

Nothing But Net: Meet the next gen Plant 3D Collaboration with BIM 360 Docs

David Manning

3DOM Engineering Chief Designer | LinkedIn: [david-t-manning](#)



David Manning

Founder / Chief Designer 3DOM Engineering

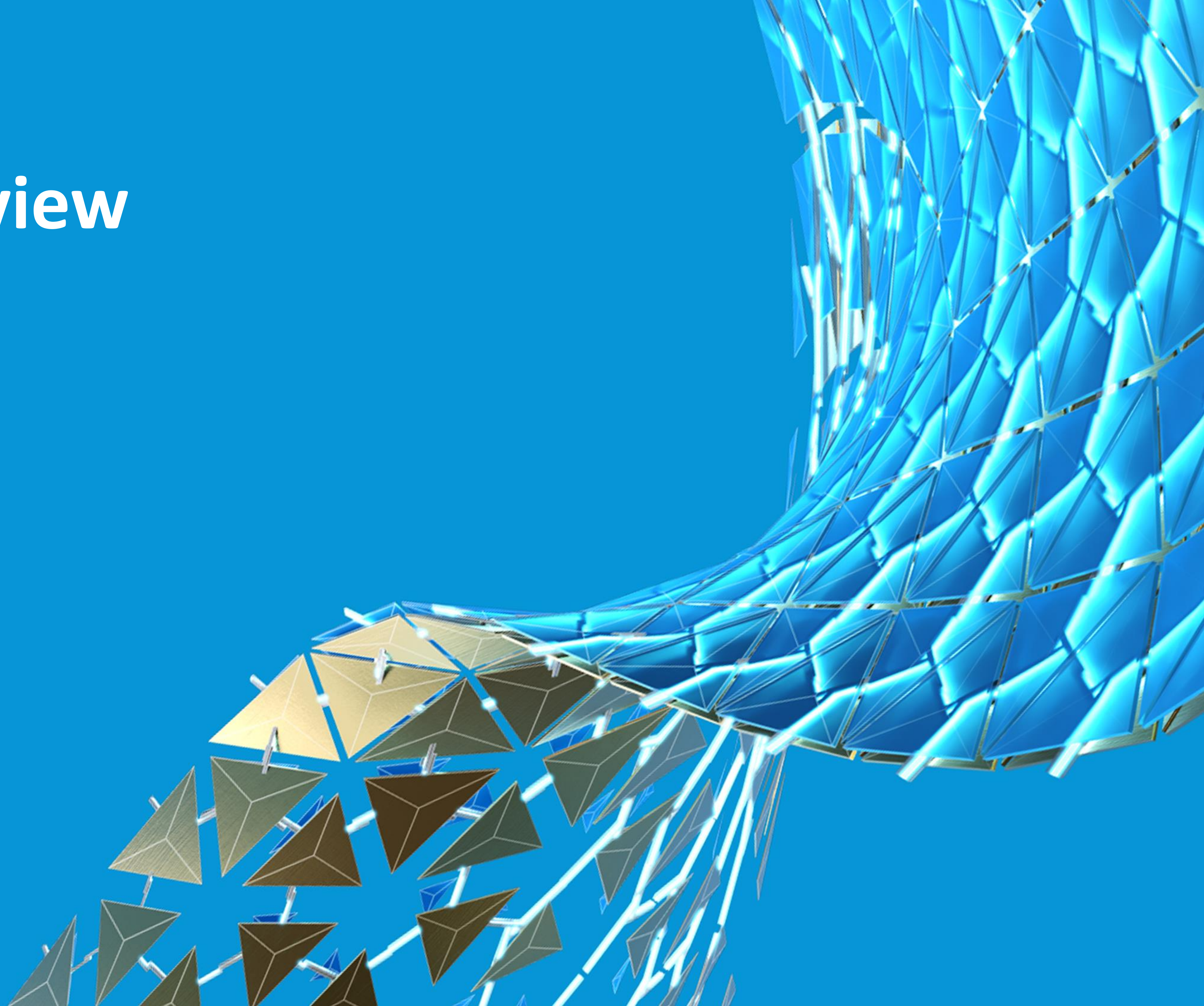
Providing quality design, coaching and support to Design communities, specialising in these products and associated workflows:

- Plant 3D and P&ID
- AutoCAD
- ReCap
- Recap Photo
- Navisworks
- Fusion 360
- BIM 360 tools
- Vault Client
- Also supporting in Generative Design, Mechanical Design, and Additive manufacturing.

My industry Experience:

- 5 years Autodesk Designated Support Specialist
- 12 years Piping Design (Oil & Gas)
- 6 years Steam Plant Design

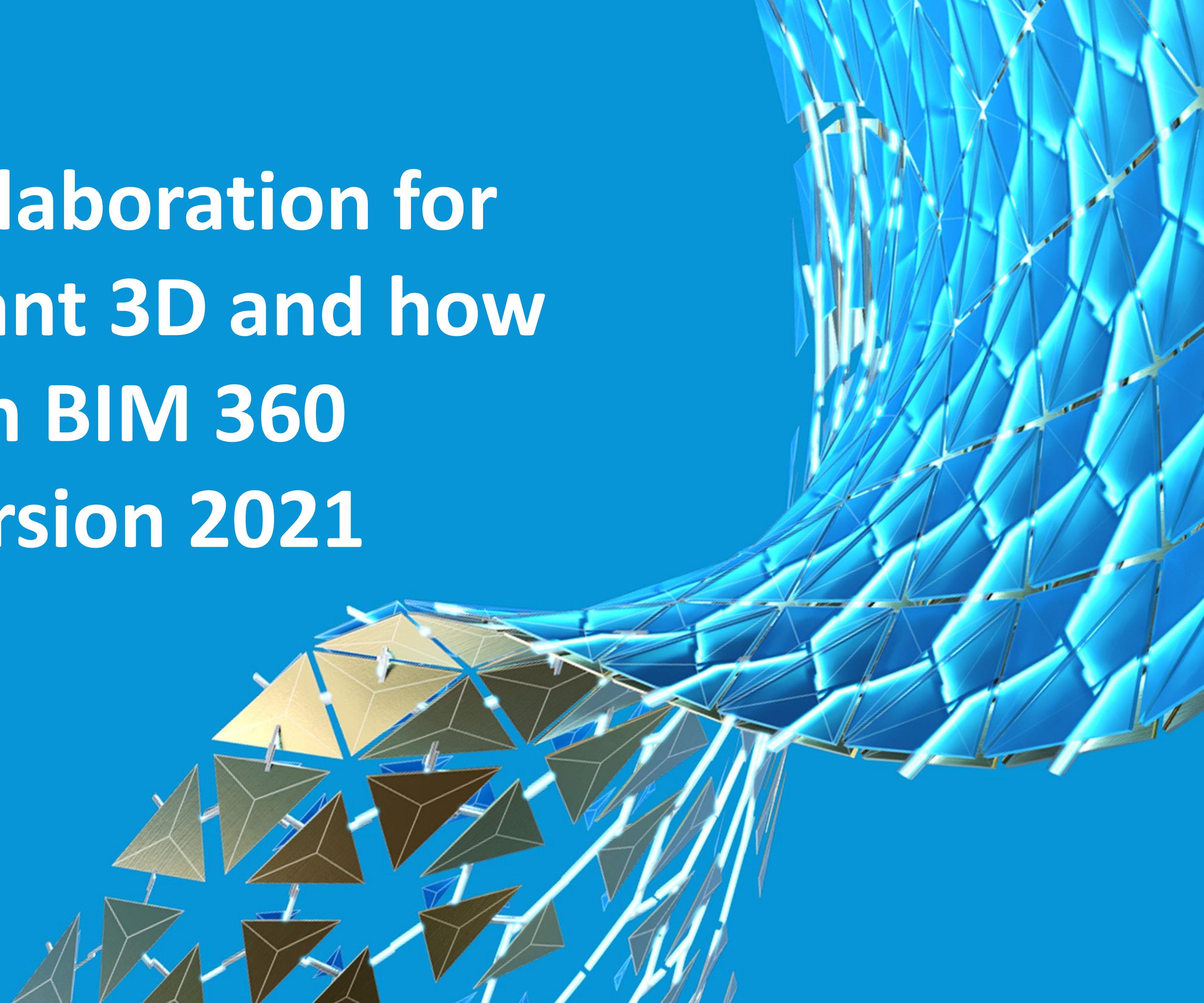
Session Overview



Key Learnings for this Session

- Discover Collaboration for AutoCAD Plant 3D and how it works with BIM 360 Design in version 2021.
- Explore the process and tools for AutoCAD Plant 3D project managers on collaboration projects.
- Learn what is different about working in collaboration for AutoCAD Plant 3D from a user's perspective.
- Discover several resources that you can keep to help you be more successful with Collaboration for AutoCAD Plant 3D projects.

Discover Collaboration for AutoCAD Plant 3D and how it works with BIM 360 Design in version 2021

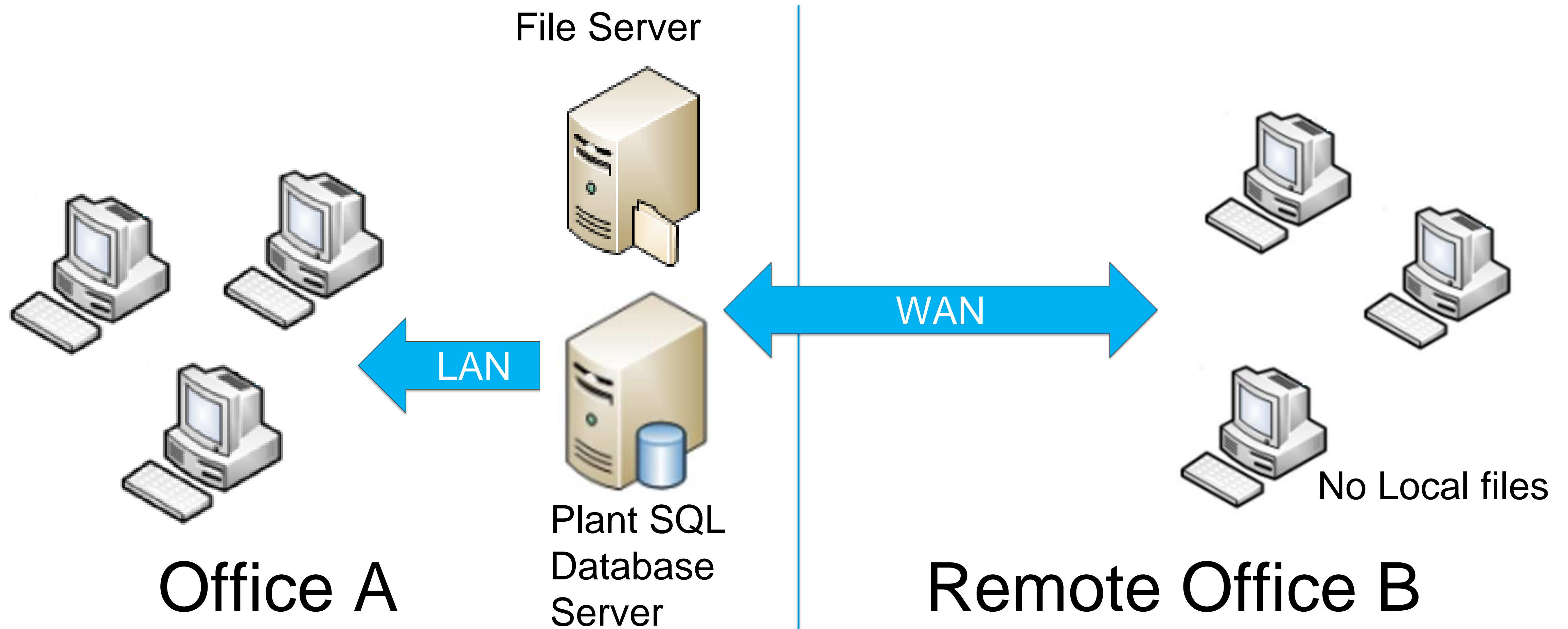


Benefits of Collaboration for AutoCAD Plant 3D?

- Allows secure multi-office collaboration across the internet.
- No file or database server requirements.
- File locking and versioning through check-in/check-out.
- Performance increase due to working in local collaboration cache.
- Minimal change required to existing user workflows in Plant 3D.
- Ability to check-out and modify Plant 3D project settings while others are working.
- Highly configurable BIM 360 Permission control.
- Enable Intelligent P&IDs in Revit with Revit P&ID Connector

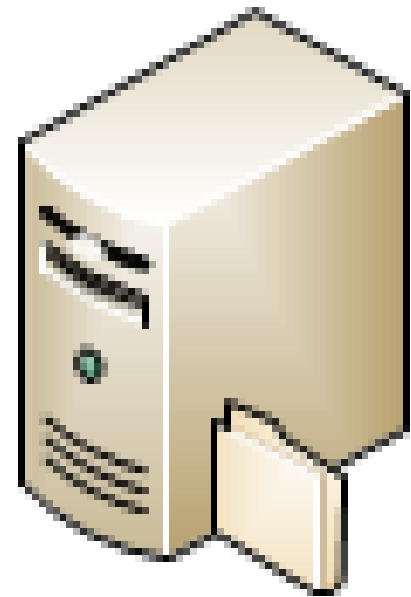


A Traditional Multiuser Environment

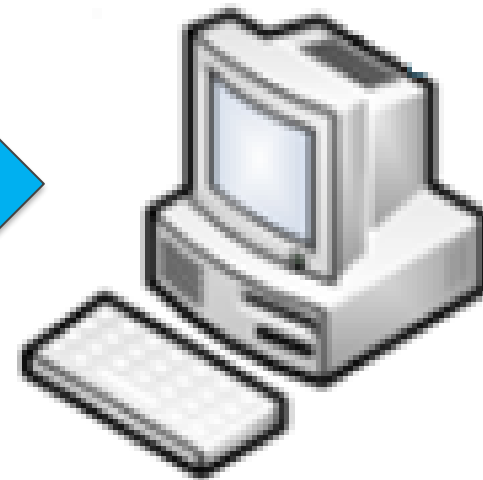


Changing to a Plant 3D Collaboration Environment

File Server



Plant SQL
Database
Server

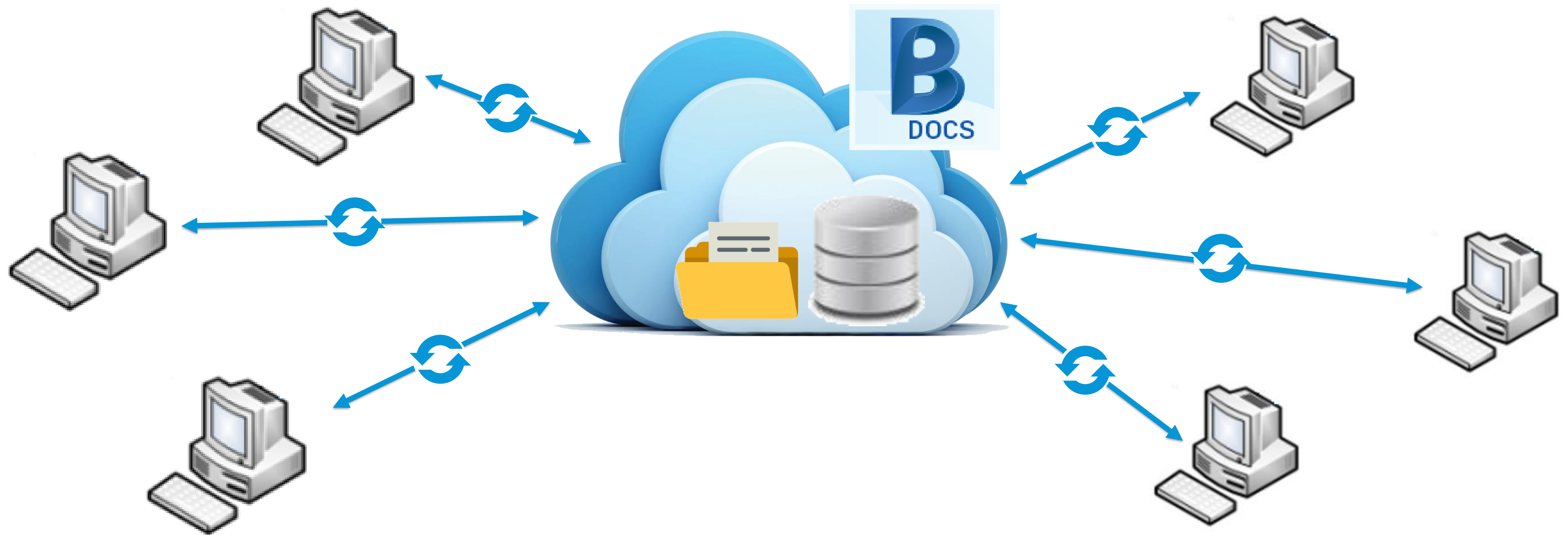


Project Admin



Office A

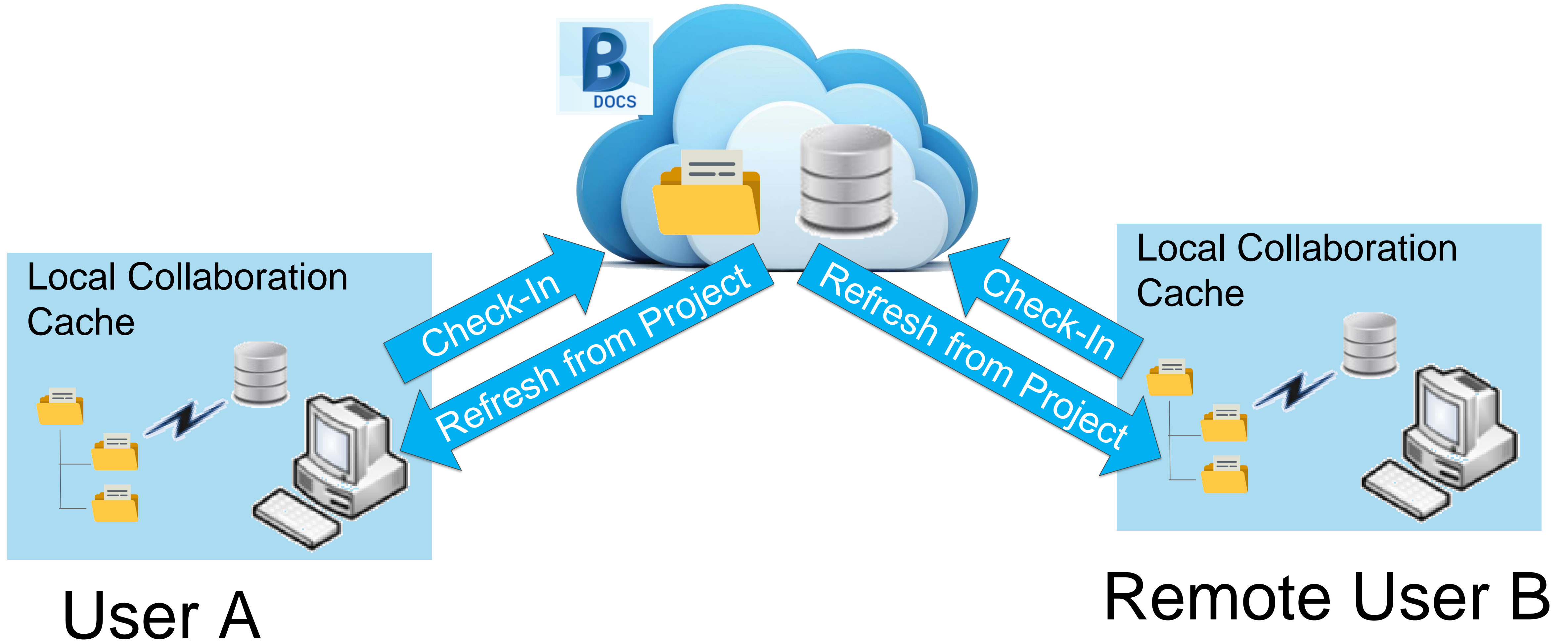
A Collaboration Environment



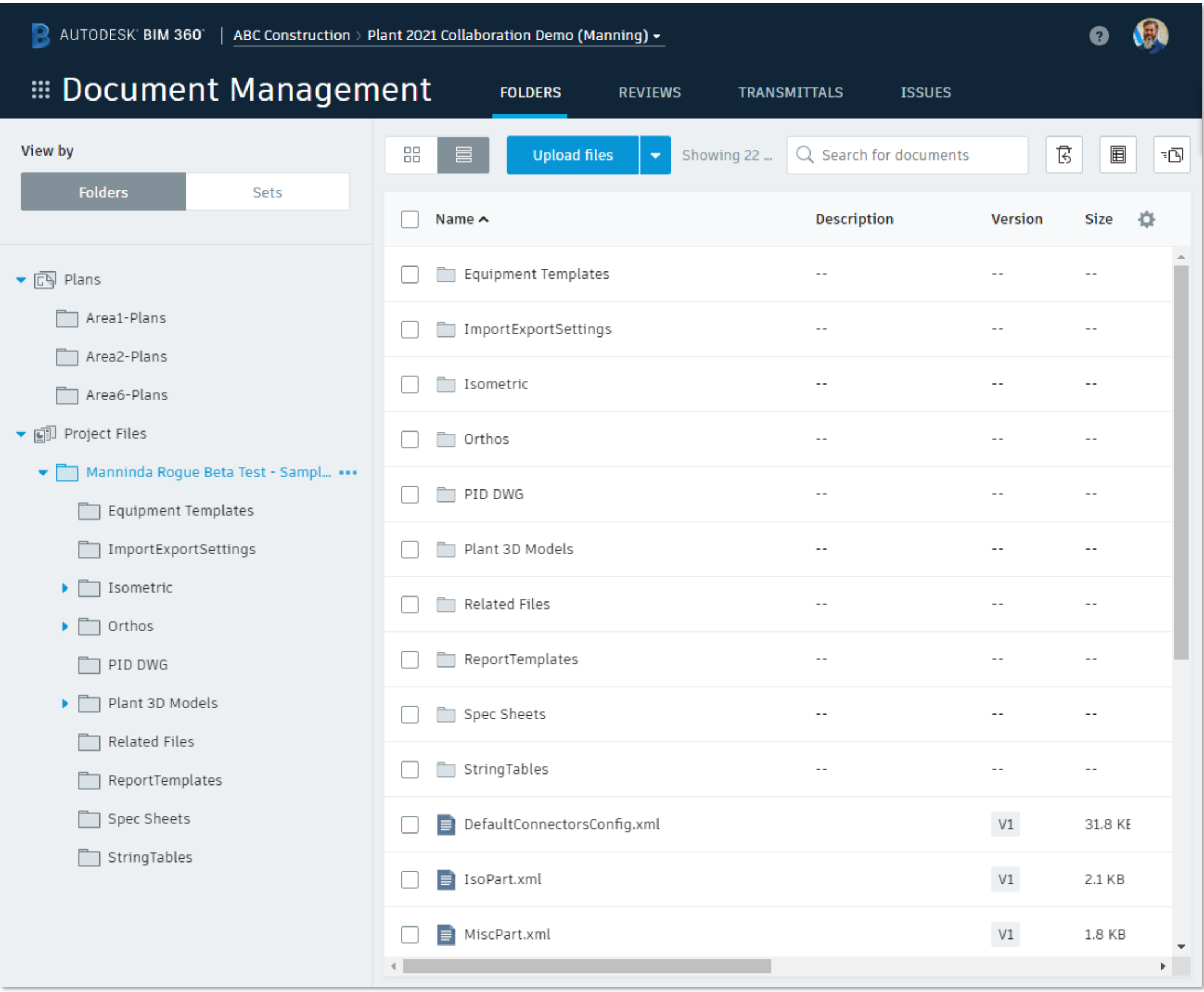
Office A

Remote Office B

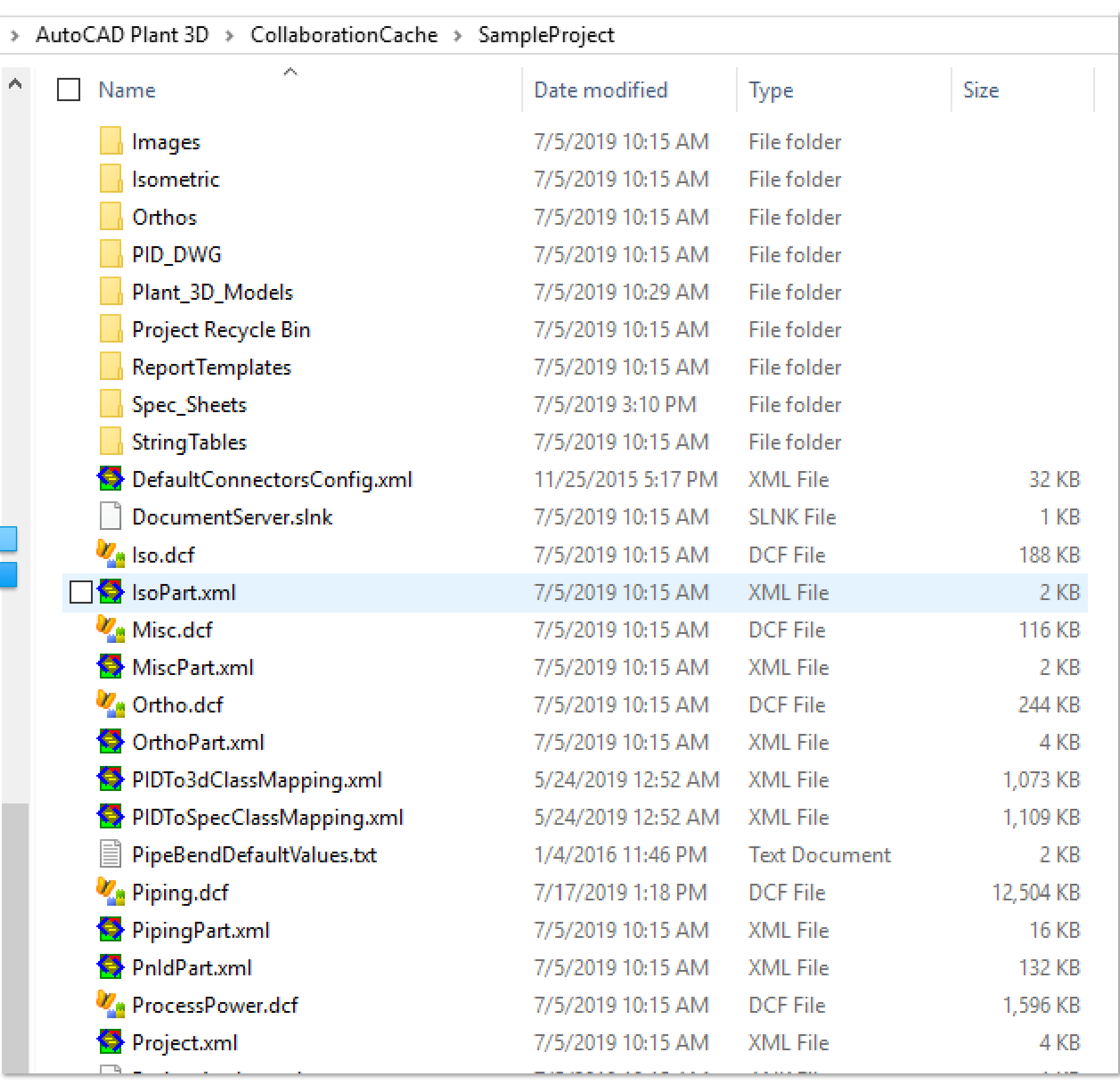
How does Collaboration for AutoCAD Plant 3D work?



