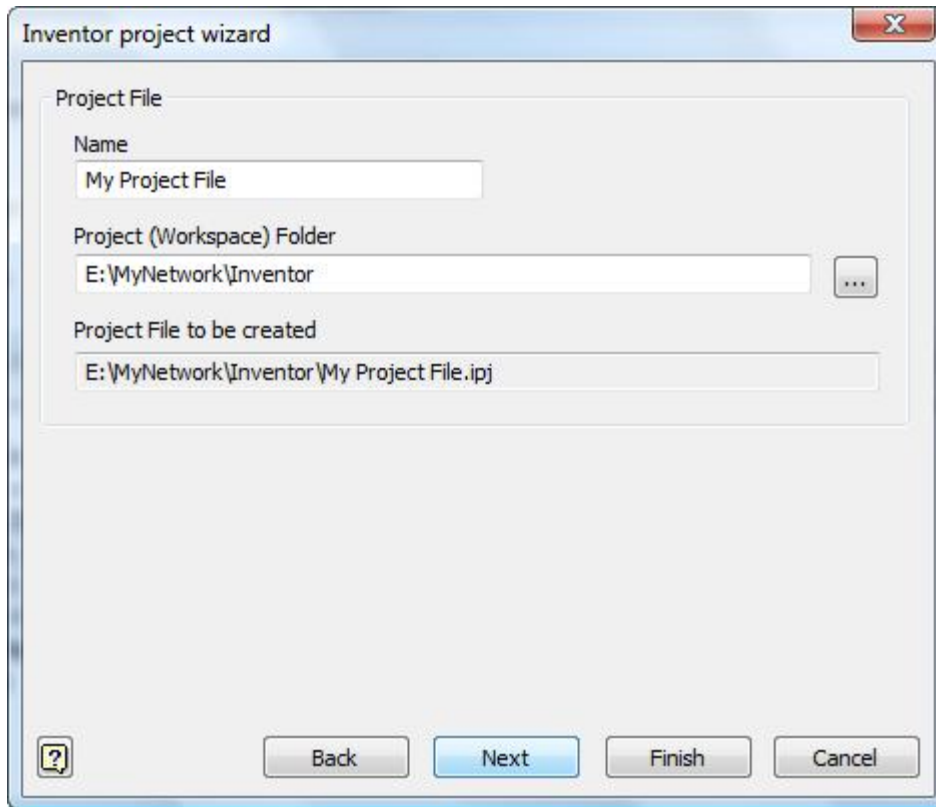
In addition to the above recommendations, listed below is a table for recommendations on general project file settings:

<u>Category</u>	<u>Description</u>	<u>D3 Recommendation</u>
Type	Defines the type of Project. Options are Vault or Single User.	Unless you are using Vault use "Single User". If you work in a collaborative environment but do not access the same file concurrently, then the "Single User" project type will work despite the name. If users are accessing the same files at the same time, using Vault should be considered.
Workspace	This is the folder that all of the users work will be stored.	Can be named anything, but needs to be directly under top level "Inventor"

		folder.
Workgroup	This is a “legacy” setting and should not be used.	This option exists only to support older project types that are no longer supported.
Use Styles Library	Determines whether Inventor will check styles settings with those in a library.	See D3’s Styles Library white paper.
Libraries	Libraries are used to store files that are supposed to be “standard” and not changed.	Best if not used. Autodesk Vault can be used to protect files.
Frequently Used Subfolders	Frequently Used Subfolders can be used to create shortcuts to any folders in the project structure.	Can be used to create shortcuts to different company or engineering projects.
Folder Options - Design Data	Folder location for all files to store settings for a styles library. Also contains various files for things like Frame Generator and Design Accelerators.	It is recommended to create a folder directly under the “Inventor” folder and call it “Styles”.
Folder Options - Templates	Folder location for Inventor templates.	It is recommended to create a folder directly under the “Inventor” folder and call it “Templates”.
Folder Options - Content Center Files	Folder location for the models generated by the Content Center Database information.	It is recommended to create a folder directly under the “Inventor” folder and call it “Content Center Files”.

