Multi-site Workflows: The Good, the Bad, and the Ugly
An Advanced Look at Your Options

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@plant3d

About the speaker

Jarrod is a piping designer by profession, working out of New Zealand predominantly in the Food and Beverage industry. With also a lot of experience in the Oil and Gas, Geothermal, Mining and Water Treatment industries, his accolades compliments his career as a Plant Solutions Consultant with Autodesk. His role involves in-depth implementations of solutions with customer's workflows.
He enjoys passing on his extensive knowledge to others and assisting in the success of companies utilizing Autodesk products, particularly with Autodesk Plant Design Suite. Jarrod also has vast knowledge of Autodesk Inventor, Navisworks and Vault and the advantages of using these alongside AutoCAD Plant 3D and AutoCAD P&ID.
Jarrod has been the Autodesk Plant Exchange Expert three times since November 2011 and continues to be a regular provider of help through many other channels.
Jarrod can be contacted for discussions about engagements with your company at jarrod.mudford@autodesk.com

Class summary

This class will explain the options that you have for an effective and efficient AutoCAD Plant 3D project working over multiple design offices. Options that are explained here vary to suit many different project and company budget options. The option that you choose for your next project could be the answer that you are looking for to run your AutoCAD Plant 3D project effectively in more than just one office

Key learning objectives

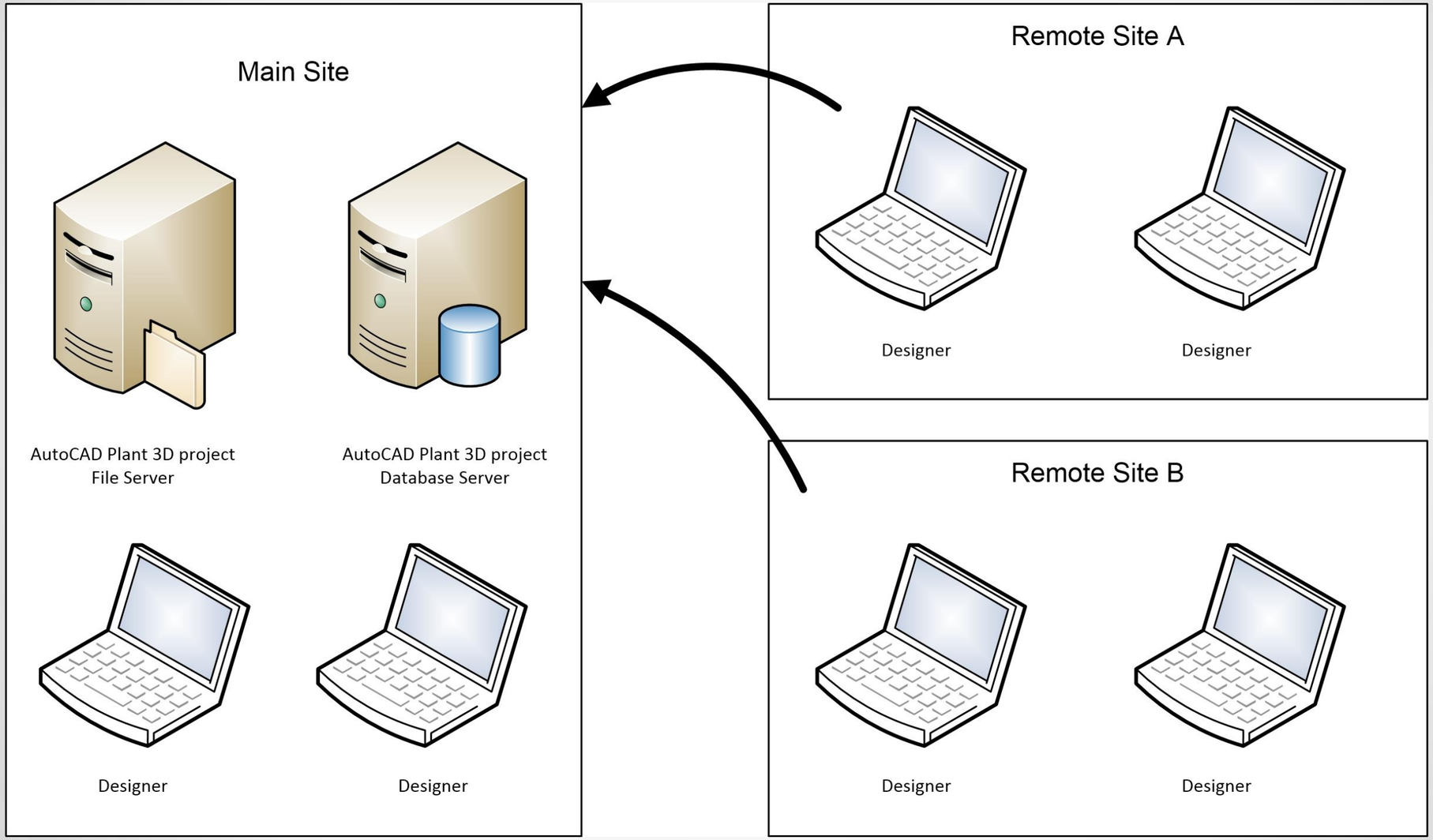
At the end of this class, you will be able to:

- Explain the different options available for multi-site workflows
- Evaluate potential workflows for your projects
- Start using basic workflows immediately
- Start a new project in Autodesk Vault and configure it for a multi-site workflow

The Workflow Options

1. Running the AutoCAD Plant 3D project over the WAN
2. Master and Slave AutoCAD Plant 3D project
3. Autodesk Vault Professional

Running the AutoCAD Plant 3D project over the WAN



Setting up the Project

- Set up the project on the Main Site
- Microsoft SQL Database preferred
- Access the project over the WAN
- Both sites require the same network structure
- Centralized files on Remote Server read only

Working on the Project

- Access the project as normal
- Delays over the WAN is inevitable
- Orthographic views should be created at Main Site
- Isometric production is better at Main Site
- Report Creator can be run at either site

Running the AutoCAD Plant 3D project over the WAN

The Good

- Access to the project is a simple process
- Minimal management by IT Department
- Remote sites can increase and decrease as required

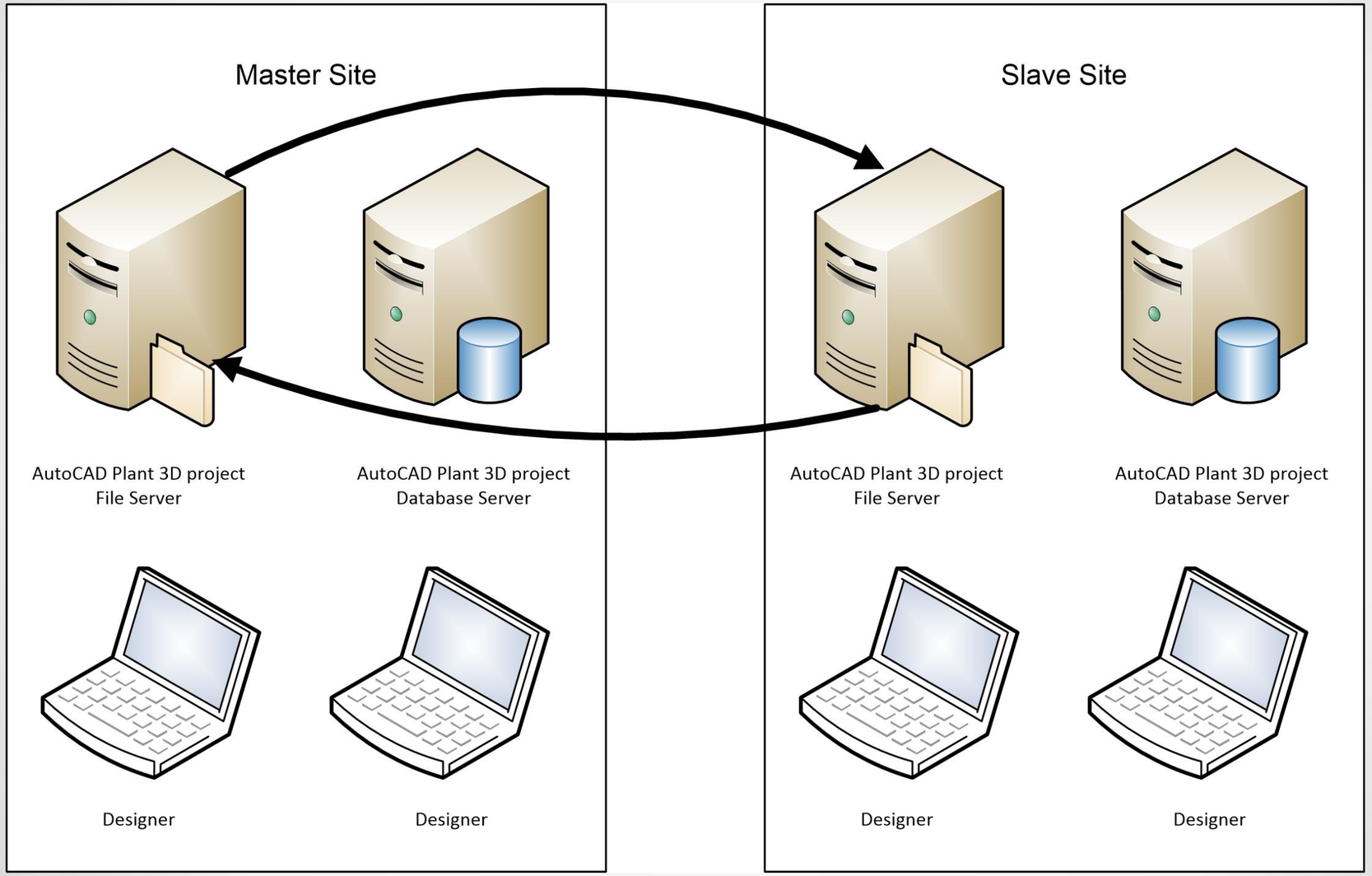
The Bad

- Delays in accessing files over the WAN
- Xref Management is a must to keep files at a manageable size

The Ugly

- Possible file corruption
- WAN Network outage will prevent project work

Master and Slave AutoCAD Plant 3D project



Setting up the Project

- Set up the project on the Master Site
- Microsoft SQL Database preferred
- Copy the project to the Slave Site
- Both sites require the same network structure
- Centralized files on Slave Site read only

