Welcome to Project CALGARY Preview 2

Next Generation Cloud Hosted Plant Projects

This document will help you get started with using Calgary for cloud hosted plant projects:

• Section 1: Sharing your first Project to the Cloud
• Section 2: Working with your Cloud Hosted Collaboration Project
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Section 1: Sharing your first Project to the Cloud

SHARE YOUR PROJECT TO THE CLOUD...

Step 1: Install Calgary and open a Plant 3D/P&ID project

Download and Install Project Calgary

IMPORTANT: The Project Calgary install is a custom build of AutoCAD Plant 3D built on the AutoCAD 2018 Beta, so it will save DWGs in the new 2018 AutoCAD format, and will attempt to migrate earlier version Plant projects.
Project Calgary works by sharing an existing Plant project up to the cloud, so you can use an existing project or a newly created project that you want to share to the cloud from within the Project Calgary application.

Log in to your Autodesk Account

1. In the upper-right corner of the product window, Click **Sign In ➤ Sign In to Autodesk account**
2. Enter the Autodesk ID and password you created when registering.

![Sign In](https://images.unsplash.com/photo-1517379696296-9da20372b7d0?ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&ixlib=rb-1.2.1&auto=format&fit=crop&w=635&q=80)  

Learn more about Creating an Autodesk Account

Next stop – BIM 360 Team!

Step 2: Join our Project Calgary BIM 360 Team Hub!

1. Login to the Project CALGARY BIM 360 Team hub. *(Autodesk is providing this hub for testing, but if your company has an existing BIM 360 Team hub you could use that also)*  
   [https://projectcalgary.autodesk360.com](https://projectcalgary.autodesk360.com)
2. Sign in with your Autodesk ID and Password if you are not already signed in.
3. The first time you try to access the Hub, you will be asked to join it, click **Proceed to signup**
Step 3: Create a BIM 360 Team Project *(holds your Plant projects)*

1. On the Projects page, click the **Create Project** button – this is not a Plant project, but will act as a container or folder to hold any Plant projects you want to upload.

2. Enter Project Name, Project Purpose and choose an icon or upload your own image.

*Note: Project purpose cannot be edited after you create the project.*
After creating your BIM 360 Team Project you will be taken to the main project page where you will be able to see project details in the right hand sidebar.

By default, projects are created as **closed**. This means the parent BIM 360 Team Project folder is visible to others, but only the people you invite can access the contents of the folder (i.e. your Plant projects)
Clicking the gear icon will allow you to modify the Project folder setting – a **Secret** project will have the same restrictions as a **Closed** project folder, but will also hide the Project folder name from others that are not members.

The next step of inviting Team Members to the BIM 360 Team Project folder can either be done now, or anytime after you share your Plant project to the cloud.

**Invite your Team Members to your BIM 360 Team project folder**

1. Open the project ➤ Invite.
2. Enter the email address of the person you want to invite > Send Invitations.

*Note: To invite more than one person at a time, press Enter after entering each email id or separate email ids using commas.*

Watch a video showing how to invite others to the project
To Share a Plant project to the Cloud

Ok, all done with the BIM 360 Team Hub website for now! Time to head back to the CALGARY Plant 3D application, and share your plant project to the cloud!

*Note: Plant 3D projects should not include special characters such as (, ’, ?!)*

1. In the CALGARY app, open the Plant project you want to share.
   
   NOTE: The existing project you share will be **copied** to the cloud, so your local project will remain untouched.

2. In the ribbon, click the **COLLABORATION** tab, and then ➤ **Share Project**.

3. Next we provide info on the three main steps involved in Sharing a Project.
Click Let’s Get Started!

Note: It will prompt to login with your Autodesk ID and Password if you have not already.

4. Next you will see a list all of the BIM 360 Team project folders you belong to, and the dropdown will be enabled if you belong to multiple hubs – by default this will be the Project Calgary hub we provide.

Choose the BIM 360 Team project folder you created in the previous section.

Note: If you do not have a BIM 360 Team Hub or Project Folder created, you will receive an error message stating that you need to first create one. For this Preview, use the hub projectcalgary.autodesk360.com, and for project folder creation refer to the previous section “Creating a BIM 360 Team project folder”.