BIM 360 Docs and the Collaboration Cache



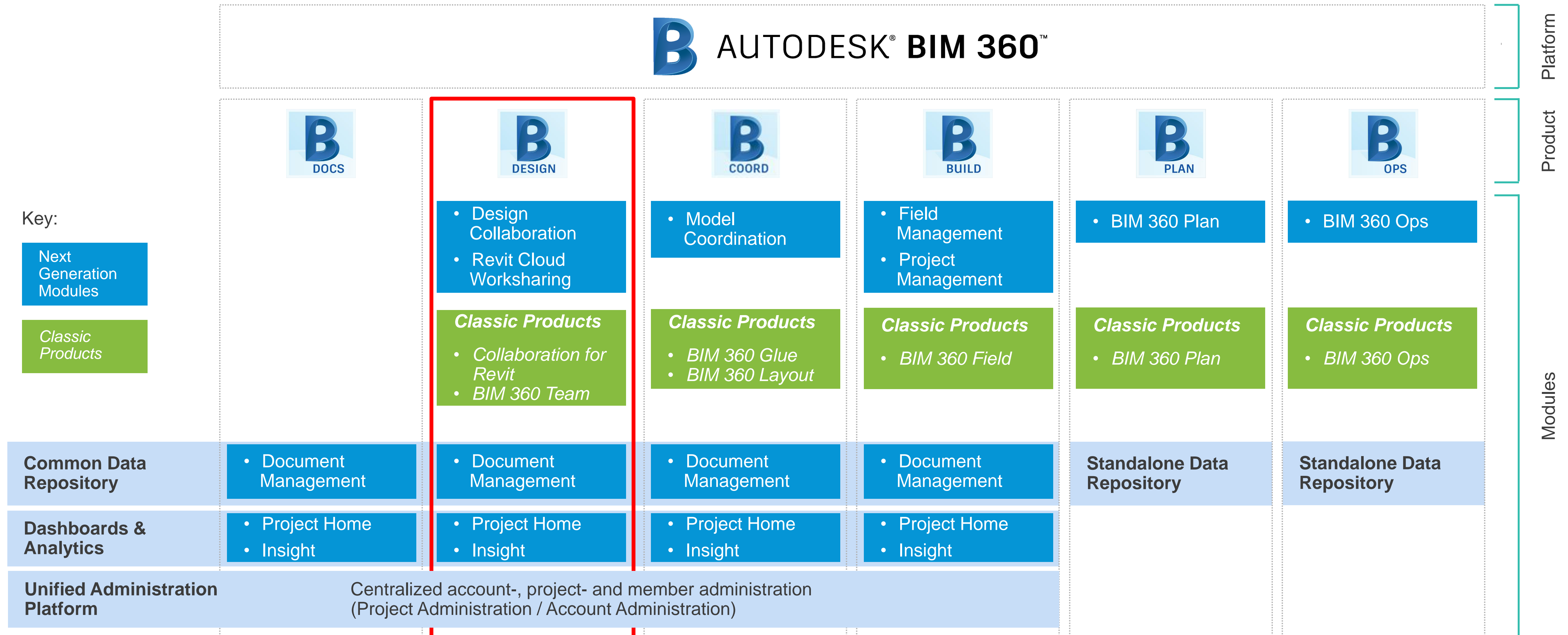
BIM 360 Docs Project



Collaboration Cache

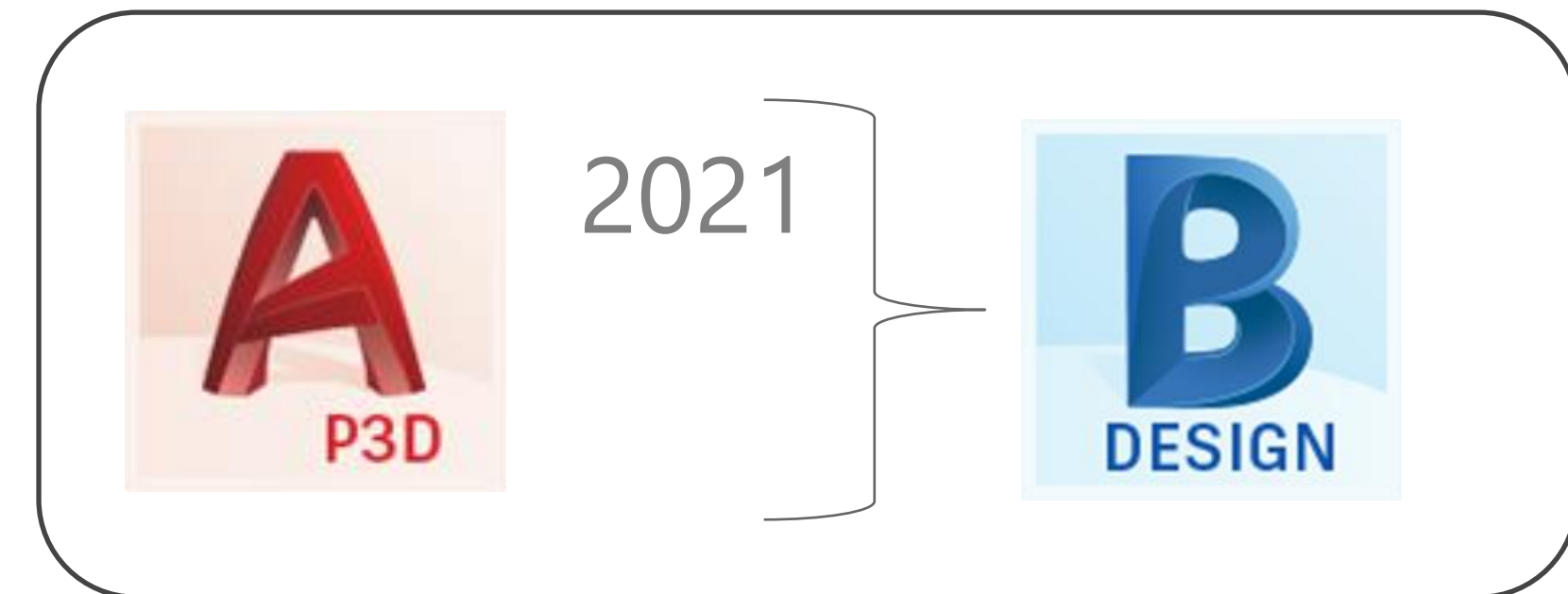
Autodesk BIM 360 Platform

BIM 360 is a platform and represents several product offerings



Note: BIM 360 Glue Product was renamed to **BIM 360 Coordinate** on Jun 7, 2019.

Versions and Platforms

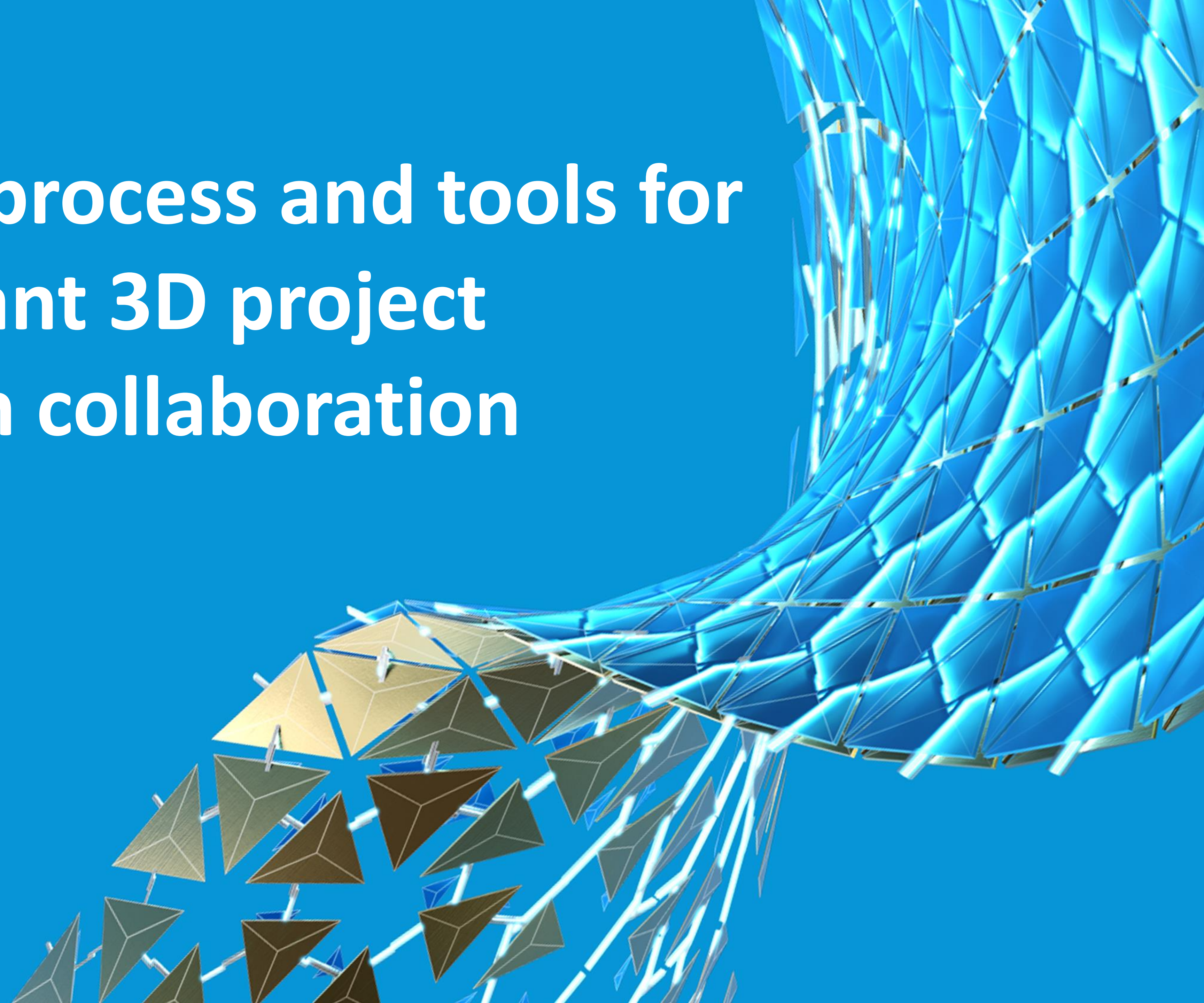


- No migration required between versions 2018 to 2021
- No file format change 2018 to 2021

Environment Configuration

- **All Plant 3D Users will need to;**
 - have “Collaboration for AutoCAD Plant 3D” enabled in the “BIM 360 Design” entitlement enabled in Autodesk Account.
 - be able to access BIM 360 from their workstation.
 - Following pages will briefly go through setting up the BIM 360 Account, BIM 360 Project and inviting users.
 - Have a selection of users validate that they can access the BIM 360 Project in a web browser.
- **Plant 3D 2021 must be installed as a minimum to use collaboration with BIM 360 Docs.**
 - For collaboration projects it is more important than ever to install the latest updates to reduce issues.
 - Check [Manage.Autodesk.com](https://manage.autodesk.com) for the latest available updates.

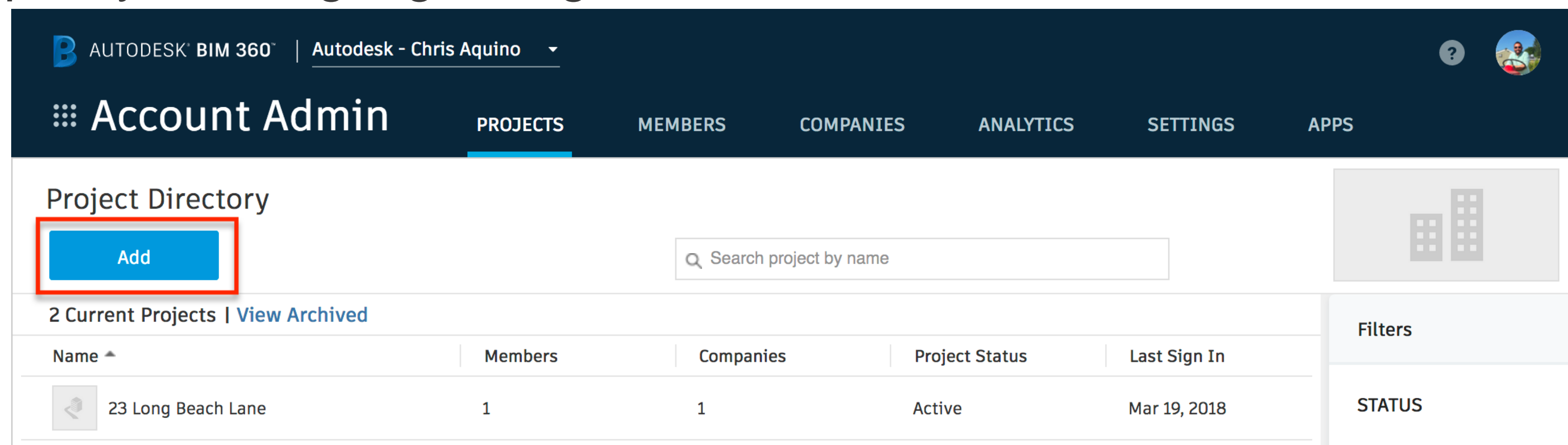
**Explore the process and tools for
AutoCAD Plant 3D project
managers on collaboration
projects**



Create a BIM 360 Project

Lets setup a Project for the users to practice their new skills.

- An Account administrator should set-up a new BIM 360 Project
- Account administrators can create projects and assign project administrators to BIM 360 services. To create a project:
 1. In Account Administration, click Projects, then Add.
 2. In the Create Project Profile dialog box, specify the project name, and enter the project information. Required fields are marked with an asterisk.
 3. Specify the language. English is the default.



The screenshot displays the Autodesk BIM 360 Account Admin interface. The top navigation bar includes the Autodesk BIM 360 logo, the user name "Autodesk - Chris Aquino", and a help icon. Below this, the "Account Admin" section is active, with tabs for PROJECTS, MEMBERS, COMPANIES, ANALYTICS, SETTINGS, and APPS. The "Project Directory" section features a blue "Add" button (highlighted with a red box) and a search bar labeled "Search project by name". Below the search bar, it indicates "2 Current Projects | View Archived". A table lists the current projects with columns for Name, Members, Companies, Project Status, and Last Sign In. The first project listed is "23 Long Beach Lane" with 1 member, 1 company, and an "Active" status, last signed in on "Mar 19, 2018". A "Filters" sidebar is visible on the right.

Name	Members	Companies	Project Status	Last Sign In
23 Long Beach Lane	1	1	Active	Mar 19, 2018

Service Activation

- After creating a project profile, choose the services to activate. For Collaboration for Plant 3D projects, activate the Document Management service and assign a service Admin.

The screenshot displays the Autodesk BIM 360 Project Admin interface. The top navigation bar includes the Autodesk BIM 360 logo, the project name "ABC Construction > Plant 2021 Collaboration Demo (Manning)", and a user profile icon. The main navigation menu on the left lists "Project Admin", "MEMBERS", "COMPANIES", "SERVICES", and "PROFILE". The "SERVICES" tab is selected, leading to the "Project Services and Admins" section. This section contains a description: "Project Services & Admins is where you can activate and manage project service modules, add and remove service admins, and manage the settings of active services." Below this, there is a list of services. The "Document Management" service is currently active (indicated by a green dot) and has an assigned admin, David Manning (david.manning@autodesk.com). The "Project Management" and "Cost Management" services are inactive (indicated by orange dots) and have "Activate" buttons. The "Model Coordination" service is active (indicated by a green dot) and has a "Show Admins" button. A "Copy project settings (Learn more)" link is also present.

AUTODESK® BIM 360® | ABC Construction > Plant 2021 Collaboration Demo (Manning) ▾

Project Admin MEMBERS COMPANIES SERVICES PROFILE

Overview
Issues

Document Management
Model Coordination

Project Services and Admins

Project Services & Admins is where you can activate and manage project service modules, add and remove service admins, and manage the settings of active services.

● Active Document Management Hide Admins ^

Copy project settings ([Learn more](#))

Select Project ▾

David Manning
david.manning@autodesk.com

+

● Inactive Project Management Activate

● Inactive Cost Management Activate

● Active Model Coordination Show Admins v

Invite Team Members to the Project

Project Admin / Members

- Project Administrator should select the members tab in the Project Admin module.

Project Admin

MEMBERS

Project Home

Doc Man

Project Admin

Project Admin

MEMBERS

COMPANIES

SERVICES

PROFILE

Add Project Members

Cancel

Add to Project

Enter Names or Email Addresses

Select

Name	Email	Company	Roles	Project Admin				
	manningC4P@gmail.com	Drafting Service Co	Designer *					

1

2

4

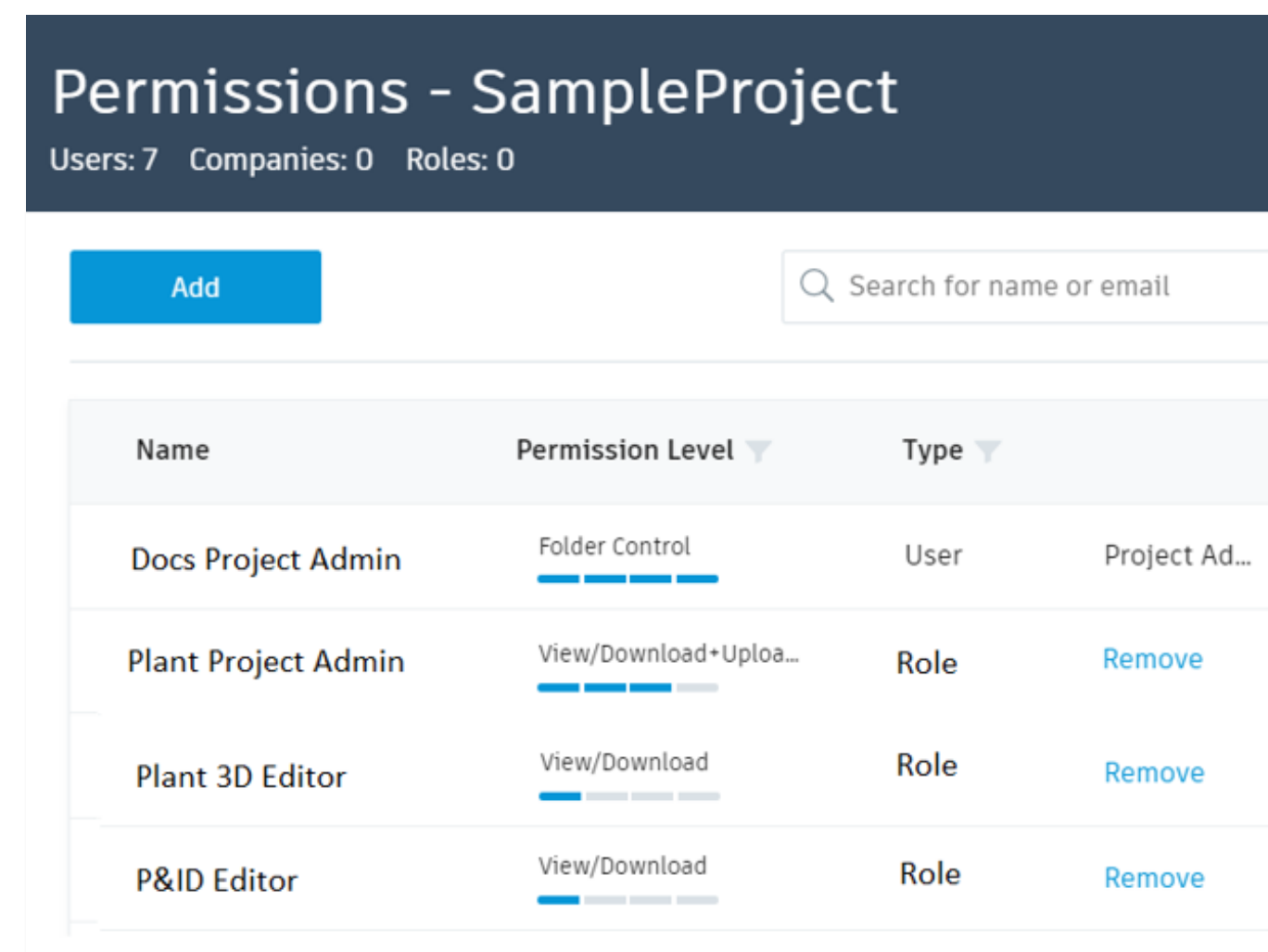
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3

Add users Folder Access Permissions

- As a project administrator, you can restrict project member access to certain folders or limit access according to role or company.
- Sub-folders automatically inherit the permission level of the parent folder, but can be changed later. If changed, sub-folder permissions must match the access level of the parent folder or else have a greater (less restricted) access level than the parent folder.



The screenshot shows a web interface titled "Permissions - SampleProject". Below the title, it indicates "Users: 7", "Companies: 0", and "Roles: 0". There is a blue "Add" button and a search bar labeled "Search for name or email". Below these is a table with columns: "Name", "Permission Level", and "Type". The table lists four entries: "Docs Project Admin" (User, Folder Control), "Plant Project Admin" (Role, View/Download+Uploa...), "Plant 3D Editor" (Role, View/Download), and "P&ID Editor" (Role, View/Download). Each entry has a "Remove" link.

Name	Permission Level	Type	
Docs Project Admin	Folder Control	User	Project Ad...
Plant Project Admin	View/Download+Uploa...	Role	Remove
Plant 3D Editor	View/Download	Role	Remove
P&ID Editor	View/Download	Role	Remove

- For more details on Folder Permissions see here: [Folder Permissions](#)

Add users Folder Access Permissions

Example of a highly controlled (Low Trust) permissions settings

Plant Project Folder

Permissions - SampleProject

Users: 7 Companies: 0 Roles: 0

Add

Search for name or email

Name	Permission Level	Type	
Docs Project Admin	Folder Control	User	Project Ad...
Plant Project Admin	View/Download+Uploa...	Role	Remove
Plant 3D Editor	View/Download	Role	Remove
P&ID Editor	View/Download	Role	Remove

P&ID DWG Folder

Permissions - PID_DWG

Users: 7 Companies: 0 Roles: 0

P&ID Editor

View/Download+Uploa...

Plant 3D Editor

View/Download

3D Models Folder

Permissions - Plant_3D_Models

Users: 7 Companies: 0 Roles: 0

P&ID Editor

View/Download

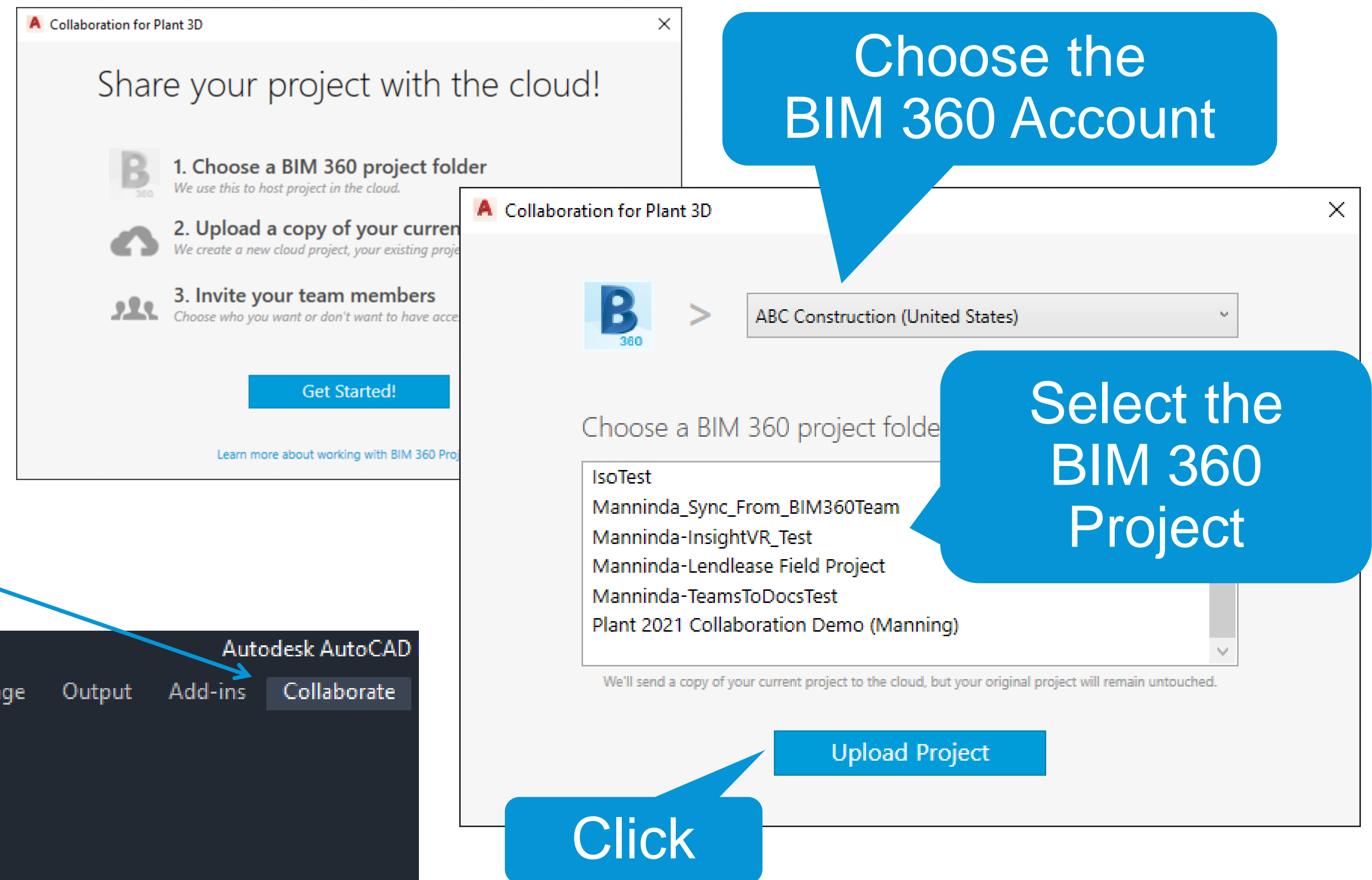
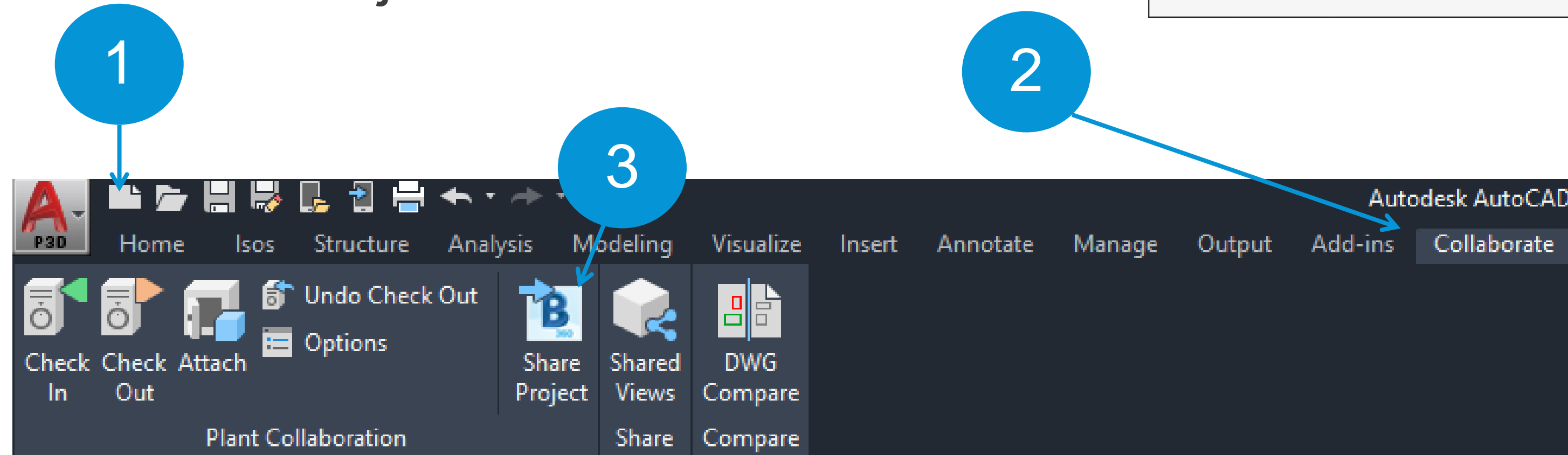
Plant 3D Editor

View/Download+Uploa...

- Also consider permissions for folders like; Isometrics, Orthos, Project Recycle Bin, etc.
- For more details on Folder Permissions see here: [Folder Permissions](#)

Share a Plant 3D Project for Collaboration

- A Plant 3D collaboration project starts with an existing non collaboration project.
- Following the check window, the share project window opens.
- Open the project in Plant 3D.
- Open any drawing, preferably a non-project drawing (e.g. QNEW (1)). This activates the ribbon, then select the “Collaborate” Tab (2), then select the “Share Project” button.



Back-up a Plant 3D Collaboration Project

Or to back up any Plant 3D project.

1 Project browser: The 'Project' pane on the left shows the 'SampleProject' tree. The 'Create Project Backup' option is highlighted in the 'Project' menu.

2 Plant Project Backup dialog box: The dialog box displays the following information:

- 3** exclusive project access
You are all alone in here.
- 4** 22 MB of space
D:\OneDrive - autoc [Change](#)
- 5** a few minutes
- 6** Backup Project Now

7 Plant Project Backup dialog box: The dialog box shows a progress bar and the text 'Creating project backup copy (as fast as we can)'. The 'Cancel' button is visible.

8 Plant Project Backup dialog box: The dialog box shows a progress bar and the text 'downloading...'. The 'Cancel' button is visible.