Working on the Project

- Access the project that is local to the user
- Communicate with the other site
- Orthographic views created and detailed only at Master Site
- Isometric production only done at Main Site

Working on the Project

- Copy the modified .dwg files from Master to Slave Site
- Copy the modified .dwg files from Slave to Master Site

Master and Slave AutoCAD Plant 3D project

The Good

- Fairly simple process to implement
- The project is always local
- Minimal management from the IT Department

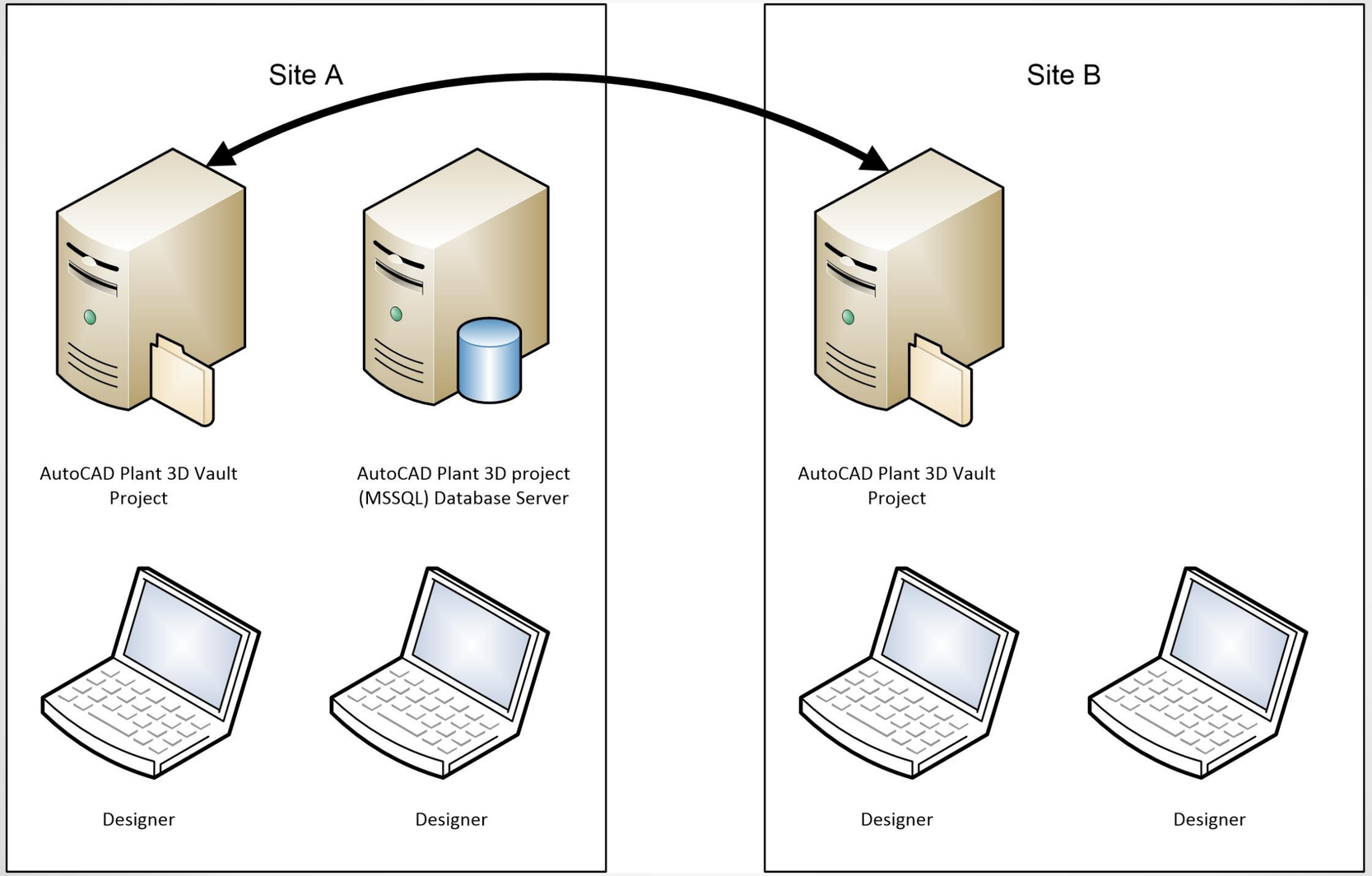
The Bad

- The copying of the files can take quite some time to access over the WAN
- Files could be missed when copying back to the Master Site
- Project settings changes could mean a full project copy to Slave Site

The Ugly

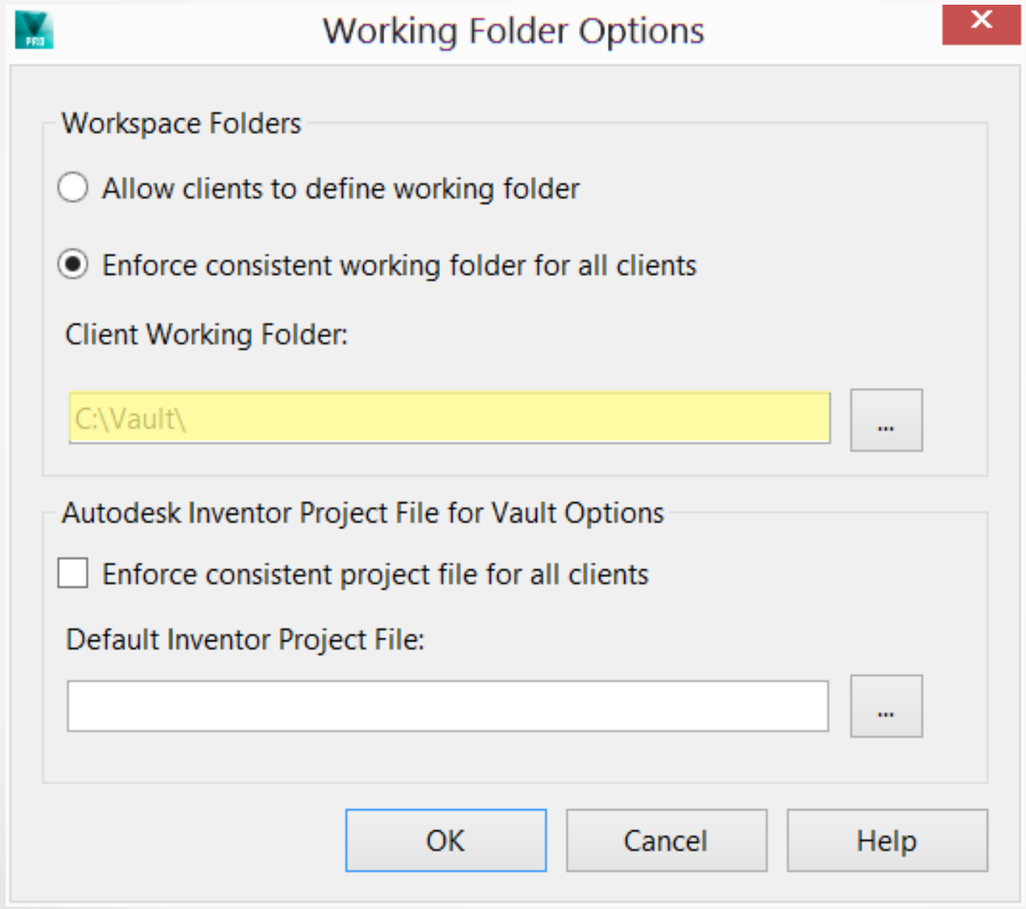
- Committed management at the Lead Designer level
- Communication is a must
- Two databases will never be the same, so outputs such as Reports, Isometrics, Ortho drawings must be done at Main Site

Autodesk Vault Professional



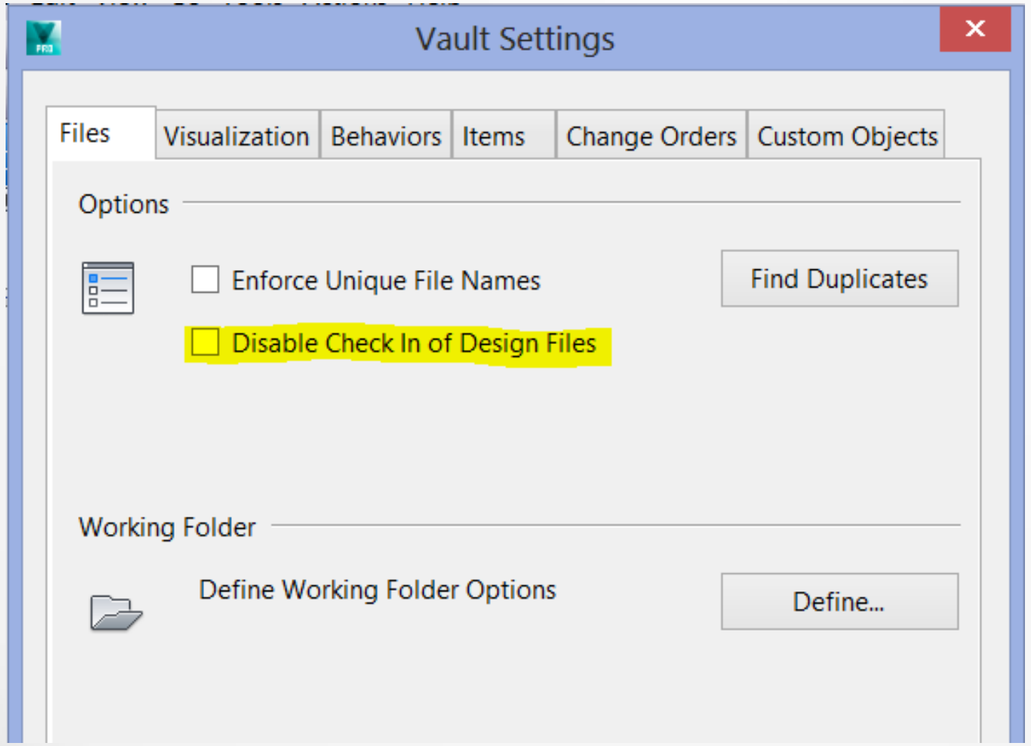
Special Autodesk Vault Professional Settings