5. Click the Next button after selecting a BIM 360 Team Project – this will kick off the project uploading which will vary in amount of time needed depending on how big you project is.
6. Once the uploading is complete, you will see the completion screen below. Your project is now uploaded to the cloud and open for use in the Calgary app!

If you did not invite Team Members earlier or want to add more, just click the “Invite My Team” button or visit your project page on the Project Calgary hub at anytime.

If you want to start working in your cloud project, just click “Get Started” – the local project you had open is now closed, and the current project in the app is your new Cloud hosted project where you can create new drawings and edit existing ones.
Section 2: Working with your Cloud Hosted Collaboration Project

To open the Collaboration Plant Project

1. From Project Manager within your Calgary app, go to the Project list and click Open Collaboration Project (displaying the BIM 360 Team icon).

   ![Project Manager Interface]

   *Note: Requires signing in to your Autodesk account if you are not signed in.*

2. You will then see a list of the Cloud hosted projects you have permissions to.

   ![Open Collaboration Project Window]

3. Choose the project that you uploaded in the last section and click the “Open Project” button.

4. The project will open from the cloud, and will include some initial syncing/downloading of the project that will take a bit longer the first time the project is opened in order to copy down the necessary project information.
File Handling and functions in the Collaboration Ribbon

File syncing in a Collaboration project is largely automatic, but you can manually control check ins and check outs and other functions in the Collaboration Ribbon menu, but most of these are also conveniently located in the Project Manager right click menu.

*Share Project:* Share a Plant Project to the cloud using BIM 360 Team for collaboration with team members. If you have made it this far, you have already done this! ☺

*Check In:* Manually Check in a new or existing active drawing to the cloud.

*Check Out:* Manually Check out the active open drawing from the cloud (if not checked out).

*Undo Check Out:* Drops any changes made to the open drawing and cancels the check-out.

*Options:* The Collaboration options dialog lets you specify settings around synchronization, Check out, Check-in and local workspace settings. Default settings are to check out drawings automatically on open, and check them in on save and close.

*Attach:* This is required for Xrefing project drawings when working in a cloud project.
**Project Collaboration Options Dialog**

Specifies Project settings for synchronization, Check out, Check-in and local workspace options.

![Collaboration Options Dialog]

**Check for updates:**

This option checks the server to download project files that have been updated by team members at the specified interval in the combo box. By default, the project will be synchronized automatically at the specified interval.

![Check for updates dialog]

You can be prompted before updates are applied by turning on the check box “**Ask me before applying updates**”. This will bring up a balloon notification when there are new updates to sync.

Choosing the “**manually**” option from the list will not offer any automatic updates and you will need to manually check for project updates using the right click contextual menu in the Project Manager file list and choosing “**Refresh from Project**”.
Check Out Drawings:

“When drawing is opened” option is chosen, then the drawing will be automatically checked out to edit during the drawing open.

“Manually” will require you to right click to check-out drawings in the Project Collaboration menu in Project Manager, otherwise they are opened read only by default.

Check In Drawings:

“When drawing is saved” option is chosen, the modifications will be uploaded to the server when you save. (The drawing will continue to remain open for further editing).

“When drawing is closed” option is chosen, the drawing will be automatically checked in to the server when the drawing is closed.

“Manually” will turn off automatic check in, and you will need to use the ‘Check In’ option in the right click menu in Project Manager.
Advanced - Specify Working Folder:

You can specify the local workspace folder (location where the program caches files) for all of your Collaboration projects to use on your local computer. This should remain unchanged unless a different location is needed for some reason.

![Advanced Working Folder Settings](image)

Working with CALGARY Project Files

To create a new project drawing

1. In the Project Manager Tree view, right click on the folder node where you want to add a new drawing (for example, P&ID Drawings).
2. Select New Drawing context menu option.
3. In the File Name box, enter a name.
4. Click OK.
5. The drawing is added to your local workspace.
6. (optional) If you want other CALGARY project users to see the new drawing do the following:
   - Save the dwg (depends on CALGARY Options) or Check-in the dwg.
   - In the Check In dialog box, select Keep Files Open for Editing after Check In.
   - Click OK. The drawing is now visible in BIM 360 Team and checked-out to you.