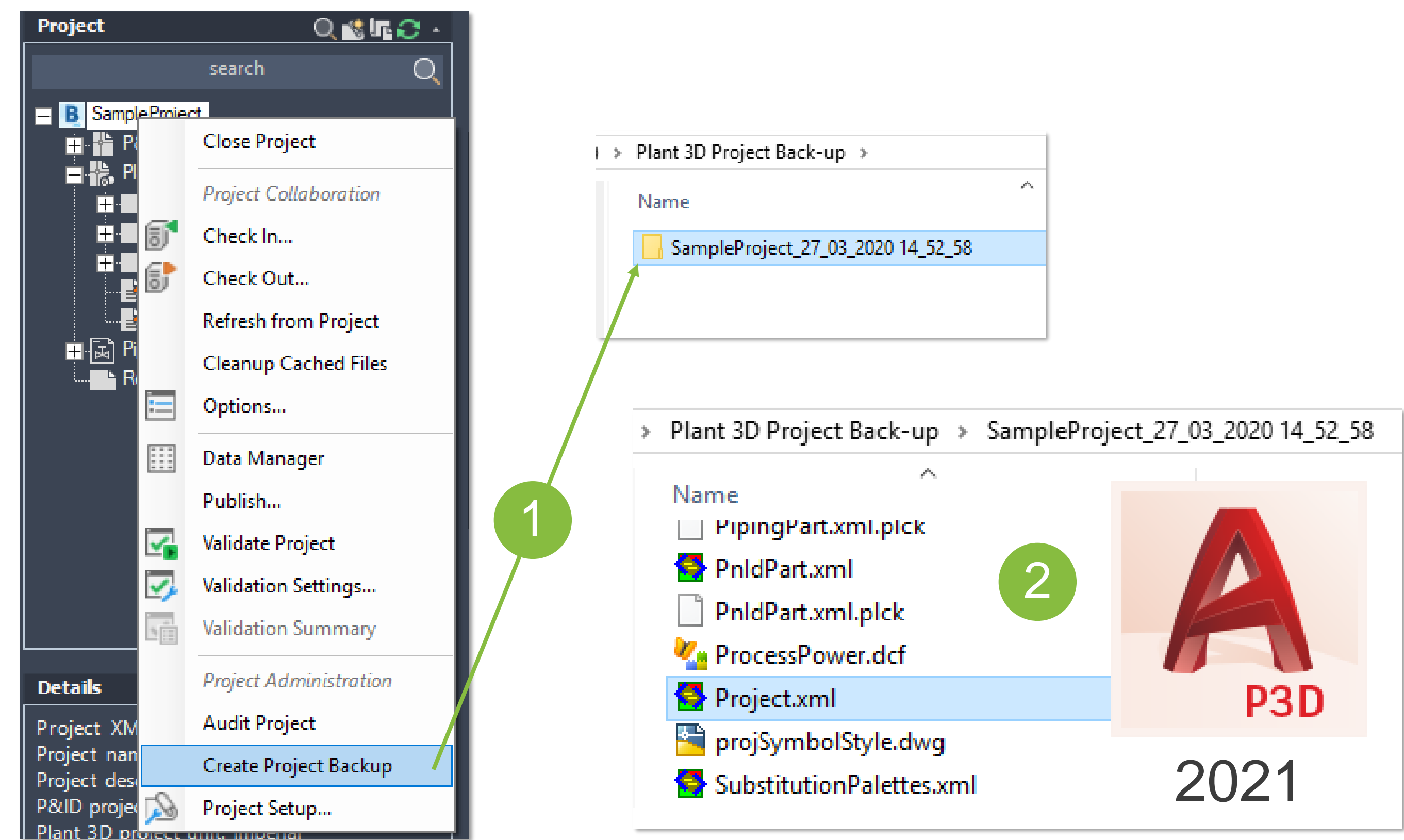
9 File explorer: The file explorer shows the contents of the backup folder 'SampleProject_29_07_2019 11_40_12'. The files listed are:

- Images
- Isometric
- Orthos
- PID_DWG
- Plant_3D_Models
- Project Recycle Bin
- ReportTemplates
- Spec_Sheets
- StringTables
- DefaultConnectorsConfig.xml
- DocumentServer.slnk
- Iso.dcf
- IsoPart.xml
- IsoPart.xml.plck
- Misc.dcf
- MiscPart.xml
- MiscPart.xml.plck
- Ortho.dcf
- OrthoPart.xml
- OrthoPart.xml.plck
- PIDTo3dClassMapping.xml
- PIDToSpecClassMapping.xml
- PipeBendDefaultValues.txt
- Piping.dcf
- PipingPart.xml
- PipingPart.xml.plck
- PnldPart.xml
- PnldPart.xml.plck

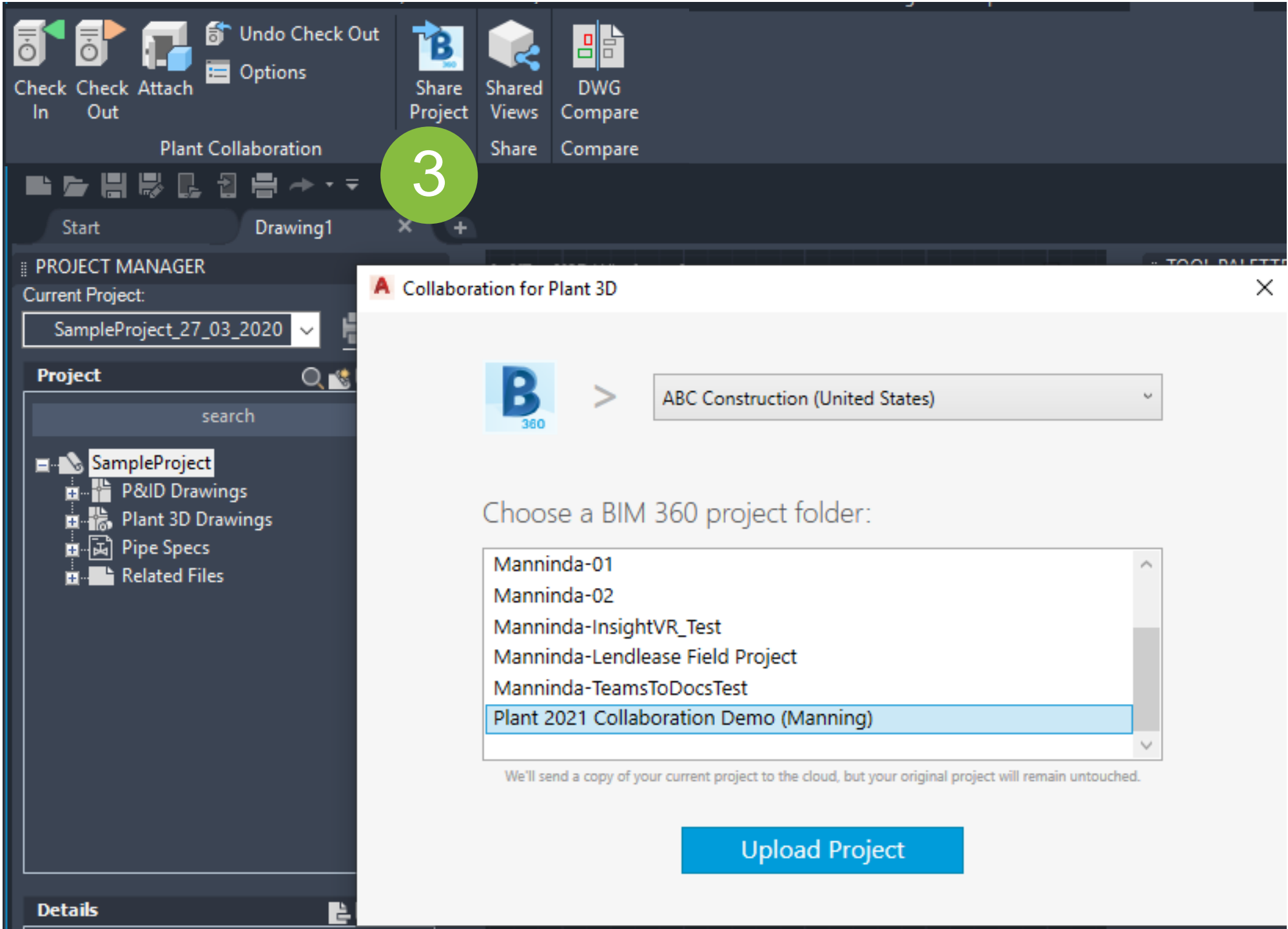
How to Convert a BIM 360 Teams Project

Backup BIM 360 Teams Project

Share to BIM 360 Docs

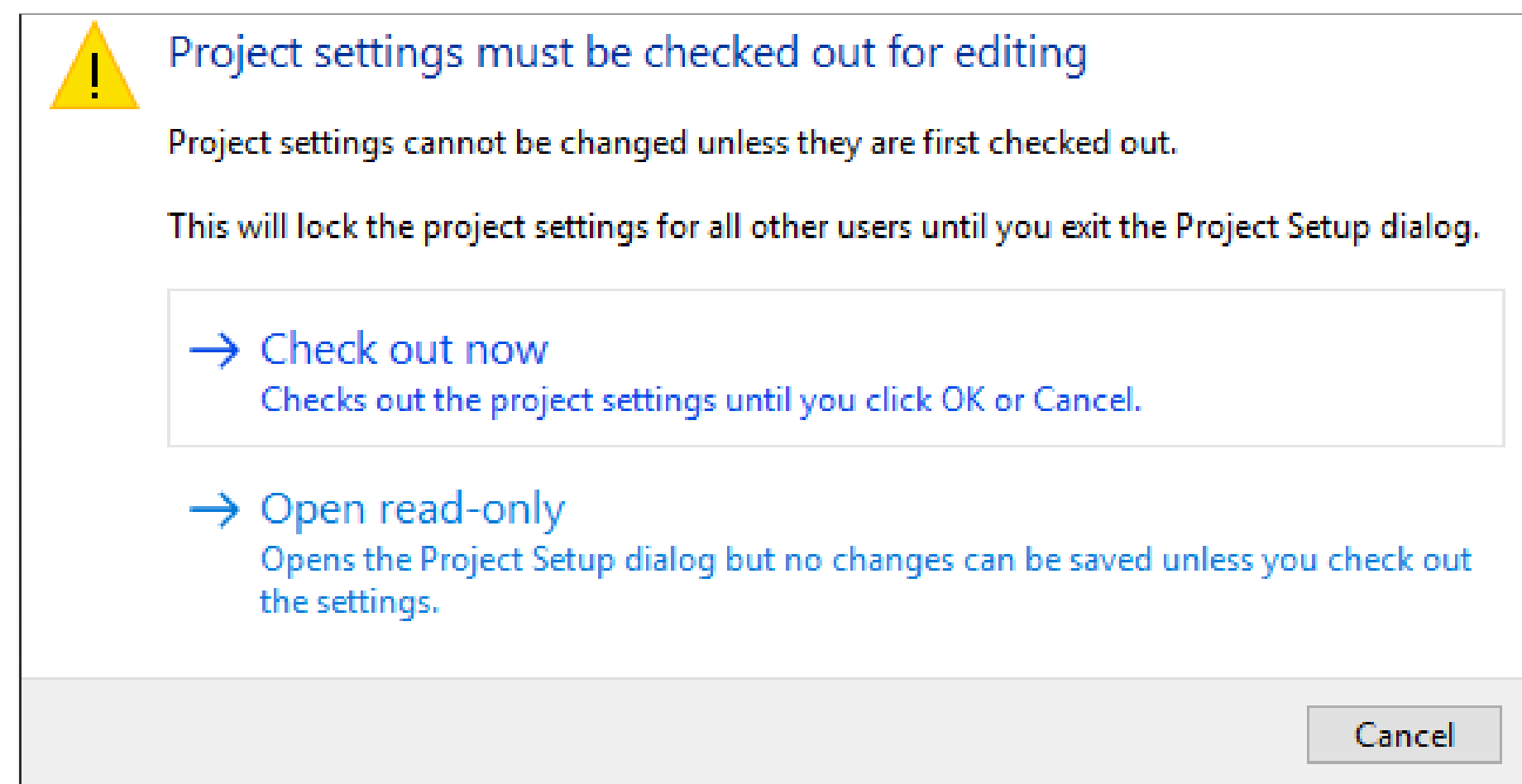


Open in Plant 3D 2021

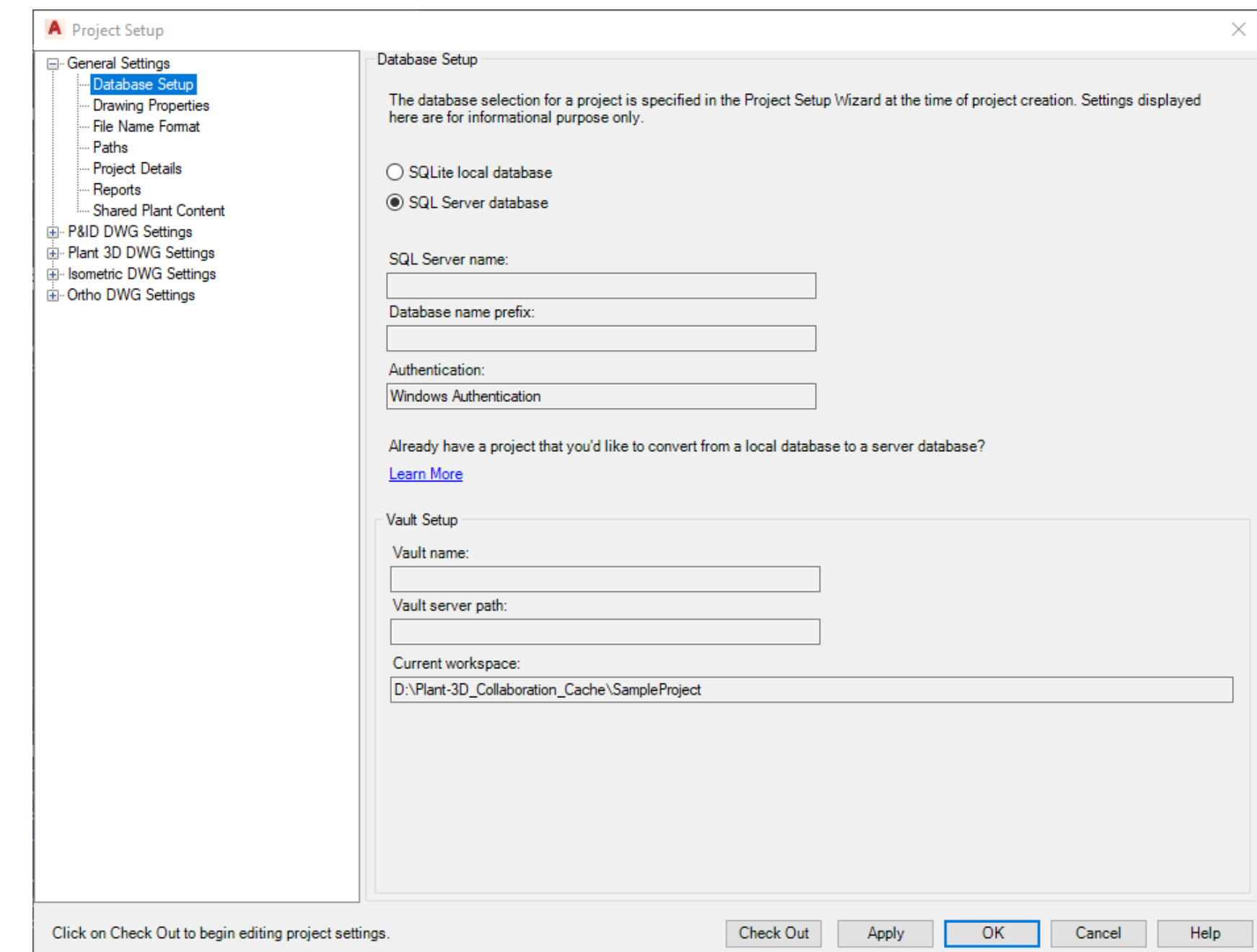


Editing Project Set-up for Collaboration Projects

- Collaboration for Plant 3D introduces Check-out and Check-in functionality to Project workflows. This has the advantage of being able to edit project set-up while users are in the project. The settings will copy to their workspace.
- Now when opening project setup you will now be asked if you want to check it out.



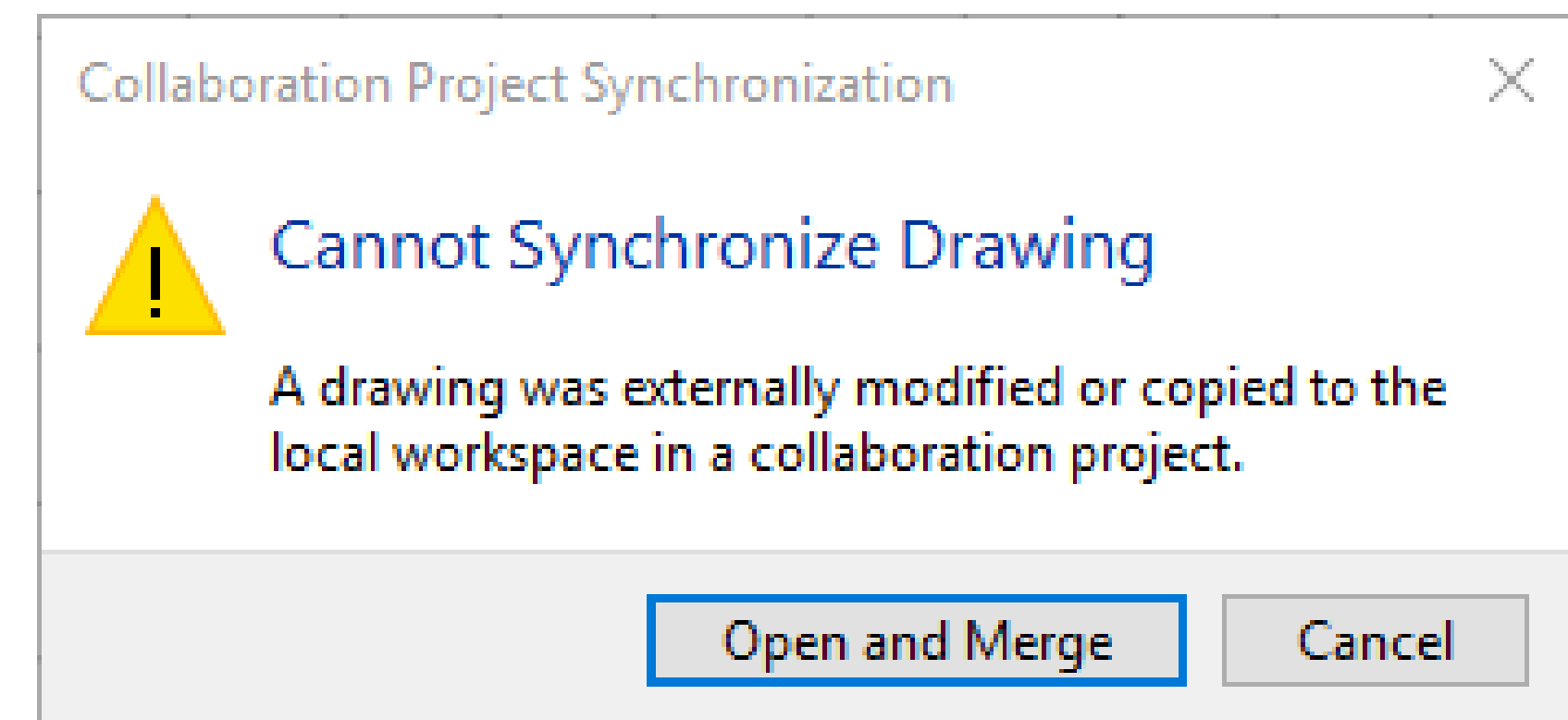
- If you open it read only you can check out later without exiting setup.



- APPLY updates the online project but setup remains checked out to you.
- OK checks project setup back in.

Restoring a Previous Version of a File

- In some cases it may be needed to revert a drawing to a previous version.
- Do not use the BIM 360 “promote” function to do this. Doing will result in drawing corruption
- Correct Process:
 1. Check-out the drawing from Plant 3D Project Manager (without opening).
 2. From BIM 360, download the required version. Save this version over the local file in the folder in the collaboration cache.
 3. Open the drawing in Plant 3D. You will be warned that the drawing is out of sync.
 4. Select Open and Merge option to sync the drawing to the project.
 5. Check-in the drawing.
 6. The drawing should be successfully restored.



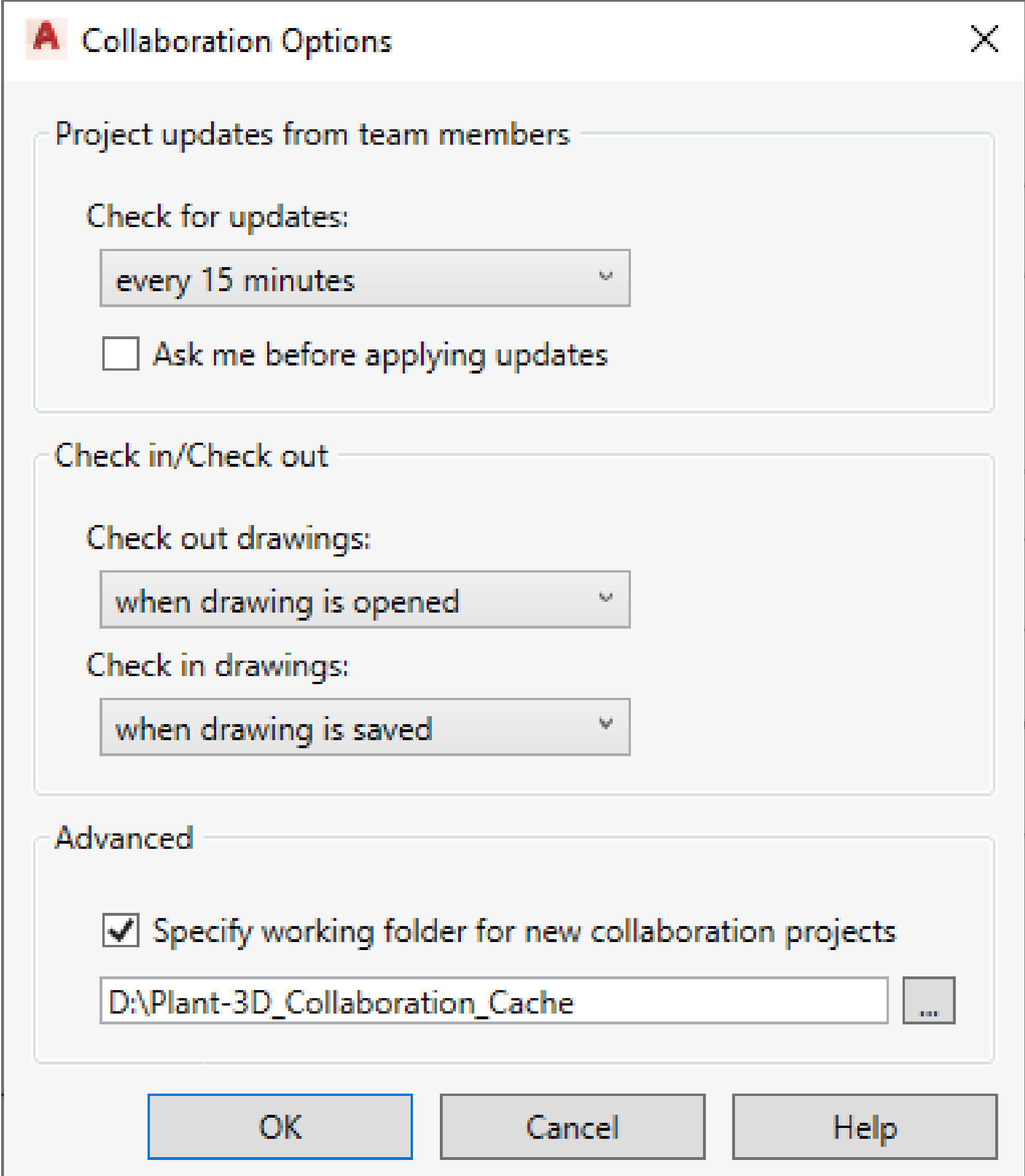
The background features a series of overlapping, translucent blue and white geometric shapes, including curved planes and sharp, pointed structures that resemble stylized architectural elements or a modern sculpture. A semi-transparent white rectangular box is positioned in the upper left, containing the text.

Other Project resources to Consider and Manage with Collaboration Projects

User Environment Options

To control or Not to Control

- Project Updates: Refreshes the Project manager on the specified cycle
- Check-in and out options
 - Check-out
 - When drawing is opened (default)
 - Manually
 - Check-in
 - When drawing is saved (default)
 - When drawing is closed
 - Manually
- Working Folder (a.k.a Collaboration Cache):
The location a project is stored when it is first opened from BIM 360.



The screenshot shows the 'Collaboration Options' dialog box. It has a title bar with a red 'A' icon and a close button. The dialog is divided into three sections: 'Project updates from team members', 'Check in/Check out', and 'Advanced'. In the first section, 'Check for updates' is set to 'every 15 minutes' and 'Ask me before applying updates' is unchecked. In the second section, 'Check out drawings' is set to 'when drawing is opened' and 'Check in drawings' is set to 'when drawing is saved'. In the third section, 'Specify working folder for new collaboration projects' is checked, and the folder path is 'D:\Plant-3D_Collaboration_Cache'. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

Collaboration Options

Project updates from team members

Check for updates:
every 15 minutes

☐ Ask me before applying updates

Check in/Check out

Check out drawings:
when drawing is opened

Check in drawings:
when drawing is saved

Advanced

☒ Specify working folder for new collaboration projects

D:\Plant-3D_Collaboration_Cache

OK Cancel Help

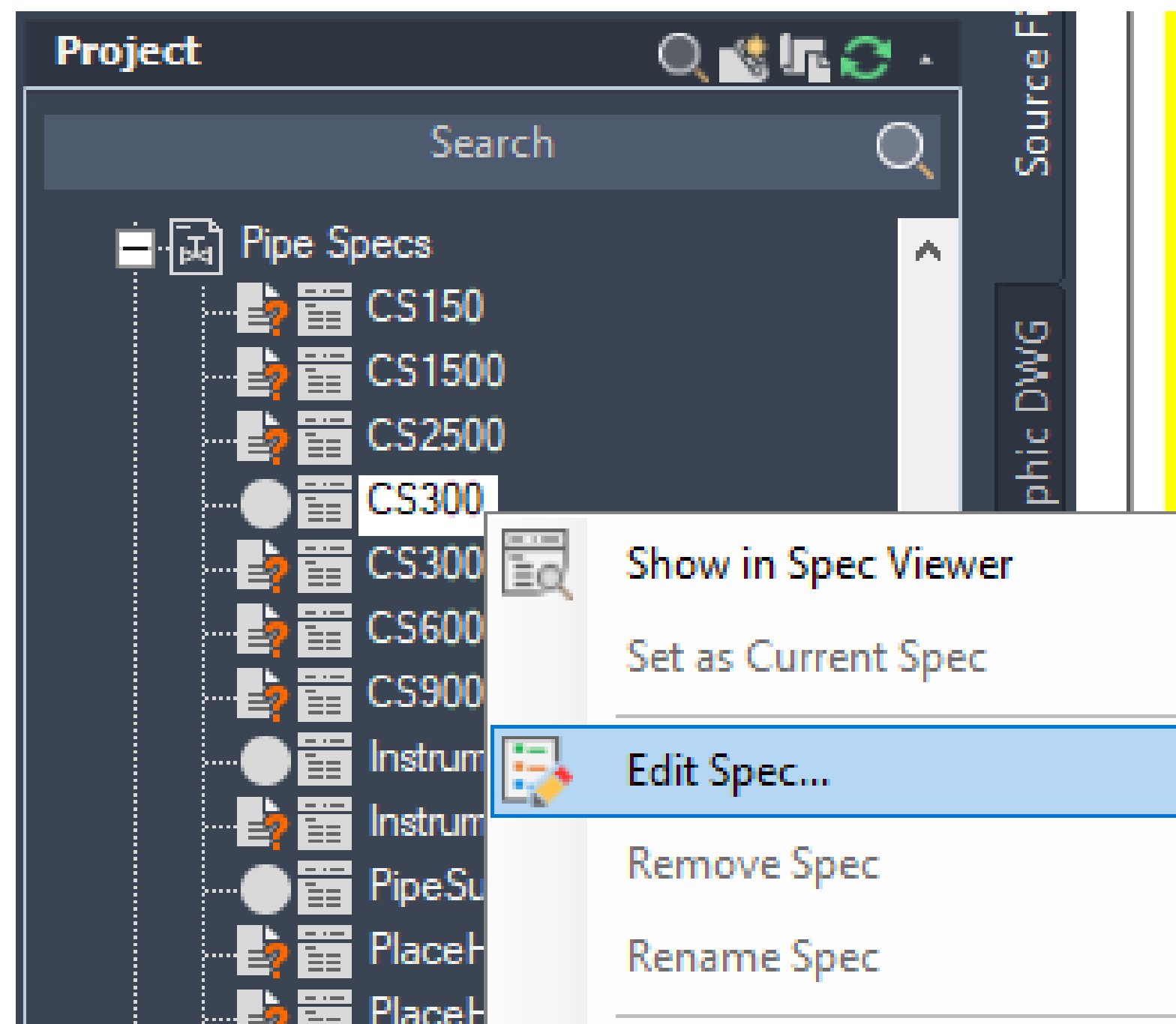
General Considerations for Shared Content

- When working on a Collaboration for Plant 3D project, Plant 3D manages most files but not all of them that may be necessary in a collaborative user environment.
- System Administrators need to think about what resources or content may be needed to be accessed by those not on the local network, or other standard corporate file share systems. Some examples of these are: AutoCAD profiles, tool palettes, Catalogues and template files.
- Another thing to consider is how this content is best shared with all Plant 3D users.
 - Would existing corporate systems suffice?
 - What is the most appropriate file sharing platform for shared content?
BIM 360 Teams will store almost any file type, however Plant 3D is limited in the file types this can be managed by the project and only DWGs can be managed as project Source files, Orthographics or Isometrics.
 - How will access and rights be managed?
- Reference article: [Using Desktop Connector for Plant 3D Shared Content Folder](#)

Spec and Catalog Management

Project Specs vs Shared Content

- Project Specs are stored within the Project and are managed by Plant 3D project manager.
- To edit these, use project manager.
- Shared content is stored (default) in C:\AutoCAD Plant 3D 2020 Content\...
- Shared Content Specs are imported into new projects (if you are not using a template project).