- Working Folder Options



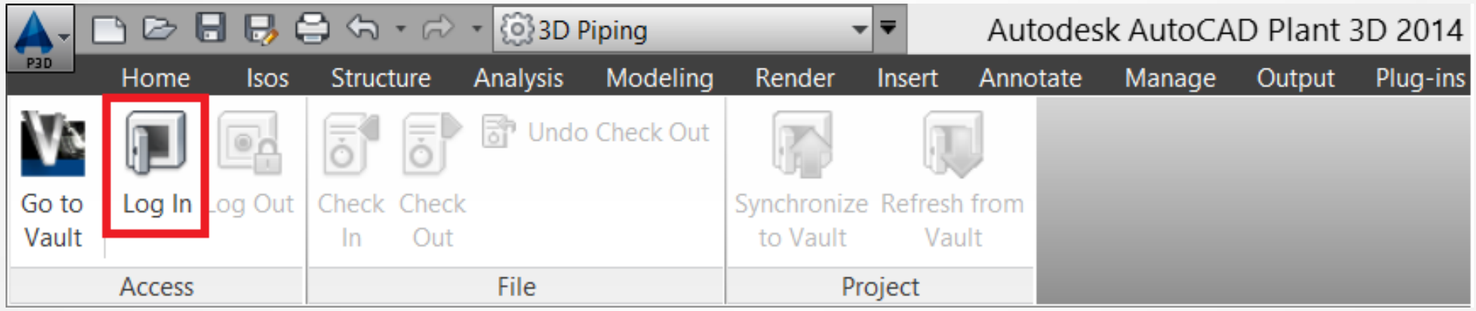
Special Autodesk Vault Professional Settings

- Disable Check In of Design Files



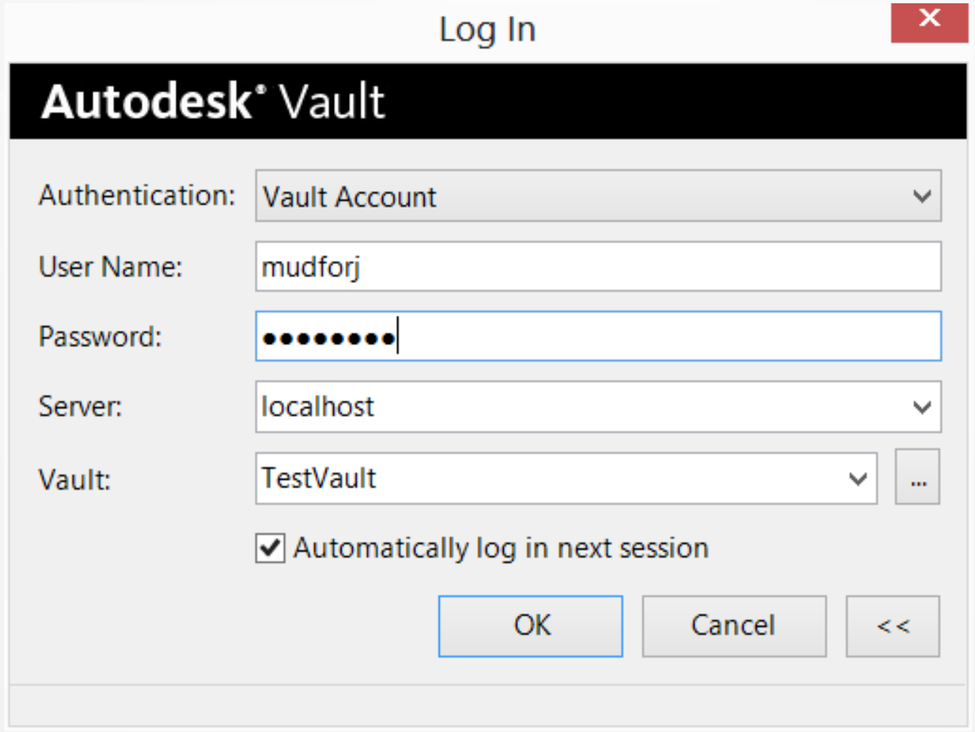
Setting up the Project

- Start AutoCAD Plant 3D and navigate to the Vault Tab



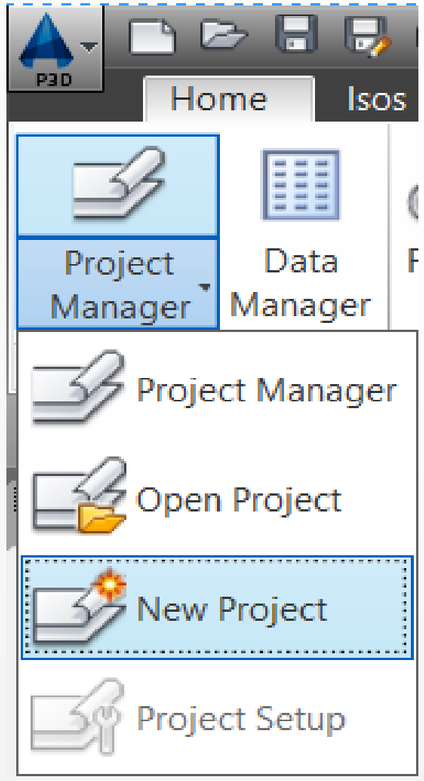
Setting up the Project

- In the Log In dialog box, enter your User Name, Password, Server, and Vault Selection



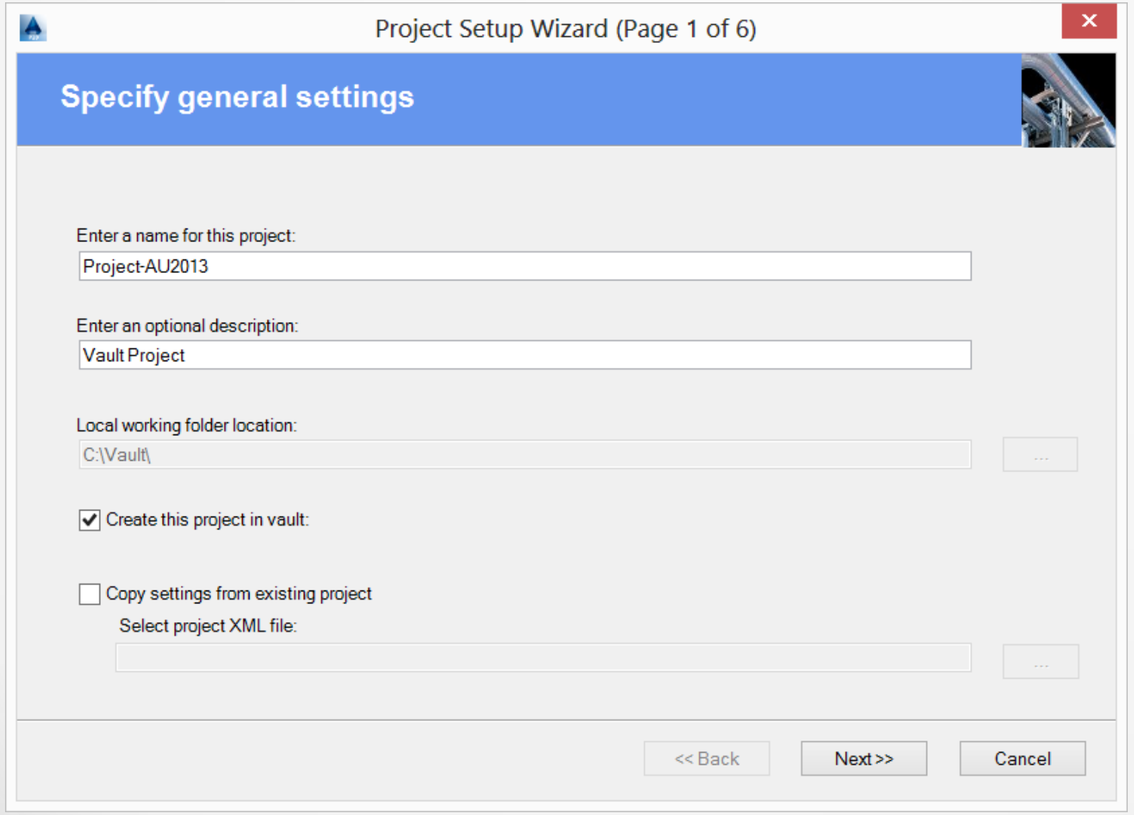
Setting up the Project

- Begin a new project from the Home Tab, Project panel, *“New Project”*.