Opening Project drawings

1. Double click on the drawing node in the Project Manager.
2. By default, drawings will be automatically checked out for editing. You can also right click and choose “Open”.
   (Choosing “Open Read Only” will not checkout the drawing automatically)

To check out a Project drawing

1. Double click on the drawing node in the Project Manager
2. Drawing will open and automatically get checked out for you to edit, when the default check out option “When drawing is opened” is selected in CALGARY Options dialog.

   a. **(Alternate)** In the Project Manager tree view, right-click on a drawing. Click Check Out.
   b. The drawing will be checked out to you, but will not open automatically.

**To check out multiple Project files**

1. In the Project Manager tree view, right-click on a folder or any parent node above that. Click Check Out...
2. Select the checkboxes of the files you want to check out. Check out an entire folder of drawings by selecting the folder node. Clicking the arrow button next to the “Check Out” button will allow you to change to “Download Only” where project files will not be checked out, but will be downloaded to your local machine in the event you need them for offline viewing.

3. Click the Check Out button.

**To check in drawings**

1. When you close the drawing, it will be automatically checked in, in case the check in option is either “when drawing is saved” or “when drawing is closed” in CALGARY Options dialog.
(Alternate) This is only needed if you have auto Check In set to “manually” in the Collaboration Options.

- In the Project Manager tree view, right-click on a drawing node. Click ‘Check In’ in the Project Collaboration section of the menu and the check in dialog will appear.
- The Check In dialog box displays as seen below. When a drawing is checked in, it will also be closed – selecting ‘keep files open for editing’ will check it in and back out to allow continued editing.

![Check In dialog box](image)

3. Click OK

**Undo Check out a Project drawing**

1. In the Project Manager tree view, right-click on the drawing node. Click **Undo Check Out**.

2. This option will discard any changes you have made since checking out the drawing, and cancel the check out.

**Cleanup locally cached files in a Project** *(frees up disk space if needed)*
1. In the Project Manager tree view, right-click on the Project or Drawing Type (eg. P&ID) node. Click **Cleanup Cached Files** in the *Project Collaboration* section of the menu.

2. This option will delete all locally cached files if they are not currently checked out.

To manually refresh the latest project files from the cloud *(get the latest project settings)*

1. In the Project Manager tree view, right-click on the drawing or folder or Project node. Click **Refresh from Project** in the *Project Collaboration* section of the menu.

2. This option will get all unchecked out files in the project

To work with CALGARY project XRefs

To quickly reference a drawing file into your current drawing from your Collaboration project

1. Right click on the drawing you want to reference, and choose “Xref into current DWG”
To reference multiple drawing files from your cloud hosted project

You must use this method if the drawing file contains plant objects.

1. In the ribbon, choose the **Collaboration** tab ➤ Attach. The Attach External Reference from BIM 360 Team dialog box displays.

2. Select the Checkbox of the drawings you want to reference.
3. Click Attach and the Xref command will continue as normal.

**Section 3: Spec and Content Management**

**Working with Pipe Specs in a Collaboration project**

In Calgary (and Plant 3D 2017 Update 1), Pipe Specs are now available in the Project Manager.
This is where you can find Spec Update settings, and set a spec current for pipe routing, in addition to providing a single place to manage specs.

The right click menu on the parent “Pipe Specs” node

New Pipe Spec will launch the spec editor after prompting for a spec name, and create a new project spec file that can be edited and synced across the project.

Copy Specs to Project will allow you to easily select existing spec files to copy to the project and sync across team members.

Project Collaboration is the same Collaboration/Calgary menu seen on other nodes like drawings for file management like check in, check out and so on.

Check for Spec Updates will check to see if there are any spec updates available for the project.

Spec Update Settings... will let you set the frequency that Spec Updates are checked for.
The right click menu for an individual pipe spec:

**Show in Spec Viewer** will display the selected spec in the spec viewer. Double click will activate this also.

**Set as Current Spec** will set the pipe routing preference of current spec to the selected pipe spec.

**Edit Spec...** will check out and open the selected spec in the Spec Editor.

**Remove Spec** removes the selected spec from the project.

**Rename Spec** will allow renaming of the selected spec.
Section 4: Backing Up your Project

To create a local Backup Copy of your cloud hosted project

1. In the Project Manager tree view, right-click on the Project node. Click Create Project Backup in the Project Administration portion of the menu.