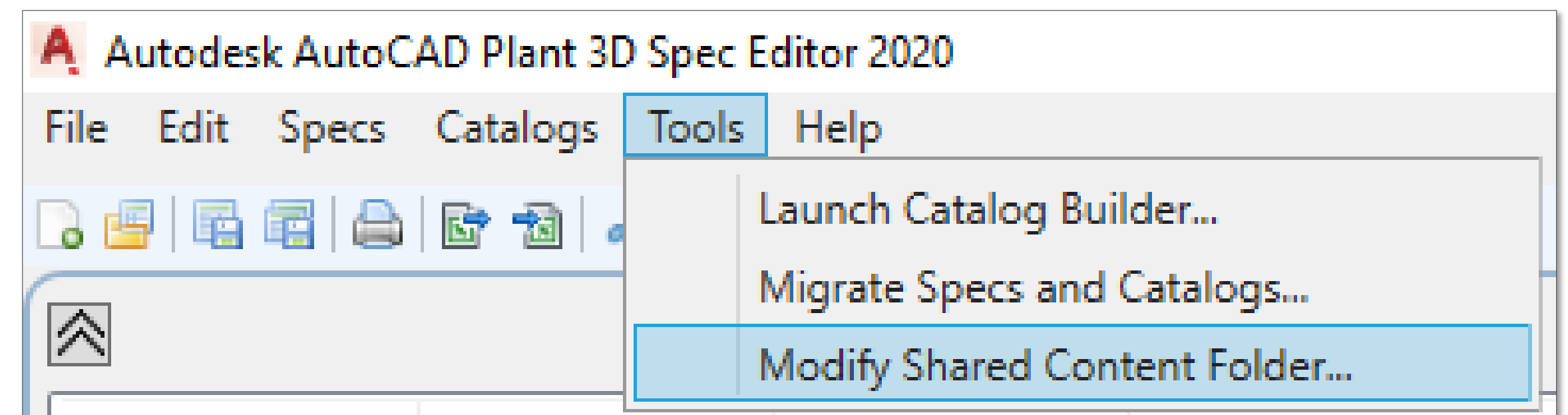
Windows (C:) > AutoCAD Plant 3D 2020 Content > CPak ASME	
Name	Date modified
ASME Pipes and Fittings Catalog	5/07/2019 12:30
ASME Valves Catalog	5/07/2019 12:30
ASME Pipes and Fittings Catalog.pcat	7/01/2019 00:32
ASME Valves Catalog.pcat	7/01/2019 00:32
CS150.pspc	7/01/2019 00:33
CS150.pspcx	7/01/2019 00:27
CS300.pspc	7/01/2019 00:33
CS300.pspcx	7/01/2019 00:27
CS600.pspc	7/01/2019 00:33
CS600.pspcx	7/01/2019 00:27
CS900.pspc	7/01/2019 00:33
CS900.pspcx	7/01/2019 00:27
CS1500.pspc	7/01/2019 00:33
CS1500.pspcx	7/01/2019 00:27

Spec and Catalog Management

Do catalogues need to be shared?

- For general users, Specs don't need to be shared as they are managed by Plant 3D.
- Catalogues (specifically) don't need to be shared with users either. The catalogue support files however need to be able to be accessed by the project users. Dynamic tool palettes missing icons is an example of missing support content.
- Other files are accessed from the shared content location as well. For example, the configuration of the Ortho view cube edit environment.

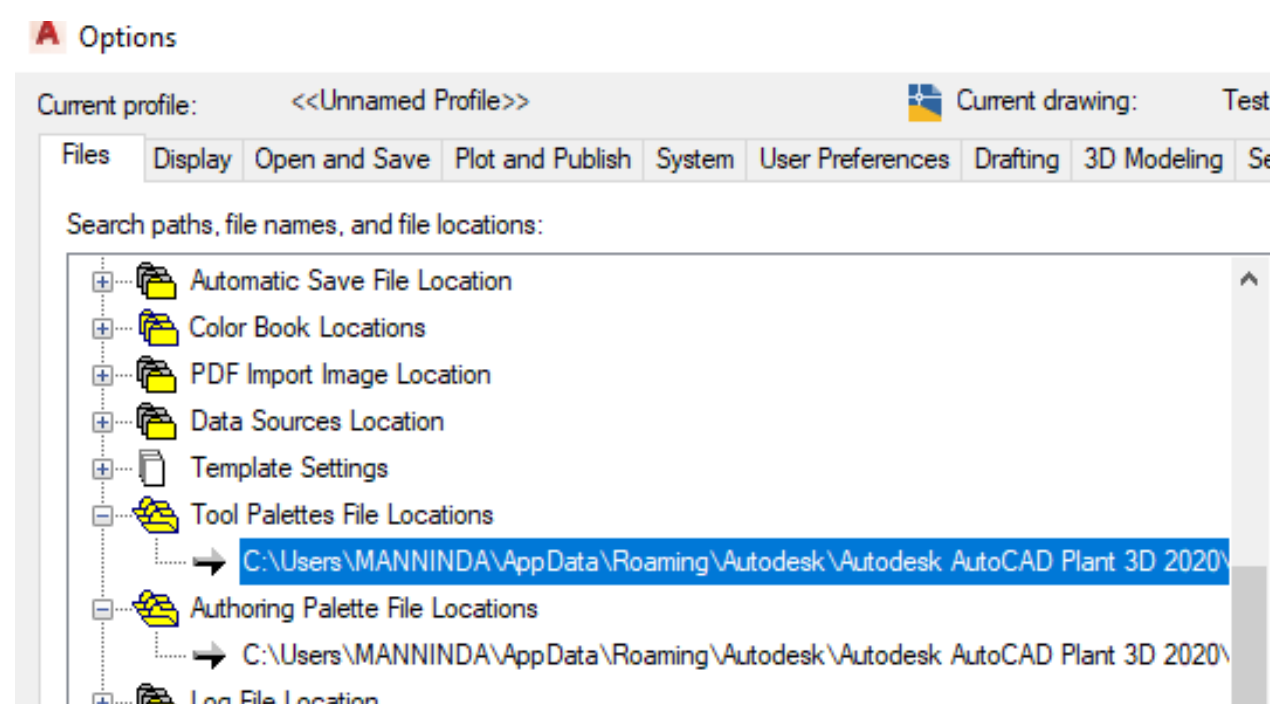
- For Administrators, it is important to define and manage a common shared content location. This ensures that all catalogue editors are able to edit the same files and that the edits are shared with all admins and users.
- How to edit the shared content location: Open the Spec Editor and select the menu 'Tools - Modify Shared Content Folder...'



- Rights to edit the local system Registry are required to do this.

Using Shared Tool palettes

- While Plant 3D modelling uses dynamic tool palettes linked to the specs, P&ID modelling does not and the parts need to be manually added.
- You may need to review the standard process for sharing Tool Palettes to accommodate collaboration projects.
- There are a number of different ways to share tool palettes, one example for network drives below can be adapted to reflect the collaboration project and the teams requirements.
- Have a look at the AutoCAD options for your Tool Palette locations.



AUTOCAD P&ID

LEARN DOWNLOADS TROUBLESHOOTING FORUMS

Project-Specific Tool Palettes for AutoCAD P&ID Projects

Products and versions covered ▼

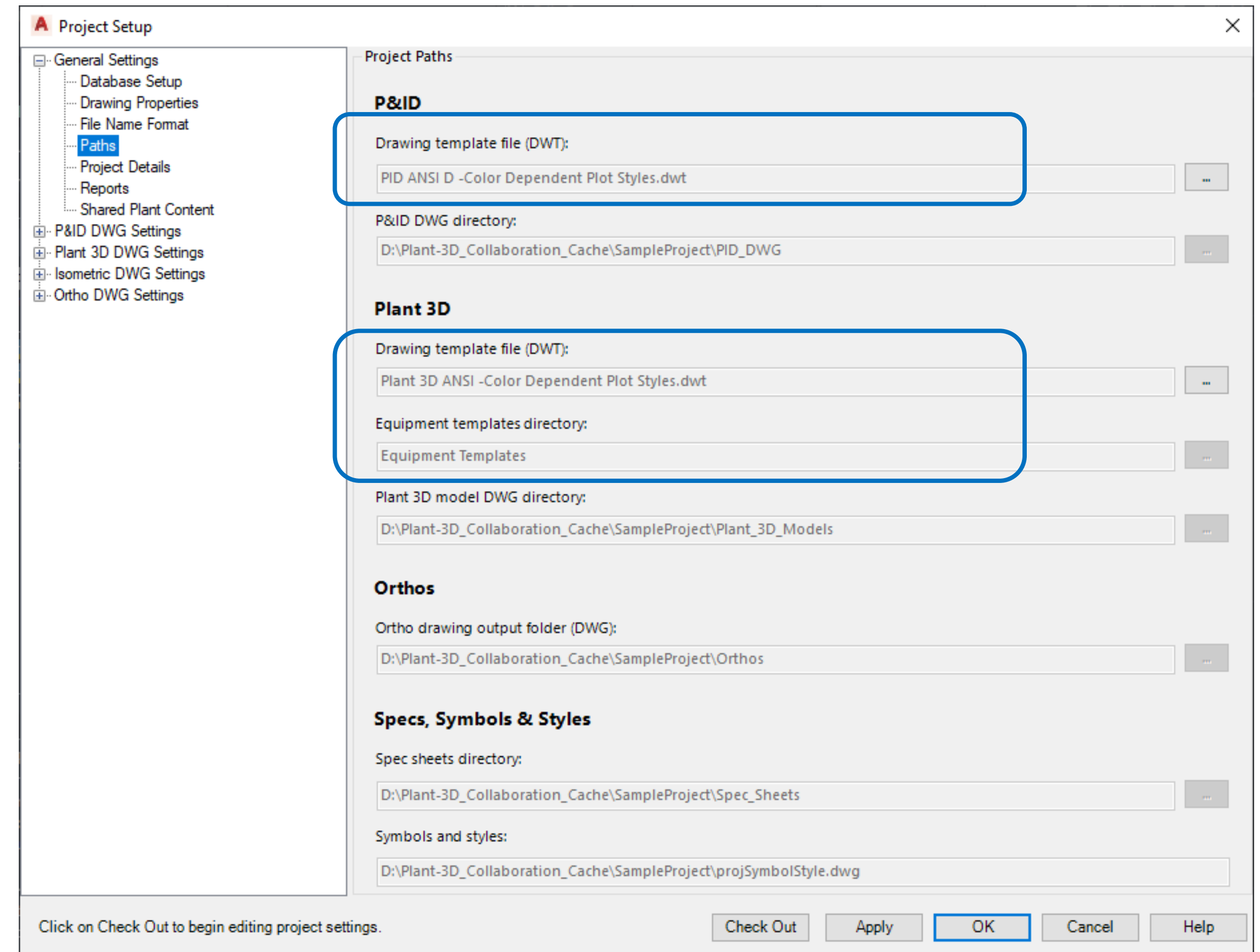
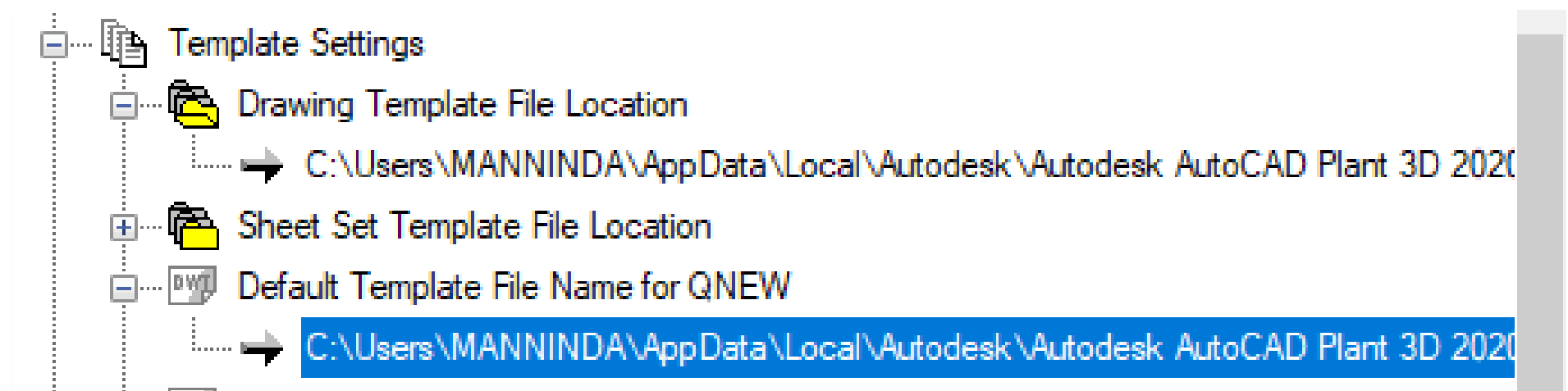
By:  AUTODESK Support
May 11 2018

<https://knowledge.autodesk.com/support/autocad-pid/learn-explore/caas/sfdarticles/sfdarticles/Project-Specific-Tool-Palettes-for-AutoCAD-P-ID-Projects.html>

Template Files

Where are the Template files and are they accessible to all users?

- AutoCAD can be very clever, and if it can not find the template files in the default location will search all supported locations. If the required template file is not found an alternative will be used. This can cause some confusion where a user does not have access to the corporate or project template files.
- The default template files are in the default AutoCAD directory. Look at the AutoCAD Options to find your setting.



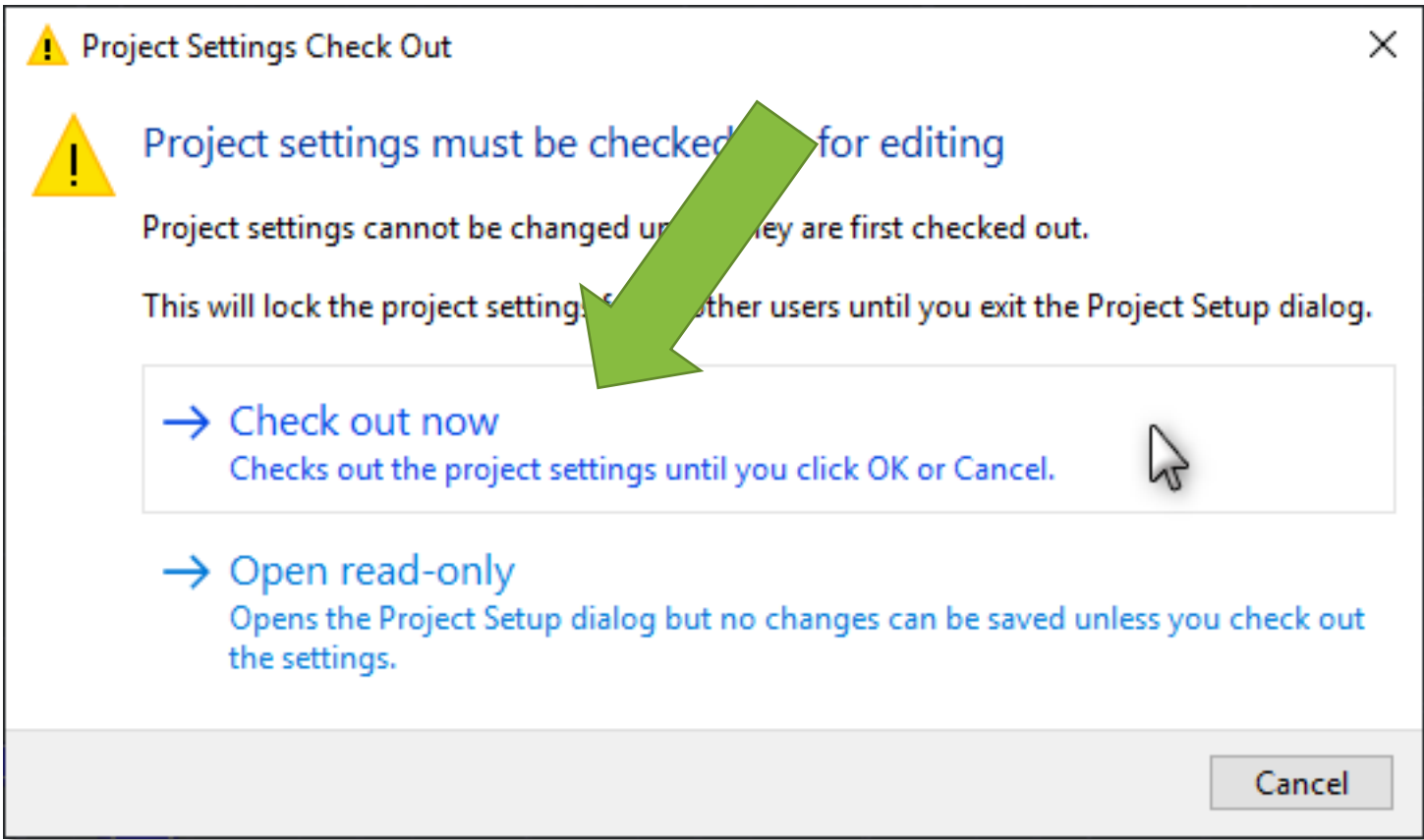
Collaboration Project Isometric Styles

- Create a new isometric style:
 - Open and check-out project settings.
 - Create a new style as normal.
 - Check in (OK) project setup when complete.
- To edit an existing isometric style:
 - Open and check-out project settings.
 - Edit the isometric style as normal.
 - Check in (OK) project setup when complete.
- Settings will copy to users local workspace in due course.

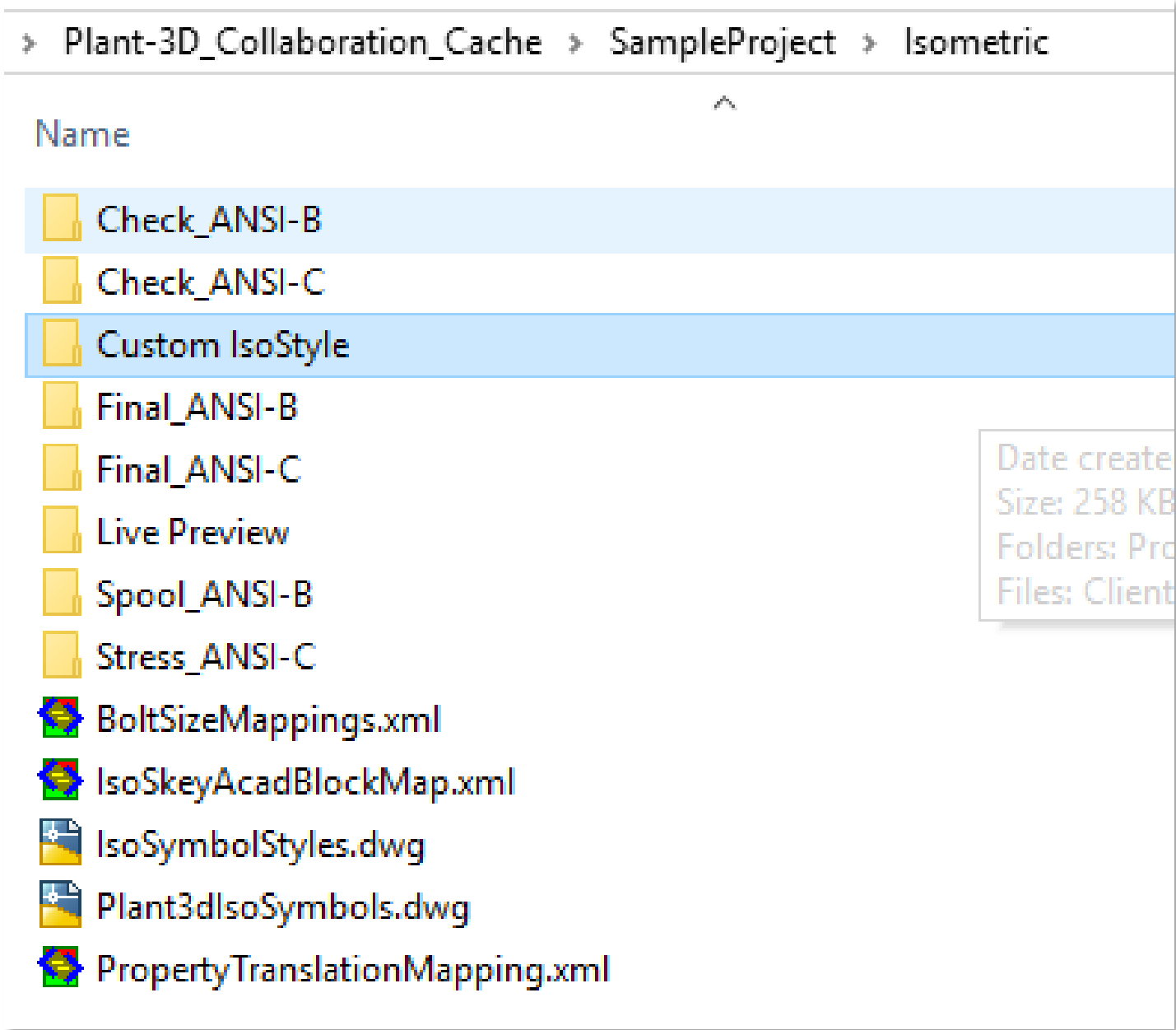
Collaboration Project Isometric Styles

Delete a Collaboration Isometric Style

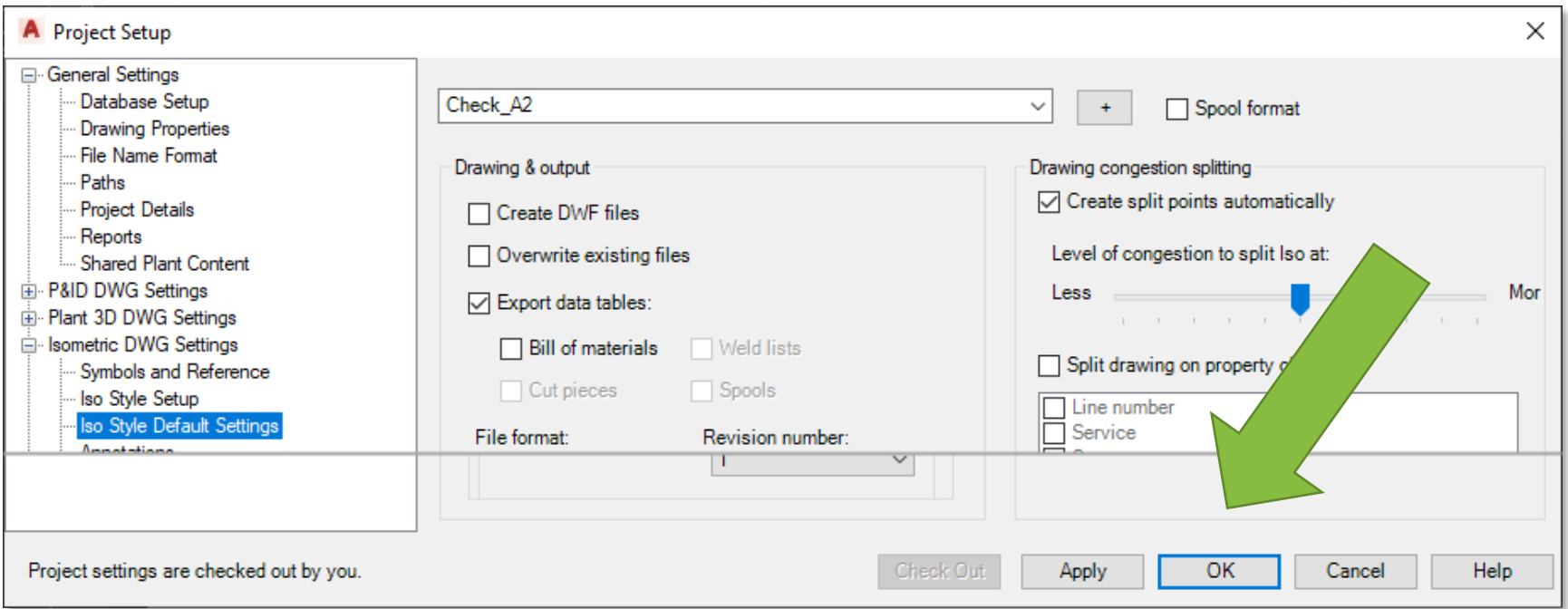
1) Checkout Project Setup



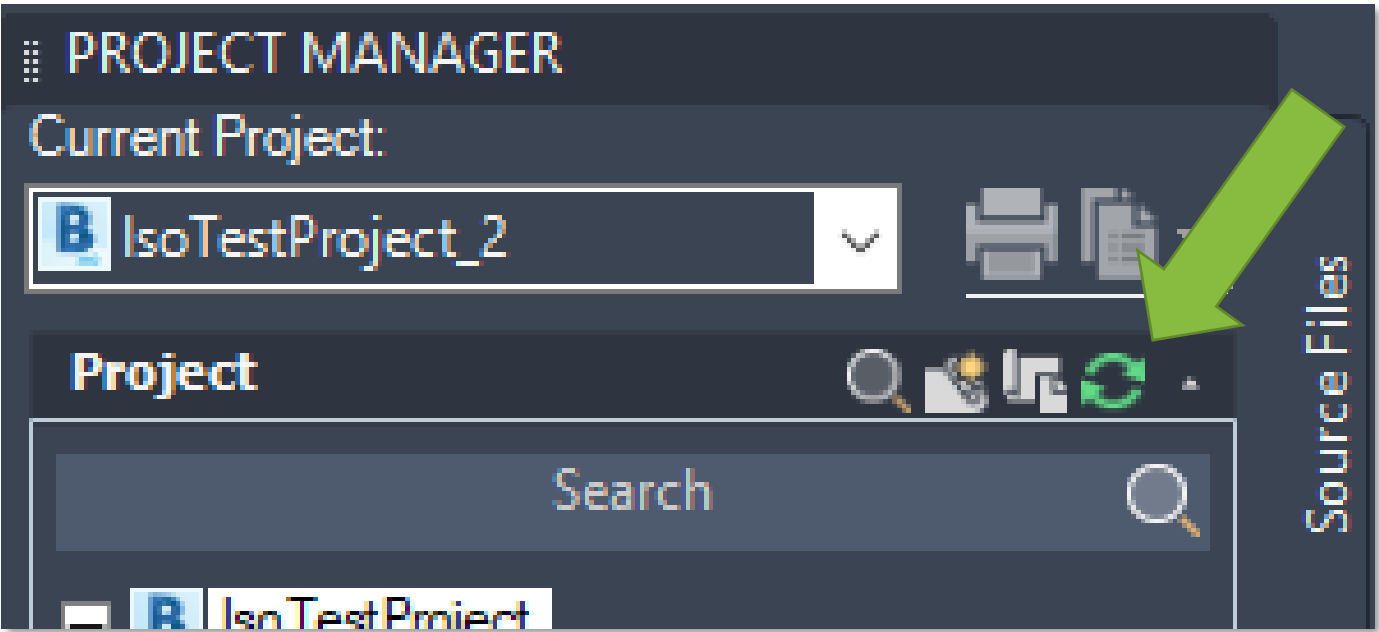
2) Manually Delete the Isometric Style Folder



3) Check In Project Set-up “OK” Button.