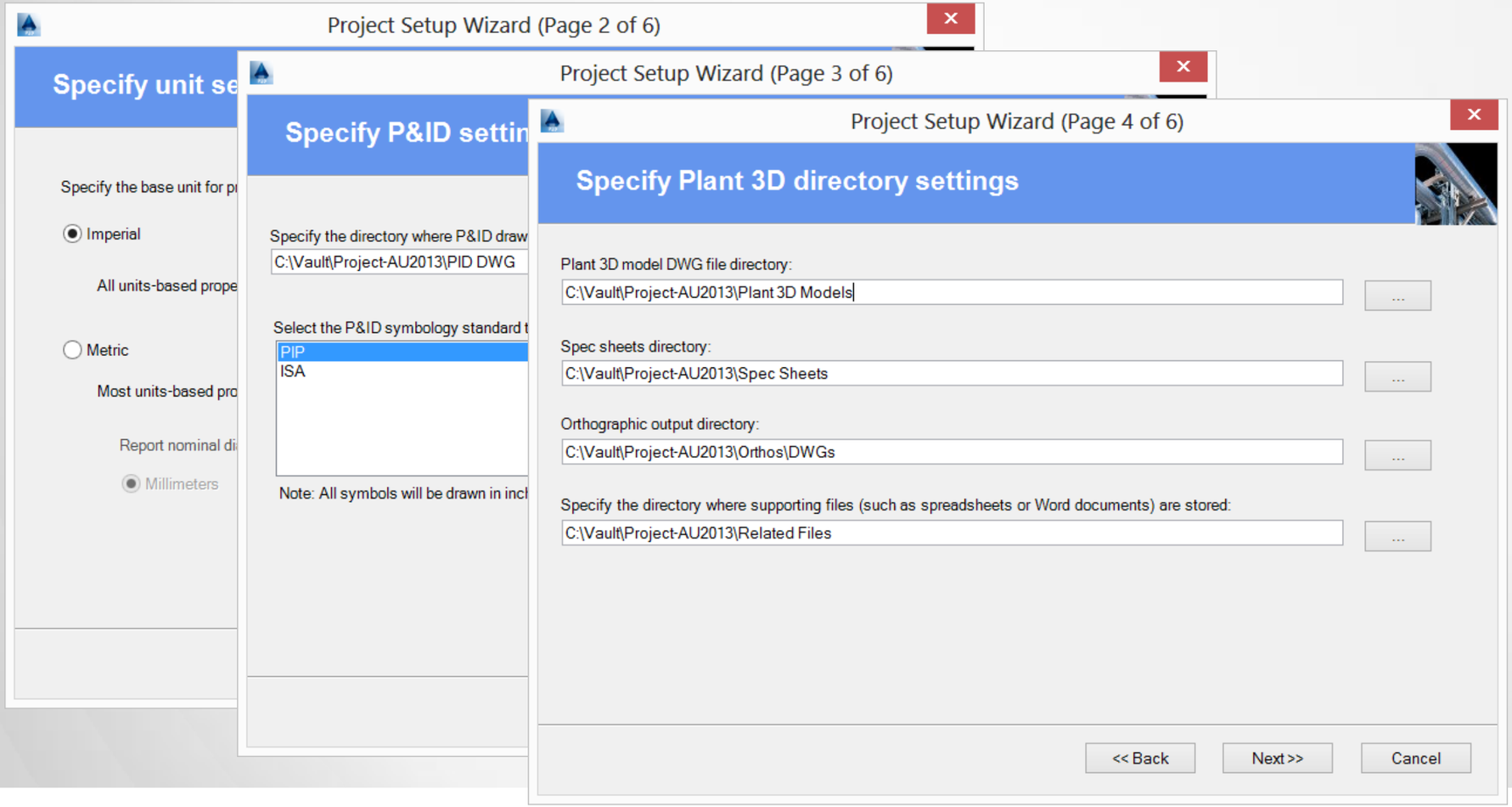
Setting up the Project

- On page one of the Project Setup Wizard, enter your project name, and optional description.