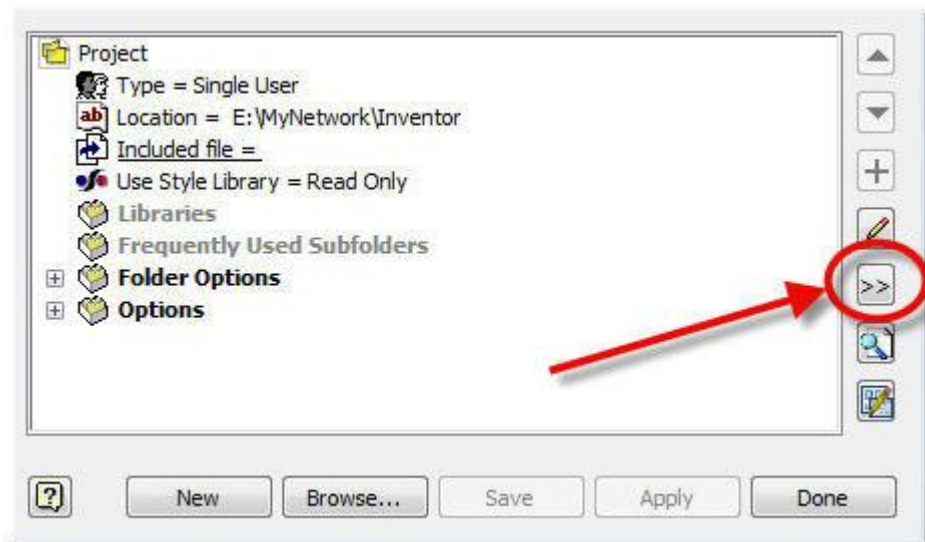
Project File Creation

1. Click File – Projects and select “New” at the bottom middle of the dialog box
2. Select “Single User Project” and click “Next” at the bottom of the dialog box.
3. In the Inventor Project Wizard, fill out the name you want to use for your project. In the “Project (Workspace) Folder”, select the most top level folder that you want the project to reside. The folder selected should include the folders for the Workspace, Templates, Content Center Files etc.



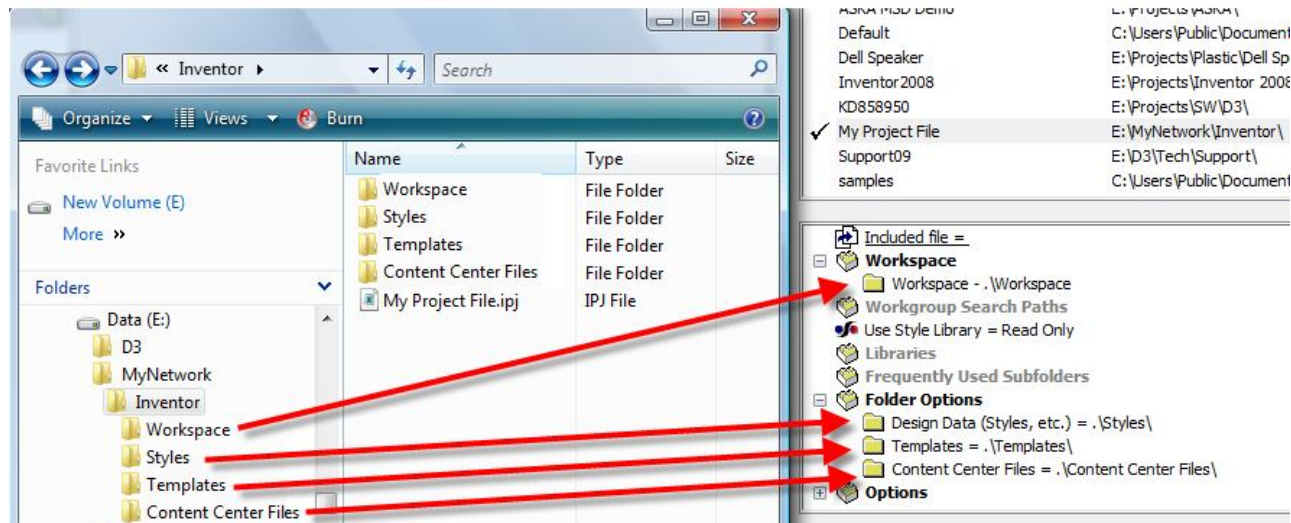
4. After putting in the Project Folder location and the Name of the project, click “Finish” at the bottom of the dialog box. After doing this, you will be taken back to the project dialog box and your new project file will be listed in the available projects. To make it the active project, double click it in the list. Before the changes are complete, there are some other changes that need to be made. At the bottom of the project file dialog box we will change several folder locations.