4) Refresh DWG Status

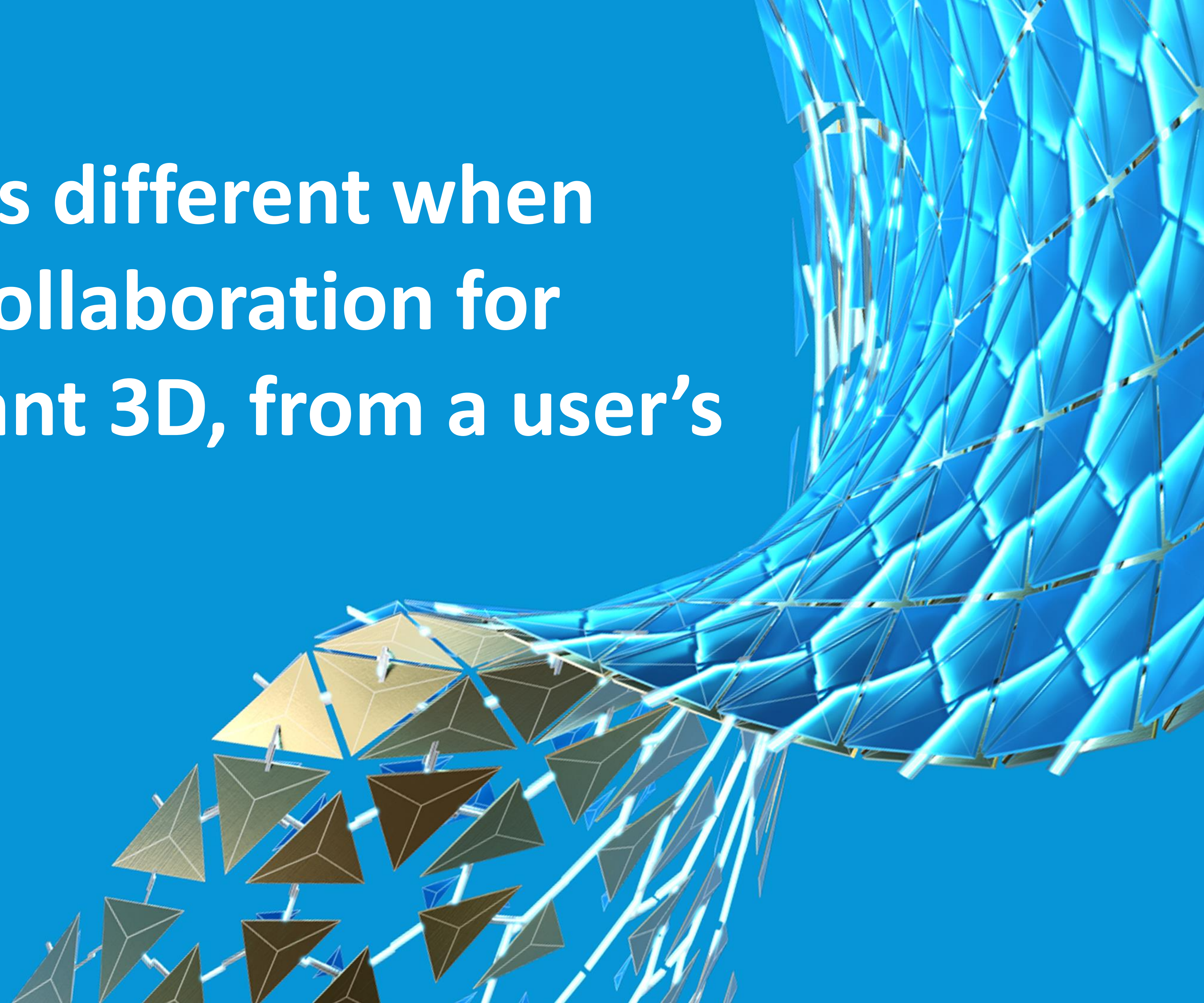


Resolving Files Outside the Project Folder

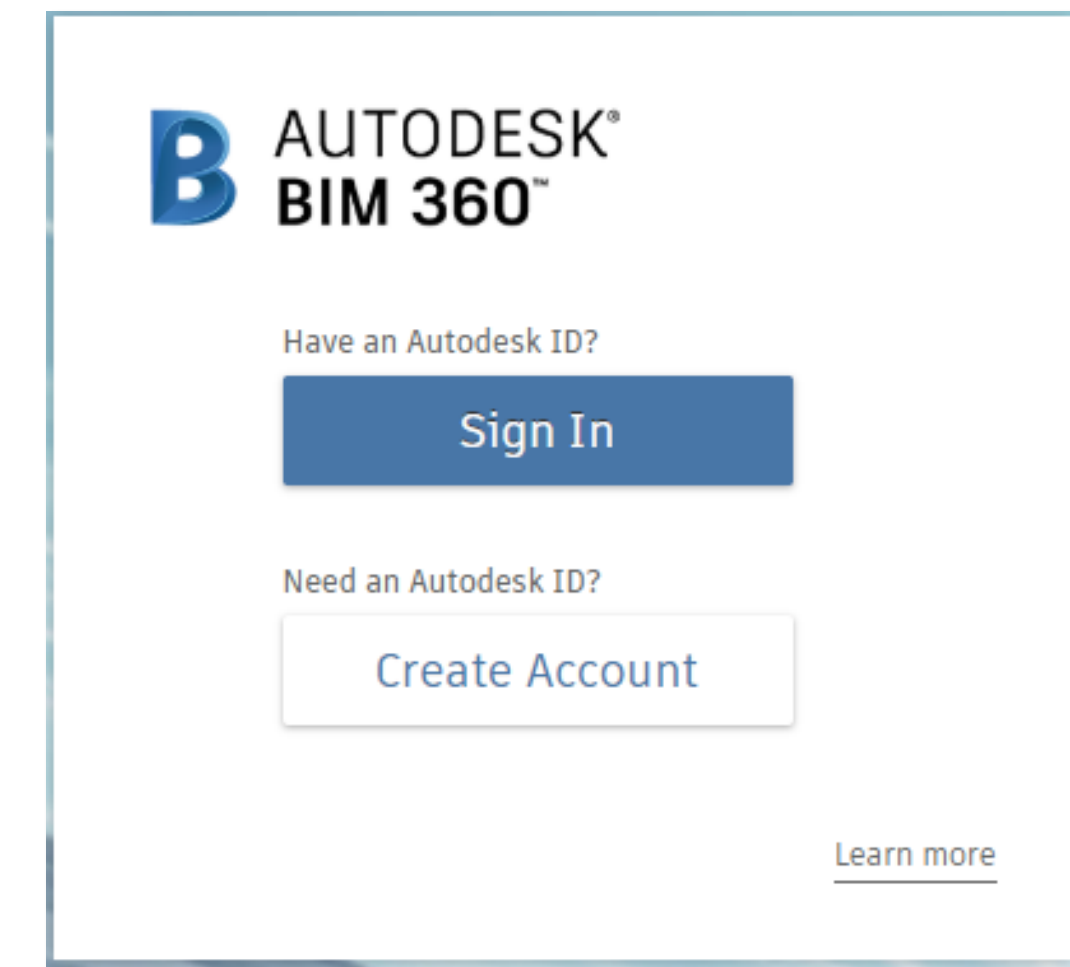
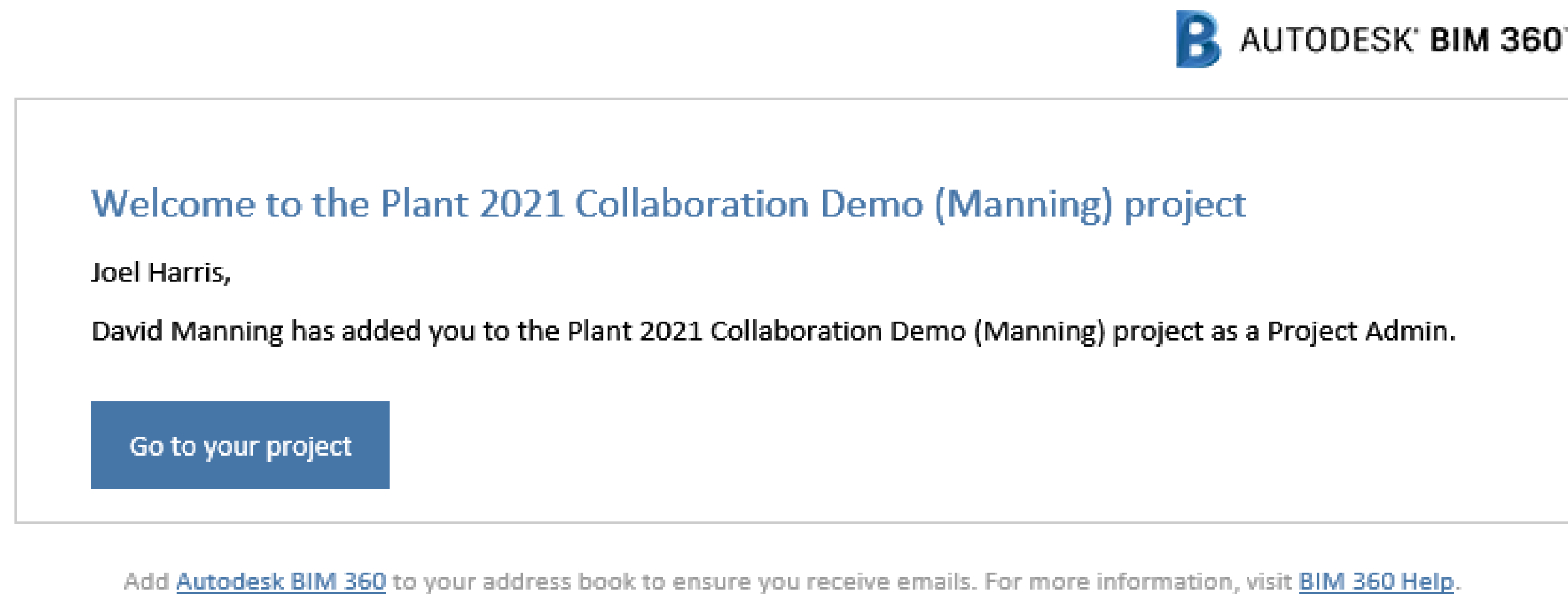
1. Create the required folders under the project root folder.
2. In project set change all the project paths to point to folders under the project.
3. Recreate the Project folder structures in project manager starting with using the “new Folder” command.
 - a) This creates the new folder in the new location.
4. In Project Manager move the existing drawings to the new folders
 - a) This will move the drawings to the new folder structure and update the database.
 - b) Best practice is to move small batches or individual files (approx. 10 max)
5. Manually confirm that there are no drawings in the original folders before removing them.

Note: this will not work for Isometrics.

Learn what is different when
working in collaboration for
AutoCAD Plant 3D, from a user's
perspective



Joining a project is new!

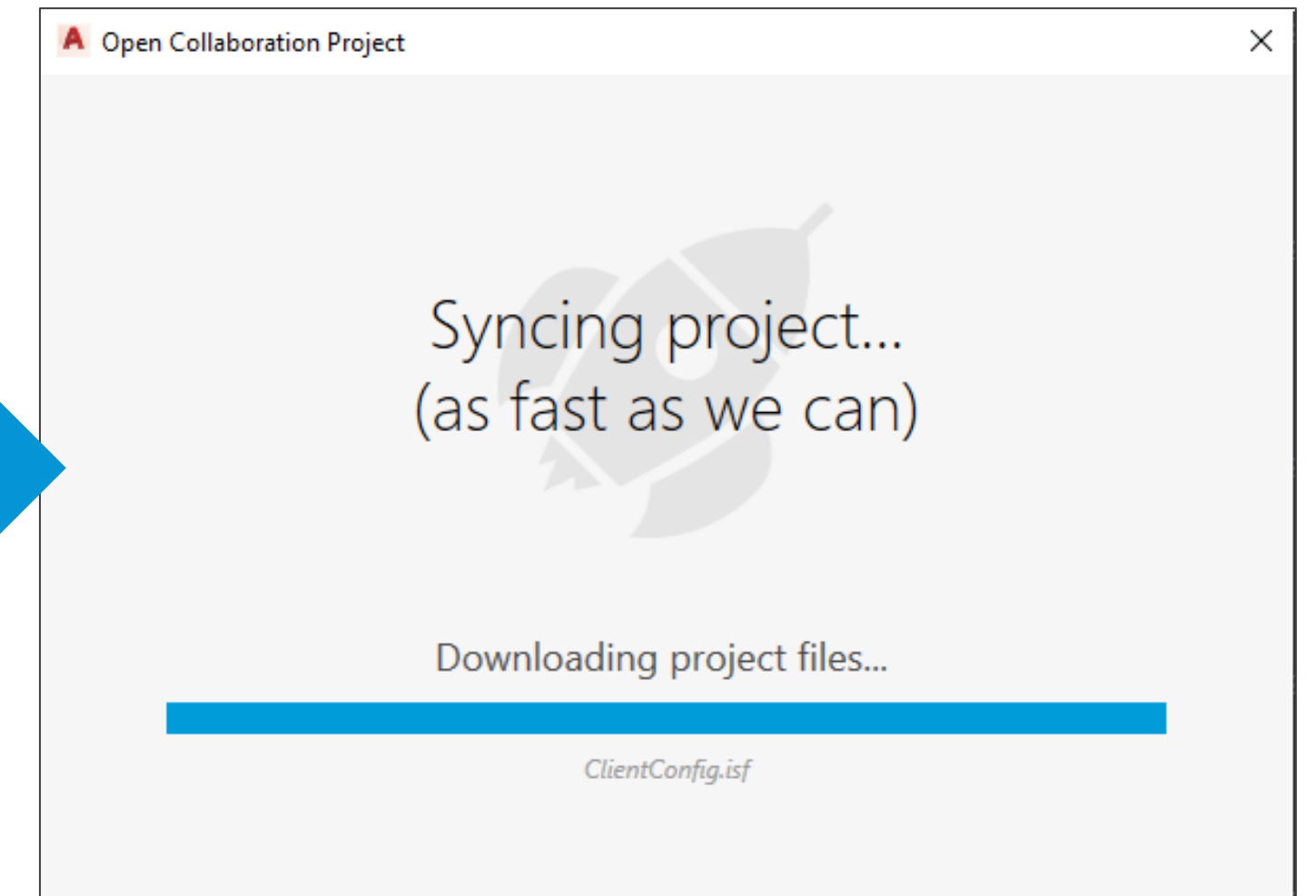
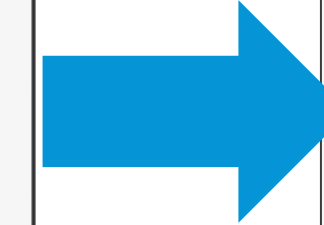
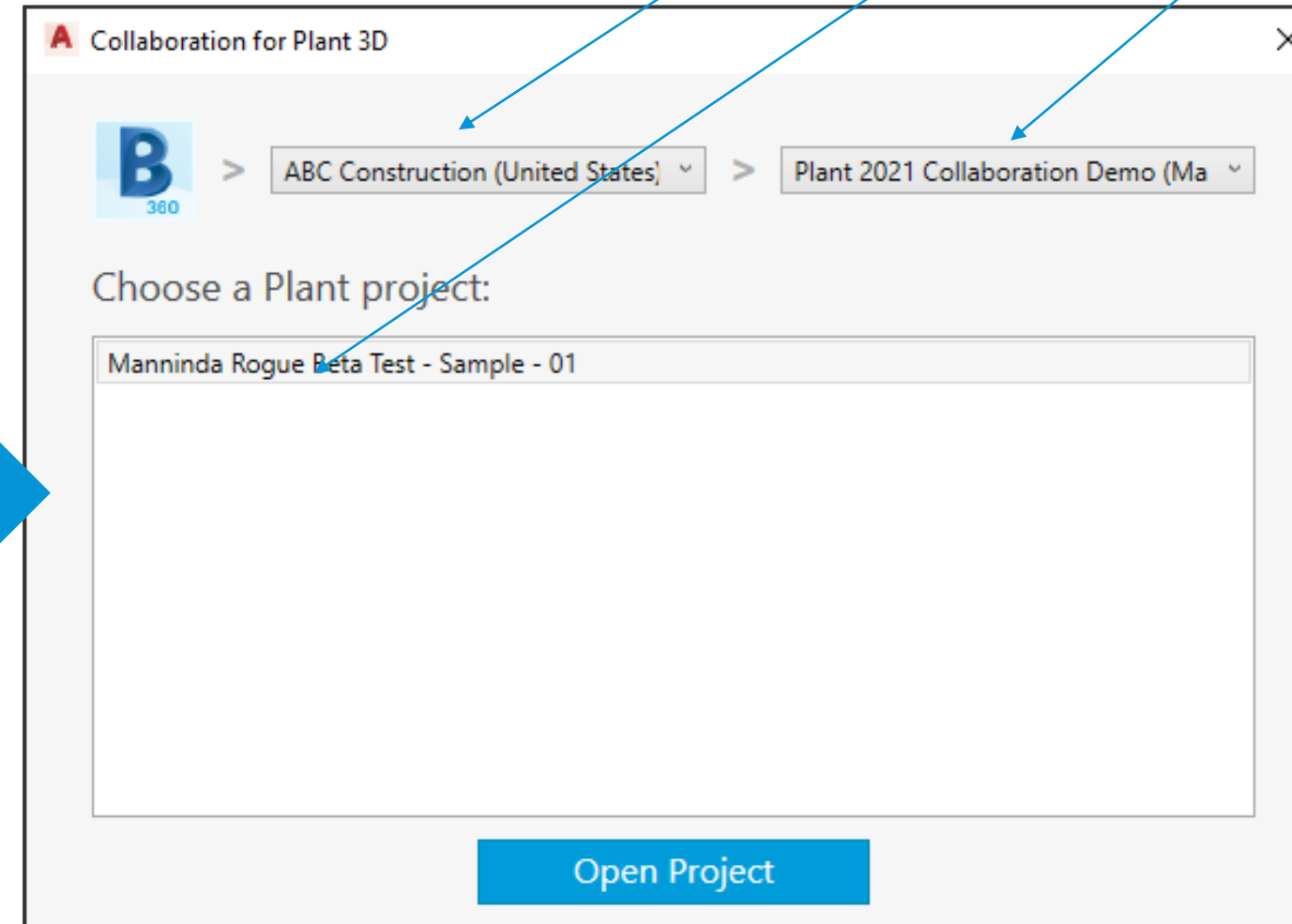
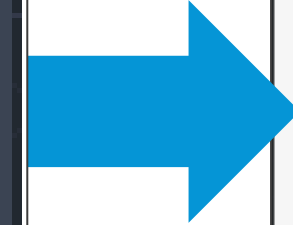
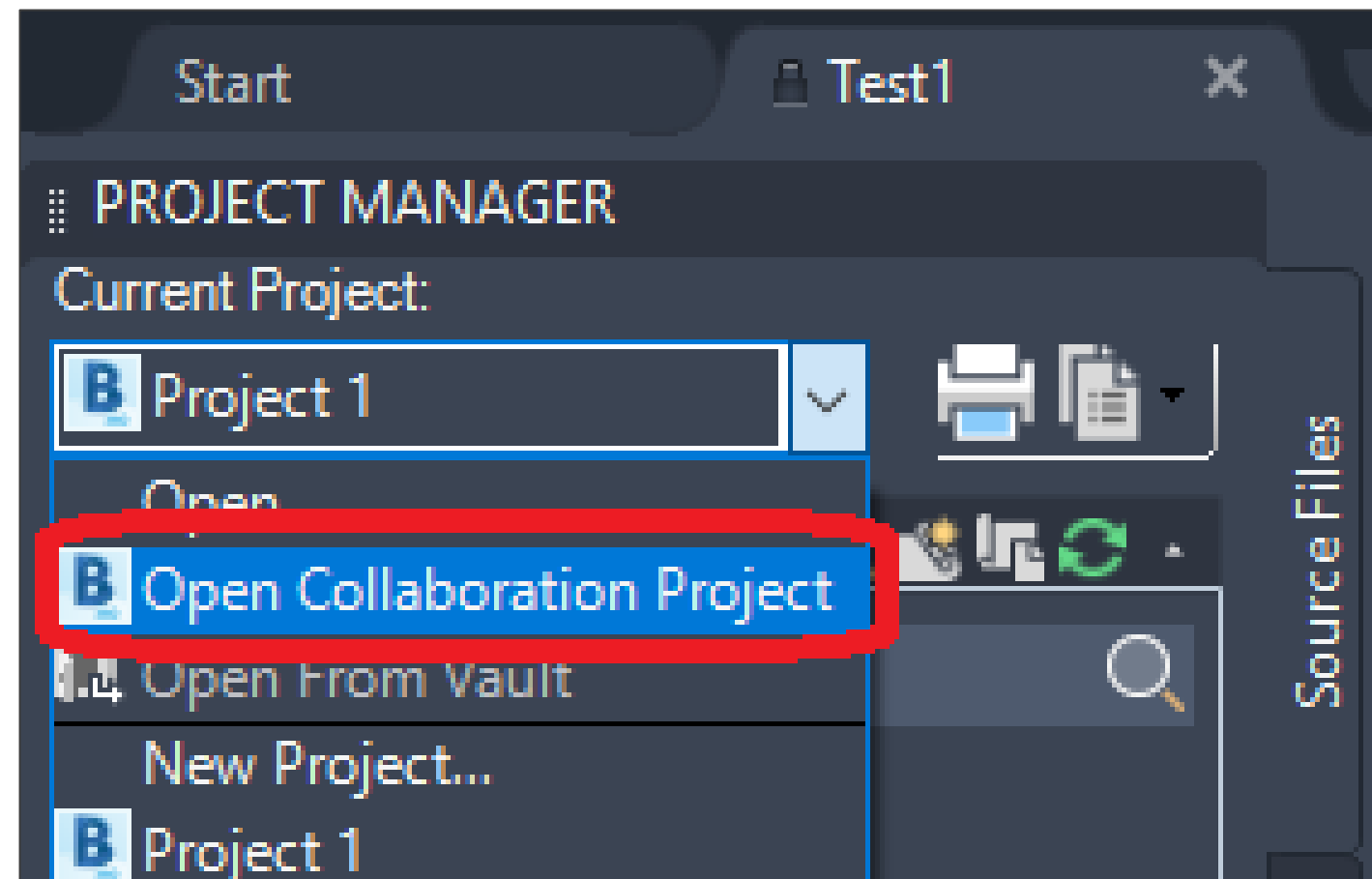


Step 1: In the email you'll receive from the Admin, access the project by clicking on "Go to your Project".

Step 2: Sign in to BIM 360 with your Autodesk ID and open your project.

Opening a project is different!

BIM 360 Account
Plant 3D Project
BIM 360 Project



Step 1: After accepting the BIM 360 project invitation you can open it from Project Manager

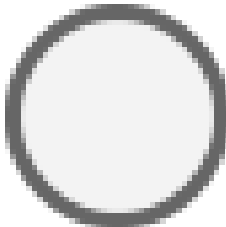




Step 2: Select the BIM 360 Account, the BIM 360 Project and finally the Plant 3D project.

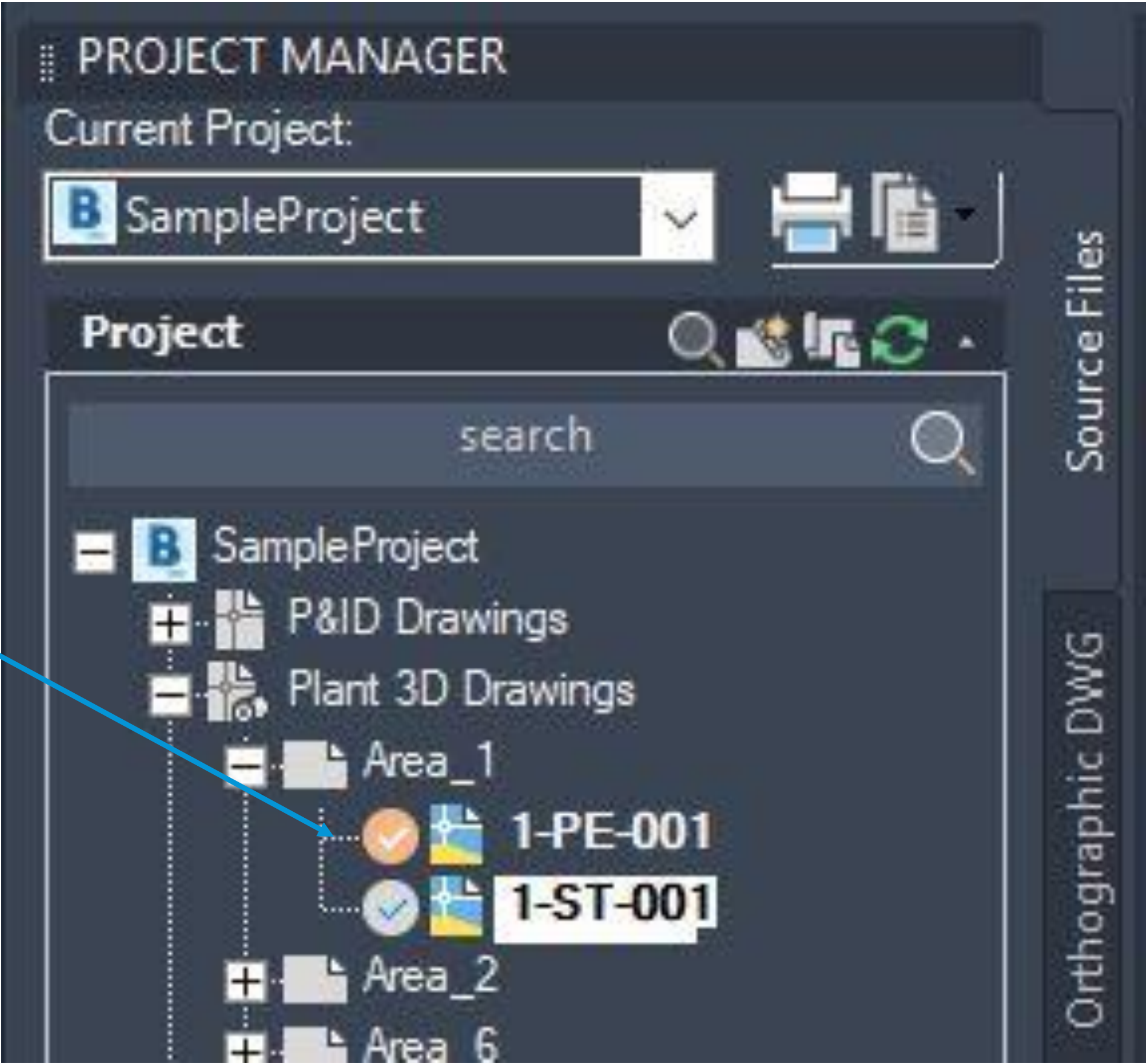
Step 3: Wait for the files to download.

What is different about Collaboration for Plant 3D?

Project Manager looks different:

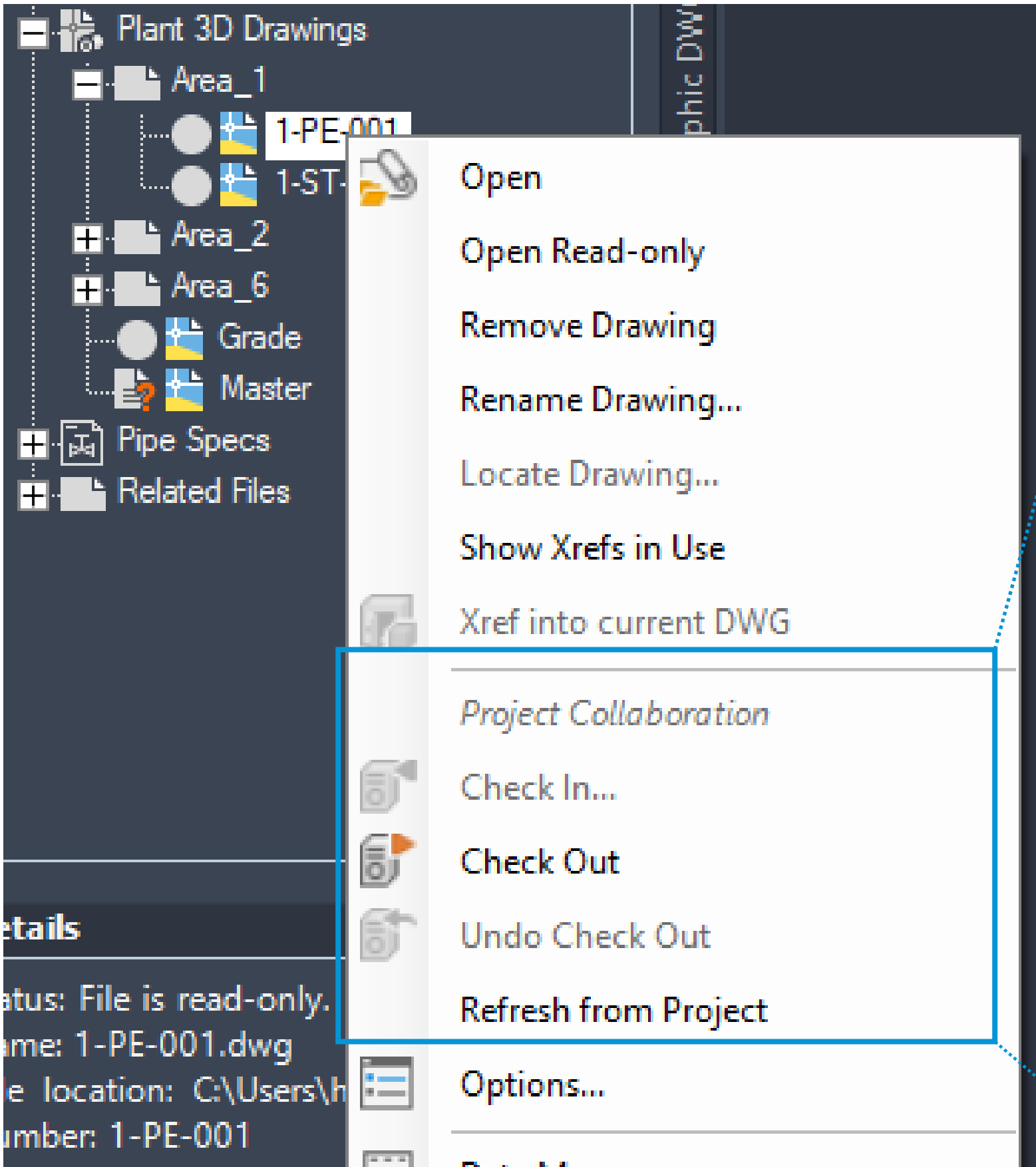
- File status icons appear next to files:

Icon	File Name	Status
NO Icon		No local file
		File is on your local workstation, read-only, but you don't have it checked out. File is available for checkout.
	BOLD	Checked out to you.
	BOLD	Checked out to you and modified.
		File has been updated in the Collaboration Project. "Refresh from Project" to update.
	Grey file name	Checked out to another user.
		Status can't be established.