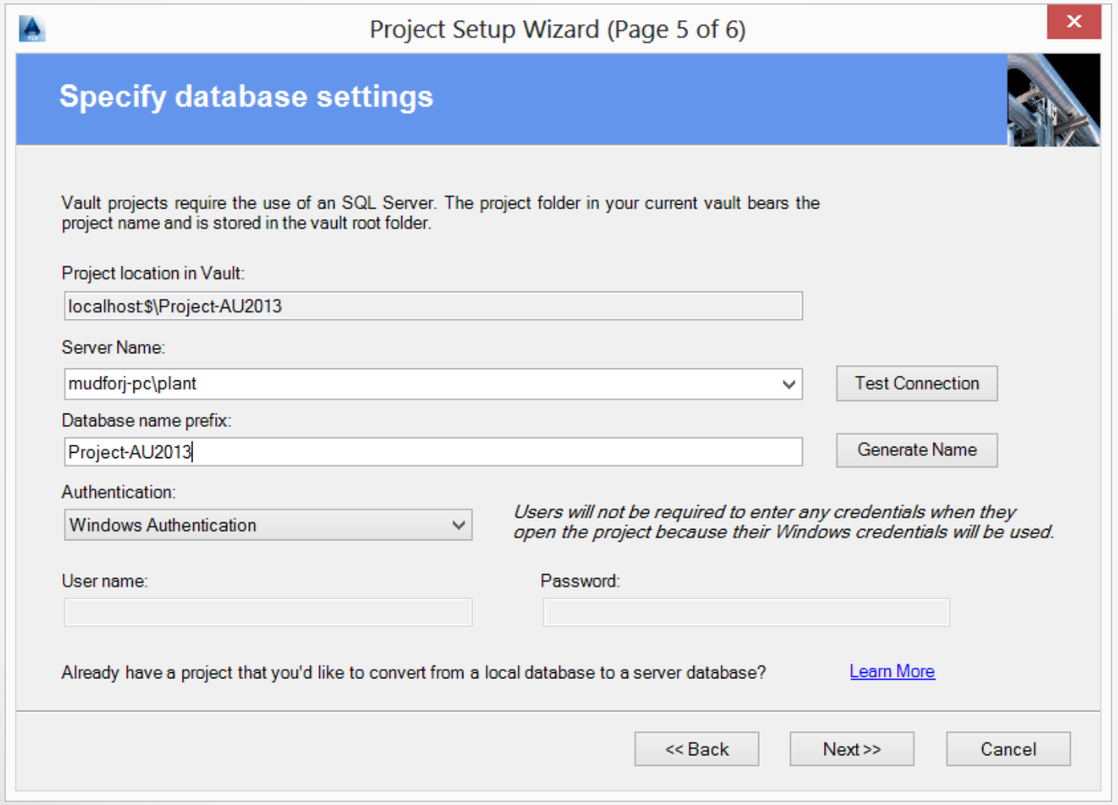
Setting up the Project

- Page 2, 3, and 4 set up as normal



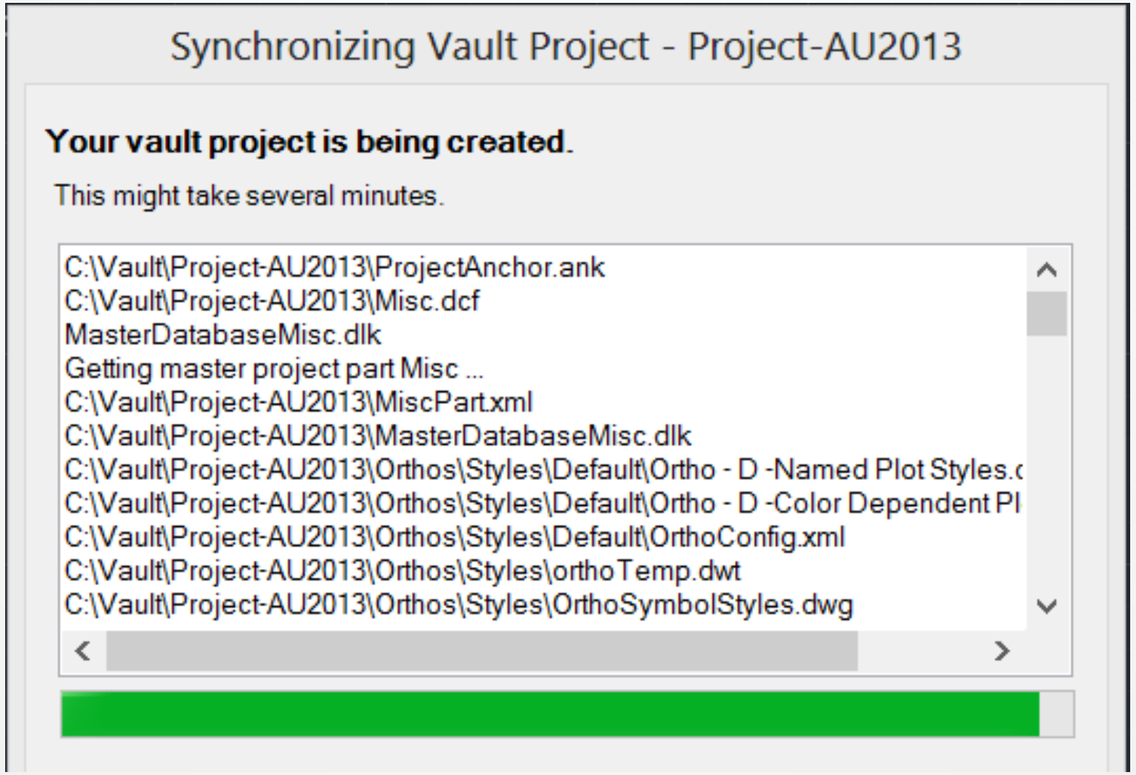
Setting up the Project

- On page five, you must select an SQL server and instance for the project



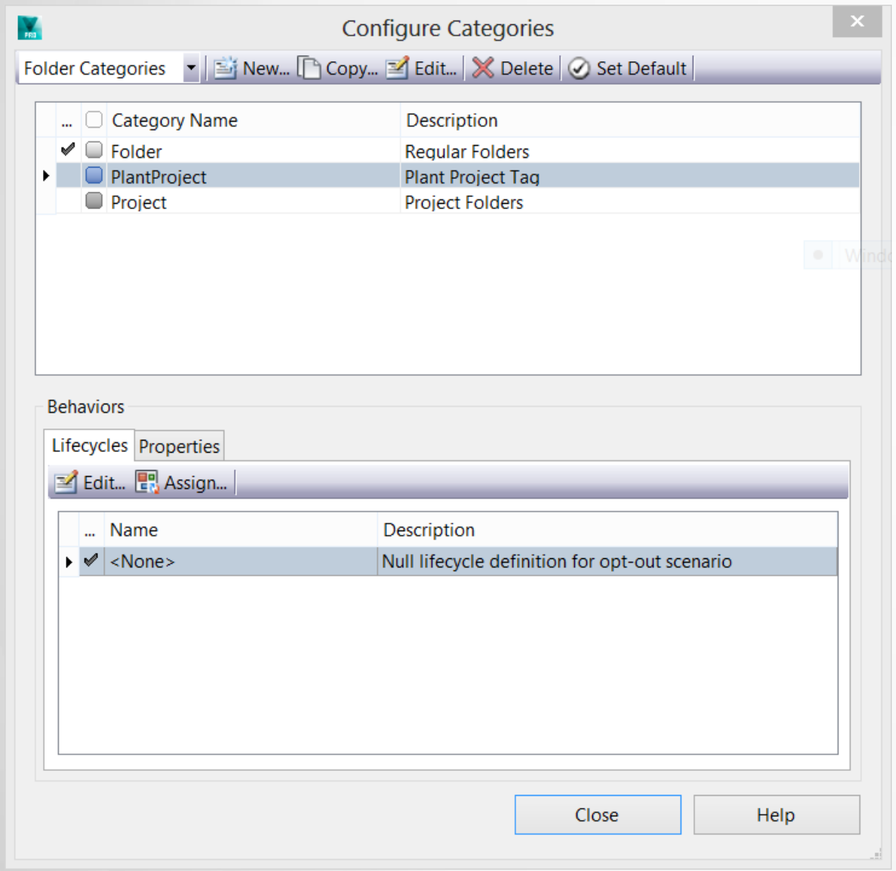
Setting up the Project

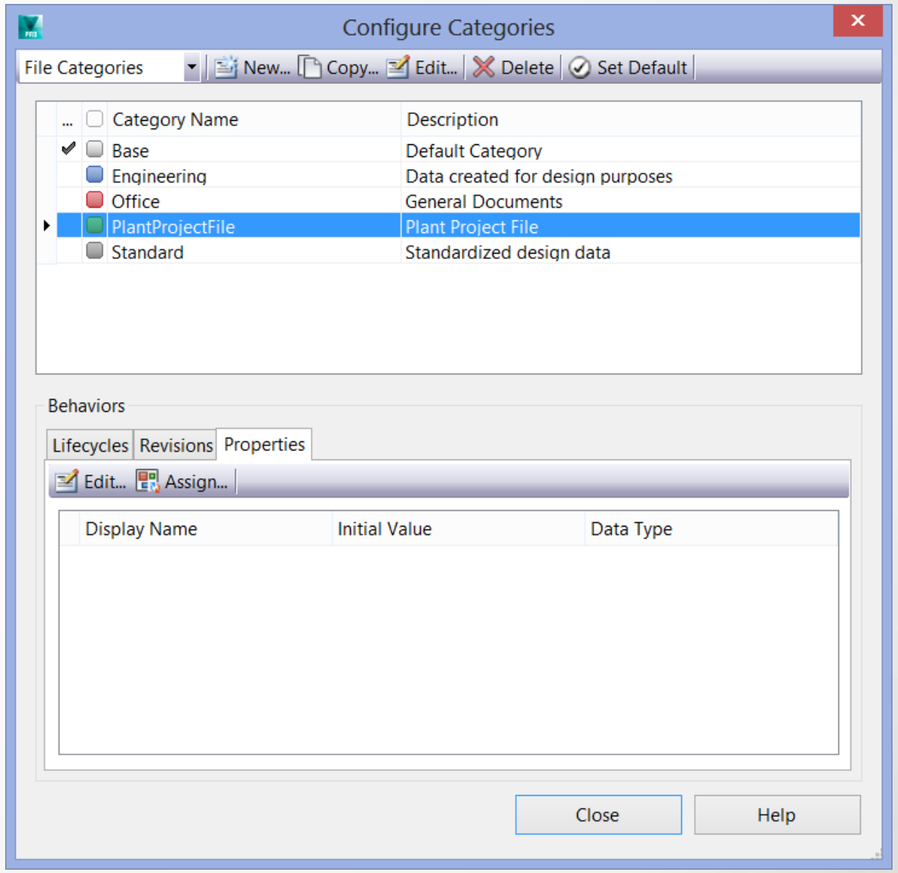
- The below dialog box is what you will see while the project is being created in Autodesk Vault.



Inside Autodesk Vault Professional

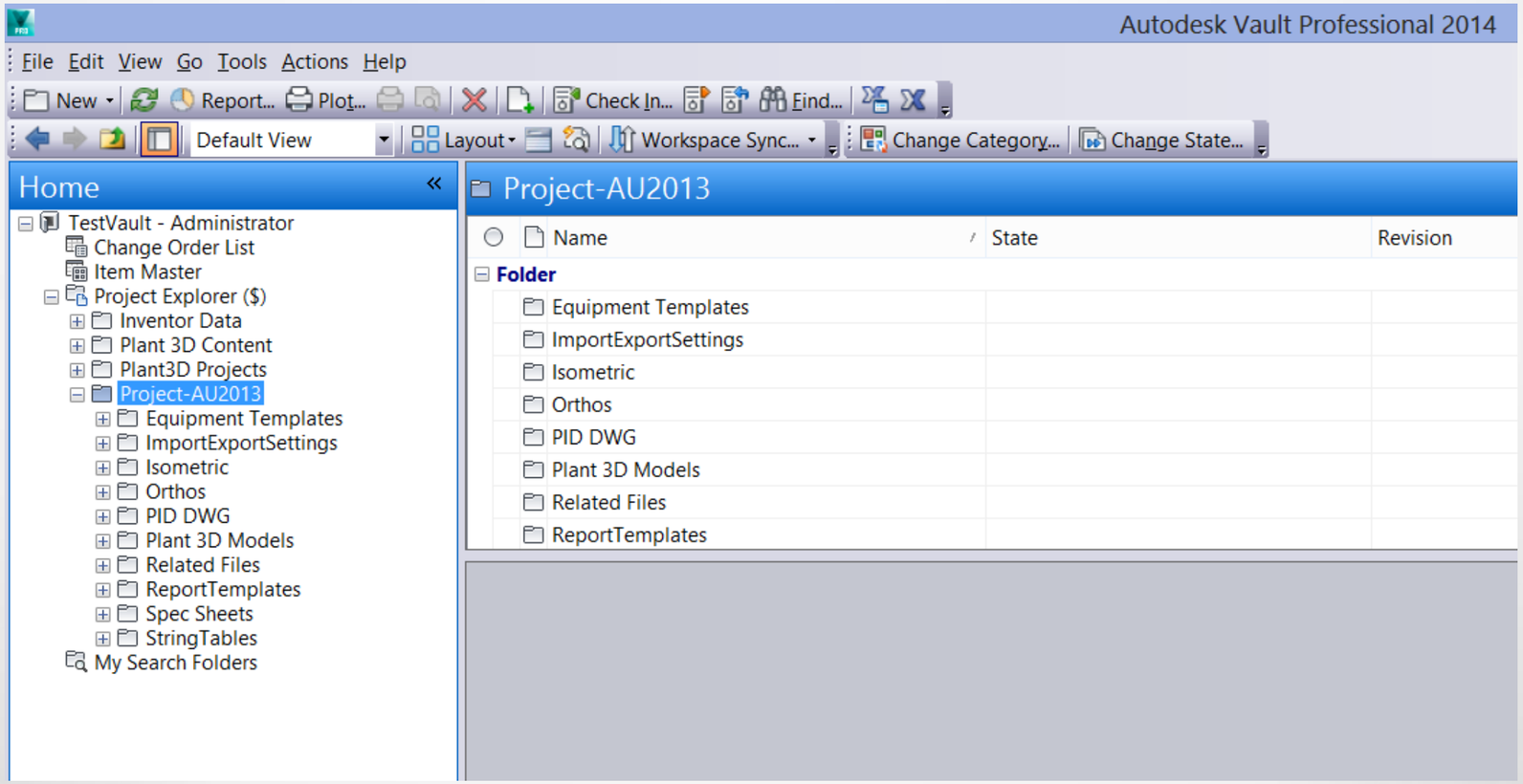
- New categories will be automatically created.