5. To show the Workspace, you must first click the “>>” button on the right side of the dialog box to show the Workspace location. Once this is shown, you can right click on the Workspace location and select “Edit” and browse to your Workspace folder.

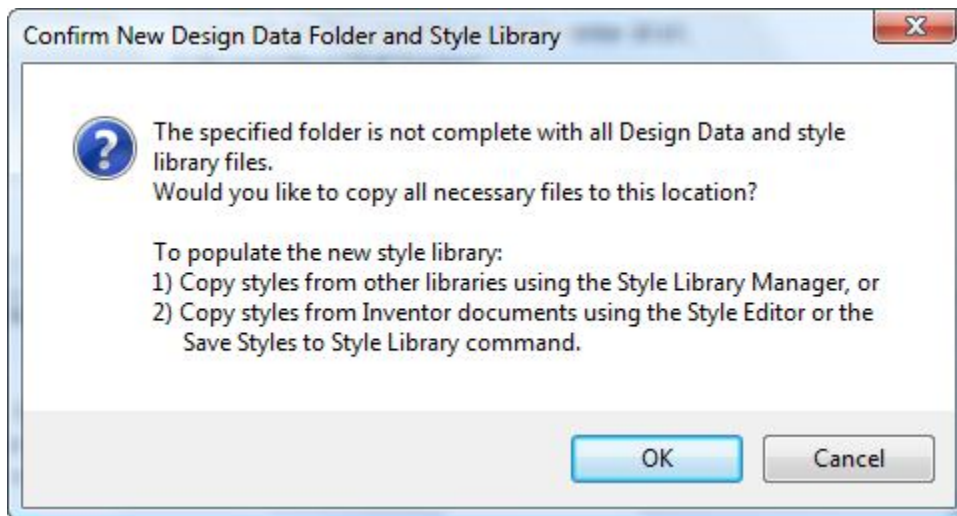


WINDOWS FOLDERS

INVENTOR PROJECT SETTINGS



- Repeat the same steps for Templates, Content Center Files, and Design Data. Once you select a Design Data folder, you will see the dialog box shown on the following page. Since there are several files and folders that are needed in the Design Data Folder, when you select your new location, Inventor will automatically copy the default files and folders from the installation (C:\Program Files\Autodesk\Inventor 2009\Design Data on Windows XP and C:\Users\Public\Public Documents\Autodesk on Windows Vista) into your newly specified folder for Design Data.



- The Templates location will also need to be populated with files at this point. You can copy the default template files from the installation (such as C:\...install directory\templates) or create your own templates files. Template files in Inventor have the same file extension as normal Inventor files so it is as simple as creating the files and saving them in the Templates location.
- Once you have specified these directories, expand Options at the bottom and right-click on "Using Unique File Names" and select "Yes".
- Click "Save" at the bottom of the dialog box.

10. You do not need to recreate the project for any additional users, instead simply select “Browse” on the project dialog box and select the new ipj project file, from their workstation.

Relative Paths

In the lower portion of the project dialog box, the folder paths are listed starting with “.” instead of the full path. This is because Inventor project files use relative paths. An easy way to look at this is that everytime Inventor sees the “.”, it will replace it with the path of the location of the project file. This makes it very easy to copy an entire project and files to another drive or folder and use them without having to edit all the project file folder locations. This works because the project file automatically updates to reflect its current file path.