Project File Actions:

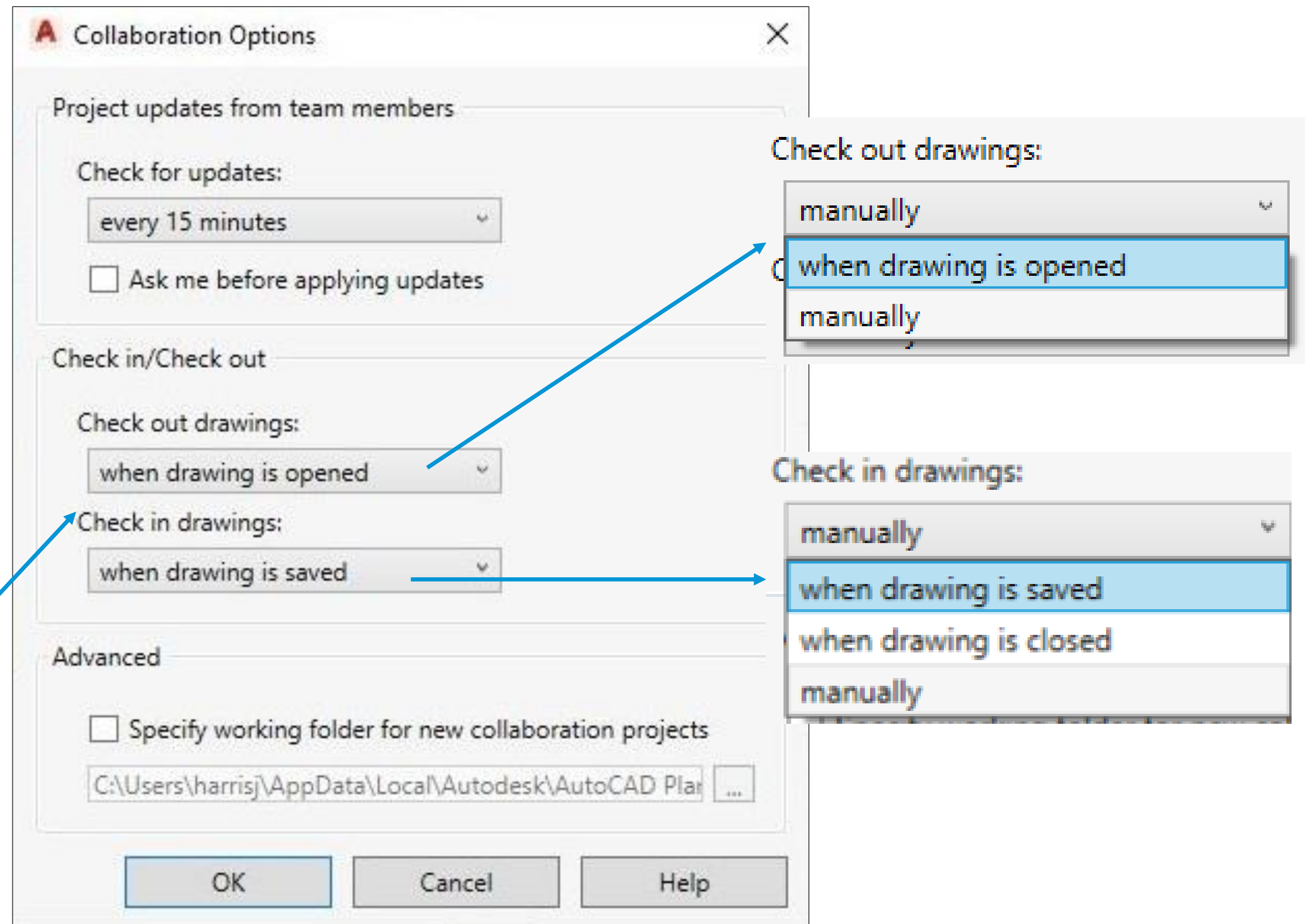
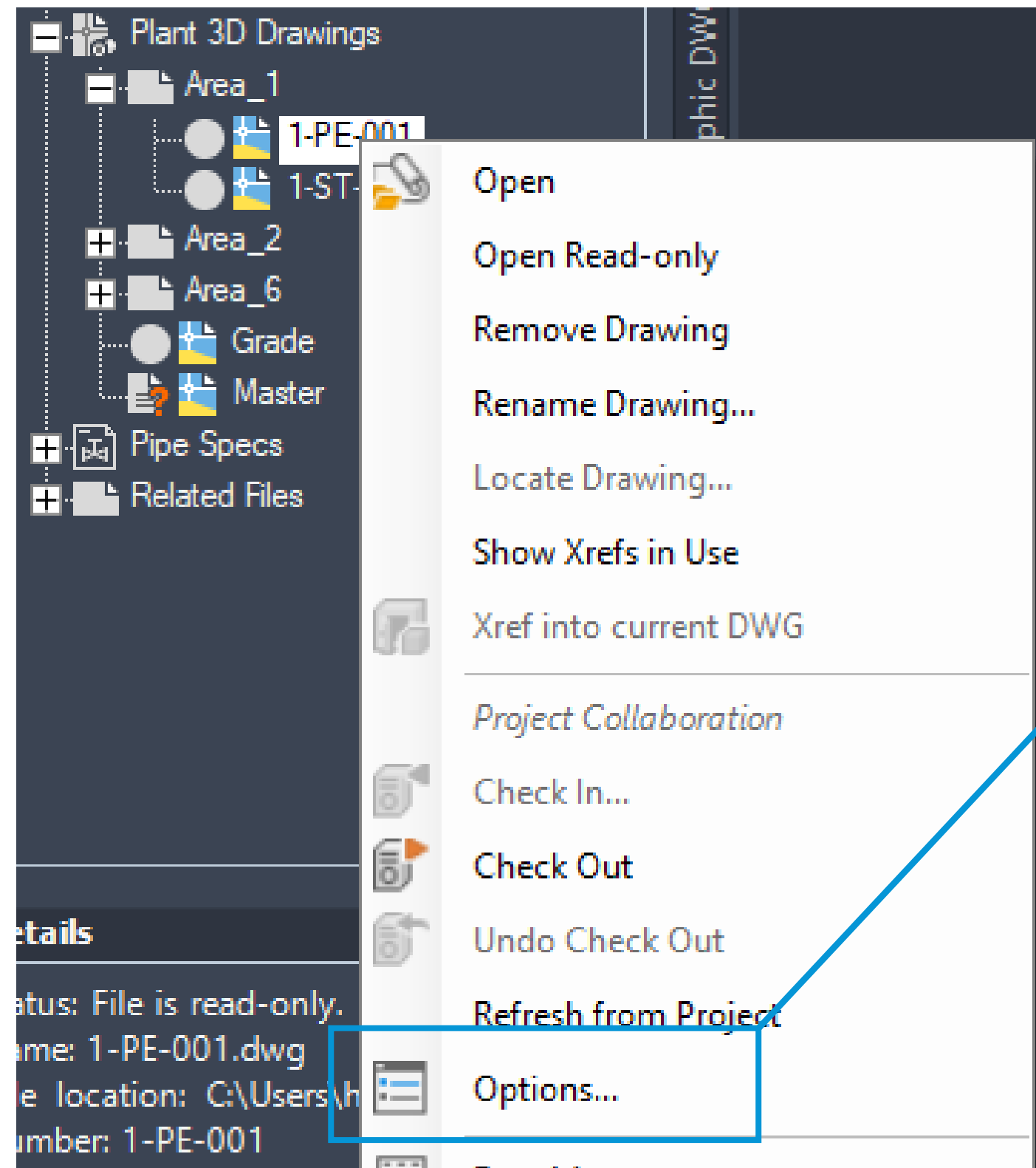
- The Project Manager right-click context menu now has several options when you select a project file:



Icon	Action	Behind the Scenes...
	Check In	Check in a new or existing active drawing to the cloud. This involves copying the version of the drawing from your local collaboration cache folder up to BIM 360 Docs. You have the option of then keeping the drawing checked out for further editing.
	Check Out	Check out the active open drawing from the cloud. This involves copying the latest checked-in version of the drawing down from BIM 360 Docs to your local collaboration cache folder and then locking the file in BIM 360 Docs to prevent editing.
	Undo Check Out	Drops any changes made to the open drawing and cancels the check-out. The last checked-in version of the drawing is copied down from BIM 360 Docs to your local collaboration cache folder.
	Refresh from Project	Copies latest project files from BIM 360 Docs to your local collaboration cache folder (except checked out files).

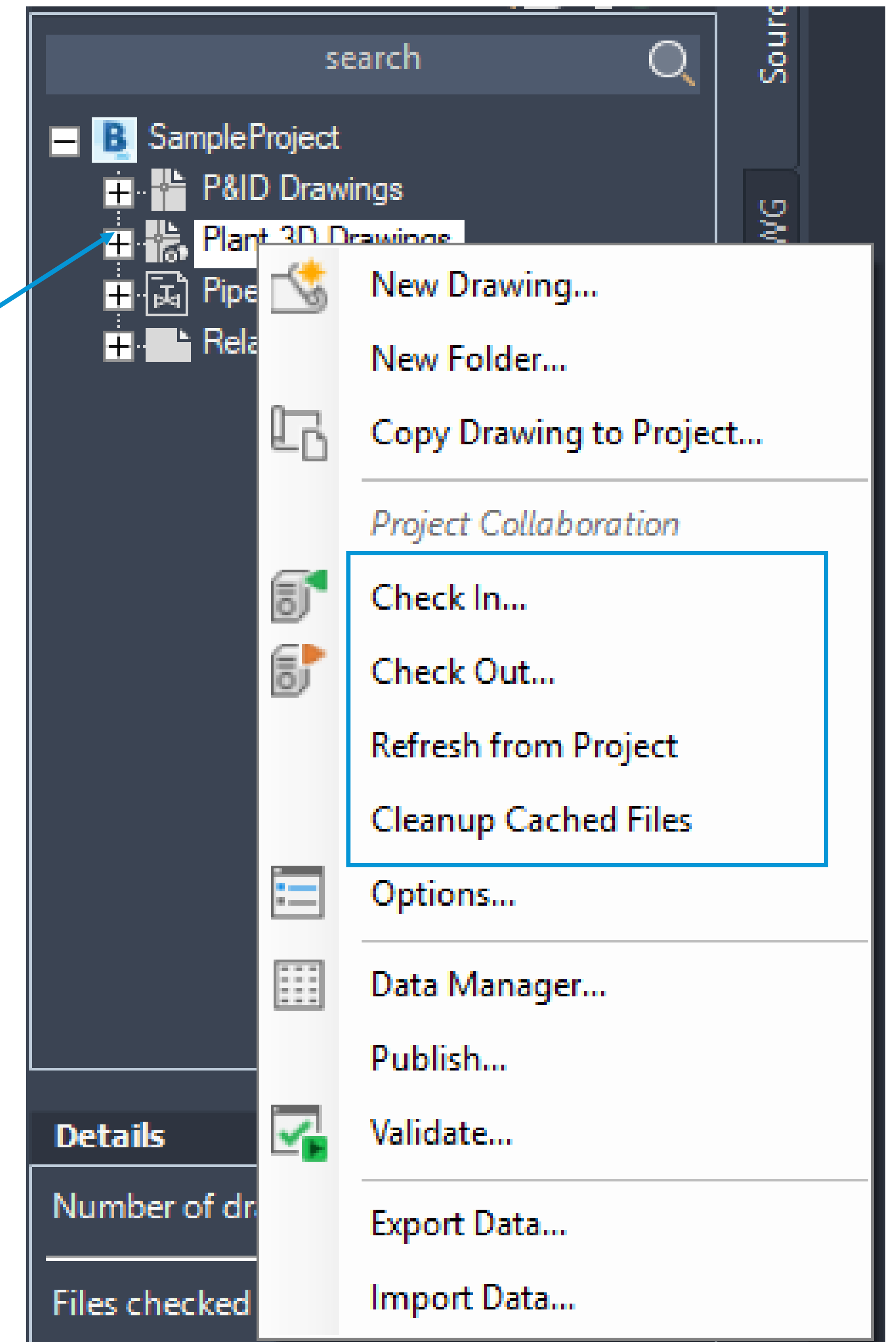
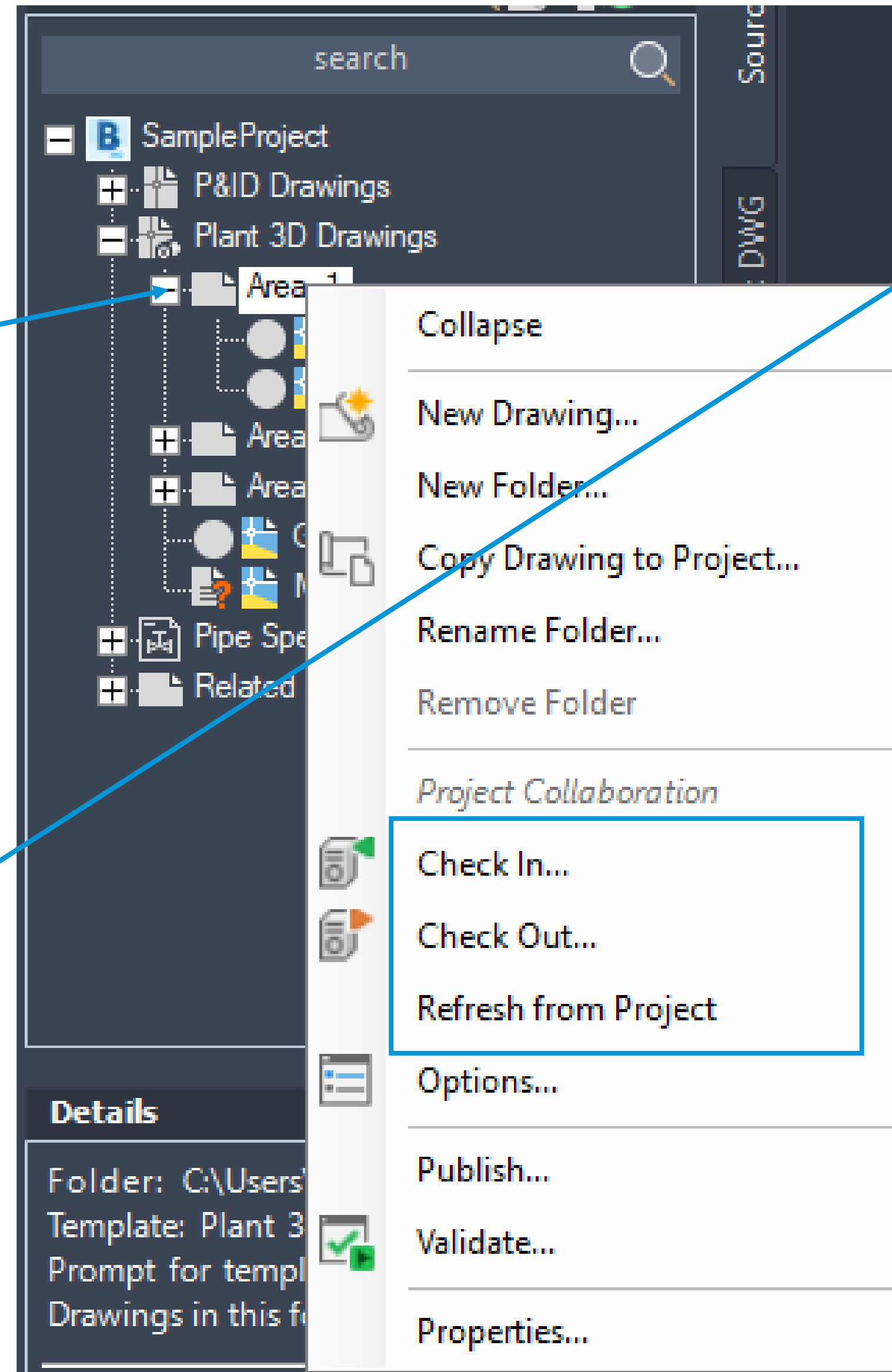
User Options:

- Default behavior for opening and saving of files is set in the Project Collaboration “Options” right-click context menu:




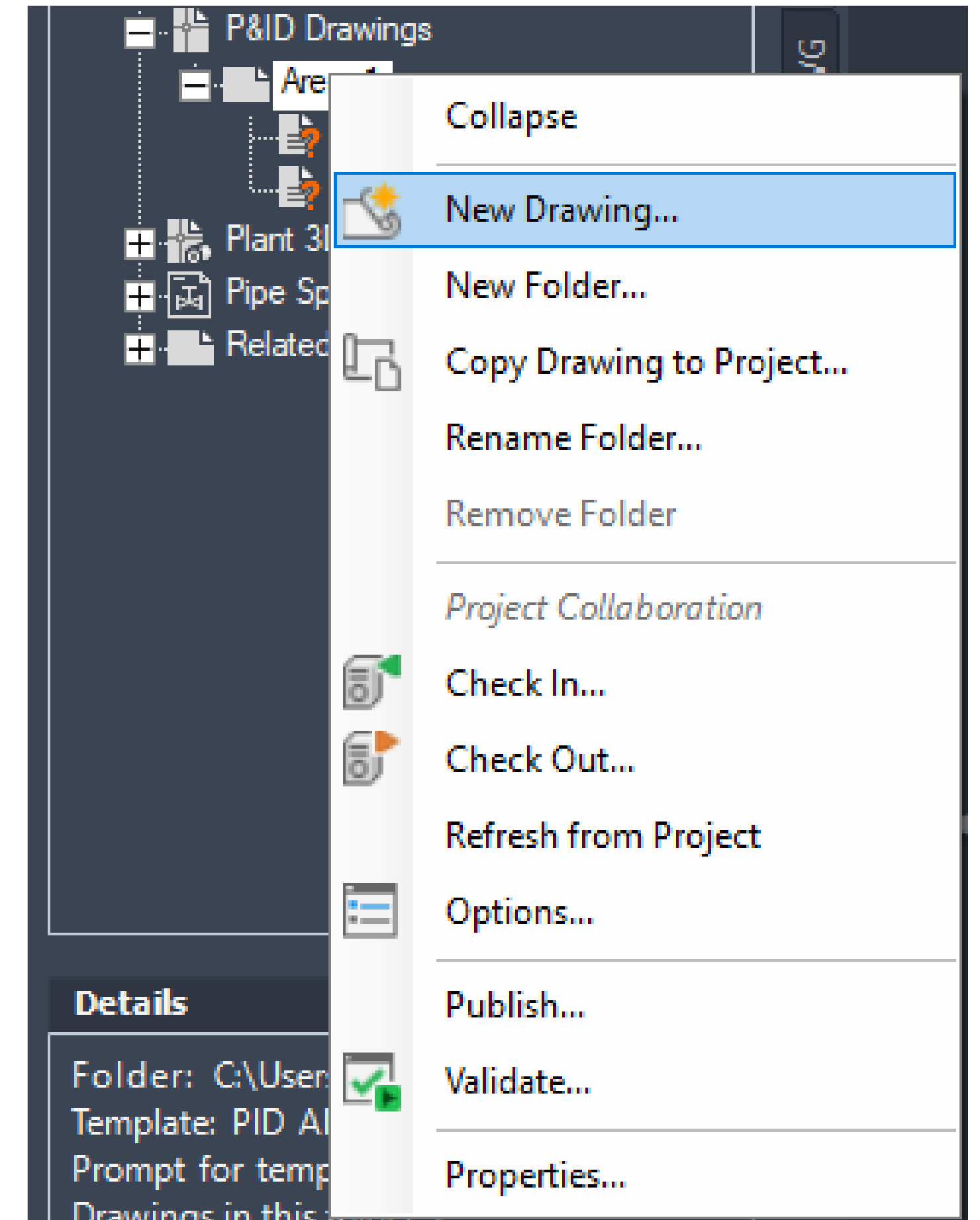
Project Folder Actions:

- The Project Manager right-click context menu has several options when you select a project *folder*.
- The Project Manager right-click context menu has several options when you select a project *Source file category*.



Creating a P&ID and 3D Model

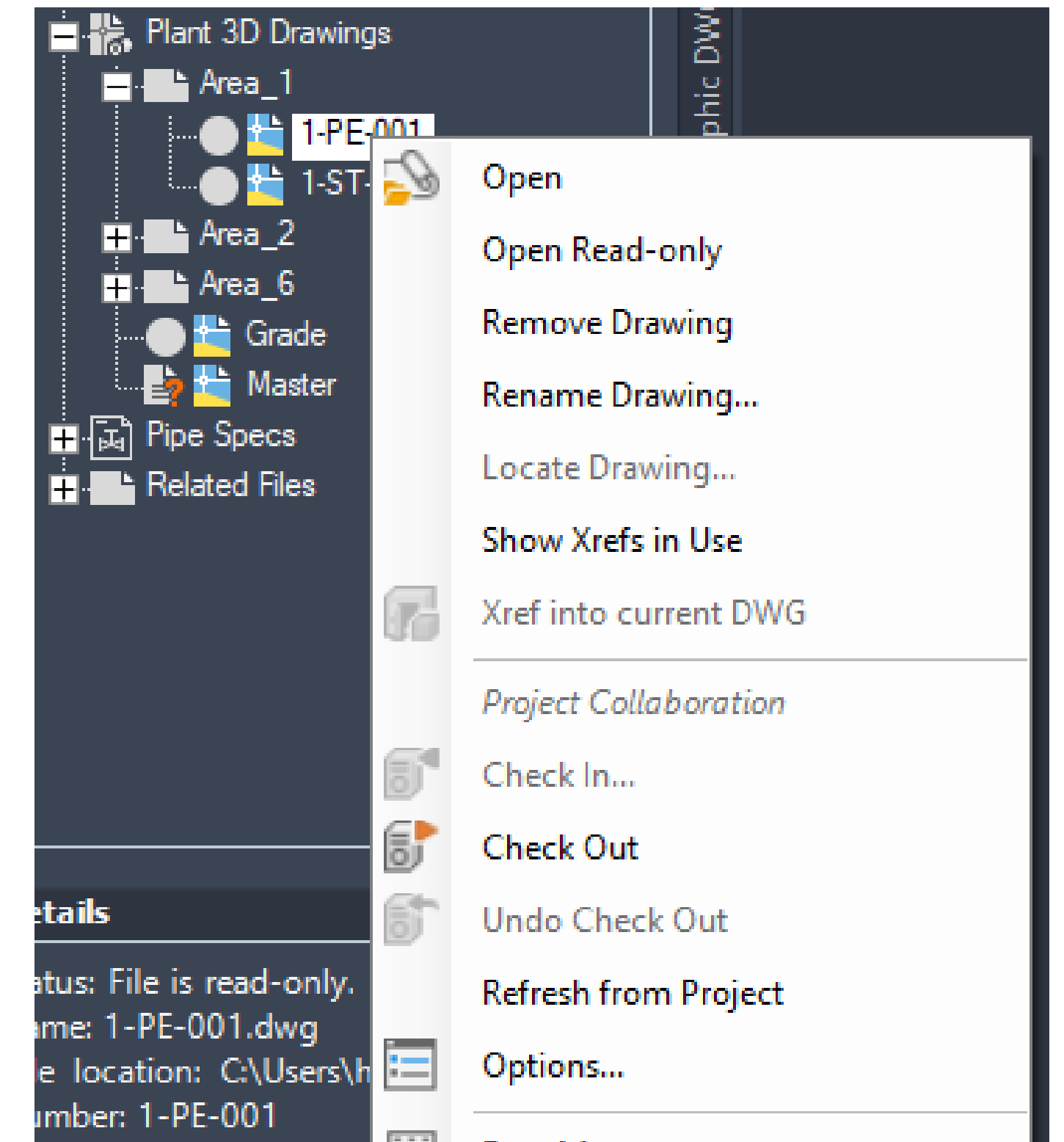
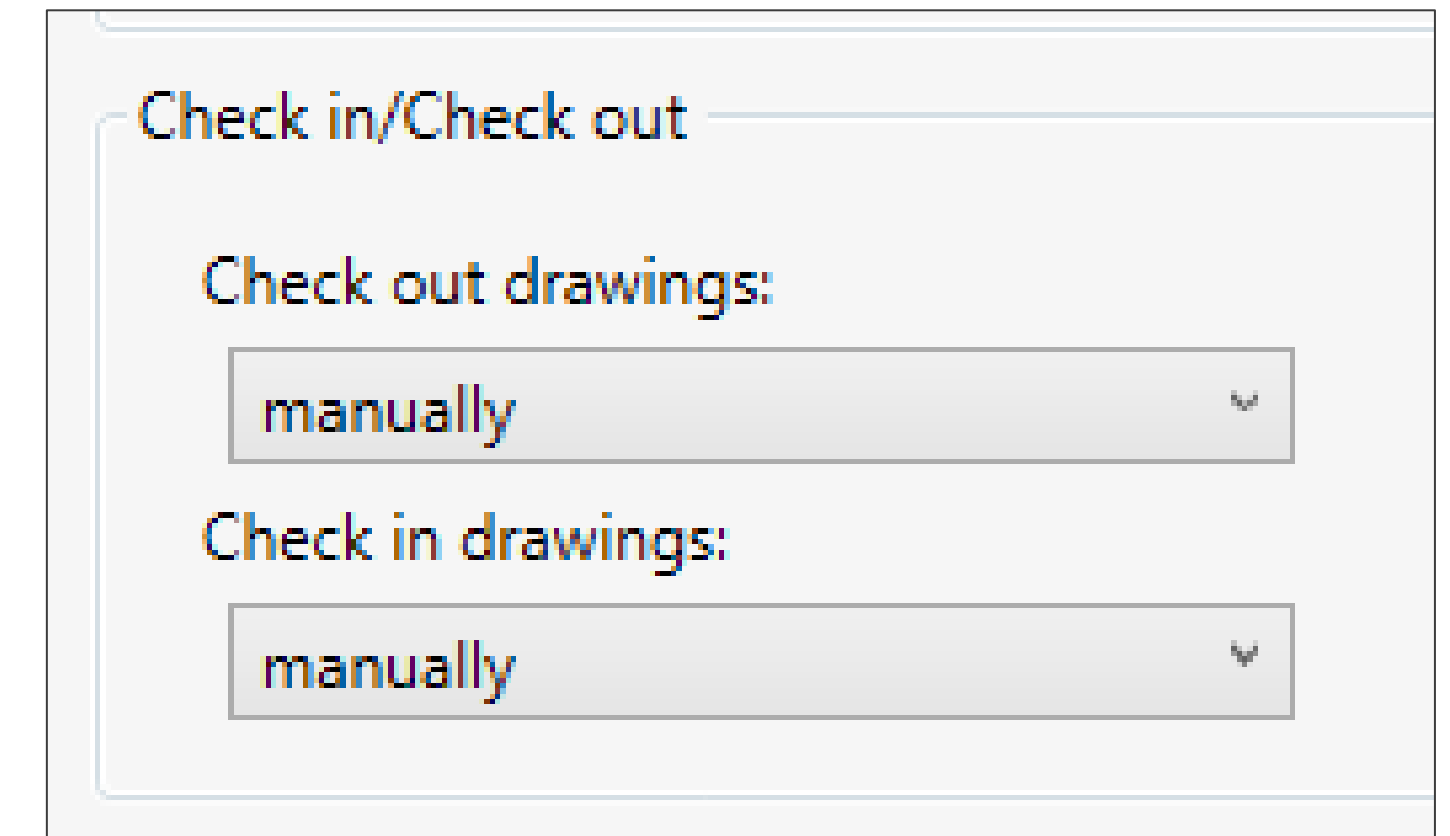
- In Project Manager, right-click and select “New Drawing” on the *Source File category* or project *folder*.
 - Enter the information in the *New DWG* dialog; your drawing will be opened in a new editing session.
 - Note: Until you check-in the file, the icon next to the new file name will look like this: 
- Perform file edits, save and close file.
- Right-click on the new file in Project Manager and select “Check In” and wait for the file to be copied to the cloud.
 - Note: You will have the option of keeping the file checked out if you want to continue editing the drawing.