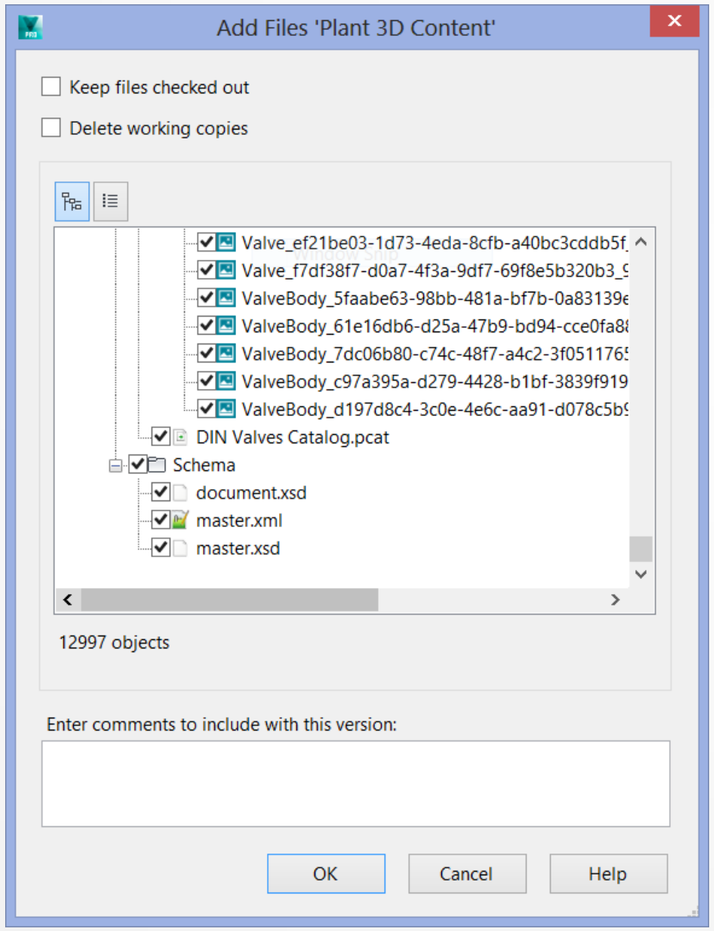
Inside Autodesk Vault Professional

- The Project will be created in the root directory of Autodesk Vault



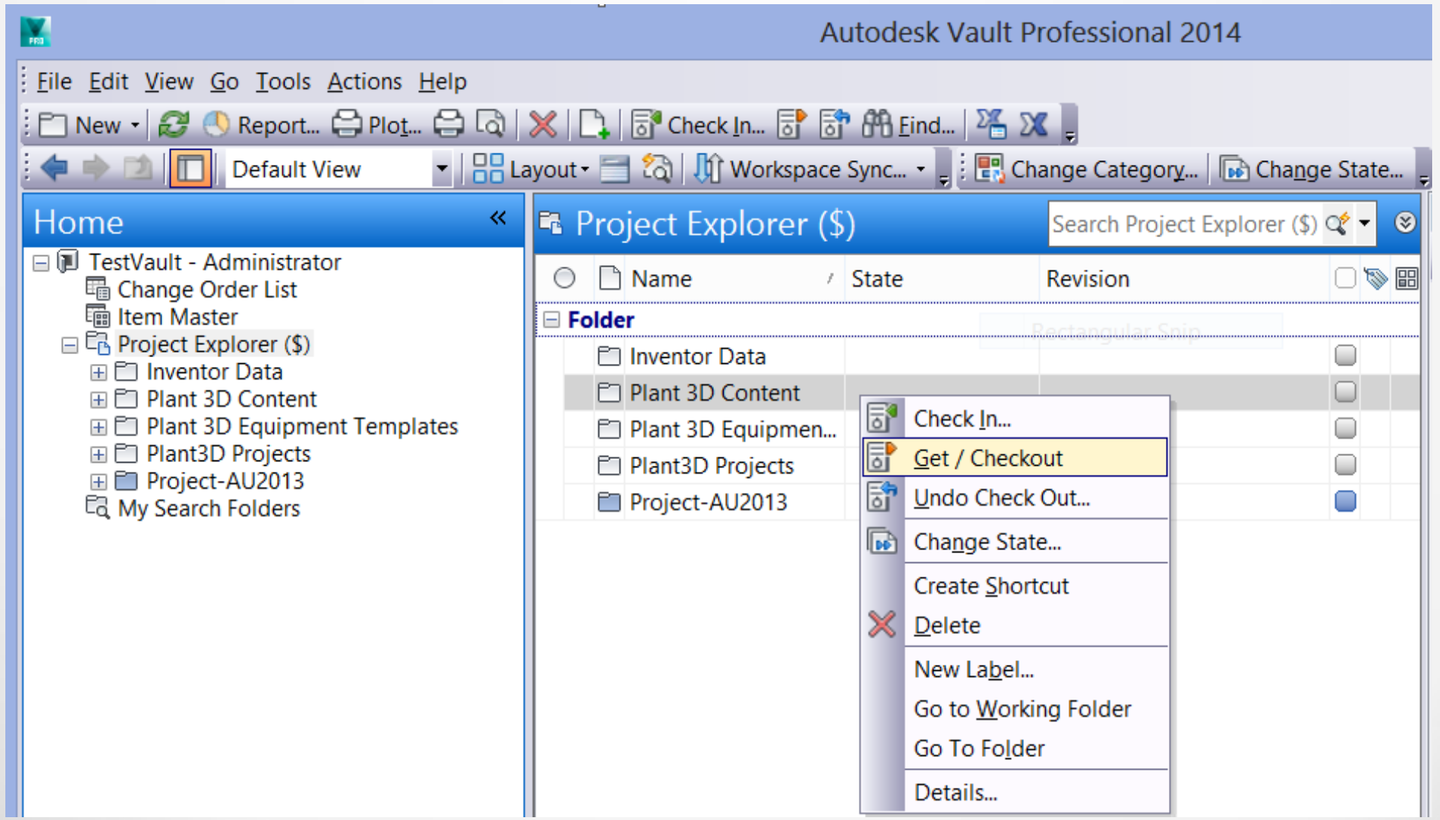
AutoCAD Plant 3D Content

- Confirm which files will be added to the Vault



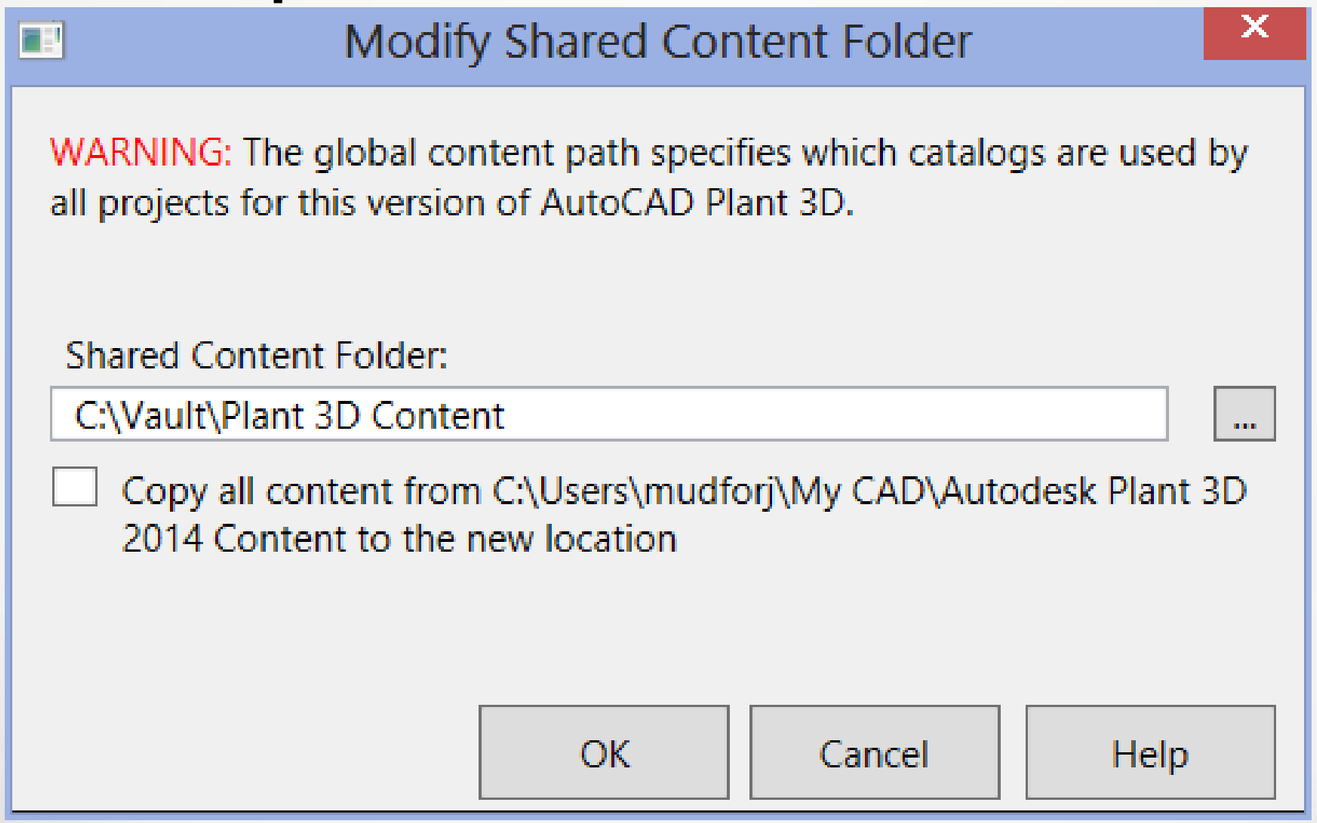
AutoCAD Plant 3D Content

- Each user working with AutoCAD Plant 3D must also *"Get"* the folder from the Vault