   ![Project Manager tree view with Create Project Backup highlighted]

   *Note: All project files need to be checked in before creating a local Backup Copy.*

2. You will be walked through the steps of Project Backup. Specify the backup location and get started.

   ![Create a project backup copy dialog]

   *Known Issue: The estimated project size and backup time are incorrect in the Calgary Preview 2.*

3. Once the backup is complete, you will return to the cloud based project you started with, but can open the backup copy at any time as a normal local Plant 3D project which can even be uploaded to Calgary as a new Cloud project.
Section 5: Bonus section! - Spec Driven P&IDs and Shared Content

Spec Driven P&IDs and Shared Content syncing were introduced in Update 1 of Plant 3D 2017, and are not exclusive to Project Calgary, but you can learn a little bit about them.

*Note: There is a known performance issue in the Calgary build that will see slowdowns associated with Spec Driven projects and Data Manager*

**Working with Spec Driven P&IDs**

In our latest update, the ability to have a Spec Driven Project is now available.

Go to **Project Setup**, and in the **Pipe Specs in P&ID** section, you can toggle on the Spec Driven behavior for your project. You can further configure mapping settings in the **Pipe Spec Object Mapping** section.

The Ribbon panel will now allow you to specify default size and specs for new P&ID lines, or route lines unassigned as you can today.
Off Spec sizes are shown as hatched to indicate they are not present in the spec, but can still be used so as to not prevent the Drafter from finishing their P&ID.

Similarly, components in the Tool Palette that are not present in the current spec/size set in the Ribbon will also be shown as hatched/off spec, but may continue to be used by the drafter.
The Properties Palette will also let you know what sizes and specs are in spec or off spec when editing. The 6” line selected below, shows that sizes over 24” are off spec for example.

When an off spec option is chosen it will display as hatched in the properties palette:
In Project Setup, in the **P&ID Painter Settings** node, there will now be a new Painter style for Off Spec piping allowing you to dynamically see which parts are in spec and which are off spec when in the P&ID.

In the drawing with P&ID Painter turned off, the colouring is shown based on the P&ID layer setup.
If we toggle P&ID Painter on, we can instantly see that the Needle Valve is off spec:

The layering and layer colours are unaffected by P&ID Painter, and you can continue drafting in this mode for validation or toggle it on or off as desired.

Selecting the Needle Valve will also display the hatched/off spec size in the properties palette.
In some cases, there are multiple acceptable parts within a spec. P&ID will choose the pipe spec’s “Preferred Part” in this case, but it is still possible to choose another 6” Gate Valve for example if needed using the Properties Palette.

Data Manager Search is also new. You can freely search or click the dropdown to see filters for displaying only in spec or Off Spec Piping:
Spec Updates are now available to P&ID so that when specs change, we check to see if any information needs updating in your P&ID.

Working with Shared Content/Catalogs in Calgary

In the Plant products we have a shared content folder that designates where the content and part shapes that pipe specs refer to are stored.

In Calgary (and Plant 3D 2017 update 1), we have exposed the setting for this in our Project Setup:

A360 DRIVE content syncing
A new option available is to use is A360 Drive to assist in syncing your Plant content across team members.

With A360 Drive you can have an admin edit their content folder in their A360 Drive, and invite Team Members to that folder as “download only” so that everyone receives the updates they make without being able to change the specs themselves.

NOTE: If there are multiple admins editing specs, you will want to have them mapping the A360 Drive content folder to a common drive letter like G: for example on each machine to maintain a consistent path as the pipe specs will store a static path to the catalogs they reference.

Section 6: Known Issues & Cautions in Calgary Preview 2
A few known issues to note:

Cloud Iso Generation – Generating Isos in the Cloud is still early in the beta cycle and may fail to produce Isos in some cases. Please report these cases on the forum and send details and PCFs when possible.

Project Backup – The Time and Project Size estimation is incorrect.

Spec Driven Project – Data Manager Refresh performance issues
- Spec Driven Project Setting does not propagate to other team members on Calgary projects.

Plant Attach – The default AutoCAD drawing (drawing1.dwg) needs to be closed before using this.

Bim 360 Team – You need to have either created or be invited to a BIM 360 Team project before you can open or share a Plant project.

High Latency Networks – If you work on a high latency network, you may experience slowness in some Calgary operations like open project, refresh from project, check in, and project setup changes.