Editing a Project Drawing (option 1)

With Collaboration Options set to “manually”:

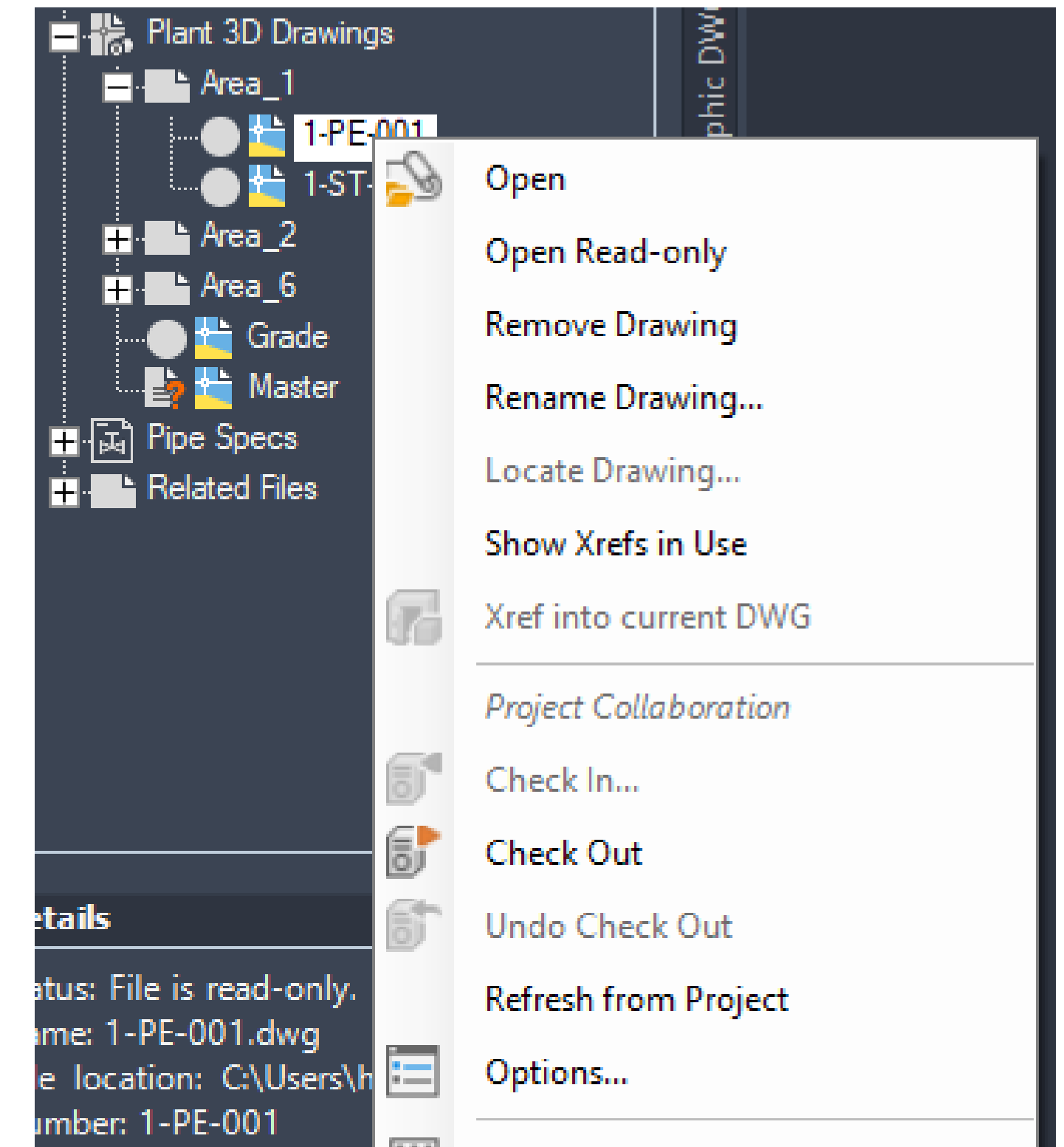
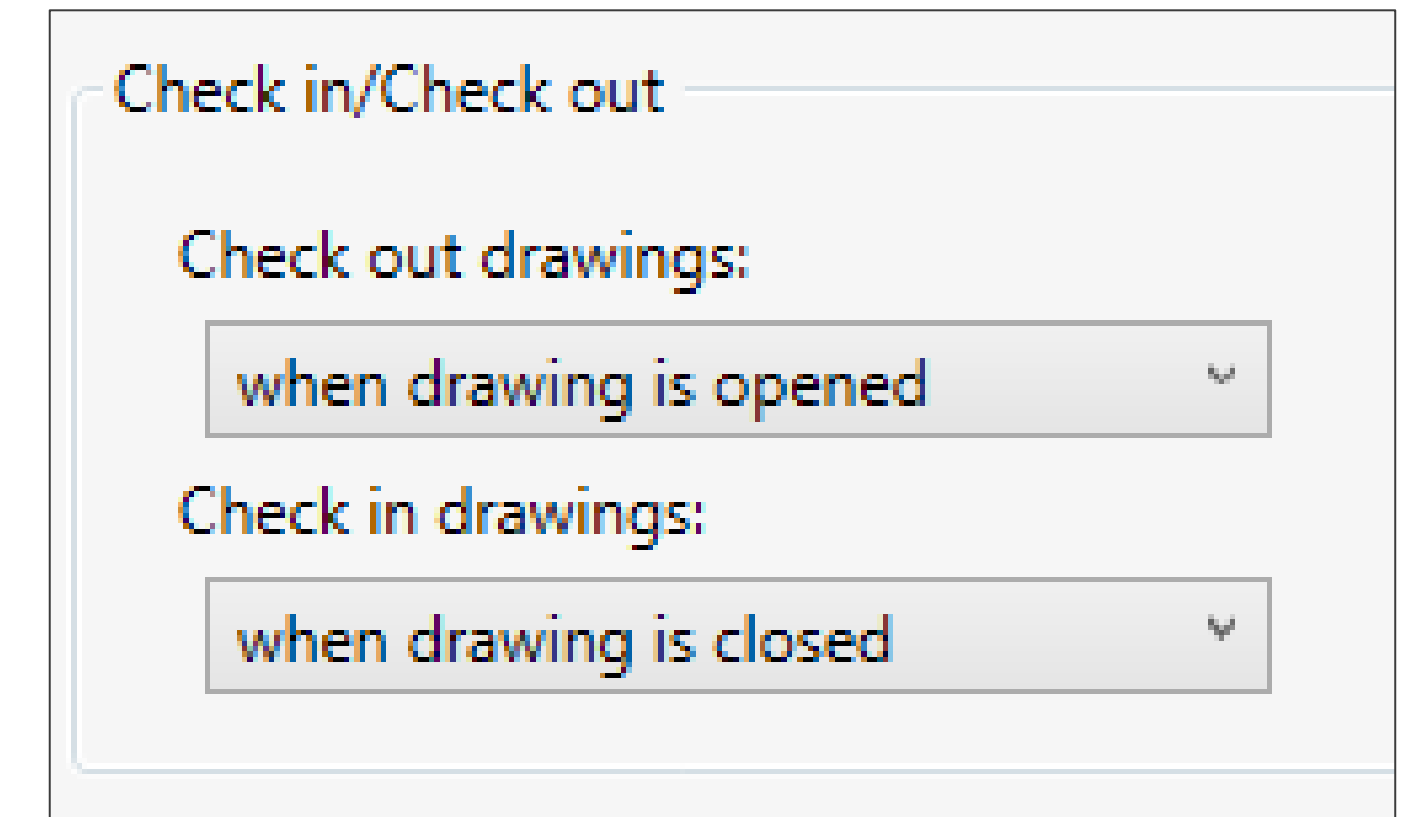
- In Project Manager, right-click and select “Check Out” on the file name.
 - When the file copy to local is complete you will see the icon next to the file name change to include a green check.
- Right-click on the checked out file and select “Open”.
- Perform file edits, save and close file.
 - After modifying the file you should see the icon next to the file name change to an orange circle.
- Right-click on the checked out file and select “Check In” and wait for the file to be copied to the cloud. Note: You will have the option of keeping the file checked out if you want to continue editing the drawing.



Editing a Project Drawing (option 2)

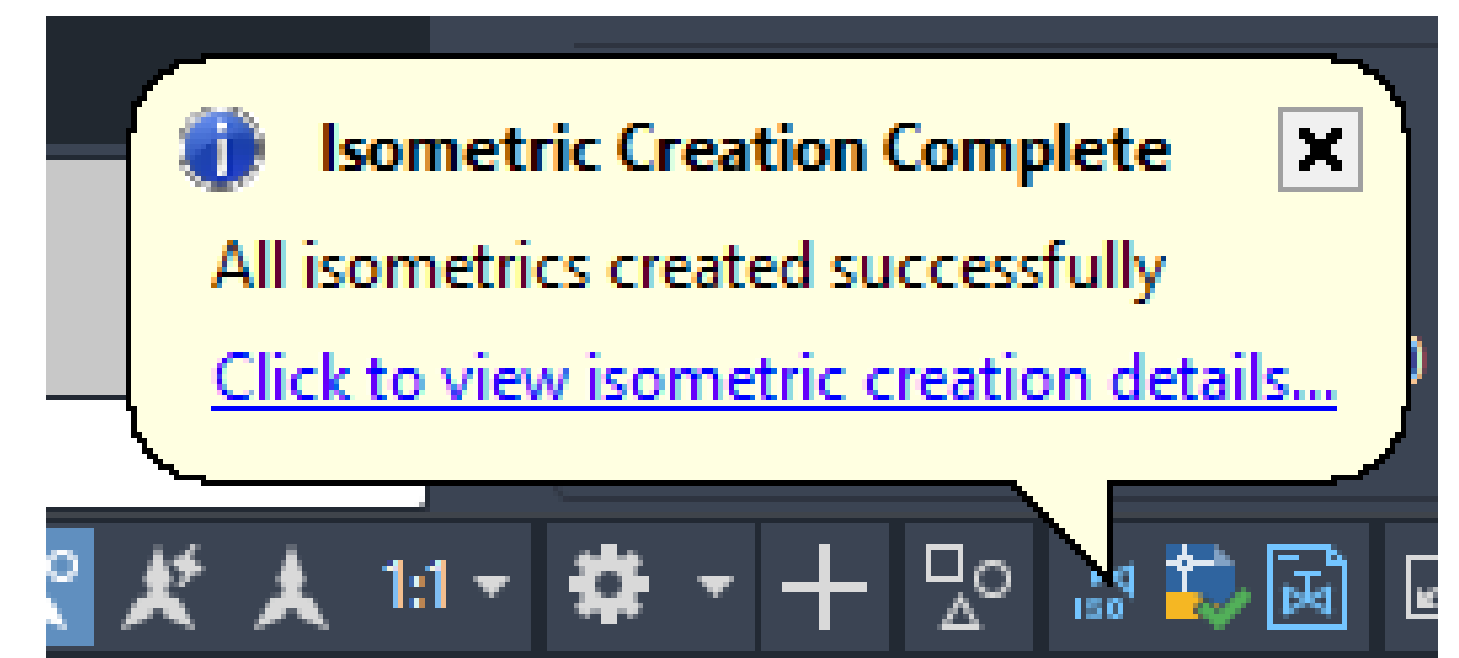
With Collaboration Options set to “when drawing is opened/closed”:

- In Project Manager, right-click on the file you wish to edit and select “Open”. You may have to wait for a few moments while the file is copied to your local collaboration cache as it is checked out to you.
 - Note: you can’t open a file with these automatic check out settings if it is already checked out to another user.
- Perform file edits, save, close file and wait for the file to be copied to the cloud. It will be automatically checked in to the Plant 3D Collaboration project.



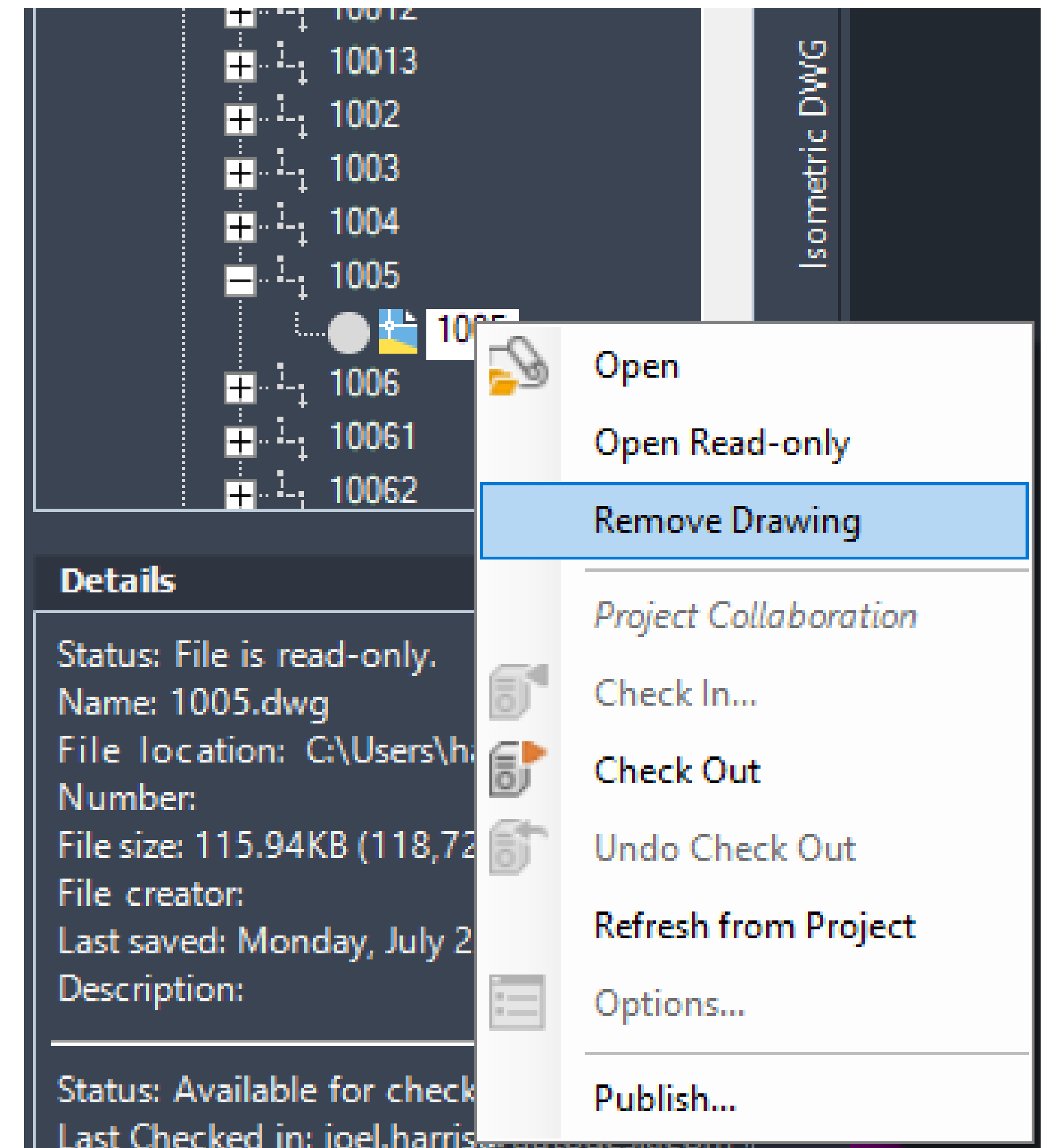
Creating an Isometric Drawing

- In Project Manager, right-click on the file name of the 3D model containing the piping which is going to be extracted to an isometric drawing and select “Open”. Note: You do not need to check out the 3D model unless you plan on making changes to it.
- When the isometric drawing(s) are finished being created you can view them in the usual fashion using the *Isometric Creation Results* dialog. Note: You do not need to check in the isometric to make it part of the collaboration project, however you must check out any isometric drawings prior to editing them.



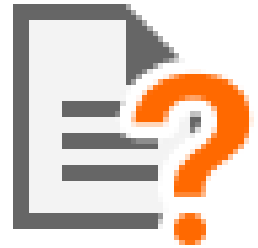
Removing a Project Drawing

- In Project Manager, right-click and select “Remove Drawing”.
 - You do not need to check out a Plant 3D project drawing to remove it from a Collaboration project
 - Note that although this removes the drawing (.dwg) file from the local Collaboration Cache – there may be a backup (.bak) file remaining.
- After removing any project drawings, there will be a renamed copy of the dwg left in the BIM 360 Docs “Project Recycle Bin” folder.

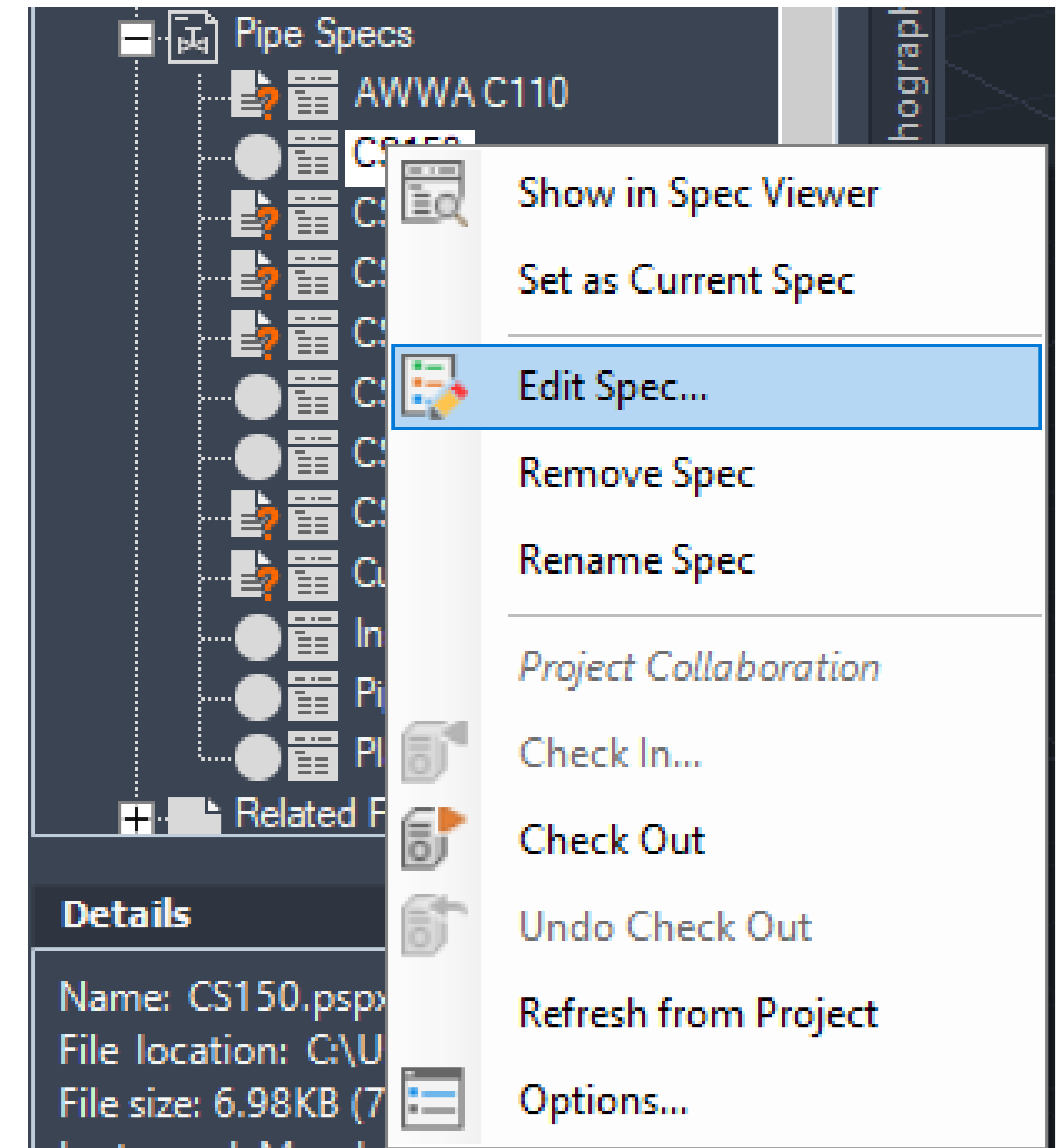


Editing a Piping Spec

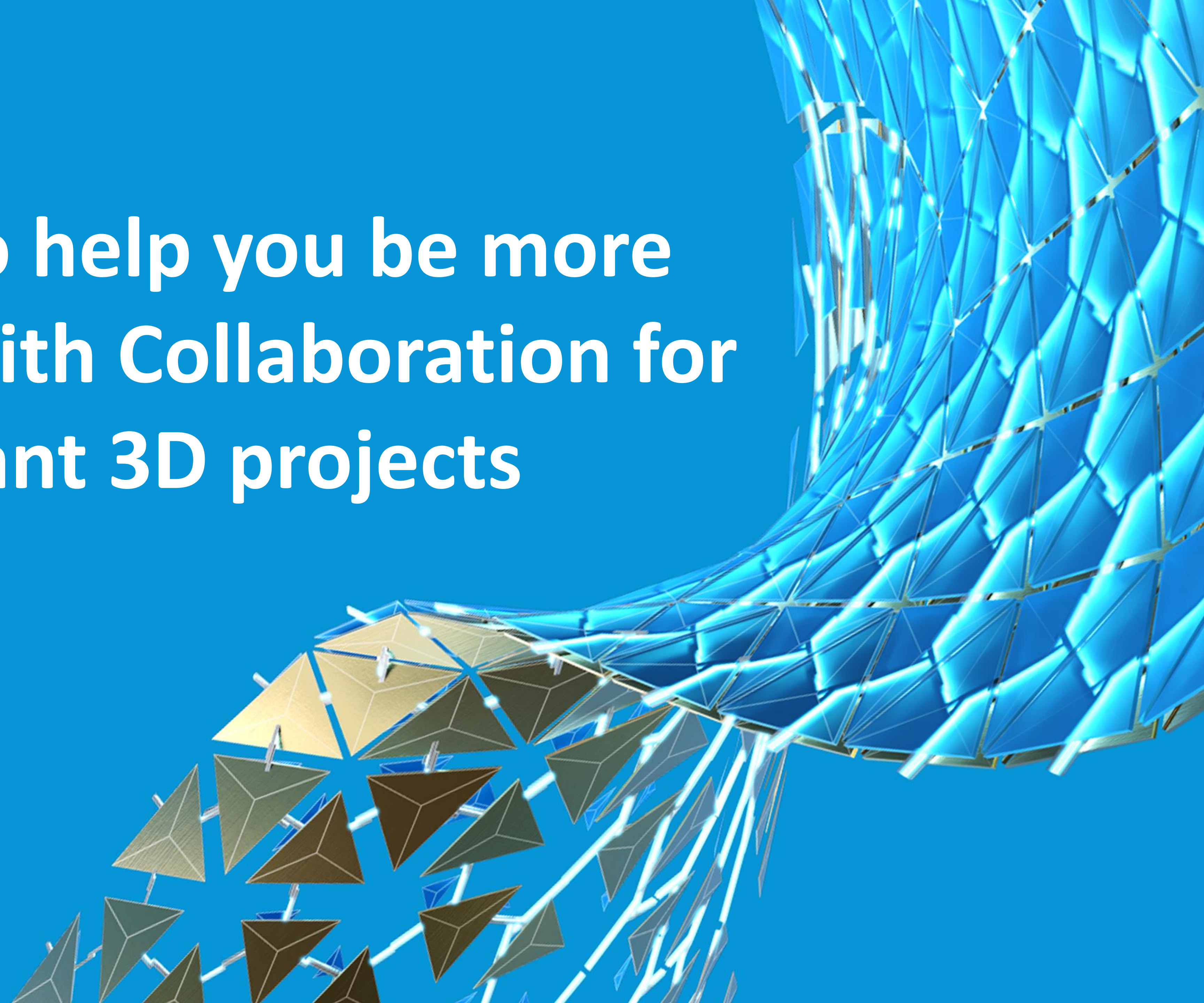
Before you attempt to edit a piping spec, be sure that a copy of the spec file exists in the local collaboration cache. One indication that there may not be a local copy is the presence of this icon next to the spec name:

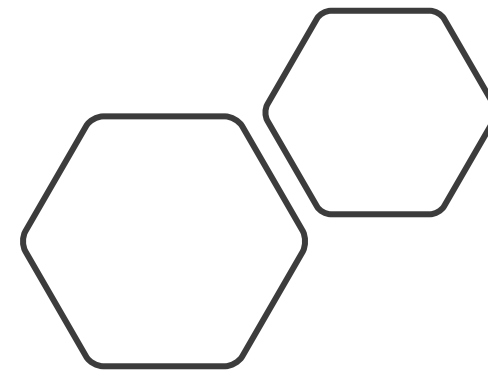


- In Project Manager, right-click and select “Edit Spec” on the spec name. The spec is automatically checked out to you.
- Perform edits, save and close the Specs and Catalog Editor.
- In Project Manager, right-click and select “Check In” on the spec name. The spec is then checked back in to the cloud project for others to use.



**Resources to help you be more
successful with Collaboration for
AutoCAD Plant 3D projects**



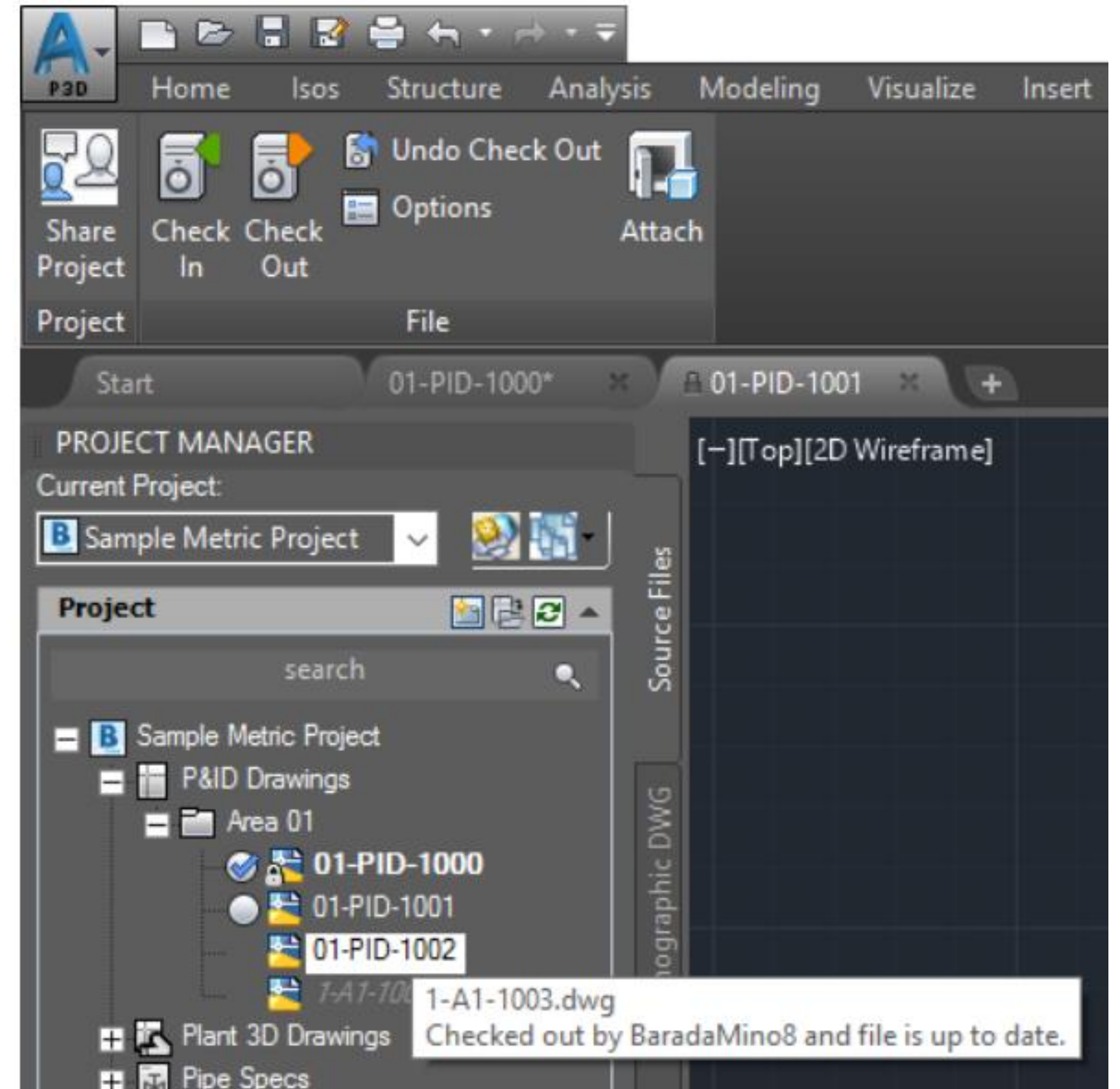


Do's and Don'ts Reference Cards

Plant 3D Collaboration User: Do's and Don'ts

Do's:

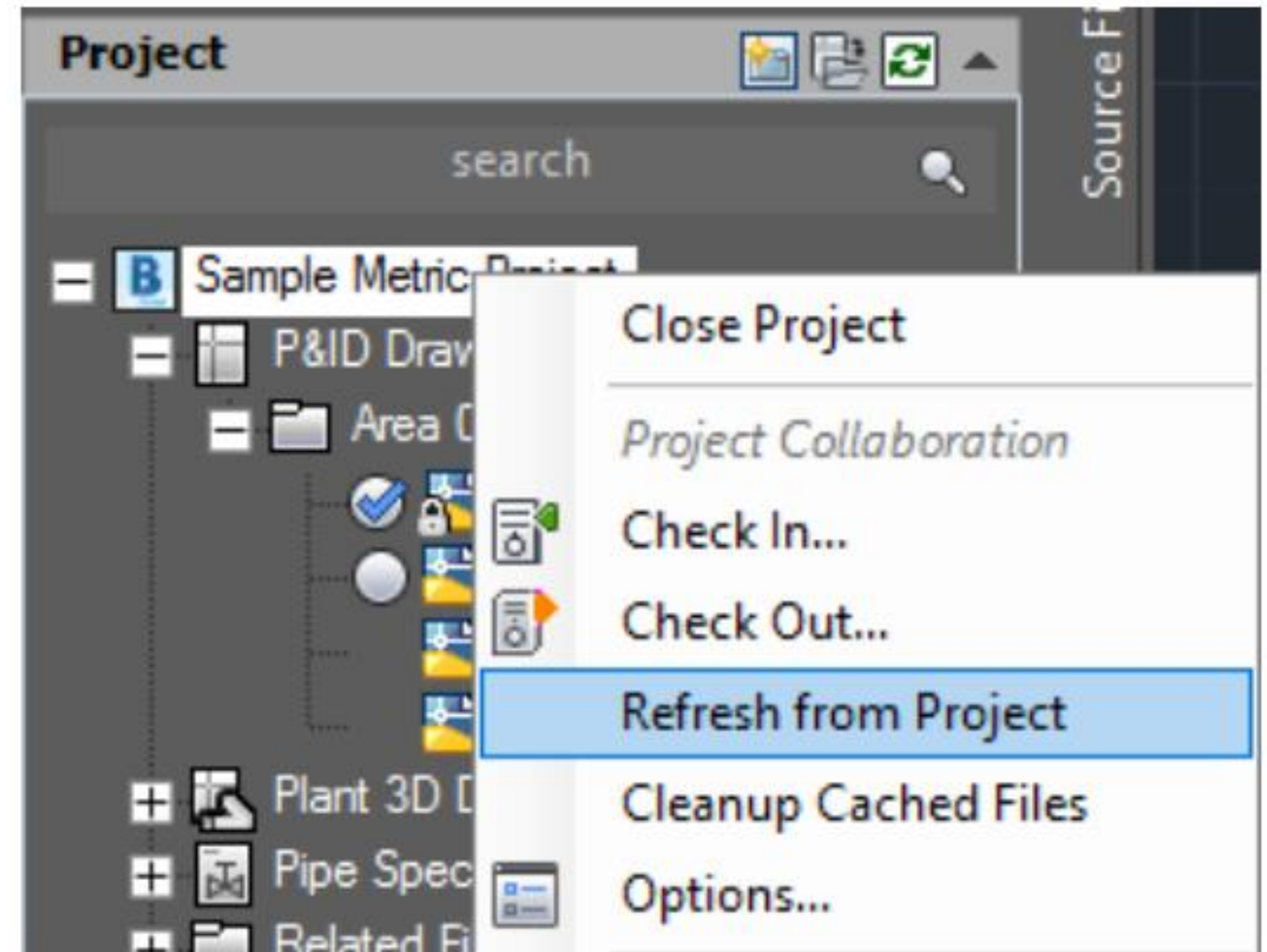
- Manage all Project files from within the Plant 3D Project Manager.
- Regularly Check-in files (minimum daily).
- Open files read-only if you don't intend to edit them now.
- Xref (Attach) Plant Drawings only from the same project using the PLANTATTACH command, not AutoCAD XREF.
- Use BIM 360 web interface to view and comment on files only.
- If in doubt, ask your administrator or subject matter expert.