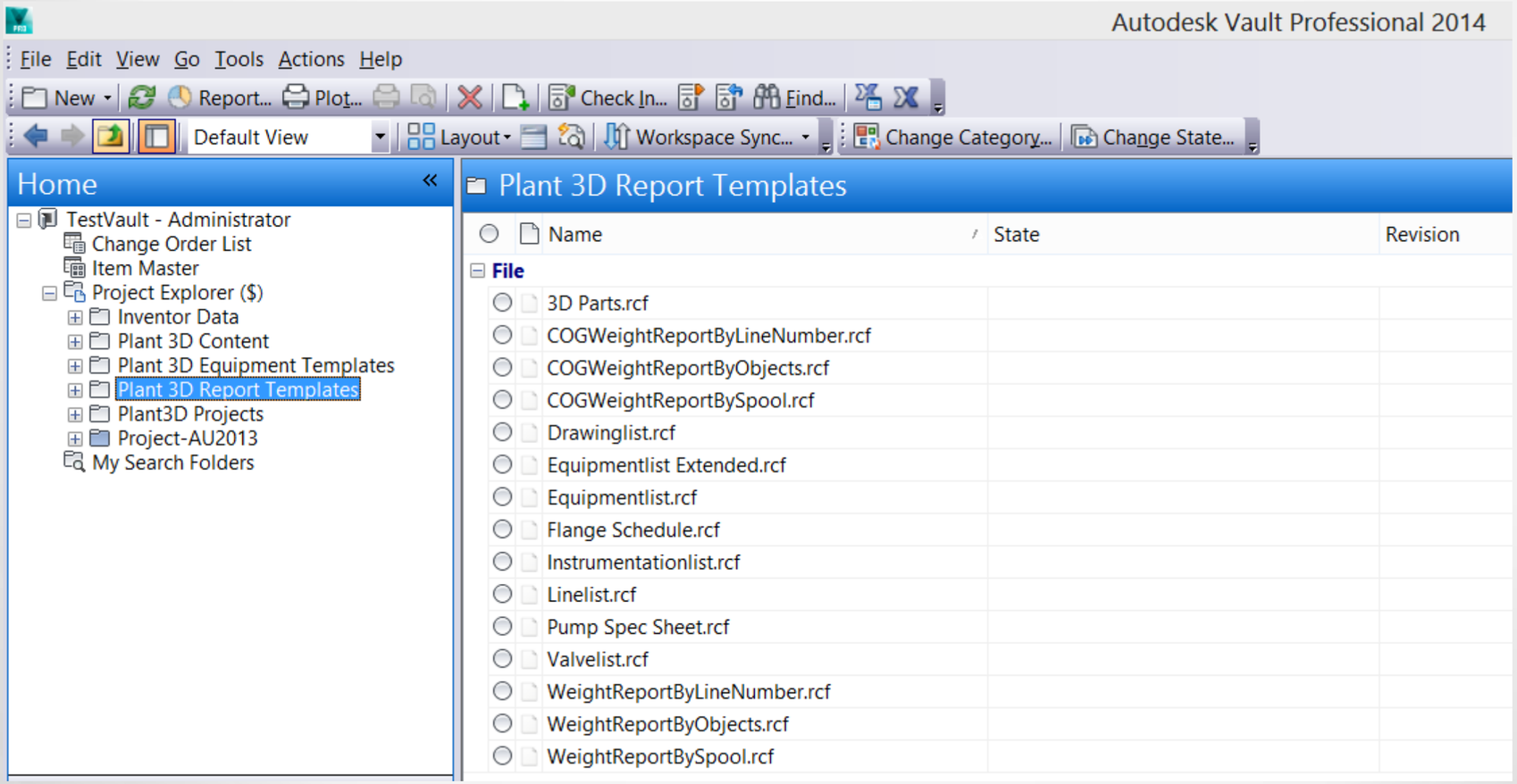
AutoCAD Plant 3D Content

- Change the Shared Content Folder from within the Catalog and Spec Editor



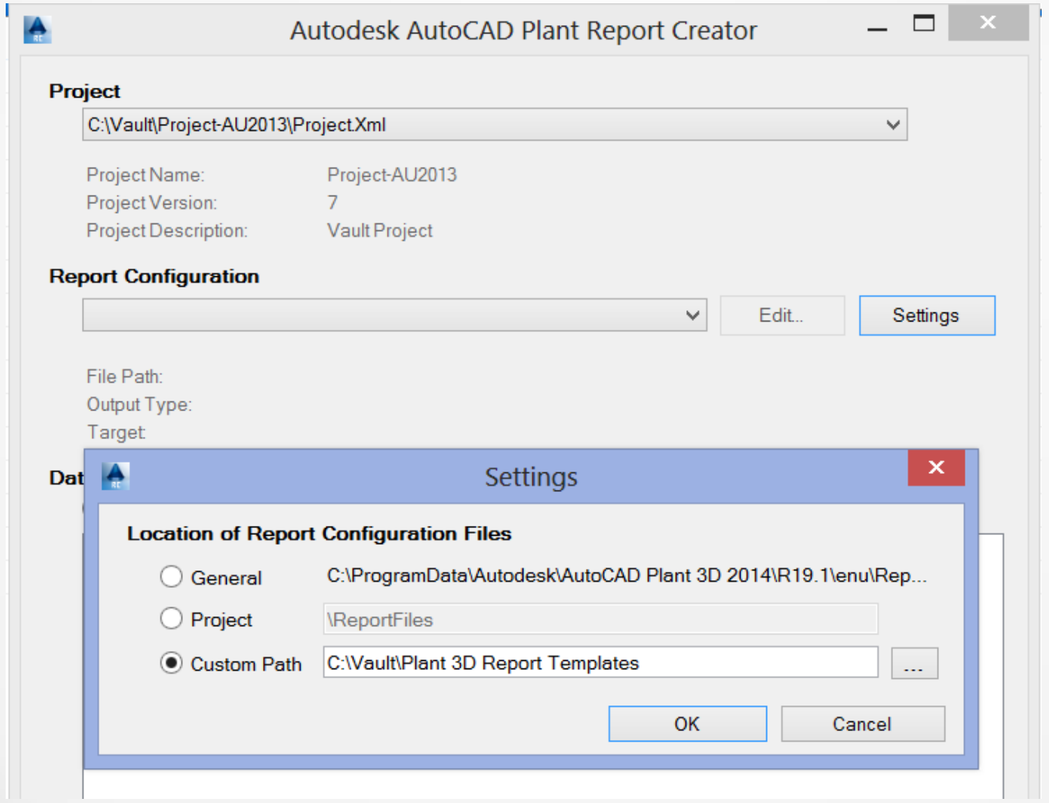
AutoCAD Plant 3D Report Creator

- Copy the Report Template files into the Vault



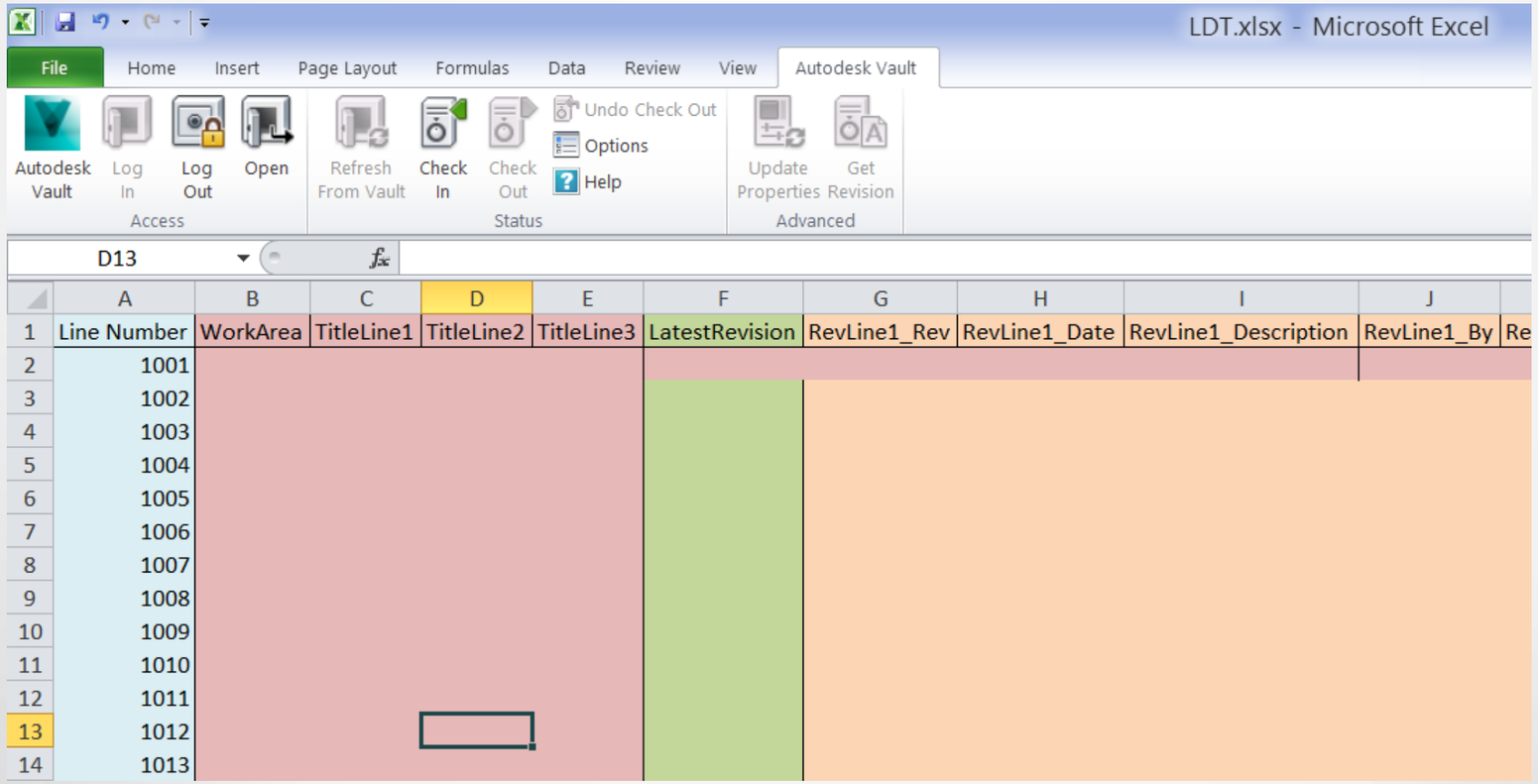
AutoCAD Plant 3D Report Creator

- Access the AutoCAD Plant 3D project from the local Vault Workspace



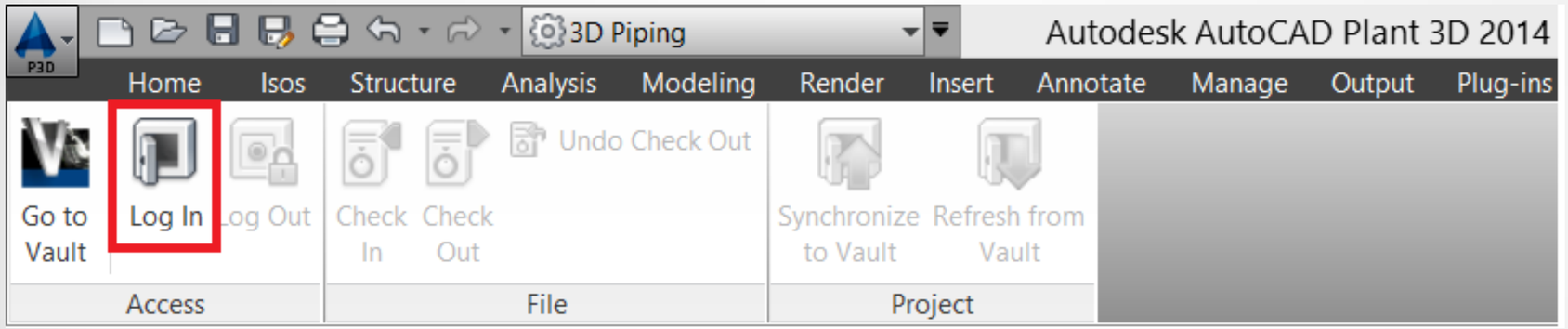
LDT Files

- Microsoft Excel has a ribbon that accesses the Vault directly



Working on the Project

- On the Access Panel, select “*Log In*”