Plant 3D Collaboration User: Do's and Don'ts

Don'ts:

- Do not use BIM 360 web to manage a project or the files and folders.
- Do not use File Explorers to change locally stored files or folders.
- Do not assume that an action “Should be OK” just because it works in AutoCAD or regular Plant 3D.
- Do not work in “Offline Mode” if possible.
- Do not Xref files that are not part of the same Plant 3D Collaboration project.



Plant 3D Collaboration Admin: Do's and Don'ts

The Do's for Project Administrators

- Manage all project files from within the Plant Project Manager. There are some exceptions to this. It is important to understand how Plant 3D handles project files and test to be sure.
- Check-in routinely. Regularly checking in ensures that all files are copied to the project online and available to other users. It also updates the database so regular check-ins can reduce the chances of duplicated tags and long upload times, and possible errors.
- Open files read only if you don't intend to edit them now.
- Xref drawings only from the same Plant project, not the BIM 360 Project. User must use the Plant 3D project manager to add Xref files. The AutoCAD Xref function will still complete the task but the Xref files will not be available to any other users.
- Refer to the Autodesk Knowledge Network for the latest information and Help files.
- Use BIM 360 to manage user permissions and Project members.

Plant 3D Collaboration Admin: Do's and Don'ts

The Don'ts for Project Administrators

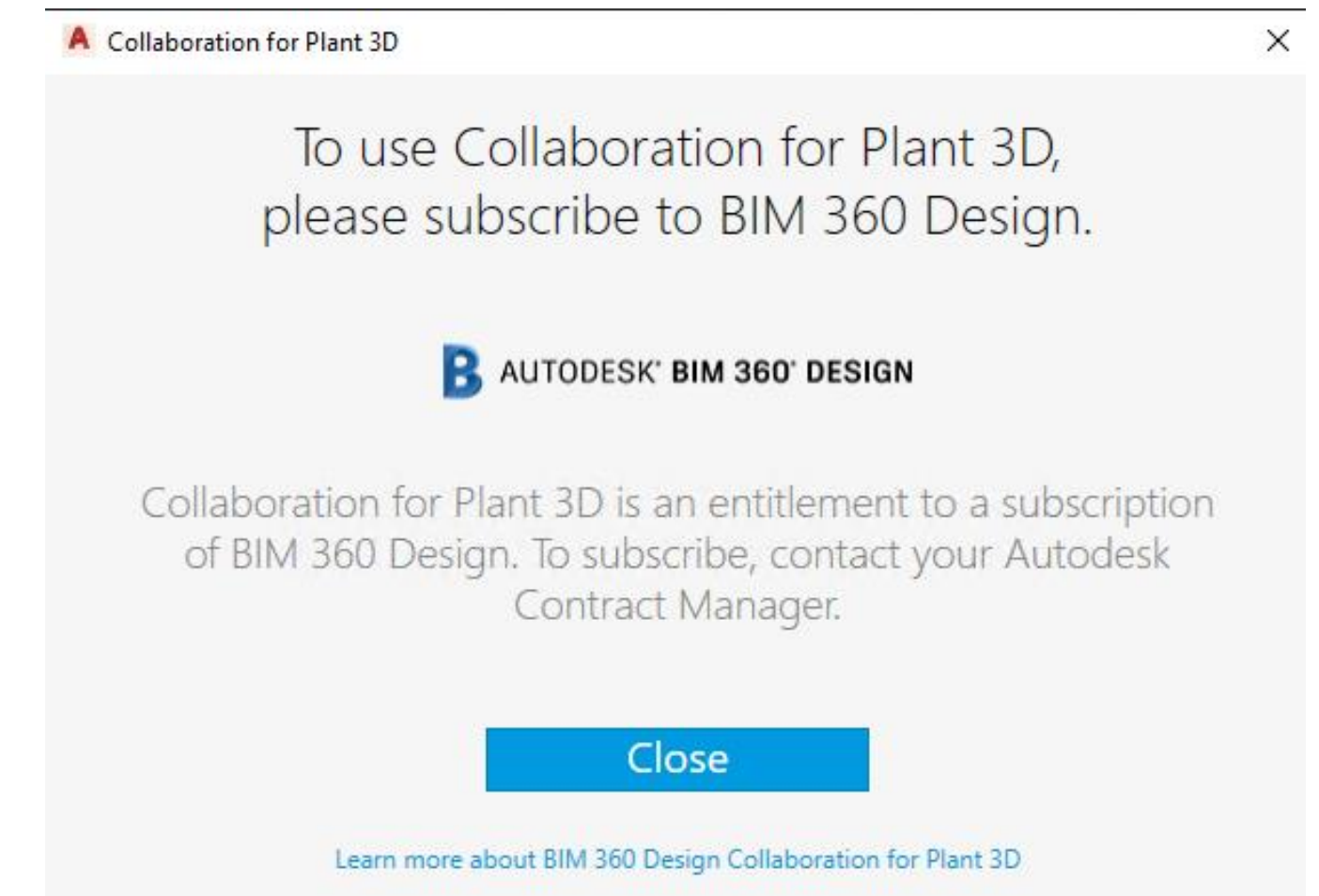
- Do not use BIM 360 web browser to work with plant projects. Except for certain administrative tasks, use the Project Manager to manage plant projects folders and files.
- Do not use File explorers to change project files or folders in the collaboration cache
- Do not assume that an action “Should be OK” (risk of drawing or project corruption). If necessary, copy the project and test in the copy before replicating the ‘fix’ in the production project. If there is not other choice always take a backup.
- Do not work in “Offline Mode” in AutoCAD Plant 3D Collaboration projects. In cases there this occurs unintentionally, on reconnecting the project should sync, but there has some risk.
- Do not Xref files that are not part of the same collaboration project.
- Do not move or delete files without using Project manager.

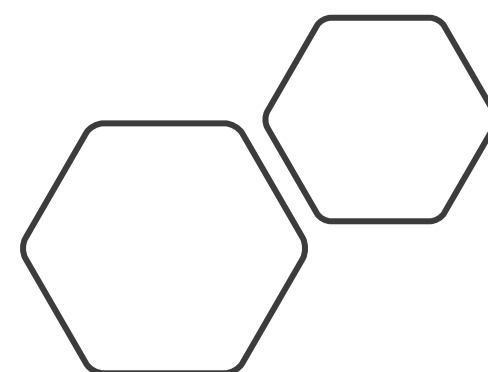
Connection Issues Check list



Connection Issues Check list

- Has the user been given BIM 360 Design entitlement in Autodesk Account?
- Has the user accepted the invitation to the BIM 360 project?
- Can the user access the BIM 360 Project in a web browser.
- Does the user have at least “View+Download+Upload+Edit” permissions to the Plant 3D project folder?
- Is there a corporate network or security setting preventing access?
 - Can the user access the project off the corporate network?
- Do you have the latest updates installed (AutoCAD and Plant 3D)?





Autodesk Health Dashboard

Autodesk Health Dashboard

<https://health.autodesk.com/>

Health Dashboard - External prd

Autodesk, Inc. [US] | <https://health.autodesk.com/>

Apps Clockify Other For Reference Learning

Other bookmarks

AUTODESK

DASHBOARD SERVICE

Sign In

Health Dashboard

Sun, Jul 21, 2019 4:14 PM AEST

View current status and upcoming maintenance schedule for the Autodesk Cloud Services

Health Subscription

Current Status

History

Cloud Services	Status	Note	Upcoming Maintenance (AEST)
A360	✓	Currently working as expected.	No scheduled maintenance
A360 Mobile	✓	Currently working as expected.	No scheduled maintenance
AutoCAD Online Services	✓	Currently working as expected.	No scheduled maintenance
AutoCAD Web	✓	Currently working as expected.	No scheduled maintenance
Autodesk Drive	✓	Currently working as expected.	No scheduled maintenance
Autodesk Revit Live	✓	Currently working as expected.	No scheduled maintenance

Sign In

Click Here

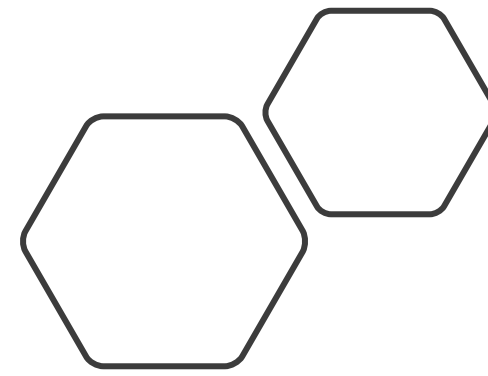
2021 + Services

2021 + File Storage

2018 - 2020 File Storage

2018 - 2020 Services

Health Subscription		
A360	Yes	No
A360 Mobile	Yes	No
Cloud Rendering	Yes	No
Collaboration for AutoCAD Plant 3D	Yes	No
Collaboration for AutoCAD Plant 3D (Europe)	Yes	No
Configurator 360	Yes	No
BIM 360 Cost Management (Europe)	Yes	No
BIM 360 Design Collaboration	Yes	No
BIM 360 Design Collaboration (Europe)	Yes	No
BIM 360 Docs	Yes	No
BIM 360 Docs (Europe)	Yes	No
Fusion Production Mobile	Yes	No
Fusion Team / BIM 360 Team	Yes	No
Generative Design	Yes	No
HDS TEST	Yes	No
InfraWorks	Yes	No
Plant Collaboration Services	Yes	No



Further Learning Resources

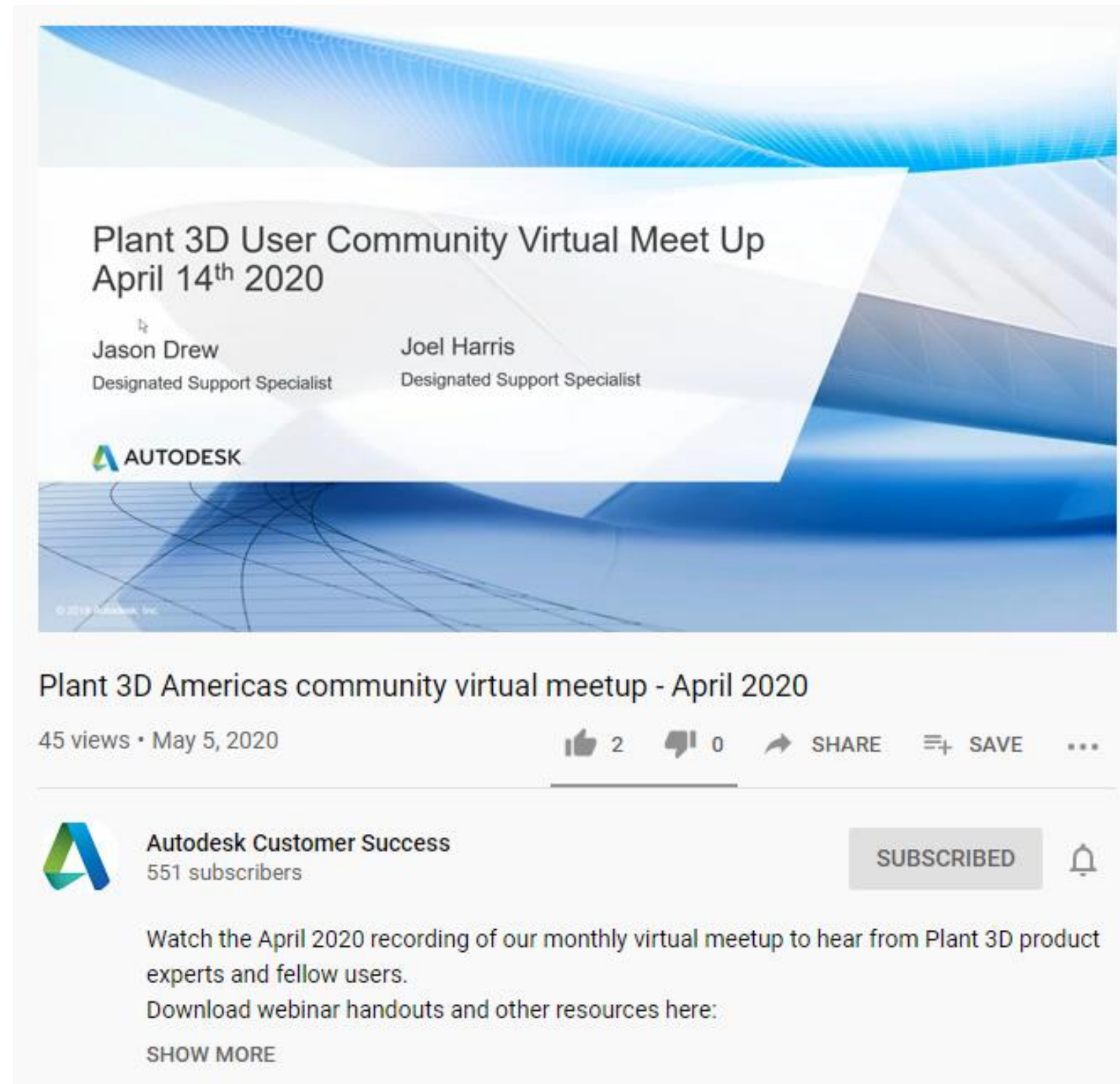
Create a BIM 360 Project and Invite Users

- We recommend that all Project Administrators should complete the following BIM 360 learning;
 - Guided Learning Path: [Learn BIM 360: Document Management](#)
 - BIM 360 Help:
 - [Project Admin](#)
 - [Manage Project Members](#)

Online Collaboration for Plant 3D Recordings

Monthly Virtual meetings in three time zones

- Plant 3D Community Virtual April Meetup - Collaboration for Plant 3D
- Plant 3D with the Experts vlog. Collaboration for Plant 3D 2021 series.



[Link to Recordings](#)



[Video Part 1 Link](#)

[Video Part 2 Link](#)

[Video Part 3 Link](#)

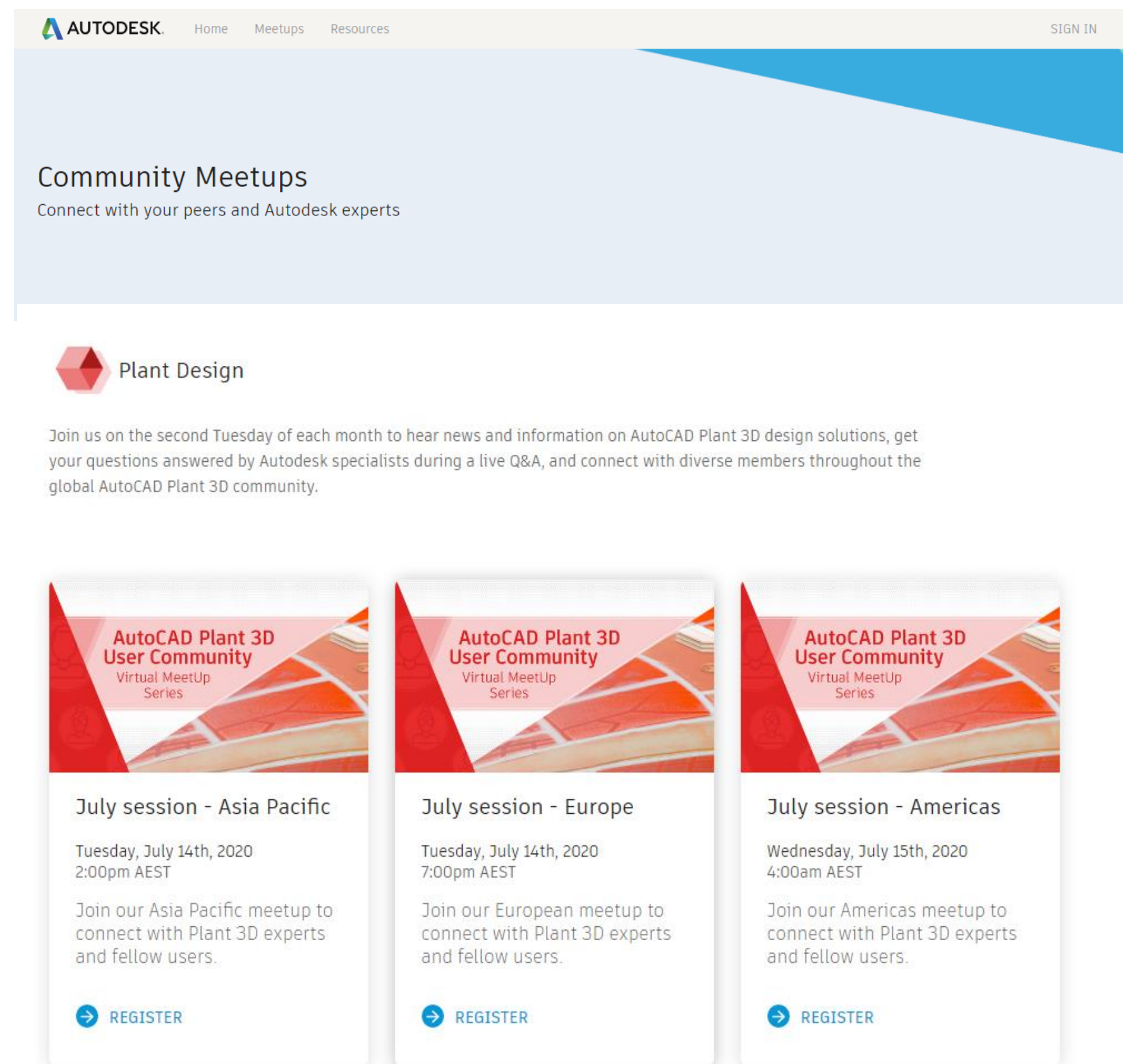
Plant 3D Virtual Community

Monthly virtual meetings in three time zones

- Resources Page: Plant 3D Virtual Community Meetup Resource Store

<https://customersuccess.autodesk.com/articles/plant-3d-virtual-community-meetup-resource-store>

- Registration:

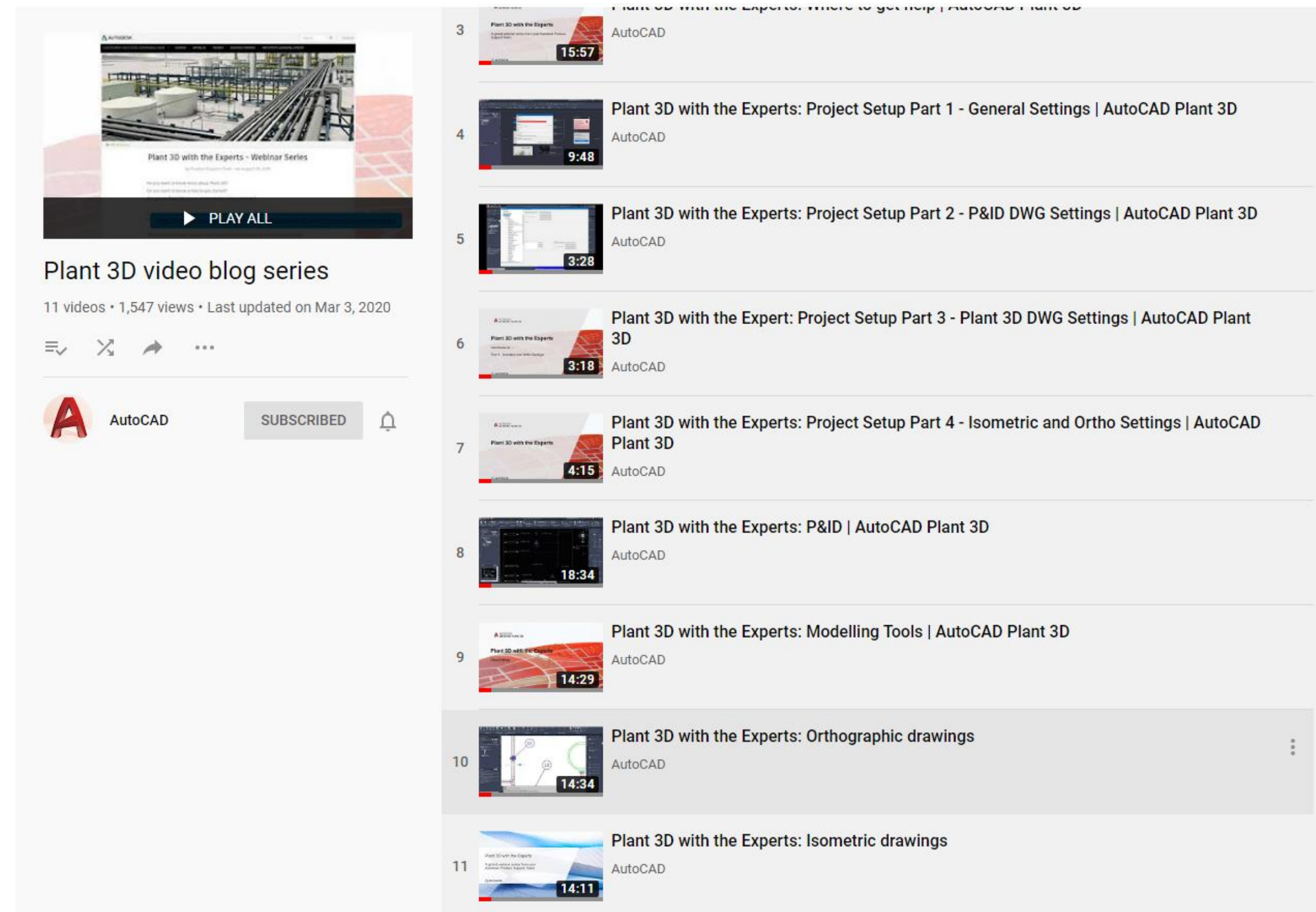


<https://customersuccess.autodesk.com/meetups>

Plant 3D with the Experts Vlog

- Vlog Resources and reference page: Plant 3D with the Experts - Video Blog Series
<https://customersuccess.autodesk.com/articles/plant-3d-with-the-experts-webinar-series>


- Playlist:




https://www.youtube.com/playlist?list=PLXEyem_18syPZPb68zSgiLQHwuwRJraLW

■ AutoCAD Plant 3D - Customer Success Plan for Projects

<https://knowledge.autodesk.com/support/autocad-plant-3d/getting-started/caas/simplecontent/content/autocad-plant-3d-customer-success-plan-for-projects.html>

 AUTODESK


LEARN | DOWNLOADS | TROUBLESHOOTING | FORUMS




 AUTODESK KNOWLEDGE NETWORK

Search AutoCAD Plant 3D

AutoCAD Plant 3D - Customer Success Plan for Projects

Products and versions covered ▼

 Jason Drew, Designated Support Specialist at Autodesk Enterprise Priority
Jan 09 2018


SHARE  REPORT  ADD TO COLLECTION 

Within Product Support we often encounter customers who are new to Plant 3D or P&ID and looking for best practices on starting a project. In effort to help answer some of these questions we have authored a guide that covers the following topics:

- Executive Summary
- Planning
- Support
- Project Setup Checklist
- Specs and Catalog Content
- Reports
- Network Infrastructure
- Database and File Servers

■ Plant 3D Information sources - an example of places to look

<https://knowledge.autodesk.com/support/autocad/getting-started/caas/simplecontent/content/plant-3d-information-sources-example-places-to-look.html>


 AUTODESK



┃ AUTODESK KNOWLEDGE NETWORK

Search AutoCAD

Plant 3D Information sources - an example of places to look

Products and versions covered ▼

 David Manning, Designated Support Specialist at Autodesk Enterprise Priority
Dec 10 2018

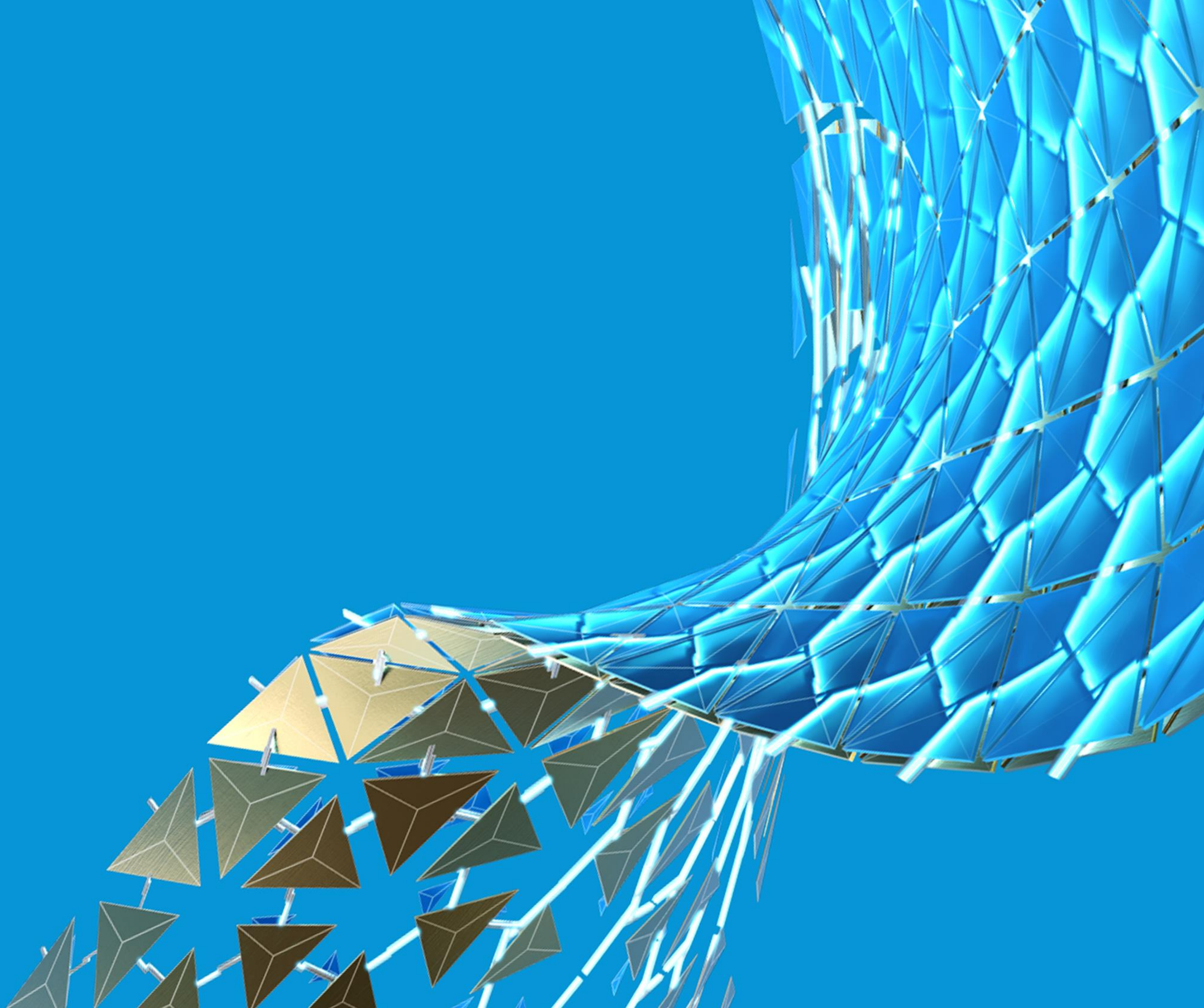
Share  Report 

The following is a list of resources that I have often shared with my Plant 3D customers to help them navigate the plethora of sources, and materials available for plant 3D and P&ID.

There is absolutely more resources than is here (online learning sites for example). Feel free to let us know if this helped you and let us know what else might be missing also in the comments by selecting yes or no to the question below (Was this helpful?).

Some of the resources here are not publicly available, as they are intended for Enterprise Priority Customers only.

Questions?



Class Comments



Recommend this class