Working on the Project

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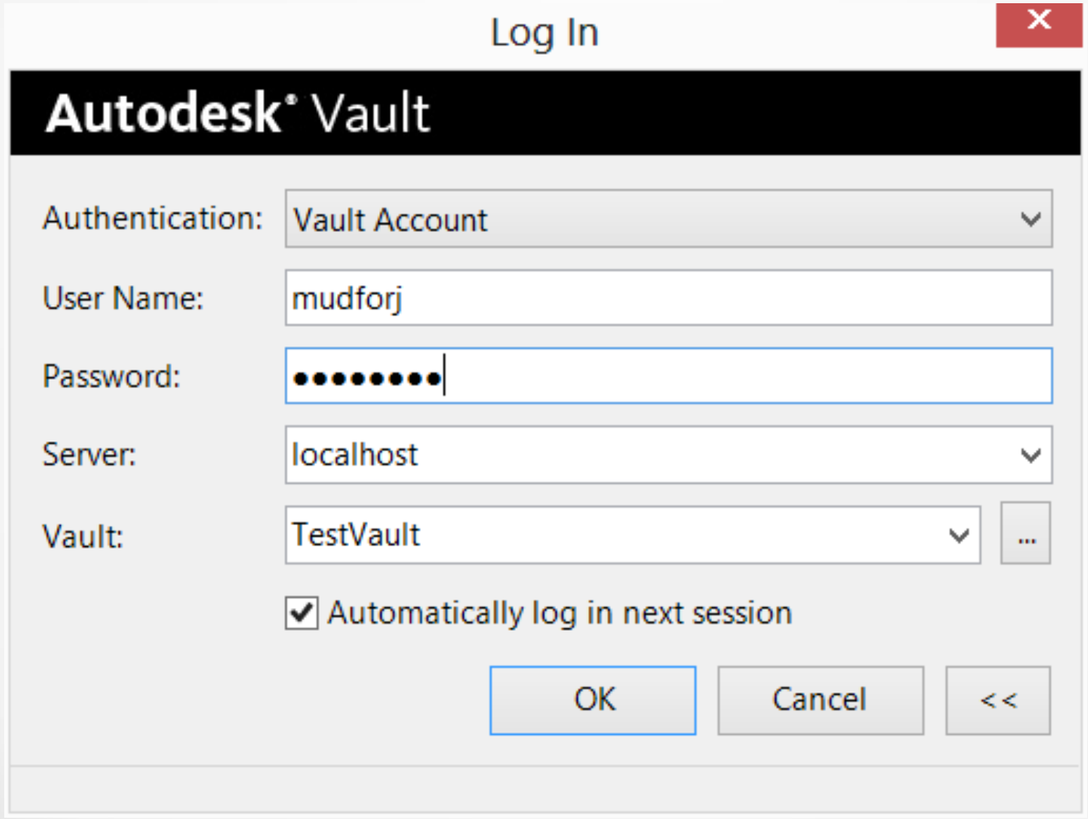
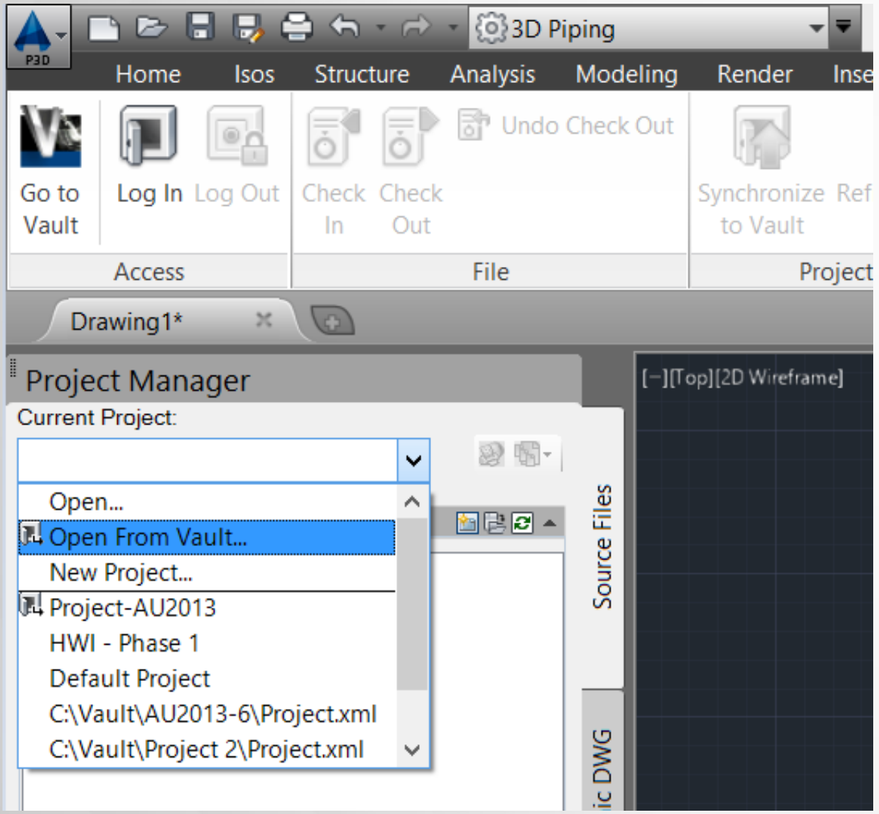
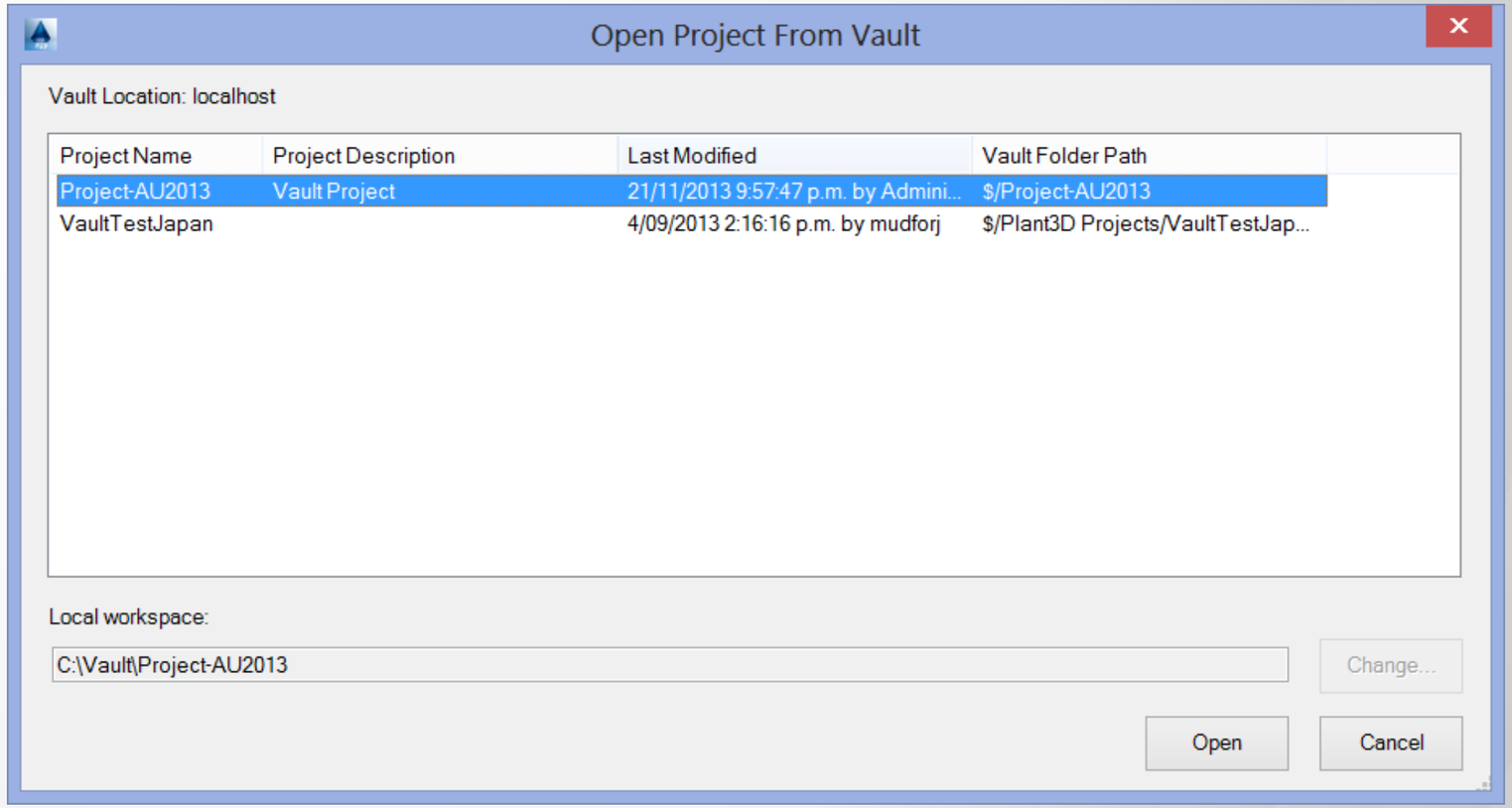


Working on the Project

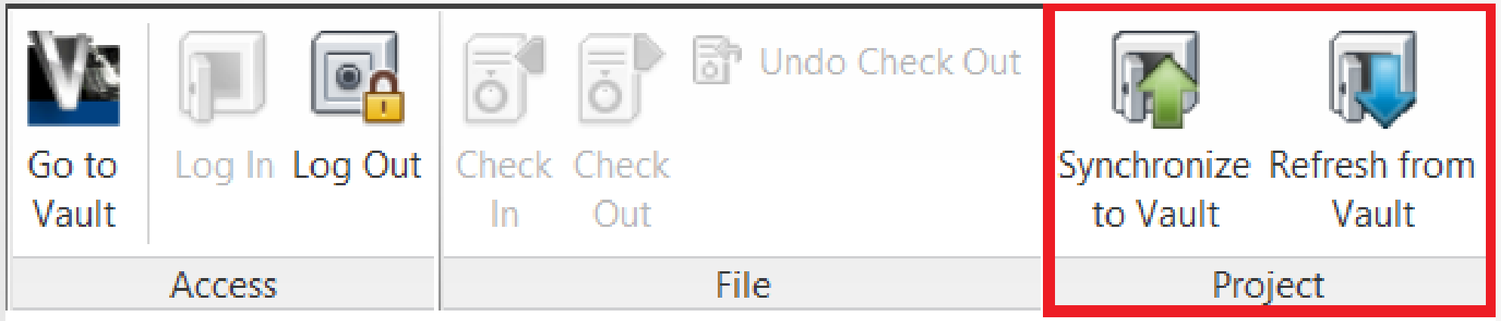
- Access your project by selecting *“Open From Vault…”*





Working on the Project

- Users should be regularly running the *“Synchronize to Vault”* and *“Refresh from Vault”*.



Autodesk Vault Professional

The Good

- Change project settings while people are working on the project
- Multiple users can run Isometrics at the same time
- Change Specs while users are working in the project
- Control access to the files using Autodesk Vault security settings
- Autodesk Vault Property Compliance settings

More Good

- Version and Revision history is retained in Autodesk Vault
- Project team can view files directly in the Vault or via web client
- Digital signatures on drawings via Autodesk Vault.
- Work offline from the server

The Bad

- More time to set up the project
- More commitment and co-operation from IT Department
- Some paths must remain within the project. No centralization of the Specs, Equipment Templates etc.

The Ugly

- All the files that make up the project are copied down to the local workspace. Drawings included.

Thank You